

MERCHANDISE MART.[®]

**MODEL 2038A
25 COLUMN**

**MODEL 2042
30 COLUMN**

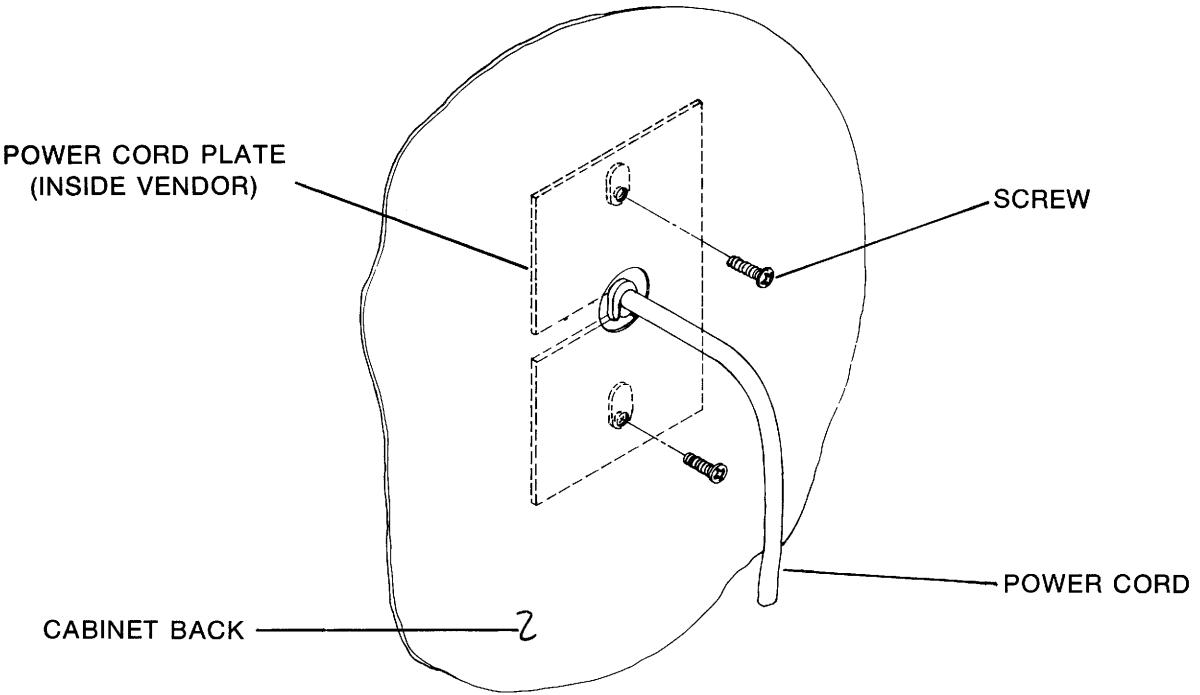
**MODEL 2042A
30 COLUMN**

**MODEL 2043
20 COLUMN**

SERVICE & PARTS MANUAL

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INSTALLATION:

For all correspondence regarding your vendor refer to the model and serial number. The serial plate is located on the right side of the vendor.

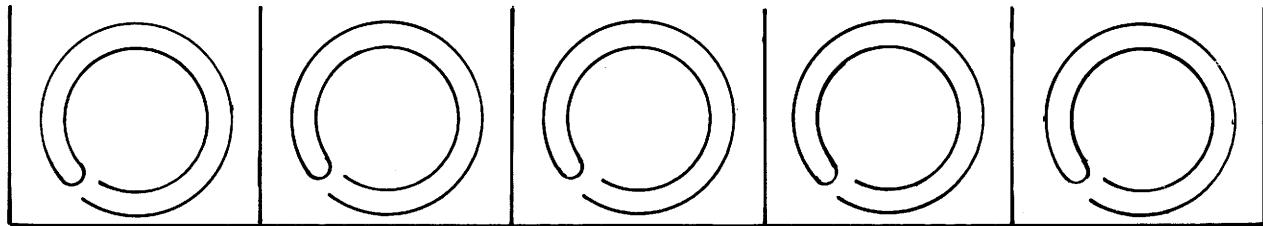
For fast reference, record the model no. _____ and serial no. _____.

1. Remove all shipping brackets, packing and tape.
 2. Remove wood pallet from under the vendor. Turn the levelers in as far as possible.
 3. Move the vendor to the desired location.
 4. The vendor must be level to operate with the leveler in as far as possible, adjust so the machine does not rock or teeter on any leveler.
 5. This vendor may be anchored to the floor by removing the snap-in caps located on the cabinet floor.
 6. Run the powercord through the hole in the cabinet back. Align the two holes on the cord plate with the holes on the back by holding onto the cord; then attach the plate with the screws provided.
- Make sure the electrical outlet is properly grounded to insure customer safety.

PRICE LABELS:

Place price labels next to selection number under each product. Make sure vend price matches price label. (See price setting section of this manual.)

PRODUCT LOADING:



FLAT WIRE HELIX TRAY

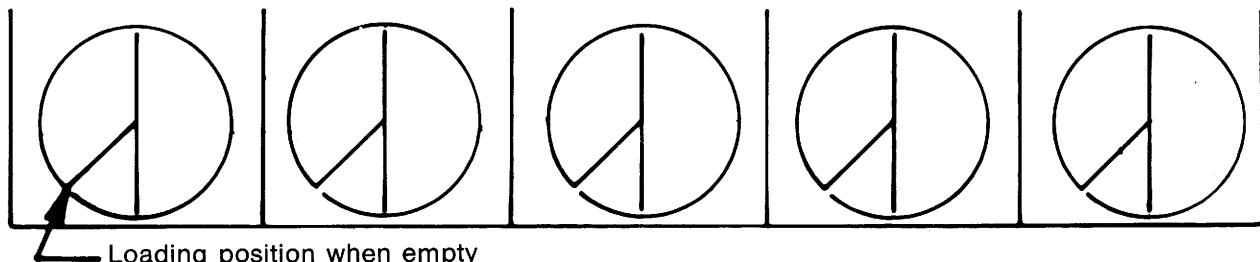
Lift front of drawer upward and pull forward to stops.

Load all products upright with the identification forward.

The flat wire helix loads with the products resting on the bottom coil of the helix.

The wire helix loads with the products resting on the floor between the helix.

After loading check to see that the adjustable floor is properly adjusted. Adjust by moving floor in or out to insure the front product will not slip out of the helix.



WIRE HELIX TRAY

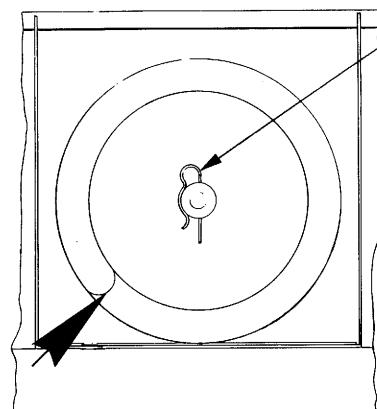
HELIX TIMING:

FLAT WIRE HELIX

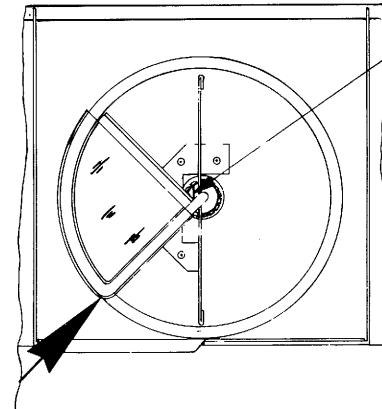
To remove motor pull out pin from helix hub at back of helix and pull helix off the motor shaft. Remove wires from motor, being careful not to loosen wires on other motors, and remove 2 screws securing motor. To install motor use 2 screws and replace wires on proper terminals. Helix must now be timed. Be sure motor is in home or detent position. Push helix on to motor shaft with end of helix positioned as shown by arrow then align hole in helix hub with motor shaft and replace pin.

ROUND WIRE HELIX

To remove motor pull outward on helix at center of shaft. Remove wires from motor, being careful not to loosen wires on other motors, and remove 3 screws securing motor. To install new motor use 3 screws and replace wires on proper terminals. Motor must now be timed. Be sure motor is in home or detent position. Before tightening screws make sure the timing line on the nylon gear is parallel with the divider. Replace helix by pushing into the "D" slot in bushing with the end of the helix positioned as shown. Be sure to push on the center shaft of helix only.

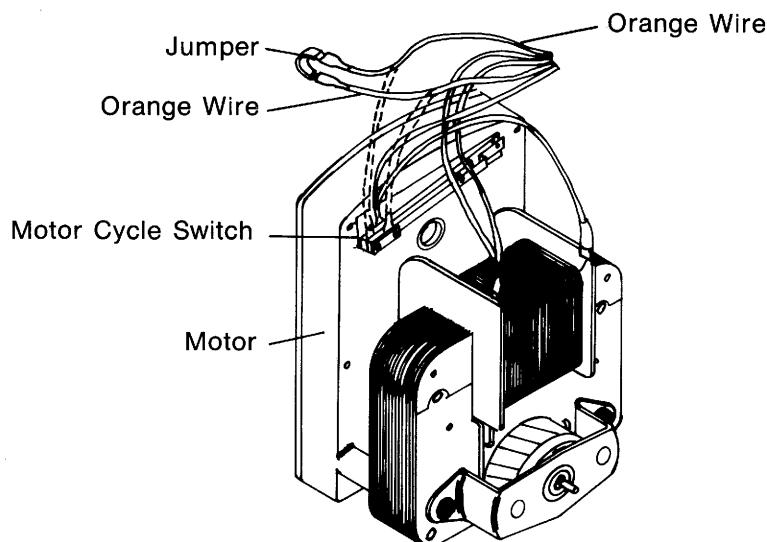


Flat Wire Helix



Round Wire Divided Helix

MOTOR JUMPER:



Any motor may be disconnected or removed from the vendor. By the use of a motor jumper the vendor will continue to work on all selections, except for the selection on which the jumper is used.

To use the motor jumper, disconnect the two orange wires from the motor cycle switch and connect one to each side of the motor jumper. If removing motor completely, make sure to tape the ends of the remaining wire so they will not short to the cabinet.

A Tray Jumper Plug may be used when removing an entire tray. Plug the jumper plug into the end of the cable, coming from the side panel. This will allow the vendor to remain in operation.

SPECIFICATIONS 2038A, 2038B:

General Specifications

Unit: Height - 68" Width - 38" Depth - 28½" Weight - 570 lbs.
115 VAC 1.4 AMPS 60 HZ. 1 Phase

	PRODUCT CAPACITY					PRODUCT SIZE HIGH WIDE THICK
Tray #1		10 PER SEL.=50				9" x 4⅞" x 1¾"
Tray #2		10 PER SEL.=50				8" x 4⅞" x 1¾"
Tray #3		10 PER SEL.=50				7" x 4⅞" x 1¾"
Tray #4		20 PER SEL.=100				6" x 2⅛" x 1"
Tray #5		20 PER SEL.=100				6" x 2⅛" x 1"
TOTAL PRODUCT CAPACITY=350						

SPECIFICATIONS 2043:

GENERAL SPECIFICATIONS

Unit: Height - 68" Width - 38" Depth - 28½" Weight - 545 lbs.
115 VAC 1.4 AMPS 60 HZ. 1 Phase

	PRODUCT CAPACITY					PRODUCT SIZE HIGH WIDE THICK
TRAY #1		10 PER SEL.=50				9" x 4⅞" x 1¾"
TRAY #2		10 PER SEL.=50				9" x 4⅞" x 1¾"
TRAY #3		10 PER SEL.=50				9" x 4⅞" x 1¾"
TRAY #4		20 PER SEL.=100				9" x 2⅛" x 1"
TOTAL PRODUCT CAPACITY=250						

PRODUCT SELECTION SWITCHES FOR 2038A:

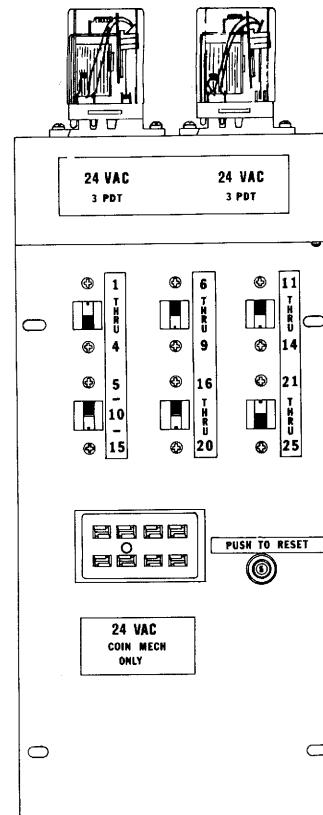
Selective price control may be obtained by moving the high-low switch to either the high vend price or the low vend price. (The vend price is selected on the coin mechanism.)

Six slide switches, located on the control panel are used to divide the selections as follows:

Selections: 1 thru 4	Top left
Selections: 6 thru 9	Top center
Selections: 11 thru 14	Top right
Selections: 5, 10, 15	Bottom left
Selections: 16 thru 20	Bottom center
Selections: 21 thru 25	Bottom right

Switch at high price position will vend selections at high price setting on coin mechanism.

Switch at low price position will vend selection at low price setting on coin mechanism.



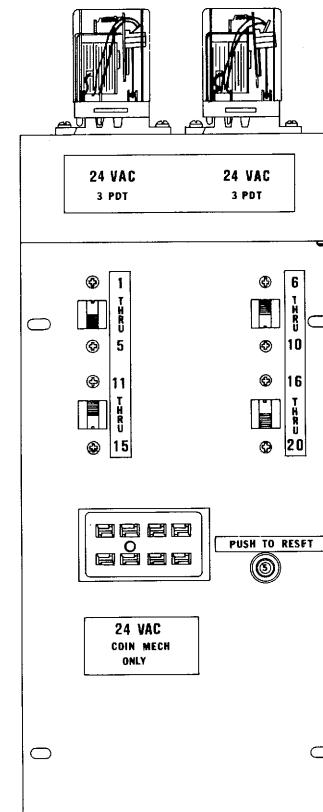
PRODUCT SELECTION SWITCHES FOR 2043:

Selective price control may be obtained by moving the high-low switch to either the high vend price or the low vend price (the vend price is selected on the coin mechanism). Four slide switches, located on the control panel are used to divide the selections as follows.

Selections: 1 thru 5	Top Left
Selections: 6 thru 10	Top Right
Selections: 11 thru 15	Bottom Left
Selections: 16 thru 20	Bottom Right

Switch at high price position will vend selections at high price setting on coin mechanism.

Switch at low price position will vend selections at low price setting on coin mechanism.



COIN MECHANISM FOR 2038A, 2043:

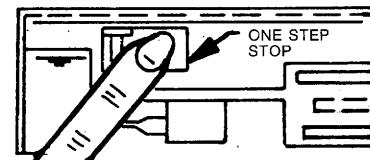
This price setting is for a National dual price changer. This changer is operated on 24 VAC only. It is not electrically interchangeable with any single price changer. To plug this coin mechanism into a non-compatible vendor will result in damage to the coin mechanism.

The coin mech may be set at any two vend prices, 5¢ through 50¢ and may be selected in 5¢ increments. The maximum spread between the two vend prices is 25¢. Change payback is up to and including 25¢ in 5¢ increments.

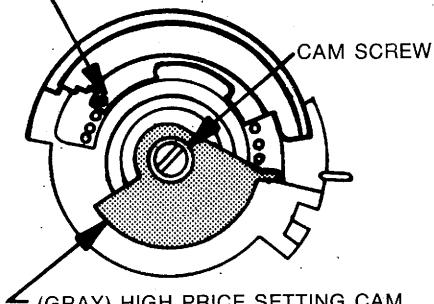
PRICE SETTING:

1. Unplug coin mechanism from control panel.
2. Remove the slug rejector from the accumulator. Loosen the three screws holding the accumulator to the control panel and lift off.
3. Press down the one step stop located on top of the accumulator; loosen the cam screw one turn. (CCW)
4. Rotate high price cam (gray) and low price cam (red) to desired vend prices. Make sure switch rollers ride on top of both red cams.
5. While holding cams, snug up cam screw.
6. Press down one step stop and tighten cam screw.
7. Replace accumulator onto control panel and tighten screws.
8. Replace slug rejector and plug mechanism back into control panel.

TOP VIEW OF ACCUMULATOR
(WITH REJECTOR REMOVED)



(RED) LOW PRICE SETTING CAM



(GRAY) HIGH PRICE SETTING CAM

TROUBLE SHOOTING FOR 2038A, 2043:

I. Vendor refuses all coins.

- A. Lights for product or selector lights are out.
 1. Check power cord to see if it is plugged in.
 2. Check fuse or circuit breaker in building for power.
 3. Check black or white wire from line cord to transformer.
- B. Lights are on and C.R.E.M. coils are not pulled in.
 1. Check main circuit breaker (5 amp) on relay panel.
 2. Check plugs containing orange/blue, orange or white/orange.
 - a) Plug by transformer.
 - b) Plug on back of relay panel.
 3. Check vend relay to see if it is energized.

(relay should be warm in stand by)

- a) If relay is not pulled in check to see if vend motors are all home.
 - 1) Turn each motor by hand starting with No. 1. They should run by themselves after a slight turn.
 - 2) When you find the first motor that does not run you have found the break in the series circuit. It is between the last motor that ran and the first motor that did not.
 - 3) If you center the motor that did not run in its detent and the relay pulls in, the motor is defective or a wire is off of the coil of the motor.
 - 4) If you center the motor that did not run and the relay does not pull in, there may be a wire off of the cycle switch on the motor.
 - 5) Also check the plugs on the trays if the motor that does not run is the first motor in the tray.
- b) Check the relay itself by exchanging it with the high select relay. They are identical.
- c) Check the orange/black wire from the cycle switch to the coil of the relay.

4. Check to see if coin mech is stopped in mid-cycle. Coin mech may be jammed or motor cycle switch may be defective.
- C. Lights are on and C.R.E.M.'s are pulled in.
 1. Check rejector.
 - a) Check coin paths for dirt or foreign material.
 - b) Set rejector on level surface and drop in coins to find problem.
 2. Check to see that blocking fingers do not protrude into coin paths.
 3. Check to see that vendor is level.

- II. Coin mech accepts dimes and nickels but not quarters and "correct change only" light is on.
 - A. Check to see if payout tubes have enough change in them (1 nickel and 1 dime and cycle changer).
 - B. Check to see if changer empty switch is actuated.
- III. Coin mech accepts dimes and nickels but no quarters and "correct change light" is out.
 - A. Check for burned out change light and no change.
 - B. Check rejector for foreign material or dirt in quarter track.
 - C. Check continuity of quarter C.R.E.M. coil with one wire off.
- IV. Coin mech accept quarters but no dimes or nickels (change in tubes).
 - A. Check rejector for foreign material in dime or nickel track.
 - B. Check continuity of nickel-dime C.R.E.M. coil with one wire off of coil.
- V. Vendor vends properly but pays out wrong or no change.
 - A. Payout rods improperly aligned and not hitting proper areas of cam.
 - B. Payout rods bent.
 - C. Credit system misaligned with payout module.
 - D. Change tubes empty of coins; empty switch not sensing the empty condition due to failure of switch.
 - E. Sluggish payout slide
 - F. Sluggish payout rods.
 - G. Cycle switch failed; motor will not run.
 - H. Price set wrong
- VI. Vendor accepts money but will not vend on all selections.
 - A. Coin Mech not supplying credit to vendor.
 - 1. No line 3 (low credit).
 - a) Low credit switch failed or out of adjustment.
 - b) Left contacts in relay defective causing no power to low credit switch.
 - 2. No line 4 (high credit).
 - a) High credit switch failed or out of adjustment.
 - b) Right contacts in relay defective causing a break in line 4.
 - 3. No line 3 or 4 (no credit).
 - a) Price adjust cam blocked or bound so that it does not move.
 - b) Nickel, dime or quarter advance solenoid (or any combination) failed; not advancing price cam completely.
 - B. Check plugs behind relay panel and on selector switches.
 - C. Broken or loose white/orange wire from relay panel to motors.
- VII. Vendor accepts money but vends only on low price items. (line 3 and 4 present from coin mech).
 - A. All vend price switches set low price.
 - B. High select relay not pulling in.
 - 1. Coil in relay defective.
 - 2. Black/green wire broken or loose between relay and price change switches.
 - C. Pink wire broken or loose between the relays and the first price change switch.
 - D. Black/red wire broken or loose between the two relays.
 - E. Center contacts in vend relay defective.
 - F. Third section of price change switch defective.
 - G. Top section of price change switch defective.
- VIII. Vendor accepts money but vends only on high price items (lines 3 and 4 present from coin mech).
 - A. Gray/blue wire broken or loose between the two relays.
 - B. Contacts on vend relay defective.
 - C. Black/white wire broken or loose between relays.
 - D. Contacts on high select relay defective.
 - E. Second section of price change switch defective.
- IX. Both high and low items vend for one price.
 - A. Coin mech set for high and low same price.
 - B. Line 8 (low credit solenoid) defective (all items will vend for high price).
- X. One tray will not vend; rest of machine is normal.
 - A. Check plug on tray for loose or broken white/orange wire.
- XI. One selection in a tray does not work; rest of machine is normal.
 - A. Defective motor coil.
 - B. Loose or broken wire on motor coil terminal.
 - C. Loose or broken selection wire between selector button and motor.
 - D. Defective selector switch.
- XII. One or more trays work but trays from a certain numerical point upward in selector numbers do not.
 - A. The series circuit between the price change switches is broken.
 - 1. Check for defective price change switch contacts between the tray that works and the tray that does not.
 - a) If only high price does not work, check first switch section.
 - b) If only low price does not work, check second switch section.
 - c) If high and low both do not work, check fourth section.
 - B. Check plugs between selector switches and relay panel.
 - C. Check solder connections on series circuits in selector.
- XIII. Vendor preselects one product when credit is reached.
 - A. Check for stuck push buttons.
 - B. Check for shorted selector switch.
- XIV. Vendor coin mech cycles each time credit is reached; no vend, no button pushed.
 - A. Check vend relay for coil for open circuit.
- XV. Vendor free vends on both prices.
 - A. Credit is not cancelled because of no line 7.
 - 1. Purple/orange wire is loose or broken between relays.
 - 2. Black/orange wire is loose or broken between vend relay and coin mech plug.
 - B. Motor in coin mech or cycle switch is defective.

SPECIFICATIONS 2042:

GENERAL SPECIFICATIONS:

Unit: Height - 68" Width - 38" Depth - 28½" Weight 590 lbs.
115 VAC 1.1 AMPS 60 HZ 1 Phase

	PRODUCT CAPACITY	PRODUCT SIZE	
		HIGH WIDE THICK	
Tray #1		10 PER SEL.=50	8½" x 4⅞" x 1¾"
Tray #2		20 PER SEL.=100	5½" x 2⅛" x 1"
Tray #3		20 PER SEL.=100	5½" x 2⅛" x 1"
Tray #4		20 PER SEL.=100	5½" x 2⅛" x 1"
Tray #5		20 PER SEL.=100	5½" x 2⅛" x 1"
Tray #6		20 PER SEL.=100	5½" x 2⅛" x 1"
TOTAL PRODUCT CAPACITY=550			

SPECIFICATIONS 2042A:

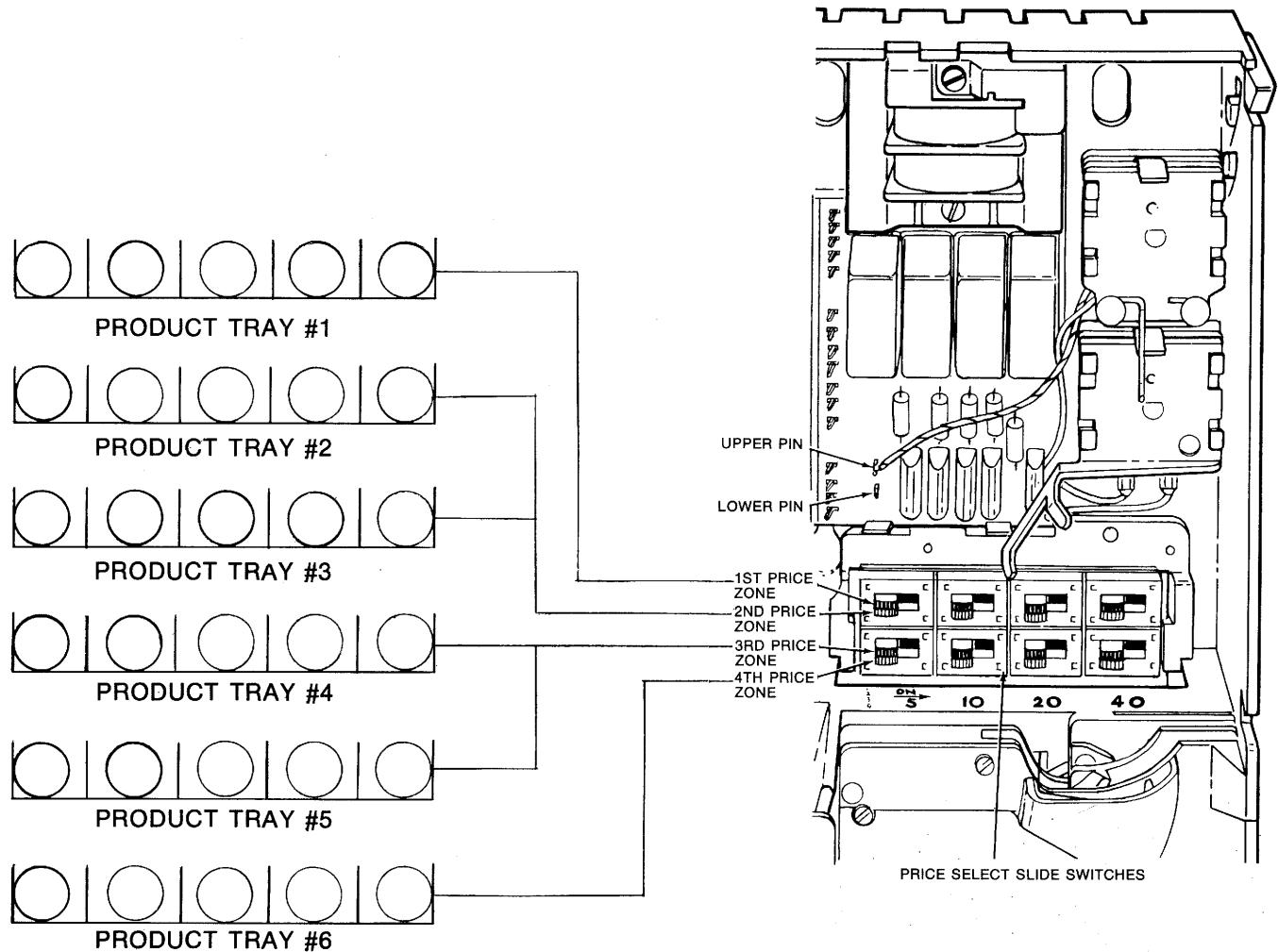
GENERAL SPECIFICATIONS:

Unit: Height - 68" Width - 38" Depth - 28½" Weight - 590 lbs.
115 VAC 1.1 AMPS 60 HZ 1 Phase

	PRODUCT CAPACITY	PRODUCT SIZE	
		HIGH WIDE THICK	
TRAY #1		20 PER SEL.=100	5½" x 2⅛" x 1"
TRAY #2		20 PER SEL.=100	5½" x 2⅛" x 1"
TRAY #3		20 PER SEL.=100	5½" x 2⅛" x 1"
TRAY #4		20 PER SEL.=100	5½" x 2⅛" x 1"
TRAY #5		20 PER SEL.=100	5¼" x 2⅛" x 1"
TRAY #6		20 PER SEL.=100	5½" x 2⅛" x 1"
TOTAL PRODUCT CAPACITY = 600			

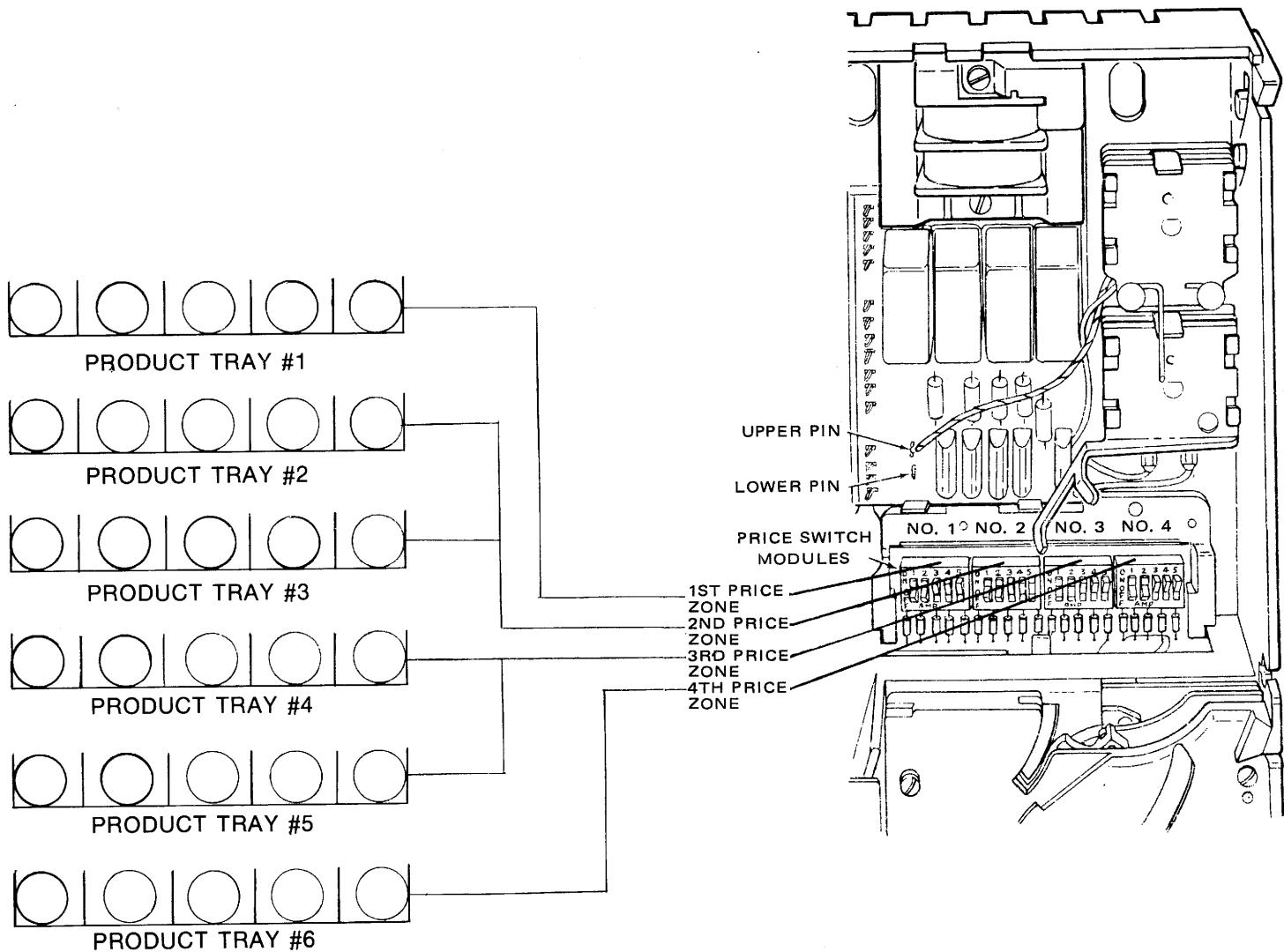
COIN MECHANISM AND PRICE SETTING: MODEL 2042, 2042A WITH (5¢ TO 75¢ CHANGER)

1. Unplug coin mechanism from vendor.
2. Remove coin acceptor from changer.
3. Removing the acceptor reveals the price selection slide switches. The slide switches are zoned to allow four individual vending prices. The vending price, for any zone, may be selected from as low as 5¢ up to and including 75¢ in 5¢ steps.
4. The row of switches are numbered (zoned) from top to bottom. The top row (black slides) being number 1 zone. The second row (white slides) being number 2 zone and etc. Each column of switches, up and down, has a price value 5¢, 10¢, 20¢, and 40¢. When any slide is moved to the right it is in the "ON" position, this will total the price value of each zone. Example: Top row of switches 5¢, 10¢, and 40¢ to the right will equal a total vend price of 55¢.
5. If all four zones are set for a vending price of 25¢ or higher, connect the white/black wire from the upper pin to the lowest pin.



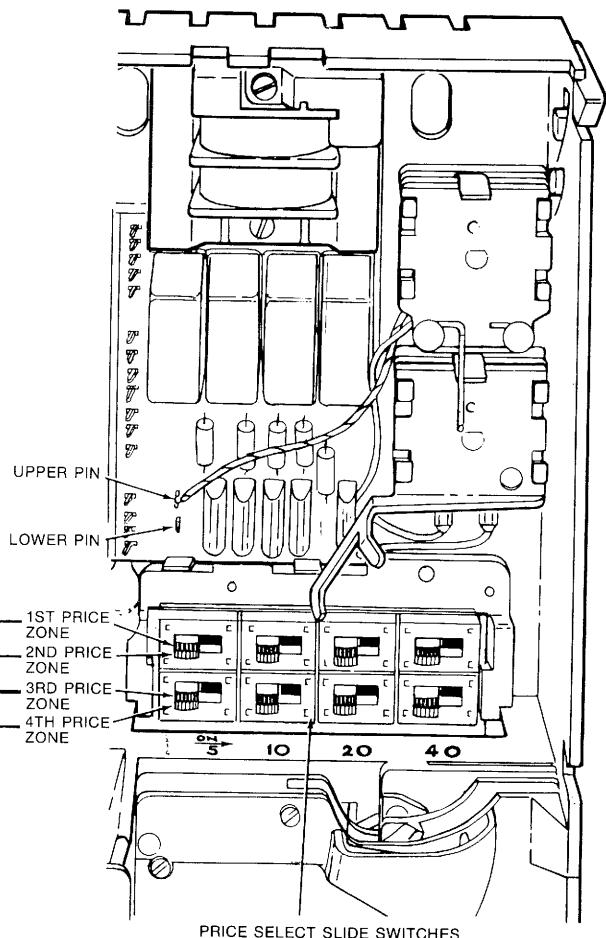
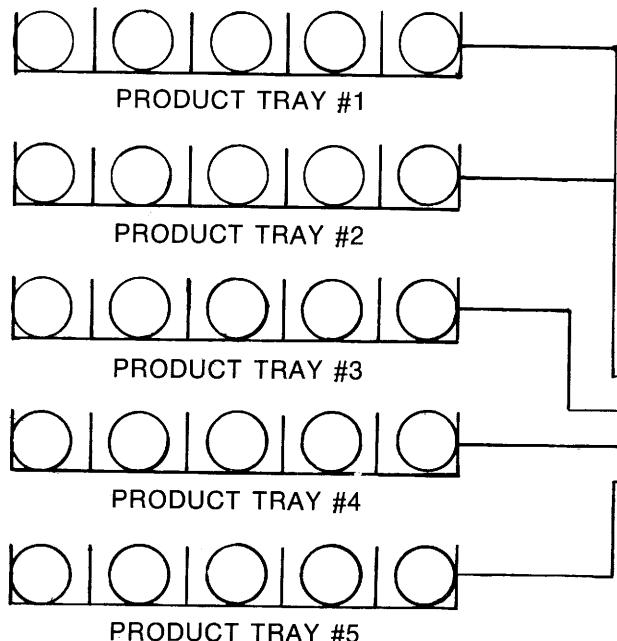
COIN MECHANISM AND PRICE SETTING: MODEL 2042, 2042A, WITH (5¢ TO \$1.50 CHANGER)

1. Unplug coin mechanism from vendor.
2. Remove coin acceptor from changer.
3. Removing the acceptor reveals the four selection price switch modules, numbered 1 thru 4. Each module has five miniature rocker type switches, numbered 1 thru 5. These switches correspond to prices as follows: #1 is 5¢, #2 is 10¢, #3 is 20¢, #4 is 40¢, #5 is 80¢. Set the vend price of each zone, by adding the value of the rocker switches in the "ON" position. Example: Switches #1 and #3 of zone #1 (#1 switch module), in the "ON" position. Since #1 switch is 5¢ and #3 switch is 20¢, the price in this zone is now 25¢.
4. If all four zones are set for 25¢, or above, connect the white/black wire from the upper pin to the lower pin.



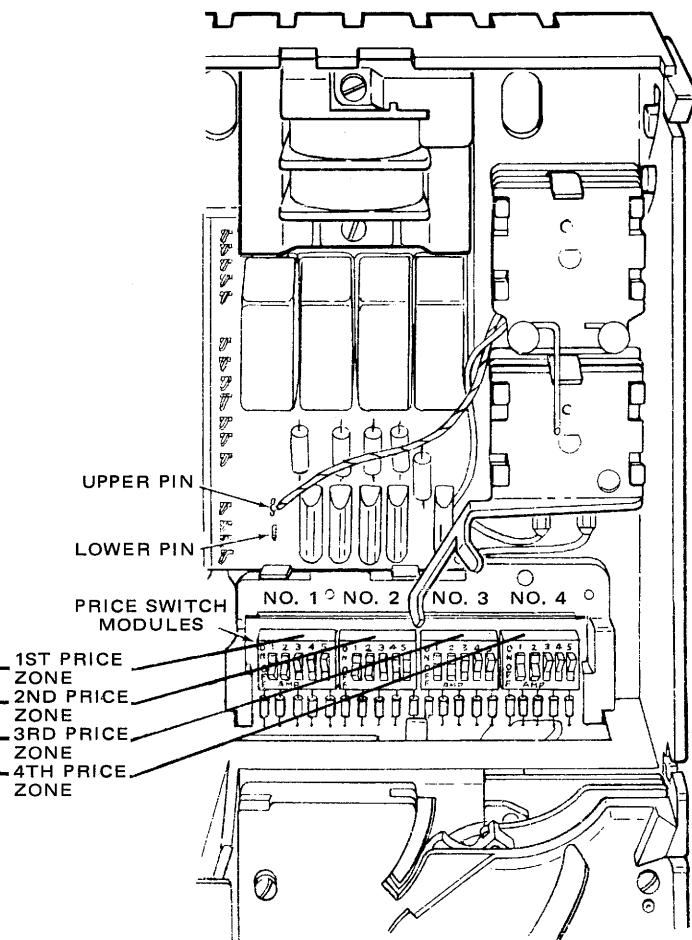
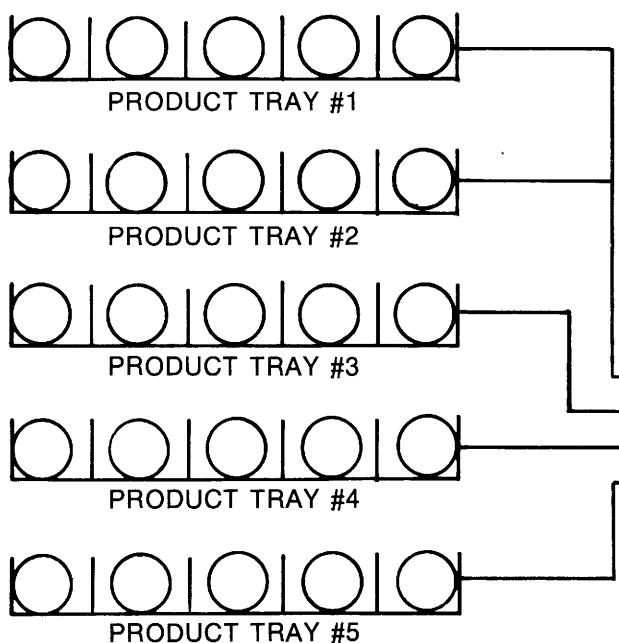
COIN MECHANISM AND PRICE SETTING: MODEL 2038B WITH (5¢ TO 75¢ CHANGER)

1. Unplug coin mechanism from vendor.
2. Remove coin acceptor from changer.
3. Removing the acceptor reveals the price selection slide switches. The slide switches are zoned to allow four individual vending prices. The vending price, for any zone, may be selected from as low as 5¢ up to and including 75¢ in 5¢ steps.
4. The row of switches are numbered (zoned) from top to bottom. The top row (black slides) being number 1 zone. The second row (white slides) being number 2 zone and etc. Each column of switches, up and down, has a price value 5¢, 10¢, 20¢, and 40¢. When any slide is moved to the right it is in the "ON" position, this will total the price value of each zone. Example: Top row of switches 5¢, 10¢, and 40¢ to the right will equal a total vend price of 55¢.
5. If all four zones are set for a vending price of 25¢ or higher, connect the white/black wire from the upper pin to the lowest pin.



COIN MECHANISM AND PRICE SETTING: MODEL 2038B WITH (5¢ TO \$1.50 CHANGER)

1. Unplug coin mechanism from vendor.
2. Remove coin acceptor from changer.
3. Removing the acceptor reveals the four selection price switch modules, numbered 1 thru 4. Each module has five miniature rocker type switches, numbered 1 thru 5. These switches correspond to prices as follows: #1 is 5¢, #2 is 10¢, #3 is 20¢, #4 is 40¢, #5 is 80¢. Set the vend price of each zone, by adding the value of the rocker switches in the "ON" position. Example: Switches #1 and #3 of zone #1 (#1 switch module), in the "ON" position. Since #1 switch is 5¢ and #3 switch is 20¢, the price in this zone is now 25¢.
4. If all four zones are set for 25¢, or above, connect the white/black wire from the upper pin to the lower pin.



TROUBLE SHOOTING MODEL 2038B, 2042, & 2042A

I. Vendor refuses all coins.

- A. Lights for product or selector are out.
 - 1) Check power cord to see if it is plugged in.
 - 2) Check fuse or circuit breaker in building for power.
 - 3) Check black or white wire from line cord to transformer.
- B. Lights are on but C.R.E.M. coils are not pulled in.
 - 1) Check circuit breakers on relay panel.
 - 2) Check all plugs containing orange, orange/green, orange/blue, white/orange wires.
 - 3. Check to see if all vend motors are home.
 - a) Turn each motor clockwise by hand starting with #1. They should run by themselves after a slight turn.
 - b) When you find the first motor that does not run you have found the break in the series circuit. It is between the last motor that ran and the first motor that did not.
 - c) If you center the first motor that did not run in its detent and the C.R.E.M. coils push in, the motor is defective or a wire is off of the coil of the motor.
 - d) If you center the motor that did not run and the C.R.E.M. coils do not pull in, there may be a wire off of the cycle switch or the switch is defective.
 - e) Also check the plugs on the trays of both motors if the last one to run was the last motor in a tray and the first motor that did not run is the first motor in the next tray.
 - C. Lights are on and C.R.E.M.s are pulled in.
 - 1) Check rejector
 - a) Check coin paths for foreign material.
 - b) Check rejector on level surface and drop coins to find problem.
 - 2) Check to see that the blocking fingers do not protrude into coin paths.
 - 3) Check to see that vendor is level.

II. Coin mechanism accepts dimes and nickels but no quarters and correct change light is out.

- A. Check to see if pay out tubes have enough change.
- B. Check to see if change empty switch is activated.

III. Coin mechanism accepts dimes and nickels but no quarters and correct change light is out.

- A. Check for burned out change light and no change.
- B. Check rejector for foreign material in quarter track.
- C. Quarter C.R.E.M. may be defective.

IV. Coin mechanism accepts quarters but no dimes or nickels. (change in tubes.)

- A. Check rejector for foreign material in dime or nickel track.
- B. Check for defective nickel-dime C.R.E.M. coil.

V. Vendor vends properly but pays out wrong or no change.

- A. Prices set wrong.
- B. Product not zoned properly.
- C. Changer set to accept quarters all the time but change tubes are empty.
- D. Defective credit system in coin mechanism. (replace unit)

VI. Vendor accepts money but will not vend on all selections.

- A. Prices set wrong.
- B. Check plugs behind relay panel and on selector switches.
- C. Broken or loose white/orange wire from relay panel to motors.
- D. No credit from coin mechanism. (replace unit)

VII. One tray will not vend rest of machine normal.

- A. Check plug on tray for loose or broken white/orange wire.

VIII. One selection in tray does not work rest of machine is normal.

- A. Defective motor
- B. Loose or broken wire on motor coil.
- C. Loose or broken selection wire between selector button and motor.
- D. Defective selector switch.

IX. Vendor preselects one product when credit is reached.

- A. Check for stuck push buttons.
- B. Check for shorted selector switch.

X. Vendor free vends on one selection.

- A. Credit not cancelled because motor cycle switch is not breaking C.R.E.M.s.
-

CARE AND CLEANING:

Disconnect vendor from power source.

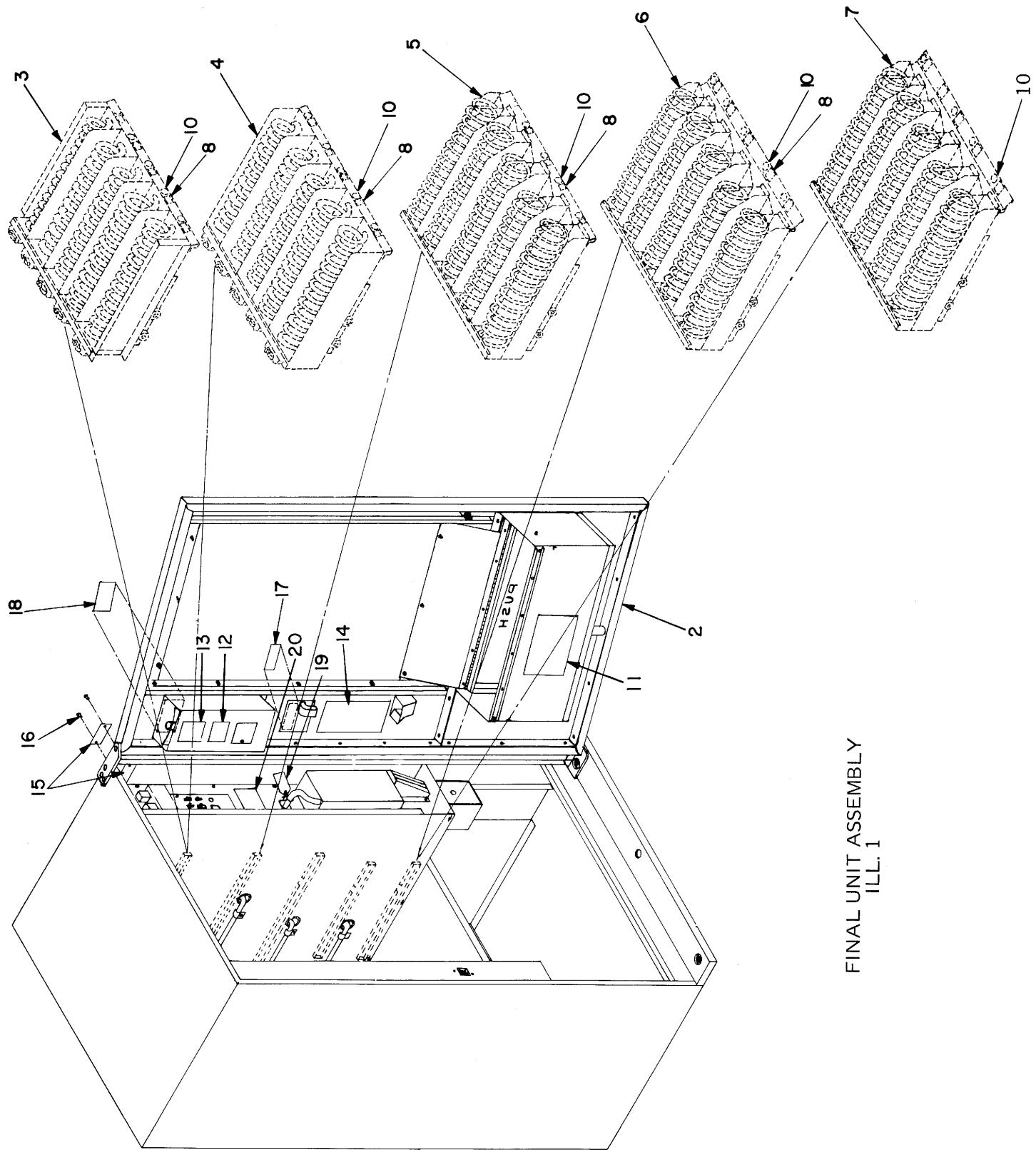
Cabinet Exterior: Wash with warm water and soap. Occasionally wax with a good auto wax.

Cabinet Interior: Clear out any foreign particles from delivery box on door. If needed, use a damp sponge and wipe dry.

Windows: Use any type of plastic window cleaner.

Slug Rejector: 1. Remove slug rejector from coin mechanism.

- 2. Soak rejector in warm water and a mild household detergent for approximately ten (10) minutes.
- 3. Use a stiff paint brush or tooth brush to clean foreign matter from the rejector.
- 4. Rinse in clear warm water.
- 5. Dry thoroughly by shaking or by applying filtered compressed air.

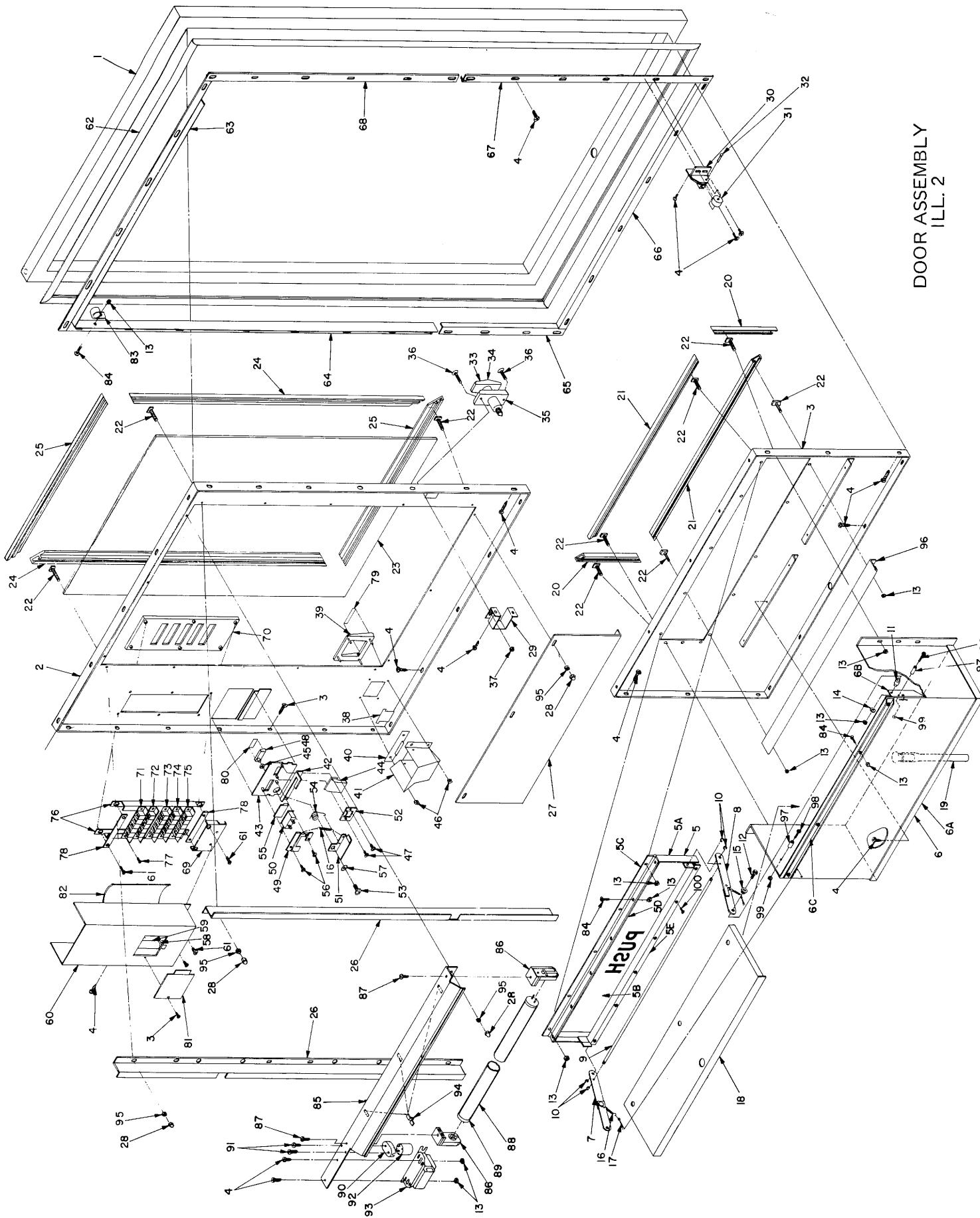


FINAL UNIT ASSEMBLY
ILL. 1

Item No.	No. Req'd.	Description	Item No.	Part No.	No. Req'd.
2	101245	1	33903	1	
	101246	1	33904	5	
	101247	1	33979	1	
	101248	1	33978	1	
4	101125	3	33975	1	
	101125	1	33976	1	
	101143	1	33974	1	
	101143	4	33960	1	
5	101143	1	33980	1	
	101143	5	101261	1	
6	101144	1	33904	6	
	101139	1	33979	1	
7	20421	1	33978	1	
	20435	1	33975	1	
9	20435	1	33976	1	
10	20501	1	33974	1	
	20502	1	33960	1	
	20413	1	33980	1	
11	20448	1	101209	1	
	20462	1	33903	3	
12	20425	1	33904	1	
	20488	1	33495	1	
14	20488	1	33496	1	
	27344	1	33975	1	
15	27377	1	33976	1	
	50667	2	33974	1	
16	50667	2	33960	1	
	20482	2	33494	1	
17	20419	1	33975	1	
	20483	1	33976	1	
18	20480	1	33974	1	
	20418	1	33960	1	
19	20418	1	33494	1	
20	101078	1	33975	1	
	33903	3	33976	1	
	33904	2	33974	1	
	33905	1	33960	1	
	33906	1	33975	1	
	33976	1	33976	1	
	33974	1	33960	1	
	33432	1	33433	1	
	33433	1	33434	1	
	33434	1	33435	1	
	33435	1	33436	1	
	101167	1			

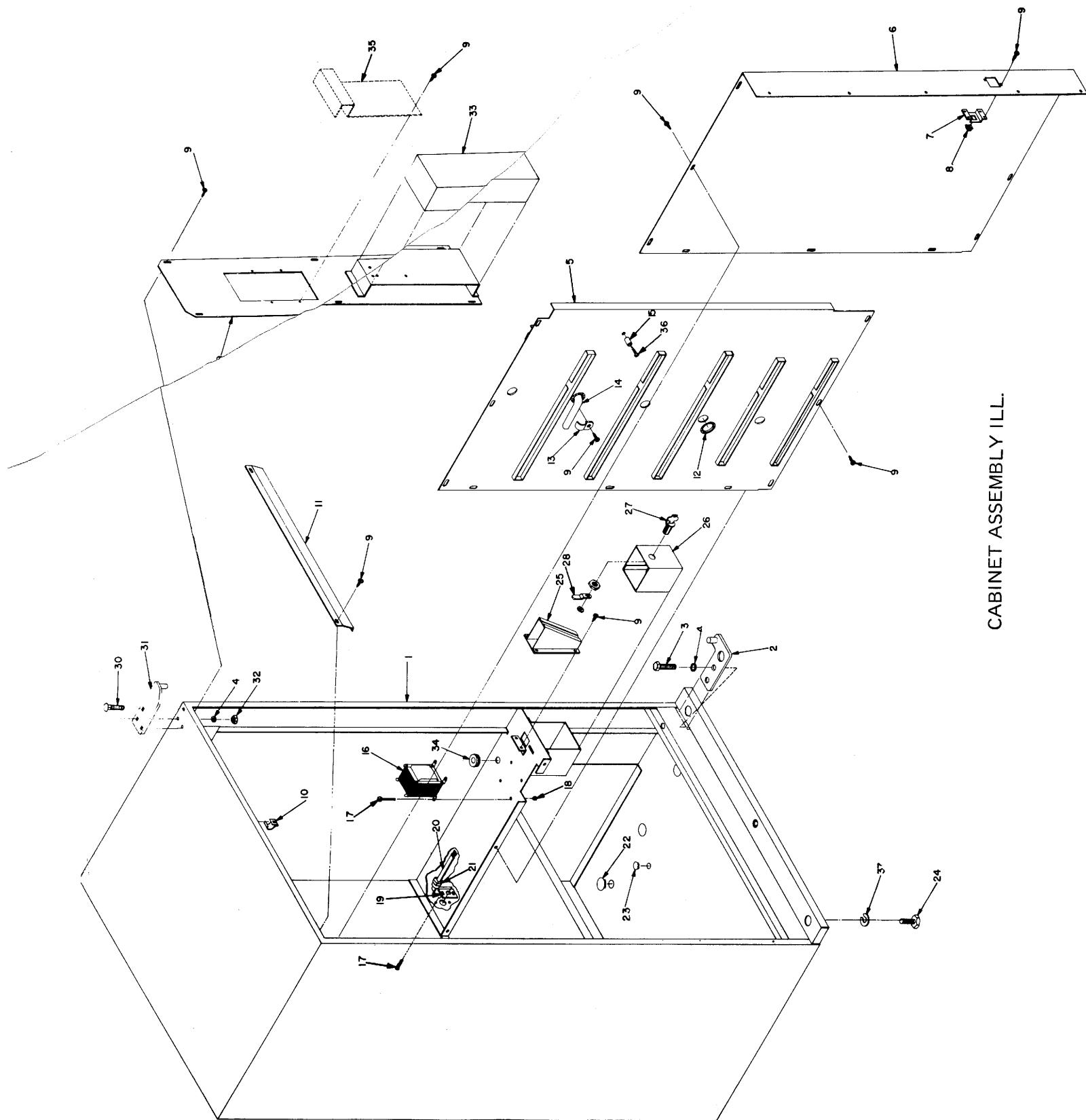
Item No.	No. Req'd.	Description	Item No.	Part No.	No. Req'd.
2	101245	1	33903	1	
	101246	1	33904	5	
	101247	1	33979	1	
	101248	1	33978	1	
4	101125	3	33975	1	
	101125	1	33976	1	
	101143	1	33974	1	
	101143	4	33960	1	
5	101143	1	33980	1	
	101143	5	101261	1	
6	101144	1	33904	6	
	101139	1	33979	1	
7	20421	1	33978	1	
	20435	1	33975	1	
9	20435	1	33976	1	
10	20501	1	33974	1	
	20502	1	33960	1	
	20413	1	33980	1	
11	20448	1	101209	1	
	20462	1	33903	3	
12	20425	1	33904	1	
	20488	1	33495	1	
14	20488	1	33496	1	
	27344	1	33975	1	
15	27377	1	33976	1	
	50667	2	33974	1	
16	50667	2	33960	1	
	20482	2	33494	1	
17	20419	1	33975	1	
	20483	1	33976	1	
18	20480	1	33974	1	
	20418	1	33960	1	
19	20418	1	33494	1	
20	101078	1	33975	1	
	33903	3	33976	1	
	33904	2	33974	1	
	33905	1	33960	1	
	33906	1	33975	1	
	33975	1	33976	1	
	33976	1	33974	1	
	33974	1	33960	1	
	33432	1	33433	1	
	33433	1	33434	1	
	33434	1	33435	1	
	33435	1	33436	1	
	101167	1			

DOOR ASSEMBLY
ILL. 2

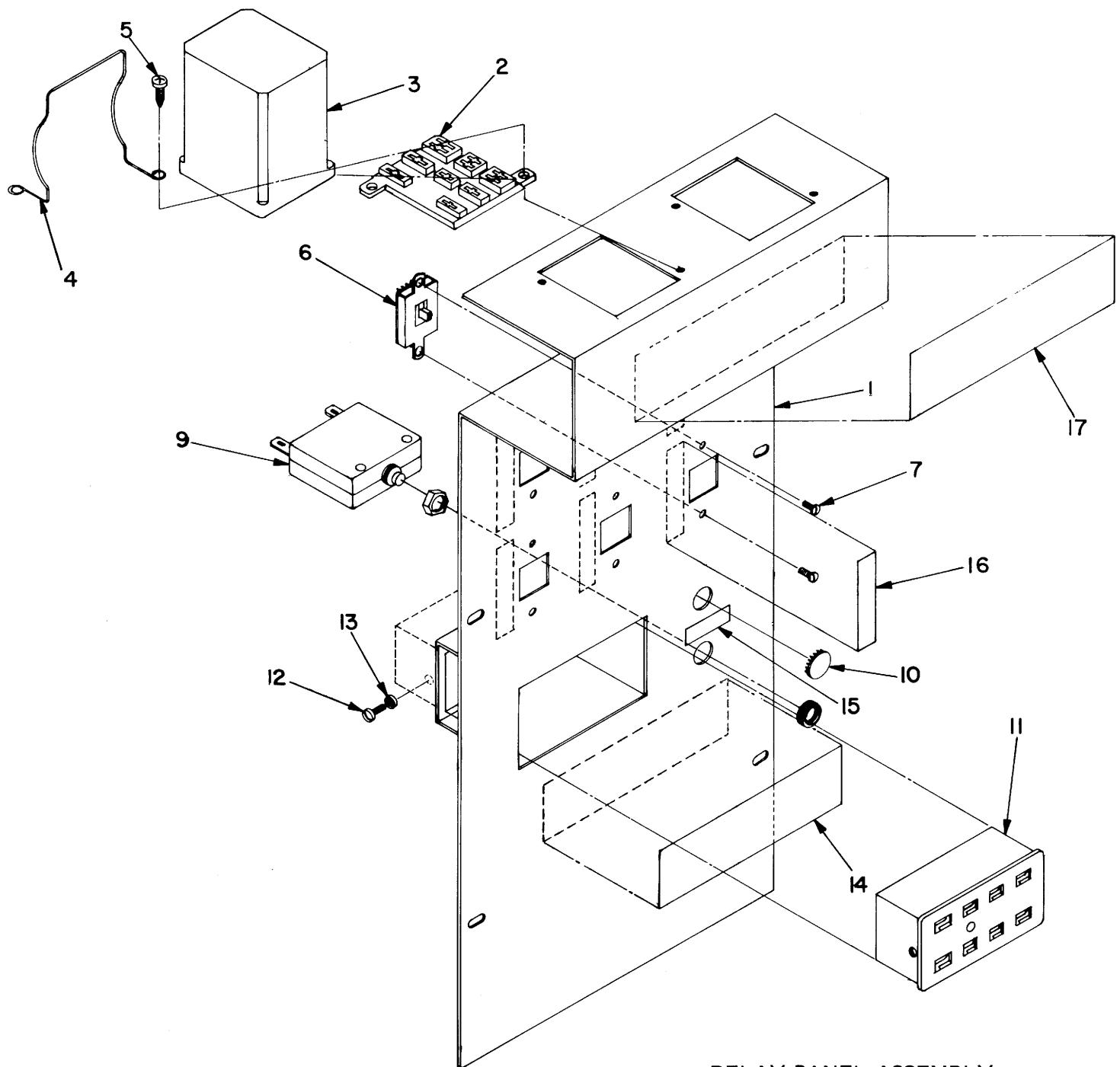


Item No.	Part No.	No. Req'd.	2038A	2042A	2042A	2043	Description	Item No.	Part No.	No. Req'd.	2038A	2042A	2042A	2043
1	101116	1	1	1	1	1	Door Frame Weld Ass'y.	49	9827	1	1	1	1	1
2	101202	1	1	1	1	1	Top Door Panel Weld Ass'y.	50	33912	1	1	1	1	1
3	100818	82	82	82	82	82	Bottom Door Panel Weld Ass'y.	51	33-4983-000	1	1	1	1	1
4	50180	1	1	1	1	1	8 x 1/2" Phil Pan Hd S.D.S.T.	52	20-1523-000	1	1	1	1	1
5	101165	1	1	1	1	1	Delivery Door Ass'y. Final	53	20-0469-020	1	1	1	1	1
5A	100692	1	1	1	1	1	Delivery Door Weld Ass'y.	54	09-1076-100	1	1	1	1	1
5B	25547	1	1	1	1	1	Delivery Door Hinge	55	25256	1	1	1	1	1
5C	3955	1	1	1	1	1	Top Delivery Glass Retainer	56	20-0470-002	2	2	2	2	2
5D	9879	1	1	1	1	1	Bottom Delivery Glass Retainer	57	20-0717-008	1	1	1	1	1
5E	9890	1	1	1	1	1	Delivery Ass'y. Final	58	33965	1	1	1	1	1
6	100693	1	1	1	1	1	Delivery Wraparound Weld Assy.	59	33953	1	1	1	1	1
6A	100691	1	1	1	1	1	Anticheat Ass'y.	60	9818	1	1	1	1	1
6B	101274	1	1	1	1	1	Delivery Wraparound Stiffener	61	50240	6	6	6	6	6
6C	3953	1	1	1	1	1	Linkarm Ass'y. Final	62	60309	1	1	1	1	1
7	101206R	1	1	1	1	1	Linkarm Ass'y. Final	63	9920	1	1	1	1	1
8	101206L	1	1	1	1	1	Linkarm Rod	64	9921	1	1	1	1	1
9	30313	1	1	1	1	1	1/4" "E" Ring	65	9922	1	1	1	1	1
10	50554	4	4	4	4	4	Shoulder Bushing	66	9923	1	1	1	1	1
11	30280	2	2	2	2	2	8-32 x 3/4" Phil Pan Hd M.S.	67	9924	1	1	1	1	1
12	50262	2	2	2	2	2	8-32 Nuts	68	9925	1	1	1	1	1
13	50513	30	30	30	30	30	8-Washer	69	9829	1	1	1	1	1
14	50609	2	2	2	2	2	Spacers	70	60312	1	1	1	1	1
15	30025	2	2	2	2	2	Spring	71	33995	1	1	1	1	1
16	21015	3	3	3	3	3	3/32 x 3/4" Cotter Pin	72	33996	1	1	1	1	1
17	50639	2	2	2	2	2	1	1	1	1	1	1	1	1
18	25409	1	1	1	1	1	3/8" Dia. 1/16" Wall Mayon Tubing (8" Long)	73	33997	1	1	1	1	1
19	22307-001	2	2	2	2	2	Delivery Trim (Sides)	74	33998	1	1	1	1	1
20	22307-002	2	2	2	2	2	Delivery Trim (Top & Bottom)	75	33999	1	1	1	1	1
21	22-1051-001	16	16	16	16	16	3/8 x 1/2" T-Bolt Plated	76	9586	1	1	1	1	1
22	22509-002	1	1	1	1	1	Display Window	77	50112	10	12	12	8	10
23	25546	2	2	2	2	2	Display Trim (Sides)	78	3397	2	2	2	2	2
24	22209-002	2	2	2	2	2	Display Trim (Top & Bottom)	79	20423	1	1	1	1	1
25	22309-001	2	2	2	2	2	Anti Theft Guard	80	33-4370-000	1	1	1	1	1
26	9850	2	2	2	2	2	Door Deflector	81	9826	1	1	1	1	1
27	9876	1	1	1	1	1	8-32 Nylon Mach Cap Nut	82	25563	1	1	1	1	1
28	50508	16	16	16	16	16	Lock Housing	83	60134	1	1	1	1	1
29	9823	1	1	1	1	1	Door Lift Brkt Ass'y.	84	50247	1	1	1	1	1
30	101051	1	1	1	1	1	Roller	85	9917	1	1	1	1	1
31	20-1931-000	1	1	1	1	1	Rivet	86	33548	2	2	2	2	2
32	20-1932-000	1	1	1	1	1	1	87	50113	2	2	2	2	2
33	20-2039-000	1	1	1	1	1	4255 Flush Handle (Chicago Lock)	88	35550	1	1	1	1	1
34	60330-0	1	1	1	1	1	Lock Cylinder With 2 Keys	89	33713	1	1	1	1	1
35	(State key Number)	2	2	2	2	2	#10-32 x 1/2" Flat Hd Socket Hd Cap Screw	90	33617	1	1	1	1	1
36	50338	2	2	2	2	2	#10-32 Lock Nut	91	50018	2	2	2	2	2
37	50546	2	2	2	2	2	Coin Return Door	92	33661	1	1	1	1	1
38	20-0102-000	1	1	1	1	1	Change Bezel	93	33669	1	1	1	1	1
39	33-4281-000	1	1	1	1	1	Anti-Payout Tab	94	60130	3	3	3	3	3
40	20-1422-000	1	1	1	1	1	Coin Return Cap	95	50510	2	2	2	2	2
41	20-1649-000	1	1	1	1	1	Coin Insert Bottom Retainer	96	33945	1	1	1	1	1
42	9908	1	1	1	1	1	Coin Insert Casting	97	60174	4	4	4	4	4
43	20-1516-000	1	1	1	1	1	Coin Intake Chute	98	50136	4	4	4	4	4
44	20-1748-001	1	1	1	1	1	Coin Release Washer	99	50505	6	6	6	6	6
45	10-0816-000	1	1	1	1	1	#8 Sheet Metal Nut	100	50119	1	1	1	1	1
46	33-4982-000	2	2	2	2	2	6-32 1/4" Phil Rd. Hd. Type 1 (Sems)							
47	20-0470-010	2	2	2	2	2	Coin Release Handle							
48	33-4283-000	1	1	1	1	1								

CABINET ASSEMBLY ILL.



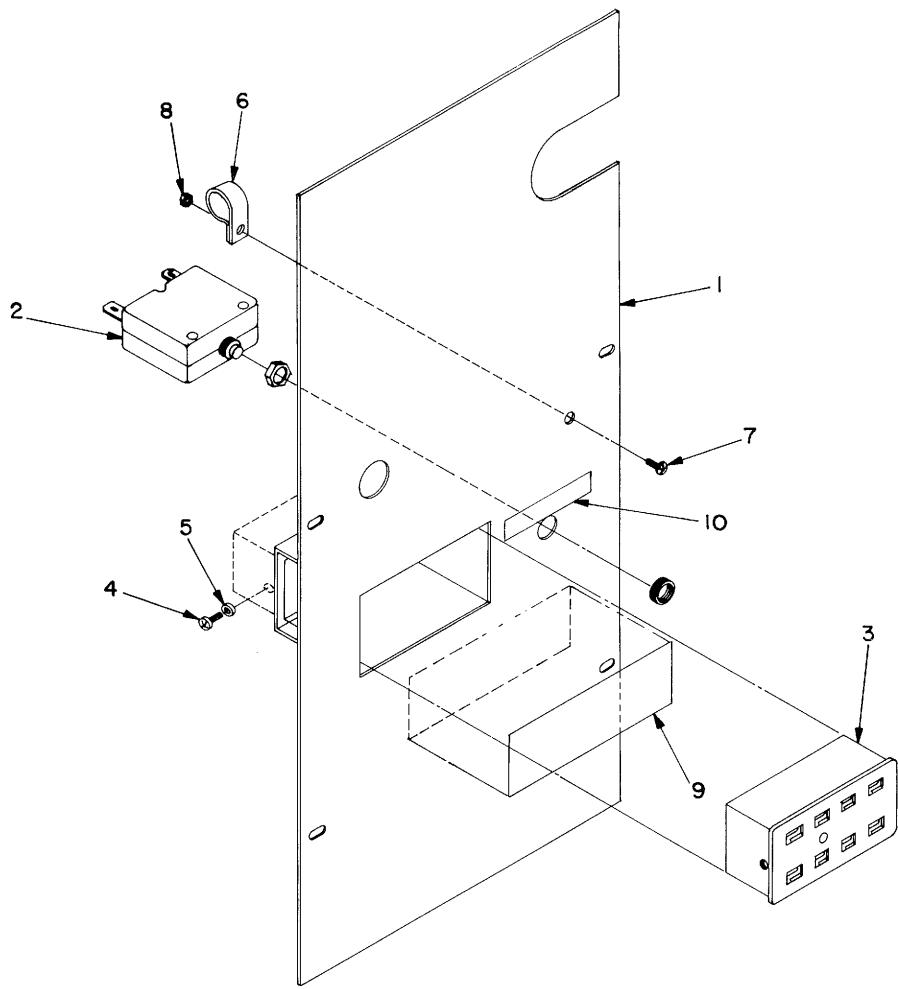
Item No.	Part No.	No. Req'd.					Description
		2038A	2042	2042A	2043		
1	100811	1	1	1	1	1	Cabinet Weld Ass'y.
2	60-0018-000	1	1	1	1	1	Lower Hinge Weld Ass'y.
3	50072	2	2	2	2	2	5/16-18 x 3/4 Hex Hd Bolts
4	18-6148-000	2	2	2	2	2	5/16 Lockwasher
5	100805	1	1	1	1	1	Right Panel Weld Ass'y.
6	101133						Right Panel Weld Ass'y.
7	101159						Right Panel Weld Ass'y.
8	100808	1	1	1	1	1	Left Panel Weld Ass'y.
9	101134						Left Panel Weld Ass'y.
10	101160						Left Panel Weld Ass'y.
11	9831						Lock Nut Bracket
12	50750	1	1	1	1	1	Lock Nut
13	50180	47	46	46	48	48	#8 x 1/2" Phil Pan Hd Teks
14	20-0341-000	3	3	3	3	3	Tube Clip
15	9849	1	1	1	1	1	Light Reflector
16	33652	2 ft.	2 ft.	2 ft.	2 ft.	2 ft.	Extruded Grommet
17	50760	5	6	6	6	4	1/2" Conduit Wire Clamps
18	33905						Main Harness (Part of Complete Harness Assy. #101167 & 101261)
19	33979						Main Harness (Part of Complete Harness Assy. #101209)
20	33495						Main Harness (Part of Complete Harness Assy. #101209)
21	60174	8	10	10	10	10	Stop Bushings
22	33941	4	4	4	4	4	Transformer 1-10/220 24 Vac
23	58247	4	4	4	4	4	#8-32 x 1/2" Phil Pan Hd M.S.
24	50513	4	4	4	4	4	#8-32 Lock Nut
25	100422	1	1	1	1	1	Power Cord Plate Assy.
26	33631	1	1	1	1	1	Power Cord 3 Wire
27	33683	3	3	3	3	3	Cord Relief Bushing
28	60128	3	2	2	2	2	Floor Plug 1"
29	60129	2	4	4	4	4	Floor Plug 1/2"
30	60310	4	1	1	1	1	Leg Lever 1/2 x 20
31	101129	1	1	1	1	1	Coin Chute Weld Ass'y.
32	101137	1	1	1	1	1	Coin Box Weld Ass'y.
33	60025	1	1	1	1	1	Lock (Standard)
34	60030	1	1	1	1	1	Cam
35	100802	1	1	1	1	1	Coin Mech Brkt' Weld Ass'y.
36	50099	3	3	3	3	3	5/16 x 3/4 Carriage Bolt
37	101127	1	1	1	1	1	Upper Hinge Weld Ass'y.
38	50066	3	3	3	3	3	5/16 Hex Nuts Plated
39	60291	1	1	1	1	1	Dual Price Changer 24 Vac
40	60248	1	1	1	1	1	4 Price Changer 24 Vac
41	33672	1	1	1	1	1	Rubber Grommet
42	101249	1	1	1	1	1	Relay Panel Final Ass'y.
43	101250	1	1	1	1	1	Relay Panel Final Ass'y.
44	101251	8	10	10	10	6	Relay Panel Final Ass'y.
45	50241	4	4	4	4	4	#8 x 3/4" Phil. Pan Hd Type AB S.M.S.
46	9927						Leg Leveler Washers For Skid



RELAY PANEL ASSEMBLY
FOR MODEL 2038B
ILL. 4

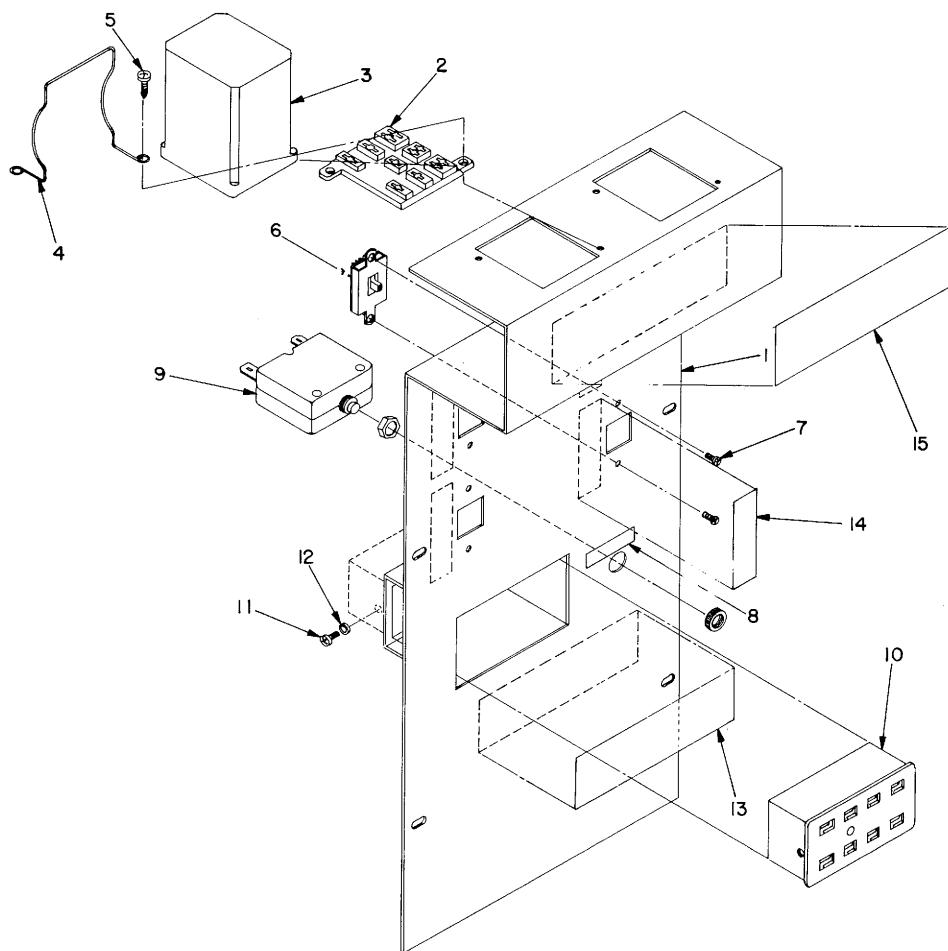
Item	Part No.	No. Req'd	Description
1	100812	1	Relay Panel Weld Ass'y
2	33703	2	Relay Socket
3	33898	2	Relay Kup 14A15 24VAC
4	33993	2	20C 228 Kup Hold Down Spring
5	50180	4	#8 x 1/2 Phil Pan Hd.
6	33901	6	Slide Switches 4 Pole DT.
7	20-0470-012	12	8-32 x 3/8 Rd. Hd Phil Type 23
9	33620	1	5 Amp Circuit Breaker
10	60327	1	7/16 Hole Plug
11	33607	1	Female Plug
12	50112	2	#6-32 x 1/2 Phil Pan Hd M.S.
13	50617	2	Washers
14	20417	1	Electrical Decal
15	20487	1	"Push to Reset" Decal
16	20422	1	Switch Decal
17	20416	1	Relay Decal

RELAY PANEL ASSEMBLY
FOR MODEL: 2038B, 2042, 2042A

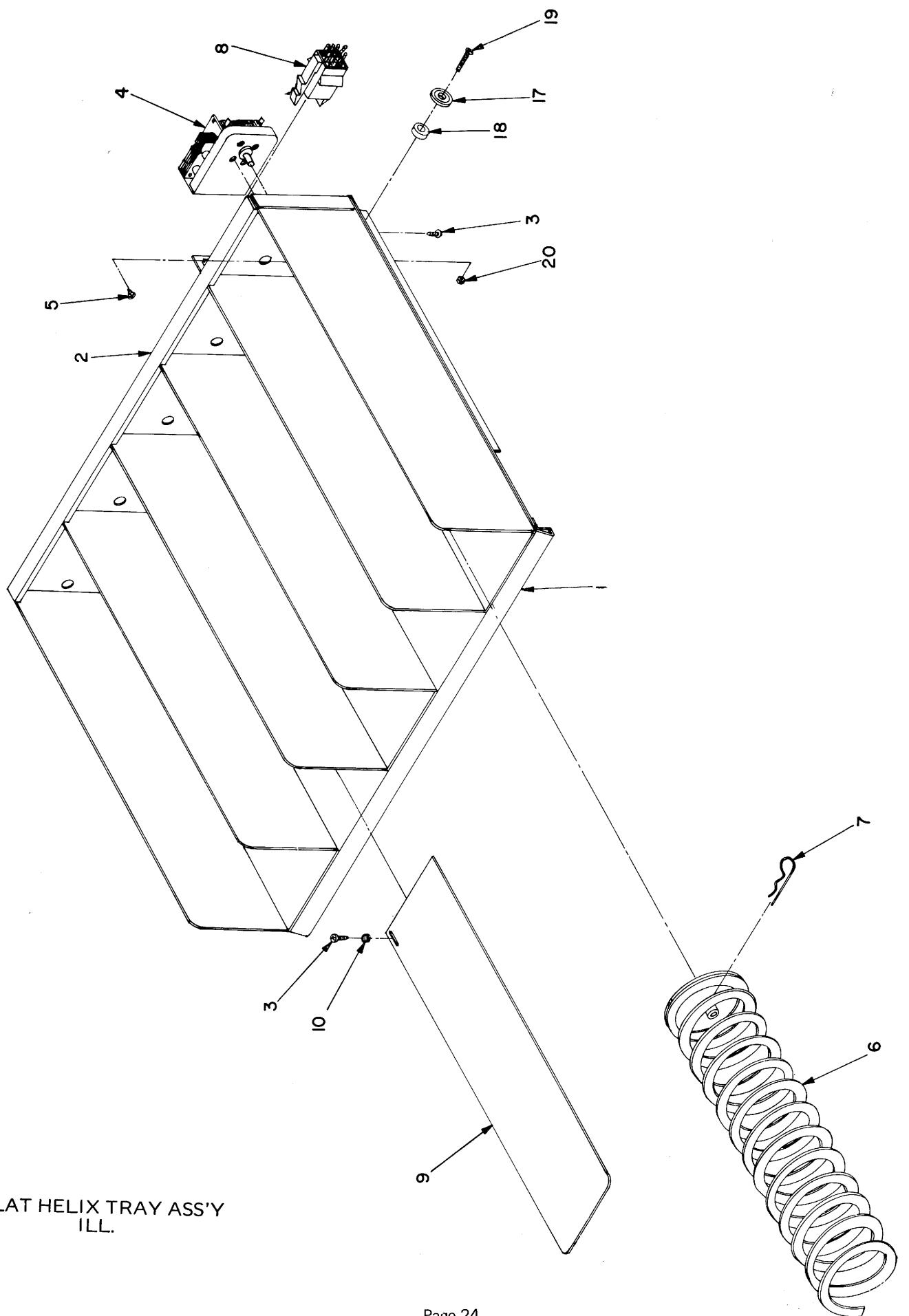


Item	Part No.	No. Req'd. 2042 2042A	Description
1	101135	1	Relay Panel Weld Ass'y.
2	33620	1	5 Amp Circuit breaker
3	33607	1	Female Plug
4	50112	2	6-32 x 1/4 Phil Pan M.S.
5	50617	2	Washer
6	60134	1	Clamp 1" Dia.
7	50247	1	8-32 x 1/2 Phil Pan Hd M.S.
8	50513	1	8-32 Lock Nut
9	20417	1	Electrical Decal
10	20487	1	"Push To Reset" Decal

RELAY PANEL ASSEMBLY
FOR MODEL 2043



Item No.	Part No.		Description
1	101161	1	Relay Panel Weld Ass'y.
2	33703	2	Relay Socket
3	33898	2	Relay Kup 14A15 24 Vac
4	33993	2	20C 228 Kup Hold Down Spring
5	50180	4	#8 x 1/2 Phil Pan Hd S.D.S.T.
6	33901	4	Slide Switches 4PDT
7	20-0470-012	8	#8-32 x 3/8 Phil Rd Hd Type 23
8	20487	1	"Push To Reset" Decal
9	33620	1	5 Amp Circuit Breaker
10	33607	1	Female Plug
11	50112	2	6-32 x 1/4 Phil Pan Hd Mach Screw
12	50612	2	Washer
13	20417	1	Electrical Decal
14	20486	1	Switch Decal
15	20416	1	Relay Decal

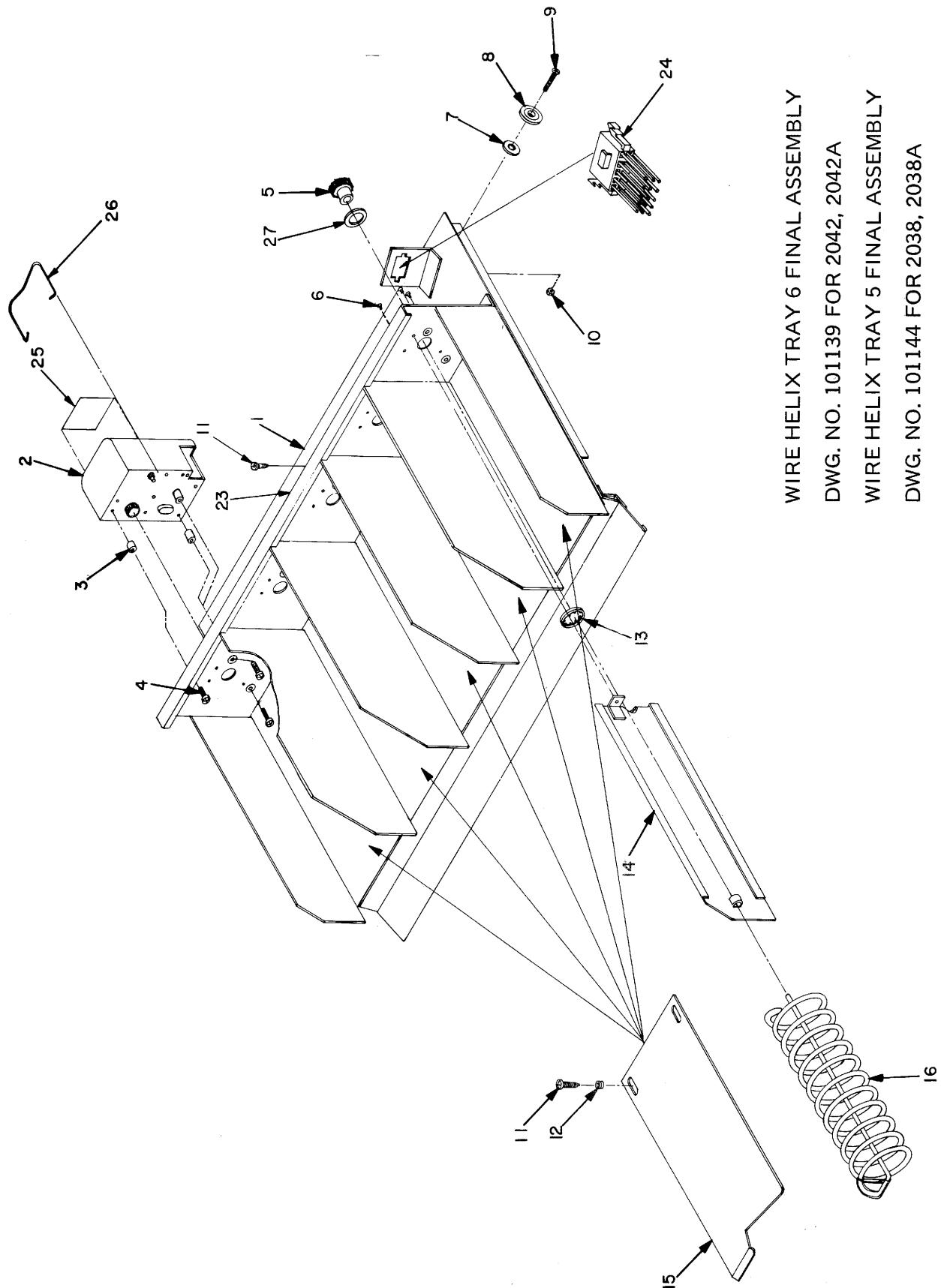


FLAT HELIX TRAY ASS'Y
ILL.

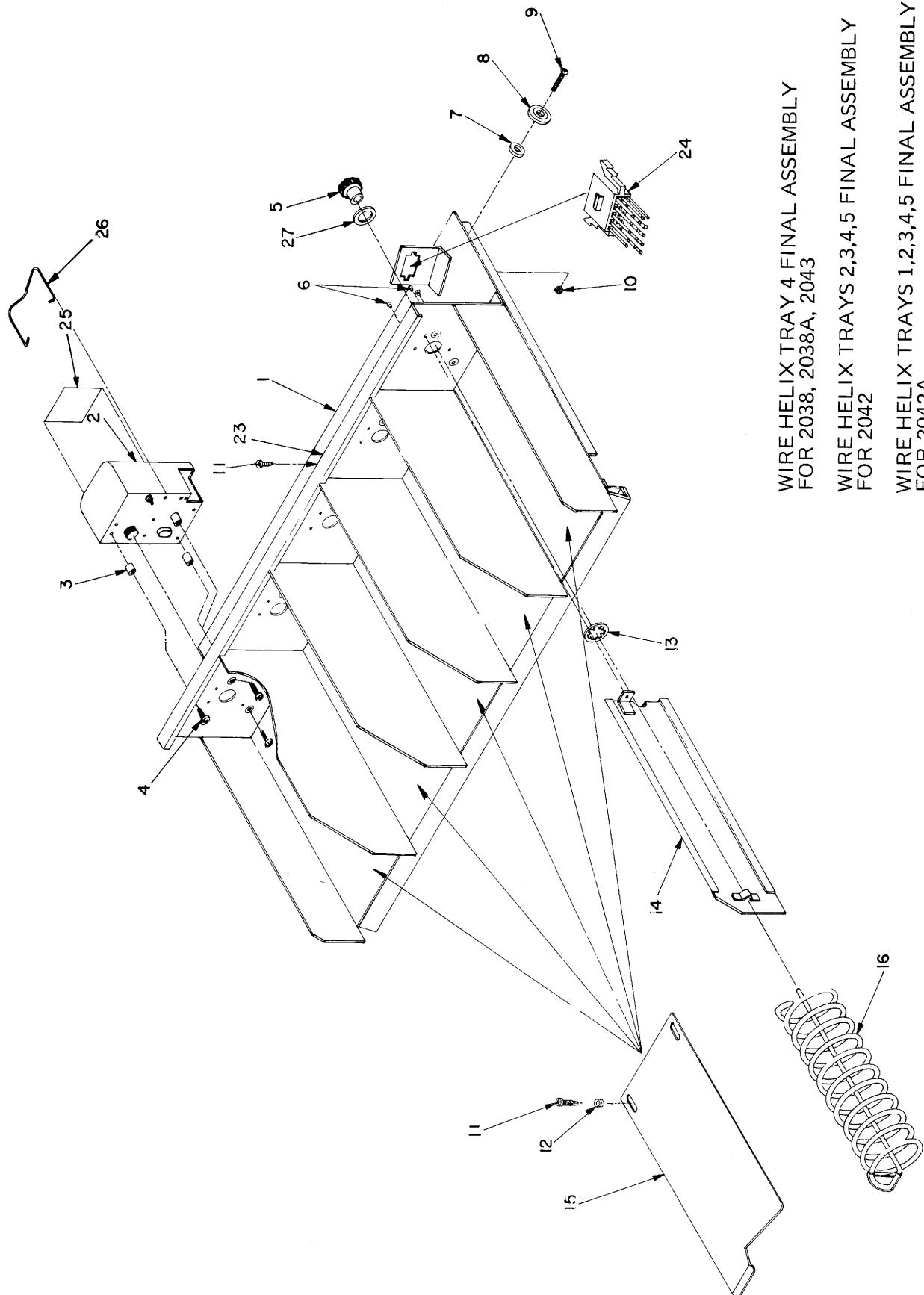
SUGGESTED SPARE PARTS

Part No.	No.	Description
33872	2	Motor, Round Wire Helix
60286	2	Nylon Gear
60287	2	Gear Retainer
60283	2	Round Wire Helix
33943	2	Motor, Flat Helix
101195	2	Flat Helix (large)
50773	4	Hitch Pin
33550	1	Display Lamp
33953	1	Push Button Lamp
25546	1	Display Window
25547	1	Delivery Window
33946	1	Push Button Switch
20423	1	Push Button Numbers

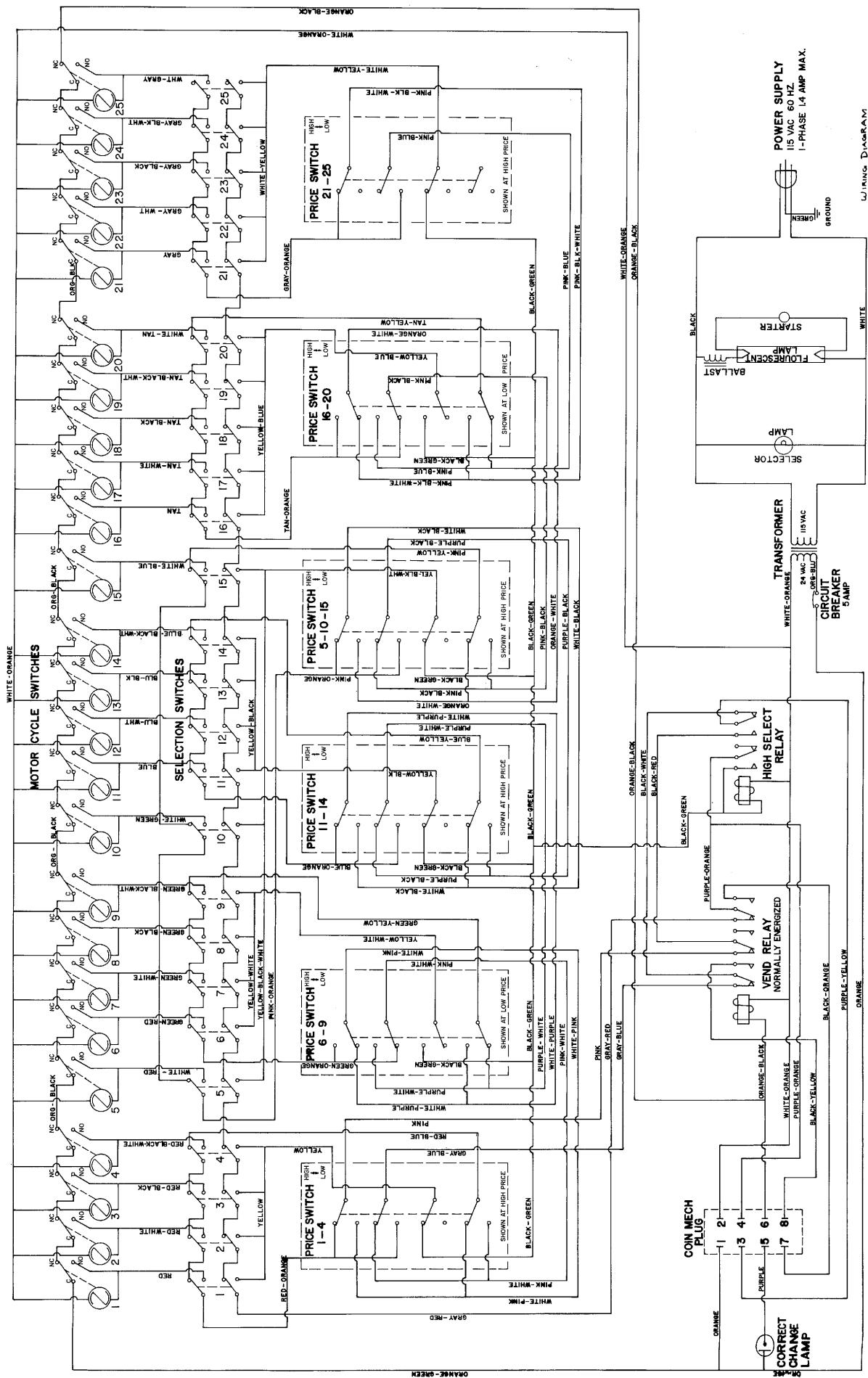
Item No.	Part No.	No. Req'd.				Description
		2038A	2042	2042A		
1	101140	1	1	1	1	Wire Helix Tray #5 Weld & Rivet Ass'y.
2	101138					Wire Helix Tray #6 Weld & Rivet Ass'y.
3	33872	5	5	5	5	Helix Motor
4	30272	15	15	15	15	Motor Bushing
5	50273	15	15	15	15	#8-32 x 1" Phil Pan Hd M.S.
6	60286	5	5	5	5	Gear
7	50692	15	15	15	15	5/32 x 3/8 Pop Rivet
8	30096	4	4	4	4	Spacers
9	60172	4	4	4	4	Nylon Roller
10	50262	4	4	4	4	#8-32 x 3/4 Phil Pan Hd M.S.
11	50513	4	4	4	4	#8-32 Lock Nut
12	50180	7	7	7	7	#8 x 1/2 Phil Pan Hd Tek
13	33967	5	5	5	5	Rubber Grommet
14	60329	5	5	5	5	Gear Retainer
15	100807	5	5	5	5	Wire Helix Divider Weld Ass'y.
16	9833	5	5	5	5	Adjustable Shelf
17	60283	5	5	5	5	Wire Helix (Dove)
18	9886	1	1	1	1	Wire Helix Tray Back
19	33904	1	1	1	1	Wire Helix Tray Harness
20	20471	5	5	5	5	Motor Decal
21	21062	5	5	5	5	Motor Cover Retainer
22	25358	5	5	5	5	Plastic Washer
23						
24						
25						
26						
27						

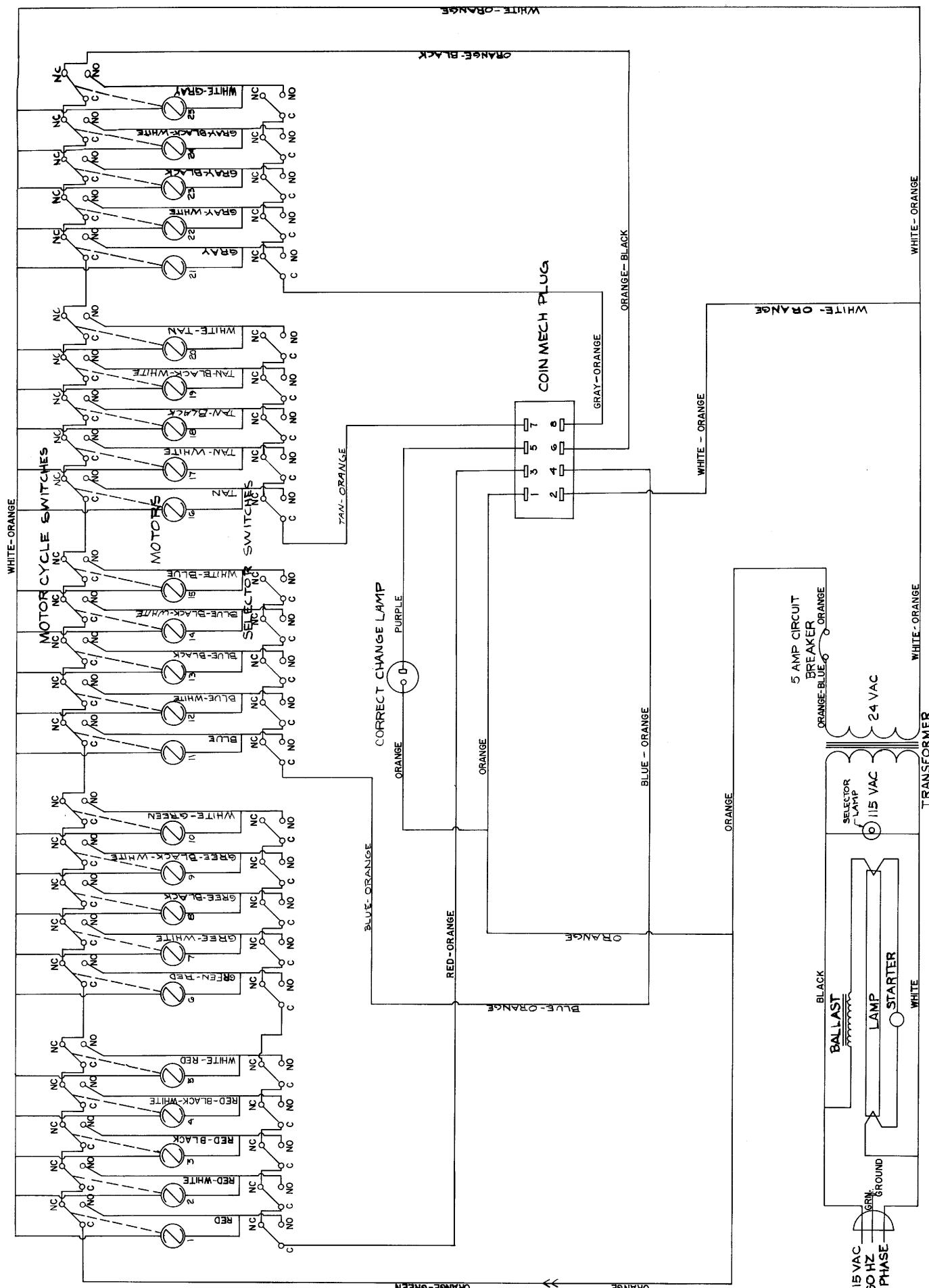


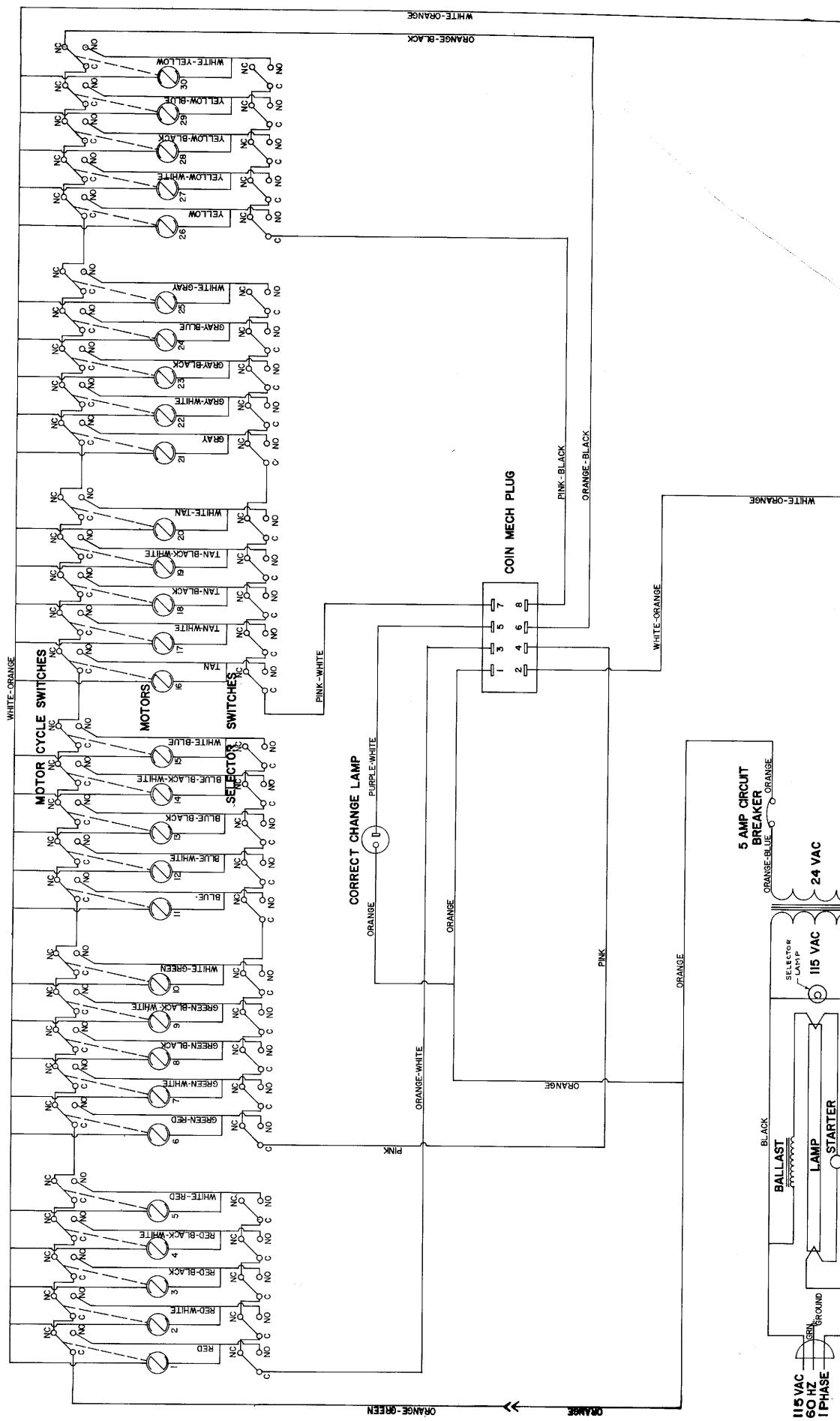
Item No.	Part No.	No. Req'd.				Description
		2038A	2042	2042A	2043	
1	101122	1	4	5	1	Wire Helix Tray Weld & Rivet Ass'y.
2	33872	5	20	25	5	Helix Motor
3	30272	15	60	75	15	Motor Bushing
4	50273	15	60	75	15	#8-32 x 1" Phil Pan Hd. M.S.
5	60286	5	20	25	5	Gear
6	50692	15	60	75	15	5/32 x 3/8 Pop Rivet
7	30096	4	16	20	4	Spacer
8	60172	4	16	20	4	Nylon Roller
9	50262	4	16	20	4	#8-32 x 3/4 Phil Pan Hd. M.S.
10	50313	4	16	20	4	#8-32 Lock Nut
11	50180	8	32	40	8	#8 x 1/2 Phil Pan Hd Tek
12	33967	5	20	25	5	Rubber Grommet
13	60329	5	20	25	5	Gear Retainer
14	100807	5	20	25	5	Wire Helix Divider Weld Ass'y.
15	98333	5	20	25	5	Adjustable Shelf
16	60283	5	20	25	5	Wire Helix (Dove)
23	9886	1	4	5	1	Wire Helix Tray Back
24	33904	1	4	5	1	Wire Helix Tray Harness (Part of Complete
						Wire Harness Ass'y. #101167 & 101261)
25	20471	5	20	25	5	Motor Decal
26	21062	5	20	25	5	Motor Cover Retainer
27	25258	5	20	25	5	Plastic Washer



Item No.	Part No.	No. Req'd.			Description
		2038A	2042	20-3	
1	101123	3	1	3	Flat Wire Helix Tray Weld & Rivet Ass'y.
2	101124	3	1	3	Flat Wire Helix Tray Back Weld Ass'y.
3	50180	24	8	24	#8 x 1/2 Phil Pan Tek
4	33943	15	5	15	Motors 24 Vac
5	50240	30	10	30	#8-32 x 3/8 Phil Pan Hd. M.S.
6	101,195	15	5	15	Helix & Hub Ass'y.
7	50773	15	5	15	Hitch Pin
8	33903	3	1	3	Tray Harness
9	4265	15	5	15	Flatwire Adjustable Shelf
10	33967	15	5	15	Rubber Grommet
17	60172	12	4	12	Nylon Roller
18	30096	12	4	12	Spacers
19	50262	12	4	12	#8-32 x 3/4 Phil Pan Hd M.S.
20	50513	12	4	12	#8-32 Lock Nuts







WIRING DIAGRAM
30 COL.
204282042A
DWG. NO. 20448

