

# **MERCHANDISE MART.®**

**MODEL 2038A  
25 COLUMN**

**MODEL 2042  
30 COLUMN**

**MODEL 2042A  
30 COLUMN**

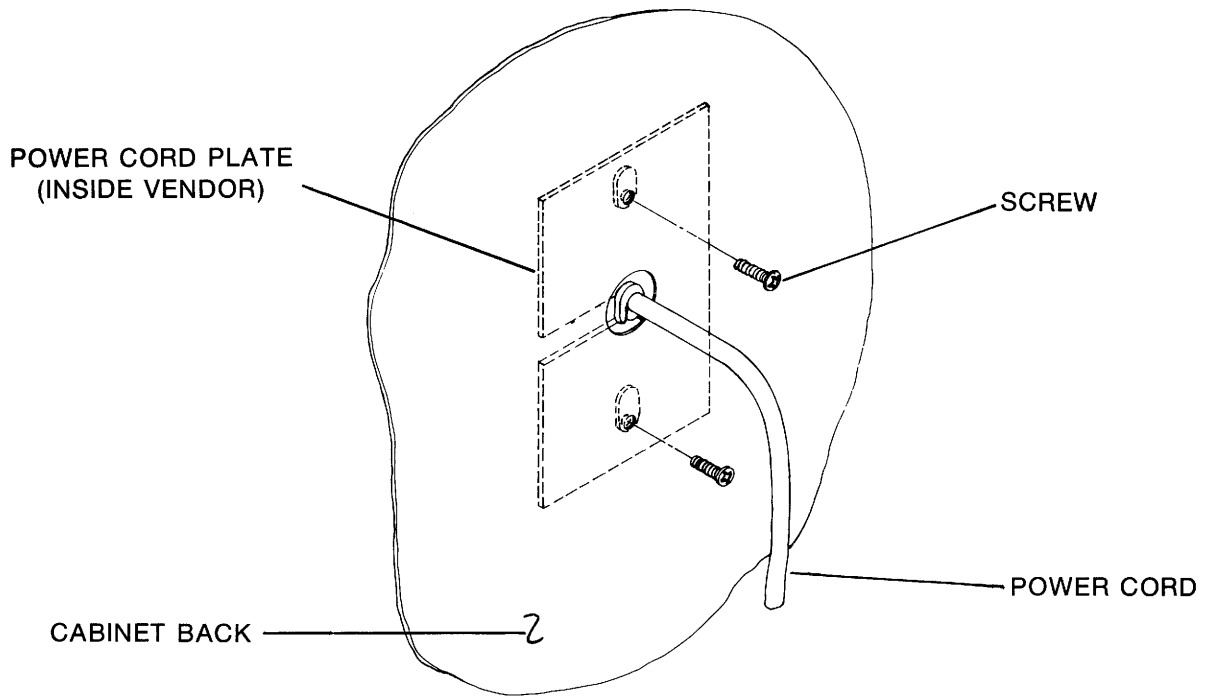
**MODEL 2043  
20 COLUMN**

**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. \_\_\_\_\_.

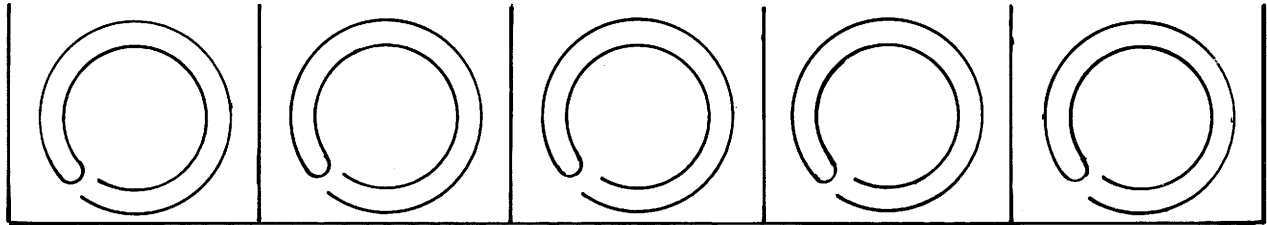
1. Remove all shipping brackets, packing and tape.
2. Remove wood pallet from under the vendor. Turn the levelers in as far as possible.
3. Move the vendor to the desired location.
4. The vendor must be level to operate with the leveler in as far as possible, adjust so the machine does not rock or teeter 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.

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## 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

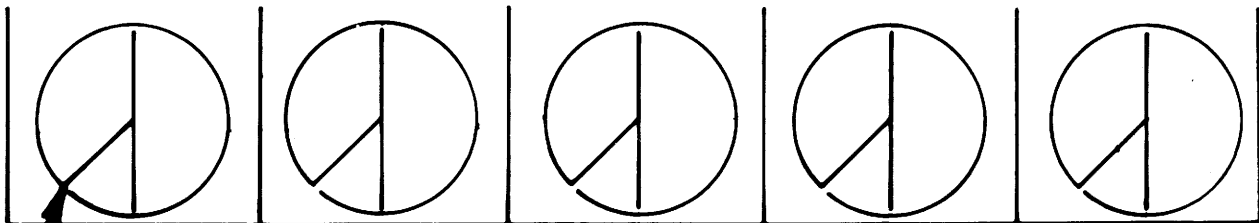
Lift front of drawer upward and pull forward to stops.

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.



— Loading position when empty

WIRE HELIX TRAY

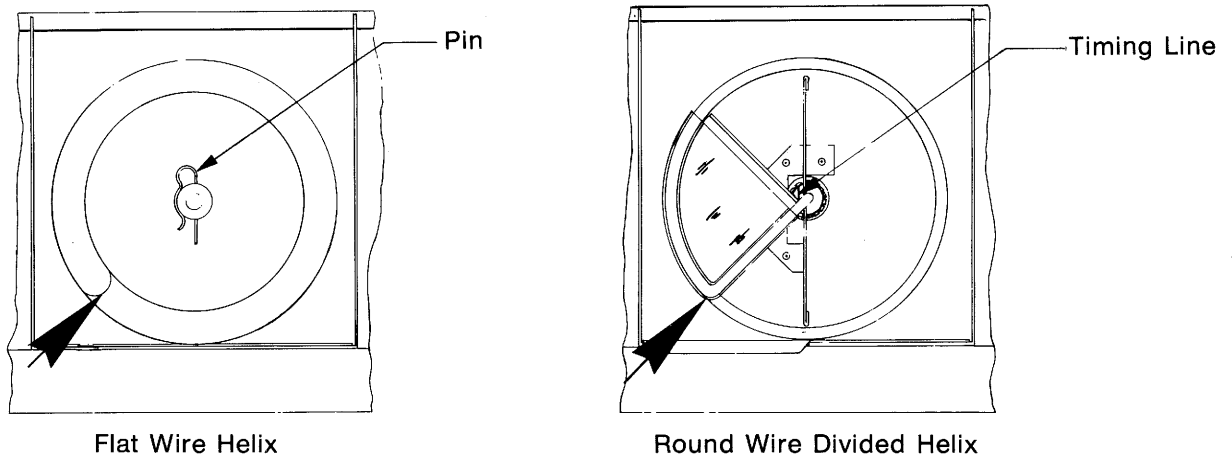
## HELIX TIMING:

### FLAT WIRE HELIX

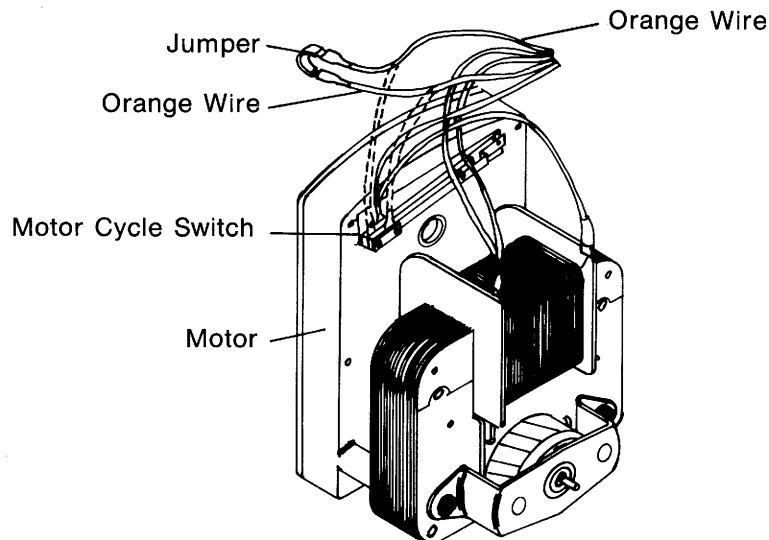
To remove motor pull out pin from helix hub at back of helix and pull helix off the motor shaft. Remove wires from motor, being careful not to loosen wires on other motors, and remove 2 screws securing motor. To install motor use 2 screws and replace wires on proper terminals. Helix must now be timed. 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.



## 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						
Tray #1	1	2	3	4	5	10 PER SEL.=50	
Tray #2	6	7	8	9	10	10 PER SEL.=50	
Tray #3	11	12	13	14	15	10 PER SEL.=50	
Tray #4	16	17	18	19	20	20 PER SEL.=100	
Tray #5	21	22	23	24	25	20 PER SEL.=100	
TOTAL PRODUCT CAPACITY=350							

## PRODUCT SIZE HIGH WIDE THICK

9" x 4⅞" x 1¾"

8" x 4⅞" x 1¾"

7" x 4⅞" x 1¾"

6" x 2⅞" x 1"

6" x 2⅞" x 1"

# 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						
TRAY #1	1	2	3	4	5	10 PER SEL.=50	
TRAY #2	6	7	8	9	10	10 PER SEL.=50	
TRAY #3	11	12	13	14	15	10 PER SEL.=50	
TRAY #4	16	17	18	19	20	20 PER SEL.=100	
TOTAL PRODUCT CAPACITY=250							

## PRODUCT SIZE HIGH WIDE THICK

9" x 4⅞" x 1¾"

9" x 4⅞" x 1¾"

9" x 4⅞" x 1¾"

9" x 2⅞" x 1"

## PRODUCT SELECTION SWITCHES FOR 2038A:

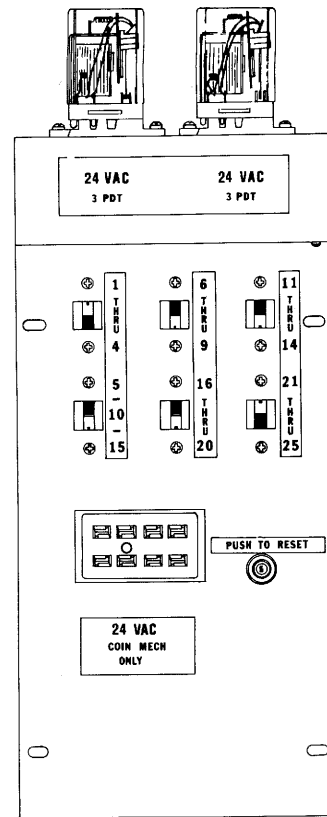
Selective price control may be obtained by moving the high-low switch to either the high vend price or the low vend price. (The vend price is selected on the coin mechanism.)

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.



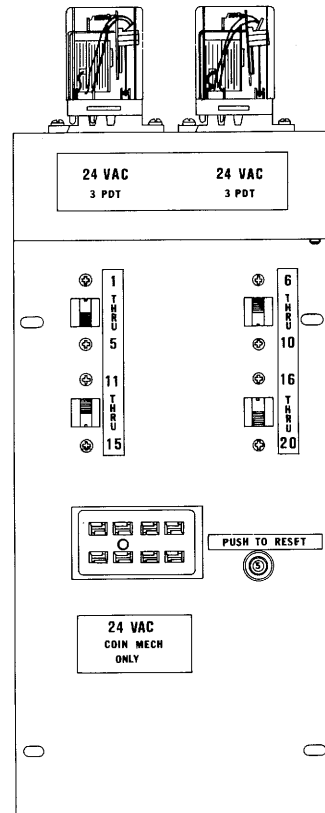
## PRODUCT SELECTION SWITCHES FOR 2043:

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.



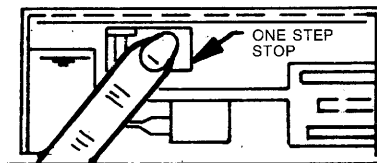


# COIN MECHANISM FOR 2038A, 2043:

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.

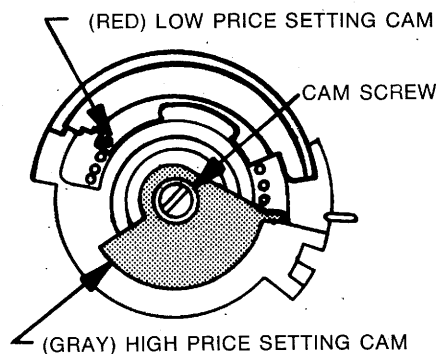
The coin mech may be set at any two vend prices, 5¢ through 50¢ and may be selected in 5¢ increments. The maximum spread between the two vend prices is 25¢. Change payback is up to and including 25¢ in 5¢ increments.

TOP VIEW OF ACCUMULATOR  
(WITH REJECTOR REMOVED)



## 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.



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## 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"	4⅞"	1¾"
Tray #2		20 PER SEL.=100	5½"	2⅞"	1"
Tray #3		20 PER SEL.=100	5½"	2⅞"	1"
Tray #4		20 PER SEL.=100	5½"	2⅞"	1"
Tray #5		20 PER SEL.=100	5½"	2⅞"	1"
Tray #6		20 PER SEL.=100	5½"	2⅞"	1"
		TOTAL PRODUCT CAPACITY=550			

## SPECIFICATIONS 2042A:

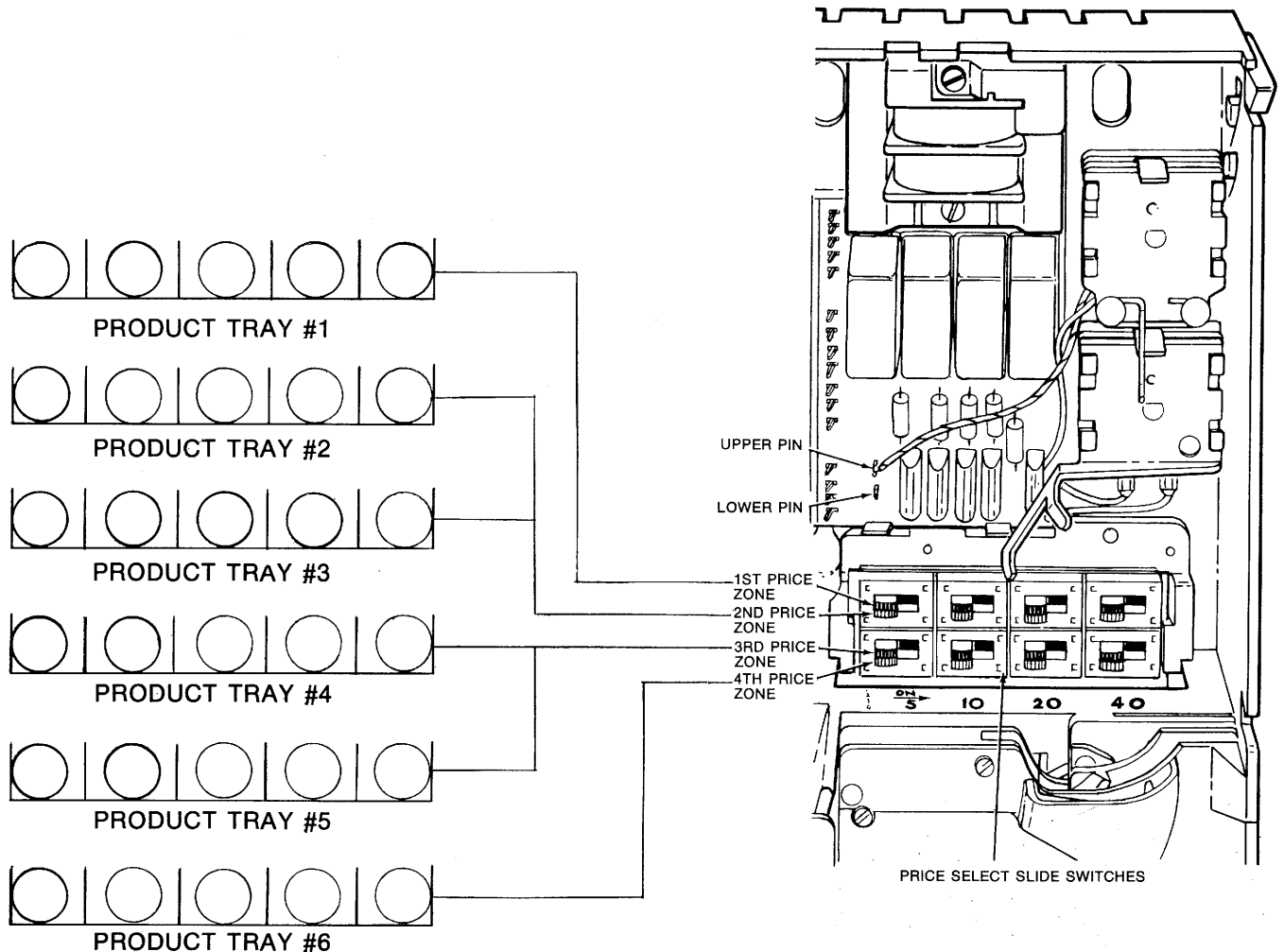
### GENERAL SPECIFICATIONS:

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"	2⅞"	1"
TRAY #2		20 PER SEL.=100	5½"	2⅞"	1"
TRAY #3		20 PER SEL.=100	5½"	2⅞"	1"
TRAY #4		20 PER SEL.=100	5½"	2⅞"	1"
TRAY # 5		20 PER SEL.=100	5¼"	2⅞"	1"
TRAY #6		20 PER SEL.=100	5½"	2⅞"	1"
		TOTAL PRODUCT CAPACITY = 600			

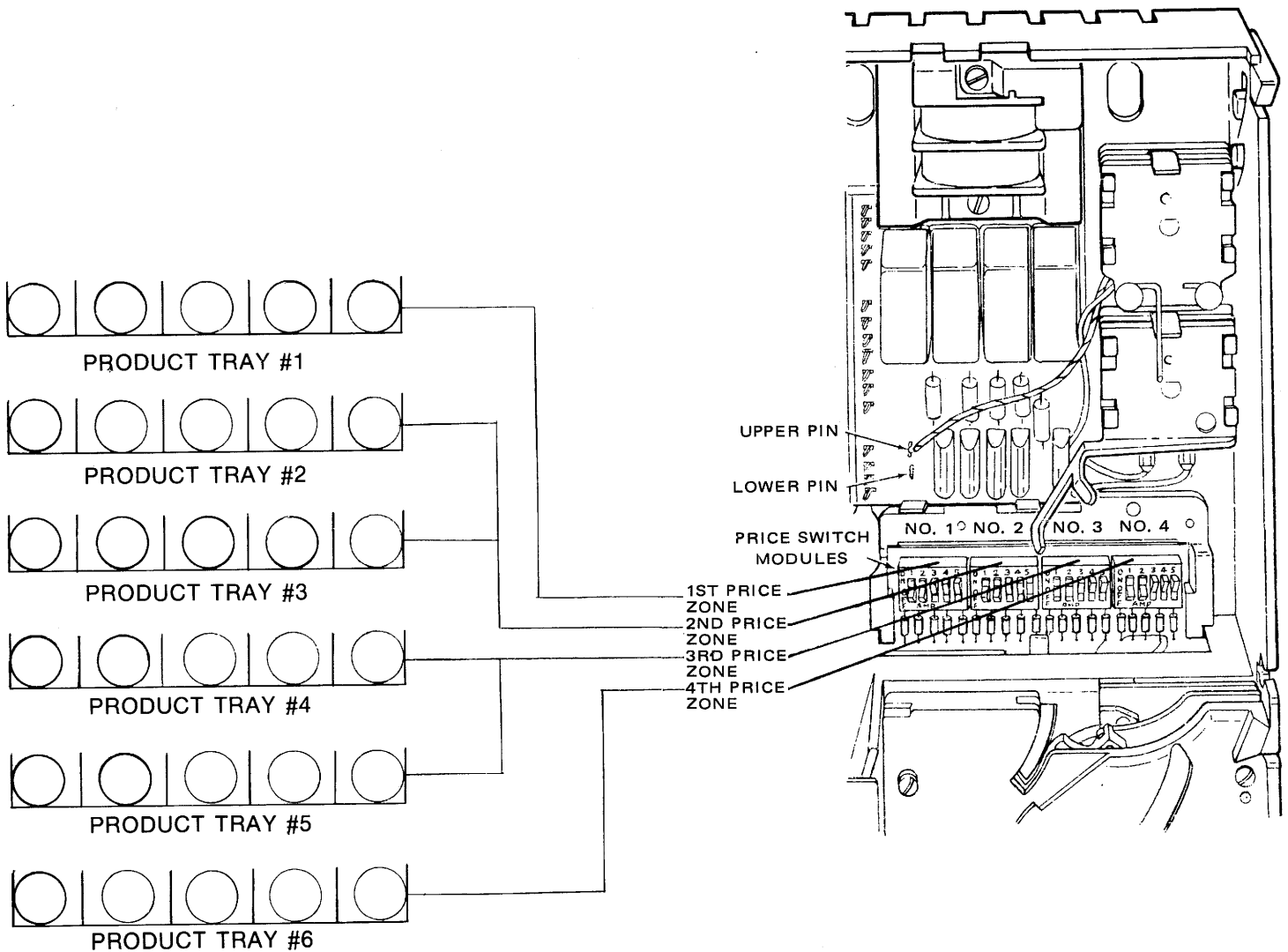
# COIN MECHANISM AND PRICE SETTING: MODEL 2042, 2042A WITH (5¢ TO 75¢ CHANGER)

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.



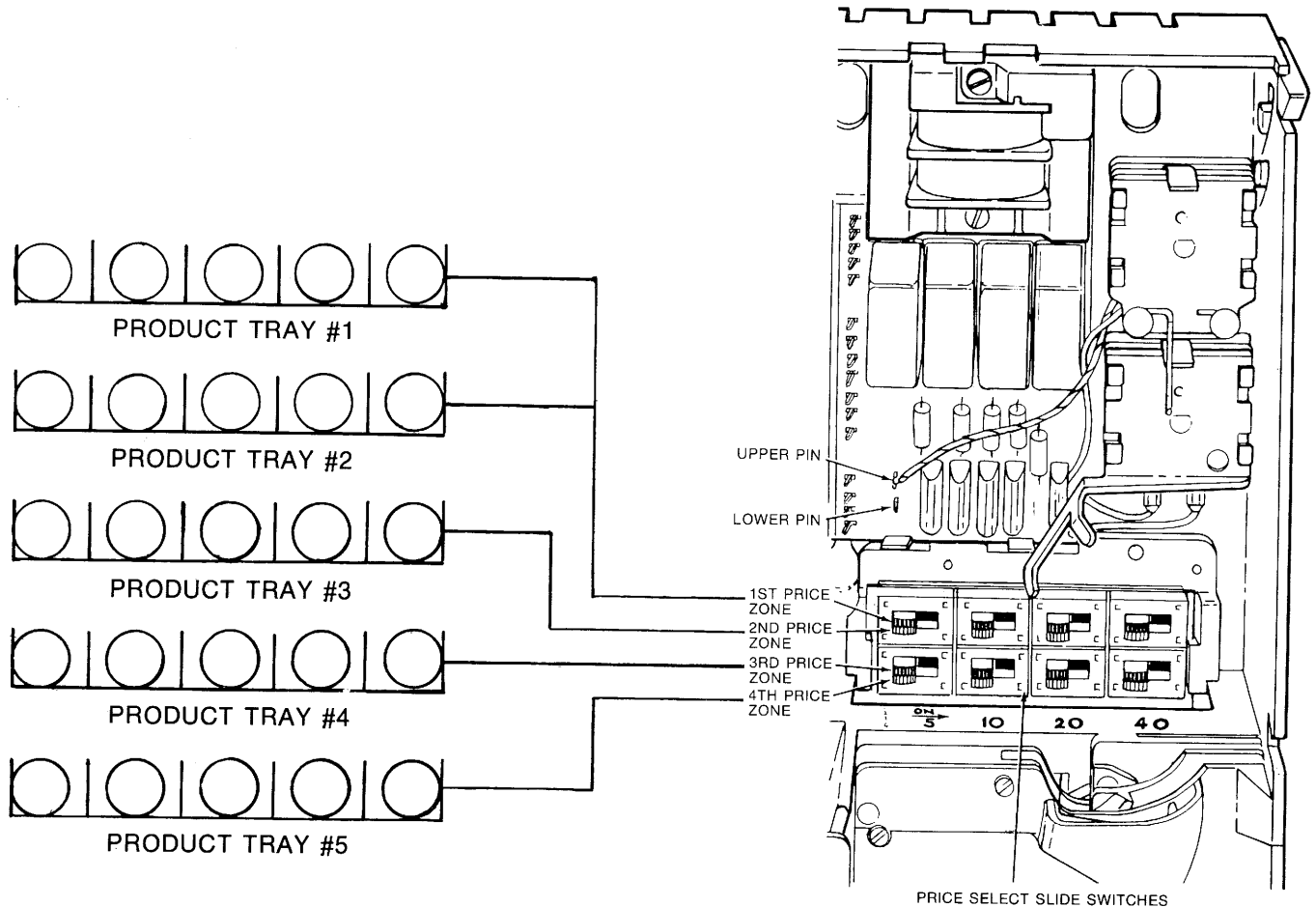
# COIN MECHANISM AND PRICE SETTING: MODEL 2042, 2042A, WITH (5¢ TO \$1.50 CHANGER)

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.



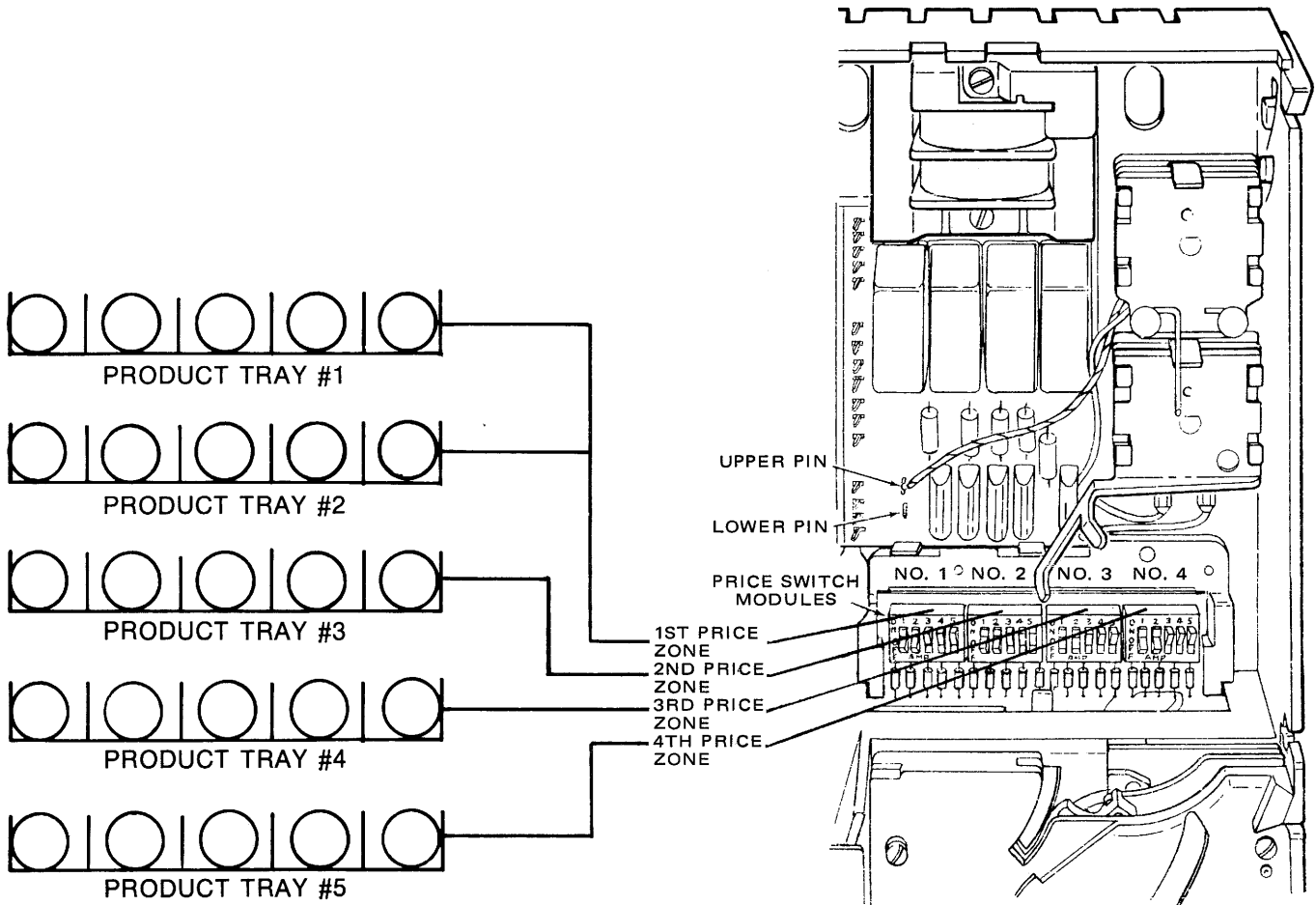
# COIN MECHANISM AND PRICE SETTING: MODEL 2038B WITH (5¢ TO 75¢ CHANGER)

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:**

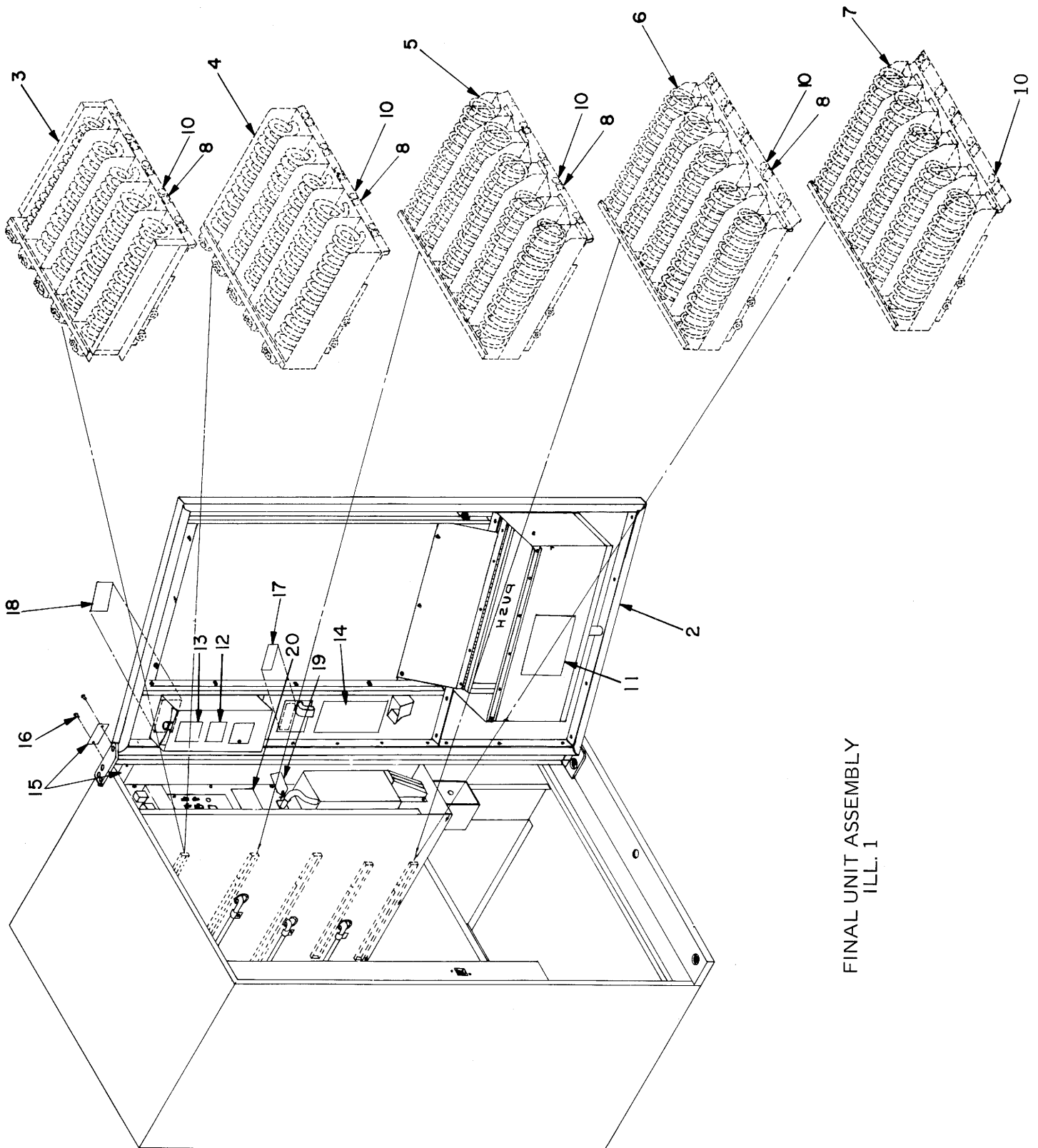
Disconnect vendor from power source.

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.

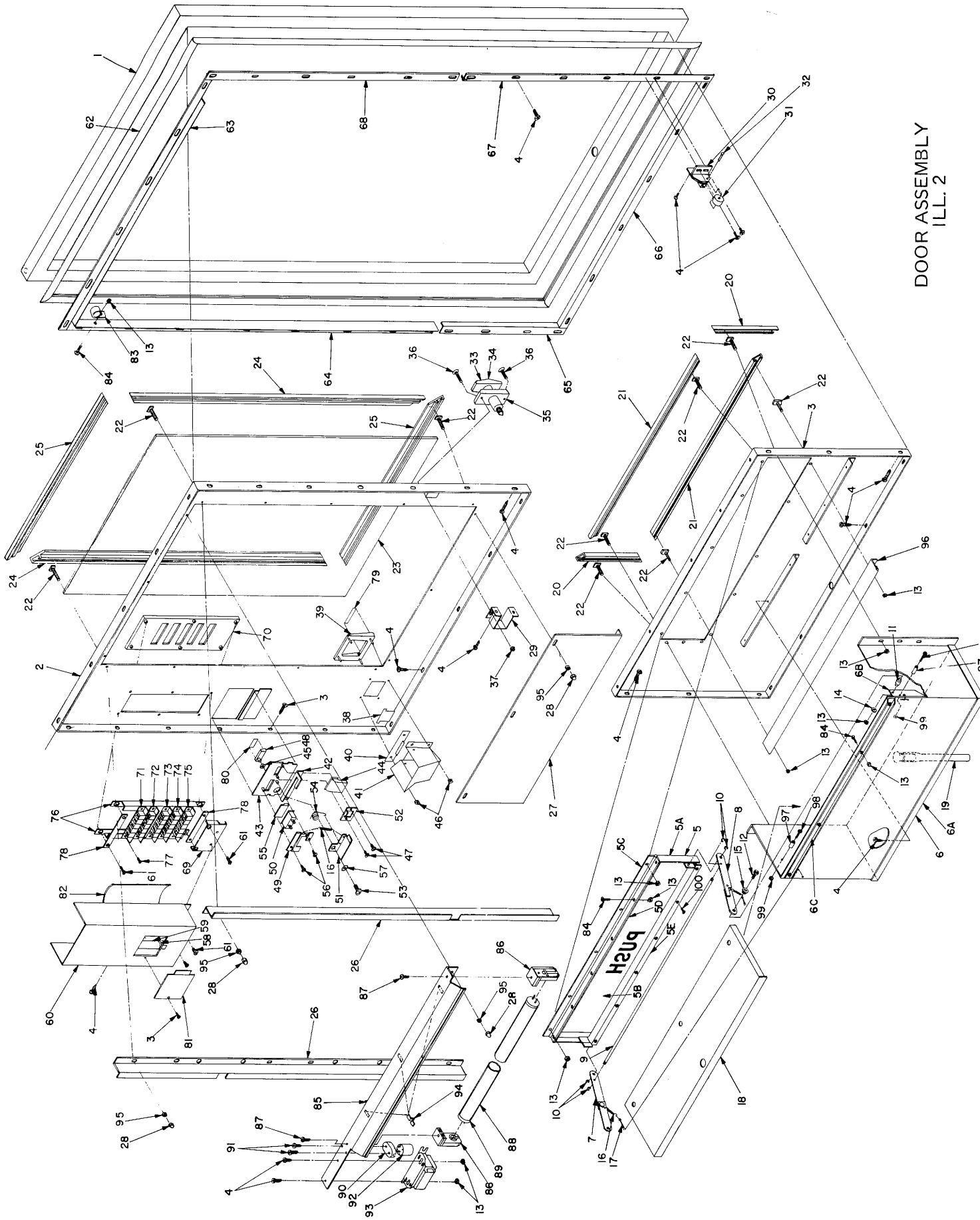


FINAL UNIT ASSEMBLY  
ILL. 1

Item No.	Part No.	No. Req'd.			Description
		2038A	2042	2042A 2043	
	33903		1		Tray Harness Flat Helix
	33904		5		Tray Harness Split Helix
	33979		1		Main Harness
	33978		1		Relay Harness
	33975		1		Transformer Harness (24v)
	33976		1		Transformer Harness (110v)
	33974		1		Light Harness (110v)
	33960		1		Tray Jumper Plug
	33980		1		Wire Harness, Push Button
	101261			1	Wire Harness Ass'y. (Complete)
	33904		6		Tray Harness Split Helix
	33979		1		Main Harness
	33978		1		Relay Harness
	33975		1		Transformer Harness (24v)
	33976		1		Transformer Harness (110v)
	33974		1		Light Harness (110v)
	33960		1		Tray Jumper Plug
	33980		1		Push Button Harness
	101209			1	Wire Harness Ass'y. (Complete)
	33903			3	Tray Harness Flat Helix
	33904			1	Tray Harness Split Helix
	33495			1	Main Harness
	33496			1	Relay Harness
	33975			1	Transformer Harness (24v)
	33976			1	Transformer Harness (110v)
	33974			1	Light Harness (110v)
	33960			1	Tray Jumper Plug
	33494			1	Push Button Harness

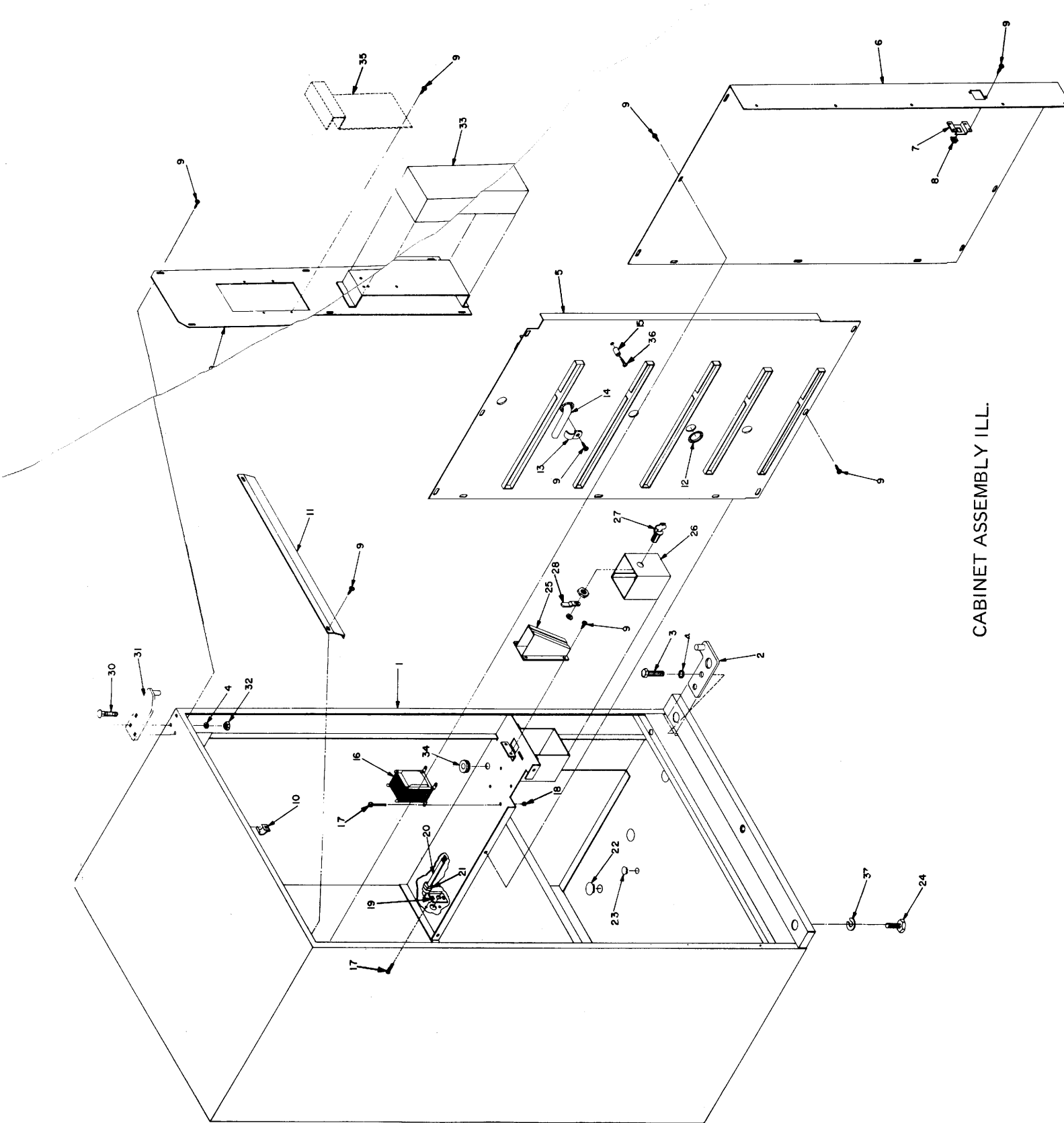
Item No.	Description	No. Req'd.		
		2038A	2042	2042A 2043
2	Complete Door Ass'y.	1		
101246	Complete Door Ass'y.		1	
101247	Complete Door Ass'y.			1
101248	Complete Door Ass'y.			3
4	Flat Wire Helix Tray Final Ass'y. #1, 2, 3			1
101125	Flat Wire Helix Tray Final Ass'y. #1			1
101143	Wire Helix Tray Final Ass'y. #4		4	
101143	Wire Helix Tray Final Ass'y. #2, 3, 4, 5			5
101143	Wire Helix Tray Final Ass'y. #1, 2, 3, 4, 5			
6	Wire Helix Tray Final Ass'y. #5			1
101144	Wire Helix Tray Final Ass'y. #6			1
7	Wire Helix Tray Final Ass'y. #6			1
8	Item Selection No's. (1-25)			1
9	Item Selection No's. (26-30)			1
20435	Price Tab Sheet 10¢ to 30¢			1
20501	Price Tab Sheet 35¢ to 65¢			1
20502	Wire Diagram			1
20413	Wire Diagram			1
20448	Wire Diagram			1
20462	Wire Diagram			1
20425	Patent Label			1
20488	Product Decal			1
27344	Serial Plate Fawn Sales Inc. or			1
27377	Serial Plate Federal Machine Corporation			1
50667	Rivets	2	2	2
20482	Coin Insert Decal			1
20419	Coin Insert Instruction Decal			1
20483	Operating Instructions			1
20480	24 Volt Tag			1
20418	Switch Instructions Decal			1
101078	Wire Harness Ass'y. (complete)			1
33903	Tray Harness Flat Helix	3		
33904	Tray Harness Split Helix	2		
33905	Main Harness	1		
33906	Relay Harness	1		
33975	Transformer Harness (24v)	1		
33976	Transformer Harness (110v)	1		
33974	Light Harness (110v)	1		
33960	Tray Jumper Plug	1		
33432	Wire Harness, 1-5 with Switches & Buttons	1		
33433	Wire Harness, 6-10 with Switches & Buttons	1		
33434	Wire Harness, 11-15 with Switches & Buttons	1		
33435	Wire Harness, 16-20 with Switches & Buttons	1		
33436	Wire Harness, 21-25 with Switches & Buttons	1		
101167	Wire Harness Ass'y. (Complete)			1

DOOR ASSEMBLY  
ILL. 2



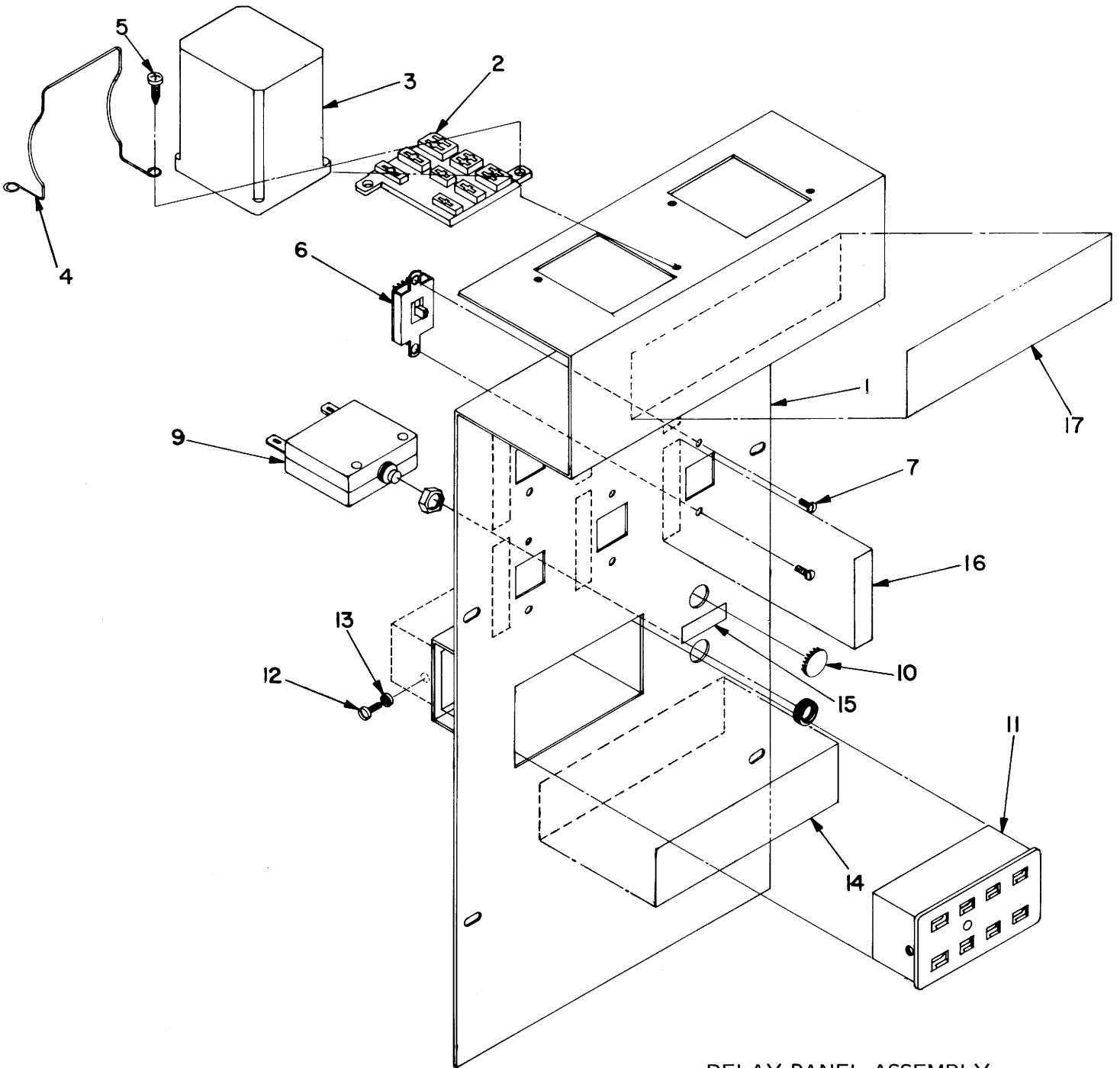
Item No.	Part No.	Description	No. Req'd.			Description
			2038A	2042	2042A	
49	9827	Light Brk't Mtg.	1	1	1	1
50	33912	Correct Change Light	1	1	1	1
51	33-4983-000	Coin Release Lever	1	1	1	1
52	20-1523-000	Coin Drop Retainer	1	1	1	1
53	20-0469-020	¼-28 x ½ Phil Truss Hd. Mach. Screw	1	1	1	1
54	09-1076-100	Torsion Spring	1	1	1	1
55	25256	Use Correct Change Lens	1	1	1	1
56	20-0470-002	Phil Rd Hd Sems #8-32 x ¼ Self Thread Screw	2	2	2	2
57	20-0717-008	Lock Washer Internal-External Tooth ¼"	1	1	1	1
58	33965	Lamp Holder For 6½ Volt Bulb	1	1	1	1
59	33953	6½ Volt DC Bulb 25T	1	1	1	1
60	9818	Light Reflector Housing	1	1	1	1
61	50240	#8-32 x ¼ Phil Pan Hd. M.S.	6	6	6	6
62	60309	Door Gasket	1	1	1	1
63	9920	Top Door Gasket Retainer	1	1	1	1
64	9921	Top Left Door Gasket Retainer	1	1	1	1
65	9922	Bottom Left Door Gasket Retainer	1	1	1	1
66	9923	Bottom Door Gasket Retainer	1	1	1	1
67	9924	Bottom Right Door Gasket Retainer	1	1	1	1
68	9925	Top Right Door Gasket Retainer	1	1	1	1
69	9829	Push Button Brkt.	1	1	1	1
70	60300-002	Selector Panel	1	1	1	1
71	60312	Selector Panel	1	1	1	1
72	33995	Selector Panel	1	1	1	1
73	33996	5 Station Switch 1-5	1	1	1	1
74	33997	5 Station Switch 11-15	1	1	1	1
75	33998	5 Station Switch 16-20	1	1	1	1
76	33999	5 Station Switch 21-25	1	1	1	1
77	33946	5 Station Switch 26-30	1	1	1	1
78	20459	Push Button No.s. 26-30	1	1	1	1
79	9586	Play Button Mtg. Brkt.	1	1	1	1
80	50112	¼-32 x ½ Phil Pan Hd M.S.	10	12	8	10
81	3997	Top & Bottom Switch Spacer	2	2	2	2
82	20423	Push Button No.s. (Service Part Only)	1	1	1	1
83	33-4984-000	Change Decal	1	1	1	1
84	33-4370-000	Change Release Decal	1	1	1	1
85	9826	Light Access Panel	1	1	1	1
86	60134	Light Diffuser	1	1	1	1
87	50247	Tubing Clamp	1	1	1	1
88	9917	#8-32 x ¼ Phil Hd Mach. Screw	1	1	1	1
89	50113	Light Reflector	2	2	2	2
90	33550	Lamp Holder	2	2	2	2
91	33713	#6-32 x ½ Phil Pan Hd M.S.	1	1	1	1
92	33617	F18-T8 K26 Lamp	1	1	1	1
93	50018	Plastic Safety Shield	1	1	1	1
94	33661	Starter Socket	2	2	2	2
95	33669	4-40 x ¾ Phil Pan Hd M.S.	1	1	1	1
96	50510	FS-25 Starter	1	1	1	1
97	60174	SP-19 Ballast	3	3	3	3
98	50136	Wire Clips	16	16	16	16
99	50505	#8-32 Hex Nut-Small	1	1	1	1
100	50119	Delivery Door Channel	1	1	1	1
		Stop Bushing	4	4	4	4
		#6-32 x ¾ Phil Pan Hd M.S.	4	4	4	4
		#6-32 Lock Nut	4	4	4	4
		#6 x ½ Phil Pan Hd S.M.S.	6	6	6	6

Item No.	Part No.	Description	No. Req'd.			Description
			2038A	2042	2042A	
1	101116	Door Frame Weld Assy.	1	1	1	1
2	101202	Top Door Panel Weld Assy.	1	1	1	1
3	100818	Bottom Door Panel Weld Assy.	1	1	1	1
4	50180	8 x ½ Phil Pan Hd S.D.S.T.	82	82	82	82
5	101165	Delivery Door Assy. Final	1	1	1	1
5A	100692	Delivery Door Weld Assy.	1	1	1	1
5B	25547	Delivery Window	1	1	1	1
5C	3955	Delivery Door Hinge	1	1	1	1
5D	9879	Top Delivery Glass Retainer	1	1	1	1
5E	9890	Bottom Delivery Glass Retainer	1	1	1	1
6	100693	Delivery Assy. Final	1	1	1	1
6A	100691	Delivery Wraparound Weld Assy.	1	1	1	1
6B	101274	Anticheat Assy.	1	1	1	1
6C	3953	Delivery Wraparound Stiffener	1	1	1	1
7	101206R	Linkarm Assy. Final	1	1	1	1
8	101206L	Linkarm Assy. Final	1	1	1	1
9	30313	Linkarm Rod	1	1	1	1
10	50554	¼" "E" Ring	4	4	4	4
11	30280	Shoulder Bushing	2	2	2	2
12	50262	8-32 x ¼ Phil Pan Hd M.S.	2	2	2	2
13	50513	8-32 Nuts	30	30	30	30
14	50609	8-Washer	2	2	2	2
15	30025	Spacers	2	2	2	2
16	21015	Spring	3	3	3	3
17	50639	3/32 x 3/4 Cotter Pin	2	2	2	2
18	25409	3/8" Dia. 1/16 Wall Mayon Tubing (8" Long)	1	1	1	1
19	22307-001	Delivery Trim (Sides)	2	2	2	2
20	22307-002	Delivery Trim (Top & Bottom)	2	2	2	2
21	20-1051-001	¾ x ½ T-Bolt Plated	16	16	16	16
22	25546	Display Window	1	1	1	1
23	22309-002	Display Trim (Sides)	2	2	2	2
24	22309-001	Display Trim (Top & Bottom)	2	2	2	2
25	9850	Anti Theft Guard	2	2	2	2
26	9876	Door Deflector	1	1	1	1
27	50508	8-32 Nylon Mach Cap Nut	16	16	16	16
28	9823	Lock Housing	1	1	1	1
29	101051	Door Lift Brkt Assy.	1	1	1	1
30	20-1931-000	Roller	1	1	1	1
31	20-1932-000	Rivet	1	1	1	1
32	20-2039-000	4255 Flush Handle (Chicago Lock)	1	1	1	1
33	60330-0	Lock Cylinder With 2 Keys	1	1	1	1
34	(State key Number)					
35	50338	#10-32 x ½ Flat Hd Socket Hd Cap Screw	2	2	2	2
36	50546	#10-32 Lock Nut	2	2	2	2
37	20-0102-000	Coin Return Door	1	1	1	1
38	33-4281-000	Change Bezel	1	1	1	1
39	20-1422-000	Anti-Payout Tab	1	1	1	1
40	20-1649-000	Coin Return Cap	1	1	1	1
41	9908	Coin Insert Bottom Retainer	1	1	1	1
42	20-1516-000	Coin Insert Casting	1	1	1	1
43	20-1748-001	Coin Intake Chute	1	1	1	1
44	10-0816-000	Coin Release Washer	1	1	1	1
45	33-4982-000	#8 Sheet Metal Nut	2	2	2	2
46	20-0470-010	6-32 ¼ Phil Rd. Hd. Type 1 (Sems)	2	2	2	2
47	33-4283-000	Coin Release Handle	1	1	1	1
48						



CABINET ASSEMBLY ILL.

Item No.	Part No.	No. Req'd.				Description
		2038A	2042	2042A	2043	
1	100811	1	1	1	1	Cabinet Weld Ass'y.
2	60-0018-000	1	1	1	1	Lower Hinge Weld Ass'y.
3	50072	2	2	2	2	5/16-18 x 3/4 Hex Hd Bolts
4	18-6148-000	2	2	2	2	5/16 Lockwasher
5	100805	1	1	1	1	Right Panel Weld Ass'y.
	101133					Right Panel Weld Ass'y.
	101159					Right Panel Weld Ass'y.
6	100808	1	1	1	1	Left Panel Weld Ass'y.
	101134					Left Panel Weld Ass'y.
	101160					Left Panel Weld Ass'y.
7	9831	1	1	1	1	Lock Nut Bracket
8	50750	1	1	1	1	Lock Nut
9	50180	47	46	46	48	#8 x 1/2 Phil Pan Hd Tek
10	20-0341-000	3	3	3	3	Tube Clip
11	9849	1	1	1	1	Light Reflector
12	33652	2 ft.	2 1/2 ft.	2 1/2 ft.	2 ft.	Extruded Grommet
13	50760	5	6	6	4	1/2 Conduit Wire Clamps
14	33905	1	1	1	1	Main Harness (Part of Complete Harness Ass'y. #101078)
	33979					Main Harness (Part of Complete Harness Ass'y. #101167 & 101261)
	33495					Main Harness (Part of Complete Harness Ass'y. #101209)
15	60174	8	10	10	6	Stop Bushings
16	33941	1	1	1	1	Transformer 110/220 24 Vac
17	58247	4	4	4	4	#8-32 x 1/2 Phil Pan Hd M.S.
18	50513	4	4	4	4	#8-32 Lock Nut
19	100422	1	1	1	1	Power Cord Plate Ass'y.
20	33631	1	1	1	1	Power Cord 3 Wire
21	33683	1	1	1	1	Cord Relief Bushing
22	60128	3	3	3	3	Floor Plug 1"
23	60129	2	2	2	2	Floor Plug 1/2"
24	60310	4	4	4	4	Leg Lever 1/2 x 20
25	101129	1	1	1	1	Coin Chute Weld Ass'y.
26	101137	1	1	1	1	Coin Box Weld Ass'y.
27	60025	1	1	1	1	Lock (Standard)
28	60030	1	1	1	1	Cam
29	100802	1	1	1	1	Coin Mech Brk't Weld Ass'y.
30	50099	3	3	3	3	5/16 x 3/4 Carrage Bolt
31	101127	1	1	1	1	Upper Hinge Weld Ass'y.
32	50066	3	3	3	3	5/16 Hex Nuts Plated
33	60291	1	1	1	1	Dual Price Changer 24 Vac
	60248					4 Price Changer 24 Vac
34	33672	1	1	1	1	Rubber Grommet
35	101249	1	1	1	1	Relay Panel Final Ass'y.
	101250					Relay Panel Final Ass'y.
	101251					Relay Panel Final Ass'y.
36	50241	8	10	10	6	#8 x 3/4 Phil. Pan Hd Type AB S.M.S.
37	9927	4	4	4	4	Leg Leveler Washers For Skid

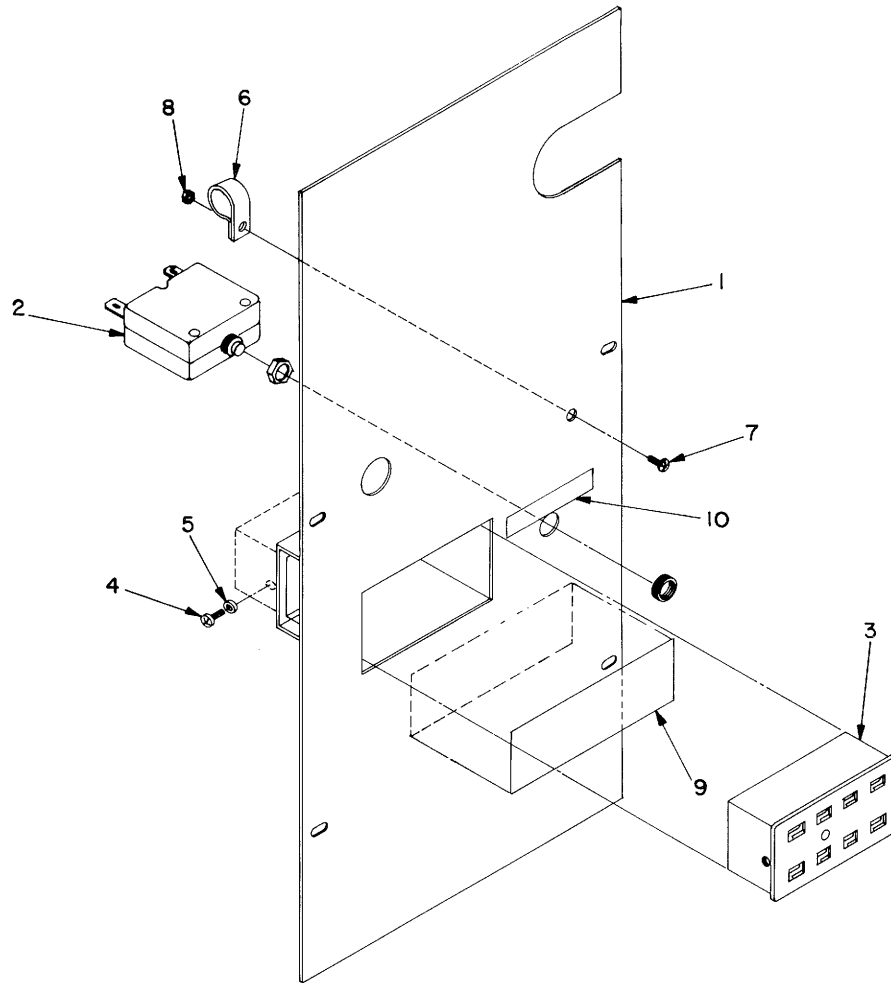


RELAY PANEL ASSEMBLY  
FOR MODEL 2038B  
ILL. 4



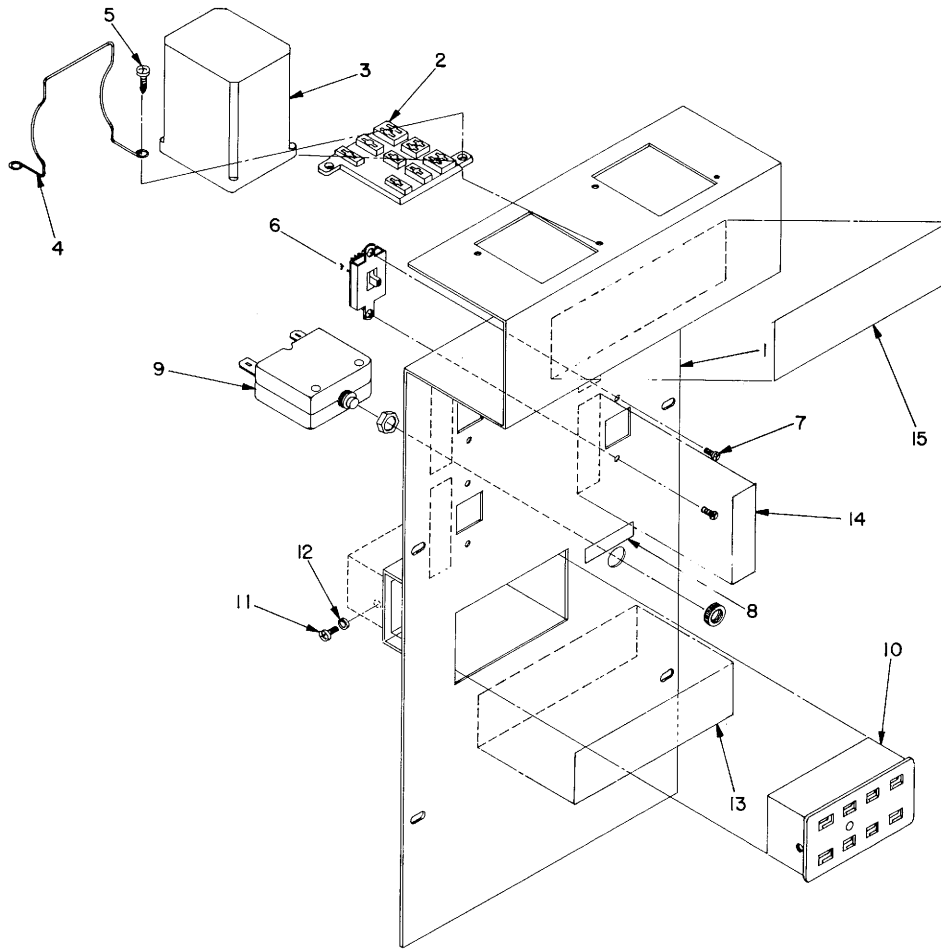
Item	Part No.	No. Req'd	Description
1	100812	1	Relay Panel Weld Ass'y
2	33703	2	Relay Socket
3	33898	2	Relay Kup 14A15 24VAC
4	33993	2	20C 228 Kup Hold Down Spring
5	50180	4	#8 x 1/2 Phil Pan Hd.
6	33901	6	Slide Switches 4 Pole DT.
7	20-0470-012	12	8-32 x 3/8 Rd. Hd Phil Type 23
9	33620	1	5 Amp Circuit 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

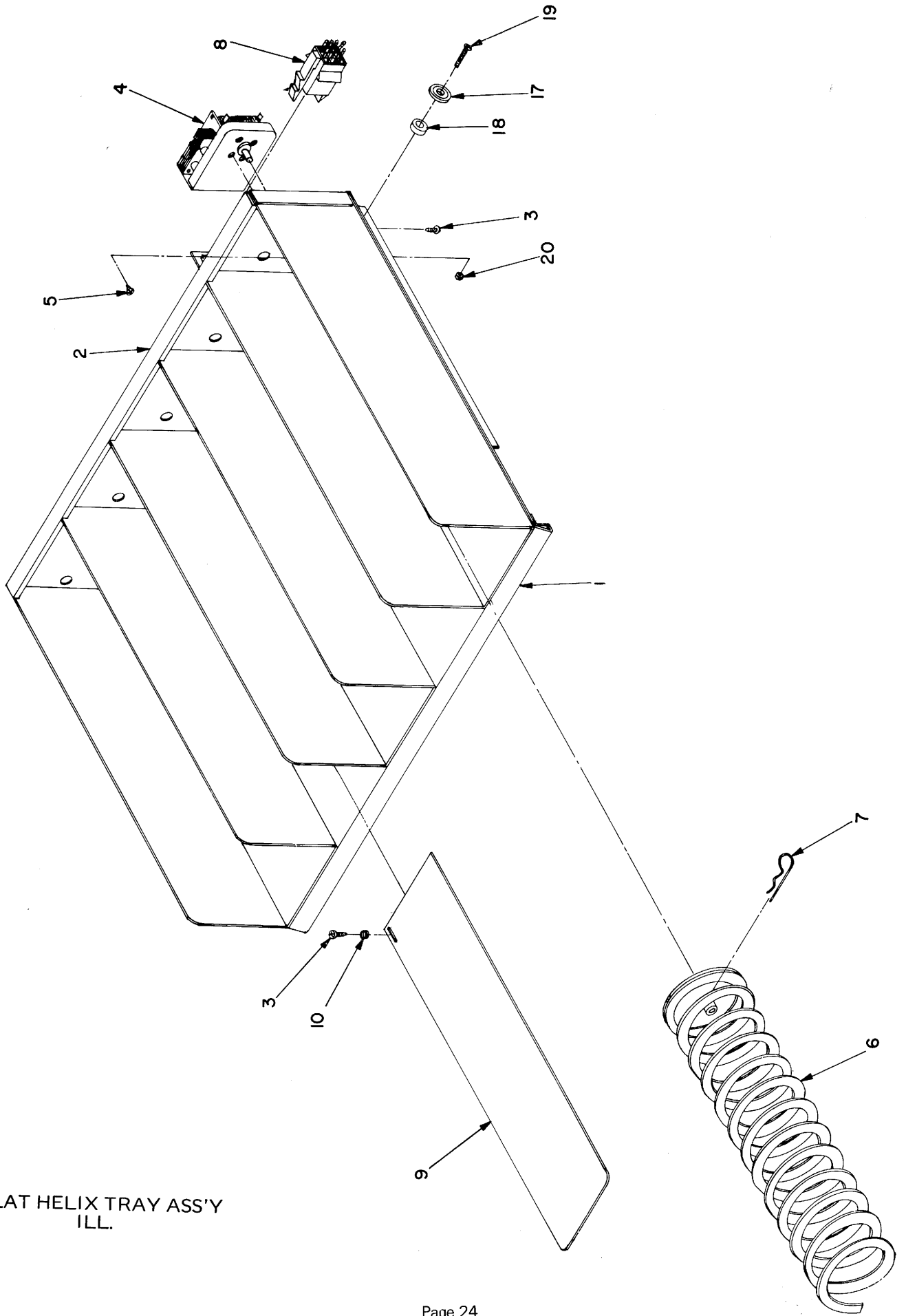


Item	Part No.	No. Req'd. 2042 2042A	Description
1	101135	1	Relay Panel Weld Ass'y.
2	33620	1	5 Amp Circuit breaker
3	33607	1	Female Plug
4	50112	2	6-32 x 1/4 Phil Pan M.S.
5	50617	2	Washer
6	60134	1	Clamp 1" Dia.
7	50247	1	8-32 x 1/2 Phil Pan Hd M.S.
8	50513	1	8-32 Lock Nut
9	20417	1	Electrical Decal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

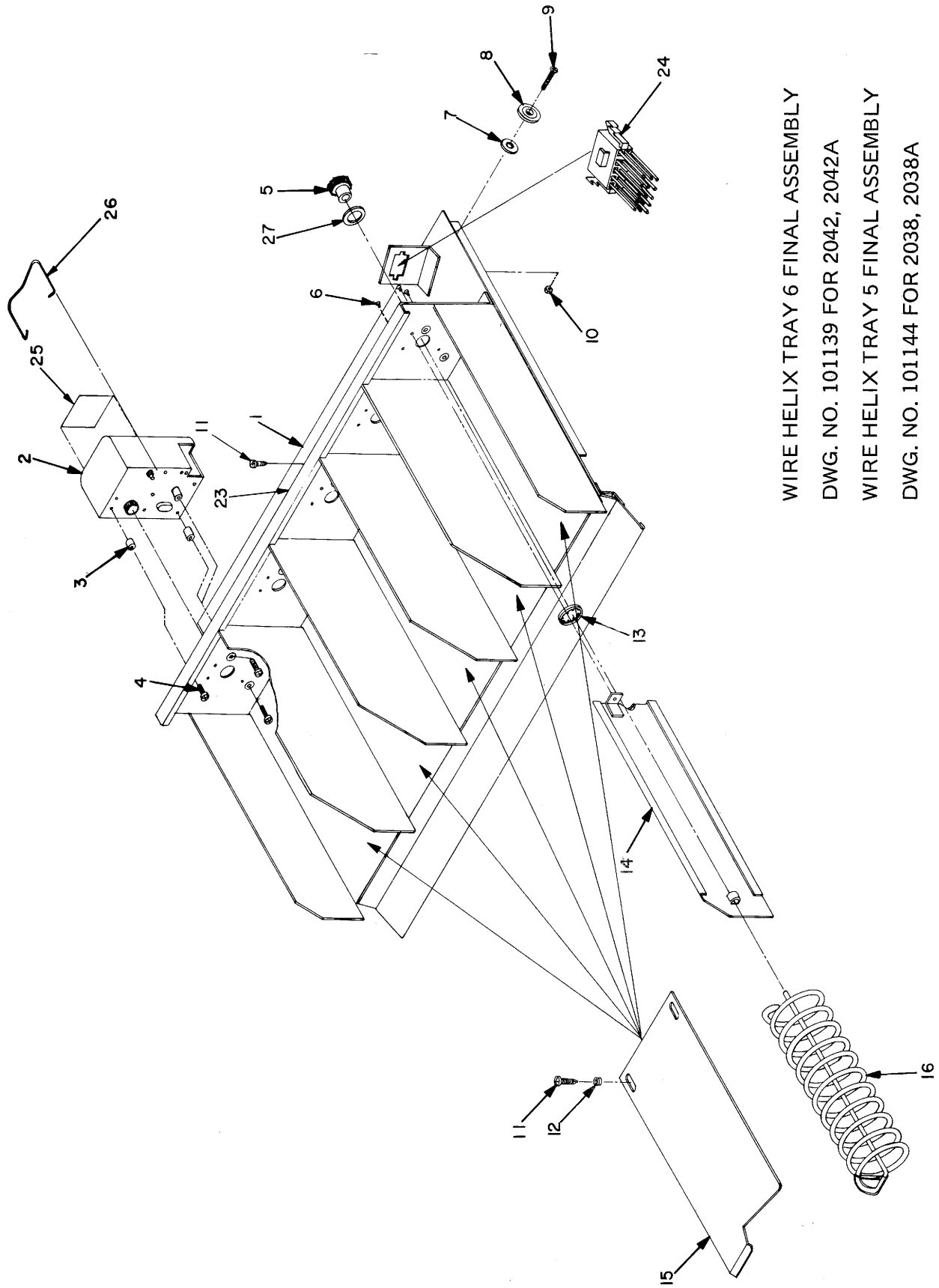


FLAT HELIX TRAY ASS'Y  
ILL.

## 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

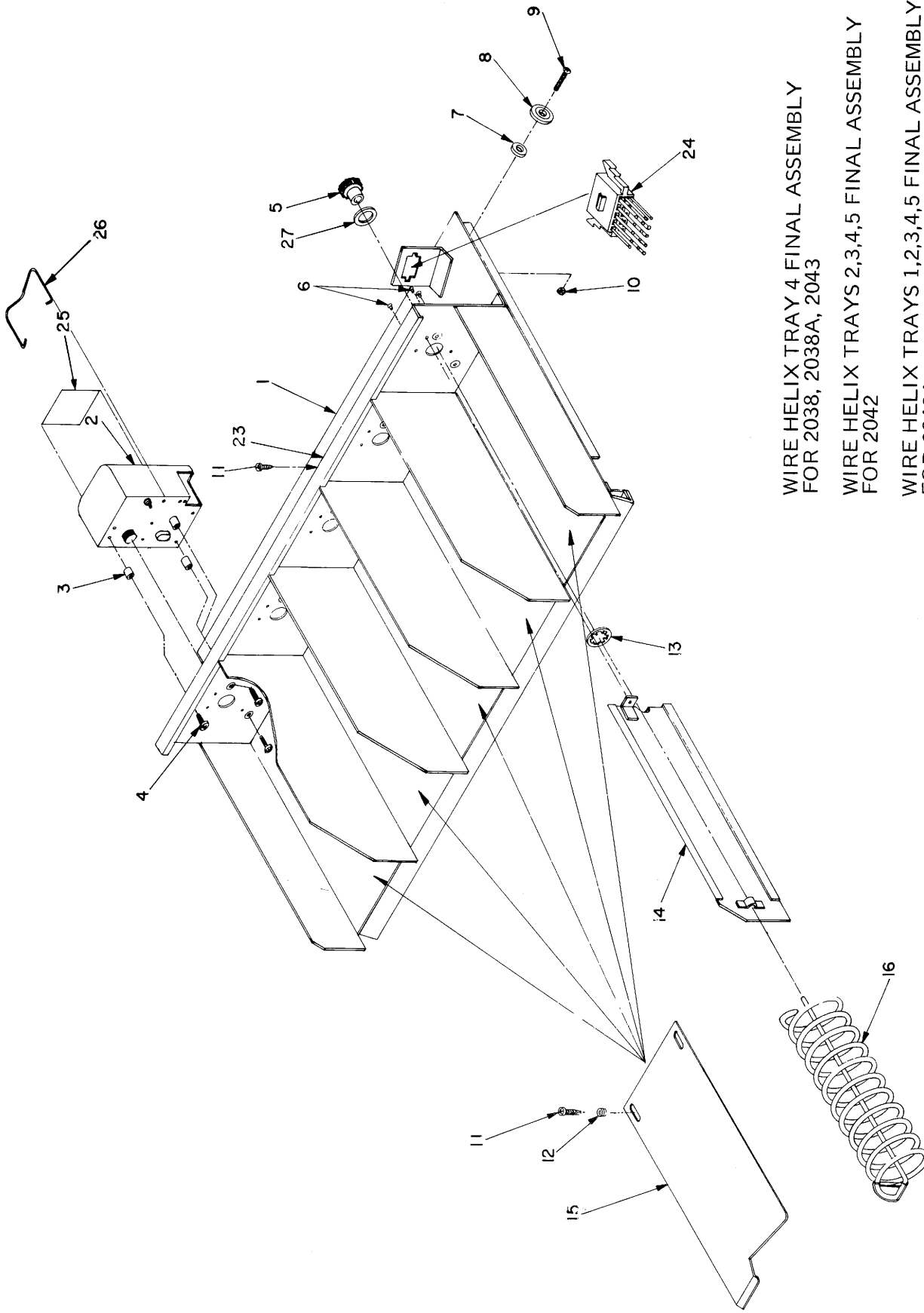
Item No.	Part No.	No. Req'd.			Description
		2038A	2042	2042A	
1	101140	1			Wire Helix Tray #5 Weld & Rivet Assy.
2	101138		1	1	Wire Helix Tray #6 Weld & Rivet Assy.
3	33872	5	5	5	Helix Motor
4	30272	15	15	15	Motor Bushing
5	50273	15	15	15	#8-32 x 1" Phil Pan Hd M.S.
6	60286	5	5	5	Gear
7	50692	15	15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



WIRE HELIX TRAY 6 FINAL ASSEMBLY  
 DWG. NO. 101139 FOR 2042, 2042A  
 WIRE HELIX TRAY 5 FINAL ASSEMBLY  
 DWG. NO. 101144 FOR 2038, 2038A

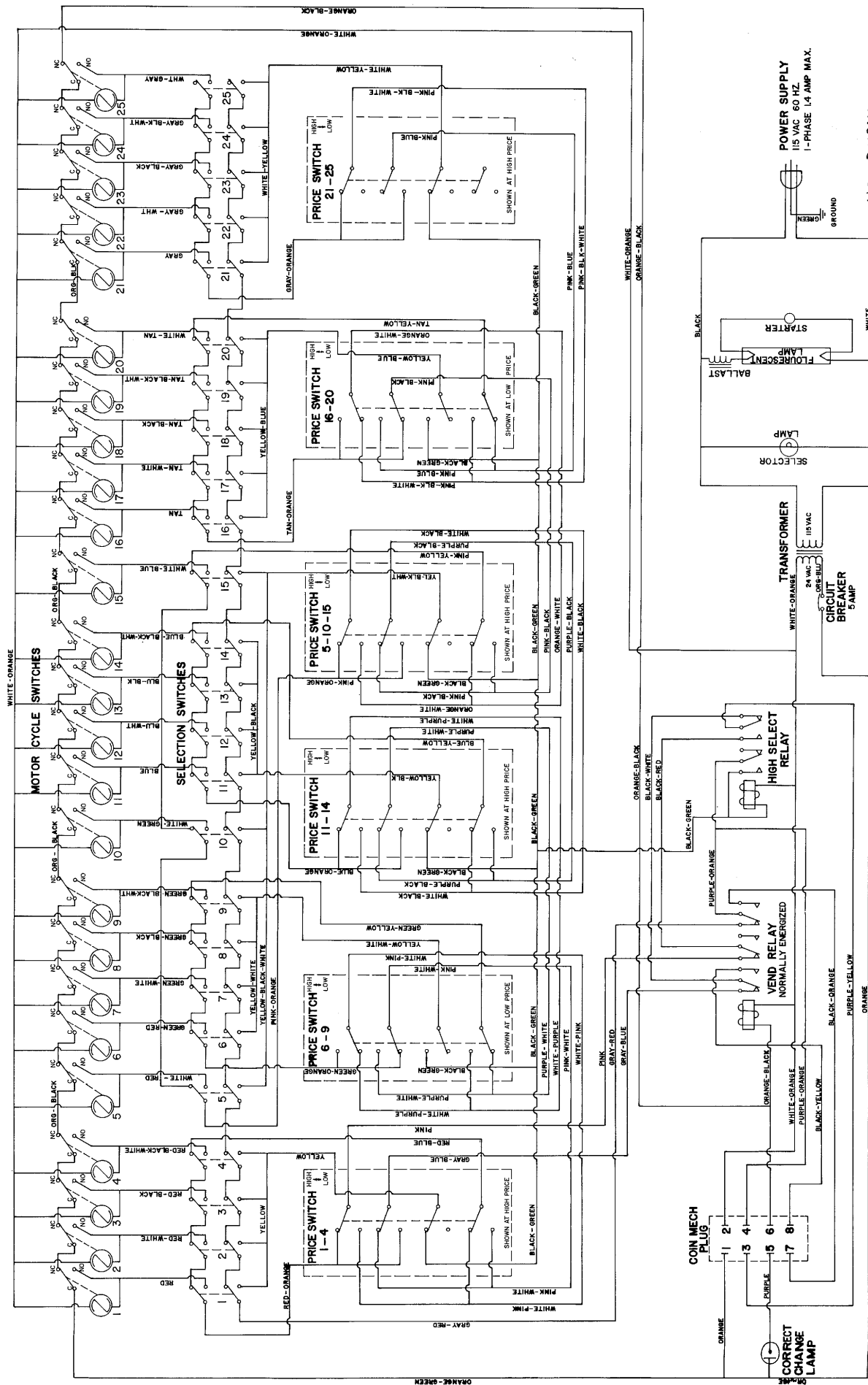
Item No.	Part No.	No. Req'd.				Description
		2038A	2042	2042A	2043	
1	101122	1	4	5	1	Wire Helix Tray Weld & Rivet Ass'y.
2	33872	5	20	25	5	Helix Motor
3	30272	15	60	75	15	Motor Bushing
4	50273	15	60	75	15	#8-32 x 1" Phil Pan Hd. M.S.
5	60286	5	20	25	5	Gear
6	50692	15	60	75	15	5/32 x 3/8 Pop Rivet
7	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	9833	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





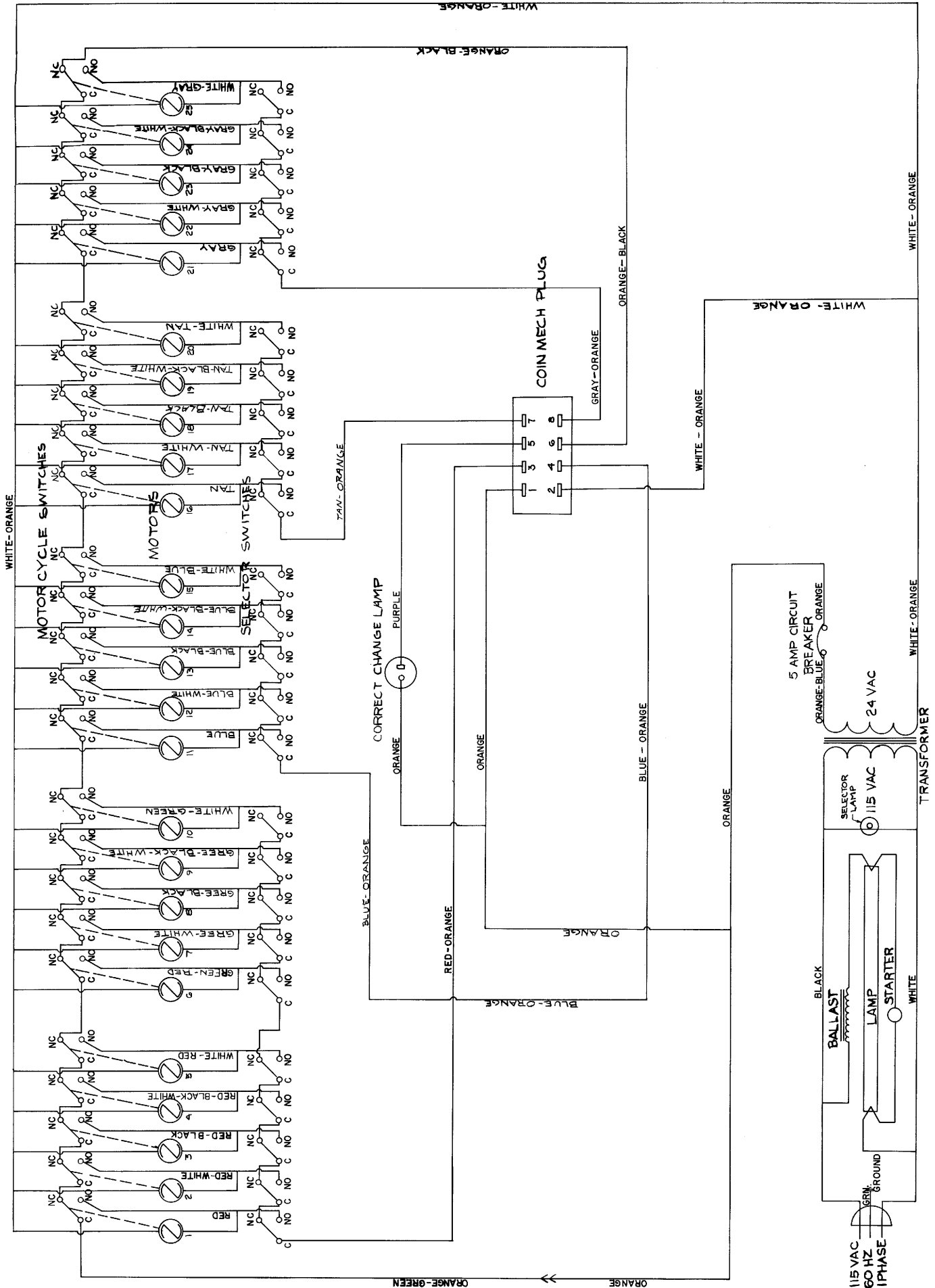
WIRE HELIX TRAY 4 FINAL ASSEMBLY  
 FOR 2038, 2038A, 2043  
 WIRE HELIX TRAYS 2,3,4,5 FINAL ASSEMBLY  
 FOR 2042  
 WIRE HELIX TRAYS 1,2,3,4,5 FINAL ASSEMBLY  
 FOR 2042A  
 DWG. NO. 101143

Item No.	Part No.	No. Req'd.			Description
		2038A	2042	2043	
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 Teks
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

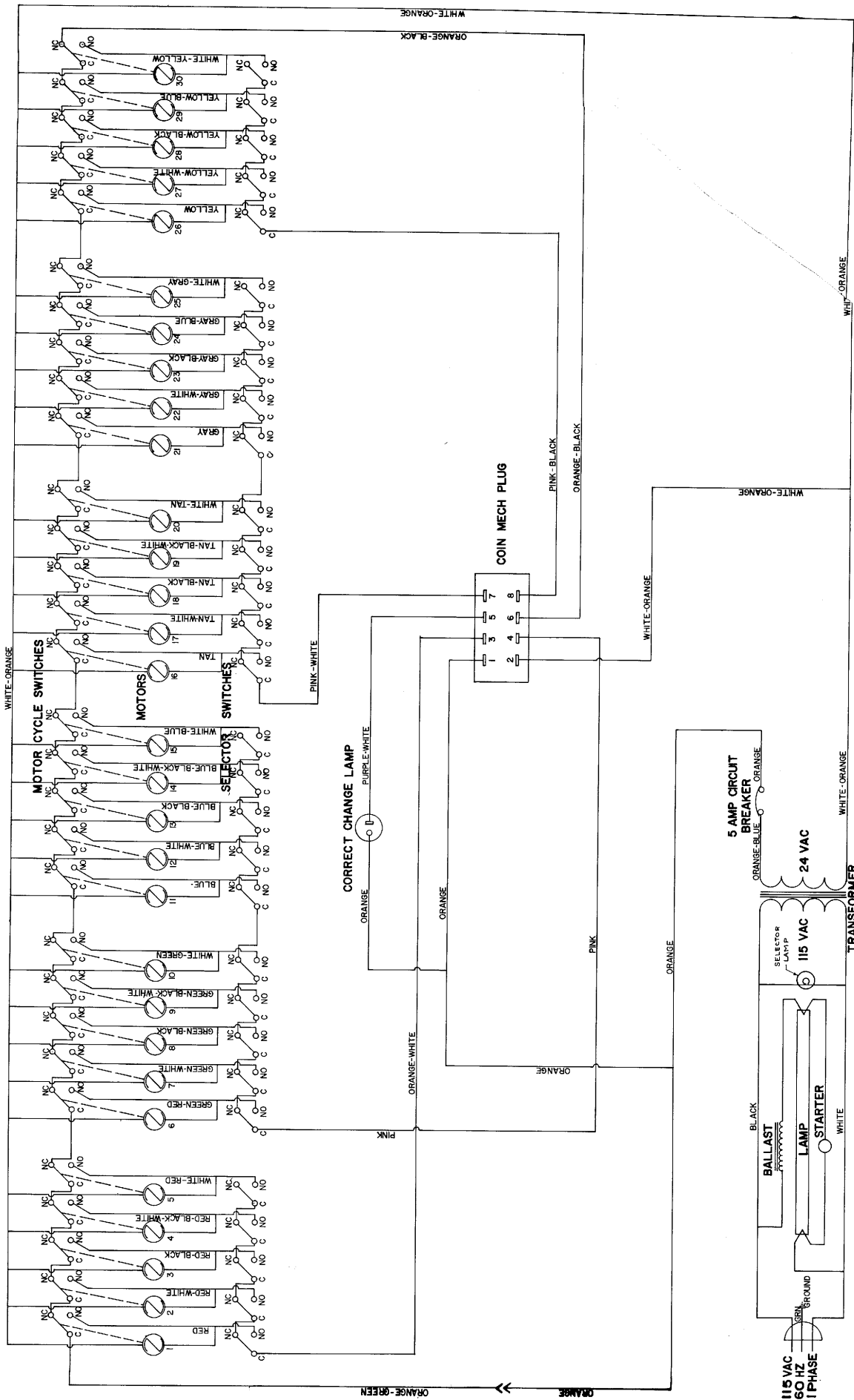


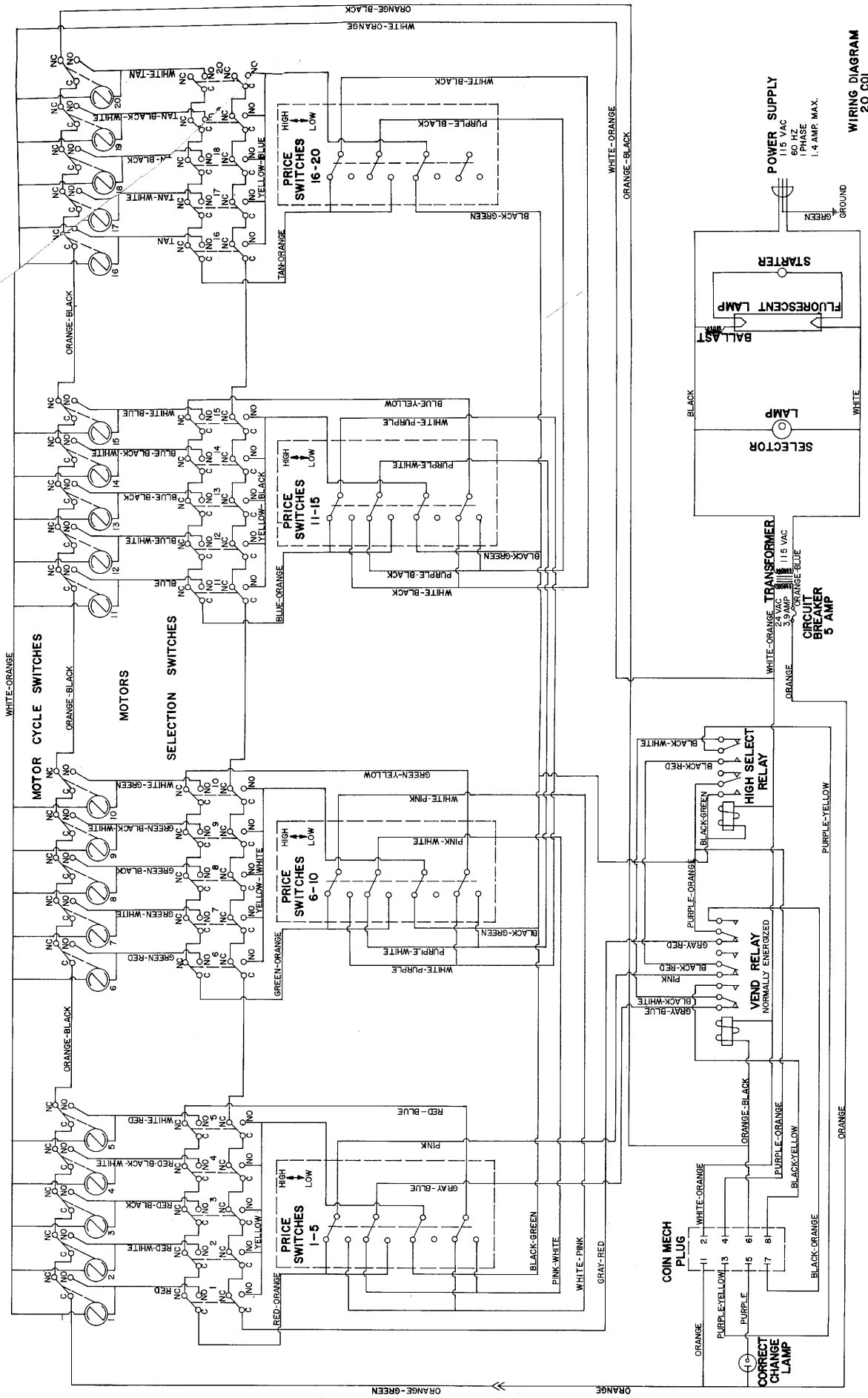
POWER SUPPLY  
115 VAC 60 HZ  
1-PHASE 1.4 AMP MAX.

WIRING DIAGRAM  
20361-2036A  
DWG. No. 20,415



WIRING DIAGRAM  
 30. COL  
 2042 & 2042A  
 DWG. NO. 20448





WIRING DIAGRAM  
20 CUL.  
20 43  
DWG. NO. 20 46 2