

Jennings



STANDARD

4000

The principal condition of the contract is that the goods shall be delivered to the purchaser at the place and time specified in the contract. The contract shall be subject to the standard conditions of sale which are set out in the contract and shall not be subject to any other conditions. The contract shall be subject to the standard conditions of sale which are set out in the contract and shall not be subject to any other conditions.

Jennings



STANDARD 400

The purpose of this manual is to provide a step-by-step procedure to install and operate the Jennings Standard 400 Slot Machine.

Included are the drawings and schematics necessary for servicing and a complete bill of materials on each separate section of the machine. The manual has been compiled in a loose leaf sectional format. Therefore, it can be easily updated as improvements and changes are made.

For additional service information, please contact your local distributor or factory. We sincerely wish you a long and prosperous operation with the Jennings Machines.

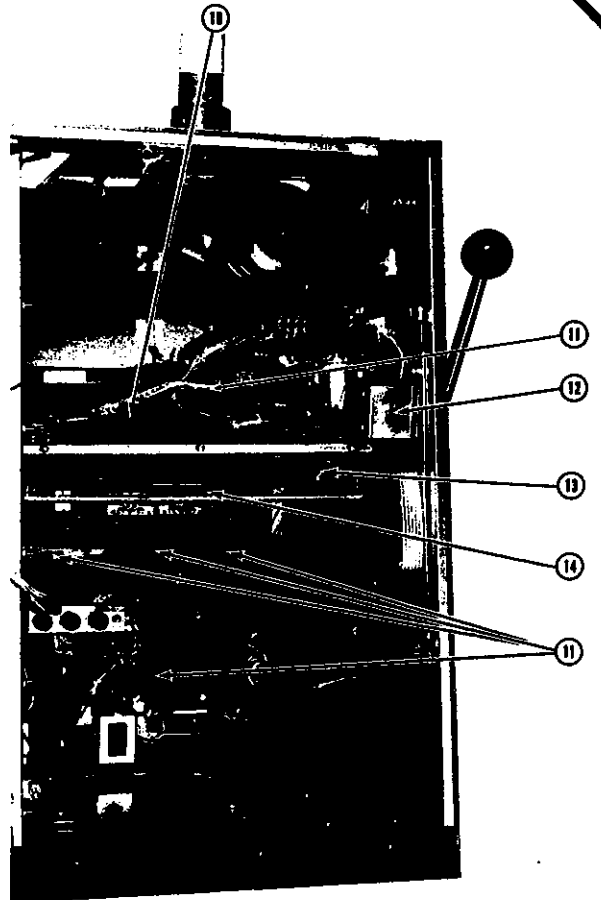
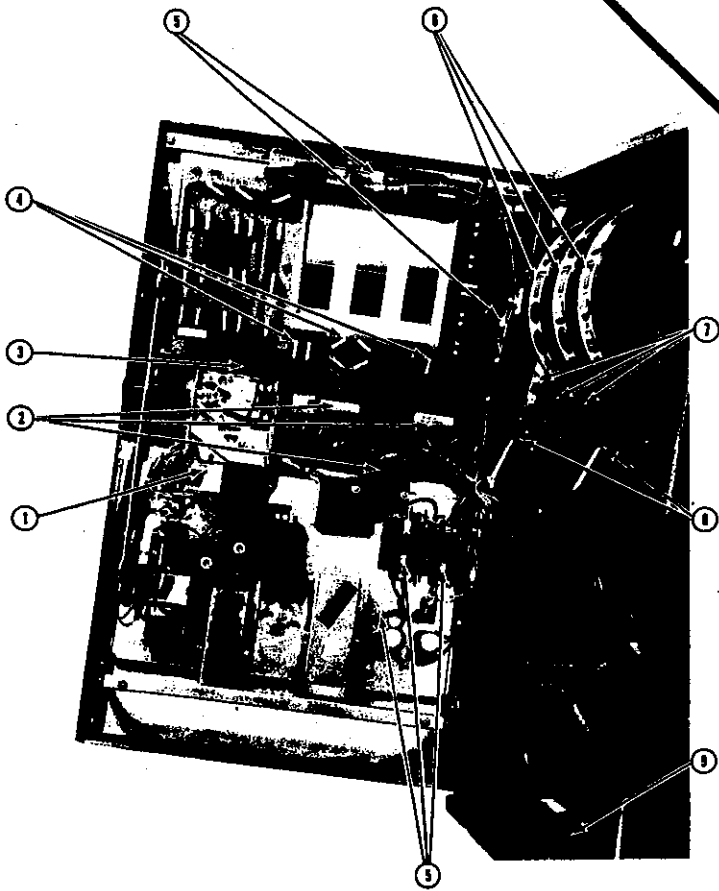
Please read completely before operating the game.

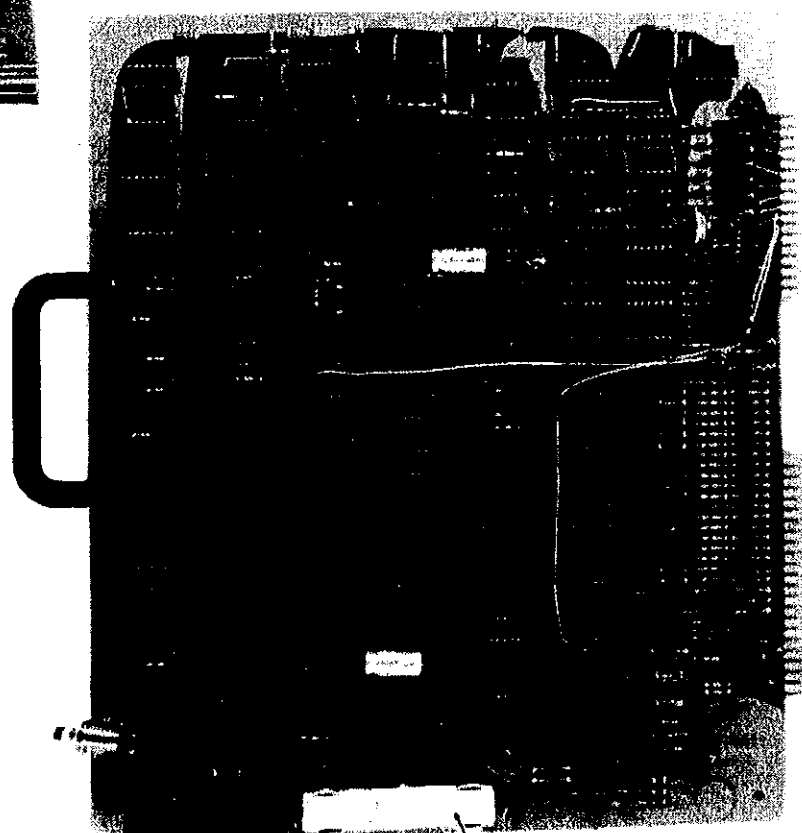
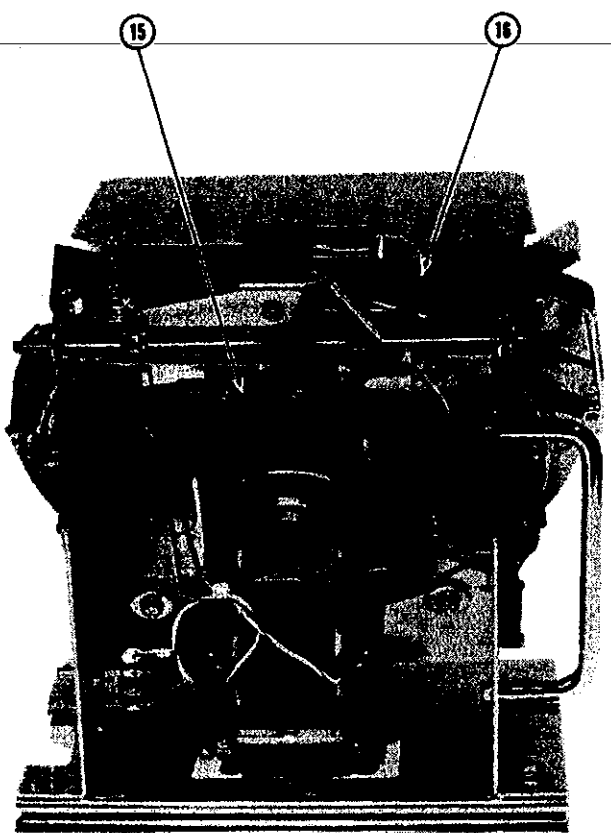
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INSTALLATION





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INSTALLATION INSTRUCTIONS

When you receive your Jennings STD 400 Slot Machine, implement the following step-by-step procedure to insure efficient, trouble-free operation.

The Jennings machines are delivered with pre-set factory adjustments and require few, if any, adjustments when received. The machine is designed to operate on 115 volt, 60 HZ power unless otherwise specified when ordered.

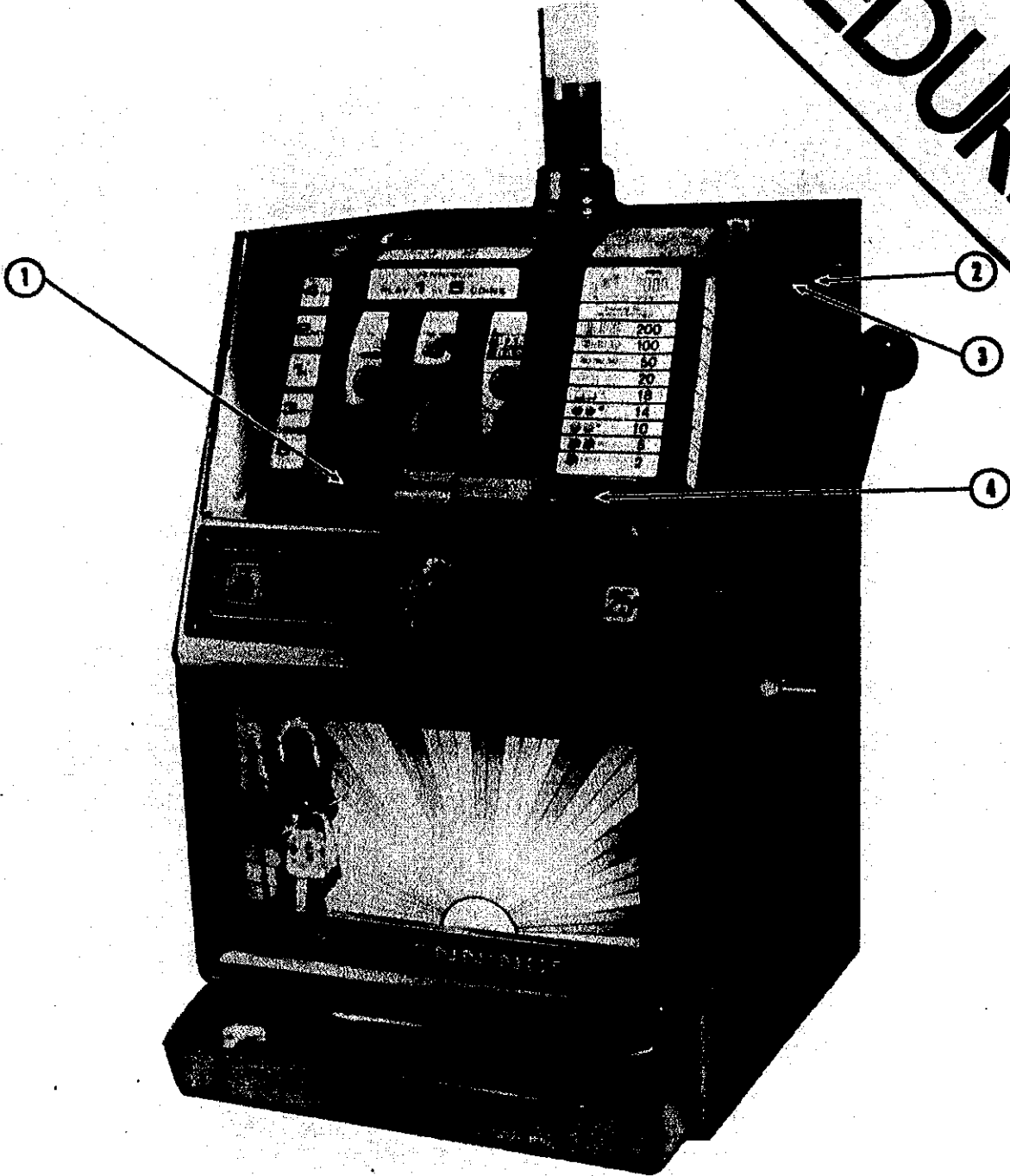
If these instructions are followed upon delivery of the machine and regular maintenance is performed, the result will be an efficient, smooth-running machine.

1. Remove the machine from the packing carton, and make a visual inspection of the outside of the machine. Pay particular attention to the cabinet, glass, cord and handle.
2. Open the machine with the keys taped to the handle. Clip and remove the two tie-down straps from the reel mechanism base, fig. 8 , pg.1-1.
3. Partially remove the reel mechanism by lifting the two spring-loaded locking levers, and then pulling the entire unit forward four to six inches. Remove electrical connector from rear of the mechanism, fig. 10 , pg 1-1. Inspect the reel mechanism for reel wobble, check the locking levers, and see that all screws and connections are tight. Also, visually check electrical connections on solenoids and reel motor.
4. Remove the shipping screw on the hopper mechanism. Then pull forward on the handle (fig. 9 , pg.1-1) to remove the hopper. Inspect the hopper to make sure that all connections are solid and firm. Check the payout switch, fig. 15 , pg.1-2.
5. Check the inside of the machine for any loose parts. At this time, also check the power supply, mother board and light panel for any loose connectors, fig.2,11, pg. 1-1.
6. Inspect the light panel to make sure the lamp retainers are centered over the lamps, fig. 4 , pg. 1-1. Before reinstalling hopper, check socket for float.
7. Now reinstall the hopper and reel mechanism, making sure all electrical connections are firm.
8. Use the handle on the logic board to pull it forward, fig. 14 , pg.1-1. The reason for removing the logic board at this point is to prevent damage should there be a power supply malfunction or a system short.
9. Plug in machine to outlet. A THREE-PRONG GROUNDED OUTLET MUST BE PROVIDED FOR THE POWER CORD. DO

~~NOT USE AN ADAPTOR.~~ The three-prong outlet provides some anti-cheating capabilities and prevents the possibility of extensive damage to the machine.

10. Turn main power switch to the on (up) position, fig. 12 , pg. 1-1. The fluorescent and award-card lights will come on at this time. If the fluorescent lights do not come on at this time, check the installation of the two tubes and the proper connection of the two starters, fig. 5 , pg.1-1.
11. The presence of five volts and 24 volts are indicated at the light panel. The L.E.D.'s are on the five volt circuit, and the lamps are on the 24 volt circuit.
12. Turn the power off.
13. Connect the battery on the logic board, fig. 21 , pg. 1-2, and reinstall the logic board in the machine. Be sure that it is firmly snapped into the mother board connector to prevent malfunction in the logic circuit.
14. To operate the handle mechanism, depress the handle release arm manually. Check for the general firmness and feel of the handle pull.
15. Turn the power switch back on.
16. Reset the logic board by depressing the reset push button, fig. 13 , pg.1-1.
17. Depress the coin switch momentarily, fig. 1 , pg.1-1. Observe the handle release switch and light panel sequences. **NOW TURN POWER TO OFF POSITION.**
18. Firmly bolt the machine to the stand or other base on which it is to operate. It is suggested that two holes be drilled through the base of the cabinet using 3/8" bolts. Matching holes must be provided in the mounting surface. Before mounting the machine, be sure a hole is provided in the mounting surface to align the coin-drop chute and the existing hole in the middle right-hand side of the machine base. This is required if inserted coins are to drop into a cash box in the stand. The opening in the stand should be slightly larger than the opening of the machine, so the coins will drop through without interference. The machine is now ready for operational test.

TEST PROCEDURE



OPERATIONAL TESTS — RECHECK AFTER SHIPMENT

The purpose of this section is to see that all circuits are working properly, that each award combination is paying and to verify proper payouts. To do this, implement the following procedure:

1. Fill the coin hopper with a number of coins.
2. Manually set up each award combination;
 - a. Release the reel stop arm (push inward). fig. 7 , pg. 1-1.
 - b. Revolve the reels of the reel assembly to a pay condition, fig. 6 , pg.1-1.
 - c. Manually maintain the reels in place by holding the three reel stop arms, fig. 7 , pg.1-1, in their lock (pull toward door) position.
 - d. Depress the coin entry switch, verify the actuation of the coins-in meter for each coin, fig. 3 , pg.2-1. When depressing the coin entry lever, which is located below the coin acceptor (this simulates actual coin entry), the movement must be very brief. If the lever is held down for more than a momentary contact, the built-in electronic anti-cheat detector will cause the machine to shut down, and the "Call Attendant" light will come on. Arrange a container in position to receive coins from the hopper.
 - e. Pull the handle.
 - f. Verify the payout amount with the award card and
3. Repeat this sequence for all award combinations and verify the payouts. Depending on the machine model, continued activation of the coins-in switch will cause additional paylines or multiplying award lines to light, up to the maximum number of coins allowed.
4. Also, at some point allow the hopper to run dry. Then refill it; and using the reset button on the logic board, hold until one coin is counted and check that the pay continues as required.
5. Check the power fail memory. To do this, first set up a pay condition. During the pay, pull the power plug. Then wait several minutes, and reinsert the power plug. Check that the payout is completed correctly. The electronic readout will indicate one (1) more coin than was actually released. But the coin payout should be correct.
6. Repeat this after a pay condition. The machine should pay only once.

This procedure will make sure that all circuits are working properly.

Certain other conditions may arise. As mentioned before, when the coin entry switch is held down too long, the machine will shut down, and the "Call Attendant" light will come on.

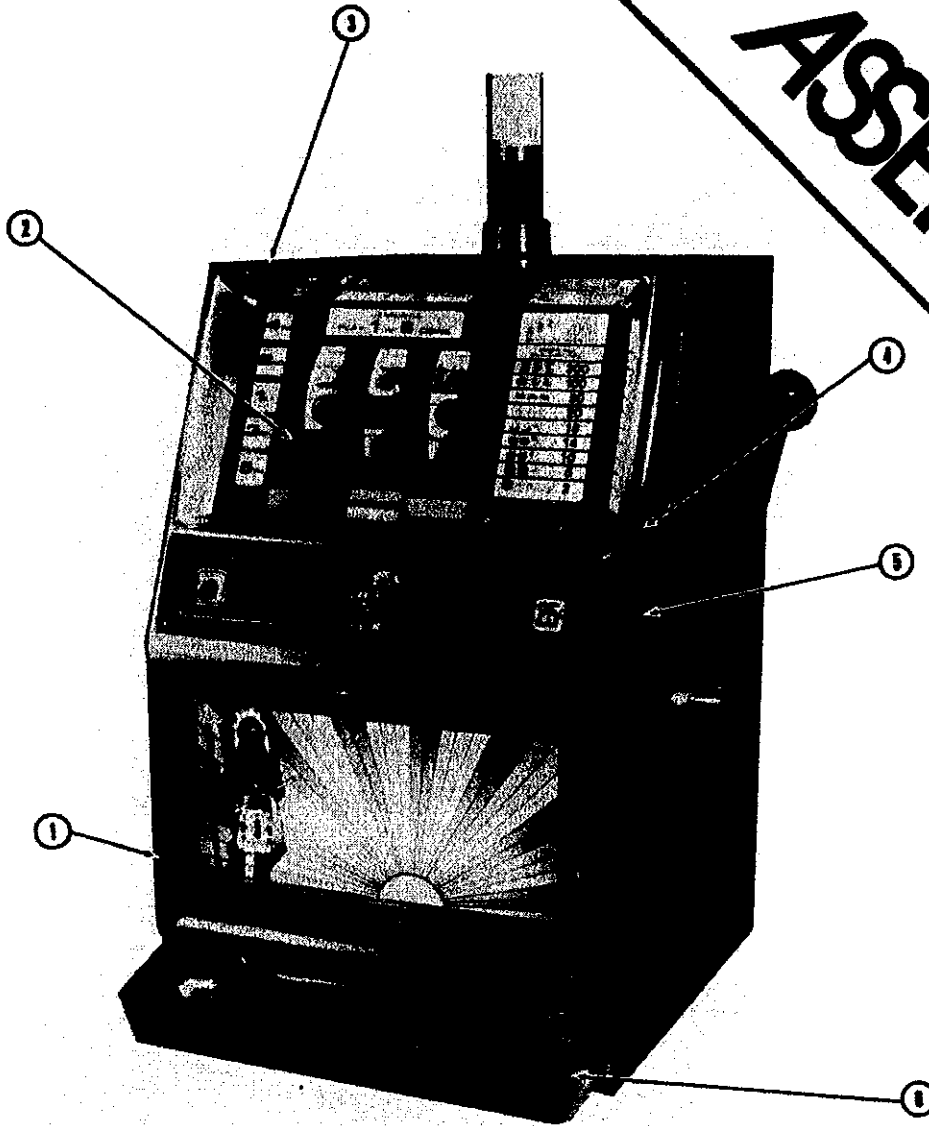
This is an anti-cheat detector to prevent "stringing." After this happens, the logic reset switch inside of the machine must be depressed, fig. 13 , pg.1-1.

The "Call Attendant" light will automatically come on when any of the following conditions occur:

1. Normal Conditions — Reset with external key switch.
 - a. If the jackpot is hit in an amount exceeding hopper payout, the machine shuts down after the maximum number of coins are paid out by the hopper (normally 200 coins).
 1. **Reel glass lights do not turn off.**
 2. Machine will not accept coins until reset by key.
 - b. The hopper may be empty. This condition is detected by a motor run of about 15 seconds without a coin activating the coin count switch, (on hopper) fig. 16 , pg.1-2 . The door display lights do not turn off, and a cheating attempt is not indicated. The "Call Attendant" light is on, telling the player to signal for hopper refill. After refilling, start the hopper with the logic board reset, fig. 13 , pg.1-1. Any coins still due are then delivered and verified by the electronic payout counter, fig. 1 , pg.2-1.
2. Questionable Condition (MAY indicate cheating) — Reset from inside of the machine using the logic reset switch, fig. 13 , pg.1-1. Since this condition may indicate cheating, someone with a door key must reset the logic by depressing the plunger on the logic board.
 - a. Hopper switch, fig. 15 , pg. 2-1, is held in open position. Check for a coin under the rocker switch assembly, fig. 16 , pg.1-2.
 - b. The coin entry switch may be held open. Check the coin entry switch, fig. 1 , pg. 1-1, located beneath the coin acceptor. A jammed coin may be holding the switch open.

When these procedures have been completed, each pay condition on the award card has been tested, and the proper payout has been verified, the Jennings 400 is now ready for a long and profitable operation.

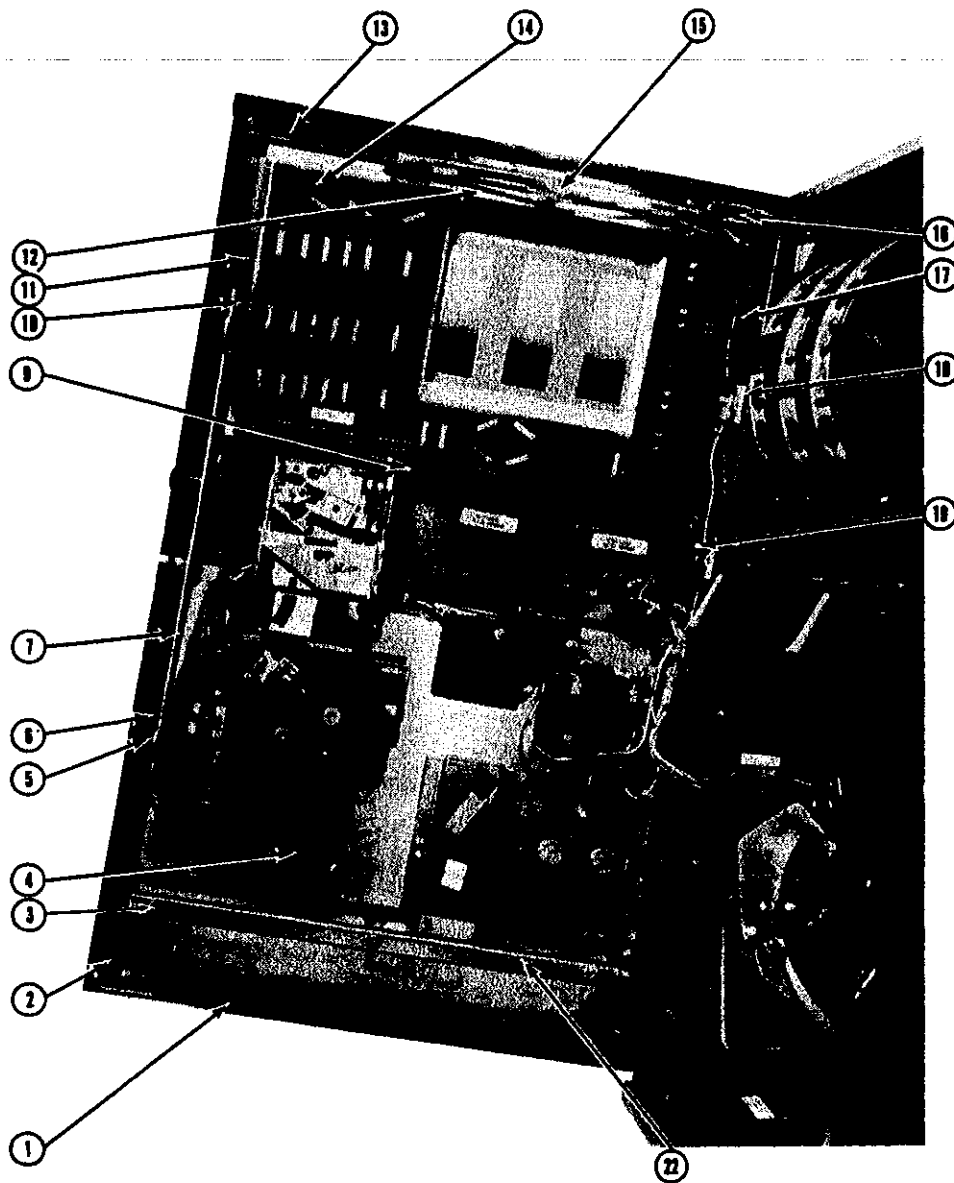
DOOR ASSEMBLY



DOOR ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY.
1	12-169ND	Lower Display Assembly INCLUDES	1
	35-057d	Lower Display Frame	1
	82-LGS	Lower Glass Screened (Per LGS List)	1
	15-073a	Glass Retainer Assembly	2
2	81-RGS	Reel Glass Screened (Per RGS List)	1
3	12-168ND	Reel Frame Assembly INCLUDES	1
	35-05-WCL	Coin Entry Plate	1
	35-052a	Coin Entry Block	1

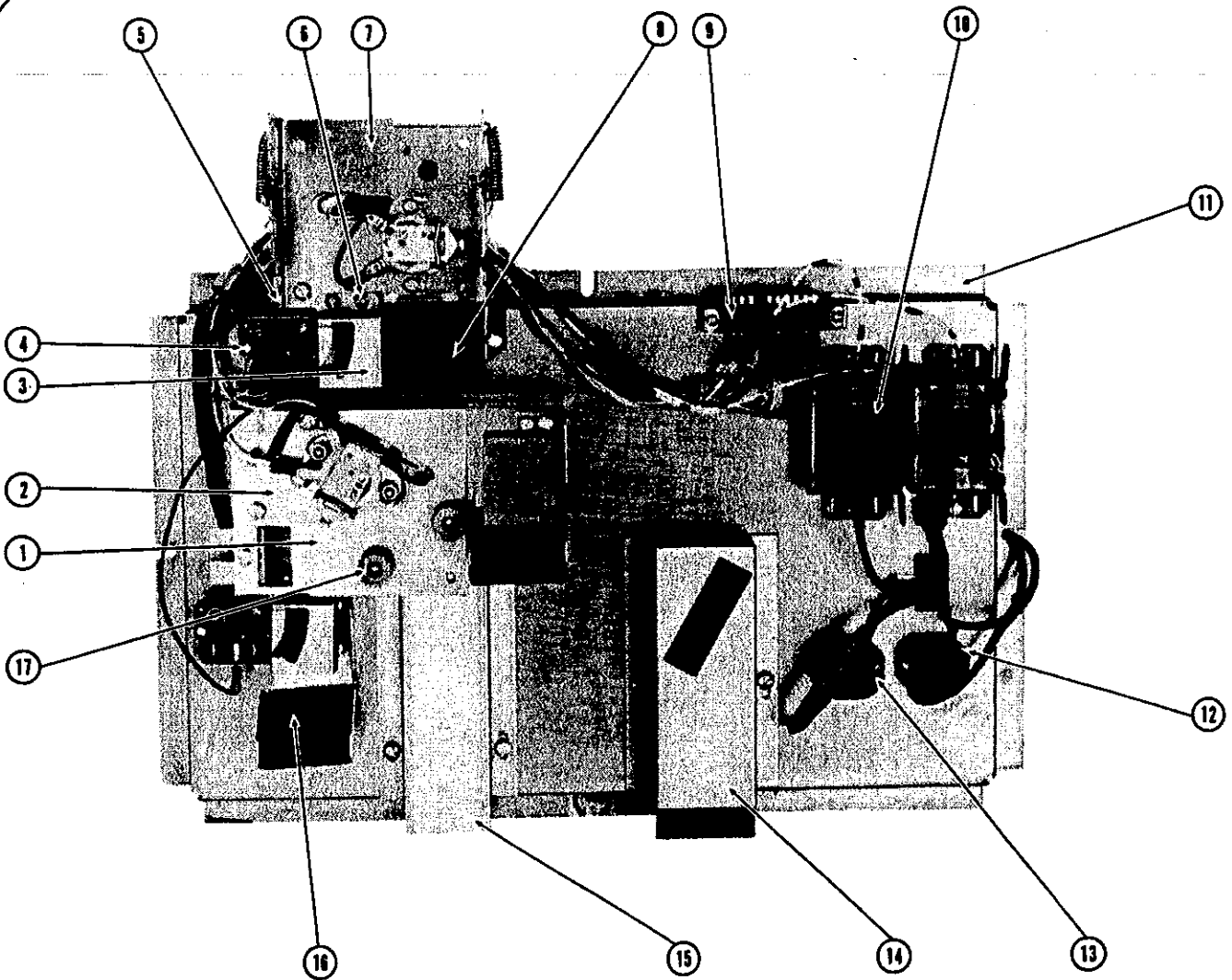
	35-058d	Reel Frame	1
	35-060a	Ornament Indian Head	1
	36-02-3c	Compression Spring	1
	55-03-1ND	O-Ring	3
	64-066ND	Switch	1
	86-MPS	Middle Panel Screened	1
	91-056a	Rivets	4
	92-03-2c	E-Ring	1
	13-132a	Reject Plunger Assembly	1
4	14-056d	Door Assembly (Welded)	1
5	37-07-5a	Lock with 37-11-7a Cam	1
6	35-059d	Money Bowl	1



DOOR ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY.
1	M1032-4-1111	RHMS 10-32 x 1/4" LG	9
2	W4-10-11	External Lockwasher #10	9
3	M1032-4-1111	RHMS 10-32 x 1/4" LG	9
4	12-225ND	Service Panel Assembly See Separate Listing	1
5	33-07-1c	Shoulder Screw	2
6	M832-4-1711	BHMS 8-32 x 1/4" LG INCLUDES	11
	W4-8-11	External Lockwasher #8	11
7	14-144b	Locking Bar & Extension Assembly	1
9	31-201b	Reel Glass Retainer (Lower)	1
10	33-149a	Lockbar Spring Screw	1
11	36-01-13c	Extension Spring	1
12	12-191b	Fluorescent Lamp Cover Assembly INCLUDES	1

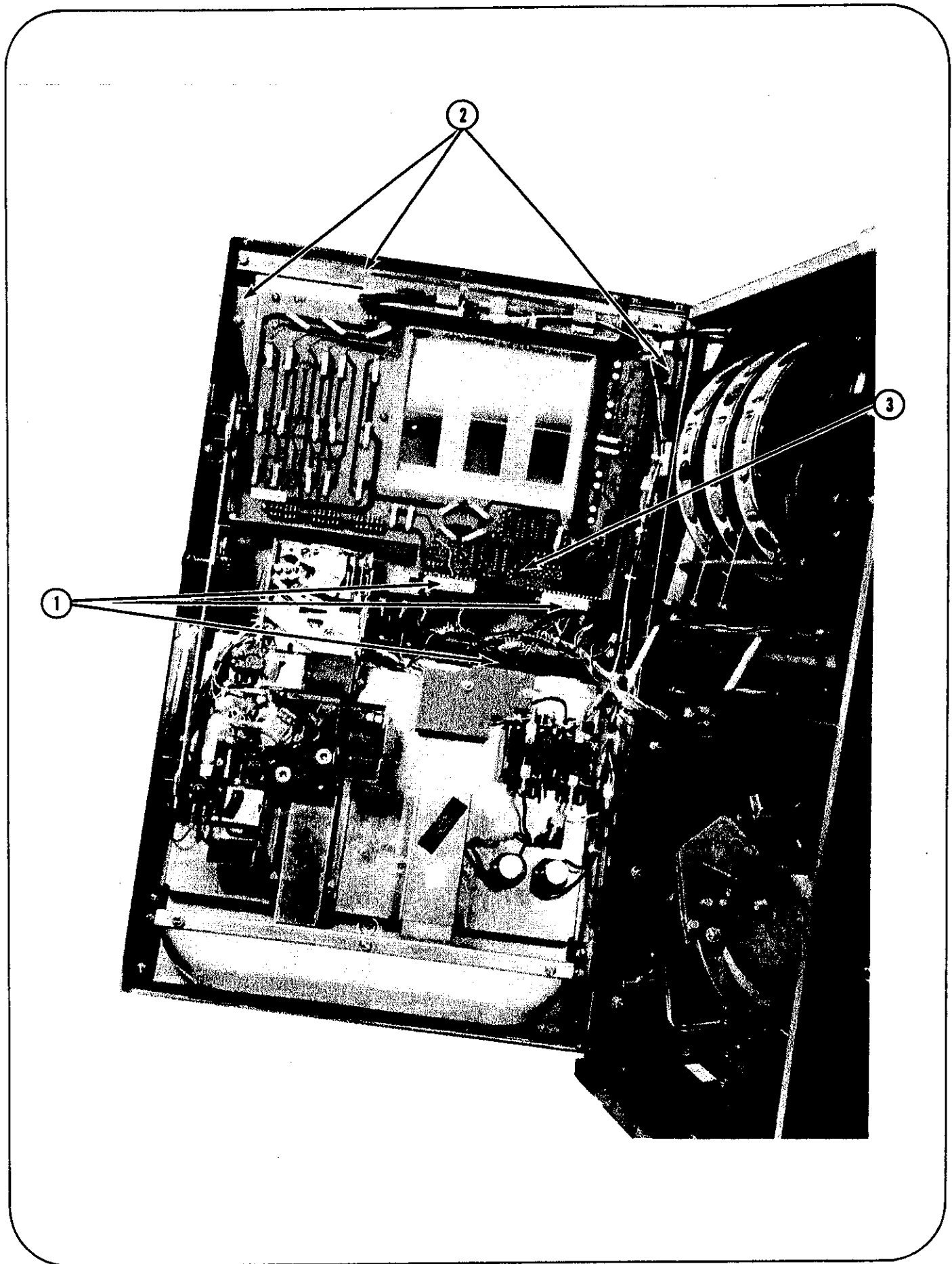
	14-154b	Lamp Holder Assembly	1
	14-155b	Lamp Holder Assembly	1
	31-539b	Lamp Cover	1
	51-083a	Cable Anchor	2
13	12-190ND	Top Glass Retainer Assembly	1
14	12-21-7ND	Display Assembly (1-Line)	1
	12-21-8ND	Display Assembly (3-Line)	1
	12-21-9ND	Display Assembly (5-Line)	1
	12-21-10ND	Display Assembly (2-Coin)	1
	12-21-11ND	Display Assembly (3-Coin)	1
	12-21-12ND	Display Assembly (5-Coin)	1
15	96-04-8a	Q.C. Receptacle	11
16	31-142a	Check Rod Bracket	1
17	15-072a	Glass Retainer Assembly	2
18	51-05-3ND	Cable Anchor	2
19	51-05-1a	Cable Tie	
22	14-111b	Cover Assembly	1



SERVICE PANEL ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY.
1	12-141ND	Diverter Cover Assembly INCLUDES	1
	31-426a	Diverter Cover	1
	31-441a	Coin Ramp	1
	16-057a	Diverter Coil Assembly	1
2	12-198b	Diverter Assembly INCLUDES	1
	31-423b	Diverter Plate	1
	31-424a	Diverter Chute	1
	31-435a	Coin Ramp (R.H.)	1
	31-450a	Coin Guard	1
	31-463a	Coin Gauge	1
	31-464a	Coin Ramp (L.H.)	1
3	12-18-WCL	Drop Switch Assembly INCLUDES	2
	31-188a	Coin Switch Base	1
	31-556a	Coin Chute (Upper)	1
	31-557a	Coin Chute (Lower)	1
	33-02-9c	Bushing	2
	64-01-WCL	Coin Switch with arm	1

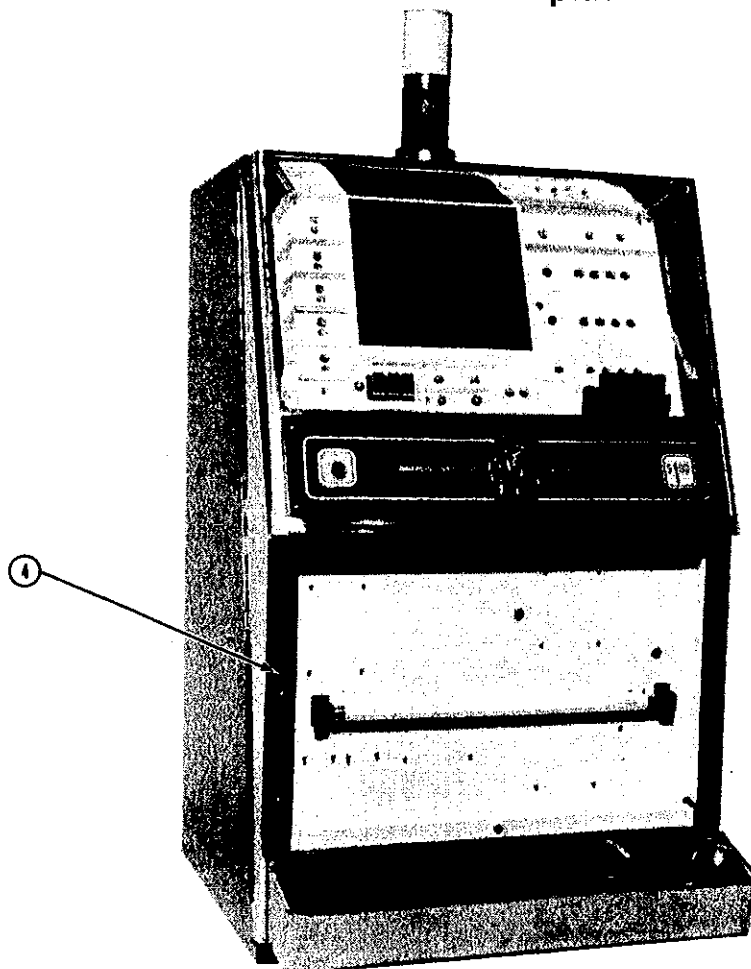
4	M440-12-1111	RHMS 4-40 x 3/4" LG	4
5	31-154a	Channel Mounting Bracket	1
6	M632-7-1111	RHMS 6-32 x 7/16" LG	4
7	12-01WCL	Channel Assembly complete INCLUDES	1
	13-090ND	Bracket & Latches Assembly	1
	16-056ND	C.R.E.M. Assembly	1
	36-01-12c	Extension Spring	2
8	31-134b	Coin Return Funnel	1
9	16-158a	Coin Diverter Panel Assembly	1
10	61-052b	Ballast	2
11	31-558d	Service Panel INCLUDES	1
	31-559a	Tapped Locking Plate	1
	33-169a	Stand-off	2
	63-052b	Fluorescent Lamp	1
12	16-134a	Starter Socket Assembly	1
13	16-135a	Starter Socket Assembly	1
14	31-568b	Payout Chute	1
15	31-421b	Coin Return Chute	1
16	31-506a	Diverter Chute	1
17	33-143a	Thumb Nut	2



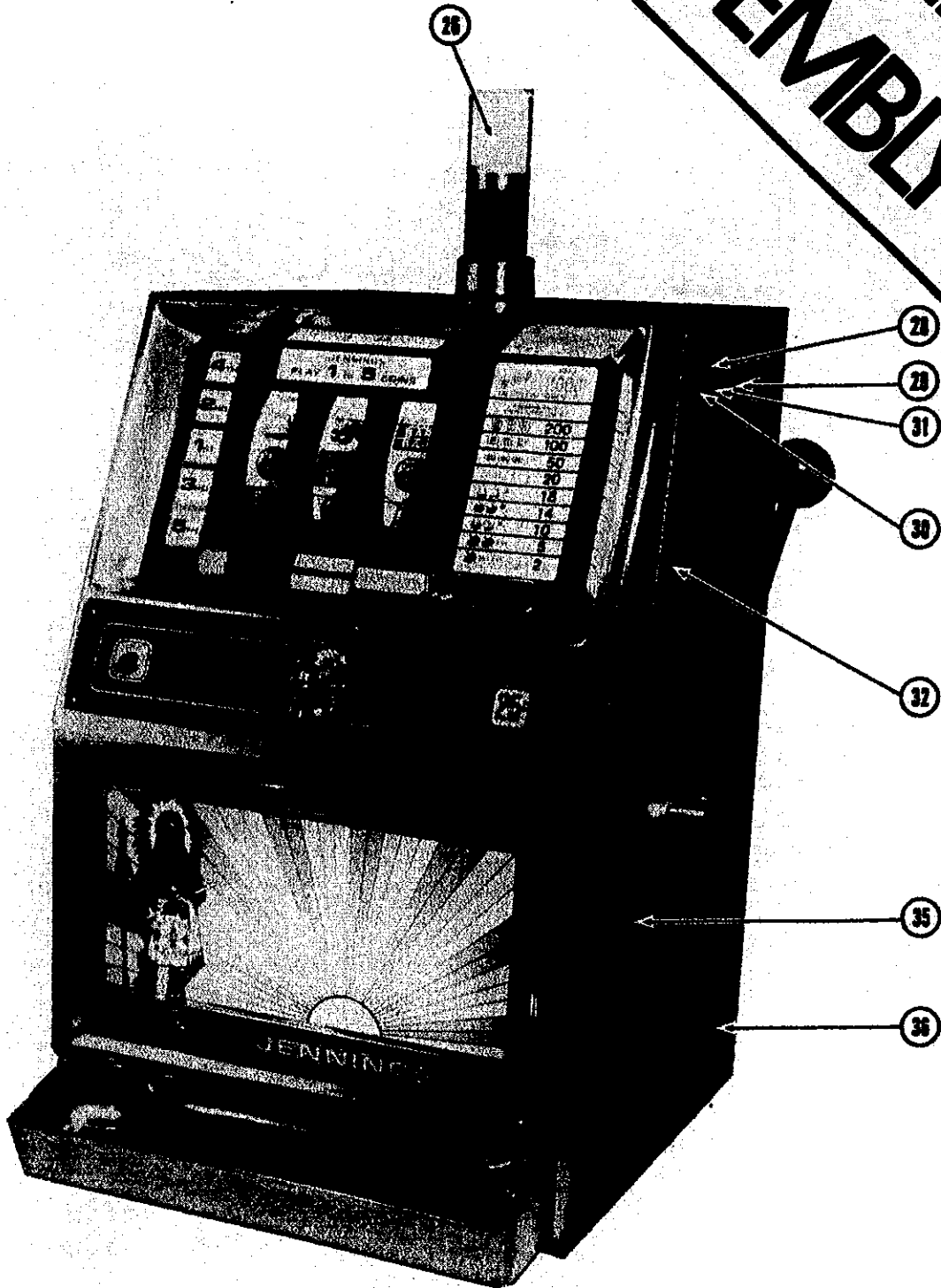
DOOR ASSEMBLY

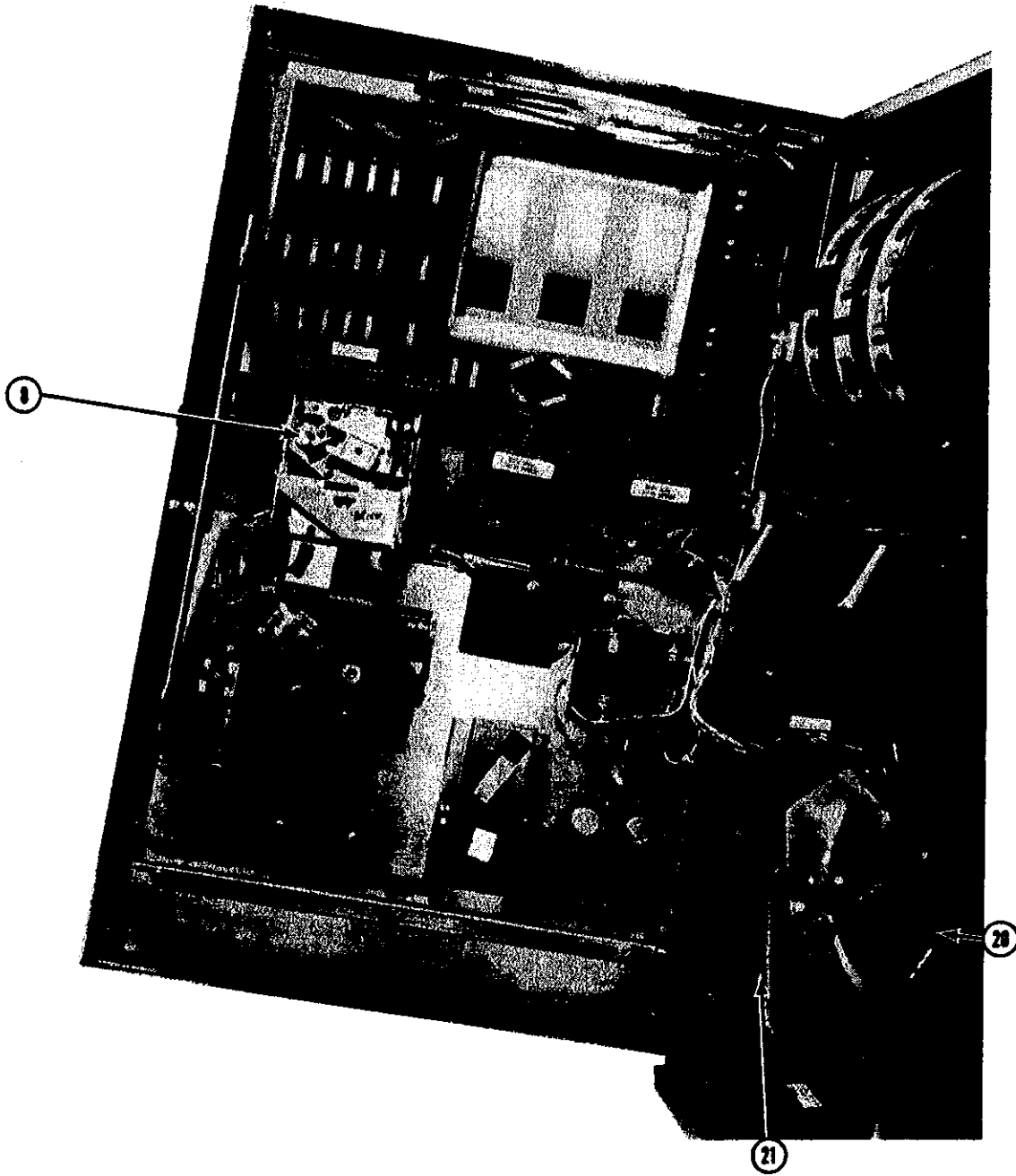
Display Glass Servicing

1. How to remove the reel glass:
 - a. Release the three edge connectors, fig. 1 , pg.3-4.
 - b. Remove the three retainers, fig. 2 , pg.3-4, leaving the display assembly and fluorescent light connected. Disconnect the bottom retainer last. Use access hole, fig. 3 , pg.3-4, in the lamp panel to reach the bottom retainer. Slide the glass out slightly to the left to clear the door stop.
2. How to remove the lower display glass:
 - a. Remove the four lower display casting mounting screws from the inside of the front door.
 - b. The entire lower display casting, fig. 1 , pg.3-1, will separate from the outside of the front door.
 - c. Remove the glass retainers from rear of casting. Replace the glass.
 - d. Reassemble unit, and replace screws.



CABINET ASSEMBLY

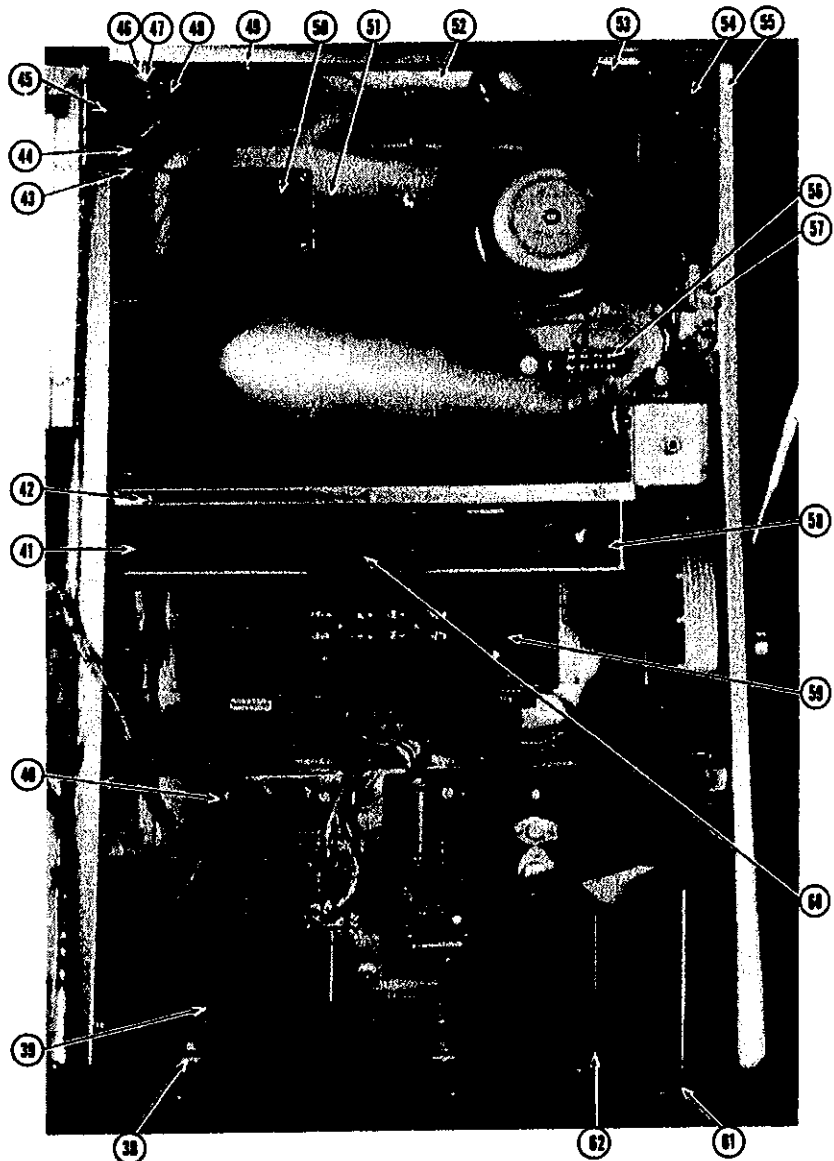




CABINET ASSEMBLY

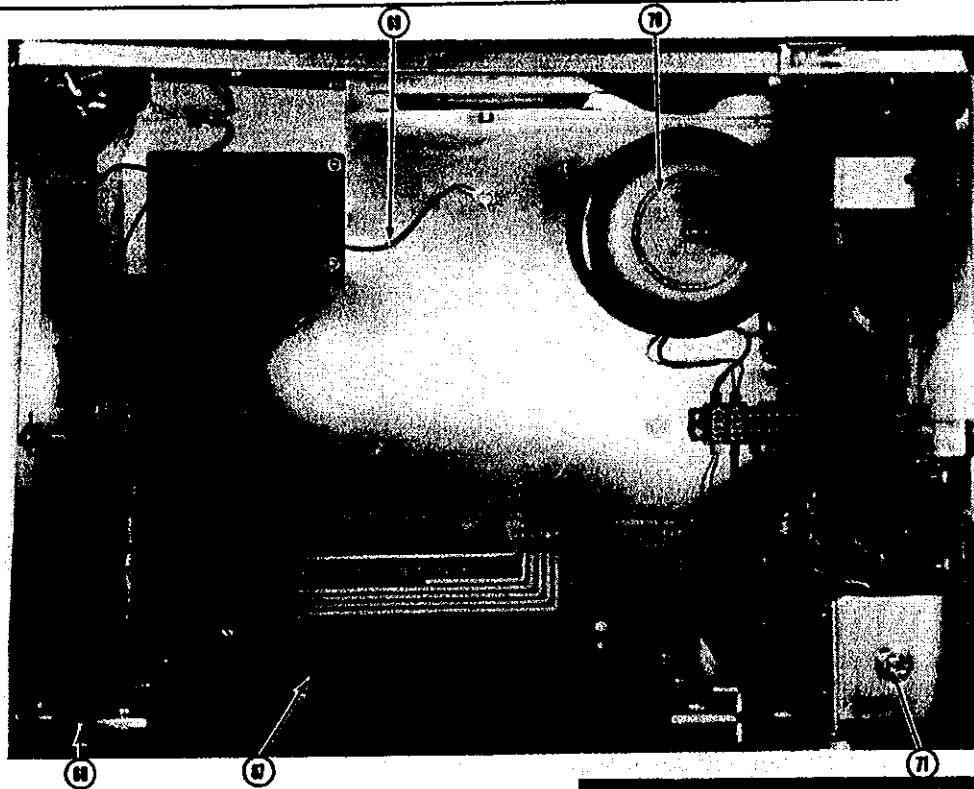
ITEM	PART NO.	DESCRIPTION	QTY.
8	12-08-WCL	Coin Acceptor Assembly	1
20	16-089b	Supply Cord Assembly INCLUDES	1
	31-086a	Strain Relief Bracket	1
	60-052ND	Strain Relief	1
	66-051ND	Line Cord	1
21	12-171a	Interlock Door Switch Assembly	1
26	12-09-2b	Candle Assembly See Separate Listing	1
28	31-208a	Counter Window Plate	1
29 & 31	65-070a	Counter	2
30	B1024-20-0411	Carriage Bolt 10-24 x 1-1/4 LG INCLUDES	2

	W1-10-11	Plain Washer #10	4
	W4-10-11	External Lockwasher #10	2
	N6-1024-11	Hex Nut #1024	2
32	B1024-18-0411	Carriage Bolt 1024 x 1-1/8" LG INCLUDES	7
	W1-10-11	Plain Washer #10	7
	W4-10-11	External Lockwasher #10	7
	N6-1024-11	Hex Nut #1024	7
35	B1024-32-0411	Carriage Bolt 10-24 x 2" LG INCLUDES	7
	W1-10-11	Plain Washer #10	1
	W4-10-11	External Lockwasher #10	1
	N6-1024-11	Hex Nut #1024	8
36	92-058ND	Screw Nail #14 GA x 1/2" LG	4

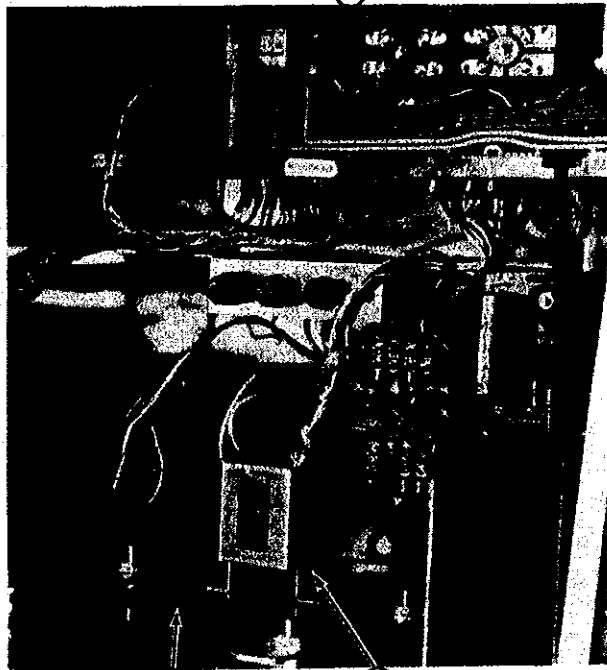
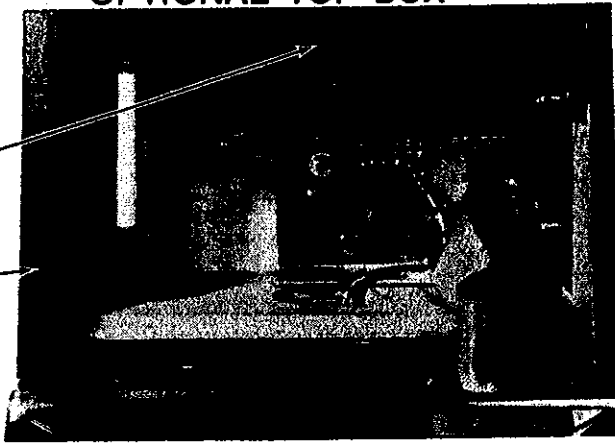


ITEM	PART NO.	DESCRIPTION	QTY.
38	31-440a	Guide (Hopper)	2
39	B1024-22-0411	Carriage Bolt 10-24 x 1-3/8" LG INCLUDES	4
	W1-10-11	Plain Washer #10	8
	W4-10-11	External Lockwasher #10	4
	N6-1024-11	Hex Nut 1024	8
40	12-121ND	Power Panel Assembly	1
41	15-053ND	Rack & Guide Assembly (Left Hand) INCLUDES	1
	31-18-2c	Card Rack (Right Hand)	1
	54-01-3a	Card Guide	1
42	M632-4-1711	BHMS 6-32 x 1/4" LG INCLUDES	4
	W4-6-11	External Lockwasher #6	4
43	T6-6-17116	Tapping Screw BHMS #6 x 3/8" LG	32
44	31-497b	Armor (Top L.H. Corner)	1
45	31-077b	Hinge Guard	1
46	92-056	Hitch Pin	2
47	36-051a	Door Check Rod	1

48	31-075a	Door Stop Bracket	1
49	31-494c	Armor Baffle (Top)	1
50	31-692a	Cabinet Vent Louvers	2
51	31-669c	Drill Proofing (Rear)	1
52	31-617b	Drill Proofing (Top)	1
53	31-155a	Upper Door Stop	1
54	31-496b	Armor (Top Right Hand Corner)	1
55	31-495d	Armor Baffle (Right Hand)	1
56	63-02-6ND	Terminal Block	1
57	31-368a	Lock Bracket	2
58	15-061ND	Rack & Guide Assembly (Right Hand) INCLUDES	1
	31-18-1c	Card Guide (Right Hand)	1
	54-01-3a	Card Guide	1
59	12-233ND	Connector Board Assembly See Separate Listing	1
60	17-049 or 17-050	Multi-Line or Multi-Coin Logic Board Assembly	1
61	31-500c	Armor Baffle (Bottom)	1
62	14-140b	Coin Chute Assembly	1



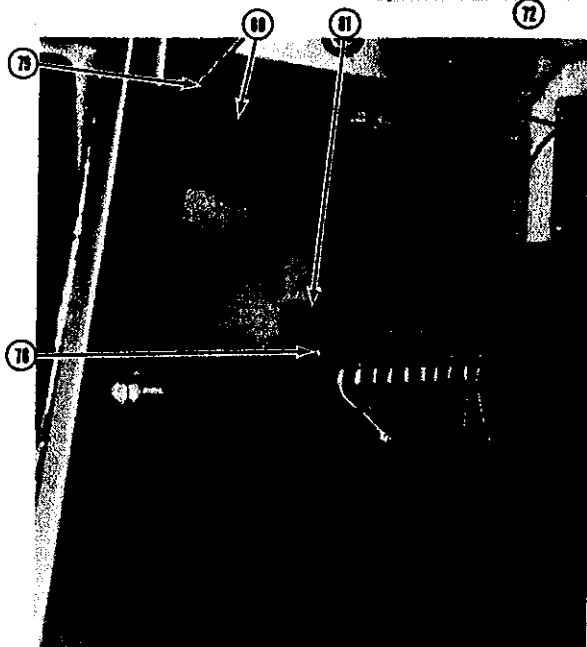
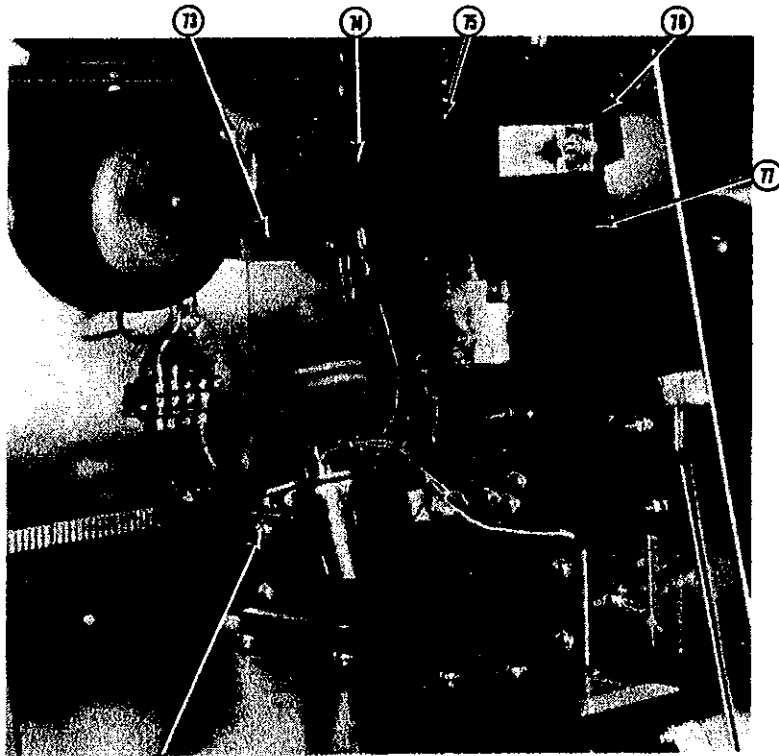
OPTIONAL TOP BOX



ITEM	PART NO.	DESCRIPTION	QTY.
63	11-063ND	Optional Cabinet Top Box Assembly	1
64	12-04-1ND	Fan Assembly Option	1

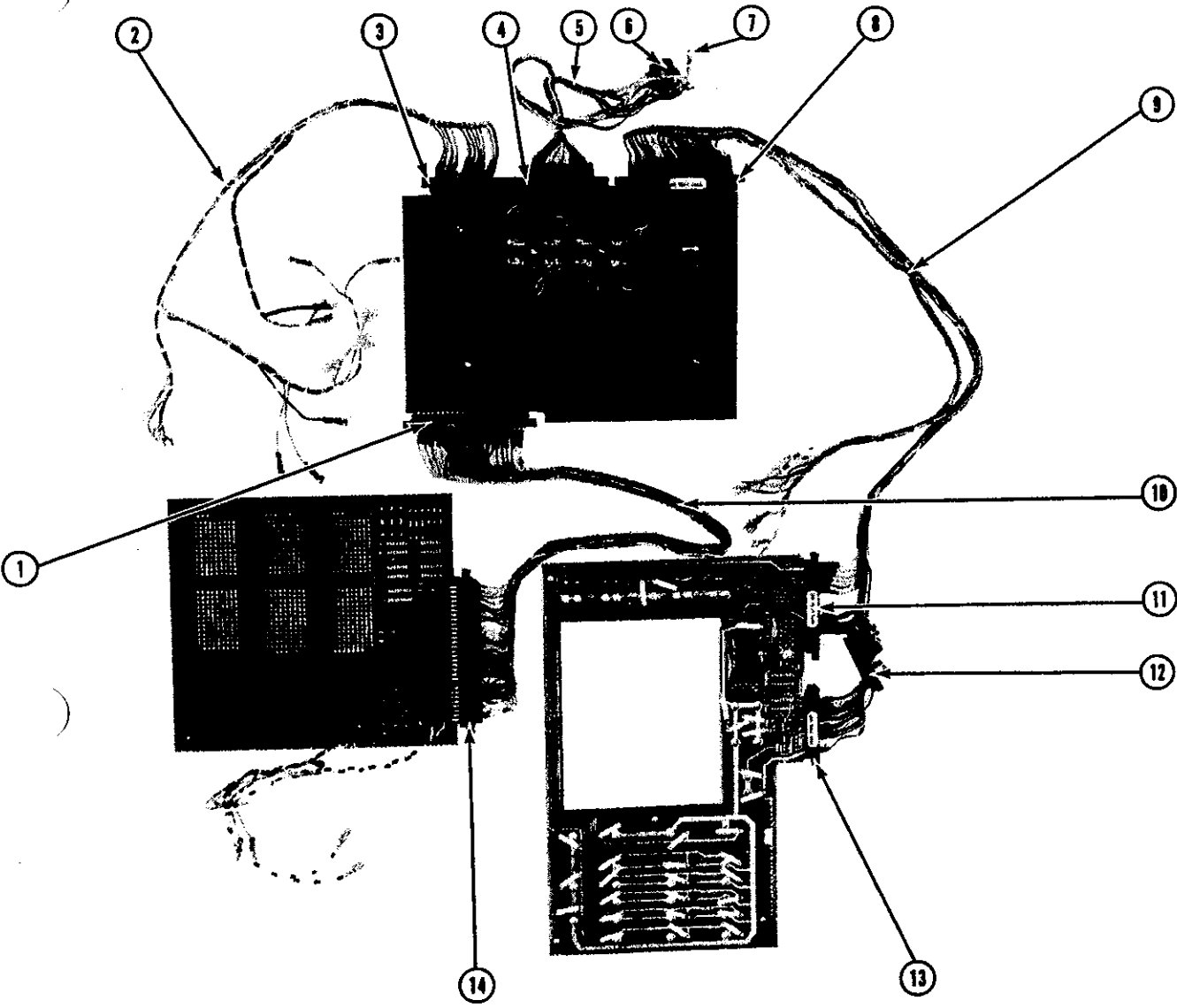
65	92-01-0a	Cotter Pin (Not Shown)	2
66	14-143b	Plate Assembly	1
67	12-079ND	Card Rack Assembly INCLUDES	1
	31-225d	Mechanism Shelf	1
	31-315b	Shelf Bracket (Left Hand)	1
	31-316b	Shelf Bracket (Right Hand)	1

	31-353c	Mounting Plate	1
	31-499b	Shelf Armor	1
	33-02-28c	Bushing (Bumper)	1
	33-11-8b	Rod	2
	55-058a	Bumper (Rubber)	
68	31-484b	Guide (Reel Mechanism)	2
69	16-20-26ND	Ground Jumper Assembly	3
70	16-131a	Bell Assembly	1
71	16-087a	Toggle Switch Assembly INCLUDES	1
	64-079a	Toggle Switch with Mounting Hardware	1



ITEM	PART NO.	DESCRIPTION	QTY.
72	M832-4-1711	BHMS 8-32 x 1/4" LG INCLUDES	4
	W4-8-11	External Lockwasher #8	4
73	12-070a	Key Switch Assembly INCLUDES	1
	31-351a	Bracket	1
	64-060a	Switch	1
	37-08-1a	Lock (Complete)	1
74	31-650b	Counter Support Bracket	1
75	65-070a	Counter	2
76	31-498a	Armor (Counter Guard)	1

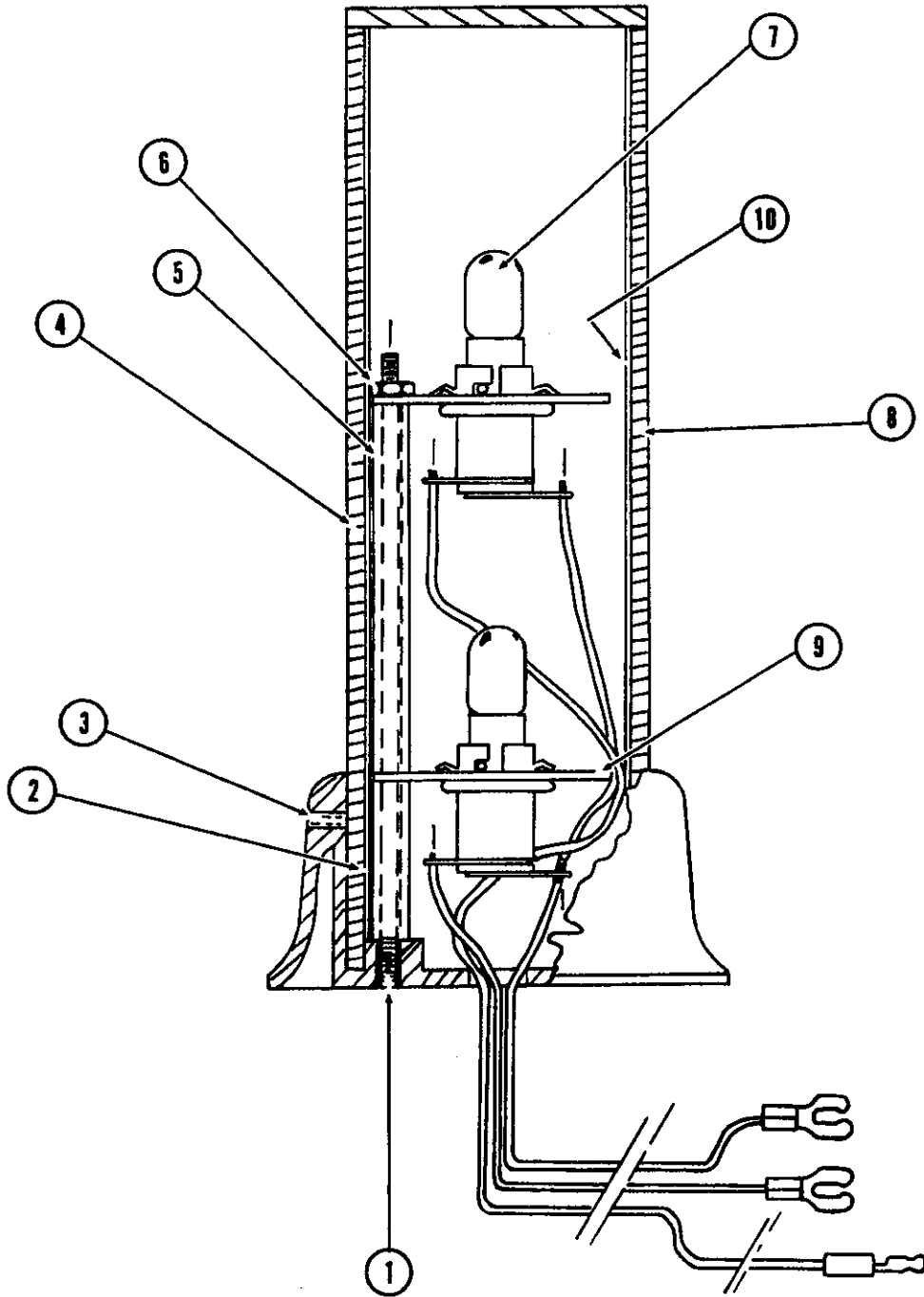
77	31-620d	Drill Proofing (Right)	1
78	T4-12-17116	Tapping Screw SMS #4 x 3/4" LG	4
79	B1024-16-0411	Carriage Bolt 10-24 x 1" LG INCLUDES	7
	W1-10-11	Plain Washer #10	7
	W4-10-11	External Lockwasher #10	7
	N6-1024-11	Hex Nut #10-24	7
80	31-619c	Drill Proofing (Left)	1
81	63-02-8ND	Terminal Block	1



CABLES LIST (REVISED AND RETYPED)

ITEM	PART NO.	DESCRIPTION	QTY.
1	96-06-4a	—Edge Connector (PC-22)	1
2	16-10-14b	HANDLE SWITCH CABLE ASSEMBLY	1
3	96-06-12a	—Edge Connector (PC-12)	1
4	96-06-2a	—Edge Connector (PC-15)	1
5	16-10-49b	HOPPER & POWER CABLE ASSEMBLY (USE w/12-205 Power Panel Only)	1
6	63-063a	—Socket	1
8	96-06-13a	—Edge Connector (PC-22)	2
	16-10-34b	FRONT DOOR CABLE (1.5 - Multi-Line)	6
9	16-10-58b	FRONT DOOR CABLE ASSEMBLY (3 - MULTI-LINE)	

9	16-10-56b	FRONT DOOR CABLE (3-MULTI-COIN)	
9	16-10-57b	FRONT DOOR CABLE ASSEMBLY (2 - MULTI-COIN)	
9	16-10-35b	FRONT DOOR CABLE ASSEMBLY (5-Multi-Coin)	
10	16-10-54b	MATRIX CABLE ASSEMBLY (20,22,25 STOP)	1
11	96-06-18a	—Edge Connector (PC-18)	2
12	96-06-9a	—Edge Connector (PC-10)	1
13	96-06-17a	—Edge Connector (PC-12)	2
14	96-07-2ND	—Edge Connector (PC-30)	1



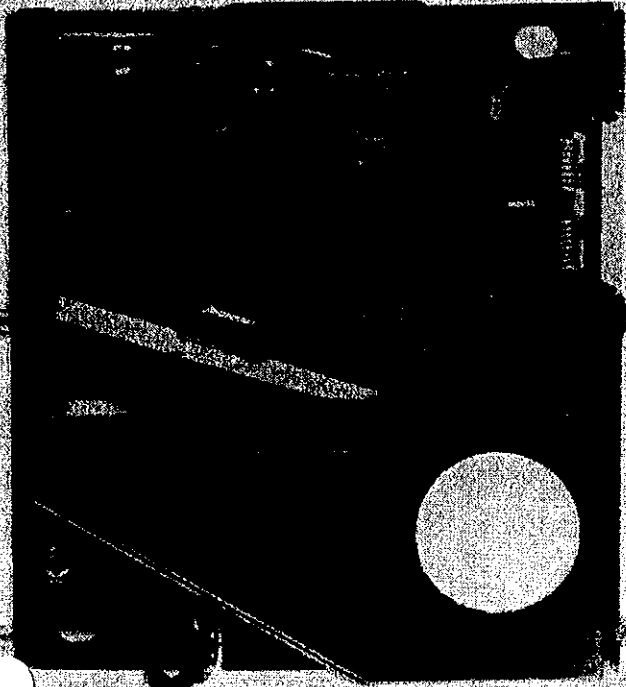
CANDLE ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY.
1	33-159ND	Threaded Rod 6-32	1
2	33-06-4c	Bushing	1
3	S632-4-30511	Set Screw 6-32 x 1/4" LG	1
4	15-01-1a	Tube Assembly	1

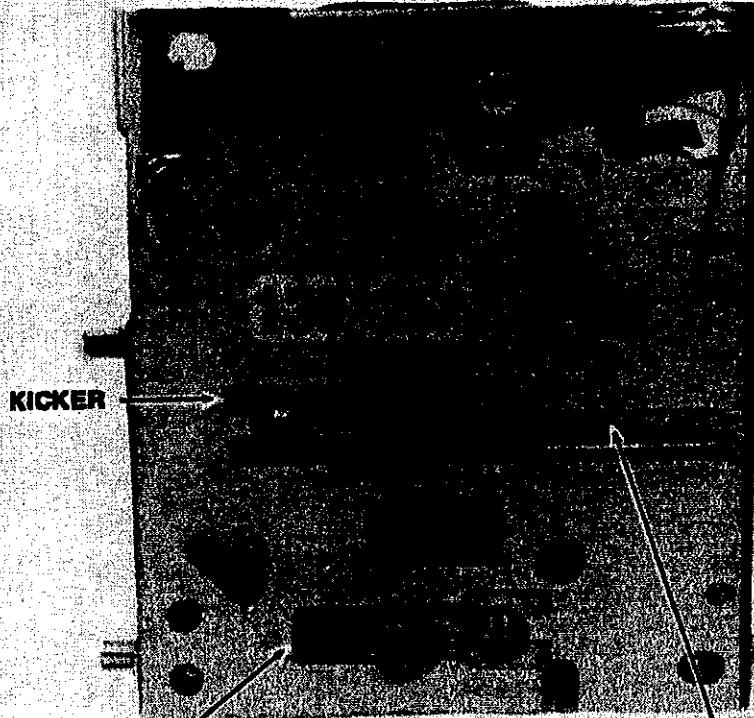
5	33-06-3c	Bushing	1
6	N1-632-11	Hex Nut 6-32	1
7	63-085ND	Lamp	2
8	15-074a	Insert Assembly	1
9	16-132b	Socket Assembly INCLUDES	1
	51-063a	Disc	2
	63-066a	Socket	2
10	15-074	Colored Insert Red & White	

EQUIPMENT

FRONTVIEW



BACKVIEW



KICKER

SEPARATOR

(STRING
CATCHER
AVAILABLE)

All "Series 100" Coin Mechanisms leave the factory adjusted for maximum performance. If, however, more critical adjustments are desired, or if the unit has been completely disassembled for service, the following adjustment procedure is suggested.

A. Kicker and Separator — (On Dime and Quarter Coin Mechanisms only)

1. Set the Coin Mechanism with the back of the unit facing you in the test position.
2. Loosen the screws holding the kicker and separator and move both as far to the right as they will go. Tighten the screws.
3. Insert several coins (both old and new) and note that some are returned by striking the separator.
4. Loosen the separator screw and move the separator a slight amount to the left. Tighten the screw.
5. Insert the coins again and, if some of them are still returned, repeat Step 4 until all of the coins are accepted.
6. Loosen the kicker screw and move the kicker as far to the left as it will go. Tighten the screw.
7. Insert several coins and note that some of them are returned.
8. Loosen the kicker screw and move the kicker a slight amount to the right. Tighten the screw.
9. Insert the coins again and, if some of them are still returned, repeat Step 8 until all of the coins are accepted.
10. Be sure the screws are tight after all adjustments are made.

B. String Catcher — (Replaces the kicker in some models)

1. The "V" in the string catcher should be assembled even with the bottom of the kicker opening.
2. On Nickel and Quarter Coin Mechanisms, the string catcher is moved as far to the right as it will go.
3. On Dime Coin Mechanisms, the string catcher is moved as far to the left as it will go.

MAINTENANCE —

Depending upon the environment in which the Coin Mechanism is used, periodic preventative maintenance should be performed.

The mainplate may be cleaned with any household cleanser. Thorough rinsing and drying are necessary to remove deposits and/or film.

Remove all filings from the magnet by guiding an ice pick, awl, or the point of a screwdriver along the edges of the magnet. You will notice the filings will cling to the point of the tool.

Remove the cradles and undersize levers and clean the bushings. A pipe cleaner makes a good bushing cleaner. Also clean the pivot pin. Apply powdered graphite or pencil lead sparingly to the pivot pin and bushing and reassemble.

On Nickel units make certain all foreign matter is removed from the bounce tester. Also make certain the bounce tester fastening screws are tight.

In the event the recommended adjustment and maintenance procedures do not render your "Series 100" Coin Mechanism serviceable, check for worn or damaged parts and replace as necessary.

For service assistance or sales requirements, contact our office.

COIN EQUIPMENT

Coin Entry Assembly

The coin entry assembly, fig. 4 , pg.2-1, is precision milled to easily accept the proper denomination of the machine. The dimensions of the slot are such that oversize coins and coins of an incorrect denomination will not pass through into the coin acceptor located below. Undersize coins will be returned through the coin-return chute.

The coin entry assembly also includes a coin reject plunger. The reject plunger is spring loaded for automatic return. When depressed, it actuates the coin reject lever of the coin acceptor, and the coin is returned to the coin bowl.

The coin acceptor is a standard model supplied by a number of manufacturers. See the enclosed manufacturer's parts list and operator's guide for servicing and adjustment.

The coin acceptor mounts into a bracket which is attached to the inside of the front door. The acceptor is held in slots in the bracket by spring-loaded fingers located on each side of that bracket. To remove the acceptor, hold the fingers in the downward (release) position, tilt the top of the acceptor away from the door, and slide the acceptor upwards and outwards from the lower slots in the mounting bracket.

To service the coin entry assembly:

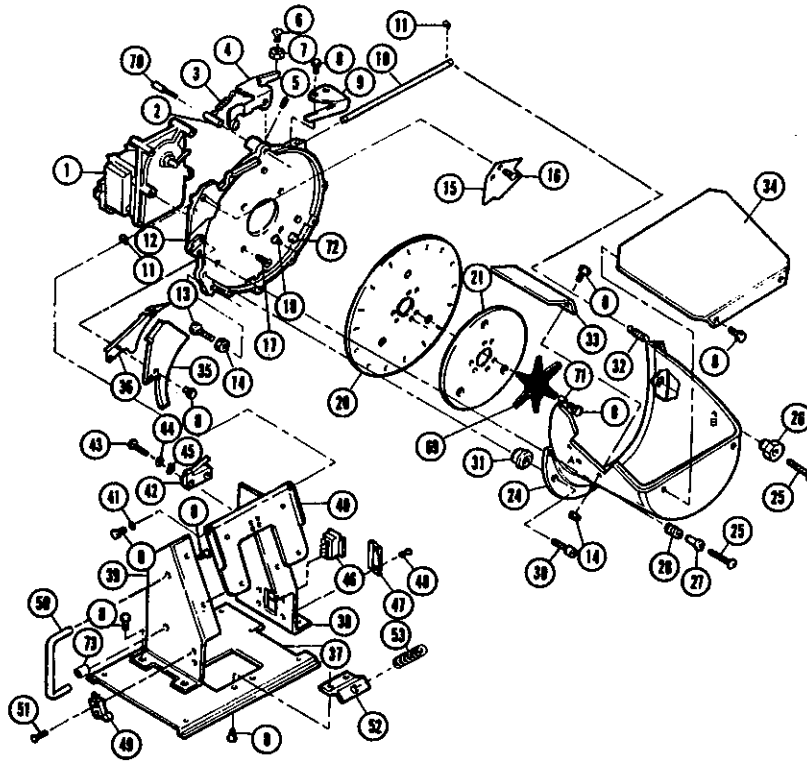
1. If coin entry causes the machine to shut down due to cheating or a coin jam, the display lights in the reel glass turn off, the "Call Attendant" light turns on, and the handle cannot be pulled. Check to see if the cause is an open coin switch.
First, examine the coin acceptor while it is mounted on the machine. Be sure channeling from the acceptor to the coin chute allows the coin to drop through without interference which results in the jamming of coins onto the switch, holding it open.

Do not assume that this condition is a machine or component malfunction. Cheating the machine through "stringing" will also cause this condition. The automatic shut-down has been designed into the machine to protect the owner/operator. Try a few coins to be certain. If the complete machine lock-out condition described here does occur, the operation of the machine is completely shut off. Operation can be resumed by depressing the logic reset button on the front right-hand of the logic board, fig. 13 , pg.1-1 . This

requires opening the door to the machine with the door key, which is intended to be only in the possession of the machine owner, or authorized personnel.

2. If coins do not fall through the coin entry mechanism into the coin acceptor, the "Coin Accepted" light will not appear. All other lights will remain on, but the handle cannot be pulled. Check for a coin(s) trapped in the passage between the bottom of the coin entry and the entry to the coin acceptor. The coin path between the two must be carefully aligned. To align them, remove the coin acceptor, and adjust the bracket forward or back by the adjusting screw near the center-top of the bracket.
3. If coins are continually rejected and fall straight through the entry and acceptor into the coin bowl, either:
 - a. The acceptor is not mounted in a proper vertical position. Adjust the acceptor mounting bracket.
 - b. The acceptor requires adjustment or replacement. See the separate Coin Adjustment Instruction, page 5-2.

- c. The coin return electromagnet is not being energized. When de-energized, the coin return magnet changes the path of the coin around the coin switch back to the coin tray. It **SHOULD** be de-energized by the machine logic whenever the maximum acceptable number of coins have been entered into the machine. If the coin return magnet is not functioning, first check that it has not been bent and is, therefore, interfering with other components of the coin acceptor or coin chutes. If there is no such interference, then check for voltage to and through the coils. If there is no power through the coil, replace the coil. It is powered by the 24 volt machine circuit.
4. If the coin return plunger does not automatically return to the upward (non-engaged) position, the plunger spring may be faulty. To replace it, the E-ring retainer can be removed from the bottom of the plunger on the inside of the front door, fig. 3 , pg.1-1.



HOPPER ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY.
1	13-088b	Drive Motor Assembly INCLUDES	1
	62-054b	Motor	1
	92-06-5a	Roll Pin	1
2	33-195a	Eccentric Rocker Pin	1
3	36-01-19c	Extension Spring	1
4	13-174a	Rocker Assembly	1
5	S1032-8-30511	Set Screw 10-32 x 1/2" LG	1
6	M632-8-1111	RHMS 6-32 x 1/2" LG	1
7	N1-632-11	Hex Nut 6-32	1
8	T1032-6-5611	Hex WHD. Tap Screw 10-32 x 3/8" LG	6
9	31-233b	Wiper	1
10	33-082a	Pivot Rod	
11	92-03-1c	E-Ring	2
12	35-072d	Wheel Housing	1
13	M1052-16-5511	Hex HMS 10-32 x 1" LG	1
14	N1-1032-11	Hex Nut 10-32	1
15	31-239a	Coin Deflector	1
16	M832-8-1211	FHMS 8-32 x 1/2" LG	2
17	M1032-8-2211	Phil FHMS 10-32 x 1/2" LG	4
18	M1032-8-2711	BHMS 10-32 x 1/2" LG	3
20	31-241c	Pinwheel	1
21	31-06-WCL	Shelf Wheel	1
24	32-054d	Hopper Shell	1
25	M1032-16-5511	Hex HMS 10-32 x 1" LG	1
26	33-124a	Eccentric Mount	1
27	33-101a	Mount	3
28	36-02-9c	Compression Spring	3

30	C1428-8-3915	Hex Socket Capscrew 1/4-28 x 1/2" LG	2
31	34-052a	Ball Bearing	3
32	36-01-18c	Extension Spring	1
33	31-234a	Inlet Slide	1
34	31-264c	Hopper Cover	1
35	31-237b	Outlet Cover	1
36	31-238b	Knife	1
37	31-228c	Base	1
38	31-04-1c	Support Bracket (Right)	1
39	31-04-2c	Support Bracket (Left)	1
40	31-230b	Pivot Bracket	1
41	31-01-16c	Washer	2
42	64-055a	Switch (Coin Count)	1
43	T636-14-5611	Hex WHD. Tap screw 6-32 x 7/8" LG	2
44	W4-6-11	External Lockwasher #6	2
45	W1-6-11	Plain Washer #6	2
46	67-051a	Plug	1
47	31-243a	Zee Bracket	2
48	T632-4-1111	Tapping Screw 6-32 x 1/4" LG	4
49	64-054a	Switch (Level Control)	1
50	33-126a	Handle	1
51	M440-10-1111	RHMS 4-40 x 5/8" LG	2
52	31-232a	Spring Mount	1
53	36-02-4c	Compression Spring	1
57	T1032-6-5611	HWH Tap screw 10-32 x 3/8" LG	12
69	55-061b	Agitator	1
70	33-196a	Cap screw (Rocker Pin)	1
71	33-02-28c	Bushing	3
72	33-02-1c	Bushing (Drive)	1
73	60-051a	Snap Bushing	1

Coin Hopper

The coin hopper payout unit incorporates an extremely large-capacity coin storage reservoir with a high-speed payout rate, and a patented coin path configuration providing almost jam-proof coin feed out. A wide range of coin diameters can be accommodated by changing only the shelf wheel. Only simple adjustments to the coins-out "knife" and coin-out count switch are required. The load switch can be utilized to divert additional coins elsewhere, such as to a separate cash box. An adjusting screw under the bowl controls the load level of coins at which diverting occurs. Do not adjust the switch actuator hex bolt. One plug at the rear of the machine provides all connections to drive motor, coin-counting switch, and auxiliary coin diversion switch. A separate mounting base with female plug connector is available. A cover is provided to prevent access to coin reservoir.

Different size coins can be accommodated as listed below by simple adjustments to the "knife" and coins-out switch. To change for coins larger or smaller than the specific range, the shelf wheel must also be changed . . . a simple process. For coins larger than 1-1/16" diameter, such as U.S. one-dollar size, the motor, the pin wheel and agitator must also be changed and a special reservoir liner installed. Specify 11-30-107 Hopper Assembly and state coin denomination desired.

To change from one size to another:

1. Remove the agitator, fig. 69 , pg. 5-5, and the shelf wheel, fig. 21 pg. 5-5 . The agitator and shelf wheel can be detached together by removing the three screws attaching them to the pin wheel. Note the position of the long screw so it can be replaced in its same position. Replace the shelf wheel with one of a size range of the required coin diameter. Replace the two short screws first, then rotate the pin-wheel clockwise until it stops against the drive stud. Now replace the long screw. With the long screw

in place note that the pin wheel can only be rotated a small amount because the driver pin is restricted between the long screw and the drive stud. This restriction prevents coasting of the pin wheel, which otherwise may allow the unit to stop such that a coin is under the rocker arm and holding it up, signaling the protective mischief latch. This will put the system into a lock-out condition. Proper assembly will avoid these nuisance lock-outs.

See Chapter for ordering information.

Standard Shelf Wheels available:

#3103-103B: Accomodates .821" to .856" diameter.

#3106-104B: Accomodates .694" to .730" diameter.

#3106-105B: Accomodates .940" to .975" diameter.

#3106-106B: Accomodates 1.190" to 1.225" diameter.

#3106-107B: Accomodates 1.455" to 1.50" diameter.

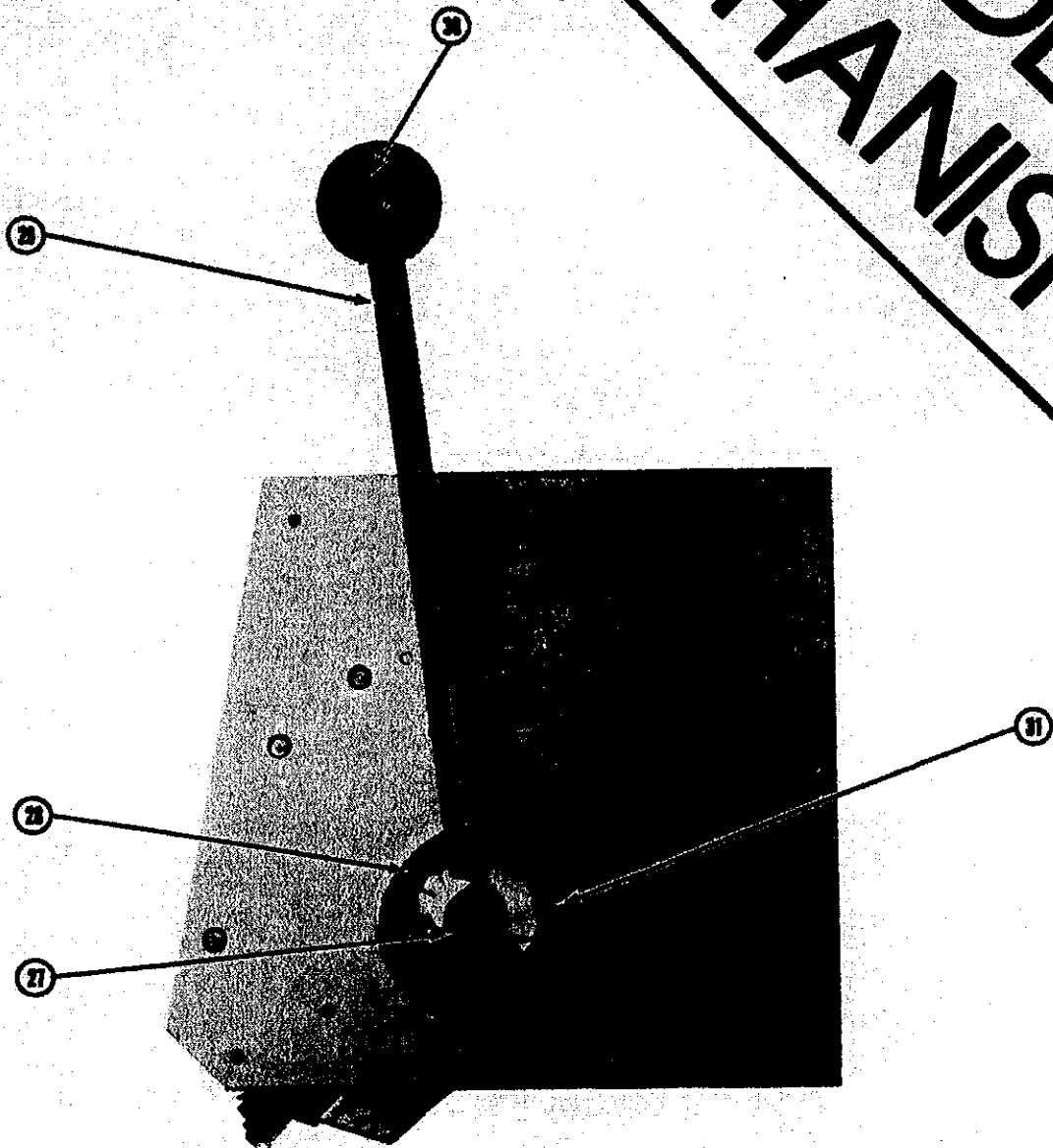
2. After the shelf wheel is firmly in place, the knife fig. 36 , pg.5-5 , over which the coins ride as they exit the hopper must be adjusted up or down so that it rides on the periphery of the coin shelf wheel. This adjustment is made by loosening the two screws at the lower left area of the knife assembly.

3. Adjust the coins-out switch ad-

justment to the new coinage. The rocker assembly, fig. 4 , pg. 5-5, should be adjusted so that when a coin passes below it, atop the knife, the switch actuates at approximately the 11 o'clock position on the coin. This adjustment is made by extending or retracting the screw-and-stop nut, fig. 6 pg.5-5 , on the rocker assembly.

To set the load level count out the number of coins (200 or more) that you want the hopper to carry for automatic payout. Place this quantity of coins in the hopper. Insert a 3/16" hex Allen wrench in the adjusting set screw located under the bowl and turn (clockwise to increase the level, counter-clockwise to decrease the level) until you hear the click of the micro switch located near the hopper handle. The set screw is spring-loaded and will maintain the adjustment so that when the desired coin level is reached, coins will be diverted to the cash collection box.

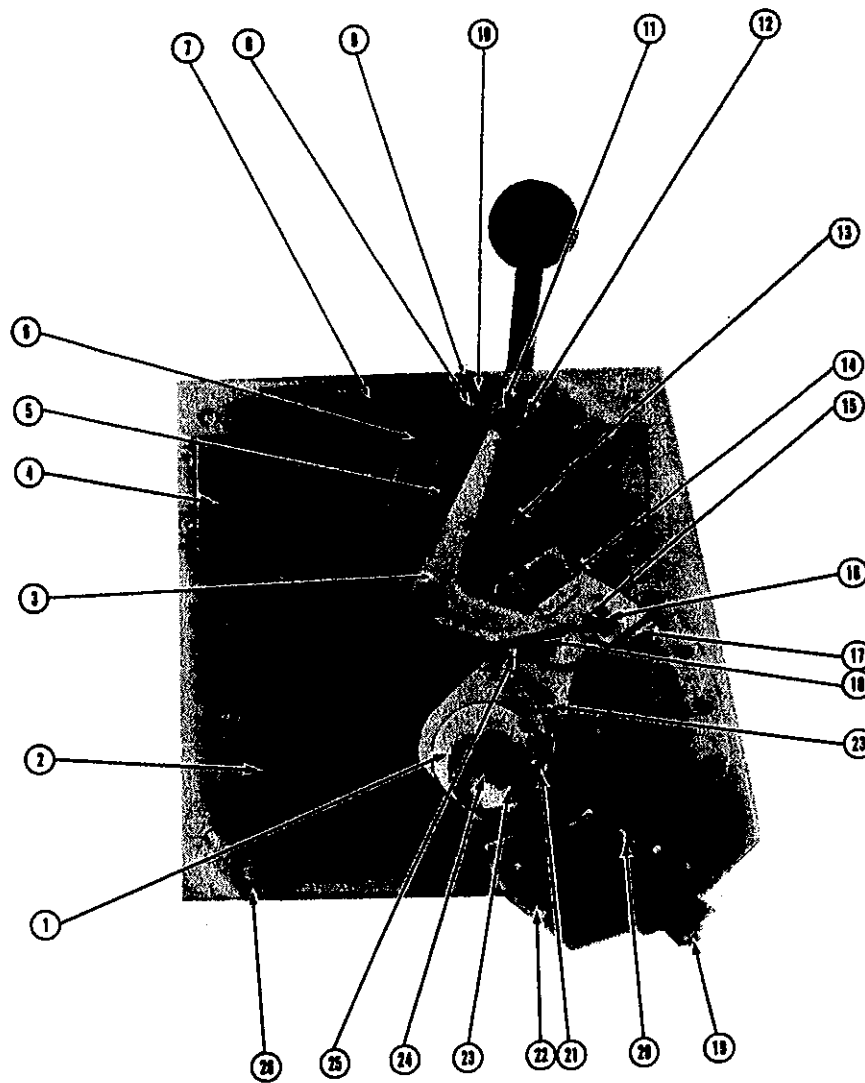
HANDLE MECHANISM



HANDLE PLATE ASSEMBLY #1

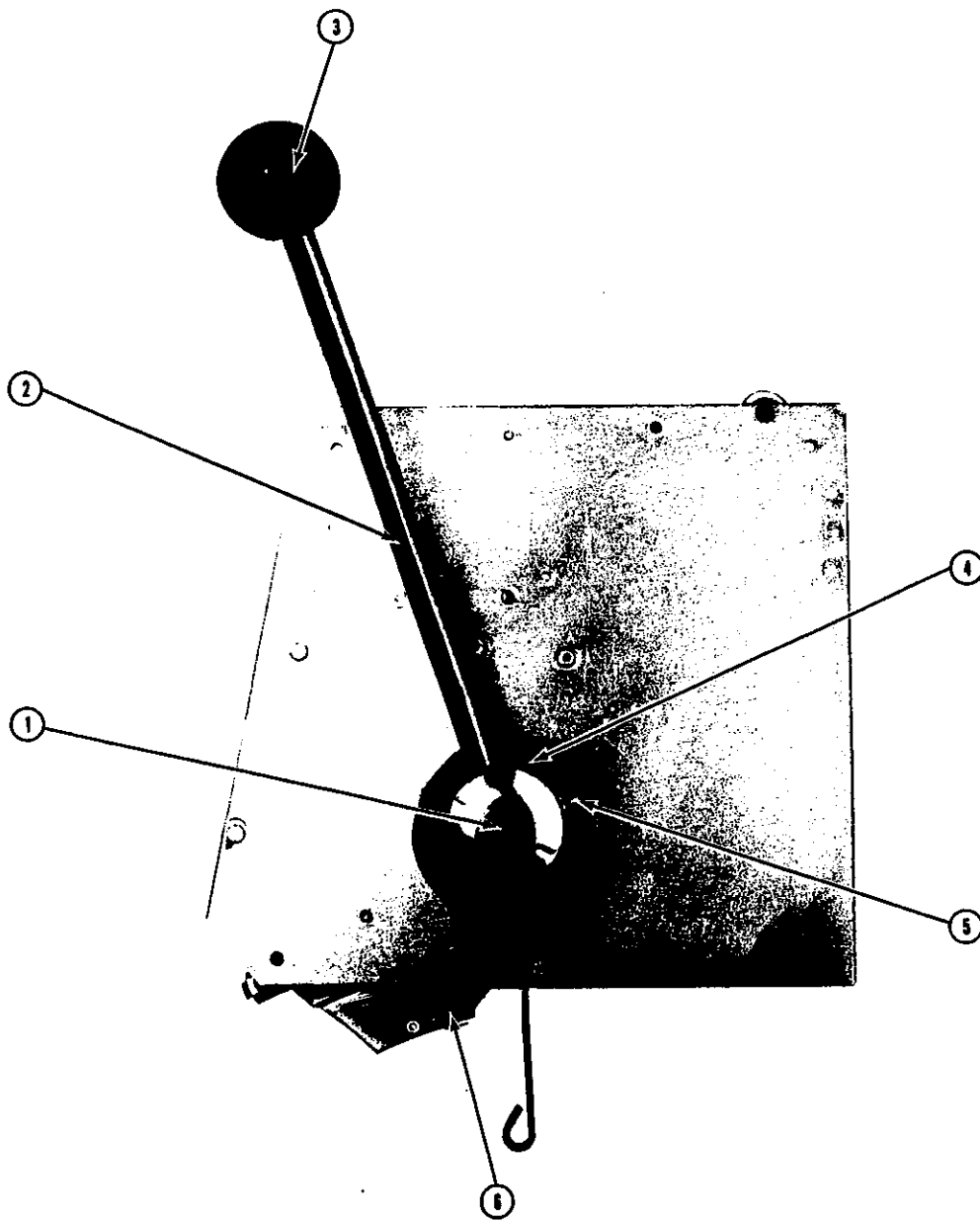
ITEM	PART NO.	DESCRIPTION	QTY.
27	33-053b	Handle Hub	1
28	35-064b	Handle Collar	1

29	33-150b	Handle Shaft	1
30	51-02-3ND	Handle Knob	1
31	91-053a	Grease Fitting	1



ITEM	PART NO.	DESCRIPTION	QTY.
1	31-627a	Adjustment Washer	1
2	36-065a	Handle Spring (Flat)	1
3	13-059b	Lockarm Assembly	1
4	13-058c	Handle Plate Assembly	1
5	M632-4-1711	BHMS G-32 x 1/4" LG	4
6	13-133ND	Plunger Assembly INCLUDES	1
	51-064a	Collar	1
	92-06-3a	Roll Pin 3/32 x 1/2" LG	1
	16-099b	Solenoid & Plunger Assembly	1
7	31-330a	Arm (Handle Release)	1
8	W4-8-11	External Lockwasher #8	2
9	31-324a	Solenoid Bracket	1
10	W1-G-11	Plain Washer #6	4
11	M832-4-1711	BHMS 8-32 x 1/4" LG	2
12	31-325a	Latch Bracket	1
13	36-01-3c	Extension Spring	1
14	55-051a	Bumper (Rubber)	1
15	92-02-3a	Cotter Pin	1
16	13-144a	Pawl Assembly	1

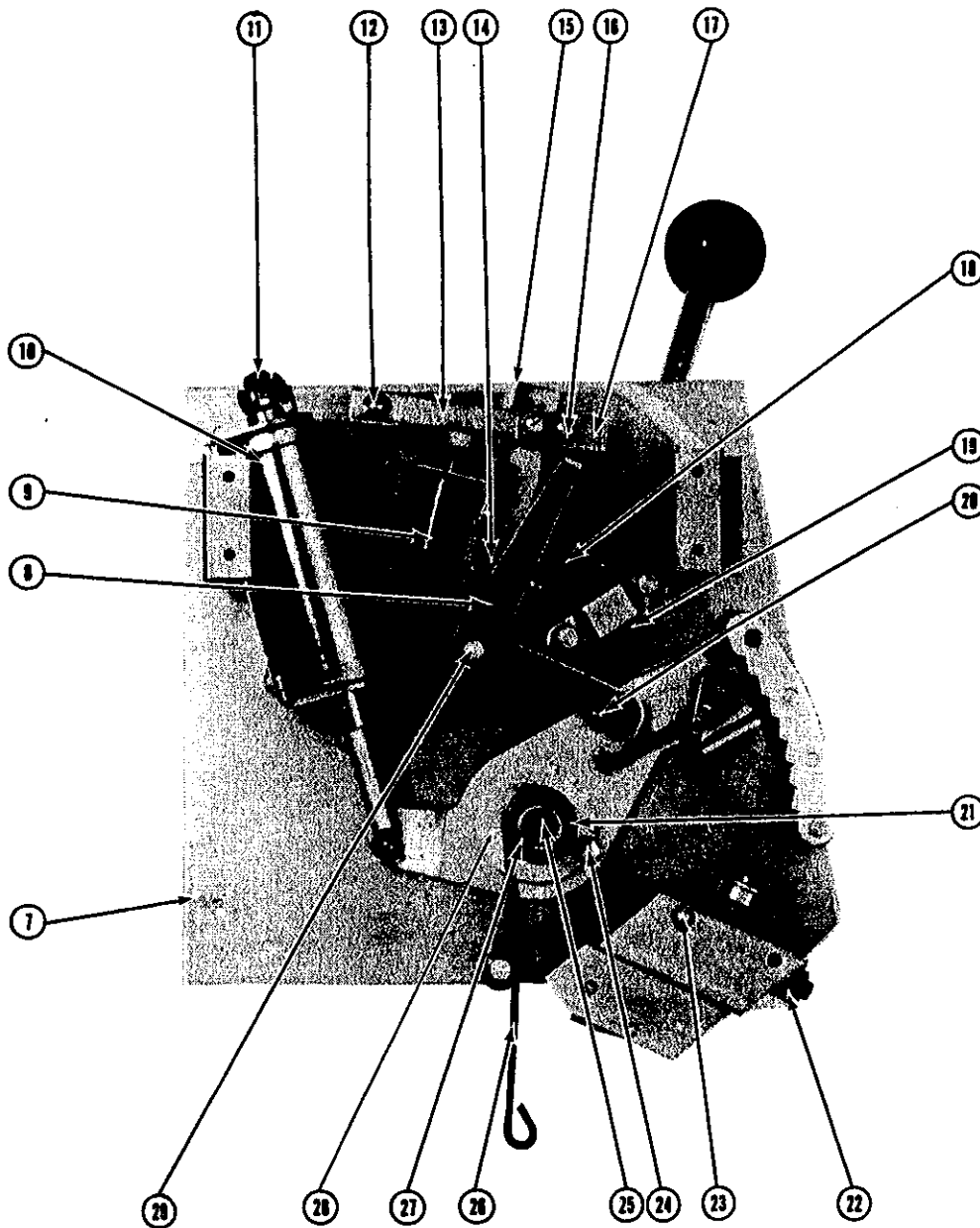
17	13-151ND	Handle Cam Assembly	1
18	36-01-20c	Extension Spring	1
19	12-118ND	Plunger Block Assembly INCLUDES	1
	31-01-19c	Washer	1
	33-02-12c	Bushing	1
	33-125a	Plunger	1
	35-051a	Plunger Block	1
	36-02-12c	Compression Spring	1
	92-07-3a	Retainer (Klipring)	1
	N7-516-18-11	Hex Jam Nut 5/16-18 x 3/16" Thickness	2
20	M1032-18-1711	BHMS 10-32 x 1-1/8" LG	1
21	M1032-4-1111	RHMS 10-32 x 1/4" LG	1
22	12-130a	Handle Switch Assembly INCLUDES	1
	31-375b	Bracket	1
	64-060a	Switch	1
	M440-10-1111	RHMS 4-40 x 5/8" LG	2
23	92-07-8a	Klipring (Spring Hub)	1
24	33-134a	Spring Hub	1
25	92-03-1c	E-Ring	1
26	92-03-5c	E-Ring	1



HANDLE PLATE ASSEMBLY #2

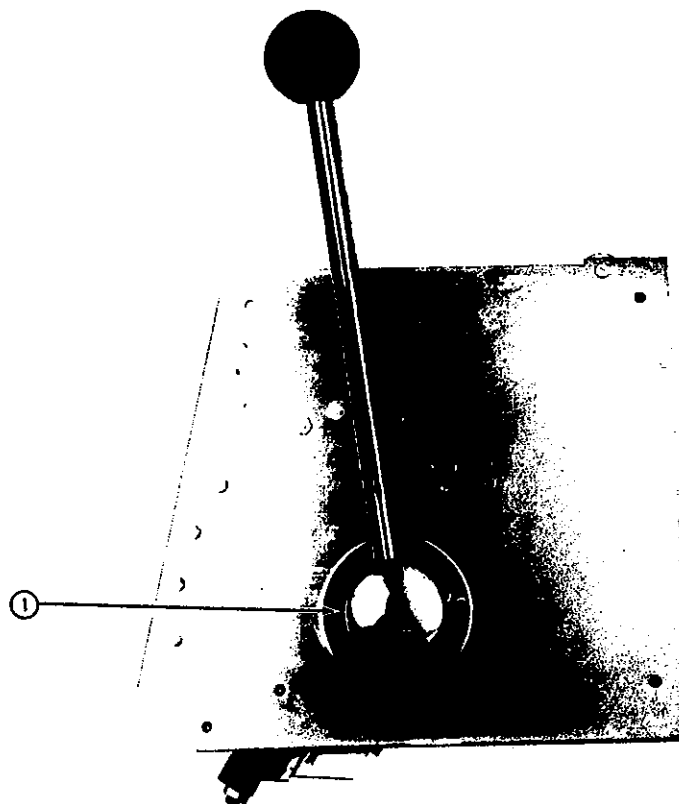
ITEM	PART NO.	DESCRIPTION	QTY.
1	33-053b	Handle Hub	1
2	33-150b	Handle Shaft	1
3	51-02-3ND	Handle Knob	1
4	35-064b	Handle Collar	1
5	91-053a	Grease Fitting	1
6	12-130a	Handle Switch Assembly	1
INCLUDES			
	31-375b	Bracket	1
	64-060a	Switch	1
	M440-10-1111	RHMS 4-40 x 5/8" LG	2
7	13-196c	Handle Plate Assembly	1
8	13-059b	Lockarm Assembly	1

9	13-133ND	Plunger Assembly INCLUDES	1
	51-064a	Collar	1
	92-06-3a	Roll Pin 3/32 x 1/2" LG	1
	16-099b	Solenoid & Plunger Assembly	1
10	12-228c	Pump Assembly INCLUDES	1
	31-01-7c	Washer	1
	31-01-8c	Washer	1
	33-055a	Shaft	1
	50-051a	Leather Washer	1
	13-056a	Guide Bracket Assembly	1
	14-053b	Mounting Bracket & Cylinder Assembly	1
	13-057a	Mounting Bracket Assembly	1
11	92-07-6a	Klipring (Pump)	1



ITEM	PART NO.	DESCRIPTION	QTY
12	92-03-5c	E-Ring	1
13	31-330a	Arm (Handle Release)	1
14	M832-4-1711	BHMS 8-32 x 1/4" LG	2
15	31-324a	Solenoid Bracket	1
16	M632-4-1711	BHMS 6-32 x 1/4" LG INCLUDES	1
	W1-6-11	Plain Washer #6	4
	W4-6-11	External Lockwasher #6	4
17	31-325a	Latch Bracket	1
18	36-01-3c	Extension Spring	1
19	55-051a	Bumper (Rubber)	1
20	92-03-1c	E-Ring	3
21	92-07-8a	Klipring	1
22	12-118ND	Plunger Block Assembly INCLUDES	1

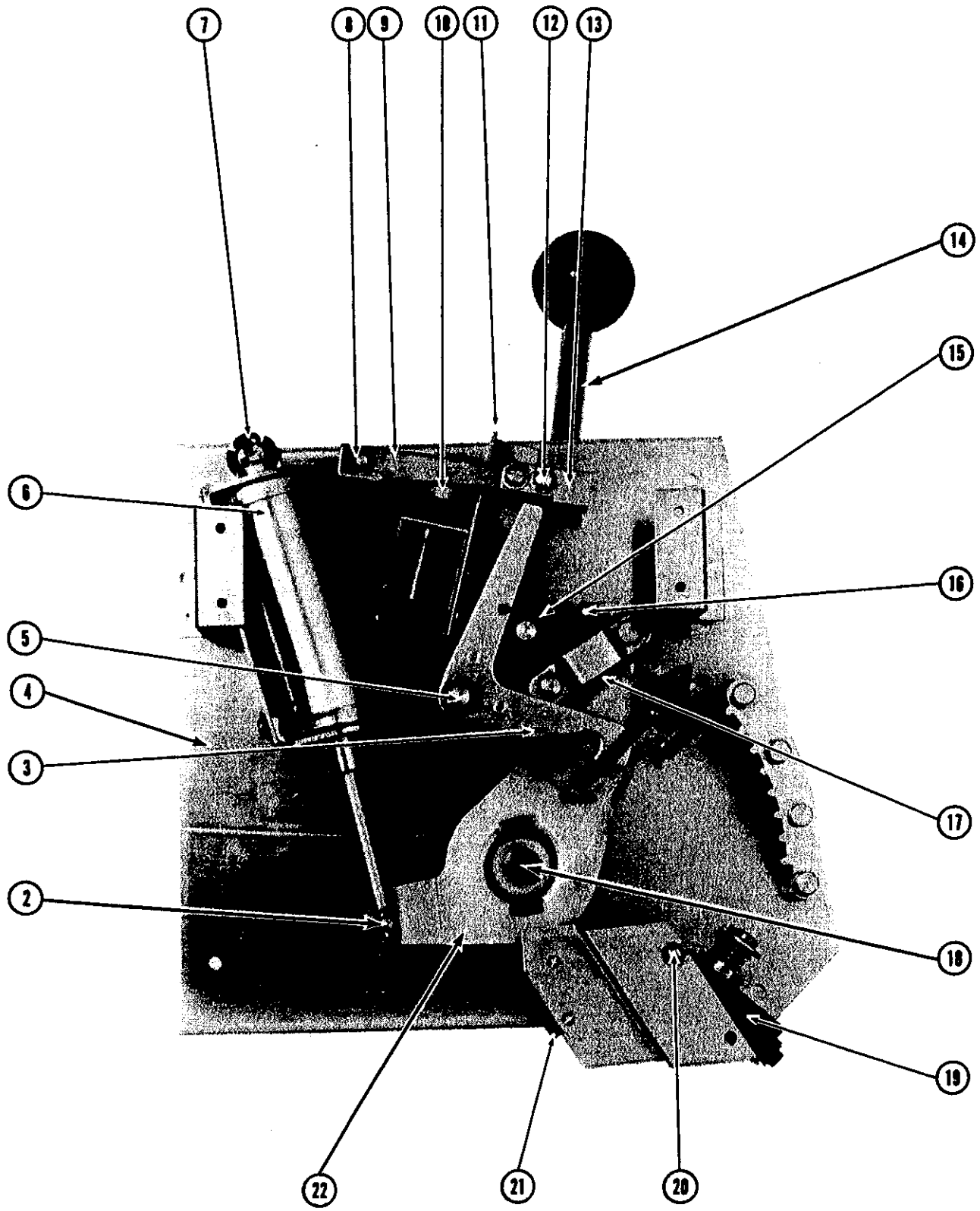
	31-01-19c	Washer	
	33-02-12c	Bushing	1
	33-125a	Plunger	1
	35-051a	Plunge Block	1
	36-02-12c	Compression Spring	1
	92-07-3a	Retainer (Klipring)	1
	N7-516-18-11	Hex Jam Nut 5/16-18 x 3/16" Thick	2
23	M1032-18-1711	BHMS 10-32 x 1-1/8" LG	1
24	M1032-4-1111	RHMS 10-32 x 1/4" LG	1
25	91-059a	Nylok Hex Socket Capscrew 5/16-18 x 1-5/8" LG	1
26	36-072a	Torsion Spring	1
27	33-134a	Spring Hub	1
28	31-627a	Adjustment Washer	1
29	92-07-4a	Klipring	2



HANDLE PLATE ASSEMBLY #3

ITEM	PART NO.	DESCRIPTION	QTY.
1	35-071b	Handle Collar	1
2	92-03-4c	E-Ring	3
3	14-168a	Lockarm Assembly	1
4	14-170c	Handle Plate Assembly	1
5	92-07-4a	Klipring	1
6	12-051c	Pump Assembly INCLUDES	1
	31-01-8c	Washer	1
	31-01-22c	Washer	1
	33-210a	Shaft	1
	36-081a	Compression Spring	1
	50-051a	Leather Washer	1
	13-056a	Guide Bracket Assembly	1
	13-057a	Mounting Bracket Assembly	1
	14-053b	Mounting Bracket & Cylinder Assembly	1
7	92-07-6a	Klipring	1
8	92-03-5c	E-Ring	1
9	31-330a	Arm (Handle Release)	1
10	13-133ND	Plunger Assembly INCLUDES	1
	51-064a	Collar	1
	92-06-3a	Roll Pin 3/32 x 1/4" LG	1
	16-099b	Solenoid & Plunger Assembly	1
11	31-324a	Solenoid Bracket	1
12	M832-4-1711	BHMS 8-32 x 1/4" LG INCLUDES	4
	W1-8-11	Plain Washer #8	4
	W4-8-11	External Lockwasher #8	4
13	31-325a	Latch Bracket	1
14	12-229c	Handle Assembly INCLUDES	1

	33-150b	Handle Shaft	1
	33-206c	Handle Hub	1
	51-02-3ND	Handle Knob	1
	91-053a	Grease Fitting	1
	91-070a	Socket HD Cap Screw	1
15	36-01-27a	Spring (Lockarm)	1
16	92-07-1a	Klipring	1
17	55-051a	Bumper (Rubber)	1
18	91-069a	Hex Socket Cap Screw	1
19	12-118ND	Plunger Block Assembly INCLUDES	1
	31-01-19c	Washer	1
	33-02-12c	Bushing	1
	33-125a	Plunger	1
	35-051a	Plunger Block	1
	36-02-12c	Compression Spring	1
	92-07-3a	Retainer (Klipring)	1
20	M1032-18-1711	BHMS 10-32 x 1-1/8" LG	1
21	12-130a	Handle Switch Assembly INCLUDES	1
	31-375b	Bracket	1
	64-060a	Switch	1
	M440-10-1111	RHMS 4-40 x 5/8" LG	2
22	12-218ND	Handle Cam Assembly INCLUDES	1
	33-02-3c	Bushing (Lockarm Stop)	1
	36-01-28a	Spring	1
	92-03-1a	E-Ring	1
	14-169b	Handle Cam Assembly (Weld) (Operational)	1
	13-216a	Pawl Assembly	1



HANDLE MECHANISM

Handle Mechanism 1

When a coin is accepted, the handle release solenoid assembly is activated. The handle release arm falls to retain the lock arm assembly. The handle cam can then move freely with the handle pull. Any upward movement is prevented by the pawl until the plunger is fully depressed. The depression of the plunger actuates a switch assembly, starting the machine. The flat spring acts to return the handle to the original starting position. The lock arm then falls into place on the handle cam assembly, preventing any further handle movement until a coin is inserted.

To lubricate the mechanism, use all-purpose grease on the ratchet assembly, the entire shaft of the pawl, and also on the inside of the lock arm (pivot). Grease the handle hub through the grease fitting, and lubricate the inside of the bushing. Do not use an excessive amount of grease.

As in most mechanical mechanisms, the handle plate requires lubrication to function correctly. All-purpose grease should be applied to the areas shown in Chp. 11. Periodic maintenance with light lubrication should be done every four to six months. Your Jennings unit has been pre-lubricated at the factory, so it will not be necessary to lubricate this unit four to six months from the date of installation.

Handle Mechanism 2

When a coin is accepted, the handle release solenoid assembly is activated. The handle release arm falls to retain the lock arm assembly. The handle cam can then move freely with the handle pull. Any upward movement is prevented by the pawl until the plunger is fully depressed. The depression of the plunger actuates a switch assembly, starting the machine. The torsion spring returns the handle cam to the original starting position. Returning speed of the handle mechanism is controlled by the pump assembly. The lock arm then falls into place on the handle cam assembly, preventing any further movement until a coin is inserted.

To lubricate the mechanism, use all-purpose grease on the ratchet, the entire surface of the studs located on the handle cam assembly, the inside of the lock arm (pivot) and also the handle hub through the grease fitting. The leather washers, in the pump assembly, must be treated with neetsfoot oil compound to retain air pressure.

Handle Mechanism 3

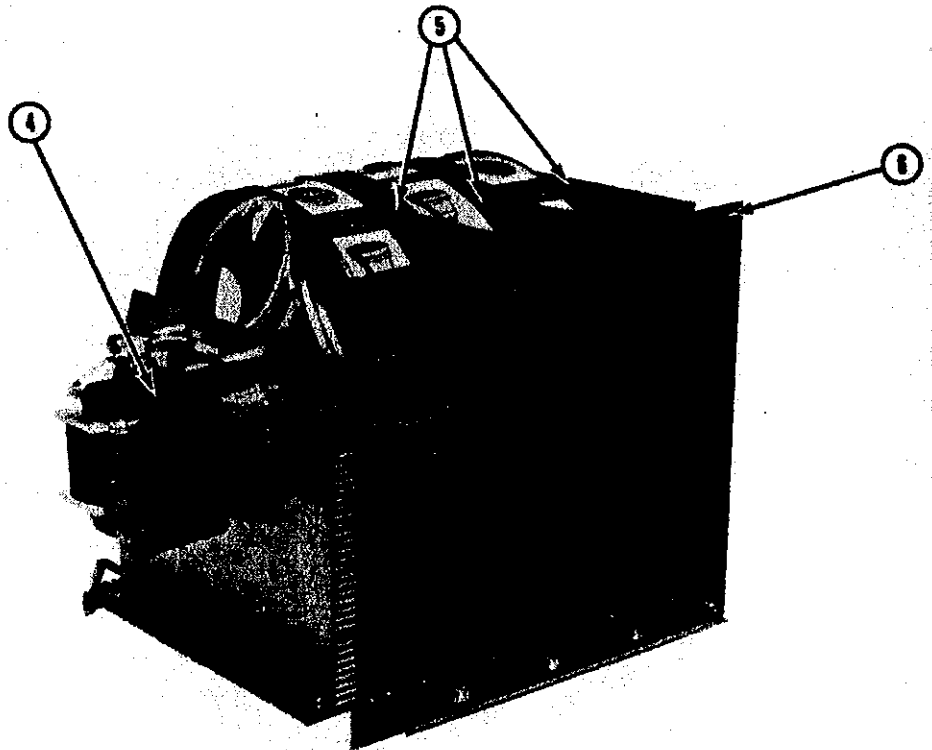
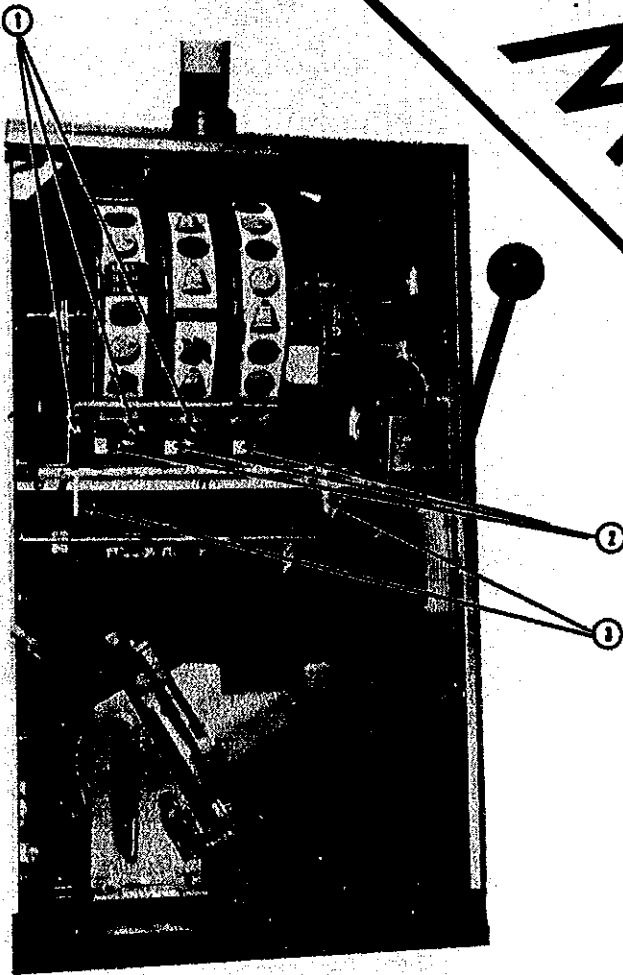
As you can see in fig. 1 through 3, though the mechanism has changed substantially, in all cases the handles are interchangeable. It is a simple design, functioning not only to initiate the play of the machine, but to simulate a mechanical slot machine action. This most recent plate assembly has a built in anti-reverse device. Therefore, after a coin is accepted, the handle must be pulled all the way through to start the machine. Handle action can not be reversed until the switch has been actuated on the handle plate assembly. When this occurs, the pawl will automatically reverse and allow the handle to return.

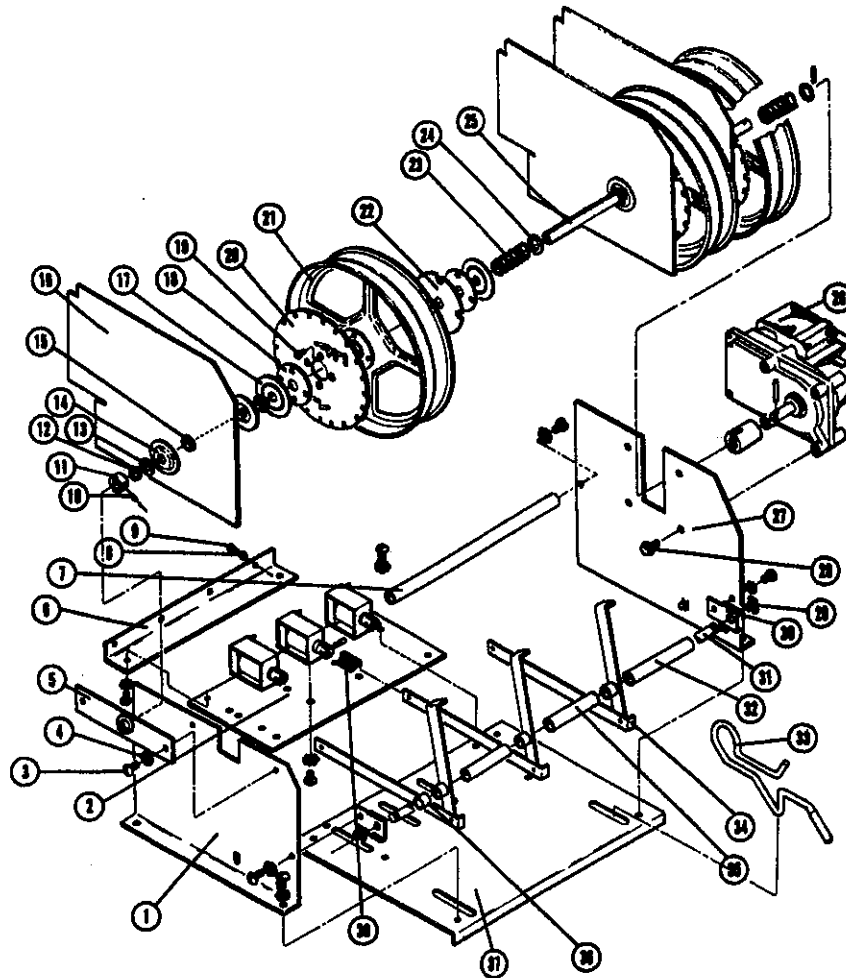
The sequence to the electronic and mechanical function of the handle begins with insertion of a coin into the coin entry block. When the coin switch is actuated, the pulse is transmitted through the logic system. The solenoid on the handle plate mechanism reacts, allowing the solenoid arm to drop. This prevents the lock arm from engaging the handle cam. Consequently, the player can complete the play, activating the switch on the lower plunger block by the handle cam plate. At this point, the handle is released and will return to its normal position through a spring which is located inside the handle pump. Holding the handle down against the switch will not permit play without coins since the logic circuitry disables this switch when reel motion begins and an accepted coin is required for next play. The return action of the handle is different in the earlier models of the handle mechanism as shown in fig. 3 , pg.6-5. For information regarding replacement parts for any of the handle mechanisms, please refer to the parts price list section, Chapter 14.

CHAPTER

7

REEL MECHANISM





REEL & SHAFT ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY.
1	31-178c	Side Frame (Left)	1
2	12-182ND	Solenoid Plate Assembly INCLUDES	1
	31-194b	Solenoid Mounting Plate	1
	16-099b	Solenoid Assembly	3
3	M832-4-1711	BHMS 8-32 x 1/4" LG	14
4	W4-8-11	External Lockwasher #8	14
5	13-157a	End Plate Assembly	1
6	31-553b	Mounting Plate	1
7	31-166c	Back Support Rod	1
8	W1-6-11	Plain Washer #6	2
9	M632-4-1711	BHMS 6-32 x 1/4" LG	2
10	S832-4-30511	Set Screw	1
11	33-120a	Collar	1
12	92-04-1a	Retainer	3
13	31-03-1c	Washer	6
14	31-195a	Cup Washer	6
15	51-04-1a	Nyliner Bearing	3
16	17-057d	Contact Plate Assembly	3
17	31-174a	Clutch Disc	6
18	51-054a	Friction Washer	6
19	M832-4-2311	FHMS 8-32 x 1/4" LG	4
20	14-147b	Rotary Disc Assembly	3

	13-091b	Rotary Disc Assembly	1
21	13-092b	Reel Assembly	3
22	51-062a	Friction Washer	3
23	36-02-1c	Compression Spring	3
24	31-01-6c	Washer	3
25	13-134ND	Shaft & Pin Assembly INCLUDES	1
	33-078b	Reel Shaft	1
	92-06-1a	Roll Pin 1/8 D x 3/4" LG	1
26	13-173ND	Motor Assembly INCLUDES	
	33-141a	Coupling	1
	62-022b	Motor	1
	92-06-1a	Roll Pin	1
27	31-179c	Side Frame (Right)	1
28	M1032-6-5651	HWHMS 10-32 x 3/8" LG	4
29	92-07-2a	Klipring	2
30	31-169a	Shaft Mounting Plate	2
31	33-165b	Support Shaft	1
32	33-02-10c	Bushing	1
33	36-079a	Mechanism Latch	2
34	13-180b	Reel Stop Assembly	3
35	33-02-11c	Bushing	2
36	33-02-32c	Bushing	1
37	31-177c	Mechanism Base	1
38	36-02-7c	Compression Spring	3

REEL MECHANISM

A motor driven mechanism is utilized in this machine. Each of the three reel assemblies are independently driven through a friction clutch by the main motor shaft.

Reels are spun by the proper sequence of the following events when the handle switch has been actuated by the handle pull:

1. The solenoids, fig. 2 , pg.7-2, are energized, thereby retracting the reel stop levers, fig. 34 , pg. 7-2. from the stop notches around the periphery of the stop wheel.
2. The reel motor, fig. 26 , pg.7-2 , starts and spins the reels. This motor remains on until all reels

are stopped. It will turn off shortly after the third reel is stopped for positive indexing. Reels are stopped at irregular intervals, governed by the random-variator electronic timer built into the logic system.

As controlled by the time variator in the logic system, the spring-loaded solenoids are de-energized in sequence from left to right. De-energizing the solenoids allows them to release, forcing the solenoid lever into contact with the stop wheel where they engage into slots around the periphery. This stops the spin of each reel at that position.

When the last reel has been stopped, the logic system feeds an electrical pulse through the reel wipers which are connected to each reel-stop wheel, and through the printed circuit wiper board, fig. 16 , pg.7-2 , on which the wipers ride. It then runs through the matrix board, fig. 6 , pg.7-2, which has been wired to match the reels strips, and then to the logic board which reads the reel symbols showing through the reel glass. Either a pay condition is signaled to the hopper, or the machine circuitry is reset to the start; and the machine play can be repeated.

Caution: With power off.

1. The entire reel mechanism assembly can be removed from the machine by lifting the two locking levers, fig. 3 , pg.7-1, upward from their locking holes in the mounting shelf. After the mechanism has been pulled out about 6", the multiple-pin connector of the cable harness, fig. 10 , pg.1-1 , must be disconnected from the matrix board. The mechanism can then be completely withdrawn from the machine. The female multiple pin connector on the cable harness is keyed with the male connector tabs of the matrix board for proper alignment. When replacing the mechanism, be

certain it is completely pushed back into the machine, so that spring-loaded locking levers completely snap into the openings in the mounting shelf.

2. The payout percentage of the specific machine is established by the symbol-frequency on the particular reel strips used. The reel matrix board is wired at the factory with jumpers which match locations with the symbols on the reels.
 - a. Percentage can be changed by using different reel strips and by rewiring the matrix board. This board is marked to indicate what jumper connections should be made to match the reel strip used.
 - b. The matrix board has been wired at the factory. If it is rewired in the field, extreme caution should be used in removing and replacing the jumpers. Traces on the matrix board must not be broken by bending or dropping the board. Cold solders (loose connections) must be avoided, and soldering flux must not cross circuits. It is recommended that a matrix board be ordered from the factory when such extensive change is necessary.
3. In replacing the reel strips, be certain strip is started at the correct first symbol position.

Mark the position of the existing strip before removing it. Strip alignment should be matched evenly with the payout lines on the reel glass windows. Reel tin edges should be firmly crimped onto strip. Set only one crimp in each reel until you are sure that alignment is accurate. To assure permanent positioning and no slippage of strips around the outside of the reel tin, three crimps are recommended (one crimp in each lip opposite each other, approximately 120 degrees apart).

4. To troubleshoot when payout awards are not correct and in accord with the symbols that appear, use these procedures:
 - a. If a reel doesn't spin when the handle is pulled and the motor starts;
 - A reel may be rubbing against the light panel or shadow box. If so, loosen side glass retainers and reposition the panel to clear the reel and retighten it, or trim interfering materials off.
 - Tension of wiper against wiper board may be too tight.
 - Reel stop solenoid defective or stuck, and not releasing reel stop lever. Either replace solenoid or remove obstruction.
 - Solenoid not pulling stop lever sufficiently to clear the

reel stops. Adjust position of the solenoid in its slotted mounting holes. The solenoid plunger must align with the solenoid coil to move freely. See illustration, fig. 2, pg. 7-2.

— Binding of joints of solenoid levers. Remove any dirt and lubricate. (See lube chart.)

— Clutch slipping. Spread and clean out any foreign material such as grease, etc. **NO LUBRICATION IS REQUIRED.** Clutch drive disc lugs must be seated in holes of clutch face (plastic) discs.

- b. The reel should spin for approximately 3-6 seconds, as set at the factory prior to shipment.
- c. If reels do not stop immediately, but continually ride over certain symbols, check that solenoids are operating a full stroke (adjust mounting position if necessary); or check that stop levers are bent to a position that will not allow them to fully enter the stop notches or notches rounded off at corners.
- d. If payout awards are not correct and in accord with the symbols that appear, check the following:

— Are strips firmly crimped to reel tin? They may be slipping if loose.

— Is the multi-pin connection of the cable to matrix firmly in position and completely mounted onto matrix board? Check for fractured cable wires or cold soldered joints at connectors.

— Clean the wiper board. See separate Lubrication Instructions, Chapter 11.

— Check to assure wipers are in continuous contact with the wiper boards. If not, adjust the contact by bending the wipers for more tension, (Contact-free position is 3/8" maximum from the mounting surface). Some slight sound is normal as wiper rides on wiper boards. This noise will be inaudible when the door is closed.

— Check matrix board for broken leads, cold-soldering or short circuiting by solder flux or foreign material on the board.

— Very infrequently the logic system may be the cause of incorrect or mystery payouts, or no payout at all. Check the logic board last, after all other checks above have completed.

SYSTEMS LOGIC

AND

A	B	C
0	0	0
0	1	0
1	0	0
1	1	1



4 PLACE TRUTH TABLES

OR

A	B	C
0	0	0
0	1	1
1	0	1
1	1	1



NAND

A	B	C
0	0	1
1	0	1
0	1	1
1	1	0



NOR

A	B	C
0	0	1
0	1	0
1	0	0
1	1	0



LOGIC SYSTEM

The control or logic system of this machine is composed of integrated circuits (IC's) of two family groups. These two groups are Transistor Transistor Logic (TTL), and Complimentary Metal Oxide Semiconductors (CMOS). These IC's were arranged to provide all control functions of the machine and have been placed on one board. The one-board concept provides easy replacement of all machine logic.

The interface of TTL and CMOS logic was employed to provide a high immunity to static electricity, which could affect proper logic functions, and to maintain a system memory during power-fail periods.

Since other electro-mechanical devices such as solenoids, motors and meters are necessary, the logic is interfaced with Darlington drive transistors. These provide the necessary 24V DC and 5V DC as required to solenoids, meters and motors.

The logic control board is also designed to have a random generator system which will control the reel spin of the machine during the play cycle. The overall run time of each reel assembly is varied electronically with each play of the machine to insure proper symbol mixing action.

The logic board is also equipped with a full memory capability. If a power outage or reduced power condition occurs, the machine will shut down and will remember its exact status; so when proper power is again available, it will continue its cycle from that point.

This memory is maintained by a 4.8 volt nickel-cadmium battery held in a clip on the board. It has a shelf life of approximately five years under normal operating conditions, with some reduction for extended off periods. A trickle charge circuit is provided to maintain a constant charge and to prevent regular replacement of batteries. **BE SURE THAT ONLY A NICAD BATTERY IS USED. AN ALKALINE BATTERY MAY EXPLODE WHEN CHARGED.**

Several machine safety functions are also included in the logic control boards. If the coins-in switch becomes inoperative due to malfunction or tampering, the machine will immediately go into a lock-up condition, so further pay or play of the machine is impossible. It can be reset only by depressing the reset button at the front right of the logic board, inside the machine.

Standard factory logic assemblies provide for Casino operation in which the external key switch is used to reset ONLY the special win (bonus) latch. In normal play the special win (bonus) latch is set to call attendant for paying awards exceeding those automatically paid by the hopper. It does not indicate mischief or malfunction, and it does NOT turn off the door display lights. This condition is also used to indicate an empty hopper. Therefore, casino surveillance is alerted when the door display lights DO turn off, allowing them to check for cheating attempts, power fail or malfunction. They are equipped to unlock the door for use of the internal reset.

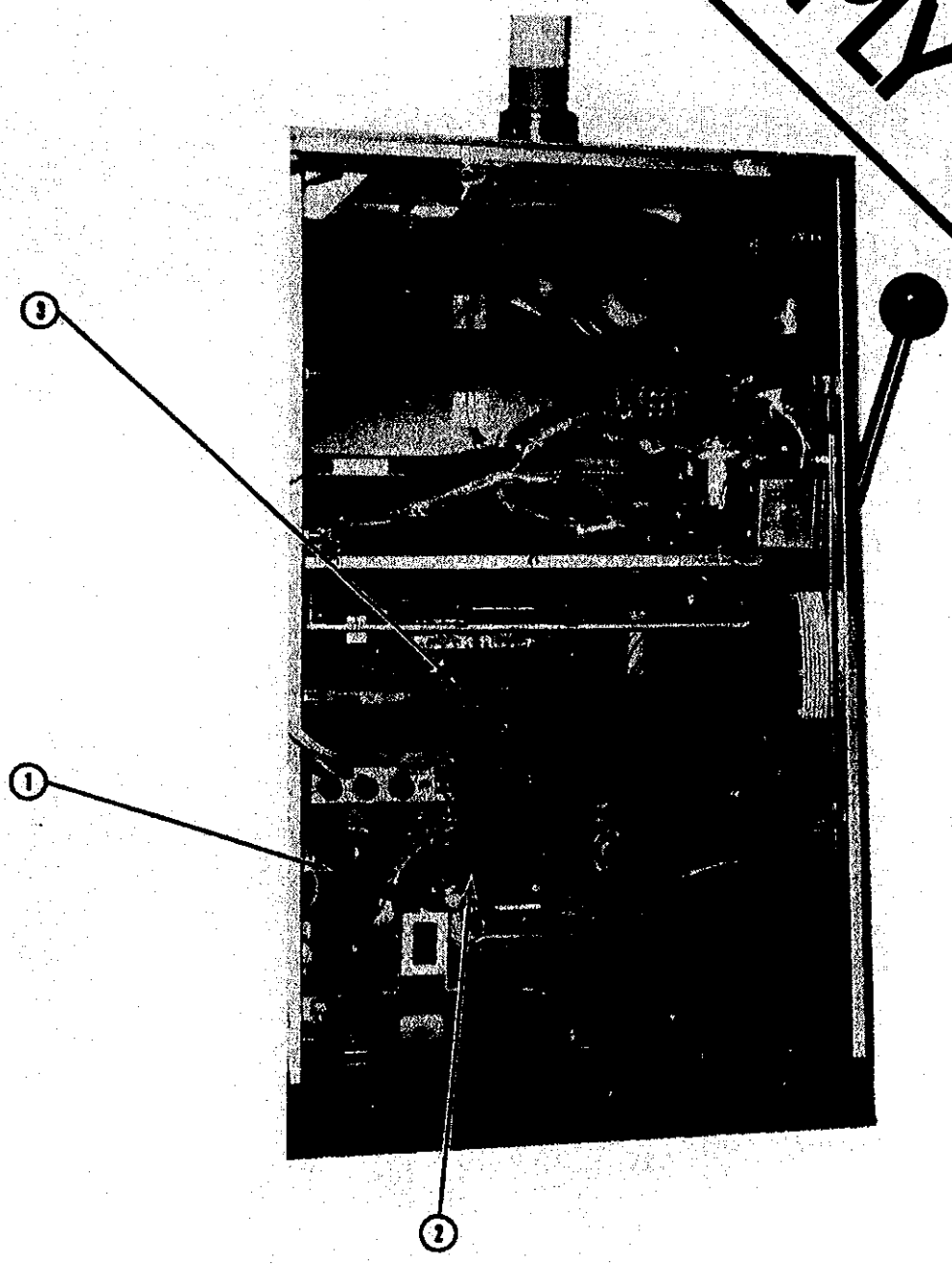
For route operation where door keys are NOT left at the location, all resets are handled by the key switch simply by the addition of one 1N914 diode placed between the pad connected to PIN 1 of IC-82 and the pad connected to Pin 8 of IC-81. (See logic schematic sheet.) Thus, service calls to route locations are reduced, and down time is minimized.

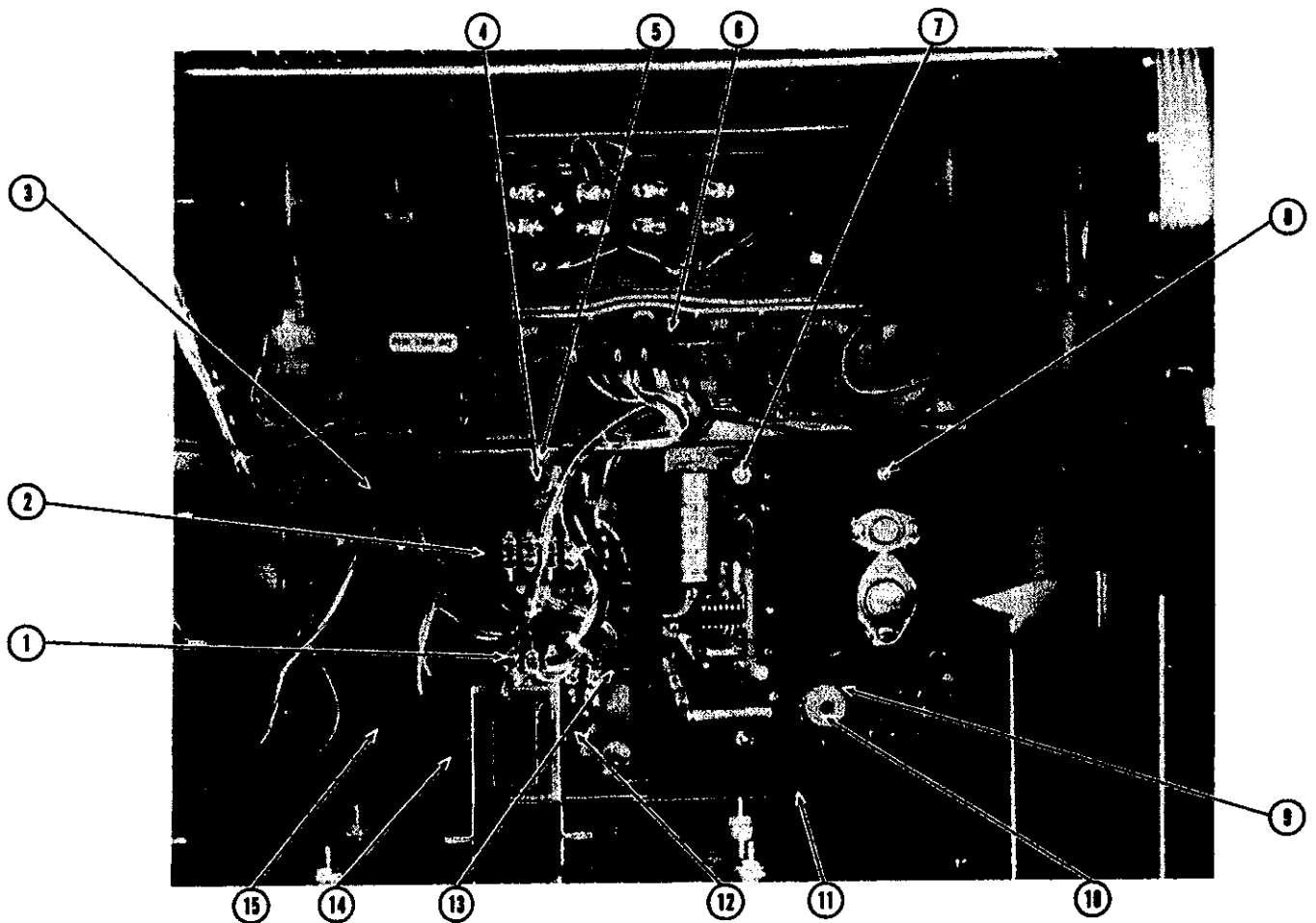
Please specify either (a) Casino operation or (b) Route operation when ordering logic assemblies for spares or new equipment. If neither is specified, the logic board will be set for Casino operation.

CHAPTER

9

POWER SUPPLY





POWER SUPPLY ASSEMBLY

ITEM	PART NO.	DESCRIPTION
1	63-02-10ND	Terminal Block (5-140)
	57-061A	Insulator Number Strip
2	63-02-9ND	Terminal Block (4-140)
	57-062A	Insulator Number Strip
3	63-059ND	Fuse Holder
	63-051A	Fuse (5 Amp)
4	16-161ND	Indicator Lamp Assembly
	63-01-1a	Neon Panel Light
	92-059A	Tinnerman Fastener
5	31-621B	Fuse Bracket
6	16-10-13B	Hopper and Power Cable Assembly

7	33-09-7A	Male & Female Standoff
8	12-122ND	Power Board Assembly
	14-162ND	Power Supply Board Assembly
	17-109ND	Heat Sink Assembly (24V)
	17-110ND	Heat Sink Assembly (5V)
9	61-079A	Coil
10	51-074A	Phenolic Washer
11	31-380D	Power Pack Base
12	16-157N	Line Filter Assembly
13	M632-6-1111	RHMS 6-32 x 3/8 Lg.
14	M832-8-1711	BHMS 8-32 x 1/2 Lg.
15	61-0810	Transformer

POWER SUPPLY

The machine power is supplied through an internal transformer which normally accepts 115V, 60 HZ input. If only 230V power is available, it must be noted when the order is placed, so a proper transformer can be supplied. Also specify the power line (or main power) frequency required (50 or 60 HZ).

The following explains the power usage for machine operation:

1. 115V AC is supplied to the reel motor, hopper motor, and fluorescent display lamps.
2. 24V DC to the display lights, reel solenoids, and the handle release solenoid.
3. 5V regulated DC to the main logic and credit logic systems.
4. Unregulated 10-15V DC for power-failure protection.

Power is regulated to prevent malfunctions resulting from power drops or surges.

The transformer, fig. 1 , pg.9-1, connects to the rectifier section of the main power supply, fig. 2 , pg.9-1 . The main power supply incorporates three fuses for circuit protection (115V AC — 24V DC — 5V DC).

The 5 volt regulator is current limited, while the 24 volt regulator has short circuit protection. When the 5 volt supply is shorted, the current is limited to approximately 4 amperes.

When a short occurs in the 24 volt supply, it is automatically turned off. The supply will remain off until the short is corrected. Leave the machine off for 10 minutes after removing the short.

For ease in distributing power from the main power supply to the machine components, a connector board is incorporated (often called the "Mother board"), fig. 3 , pg.9-1 . The connector board includes connections to the main logic board, the reel mechanism, the hopper and power panel, the front door illumination cable harness, and the handle cable harness. The connector board incorporates relays for front door illumination and solid state relays to the reel motor and hopper motor.

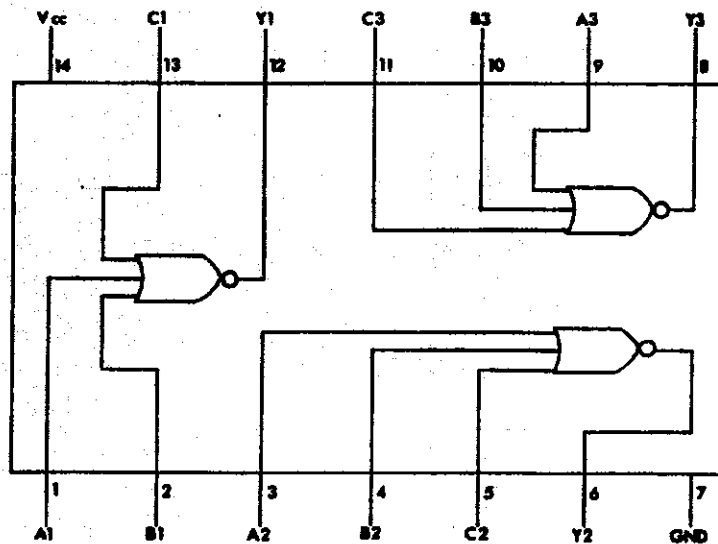
SCHEMATICS

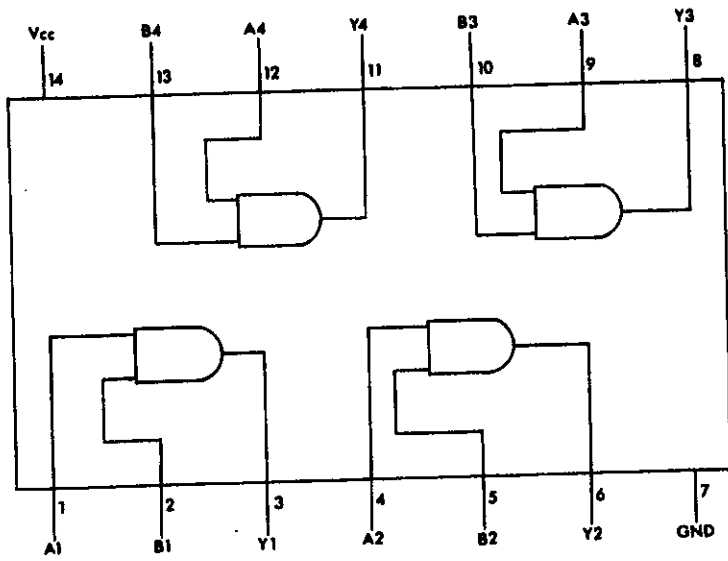
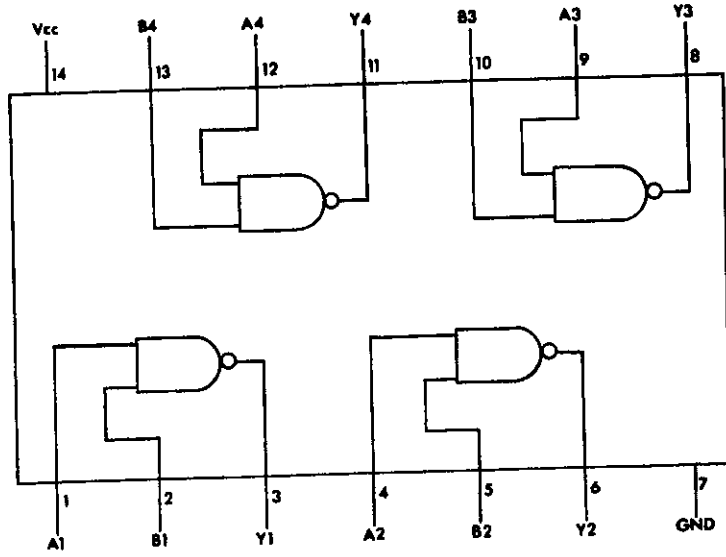
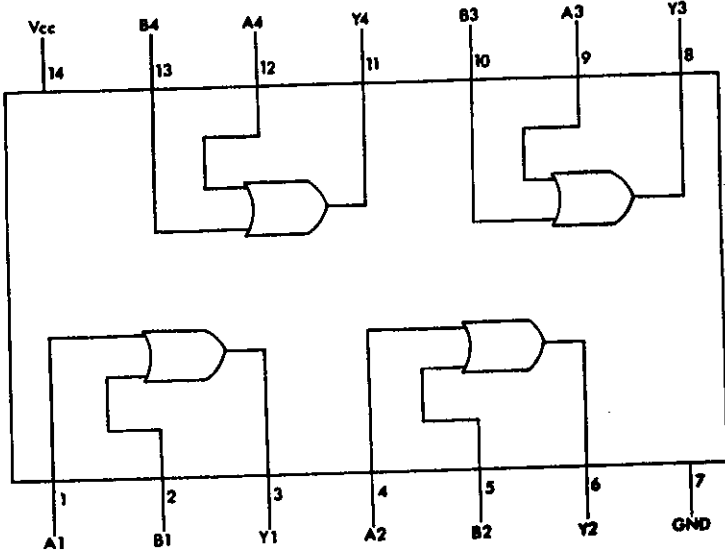
THREE MAIN TYPES OF INTEGRATED CIRCUIT CHIPS

CMOS — Complementary Metal Oxide Silicon has letter C in number i.e. 74C00

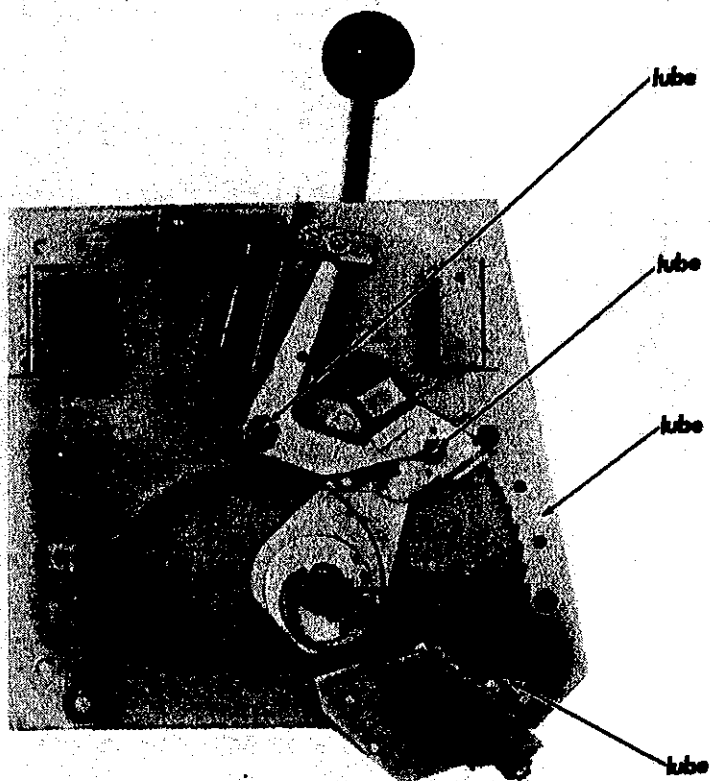
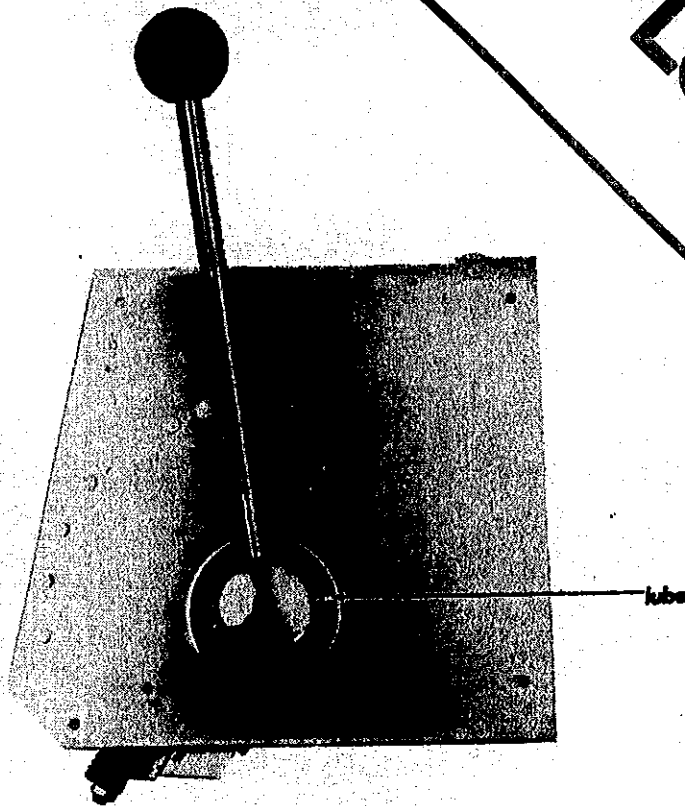
TTL — Transistor Transistor Logic no letter C in number i.e. 7400

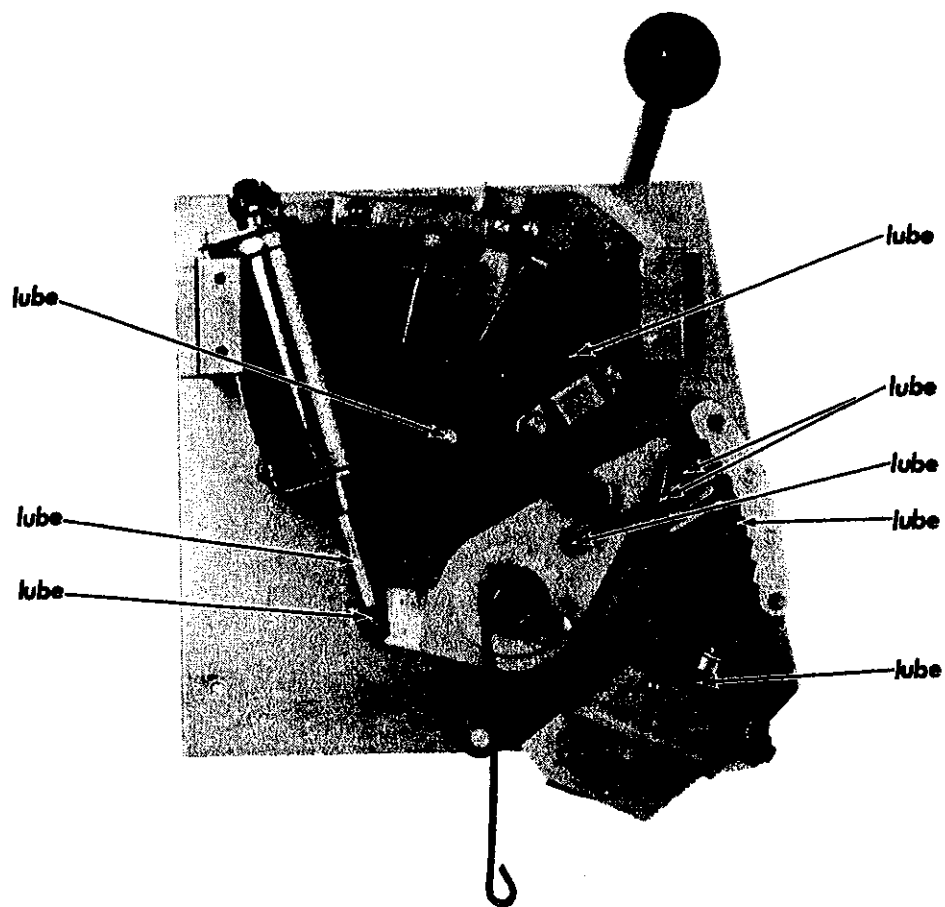
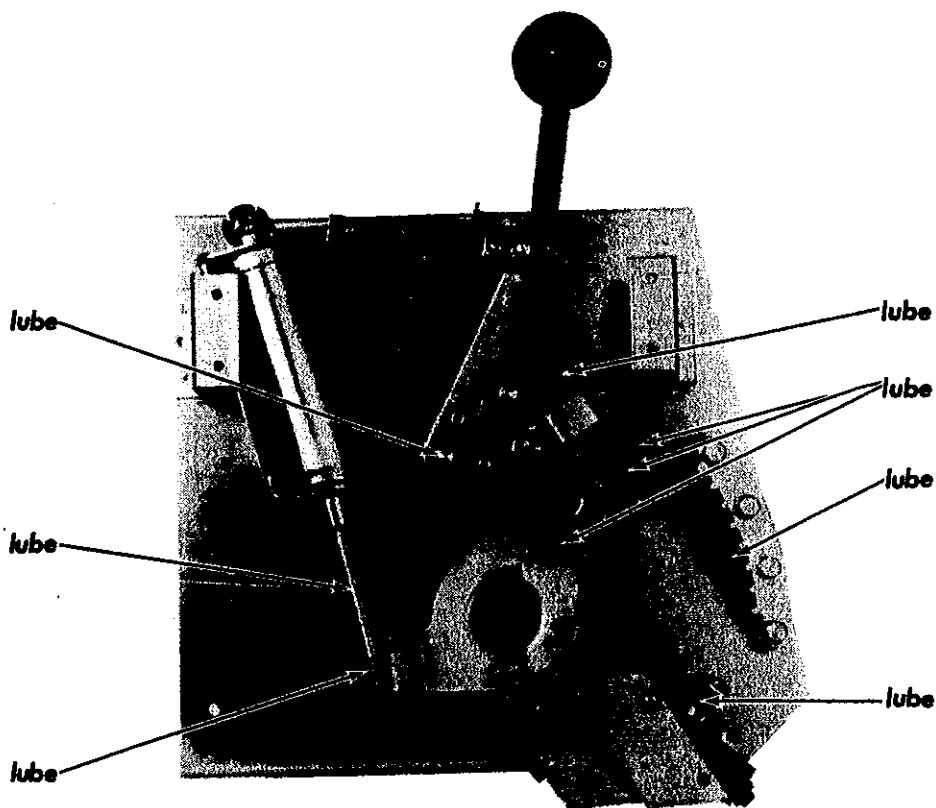
L — Low Power Transistor Transistor Logic has letter L in number i.e. 74L04





LUBRICATION





LUBRICATION

The Jennings 400 Series machine has been designed so that very little lubrication is required.

Reel Assembly — The mechanism assembly requires no lubrication since oilite bearings are used throughout. The wiper boards occasionally collect a dust film which might cause faulty symbol signaling to the reel matrix board and the logic system. After each month of operation, the wiper boards should be thinly coated with a covering of lubricant P/N 25-052 (or equivalent), then wiped completely dry, taking care not to change the wiper contact pressure. A small amount of 3-in-1 oil should be applied to the pivot points of the solenoid levers. Also, **DO NOT** apply 3-in-1 oil to the ends of the reel stop levers where they engage the stops around the edge of the reel stop wheel. Oil may be absorbed by the reinforcing cloth of the wheel causing deterioration.

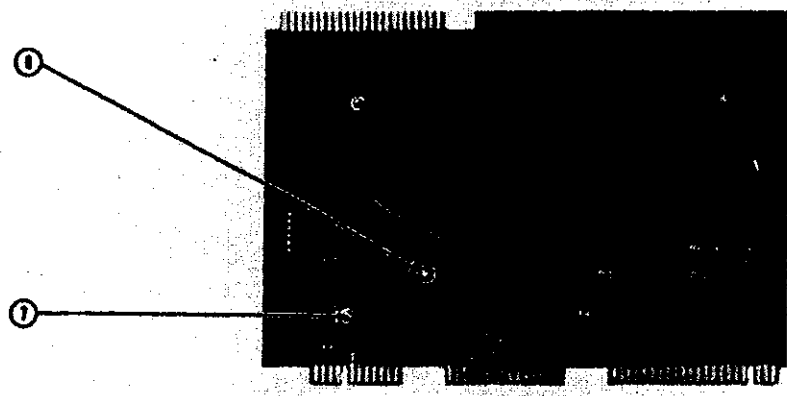
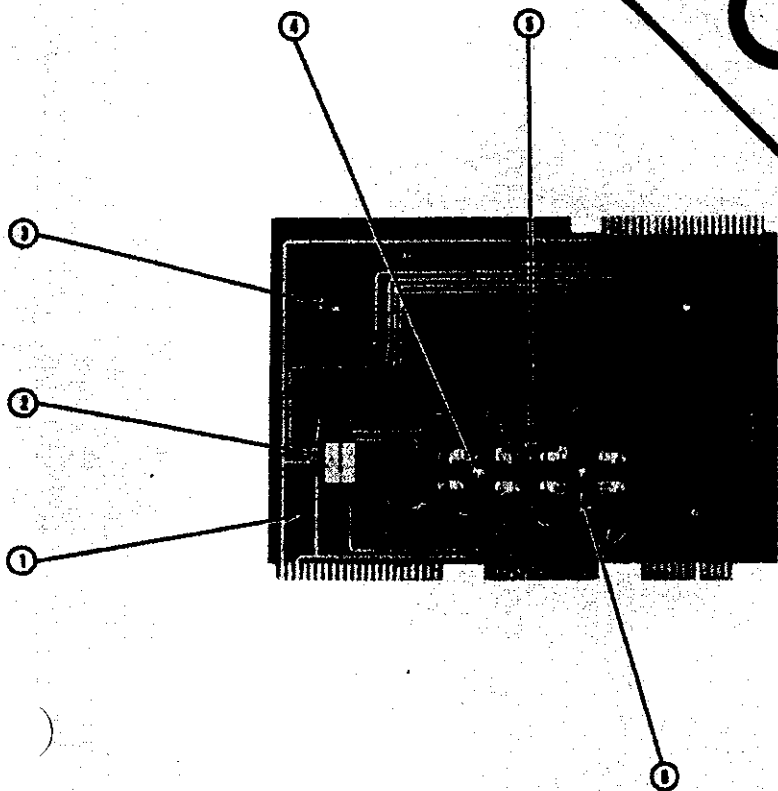
Motors — All motors are lubricated at the time of manufacture and are sealed. They require no additional lubrication.

Cabinets — A small amount of a moly-based lubricant should be applied to all metal-to-metal joints of the locking bar assembly.

Handle Assembly — The handle assembly should be sparingly lubricated on an annual basis with a moly-based lubricant through the outside zirk fitting. A small amount of the lubricant should be applied to the handle ratchet assembly and the handle latch lever at the same time. See pg.11-1, 11-2 .

Coin Hopper — No lubrication is required for the first year. Lubricate sparingly with one drop in each ball bearing and one drop on the rocker arm pivots. Caution: Any lubrication in the coin area can get on coins and result in faulty coin handling.

MISCELLANEOUS



CONNECTOR BOARD ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY.
1	14-174c	Connector Board Assembly INCLUDES	1
	63-070a	Socket	1
	78-108d	Connector Board	1
	96-06-5a	Connector (18 PT)	1
	96-06-6a	Connector (22 PT)	1
2	61-064a	Relay	1

3	M832-12-1111	RHMS 8-32 x 3/4" LG	4
4	M632-18-1111	RHMS 6-32 x 1-1/8" LG INCLUDES	2
	W1-6-11	Plain Washer #6	2
	W2-6-11	Split Lockwasher #6	2
5	13-158a	Mounting Assembly	1
6	61-062a	Relay, Solid State	2
7	33-129a	Tapped Bushing	4
8	92-05-1a	Retaining Ring	2

MISCELLANEOUS

SEQUENCE OF OPERATION 5-Line Model

In the static condition with cord plugged in, internal power switch on and machine lock-outs cleared, the following lights will be on:

- a. Fluorescent lamp above reels
 - b. Symbol (left hand) section of award card
 - c. "Insert Coin" light below reels
 - d. Fluorescent lamp behind lower display glass
 - e. "You Win" L.E.D. meter on lower left side of reel glass, as well as the "You Win" lamp if previous play was a winner.
1. Insert Coin(s)
- If the coin is acceptable it depresses the coin switch actuating arm and the coin switch is momentarily energized. This momentary contact performs the following:
- a. Resets the "You Win" lamp (if there was a coin on the previous play indicated on the L.E.D.'s).
 - b. Lights the "Coin Accepted" display below the reels.
 - c. Energizes the handle release solenoid which allows handle release arm to drop into contact with handle lock arm, holding it in the upward position. In its upward position it frees the handle cam to rotate downward, and the handle can then be pulled to actuate the reel spin.
 - d. Advances the "Coin-In" meter one digit.
 - e. The logic board is signaled and counts the number of coins inserted. When (and if) the fifth coin is inserted, the logic board de-energizes a solenoid behind the coin acceptor and turns off the "Insert Coin" light. If de-energized, this solenoid advances a pin into the coin path within the acceptor. This directs additional coins through the return coin path of the acceptor, and any excess coin(s) are returned to the player (i.e. to the money bowl).
 - f. The coin-switch also opens the logic board circuit that will allow the handle switch to initiate a reel spin (see below).
 - g. If the coin switch lever is held down for more than 0.3 seconds the logic board shuts off all electronic machine functions. (The Handle will not actuate a reel spin, and the payout circuits are closed.) All display lights (except fluorescents) will turn off; and the "Call

Attendant" lighted display below the reels will turn on.

- (1) To reset, press reset push button on logic board and insert one coin.
- (2) Previously accepted coins are saved after reset, and machine returns to its original state.
2. The coin then travels through the diverter assembly where it is directed either to the hopper or to the "drop chute" in the mounting stand. If the preset load capacity of the hopper has been reached, the weight of the hopper load holds the hopper load switch in an open circuit position. This de-energizes the solenoid in the diverter assembly to remove an arm from the coin path, directing the coin to the drop chute. This coin then actuates the drop switch advancing the drop meter by one count.
3. When a coin is accepted, the handle release solenoid is actuated, releasing the latch arm to fall onto the lock arm, allowing the handle arm to rotate with a handle pull. As handle is pulled, handle cam rotates until it engages the plunger block assembly, actuating the handle switch. Handle pawl acts as a reversible non-return ratchet. Automatic handle return is damped by the pump assembly containing the handle return spring.
4. Actuating the Handle Switch, as above, causes the following sequences through the electronic system of the Logic Board.
 - a. The three solenoids in the reel mechanism are energized, pulling the reel stop arms from engagement with the stop discs connected to each reel. This allows the reels to be free.
 - b. Following a momentary time delay, the reel motor is actuated, and the reels are driven through clutches on the reel shaft.
 - c. Timed by a random generator (electronic "clock") in the logic board, the spring-loaded solenoids are de-energized in sequence (left to right), allowing the reel stop levers to fall into contact with the reel stop discs. The levers engage with the notches around the periphery of the stop discs and stop the rotation of each reel.
 - d. When the last reel has been stopped, the reel motor is turned off after a momentary time delay.
5. The matrix assembly is used to determine the characters on the possible paylines. Which of the 20, 22 or 25 reel strip positions

lies on a payline is determined by the position of the six wipers (on the reel stop discs) on the contact P.C. boards. Their positions are translated into pay symbols on the matrix board, loaded for its individual reel strips. The translation is done with wire jumpers, relating the positions to pay symbols.

The logic system scans the five pay lines in sequence. If a winning combination is sensed on any of the paylines, an electronic counter within the logic board is set at the number of coins to be awarded, and the hopper motor is turned on. Any pay is completed before scanning the next line.

6. The hopper motor drives the pin wheel in the hopper, picking up coins and forcing them beneath the hopper switch roller arm and actuating the hopper switch. The hopper switch pulses counts down the electronic coin counter on the logic board. Each pulse of the hopper switch also causes the coin-out meter and "You Win" L.E.D. meter to advance by one count. When the electronic counter reaches zero, the hopper motor is turned off.
 - a. If the hopper runs dry, and the roller arm is not actuated by a coin passing below it, the hopper motor will run for 15 seconds. It

then shuts down the entire machine and causes the "Call Attendant" display to light up. After the hopper is refilled by Casino personnel and the internal reset button on the logic board is actuated, the hopper motor will automatically turn on again until the total correct pay is made. (Each time the machine power is turned off and back on one extra count will be added to the "You Win" L.E.D. meter.)

- b. If the roller arm is held up (allowing coins to dispense) for more than 0.3 seconds, the machine will shut down and the "Call Attendant" display will light. The machine can only be re-activated for play by opening the door, and depressing the internal reset switch on the logic board. (After resetting, any pay will be completed.)
 - (1) If the payline scan of the fifth line indicated "Super Jackpot" symbols on each reel, the hopper is turned off after paying 200 coins; and the logic board signals the "Call Attendant" light to come on and interrupts all replay circuits. The machine stays

fully lit but inoperative, until the "Super Jackpot" is handpaid by Casino personnel and the key reset switch on the outside of the machine is actuated. When a "Bonus Jackpot" is determined, the logic system also causes the internal "jackpot-paid meter" to advance one digit.

- (2) If the logic system senses a suitable award, it also actuates the bell and candle (option) which will stay on until the last coin is paid or

the reset key is activated. When the electronic counter is counted down by the hopper switch to zero, the bell and candle are shut off. In the case of a handpaid "Bonus Jackpot", the bell and candle turn off with the actuation of the keyed external reset switch. (Bell keeps ringing.)

7. If no awards are scanned, or after all pays are made and the hopper motor is shut off by the logic system; the entire system is cleared and the "Insert Coin" display is lit.

TROUBLESHOOTING

I. Coin Jams

- a. Shingled coins
- b. Coins behind diverter plate
- c. Canadian coins

II. Call Attendant Light

- a. Coins jammed at switch
- b. Coins under hopper pivot roller assembly
- c. Coins jammed at bottom of hopper
- d. Dry hopper

*Reset button must be pushed after clearing all the above calls.

III. Handle Won't Pull

- a. Coins not credited
- b. Mechanical problem on handle assembly
- c. Handle release solenoid not energized
(Possible logic board problem)

IV. Won't Accept Coins

- a. Coin mech positioned improperly
- b. Coin return plunger stuck
- c. C.R.E.M. de-energized or jammed
- d. Swap coin mechs

V. Reel Problems

- a. Reel bounce
 1. Solenoid stop lever adjustment
 2. Stop lever needs lubrication
- b. Reels won't spin
 1. Broken cable or bad connector
 2. Logic board
 3. Reel motor relay bad
 4. Reel motor bad
 5. One reel rubbing on light panel
- c. Reels spin constantly
 1. Logic board
 2. Reel motor relay

VI. Payout Problems

- a. No pay at all**
 - 1. Reel cable or connector
 - 2. Logic board problem
 - 3. Hopper relay
 - 4. Insert "test" reel mech assembly
- b. Overpay**
 - 1. Hopper payout switch loose
(check coin total against LED total by hand count)
 - 2. Logic board
 - 3. Hopper relay
- c. Underpay**
 - 1. Logic board
 - 2. Insert "test" reel mech assembly

VII. No Power

- a. Check line voltage**
- b. Check fuses**
- c. Bad power supply**
- d. Are connectors firmly mated?**

BASIC MACHINE FUNCTION CHART

TITLE	LOCATION	BASIC FUNCTION
Coin Mech	Door Assembly Upper left section of door assembly	Accept proper denomination of the machine and reject incorrect denomination coins.
Coin Reject Plunger	Above coin mech	To activate the coin reject lever of the coin acceptor to return coin.
Coin Return Magnet	Directly behind coin mech	To allow maximum number of coins to be played in machine and direct the over coins to coin return.
Coin Switch	Directly below coin mech	To be activated by inserted coins and release handle release coil, give in- meter one (1) count, de-energize coin magnet with maximum number of coins, activate coin acceptor light and activate logic circuitry for machine play.
Diverter Coil	Center of coin entry assembly	Divert coins to hopper or drop. Energized by hopper level.
Drop Switch	Lower left of coin entry assembly	Give drop meter one count.
Light Starters	Right hand corner of service panel	Start upper and lower fluorescent bulbs.
Light Panel	Upper door assembly	Light award card and paylines.

REEL MECH AREA

In-Meter	Right hand corner of machine	Register number of coins played in machine.
Out-Meter	Right hand corner of machine - left meter	Register number of coins payed out of machine.
Drop Meter	Above reel assembly	Register number of coins diverted to drop bucket.
Jackpot Meter	Above reel assembly	Register hand-paid jackpots.
Bell	Back right hand corner of machine	Ring on jackpots (may vary).
Reset Key Switch	Right side of upper section of machine	Reset jackpot bell after hand paid jackpot.
Matrix Board	Back of reel assembly	Relay symbols from reels to logic board.
Reel Mech Motor	Side of reel assembly	Drive the reels when activated.
Reel Stop Levers	Front of reel mech	Stop and start the reel wheels.
Reel Solenoids	Bottom-back of reel mech	Energize and activate stop levers.

TITLE	LOCATION	BASIC FUNCTION
LOWER HOPPER AREA		
Power Supply	Bottom back of machine	Break 110 VAC into correct voltages (+5, +12, +24 VDC) and distribute to machine.
Mother Board	Above power supply	Bring information into logic board and distribute it from logic board. Translate all machine information.
Logic Board	Plugs into center of mother board	Sense decide and direct all information about the machine.
Hopper	Slides in lower center section of machine	Distribute payout coins (coins won).
Hopper Switch	Left-top of hopper	Activate actual payout count.
Hopper Plug	Back of hopper	Provide all connections to drive motor, coin counting switch, and diverter switch to divert additional coins to a separate location besides the hopper.
Rocker Arm	Top of hopper	Activate coin-out count switch and used as a protective mischief lock.
HANDLE MECH		
Handle Solenoid	Top of handle plate behind lock arm	To release and allow the handle to be pulled.
Plunger	Bottom of handle assembly, end of ratchet action	Activate handle switch starting the machine.
Handle Switch	Below plunger	Start the machine cycle
Torsion Spring	Center of handle plate	Return handle cam to original starting position.
Pump Assembly	Back of handle plate	Control return speed of handle mech.
Lock Arm		Prevents handle movement until coin(s) are inserted.
Solenoid Arm	Top of handle solenoid	To prevent the lockarm from engaging the handle cam.
CABLES		
Reel Cable	Connected to mother board from matrix board	Relay reel symbols from matrix board to mother board.
Hopper Cable	Center connector of mother board	Relay information to hopper mech and distribute voltages from power supply to mother board.
Door Cable	Left connector of mother board	Carries information to light panel and service panel.
Handle Cable	Right connector of mother board	Relay logic information to meters, handle release solenoid, handle play switch and jackpot bell. Receive information from reset key switch.

CHAPTER

14

**NUMERICAL
PARTS LIST**

PART NO.	DESCRIPTION	USED ON
05-RSL	Reel Strips (See Reel Strip List)	11-103ND 11-104ND 11-106ND 11-109ND
10-106ND	Torsion Spring Kit	
11-29-WCL	Hopper Assembly (Per World Coin List)	
11-30-WCL	\$ Hopper Assembly (Per World Coin List)	
11-097ND	Door Assembly	
11-101ND	\$ Door Assembly	
11-103ND	Reel Mechanism Assembly (22-Stop)	
11-104ND	Reel Mechanism Assembly (25-Stop)	
11-106ND	Reel Mechanism Assembly (20-Stop)	
11-107ND	Cabinet Assembly	
11-109ND	Reel Motion Detector Mechanism Assembly (22-Stop)	
12-01-WCL	Channel Coin Mechanism Assy. (Per World Coin List)	12-167ND 12-183ND 12-225ND 12-226ND
12-04-1ND	Fan Assembly	15-071ND
12-05-WCL	Pinwheel Assembly (Per World Coin List)	12-07-WCL
12-07-WCL	Wheel & Housing Assy. (Per World Coin List)	12-29-WCL
12-08-WCL	Coin Acceptor Assembly (Per World Coin List)	
12-09-2B	Candle Assembly	15-063ND 15-071ND
12-18-WCL	Drop Switch Assembly (Per World Coin List)	12-167ND 12-225ND
12-21-7ND	Display Assembly (1-Line)	11-097ND 11-101ND
12-21-8ND	Display Assembly (3-Line)	11-097ND 11-101ND
12-9-ND	Display Assembly (5-Line)	11-097ND 11-101ND
12-21-10ND	Display Assembly (2-Coin)	11-097ND 11-101ND
12-21-11ND	Display Assembly (3-Coin)	11-097ND 11-101ND
12-21-12ND	Display Assembly (5-Coin)	11-097ND 11-101ND
12-24-WCL	\$ Wheel & Housing Assembly (Per WCL)	11-30-WCL
12-25-WCL	\$ Pin Wheel Assembly (Per WCL)	12-24-WCL
12-051C	Pump Assembly	12-217ND
12-060D	Reel & Shaft Assembly (20-Stop)	11-106ND
12-070A	Key Switch Assembly	11-107ND
12-079ND	Card Rack Assembly	11-107ND
12-101ND	Fuse Bracket Assembly (Power Panel)	12-121ND 12-205ND
12-118ND	Plunger Block Assembly	12-052ND 12-107ND 12-217ND
12-121ND	Power Panel Assembly (120v)	11-107ND
12-122ND	Power Board Assembly	12-121ND 12-205ND
12-130A	Handle Switch Assembly	12-052ND 12-107ND 12-217ND

PART NO.	DESCRIPTION	USED ON
12-141ND	Diverter Cover Assembly	12-167ND 12-225ND
12-168ND	Reel Frame Assembly	11-097ND 11-101ND
12-169ND	Lower Display Assembly	11-097ND 11-101ND
12-171A	Interlock Door Switch Assembly	11-107ND
12-175B	\$ Diverter Cover Assembly	12-183ND 12-226ND
12-176B	\$ Diverter Plate Assembly	12-183ND 12-226ND
12-181ND	Reel Mechanism Frame Assy. (20-Stop)	11-106ND
12-182ND	Solenoid Plate Assembly	12-181ND 12-210ND
12-191B	Fluorescent Lamp Cover Assembly	11-097ND 11-101ND
12-194A	\$ Coin Switch Mntg. Brkt. Assembly	12-183ND 12-226ND
12-198B	Diverter Assembly	12-167ND 12-225ND
12-205ND	Power Panel Assembly (215/240V)	11-107ND
12-206ND	Reel & Shaft Assembly (22-Stop)	11-103ND
12-207ND	Reel & Disc Assembly (22-Stop)	12-206ND
12-208ND	Reel & Shaft Assembly (25-Stop)	11-104ND
12-209ND	Reel & Disc Assembly (25-Stop)	12-208ND
12-210ND	Reel Mechanism Frame Assembly (22 & 25 Stop)	11-103ND 11-104ND 11-109ND
12-217C	Handle Plate Assembly	11-107ND
12-218ND	Handle Cam Assembly	11-107ND
12-225ND	Service Panel Assembly	11-097ND
12-226ND	\$ Service Panel Assembly	11-101ND
12-229ND	Handle Assembly	11-107ND
12-231ND	Reel & Shaft Assembly (22-Stop Motion Detector)	11-109ND
12-232ND	Reel & Disc Assembly (22-Stop Motion Detector)	12-231ND
12-233ND	Connector Board Assembly	11-107ND
13-056A	Guide Bracket Assembly (Pump)	12-051C
13-067B	Actuator Assembly	12-171A
13-088B	Drive Motor Assembly (Hopper)	11-29WCL 11-20WCL
13-092B	Reel Assembly (20,22, 25-Stop)	12-061C 12-207ND 12-209ND
13-132A	Reject Plunger Assembly	12-217ND
13-134ND	Shaft & Pin Assembly	12-060D 12-206ND 12-208ND 12-231ND
13-157A	End Plate Assembly	11-103ND 11-104ND 11-106ND 11-109ND

CHAPTER 14 NUMERICAL PARTS LIST

PART NO.	DESCRIPTION	USED ON
13-158A	Mounting Assembly (Connector Board)	12-233ND
13-173ND	Motor Assembly	11-103ND 11-104ND 11-106ND 11-109ND
13-174ND	Rocker Assembly	12-07-WCL 12-24-WCL
13-175B	\$ Hopper Motor Assembly	12-24-WCL
13-176B	Top Reel Glass Retainer Assembly	11-097ND 11-101ND
13-180B	Reel Stop Assembly	12-181ND 12-210ND
13-203A	String Catch	12-01-WCL
13-214A	Lockarm & Bushing Assembly	12-217ND
13-215B	Handle Cam Assembly	12-217ND
13-216A	Pawl Assembly	13-215B
13-220ND	Reel Assembly (22-Stop Motion Detector)	12-232ND
14-03-11D	Lamp Panel Assembly (1 Line)	12-21-7ND
14-03-12D	Lamp Panel Assembly (3-Line&)	12-21-8ND
14-03-13D	Lamp Panel Assembly (5-Line)	12-21-9ND
14-03-14D	Lamp Panel Assembly (2-Coin)	12-21-10ND
14-03-15D	Lamp Panel Assembly (3-Coin)	12-21-11ND
14-03-16D	Lamp Panel Assembly (5-Coin)	12-21-12ND
14-04-RSL	Matrix Assembly (Programmed Per Reel Strip List) (20-Stop)	11-106ND
14-06-RSL	Matrix Assembly (Programmed Per Reel Strip List) (22 & 25 Stop)	11-103ND 11-104-ND
14-08-RSL	Matrix Assembly (Programmed Per Reel Strip List) (22-Stop Motion Detector)	11-109ND
14-053B	Mounting Bracket and Cylinder Assembly	12-051C
14-056D	Door Assembly (Frame Weldment)	11-097ND 11-101ND
14-111B	Money Bowl Cover	11-097ND
14-136B	\$ Money Bowl Cover	11-101ND
14-140B	Coin Chute Assembly	11-107ND
14-143B	Plate Assembly (Hopper Mtg.)	11-107ND
14-144B	Locking Bar and Extension Assembly	11-097ND 11-101ND
14-147B	Rotary Disc Assembly (20-Stop)	12-061C
14-154B	Lamp Holder Assembly	12-191B
14-155B	Lamp Holder Assembly	12-191B
14-159B	Rotary Disc Assembly (22-Stop)	11-103ND 11-109ND
14-160B	Rotary Disc Assembly (25-Stop)	11-104ND
14-168A	Lockarm Assembly	12-217C
14-169B	Handle Cam Assembly	12-218ND
14-170C	Handle Plate Assembly	12-217C
14-171B	Interlock Door Switch Assembly (Less Activator Assy.)	12-171A

PART NO.	DESCRIPTION	USED ON
14-174C	Connector Board (Less Relays, Mounting Assembly)	12-233ND
15-01-1A	Tube Assembly	12-09-2B
15-053ND	Rack & Guide Assembly (L.H.)	12-079ND
15-061ND	Rack & Guide Assembly (R.H.)	12-079ND
15-063D	Cabinet Assembly	11-107ND
15-071D	Cabinet Assembly	11-107ND
15-073A	Glass Retainer Assembly Lower Display	12-169ND
15-074A	Insert Assembly-Candle	12-09-2B
15-076B	Lamp Cover Assembly	12-191B
16-10-13B	Hopper & Power Cable (For 120v)	12-121ND
16-10-14B	Handle Switch Cable	11-107ND
16-10-15B	Rectifier Cable	12-121ND
16-10-16ND	Hopper Cable	11-29-WCL 11-30-WCL
16-10-34B	Front Door Cable (1-Line, 5-Line)	11-107ND
16-10-35B	Front Door Cable (5-Line)	11-107ND
16-10-49B	Hopper & Power Cable (215v/240v)	12-205ND
16-10-50A	Service Panel Cable (A.C.)	12-225ND 12-226ND
16-10-51A	Service Panel Cable (D.C.)	12-225ND
16-10-52A	\$ Service Panel Cable (D.C.)	12-226ND
16-10-54B	Matrix Cable Assembly	11-107ND
16-10-56B	Front Door Cable (3-Coin)	11-107ND
16-10-57B	Front Door Cable (2-Coin)	11-107ND
16-10-58B	Front Door Cable (3-Line)	11-107ND
16-056A	Coin Return Electric Magnet Assembly	12-01-WCL
16-057A	Diverter Coil Assembly	12-141ND
16-074A	Convenience Outlet Cable Assembly	11-107ND
16-087A	Toggle Switch Assembly	11-107ND
16-089B	Supply Cord Assembly	11-107ND
16-099B	Solenoid & Plunger Assembly	12-217C
16-131A	Bell Assembly	11-107ND
16-132B	Socket Assembly (Candle)	12-09-2B
16-134A	Starter Socket Assembly	12-225ND 12-226ND
16-135A	Starter Socket Assembly	12-225ND 12-226ND
16-137A	Fluorescent Lamp Holder Assembly	12-225ND 12-226ND
16-138A	Fluorescent Lamp Holder Assembly	12-225ND 12-226ND
16-139A	Battery Assembly (Nicad)	17-49-1ND 17-50-1ND
16-157ND	Line Filter Assembly (Power Panel)	12-121ND
16-158A	Coin Diverter Panel Assembly	12-225ND
16-159A	\$ Coin Diverter Panel Assembly	12-226ND
16-161ND	Indicator Lamp Assembly	12-121ND

PART NO.	DESCRIPTION	USED ON
17-49-1ND	Multi-Line Logic Board Assembly	11-107ND
17-50-1ND	Multi-Coin Logic Board Assembly	11-107ND
17-057D	Contact Plate Assembly (20-Stop)	12-060D
17-133ND	\$ Electronic Acceptor	12-101ND
17-142ND	Contact Plate Assembly (22-Stop)	12-206ND
17-143ND	Contact Plate Assembly (25-Stop)	12-208ND
17-144ND	Coin Diverter Latch Board Assembly	16-158A 16-159A
17-150A	Contact Plate Assembly (22-Stop Motion Detector)	12-131ND
30-051A	Handle (Logic Board)	17-49-1ND 17-50-1ND
31-01-6C	Washer (Reel and Shaft)	12-060D 12-206ND 12-208ND
31-01-8C	Washer (Pump)	12-051C
31-01-14C	Washer (Logic Board Handle)	17-49-1ND 17-50-1ND
31-01-15C	Washer (Lamp Panels)	
31-01-16C	Washer (Card Rack, Connector Board)	12-079ND
31-01-19C	Washer	12-118ND
31-01-21C	Shim Washer (Cam)	12-118ND
31-01-22C	Washer (Pump)	12-217ND
31-03-6C	Nylon Washer (Reel & Shaft)	12-060D 12-206ND 12-208ND
31-04-1C	Support Bracket - Right	11-20-WCL 11-29-WCL 11-30-WCL
31-04-2C	Support Bracket - Left	11-20WCL 11-29-WCL 11-30-WCL
31-06-WCL	Shelf Wheel (Per World Coin List)	11-20-WCL 11-29-WCL 11-30-WCL
31-24-1ND	Washer (Lock)	11-097ND 11-107ND
31-075A	Door Stop Bracket	11-107ND
31-077B	Hinge Guard	11-107ND
31-081A	Spacer (Lamp Holder)	12-225ND 12-226ND
31-083A	Pump Plate	12-051C
31-086A	Strain Relief Bracket	16-089B
31-109A	Hinge Shim	11-107ND
31-134B	Coin Return Funnel	12-167ND 12-225ND
31-137A	Outlet Bracket (Convenience Outlet)	16-074A
31-142A	Check Rod Bracket	11-097ND 11-101ND
31-154A	Channel Mounting Bracket	12-167ND 12-183ND 12-225ND 12-226ND

PART NO.	DESCRIPTION	USED ON
31-155A	Door Strike (Top)	11-107ND
31-166C	Back Support (20-Stop)	12-181ND 12-210ND
31-174A	Clutch Disc	12-060D 12-206ND 12-208ND 12-231ND
31-177C	Mechanism Base	12-181ND 12-210ND
31-178C	Side Frame - Left	12-181ND 12-210ND
31-179C	Side Frame - Right	12-181ND 12-210ND
31-188A	Coin Switch Base	12-01-WCL 12-18-WCL
31-194B	Solenoid Mounting Plate	12-182ND
31-195A	Cup Washer	12-060D 12-206ND 12-208ND 12-231ND
31-201B	Reel Glass Retainer (Lower)	11-097ND 11-101ND
31-203B	Cover Plate (Counters)	11-107ND
31-208A	Counter Window Plate	11-107ND
31-225D	Mechanism Shelf	12-079ND
31-228C	Base	11-20WCL 11-29-WCL 11-30-WCL
31-230B	Pivot Bracket	11-20-WCL 11-29-WCL 11-30-WCL
31-232A	Spring Mount	11-20-WCL 11-29-WCL 11-30-WCL
31-233B	Wiper	11-20-WCL 11-29-WCL 11-30-WCL
31-234A	Inlet Slide	11-20-WCL 11-29-WCL 11-30-WCL
31-237B	Outlet Cover	12-06-WCL 12-07-WCL 12-24-WCL
31-238B	Knife	12-06-WCL 12-07-WCL 12-24-WCL
31-239A	Coin Deflector	12-06-WCL 12-07-WCL 12-24-WCL
31-241C	Pinwheel	12-05-WCL
31-243A	Zee Bracket	11-20-WCL 11-29-WCL 11-30-WCL
31-264C	Hopper Cover	11-20-WCL 11-29-WCL
31-315B	Shelf Bracket - L.H.	12-079ND
31-316B	Shelf Bracket - R.H.	12-079ND
31-318A	Socket Retainer	16-10-13B
31-324A	Solenoid Bracket	12-217C
31-325A	Latch Bracket	12-217C
31-328A	Lug (Switch Mounting Brkt. Logic Board)	12-122ND 17-49-1ND 17-50-1ND

**CHAPTER 14 NUMERICAL PARTS LIST
CONTINUED**

PART NO.	DESCRIPTION	USED ON
31-330A	Arm (Handle Release)	12-217C
31-351A	Bracket (Key Switch)	12-070A
31-353C	Mounting Plate Card Rack Connector Board)	12-079ND
31-368A	Lock Bracket	11-107ND
31-375B	Bracket (Handle Switch)	12-130A
31-380D	Power Pack Base	12-121ND 12-205ND
31-421B	Coin Return Chute	12-225ND
31-423A	Diverter Plate	12-198B
31-424B	Diverter Chute (Hopper)	12-198B
31-426B	Diverter Cover	12-141ND
31-435A	Coin Ramp (R.H.)	12-198B 12-176B
31-440A	Guide (Hopper)	11-107ND
31-441A	Coin Ramp (Diverter Cover)	12-141ND
31-450A	Coin Guard	12-198B
31-463A	Coin Gauge	12-198B
31-464A	Coin Ramp (L.H.)	12-198B
31-484B	Guide (Reel Mechanism)	12-079ND
31-494C	Armor (Top Baffle)	11-107ND
31-495D	Armor (Right Hand Baffle)	11-107ND
31-496B	Armor (Top R.H. Corner)	11-107ND
31-497B	Armor (Top L.H. Corner)	11-107ND
31-498A	Armor (Counter)	11-107ND
31-499B	Armor (Shelf)	12-079ND
31-500C	Armor (Baffle - Bottom)	11-107ND
31-506A	Diverter Chute	12-167ND 12-225ND
31-527A	\$ Coin Runway Shoe	12-183ND 12-226ND
31-539B	Lamp Cover	15-076B
31-542B	Exhaust Fan Mounting	12-04-1ND
31-543A	Baffle (Use With Exhaust Fan Mntg. 31-544A)	12-04-1ND
31-544A	Exhaust Fan Mounting (With Candle)	12-04-1ND
31-530A	\$ Hopper Switch Bracket	11-30-WCL
31-545B	\$ Hopper Liner	11-30-WCL
31-546B	\$ Baffle	11-30-WCL
31-547A	\$ Leg	11-30-WCL
31-549C	\$ Hopper Extension	11-30-WCL
31-553B	Mounting Bracket (Matrix 20-Stop)	12-181ND
31-555C	Bracket (Durant)	11-107ND
31-556A	Coin Chute (Lower)	12-01-WCL 12-18-WCL
31-557A	Coin Chute (Upper)	12-01-WCL 12-18-WCL
31-558D	Service Panel Base	12-167ND 12-225ND
31-559A	Tapped Locking Plate	12-167ND 12-183ND 12-225ND 12-226ND
31-565B	\$ Diverter Cover	12-183ND 12-226ND
31-566B	\$ Diverter Plate	12-183ND 12-226ND

PART NO.	DESCRIPTION	USED ON
31-568B	Payout Chute	12-225ND 12-226ND
31-587B	\$ Coin Switch Mntg. Bracket	12-194A
31-589A	\$ Coin Ramp (L.H.)	12-176B
31-590D	\$ Service Panel Base	12-183ND 12-226ND
31-591A	\$ Hopper Chute (Diverter)	12-183ND 12-226ND
31-595B	\$ Coin Return Funnel	12-183ND 12-226ND
31-596B	\$ Coin Return Chute	12-183ND 12-226ND
31-597B	\$ Drop Chute	12-183ND 12-226ND
31-617D	Drill Proofing (Top)	11-107ND
31-619C	Drill Proofing (Left)	11-107ND
31-620D	Drill Proofing (Right)	11-107ND
31-621B	Fuse Bracket (Power Panel)	12-121ND
31-632A	Socket Mounting Bracket (Hopper Plate)	16-10-13B
31-638A	\$ Right Coin Guide Bracket	12-183ND 12-226ND
31-639A	\$ Left Coin Bracket	12-183ND 12-226ND
31-650B	Counter Support Bracket	11-107ND
31-659B	Mounting Bracket (Matrix 22 & 25 Stop)	11-103ND 11-104ND 11-109ND
31-663C	\$ Hopper Cover	11-30-WCL
31-666A	\$ Spacer Plate	12-25-WCL
31-669C	Drill Proofing (Rear Louver Mntg.)	11-107ND
31-672A	Drill Proofing (Rear Upper)	11-107ND
31-673A	Drill Proofing (Right Counter Mntg.)	11-107ND
31-675A	Drill Proofing (Top - Candle Mntg.)	11-107ND
31-691A	Mounting Bracket (Motion Detector)	11-109ND
31-692A	Cabinet Vent Louvers	11-107ND
31-693B	Counter Mounting Bracket	11-107ND
31-694A	Shield (Motion Detector)	11-109ND
31-697C	Reflector Disc (Motion Detector)	12-232ND
33-02-1C	Bushing (Drive Pin Wheel)	12-05-WCL
33-02-3C	Bushing (Lockarm Stop)	12-218ND
33-02-9C	Bushing (Coin Switch)	12-01-WCL 12-18-WCL
33-02-10C	Bushing (Reel Mechanism)	12-181ND 12-210ND
33-02-11C	Bushing (Reel Mechanism)	12-181ND 12-210ND
33-02-12C	Bushing	12-718ND
33-02-26C	\$ Bushing (Hopper)	12-25-WCL
33-02-27C	\$ Bushing (Hopper)	12-25-WCL
33-02-28C	Bushing (Bumper) (Pinwheel)	12-079ND 12-05-WCL
33-02-31C	Bushing (Motion Reel & Disc Assembly)	12-232ND

PART NO.	DESCRIPTION	USED ON
33-02-32C	Bushing (Reel Mechanism)	11-103ND 11-104ND 11-106ND 11-109ND
33-06-3C	Bushing	12-09-2B
33-06-4C	Bushing	12-09-2B
33-07-1C	Shoulder Screw	11-097ND 11-101ND
33-09-7A	Male and Female Standoff	12-121ND 12-205ND
33-11-8B	Rod	12-079ND
33-078B	Reel Shaft	13-134ND
33-082A	Pivot Rod	11-29-WCL 11-20-WCL 11-30-WCL
33-101A	Mount (Relief Spring)	11-20-WCL 11-29-WCL 11-30-WCL
33-120A	Collar	12-060D 12-206ND 12-208ND 12-231ND
33-124A	Eccentric Mount	11-20-WCL 11-29-WCL 11-30-WCL
33-125A	Plunger	12-118ND
33-126A	Handle (Hopper)	11-20-WCL 11-29-WCL 11-30-WCL
33-129A	Tapped Bushing (Connector Board)	12-120ND 12-233ND
33-141A	Coupling (Reel Motor)	13-173ND
33-143A	Thumb Nut	12-167ND 12-183ND 12-225ND 12-226ND
33-149A	Lock Bar Spring Screw	11-097ND 11-101ND
33-150B	Handle Shaft	12-229C
33-159ND	Threaded Rod G-32	12-09-2B
33-165B	Support Shaft	12-210ND
33-167A	§ Standoff	12-183ND 12-226ND
33-169A	Standoff (Male and Female)	12-167ND 12-225ND
33-193B	Back Support Shaft (22 & 25 Stop)	11-103ND 11-104ND 11-109ND
33-195A	Eccentric Rocker Pin	12-07-WCL 12-24WCL
33-196A	Cap Screw (Rocker Pin)	12-07-WCL 12-24-WCL
33-206C	Handle Hub	12-229C
33-210A	Shaft (Pump)	12-051C
34-052A	Ball Bearing	12-07-WCL 12-24-WCL
34-059ND	Steel Ball Bearing	12-118ND
35-05-WCL	Coin Entry Plate (Per World Coin List)	12-168ND 12-196ND
35-051A	Plunger Block	12-118ND

PART NO.	DESCRIPTION	USED ON
35-052A	Coin Entry Block	12-168ND 12-196ND
35-057D	Lower Display Frame	12-169ND
35-058D	Reel Frame	12-168ND 12-196ND
35-059D	Money Bowl	11-097ND 11-101ND
35-060D	Ornament - Indian Head	12-168ND 12-196ND
35-061D	§ Hopper Shell	11-30-WCL
35-062B	§ Shell End	11-30-WCL
35-063A	Candle Base	12-09-2B
35-071B	Handle Collar	12-217C
35-072B	Wheel Housing	12-07-WCL
36-01-13C	Extension Spring (Locking Bar)	11-097ND
36-01-18C	Extension Spring (Hopper Helper)	11-29-WCL
36-01-19C	Extension Spring (Rocker)	11-29-WCL
36-01-27A	Extension Spring (Lockarm)	12-217C
36-01-28A	Extension Spring (Pawl)	12-218ND
36-02-1C	Compression Spring	12-060D
36-02-3C	Compression Spring	12-168ND
36-02-4C	Compression Spring	11-29-WCL
36-02-7C	Compression Spring (Solenoid, Reel Mech., Frame)	12-210ND 12-181ND 12-217C
36-02-9C	Compression Spring (Relief Spring)	11-29-WCL
36-02-12C	Compression Spring	12-118ND
36-051A	Door Check Rod	11-107ND
36-056A	Expander Spring	12-051C
36-079A	Mechanism Latch	12-210ND 12-181ND
36-080A or 081A	Compression Spring (Pump)	12-051C
37-07-5A	Dummy Lock	11-097ND
37-08-1A	Lock (Reset)	11-107ND
37-11-7	Cam (For Lock)	11-097ND
50-051A	Leather Cup Washer	12-051C
51-02-3ND	Handle Knob	11-107ND
51-04-1A	Nyliner Bearing	12-060D
51-05-2A	Cable Tie	122-122ND 16-10-40 16-074A
51-06-11ND	Light Box (1-Line)	12-21-7ND
51-06-12ND	Light Box (3-Line)	12-21-8ND
51-06-13ND	Light Box (5-Line)	12-21-9ND
51-06-14ND	Light Box (2-Coin)	12-21-10ND
51-06-15ND	Light Box (3-Coin)	12-21-11ND
51-06-16ND	Light Box (5-Coin)	12-21-12ND
51-053A	Cable Tie Mount	11-107ND
51-054A	Friction Washer - Delrin	12-060D
51-062A	Friction Washer - Phenolic	12-060D
51-070A	Cable Clamp	11-097ND
51-074A	Phenolic Washer	12-122ND
51-079A	Spacer Washer (Fibre)	12-121ND 12-205ND

**CHAPTER 14 NUMERICAL PARTS LIST
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PART NO.	DESCRIPTION	USED ON
51-083A	Cable Anchor (Lamp Cover)	15-076B
51-085ND	Spacer (Power Board)	12-122ND
51-099A	Friction Washer - Phenolic (For Motion Detector)	12-231ND
54-060A	Tape	12-169ND
55-02-3	Foam Tape	11-097ND
55-02-4	Foam Tape	11-097ND
55-03-1	O-Ring (Coin Return)	12-068ND
55-05-1A	Rubber Edging	11-109ND
55-05-2A	Rubber Edging	11-109ND
55-051C	Bumper (Handle Plate)	12-217C
55-058A	Bumper (Round)	12-079ND
55-061B	Agitator	12-05-WCL
57-054A	Insulator (Handle Switch, Key Switch)	12-070A 12-130A
57-061A	Insulator Number Strip	12-121ND 12-205ND
57-062A	Insulator Number Strip	12-121ND 12-205ND
60-051A	Snap Bushing	11-29-WCL
60-052ND	Strain Relief	16-089B
60-066A	Battery Holder	17-049-1ND 17-050-1ND
61-052B	Ballast	12-225ND
61-062A	Relay, Solid State	12-120ND 12-233ND
61-064A	Relay	12-120ND 12-233ND
61-079A	Coil	12-122ND
61-081D	Transformer (120v)	12-121ND
61-085C	Transformer (215v/240v)	12-205ND
61-086C	Ballast (With 50 Hz Adaptor)	12-225ND
62-068A	Motor (Fan)	12-04-1ND
63-02-9ND	Terminal Block	12-121ND 12-205ND
63-02-10ND	Terminal Block	12-121ND 12-205ND
63-051A	Fuse (5 amp)	12-121ND 12-205ND
63-052A	Fluorescent Lamp	12-225ND
63-054A	Outlet	16-074A
63-057A	Starter	12-225ND
63-058A	Lamp-Midget (Flanged)	12-21-7
63-063A	Socket	16-10-13B
63-075A	Dip Socket (Logic Board)	17-049-1ND 17-050-1ND
63-076A	Fluorescent Lamp	11-097ND
63-085ND	Lamp (G.E.)	12-09-2B
64-01-WCL	Coin Switch (Per World Coin List)	12-01-WCL 12-18-WCL
64-054A	Switch (Level Control)	11-29-WCL
64-055A	Switch (Coin Count)	11-29-WCL

PART NO.	DESCRIPTION	USED ON
64-060A	Switch (Key Switch, Handle Switch)	12-070A 12-130A
64-061A	Push Button Switch (Logic Board)	17-049-1ND 17-050ND
64-066ND	Switch (PP-SPDT)	12-168ND
64-079	Toggle Switch	
65-070A	Durant Counter	11-107ND
66-051ND	Line Cord	16-089B
66-056B	Outlet Cord	16-074A
67-051A	Plug - Special	11-29-WCL
71-17-4ND	Potentiometer	17-049-1ND 17-050-1ND
71-18-2ND	Resistor (1K ohm 1/4W)	17-049-1ND 17-050-1ND
71-18-3ND	Resistor (22 K ohm 1/4W)	17-049-1ND 17-050-1ND
71-18-4ND	Resistor (1 meg ohm 1/4W)	17-049-1ND 17-050-1ND
71-18-5ND	Resistor (39 ohm 1/4W)	17-049-1ND 17-050-1ND
71-18-6ND	Resistor (100 ohm 1/4W)	17-049-1ND 17-050-1ND
71-18-7ND	Resistor (220 ohm 1/4W)	17-049-1ND 17-050-1ND
71-18-8ND	Resistor (2,2K ohm 1/4W)	17-049-1ND 17-050-1ND
71-18-9ND	Resistor (10K ohm 1/4W)	17-049-1ND 17-050-1ND
71-18-10ND	Resistor (10K ohm 1/4W)	17-049-1ND 17-144ND 17-050-1ND
71-18-12ND	Resistor (5.6K ohm 1/4W)	17-049-1ND 17-050-1ND
71-18-16ND	Resistor (4.7K ohm 1/4W)	17-1441ND 17-49-1ND 17-050-1ND
71-18-22ND	Resistor (22 meg 1/4W 5%)	17-144ND
71-18-23ND	Resistor (2.7K 1/4W 5%)	17-144ND
71-18-25ND	Resistor (470 ohm 1/4W)	17-049-1ND 17-050-1ND
72-14-3ND	Capacitor (100 meg ohm, 25v- Electrolytic)	17-049-1ND 17-050-1ND
72-21-1ND	Capacitor (Ceramic 0.1MFD 25v)	17-144ND
72-24-1ND	Capacitor (.047 MF 250v AC)	16-157ND
72-25-1ND	Capacitor (.1MF, 1/4K v)	16-107ND
72-052ND	Capacitor (Tantalum 5.6 MFD 20v)	17-049-1ND 17-050-1ND
72-055ND	Capacitor (Tantalum 2.2 MFD 20v)	17-049-1ND 17-050-1ND
72-060ND	Capacitor (Tantalum 10 MFD 20v)	17-049-1ND 17-050-1ND
72-061ND	Capacitor (Ceramic Tub. .001 MF, 100v)	17-049-1ND 17-050-1ND
72-064ND	Capacitor	17-049-1ND 17-050-1ND
72-081ND	Capacitor (Tantalum .47 MFD 35v)	17-049-1ND 17-050-1ND

PART NO.	DESCRIPTION	USED ON
73-12-5ND	Transistor NPN (MJE 800)	17-144ND 17-049-1ND 17-050-1ND
73-13-1ND	Transistor PNF (2N3703)	17-049-1ND 17-050-1ND
73-16-2ND	Diode (1N914)	17-049-1ND 17-050-1ND
73-16-3A	Diode (1N4001)	17-144ND 17-049-1ND 17-050-1ND
73-18-48ND	Diode, Zener (1N5231)	17-049-1ND 17-050-1ND
73-18-53ND	Diode, Zener (1N5236B)	17-049-1ND 17-050-1ND
73-055	MOV	12-121ND 12-205ND
74-01-1ND	IC 74 C00	17-049-1ND 17-050-1ND
74-01-2ND	IC 74 C02	17-144ND 17-049-1ND 17-050-1ND
74-01-3ND	IC 74 C10	17-049-1ND 17-050-1ND
74-01-4ND	IC 74 C20	17-049-1ND 17-050-1ND
74-01-5ND	IC 74 C74 (Teledyne)	17-049-1ND 17-050-1ND
74-01-6ND	IC 74 C161	17-049-1ND 17-050-1ND
74-01-7ND	IC 74 C164	17-049-1ND 17-050-1ND
74-01-8ND	IC 74 C193	17-049-1ND 17-010-1ND
74-01-9ND	IC 74 L 85	17-049-1ND 17-050-1ND
74-01-10ND	IC 74 00	17-049-1ND 17-050-1ND
74-01-11ND	IC 7404	17-049-1ND 17-050-1ND
74-01-12ND	IC 7407	17-049-1ND 17-050-1ND
74-01-13ND	IC 7408	17-049-1ND 17-050-1ND
74-01-14ND	IC 7410	17-049-1ND 17-050-1ND
74-01-15ND	IC 7411	17-049-1ND 17-050-1ND
74-01-16ND	IC 7413	17-049-1ND 17-050-1ND
74-01-17ND	IC 7420	17-049-1ND 17-050-1ND
74-01-18ND	IC 7427	17-049-1ND 17-050-1ND
74-01-19ND	IC 7430	17-049-1ND 17-050-1ND
74-01-20ND	IC 7432	17-049-1ND 17-050-1ND
74-01-21ND	IC 7486	17-049-1ND 17-050-1ND
74-01-22ND	IC 74155	17-049-1ND 17-050-1ND
74-01-23ND	IC 74161	17-049-1ND 17-050-1ND

PART NO.	DESCRIPTION	USED ON
74-01-24ND	IC 74164	17-049-1ND 17-050-1ND
74-01-25ND	IC 74L00	17-049-1ND 17-050-1ND
74-01-26ND	IC 74L04	17-049-1ND 17-050-1ND
74-051ND	IC 7409	17-049-1ND 17-050-1ND
79-060A	L.E.D. (Gold)	12-21-7ND to 12-21-12ND
79-062A	L.E.D. (Red)	12-21-7ND to 12-21-12ND
81-RGS	Reel Glass Screened (Per Reel Glass Screened List)	11-097ND 11-101ND
82-LGS	Lower Glass Screened (Per Lower Glass Screened List)	12-169ND
86-MPS	Middle Panel Screened (Per Middle Panel Screened List)	12-168ND 12-196ND
91-053A	Grease Fitting	12-229C
91-069A	Hex Socket Cap Screw (Handle Hub)	11-107ND
91-070A	Socket Head Cap Screw (Handle)	11-107ND
91-071A	Hex Washer Head Machine Screw	12-217C
92-01-1A	Cotter Pin (Hopper Mounting Plate)	11-107ND
92-03-1C	E-Ring	11-107ND 12-218ND 11-29-WCL 11-30-WCL
92-03-2C	E-Ring (Coin Return)	12-168ND 12-196ND
92-03-4C	E-Ring (Pump Mntg. - Handle Cam)	11-107ND
92-03-5C	E-Ring (Latch Arm Pivot)	12-217C
92-04-1A	Retainer	12-206ND 12-208ND 12-060D 12-231ND
92-05-1A	Retaining Ring	12-079ND 12-120ND 12-233ND
92-06-1A	Roll Pin 1/8D x 3/4LG (Reel Shaft)	12-060D 12-206ND 12-208ND 12-231ND
92-06-3A	Roll Pin 3/32 x 1/2LG	13-133ND
92-07-1C	Klip Ring (Spring Post)	12-217C
92-07-2C	Klip Ring	12-210ND 12-181ND
92-07-3C	Klip Ring (Plunger Block)	12-118ND
92-07-4C	Klip Ring (Lockarm Pivot)	12-217C
92-07-6C	Klip Ring (Pump)	12-217C
92-056SK	Hitch Pin (Door Check Rod)	11-107ND
92-057A	Drive Screw (Name Plate With 31-203)	11-107ND
92-058ND	Screw Nail (Name Plate)	11-107ND

**CHAPTER 14 NUMERICAL PARTS LIST
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PART NO.	DESCRIPTION	USED ON
92-059A	Tinnerman Fastener	12-121ND 12-205ND
93-01-8C	Rivet (Logic Board)	17-49-1ND 17-50-1ND
93-01-11C	Tubular Rivet (Bumper)	12-079ND
93-03-1A	Rivet (Pop) (Logic Board Handle)	17-49-1ND 17-50-1ND
92-06-1	Roll Pin (Reel Motor)	
96-02-2A	Line Splice	16-074A
96-04-2B	Q.C. Terminal (.250)	Cables List
96-04-6B	Q.C. Terminal (.187)	Cables List
96-04-8A	Q.C. Terminal (.250 Female)	Cables List
96-04-9A	Q.C. Terminal (.250 Male)	Cables List
96-04-12A	Bullet Plug (Male)	Cables List
96-04-11A	Bullet Plug (Female)	Cables List
96-04-13A	Q.C. Terminal (Female .187)	Cables List
96-04-15A	Q.C. Terminal (Female .187)	Cables List
96-06-2A	Edge Connector (15 Pin)	Cables List
96-06-4A	Edge Connector (22 Pin)	Cables List
96-06-5A	Edge Connector (18 PT)	Cables List
96-06-6A	Edge Connector (22 PT)	Cables List
96-06-9A	Edge Connector (10 Pin)	Cables List
96-06-12A	Edge Connector (12 Pin)	Cables List
96-06-13A	Edge Connector (22 Pin)	Cables List
96-06-16A	Edge Connector (12 Pin)	Cables List
96-06-17A	Edge Connector (12 Pin)	Cables List
96-06-18A	Edge Connector (18 Pin)	Cables List
96-06-20ND	Edge Connector	12-121ND 12-205ND
96-06-22A	Edge Connector (33 Pin)	Cables List
96-07-2ND	Edge Connector (30 Pin)	Cables List

**CHAPTER 14 NUMERICAL PARTS LIST
CONTINUED**

PART NO.	DESCRIPTION	USED ON
92-059A	Tinnerman Fastener	12-121ND 12-205ND
93-01-8C	Rivet (Logic Board)	17-49-1ND 17-50-1ND
93-01-11C	Tubular Rivet (Bumper)	12-079ND
93-03-1A	Rivet (Pop) (Logic Board Handle)	17-49-1ND 17-50-1ND
92-06-1	Roll Pin (Reel Motor)	
96-02-2A	Line Splice	16-074A
96-04-2B	Q.C. Terminal (.250)	Cables List
96-04-6B	Q.C. Terminal (.187)	Cables List
96-04-8A	Q.C. Terminal (.250 Female)	Cables List
96-04-9A	Q.C. Terminal (.250 Male)	Cables List
96-04-12A	Bullet Plug (Male)	Cables List
96-04-11A	Bullet Plug (Female)	Cables List
96-04-13A	Q.C. Terminal (Female .187)	Cables List
96-04-15A	Q.C. Terminal (Female .187)	Cables List
96-06-2A	Edge Connector (15 Pin)	Cables List
96-06-4A	Edge Connector (22 Pin)	Cables List
96-06-5A	Edge Connector (18 PT)	Cables List
96-06-6A	Edge Connector (22 PT)	Cables List
96-06-9A	Edge Connector (10 Pin)	Cables List
96-06-12A	Edge Connector (12 Pin)	Cables List
96-06-13A	Edge Connector (22 Pin)	Cables List
96-06-16A	Edge Connector (12 Pin)	Cables List
96-06-17A	Edge Connector (12 Pin)	Cables List
96-06-18A	Edge Connector (18 Pin)	Cables List
96-06-20ND	Edge Connector	12-121ND 12-205ND
96-06-22A	Edge Connector (33 Pin)	Cables List
96-07-2ND	Edge Connector (30 Pin)	Cables List