

# Series 5000 6000



**Polyend**® LTD.

**Multi-National Controller**

## TABLE OF CONTENTS

	PAGE
GENERAL INFORMATION .....	1
SPECIFICATIONS .....	1
ELECTRICAL SPECIFICATIONS .....	1
EQUIPMENT CAPACITY AND CONFIGURATION CHART .....	2-3
EQUIPMENT INSTALLATION .....	4-5
PRODUCT LOADING .....	6-7
SPECIAL PRODUCT LOADING .....	8
PRIMARY CABINET COMPONENT INFORMATION .....	9-11
HELIX TRAY REMOVAL .....	12
INDIVIDUAL HELIX REMOVAL .....	12
HELIX TRAY DIVIDER REMOVAL .....	13
ELECTRICAL SERVICE SECTION .....	14-16
ERROR CODES .....	17
CONTROL BOARD DETAILED OPERATION.. .....	17-25
CLEANING INSTRUCTIONS .....	26
TROUBLE SHOOTING .....	27-29
DRAWINGS & PARTS LISTS .....	31-68
ELECTRICAL WIRING (CABINET) .....	32-33
COMPLETE ASSEMBLY (CABINET) .....	34-37
SLIDING DRAWER ASSEMBLY .....	38-39
SLIDING DRAWER ELECTRICAL WIRING .....	40-41
CANDY TRAY ASSEMBLY (8 SELECTION) NON-ADJUSTABLE DIVIDERS.. .....	42-43
PASTRY TRAY ASSEMBLY (4 SELECTION) NON-ADJUSTABLE DIVIDERS .....	44-45
CANDY TRAY ASSEMBLY (10 SELECTION) NON-ADJUSTABLE DIVIDERS .....	46-47
PASTRY TRAY ASSEMBLY (5 SELECTION) NON-ADJUSTABLE DIVIDERS .....	48-49
CANDY TRAY ASSEMBLY (10 SELECTION/5 SELECTION) ADJ DIVIDERS .....	50-52
CANDY TRAY ASSEMBLY (8 SELECTION/4 SELECTION) ADJ. DIVIDERS .....	54-56
KICK PLATE ASSEMBLY .....	57
POWER BOX ASSEMBLY (POWER BOX SCHEMATIC). .....	58-59
HELIX ASSEMBLY (NON ADJUSTABLE DIVIDERS) .....	60
HELIX ASSEMBLY (REMOVABLE DIVIDERS) .....	61
SERVICE DOOR ASSEMBLY .....	62-63
CHILLER DUCT ASSEMBLY .....	64
DELIVERY COMPARTMENT ASSEMBLY .....	65
DOOR STOP ASSEMBLY .....	66-67
LAMP ASSEMBLY .....	68
ELECTRICAL SCHEMATIC .....	69



**POLYVEND LTD  
5000 AND 6000 SERIES  
GLASS FRONT SERVICE MANUAL  
INTERNATIONAL CONTROLLER**

**GENERAL**

The Polyvend Automatic Merchandiser has independent dispensing units, with each dispenser activated by letter and number push buttons. The dispensing assemblies are installed with a snap-in action helix from the front of the machine. This design provides easy access to displaying units on location. The helix dispensing units are supplied with helices of various pitches to accommodate a range of products.

**SPECIFICATIONS**

Height (Full Size) .....	1800mm
(Mid-size) .....	1800mm
Width (Full Size) .....	940mm
(Mid-size) .....	940mm
Depth (Full Size) .....	424mm
(Mid-size) .....	424mm
Shipping Weight	
(Full Size) .....	Approx. 275kg
(Mid-size) .....	Approx. 236kg

**ELECTRICAL**

PRIMARY VOLTAGE .....	..... EUROPE EXCEPT ENGLAND 220VAC 50 CYCLE 2AMP ENGLAND 230VAC 50 CYCLE 2AMP
SECONDARY VOLTAGE .....	24VAC
MAX. CURRENT (NO CHILLER INSTALLED) .....	3AMP
VOLTAGE TO CHANGER .....	24VAC

## Capacity/Configuration Chart\*

### MID-SIZE MACHINE

#### 4000 SERIES

8	8	8	8
8	8	10	10
10	10	10	10
14	14	10	10

**4416**  
CAPACITY 156

8	8	8	8
8	8	10	10
14	10	14	14
10	10	10	8

**4420**  
CAPACITY 206

8	8	8	8
10	10	10	14
10	10	12	12
12	14	14	14

**4424**  
CAPACITY 276

8	8	8	8
10	10	10	10
12	12	12	12
14	14	14	14

**4428**  
CAPACITY 320

#### 5000 SERIES

8	8	8	8
8	8	8	8
10	10	10	10
10	10	10	10
14	14	10	10
14	10	8	8

**5624**  
CAPACITY 232

8	8	8	8
8	8	8	8
10	10	10	10
14	14	10	10
14	14	14	14
10	10	8	8

**5628**  
CAPACITY 296

8	8	8	8
8	8	8	8
10	10	10	10
12	12	12	12
14	14	14	14
10	10	8	8

**5632**  
CAPACITY 336

8	8	8	8
8	8	8	8
10	10	10	14
12	12	12	12
14	14	14	14
12	12	14	14

**5636**  
CAPACITY 414

#### 5000 SERIES

8	8	8	8
8	8	10	10
10	10	10	10
14	14	10	10
14	8	8	10

**5520**  
CAPACITY 196

8	8	8	8
8	8	10	10
14	14	10	10
14	14	12	12
10	10	8	8

**5524**  
CAPACITY 254

8	8	8	8
8	10	10	10
12	12	12	12
14	14	14	14
10	10	8	8

**5528**  
CAPACITY 302

#### Product Size Capability

Snack Helix	Product Thickness	Candy Helix	Product Thickness
14 Count	25.4mm	22 Count	15.9mm
10 Count	38.1mm	14 Count	25.4mm
8 Count	47.6mm	12 Count	31.7mm
6 Count (optional)	63.5mm	10 Count	38.1mm

- = Helix delivery system / chip
- = Helix delivery system / candy

\* Subject to change without notice



## Capacity/Configuration Chart\* FULL SIZE MACHINE

### 6000 SERIES

### 6000 SERIES

8	8	8	8	8
8	8	10	10	10
10	10	10	10	10
14	14	14	10	10
14	10	8	8	8

**6525**  
CAPACITY 246

8	8	8	8	8
8	8	10	10	10
14	14	14	14	10
14	14	14	14	10
14	10	8	8	8

**6530**  
CAPACITY 330

8	8	8	8	8
8	8	10	10	10
12	12	12	12	12
14	14	14	14	14
14	10	8	8	8

**6535**  
CAPACITY 388

8	8	8	8	8
8	8	10	10	10
12	12	12	12	12
14	14	14	14	14
12	12	14	14	14

**6540**  
CAPACITY 454

#### Product Size Capability

Snack Helix	Product Thickness	Candy Helix	Product Thickness
14 Count	25.4mm	22 Count	15.9mm
10 Count	38.1mm	14 Count	25.4mm
8 Count	47.6mm	12 Count	31.7mm
6 Count (optional)	63.5mm	10 Count	38.1mm

Dual Helix	Product Thickness
18 Count	12.7mm
14 Count	22.2mm
12 Count	25.4mm
10 Count	31.7mm
8 Count	38.1mm
6 Count (optional)	57.1mm

8	8	8	8	8
8	8	8	8	8
10	10	10	10	10
10	10	10	10	10
14	14	14	10	10
14	10	8	8	8

**6630**  
CAPACITY 290

8	8	8	8	8
8	8	8	8	8
10	10	10	10	10
14	14	10	10	10
14	14	14	14	10
10	10	8	8	8

**6635**  
CAPACITY 362

8	8	8	8	8
8	8	8	8	8
10	10	10	10	14
12	12	12	12	12
14	14	14	14	14
10	10	8	8	8

**6640**  
CAPACITY 432

8	8	8	8	8
8	8	8	8	8
10	10	10	10	14
12	12	12	12	12
14	14	14	14	14
14	14	14	14	14

**6645**  
CAPACITY 514

8	8	8	8	8
8	8	10	10	14
12	12	12	12	12
14	14	14	14	14
10	10	14	14	14
12	14	14	14	14

**6650**  
CAPACITY 596

- = Helix delivery system / chip
- = Helix delivery system / candy

\* Subject to change without notice

## INSTALLATION

Remove shipping material from around the machine by cutting the shrink wrap at the top; then cut downward, keeping the knife over the cardboard corner post.

Inspect for damage resulting from improper handling and if evident, file claim immediately with the carrier.

Place machine into position and adjust leveling legs so machine is level and all legs are firmly on the floor.

Remove keys from product dispensing compartment (in small manila envelope) and unlock the service door to remove the shipping cardboard.

Check the alignment and operation of the service door. Make sure the gap across the top of the service door is even. If not it may be necessary to adjust the door (See pg. 5). Make sure that the locking mechanism operates smoothly and latches on all three locking plates.

Place the price stickers on the front of the helix trays.

Check to make sure that the power terminal on the transformer is attached to the proper terminal so it matches the local power supply voltage (220VAC or 240VAC). There should be a tag on the power cord or the machine stating the voltage the machine is set up for, but it is a good precaution to double check the transformer setup to avoid electrical damage. The transformer is located in the bottom of the vending machine, in the right rear corner, inside of the power box.

**CAUTION: DISCONNECT POWER TO THE VENDING MACHINE BEFORE REMOVING THE CONTROL BOARD OR COIN CHANGER OR WORKING ON ANY ELECTRICAL COMPONENT IN THE MACHINE.** Failure to remove power to the machine could result in electrical damage to the vending machine.

Ensure that the correct changer harness is installed to ensure proper connection of the changer when it is connected.

Install the coin changer equipment in the slide out drawer. Remember: The power to the slide out drawer is turned off when you pull out the drawer. To energize the drawer assembly, pull the plunger out, on interlock switch (See figure 1, pg. 10). When installing a Mars Executive Mechanism set the desired price for each item in accordance with the coin mechanism instruction sheet and the instructions provided in the "Electrical Service" portion of this manual. When installing other brands of changers it will be necessary to follow the manufacturer's instructions when installing their changer in the machine.

Plug the machine into the power source.

Load the coin changer with the proper denomination of coins.

Check the operation of the vending machine with coins to verify that the changer is set for the correct denomination and that the proper selection operates with the selection made on the selector keypad.

Ensure that all helix dispensers run in their channels and stop at the proper location for product dispensing.

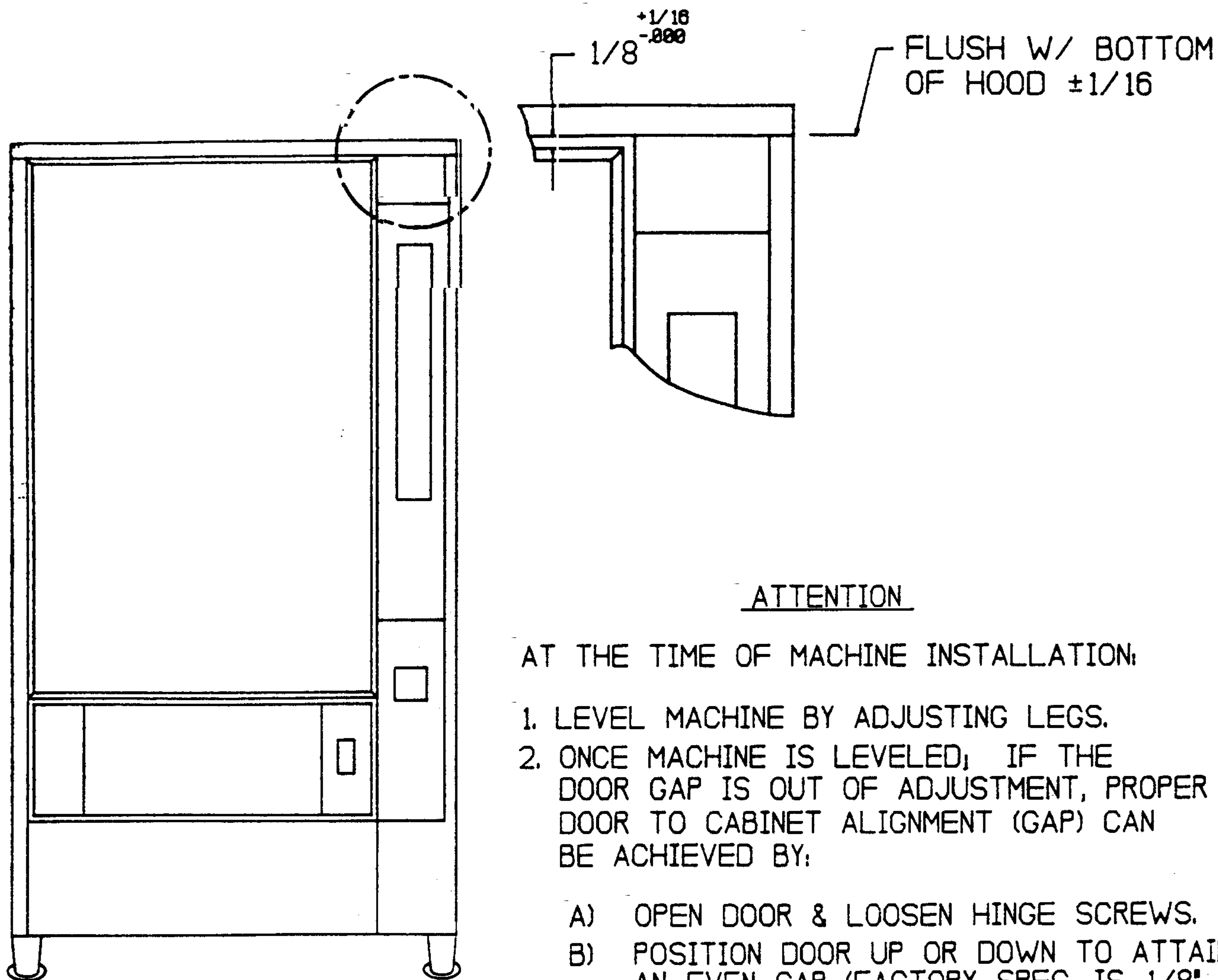


Load the machine with product. (See Product Loading Section.

- \* Close and lock the service door.

**CAUTION: DISCONNECT POWER TO THE VENDING MACHINE BEFORE REMOVING THE CONTROL BOARD OR COIN CHANGER OR WORKING ON ANY ELECTRICAL COMPONENTS IN THE MACHINE.**

SERVICE DOOR ADJUSTMENT SPEC.



ATTENTION

AT THE TIME OF MACHINE INSTALLATION:

1. LEVEL MACHINE BY ADJUSTING LEGS.
2. ONCE MACHINE IS LEVELED, IF THE DOOR GAP IS OUT OF ADJUSTMENT, PROPER DOOR TO CABINET ALIGNMENT (GAP) CAN BE ACHIEVED BY:
  - A) OPEN DOOR & LOOSEN HINGE SCREWS.
  - B) POSITION DOOR UP OR DOWN TO ATTAIN AN EVEN GAP (FACTORY SPEC. IS 1/8" FROM BOTTOM OF HOOD ON CABINET TO TOP OF DOOR.)
  - C) RE-TIGHTEN SCREWS IN TOP, MIDDLE & BOTTOM SEQUENCE.



## HELIX TRAY PRODUCT LOADING

There are several helix pitches (openings) available with Polyvend equipment. To insure proper operation and maximum capacity, the product size should closely match the opening between the windings of the helix. The product should fit between the windings of the helix so as not to be tight, but should fill most of the opening. If you can lift up on the product in the helix and the helix lifts up with the product, it is too tight and a larger opening needs to be used.

The helix sizes available are listed below:

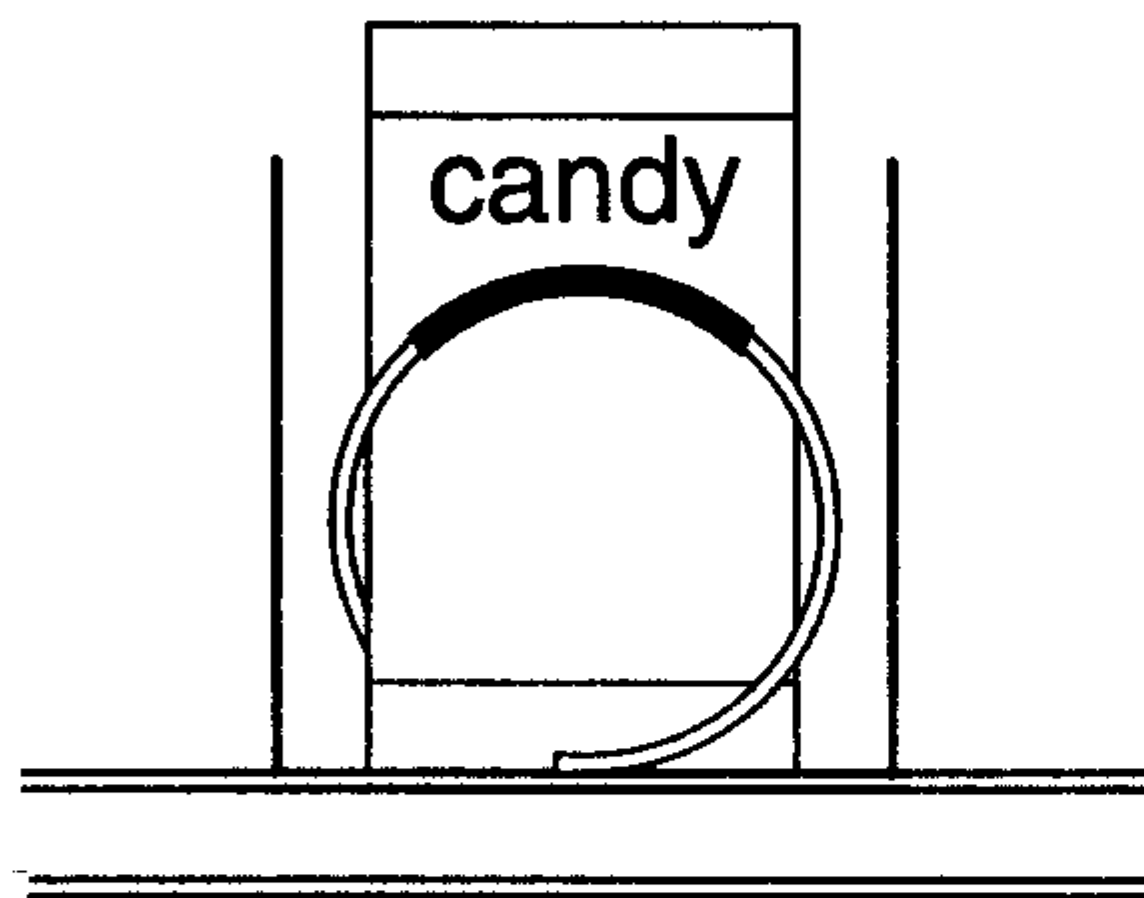
Candy Helix	Product Thickness
22 count	15.9mm thin product
14 count	25.4mm thin product
12 count	31.7mm medium product
10 count	38.1mm large product
Snack/Pastry Large Helix	Product Thickness
14 count	25.4mm thin product
10 count	38.1mm medium product
8 count	47.6mm standard chip bag
6 count (optional)	63.5mm jumbo bag product
Snack/Pastry Dual Helix	Product Thickness
18 count	12.7mm thin product
14 count	22.2mm thin product
12 count	25.4mm medium product
10 count	31.7mm medium thick product
8 count	38.1mm large product
6 count (optional)	57.1mm jumbo bag product

## PRODUCT LOADING

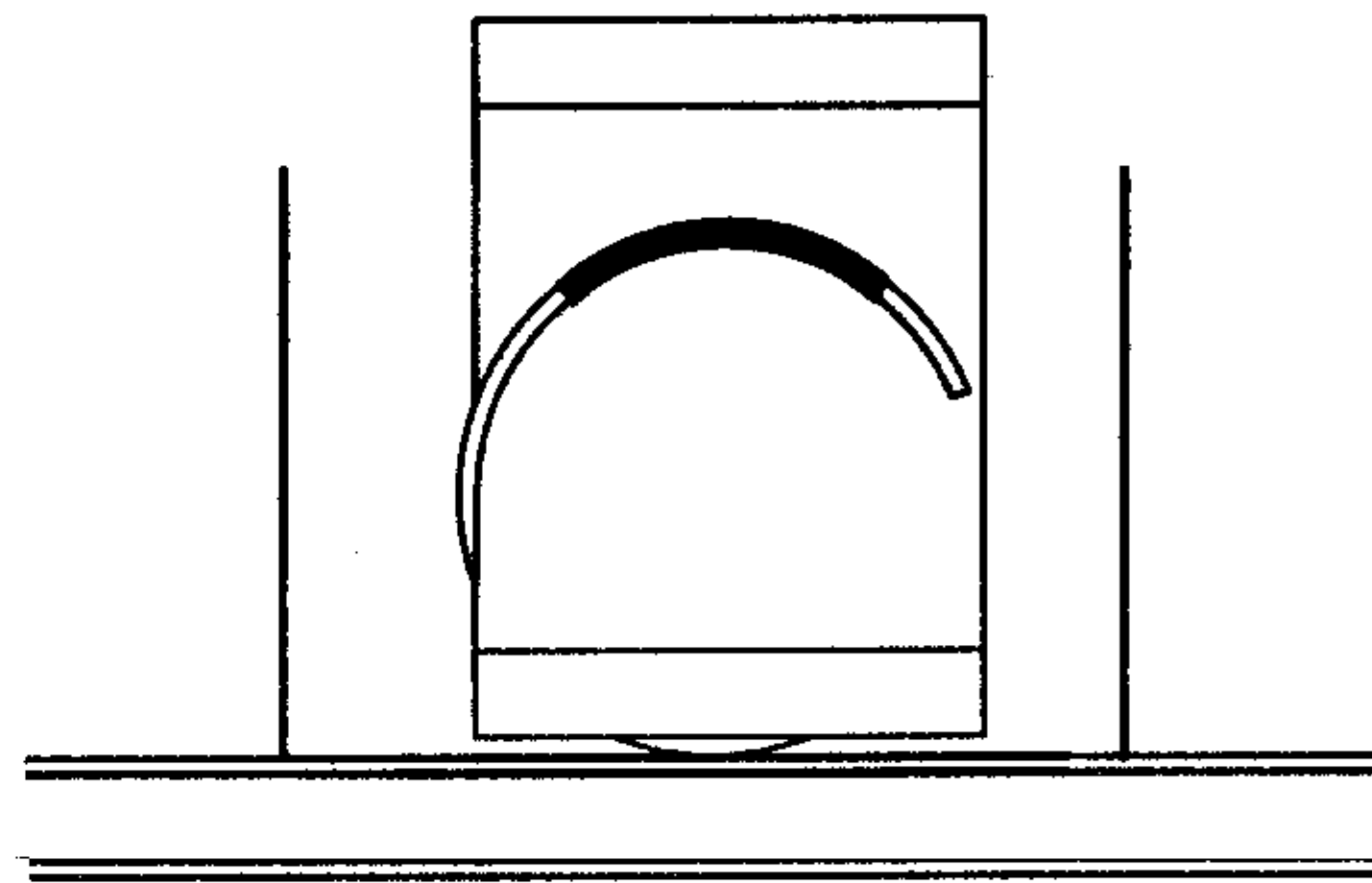
To load a tray, lift up on the tray front, pulling the tray out. Pull the tray out until it comes to the tray stop, then let it tilt down into the loading position.

At this point, check that each helix is in its proper position. The figure below shows the proper position.

CANDY HELIX



PASTRY OR  
SNACK HELIX



Starting at the front of the tray, insert a product between each winding of the helix so that the name of the product is displayed forward. Be sure to place the product all the way to the bottom of the tray and tilt free end at the top backwards. Fill from front to back and be sure not to miss any positions. Note: Product must rest on tray NOT on helix. After filling the tray, lift the front of the tray, push it back in until the latch is engaged. Check that the latch is fully engaged by pulling forward on the tray and ensuring that the tray does not advance beyond the latched position.

## SPECIAL PRODUCT LOADING

### NARROW PRODUCT LOADING

In order to keep narrow products positioned properly, the use of one of the spacer rails may be required. For additional rails order part no. 23170.

To install the spacer rail, press on to the tray divider and adjust it as shown in Figure 1 below.

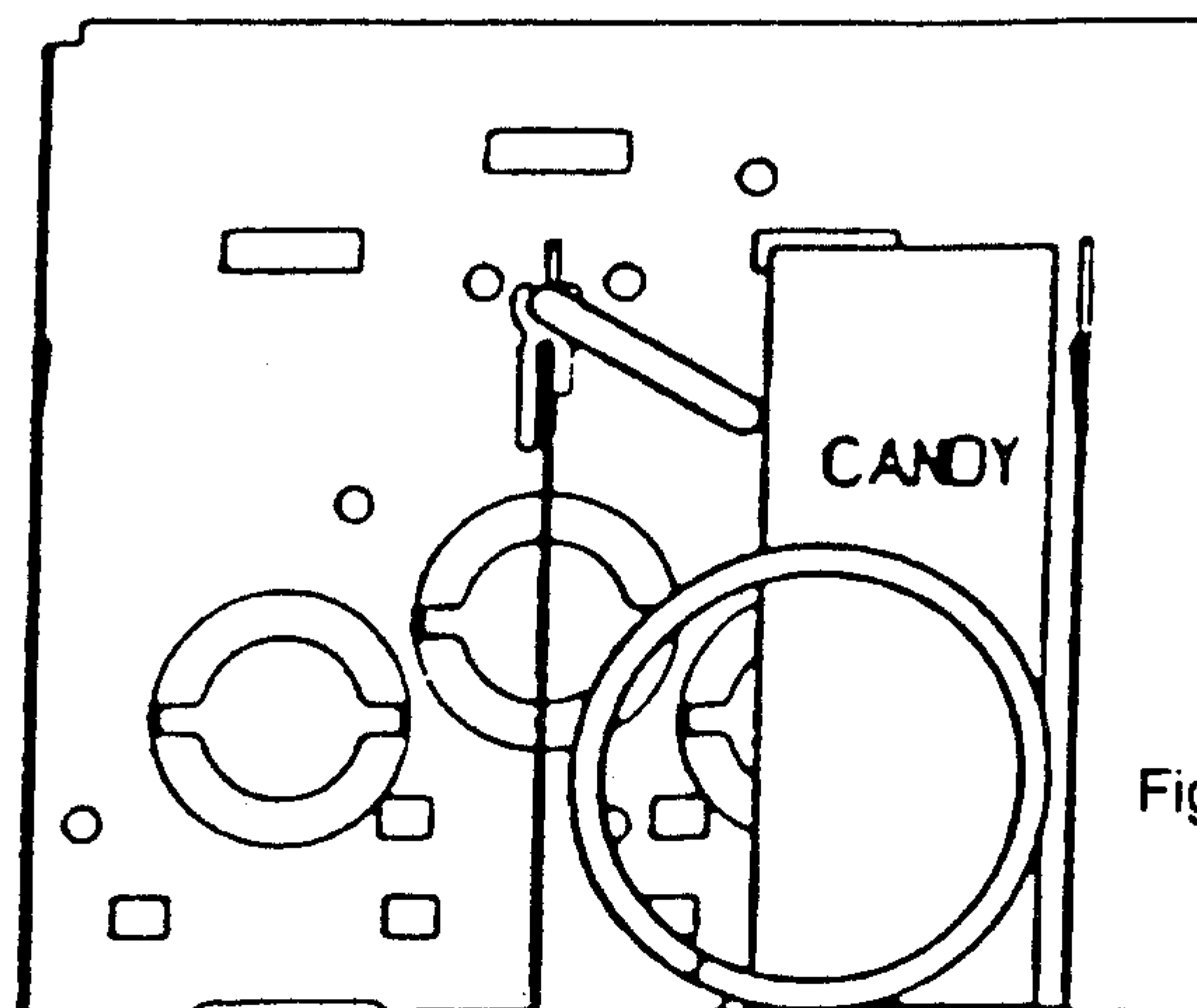


Figure 1

### FLAT OR SEMI-FLAT BOTTOM PRODUCT LOADING INSTRUCTIONS

NOTE: Instructions apply to candy tray only.

Certain candies and cigarettes have a flat or semi-flat bottom which is thick and wide. Polyvend Inc. has designed into our helix the flexibility to be 100% sure of the vending of this type of product. By moving the position of the helix, and thus the helix kicker 90 degrees, the best dispensing for boxed products is insured. You simply unlock the helix by taking hold of the helix near the hub and firmly pulling the helix out of the motor. Turn the helix counterclockwise 95 to 100 degrees, then note that the snap-in shaft is square shaped, so the helix must be properly positioned. With the helix properly positioned, align the shaft of the hub with the octagon shaped motor drive and push the helix into place. A positive lock-in position will be felt when the shaft is in the correct position. The helix should then be in the position shown below in Figure 2.

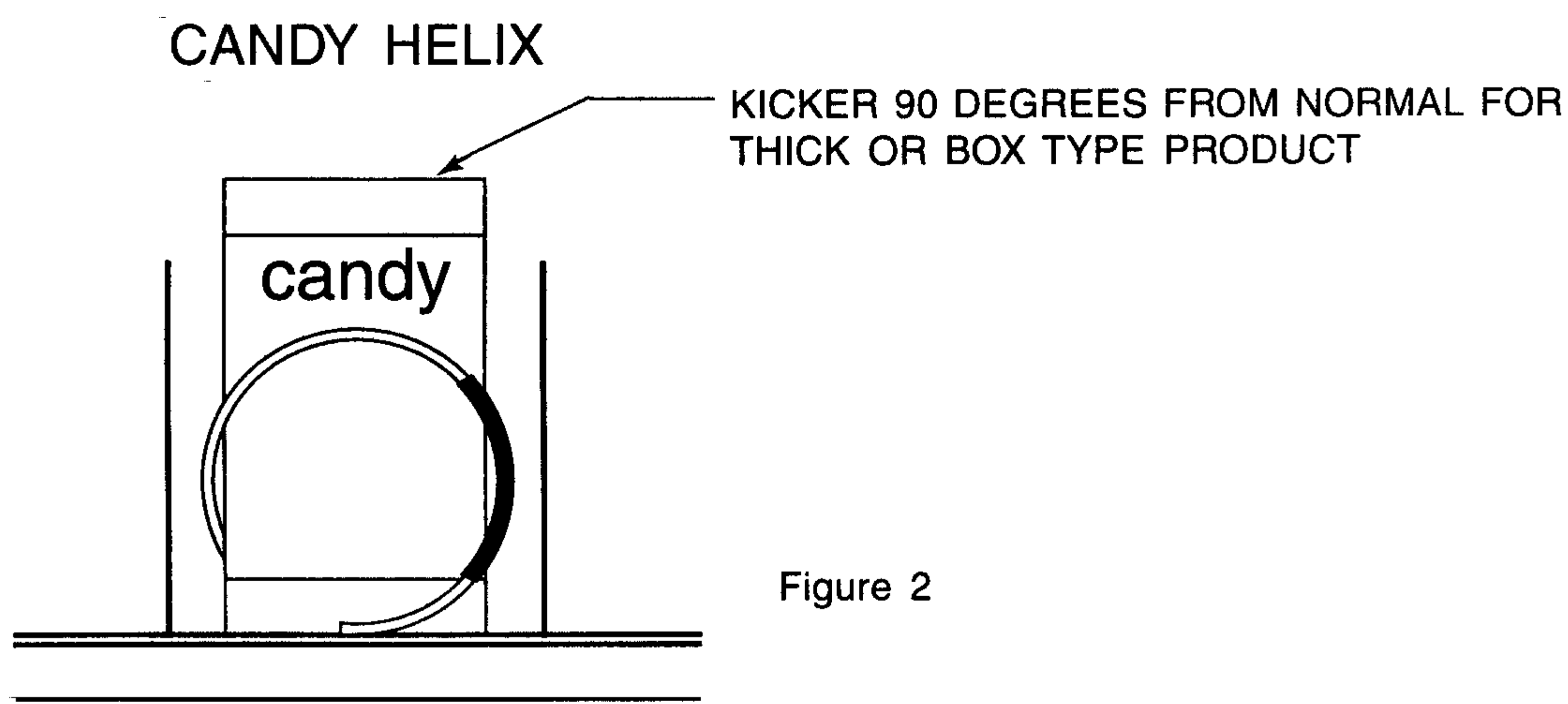


Figure 2

## **PRIMARY CABINET COMPONENT INFORMATION**

## PRIMARY CABINET COMPONENT INFORMATION

### SLIDEOUT CONTROL DRAWER

All electrical components in this compartment are low voltage (See figure 1 below). Located in this panel are the control board, changer, dollar bill validator (when installed) and digital readout circuit board. The 110VAC transformer, light ballast and circuit breakers are located in the high voltage electrical box on the right side of the cabinet beside the coin bank (figure 2, pg. 11).

Note: The safety interlock switch that turns on the power to the drawer is located in the rear, as shown below in figure 1.

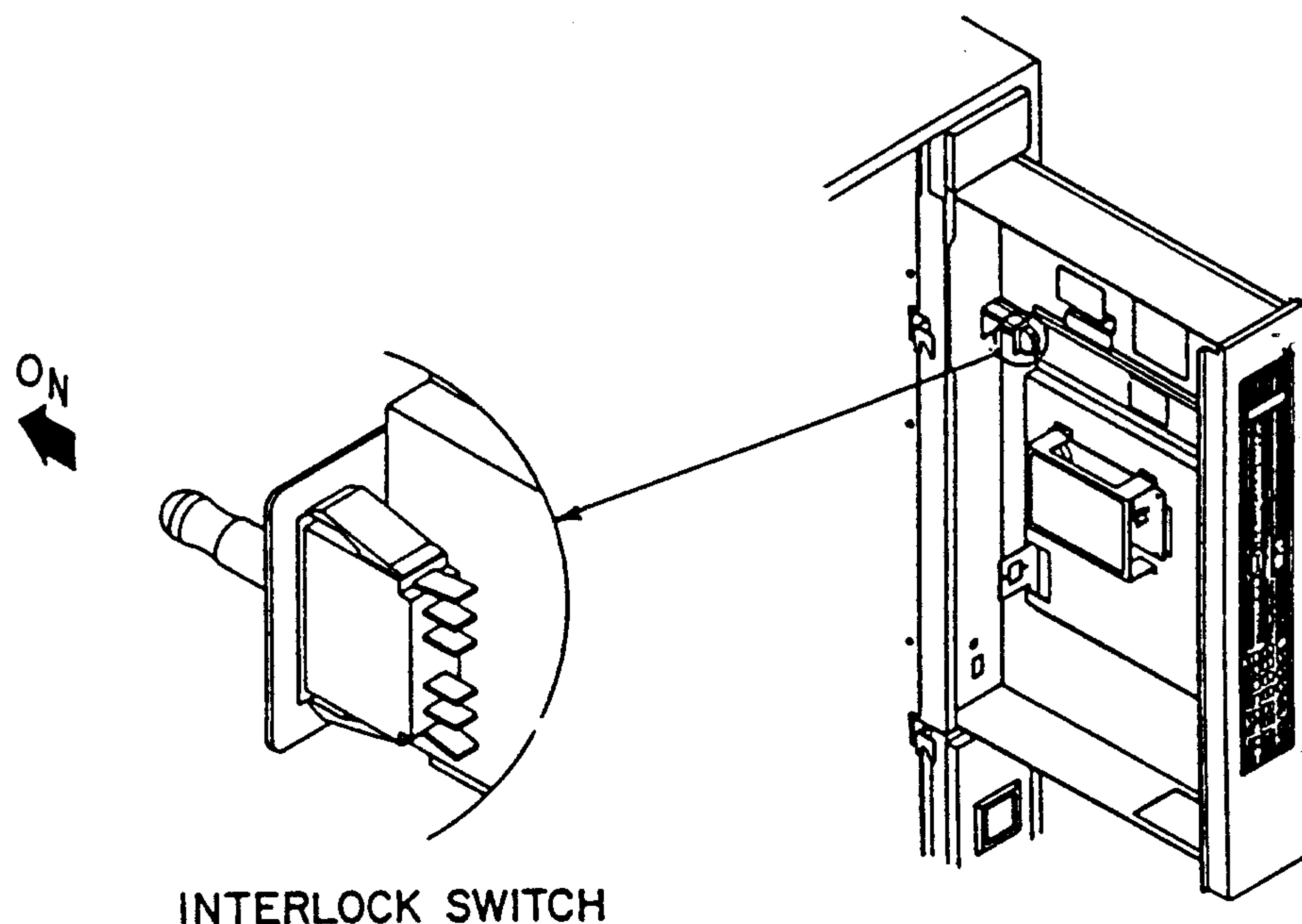


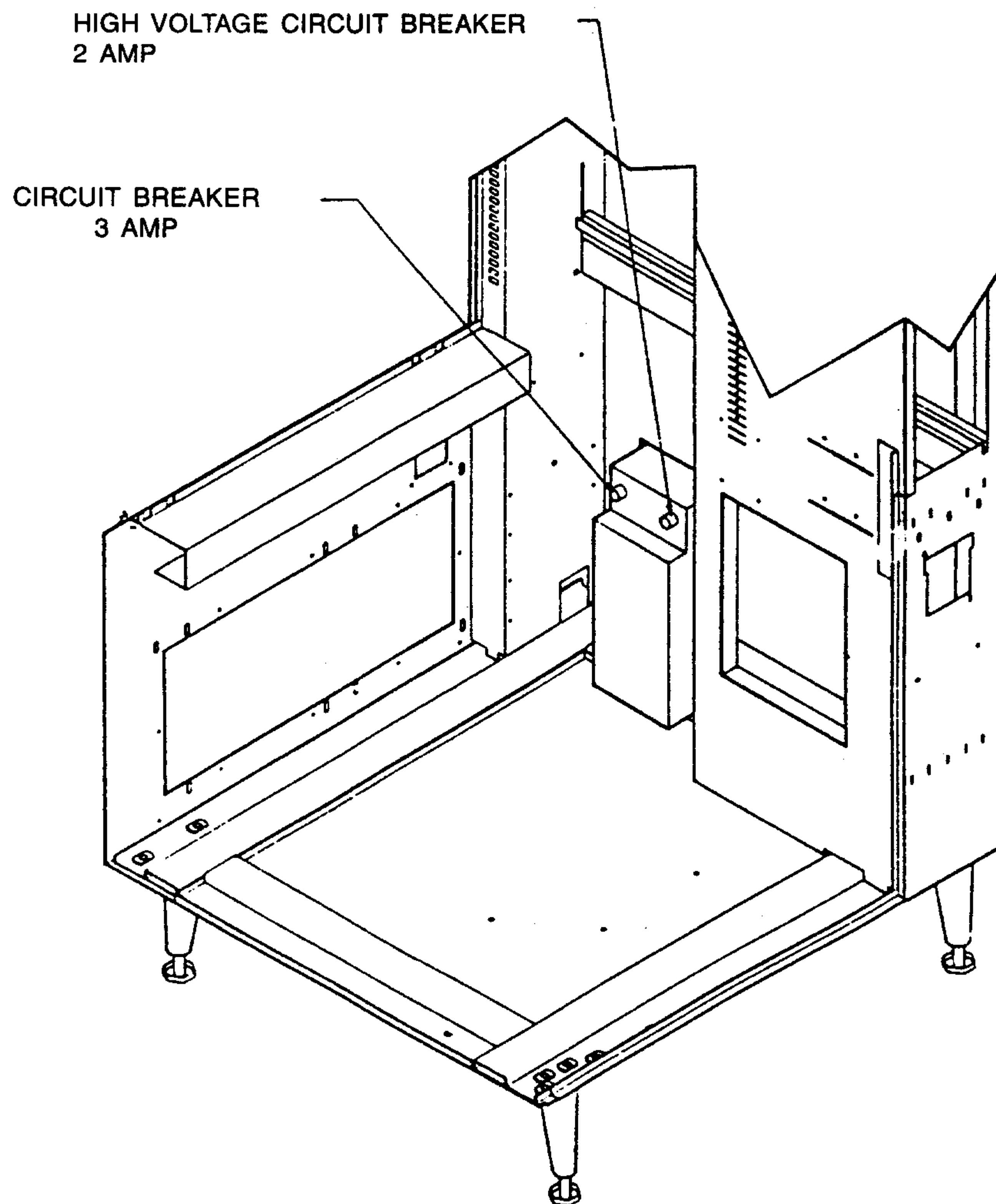
Figure 1

### REMOVAL OF SLIDEOUT CONTROL DRAWER

With the service door open, pull the slideout drawer to the stop. Reach up from the storage area to the rear of the slideout drawer and unplug the harness connection from the rear of the drawer. Unplug the harness for the trays from the harness distribution board and remove from the drawer. Note: The slideout drawer may have to be pushed partially closed, in order to reach the back of the drawer and disconnect the wiring harness. Disconnect the ground wire attached to the back of the drawer assembly, by removing the screw attaching the wire to the cabinet just above the power box assembly in the rear of the cabinet. After disconnecting the harness, pull the drawer to full open position. Remove the four (4) screws from the slide in the center of the drawer. Two of the screws must be removed through the large hole in the center of the slide section. Be careful and **DO NOT ALLOW THE DRAWER TO FALL** when removing these screws. Lift and remove the drawer from the guides. For installation of the drawer, reverse the procedure.

## HIGH VOLTAGE POWER SUPPLY

The high voltage power supply is located in the bottom of the machine, to the right hand side beside the coin box towards the rear of the machine. Note: If a chiller unit is installed the power box will be mounted in the right rear of the machine on the back brace. Located inside the power supply are the ballast for the fluorescent light, the step down transformer and the RFI filter. On the left side of the power box is the outlet to plug in a chiller unit if installed. The two circuit breakers for the 220-230 volt 2 amp circuit and the 24 volt 3 amp circuit are located just above and to the left of the coin box.



STORAGE COMPARTMENT  
Figure 2

## HELIX TRAY REMOVAL (FROM MACHINE)

Pull open the sliding drawer assembly, locate the correct tray harness to be unplugged from the harness distribution board. Loosen the two wing nuts holding the strain bar in place. Unplug the tray harness from the harness distribution board and slide it under the strain bar. Pull the tray harness up onto the tray, laying it on top. Lift the helix tray up and pull forward until reaching the stop that allows the tray to tilt down for loading. Lift up on the front of the tray until the tray is at approximately a 45 degree angle with the floor. The tray should then slide out of the machine. To clear the machine, grasp the tray at the front and rear, lift it out and place it on a work surface.

To reinstall the tray, reverse the operation. Grasp the tray, place the rear of the tray into the tracks, lift up on the front of the tray until the tray is at approximately a 45 degree angle with the floor and slide the tray in until the tray comes to the stops. Feed the tray harness around through the back of the drawer assembly under the strain bar and plug the harness into the junction board. Tighten the two wing nuts on the strain bar. Pull on the tray to ensure that the tray is latched into place.

## INDIVIDUAL HELIX REMOVAL

An individual helix can be removed for cleaning, repair or replacement with a different pitch whether the tray is in or out of the machine. A helix used with the new snap-in hub feature can be removed by first grasping the helix close to the hub and pulling firmly on the assembly toward the front of the tray.

To reinstall the helix assembly, note that the snap-in shaft is square shaped, so the helix must be properly positioned (product kicker in correct position). With the helix correctly positioned, align the shaft of the hub with the octagon shaped motor drive and push the helix into place. A positive lock-in position will be felt when the shaft is properly inserted and locked into place.

SIDE VIEW

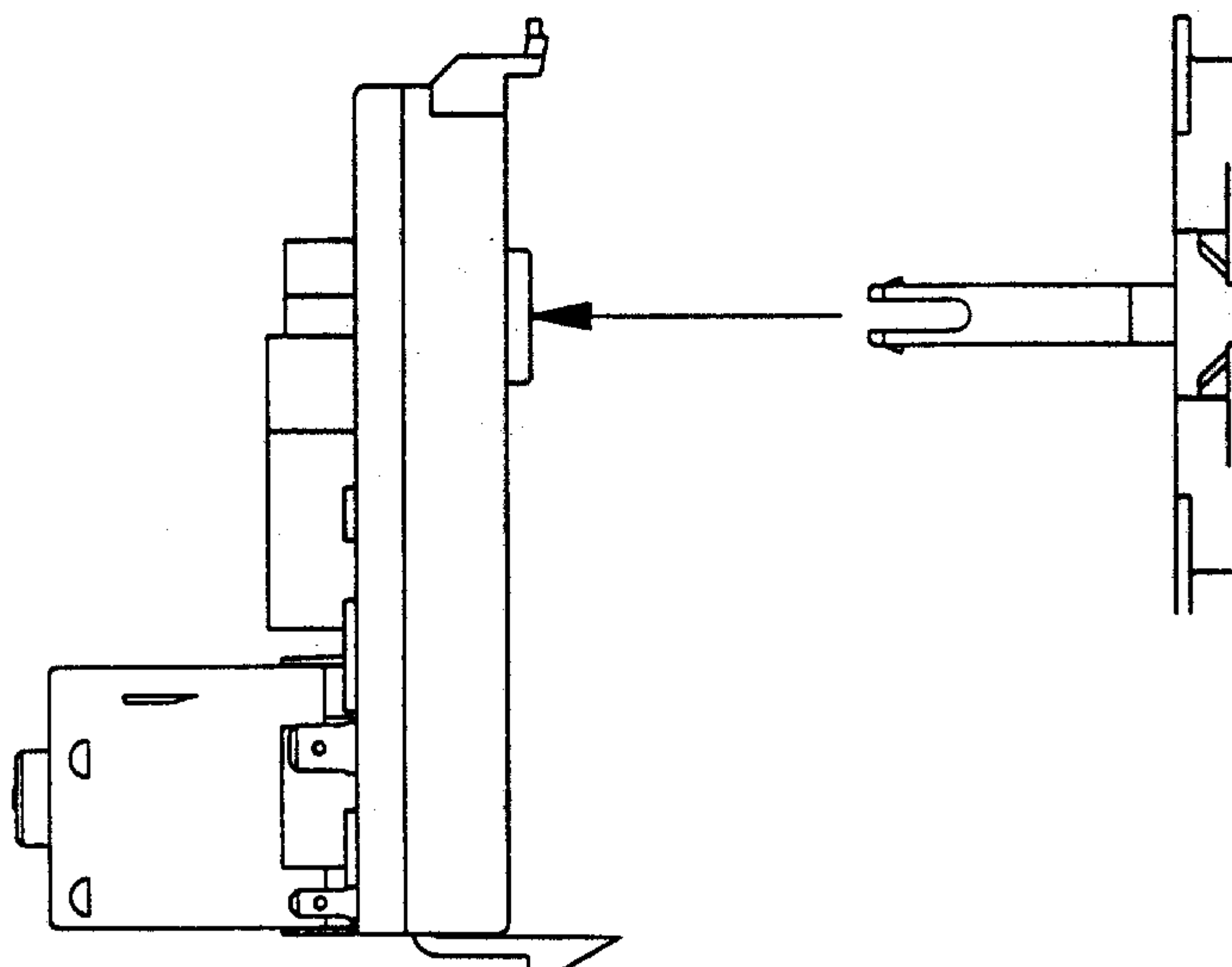


Figure 3



## TRAY ASSEMBLY (NEW STYLE REMOVABLE DIVIDERS)

The new tray from Polyvend offers you numerous options with only one tray. The various options can be obtained by simply moving the motors and tray dividers to achieve almost any combination you desire. For example, listed below are some of the options obtainable on a PV-6000 tray.

10 singles .....	10 selection
1 large and 8 singles .....	9 selection
2 large and 6 singles .....	8 selection
3 large and 4 singles .....	7 selection
4 large and 2 singles .....	6 selection
5 large or pastry .....	5 selection

Divider movement can be accomplished by pushing on the front of the divider, which depresses the tension spring and disengages the locking tabs on the bottom of the divider. This action will allow you to lift up the divider for removal. When removing, note that the divider has a positioning tab located at the top rear portion of the divider. To reinstall divider, this tab must be inserted into the selected vertical slot on the rear of the tray, applying pressure to the front of the divider to depress the tension spring and holding the divider against the tray bottom. Release the pressure against the divider allowing the tension spring to force the divider toward the front of the tray. Make sure the locking tabs on the bottom of the divider engages in the slots in the tray bottom. Pull forward on the divider to ensure the locking tabs are in their most forward position.



## **ELECTRICAL SERVICE SECTION**

### **MODES OF OPERATION**

The system will operate in one of two modes, sales or service. On power up (after completing configuration), the machine is in the sales mode. Service mode may be selected by pressing the mode switch mounted on the control board. The system will return to the sales mode if the mode switch is pressed again or after 25 seconds of no service mode activity.

### **SALES MODE**

In the sales mode, the control board will control the dispensing of products according to customer credit and selection inputs. The control board will communicate with the coin mechanism and dollar bill validator (if installed); so, as credit is entered it will be shown on the scrolling display. If there is inadequate change available, the coin mechanism will indicate that an exact change situation exists and the control board will show on the scrolling display "PLEASE INSERT EXACT MONEY".

When a customer makes a selection on the key pad, buttons A thru G and (within 5 seconds) numbers 0 thru 9, the accumulated credit will be compared to the price set for this selection and if the credit is equal to or exceeds the set price, the corresponding motor will be energized. If the vend is successful, the price will be deducted from the credit value and the change returned.

The vend will be considered unsuccessful if the motor does not receive sufficient current or fails to reach the home position within six (6) seconds. The vend will not be attempted if the motor has already been detected as failed or if the selection made is not in the configuration of the machine. In any case, credit will not be deducted and the "MAKE ALTERNATE SELECTION", message will be on the scrolling display until a new selection is made.

If there is insufficient credit for the selection made, the selection and the price of that selection will be displayed for five (5) seconds, followed by the message "PLEASE INSERT MORE MONEY". This message will be displayed until either enough credit is added and the selection made again or a lower price selection is made. The correct selection and the selection price will be displayed during the vend.

If power should fail during a vend, the credit will be lost and the selected motor will not be re-energized when power returns, thus the next vend of this motor may be shorter than normal.

## **SERVICE MODE**

The service mode can be entered by pressing the "MODE BUTTON" located on the control board. By using the numbers and letters on the alphanumeric keypad, the operator can program and review the features of the control board. Upon pressing the "MODE BUTTON", the display will sequence through (1.5 secs. each), the alphanumeric selection codes of any motors which the control board believes to have failed and an error code will appear on the right, telling the operator the reason for the failure. Pressing and holding the #13 button will abort this sequence display.

### **ERROR CODES**

1. Error 1 - Too little motor current.
2. Error 2 - Too much time to complete the vend (6 seconds).
3. Error 3 - The control board has lost communications with the changer (changer has malfunctioned).
4. Error 4 - EEPROM sumcheck error. Display will scroll "Please Call Service."

Note: Error 4 - Prices have been inadvertently altered and all prices have automatically been set to maximum by the control board and scrolling display will scroll "Please Call Service". To clear these prices, reset pricing as desired.

The following is a menu of the program modes available to the operator.

KEY 0 Unused

KEY 1 Dispense coins from changer.

Press A = nickles dispensed.  
B = dimes dispensed.  
C = quarters dispensed.

Display motor configuration.

KEY 3 For reconfiguration of the machine.

Cash accountability (Not a resetable counter).

A = Total cash accountability

B = Total number of \$1 bills taken in by bill validator (if bill validator installed).

C = Total # of products vended

D = Total # of products vended since last reset (resettable function)

Enter price setting mode.

Then press 10 = individual price setting.

11 = price setting by row.

12 = price setting by entire machine.

KEY 6 Service vend by individual selection.

KEY 7 Service vend by row.

Service vend by entire machine.

KEY 9 Point of sales message programming.

KEY 10 Selection of a language.

Key also used with key 5 for individual price setting.

Key also used with key E for time setting.

KEY 11 Vend Options selection.

Key also used with key 5 for price setting by row.

KEY 12 Key used with key 5 for price setting by entire machine.

KEY 13 Exit a mode, (i.e. price setting by row, price setting by machine, service vend by row or service vend by machine).

The operator can exit the service mode by pressing the "MODE BUTTON" on the control board or by allowing a period of inactivity in excess of 25 seconds to elapse. Either way, the machine will return to the sales mode of operation.

## **DETAILED OPERATION OF CONTROL BOARD**

At the time of delivery from Polyvend Inc., the control board will be set as follows:

1. All vend options will be off.
2. The maximum change limit will be set to \$1.00 and turned off.
3. The cash accountability will be set to \$00,000.00. Note: Due to factory testing the total will not be exactly \$00,000.00.
4. The total number of vends non-resettable will be 000000. Note: Due to factory testing the total will not be exactly 000000.
5. The time and date will be blank with the clock turned off.
6. The timed shut down intervals will be blank and turned off.
7. The promotional rows will be blank.

## **MODES OF OPERATION**

The system will operate in one of two modes, sales or service. On power up (after completing configuration), the machine is in the sales mode. Service mode may be selected by pressing the mode button located on the control board. The system will return to the sales mode if the mode button is pressed again or after 25 seconds of no service mode activity.

### **ERROR CODES**

1. Error 1 - Too little motor current.
2. Error 2 - Too much time to complete vend (6 seconds)
3. Error 3 - Loss of communications with changer (possible changer failure).
4. Error 4 - EEPROM sumcheck error. Display will scroll "Please Call Service."

Note: Error 4 - Prices have been inadvertently altered and all prices have automatically been set to maximum by the control board and scrolling display will scroll "Please Call Service". To clear these prices, reset pricing as desired.

## **1. COIN DISPENSING**

Not used with European changers.

## **2. MOTOR COUNT**

While in the service mode, press selection button #2 to display the total number of functioning motors in the machine configuration. On the display the message "MOTORS" and the total number found in the machine will appear.

### **3. MOTOR REMOVAL**

To remove a motor from the configuration while in the service mode, press selection button #3. The control board will reconfigure to the currently functioning motors. The display will show "CONFIGURED".

## **ACCOUNTABILITY SYSTEM**

### **1. CASH ACCOUNTABILITY**

While in the service mode press selection button #4. The display will show "ACCOUNTING". Press selection button A to display the total value of all paid sales which will rollover after \$99,999.95. This is a non-resettable function.

### **2. TOTAL NUMBER OF PRODUCTS VENDED**

While in the service mode press selection button #4. The display will show "ACCOUNTING". Press selection button C to display the total number of products vended from this machine, which will rollover after 79,999,920. This function is non-resettable.

### **3. TOTAL NUMBER OF PRODUCTS VENDED (RESETTABLE FUNCTION)**

While in the service mode press selection button #4. The display will show "ACCOUNTING". Press selection button D to display the total number of products vended since the last reset, which will rollover after 79,999,920.

### **4. RESET ALL RESETTABLE FUNCTIONS AT ONCE**

While in the service mode press selection button #4. The display will show "ACCOUNTING". Press selection button E. The display will show "RESET". To reset all resettable functions only, press selection button F. All functions will reset to "0".

### **5. DOWN LOAD DEX/UCS**

While in the service mode press selection button #4. The display will show "ACCOUNTING". Press selection button #12. The display will show "DEX/UCS" and the control board will download the information to the hand held unit. Upon completion of the download of the resettable item, it will be necessary for the operator to then reset the function. The download of the control board does not automatically reset this item to "0".

To exit this mode, press selection button #13 or exit the service mode.



## PRICE SETTING

### A. Price Setting of the Entire Machine

To set the price of the entire machine while in the service mode, press selection button #5. The control board will display "SELECTION", then you may press any selection letter and number. The control board will display the selection letter, number and price. Using the numbers on the key pad, press the most significant digit first, then the less significant digits. Example: \$00.90. Press selection button #9, then press button #0. To save this price for the entire machine press button #12. To cancel an unwanted price before the fourth number is entered, press selection button #13.

### B. Price Setting by Row

To set the price of an entire row of selections press selection button #5. The control board will display "SELECTION." Then enter a selection letter and number from the row you want to set the prices on. The display will show the letter, number and current price. Using the numbers on the key pad, press the most significant number of the price first, followed by the less significant numbers. Example \$.90. Press the #9 button then press the #0 button. The digital display should read \$00.90. In order to save this and set the entire row, press button #11. To set the next row, press the #5 button, then enter the letter and number from the next row you want to set the prices on and repeat the price setting procedure. To cancel an unwanted price before the fourth number is entered, press button #13.

### C. Individual Price Setting

To set a single price on one item, while in the service mode, press selection button #5. The control board will display "SELECTION". Press the letter and number of the selection you wish to change. The selection letter and number will be displayed along with the current price. Using the numbers on the key pad, press the most significant digit first, then the less significant digits. Example: \$00.85. Press the #8, then the #5. The digital display should read \$00.85. To save this price, press button #10. To set another single price, press button #5 and repeat the above sequence. To cancel an unwanted price before the fourth digit is entered, press button #13.

**NOTE:** When the price is set to \$00.00, this is allowed and is a service vend (free vend). The machine can then be used as a display or show machine.

## SERVICE VEND

### A. Service Vend by Individual Selection

To service vend a single selection motor, while in the service mode, press selection button #6. The control board will display "SELECTION." Enter the desired selection letter, followed by the number. This will be displayed with the selection price, while a vend of the motor is attempted. If the vend is successful, the display will blank. If the vend is not successful, the control board will beep three times before blanking.

**NOTE:** If a selection motor is taken out of service due to a product hanging up, the motor must be service vend in order to put it back into operation.

### B. Service Vend by Row

To service vend an entire row of selection motors, while in the service mode, press button #7. The control board will display "SELECTION." Enter the letter of the desired row. The control board will display the selection number and price while the vend is attempted, starting with the highest number selection in that row. If the vend is successful, the control board will continue with the next motor. If the vend is not successful, the control board will beep three times and continue with the next motor. This cycle will repeat until vends on all motors in the row have been attempted, then the display will blank.

To exit this mode, either press selection button #13 and hold until the current vend is completed or exit the service mode.

### C. Service Vend of Entire Machine (One complete test).

To service vend the entire machine of selection motors one time, while in the service mode, press selection button #8. The control board will display the selection number and price as the corresponding vend is attempted. If the vend is successful, the control board will continue on with the next motor. If the vend is not successful, the control board will beep three times and continue with next motor. This cycle will repeat until vends on all motors in the machine have been attempted, then the display will blank.

To stop the vending of the motors press selection button #13 and hold until the current vend is completed or exit the service mode.

## POINT OF SALES MESSAGE PROGRAMMING

The machine comes preset from the factory with the message “ENJOY ONE OF OUR FINE SNACK PRODUCTS”.

If you wish to change the Point of Sales message, press the service mode button on the control board, then press selection button #9. The control board will display “MESSAGE”. Using the keypad overlay (provided in the large manila envelope) and following the keypad definitions, enter the new message. Menu 1 (blue characters) is the default menu. After each key entry, from either menu, the keypad will return to menu 1. To use menu 2 (red characters), the “SHIFT” key must be pressed prior to pressing a menu 2 key. If you enter the wrong letter, press “BACK SPACE” to remove that letter from message. Put two (2) spaces to indicate the end of the message. To save the message the “ENTER” button must be pressed from within menu 2.

Note: The maximum number of characters you can enter to form a message is 53 plus two spaces at the end of the message. It is very important to put 2 spaces at the end of the message to prevent the end of message from running together with the beginning of the next message. A space between two words is one character.

MENU 1			MENU 2		
A	G	M	S	Y	4
B	H	N	T	Z	5
C		O	U	0	6
D	J	P	V	1	7
E	K	Q	W	2	8
F	L	R	X	3	9
SPACE	SHIFT (NEXT MENU)	BACK SPACE		ENTER	\$

EXAMPLE: “ENJOY OUR SNACKS”. Press button #9, “MESSAGE” appears on display. Using the overlay, press the letter “E”, letter “N”, letter “J”, letter “O”, press “SHIFT”, press “Y”, press “SPACE”, press “O”, press “SHIFT”, press “U”, press “R”, press “SPACE”, press “SHIFT”, press “S”, press “N”, press “A”, press “C”, press “K”, press “SHIFT”, press “S”, press “SPACE”, press “SPACE”, press “SHIFT”, press “ENTER”. The message should start scrolling when you press the mode switch.



## LANGUAGE SELECTION

To select the message language, while in the service mode, press selection button #10. The scrolling display will display "LANGUAGE." Press the letter of the language you wish to program (See list below). The language selected will be displayed, or you can program your own message using selection button #11.

Press button #10 + button A = Italian  
Press button #10 + button B = Dutch  
Press button #10 + button C = Spanish  
Press button #10 + button D = Danish  
Press button #10 + button E = English  
Press button #10 + button F = French  
Press button #10 + button G = German  
Press button #10 + button 11 = ADD MESSAGE

Under button #11, the control board will display "MESSAGE n". Using the same overlay for the Point of Sales programming, enter the message in the same way and complete the message by pressing ENTER on the overlay. The first message that you will enter will be PLEASE INSERT EXACT MONEY in the language you desire. The second message should be PLEASE INSERT MORE MONEY in the language you desire. The third message should be MAKE ALTERNATE SELECTION in the language you desire. The fourth message should be PLEASE CALL SERVICE in the language you desire. The maximum length of messages 1 and 2 is thirty characters including spaces. The maximum length of messages 3 and 4 is 25 characters including spaces.

## **VEND OPTIONS**

To enable or disable the vend options, while in the service mode, press selection button #11. The control board will display "OPTIONS". Press one of the appropriate letters listed below. After the letter has been pressed, the current state of the option will be displayed. The option may be changed by following the instructions pertaining to that option.

### **A. FORCE VEND**

This option (when turned "ON") will force the customer to complete a purchase once they have deposited money of any form. If a vend is attempted and the motor fails during this vend, the customer will be allowed to escrow the credit, regardless of the force vend status. To access this option, press selection button #11 then press selection button "B". The feature will then be displayed with its present status. To change the status press selection button "B" again.

### **B. TO SET CONTROL BOARD TIME AND DATE**

This option will allow the control board to set the time and date for timed operations. Should you lose power to the machine, a back-up battery will maintain the correct time and date.

To access this option press selection button #11, then press selection button "D". The current time of day will be displayed in a 24 hour format (1 PM would be 1300) as "TIME hh.mm". A new time may be entered by pressing the selection buttons on the front of the machine and will be displayed as they are pressed, the most significant digit followed by lesser significant. Example: 13 25 would be entered by pressing selection button #1, selection button #3, selection button #2, then selection button #5. To save this entry, press selection button #10.

The current month will then be displayed in a numeric format as "MONTH mm". A new month may be entered by pressing the selection buttons. As each button is pressed it will be shown on the display. The most significant digit should be entered followed by lesser significant digit. It is not necessary to enter the leading zeros and only the first two numbers will be used. To save this entry press selection button #10.

The current day of the month will now be displayed as "DATE dd" in a numeric format. A new day of the month may be entered by pressing the selection number buttons which will be displayed as they are entered. Enter the most significant digit followed by the less significant. It is not necessary to enter leading zeros and only the first two numbers will be used. To save this entry press selection button #10.

The current day of the week will now be displayed as "DAY d" in a numeric format. A new day may be entered by pressing the selection number buttons which will be displayed as they are entered. (Starting with Sunday as day 1 and ending with Saturday number 7.) Enter the correct digit. To save this entry press selection button #10.

The current year will now be displayed as "YEAR YY" in a numeric format. A new year may be entered by pressing the selection number keys which will be displayed as they are entered. The most significant digit should be entered first followed by the less significant. To save this entry press selection button #10.

To cancel unwanted setting before saving, press selection button #13 or exit the service mode.

## C. SETTING TIME SHUT DOWN OF MACHINE

This option will allow the control board to shut down the entire machine four times during a 24 hour period. During these time intervals the point of sales message will read “VENDING OPERATION TO RESUME AT hh.mm”.

To set this option after going into the service mode, press selection button #11, then press selection button “E”. The current on/off setting will be displayed as “TIMES xxx”. To change the current on/off setting press selection button “E” again. With the setting to the “ON” position, to program the start, stop and active day times, wait one second and the display will continue to “1 STRT hh.mm”. A new start time for this interval may be entered by pressing the selection button numbers, which will be displayed as the number buttons are pressed. The most significant digit is entered first followed by the lesser significant digits. Only the first four numbers will be used. To save this entry press selection button #10. The display will continue to “1STOP hh.mm”. A new stop time for this interval may now be entered by pressing the selection button numbers, which will be displayed as the number buttons are pressed. The most significant digit should be entered first followed by the lesser digits. Only the first four digits will be used and can be saved by pressing selection button #10. The display will continue to the daily on/off status shown as “1DY xxxxxx”. The x’s will be either a “0” for “OFF” or a “1” for “ON”. The first “x” will show the status of Sunday, the next “x” for Monday, and so on, until Saturday. The daily status may be changed by pressing the “0” or “1” keys. Each digit will be rotated in from the right side. It is not necessary to enter leading zeros and only the first seven numbers will be used. To save this entry press selection button #10. The display will continue by increasing the leading “1” in the above examples to show the next shut down time. When all four intervals have been programmed the control board will return to the service mode.

NOTE: To avoid confusion, the start time is when the machine is going to be turned “OFF”, and the stop time is going to be when the machine is “ON”.

To cancel an unwanted setting before saving, press selection button #13 or exit the service mode.

## D. ONE FREE PRODUCT SETTING

This option will allow a free product to be given to the customer at a preprogrammed interval. Setting this interval to “1” provides a free vend at every transaction, “0” disables the option and the maximum valid interval is 255.

To access this option press selection button #11, then press selection button “F”. The current interval will be displayed as “FREE xxx”. A new interval may be entered by pressing the selection button numbers, which will be displayed as they are entered. The most significant digit is entered first followed by the lesser significant digits. It is not necessary to enter leading zeros and only the first four numbers will be displayed and used. To save this entry press selection button #10.

To cancel an unwanted setting before saving, press selection button #13 or exit the service mode.

## E. PROMOTIONAL VEND SETTING

This option will allow a promotional product to be given to a customer for free in response to their purchase of another product. When enabled, purchasing selection “1” from one of the two possible promotional rows will result in both selection “1” and a promotional item “0” from that row to vend sequentially.

To access this option press selection button #11, then press selection button "G". This will toggle the on/off state. To program the promotional rows, after enabling the option as above, wait 1 second and the display will continue to "ROWS xx". New rows may be entered by pressing the alphabetic selection buttons. The first entry will effect the center character and the second will effect the right most character. Pressing selection button "12" before "10" will clear both entries. Press selection button #10 to save the entry. If the "E" row has been selected, then when "E-1" is chosen, that selection will vend, then "E-0" will vend giving a free item.

To cancel an unwanted setting before saving, press selection button #13 or exit the service mode.

## **CLEANING INSTRUCTIONS**

### **PAINTED SURFACES**

All painted surfaces and the vinyl covered product delivery door can be cleaned with a clean cloth and any common brand of household detergent. Do not use harsh abrasive materials on these surfaces, they will scratch the paint or vinyl.

### **GLASS ITEMS**

The glass product loading door may be cleaned with any commercial window cleaner.

### **TRAY SURFACES**

Quite often wax and oil will build up on the tray surface area. To remove this, use a wax and paraffin remover solution.



## TROUBLE SHOOTING CHART

### CAUTION

DISCONNECT ANY POWER TO MACHINE (BEFORE CHANGING, DISCONNECTING OR CONNECTING ANY ELECTRICAL COMPONENTS) BY TURNING OFF THE INTERLOCK SAFETY SWITCH OR UNPLUGGING THE MACHINE.

SYMPTOM	PROBABLE CAUSE	CORRECTIVE ACTION
<p>1. All coins deposited are rejected.</p> <p>In service mode, shows error 3.</p>	<p>Machine not level.</p> <p>Defective coin mech.</p> <p>Display blank, power indicator light not illuminated.</p>	<p>Level cabinet.</p> <p>Replace coin mech.</p> <p>Check circuit breakers, power at wall outlet and transformer.</p>
<p>2. Selection motor fails to run.</p> <p>In service mode, display shows selection and error 1 or 2.</p>	<p>Insufficient credit established.</p> <p>Error 1 = Wire disconnected from motor. Error 2 = Defective motor assembly.</p> <p>Defective control board.</p>	<p>Check to see that selection price is same as deposited amount. Note message on display.</p> <p>Service vend motor. Replace if defective. See note 2, pg. 28.</p> <p>Replace control board. See note 1 below.</p>
<p>3. All selection motors do not run.</p> <p>(Test or service vend). Power indicator light illuminated.</p>	<p>Defective control board.</p> <p>Wire connection broken.</p>	<p>Replace control board. See note 1.</p> <p>Trace wire harness. For color code. See note 3, page 29.</p>
<p>4. Selection motor does not complete cycle. In service mode, display shows error 2.</p>	<p>Defective full cycle switch or defective motor.</p> <p>Defective components on motor PC board assembly.</p> <p>Defective control board.</p>	<p>Replace motor assembly. See note 2, pg. 28.</p> <p>Replace motor assembly. See note 2, pg. 28.</p> <p>Replace control board. See note 1 below.</p>
<p>Note 1: When you replace the control board always disconnect power to the equipment. After the control board is installed, reapply power, go into the service mode, press selection button #2, then press selection button #3. You have now aligned the control board with the motors.</p>		

SYMPTOM	PROBABLE CAUSE	CORRECTIVE ACTION
5. Selection motor continuously cycles, shows error code 2 in service mode.	Defective full cycle switch.  Defective control board.	Replace motor assembly See note 2 below.  Replace control board.
6. Two motors run simultaneously.	Defective control board.  Defective motor.  Promotional vend setting "on".  Shorted harness, wire connector, or motor distribution board	Replace control board. See note 1, pg. 27.  Replace motor assembly.  See options section, pg. 24, turn "off".  Repair or replace.
7. Unable to make a selection. Either no selection number on display or wrong number.	Selector pad bad. Attempt to change price of a selection. Unable to change price.	Replace selector pad.
8. Display is blank, power indicator light not on. Fluorescent light on.	Circuit breaker tripped.	Check circuit breaker at power panel in storage area.
9. Display is blank, power indicator light on.	Defective control board.  Defective digital display.	Replace control board. See note 1, pg. 27.  Replace digital display.
10. Coin mech. returns coins with no product vended.  In service mode, display shows error 3.	Defective control board.  Defective changer.	Replace defective control board. See note 1, pg. 27.  Replace changer.
Note 2: When replacing a defective motor, always service vend the new motor to tell the control board that a new motor has been installed. See pg. 20 for additional information.		

Note 3: The motors in the machine are arranged in a 7 X 10 matrix. This means that all motors have a wire common to all other motors in that row. Example: All motors in horizontal row "A" have a white wire with a black stripe in common. Likewise, all the motors in a vertical column have a wire in common. Example: All motors in column 2 have a red wire in common.

The following is the wire color guide for the motor matrix:

	<u>Wire Color</u>
Row "A" .....	White/Black
Row "B" .....	White/Brown
Row "C" .....	White/Red
Row "D" .....	White/Orange
Row "E" .....	White/Yellow
Row "F" .....	White/Black
Row "G" .....	White/Orange

Tray harnesses use only the White/Black wire since they can be used in any row.

Column "0" .....	Black
Column "1" .....	Brown
Column "2" .....	Red
Column "3" .....	Orange
Column "4" .....	Yellow
Column "5" .....	Green
Column "6" .....	Blue
Column "7" .....	Violet
Column "8" .....	Grey
Column "9" .....	White

## ERROR CODES

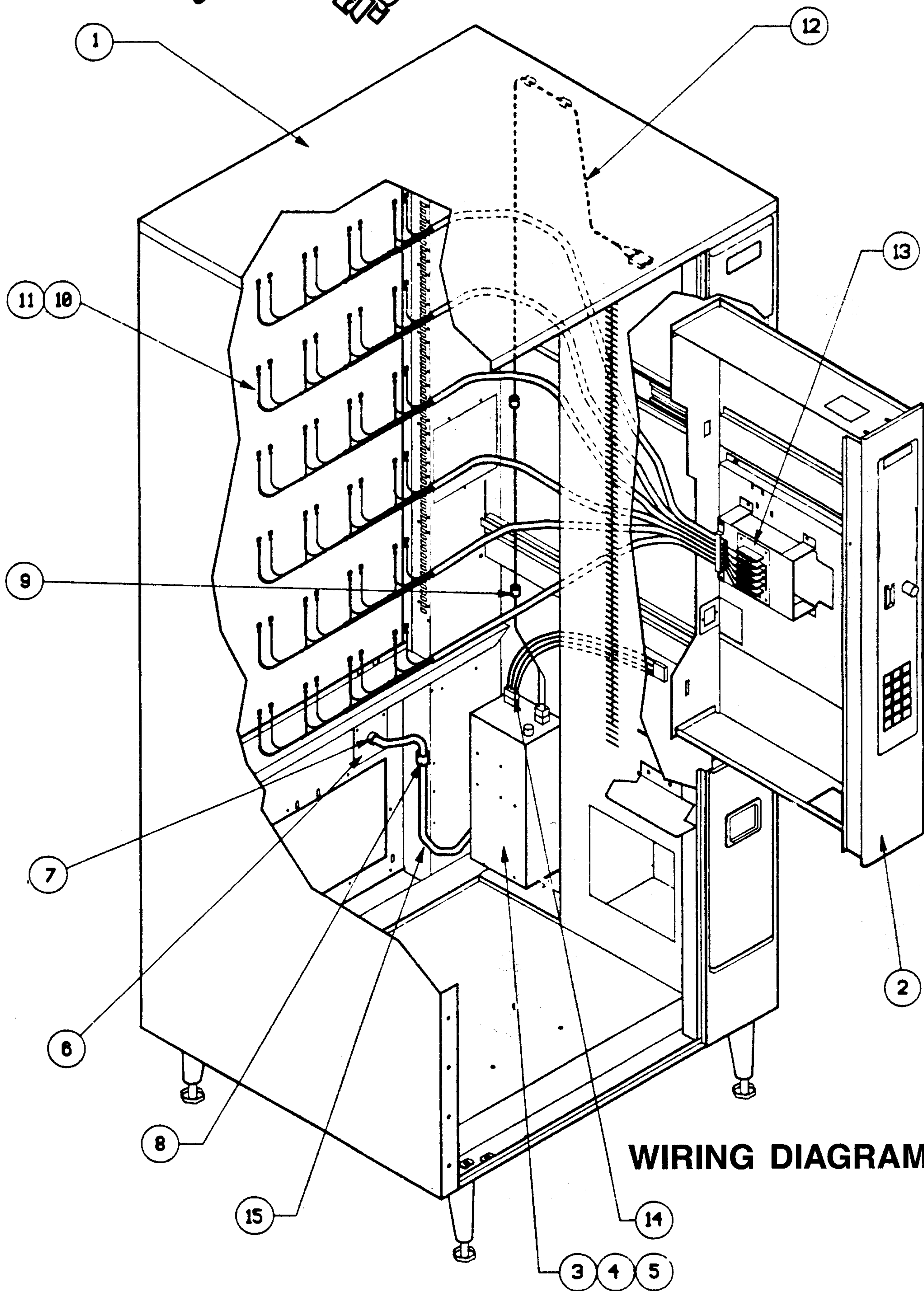
1. Error 1 - Too little motor current.
2. Error 2 - Too much time to complete the vend (6 seconds).
3. Error 3 - The control board has lost communications with the changer (changer has malfunctioned).
4. Error 4 - EEPROM sumcheck error. Display will scroll "Please Call Service."

Note: Error 4 - Prices have been inadvertently altered and all prices have automatically been set to maximum by the control board. To clear these prices, reset pricing as desired.





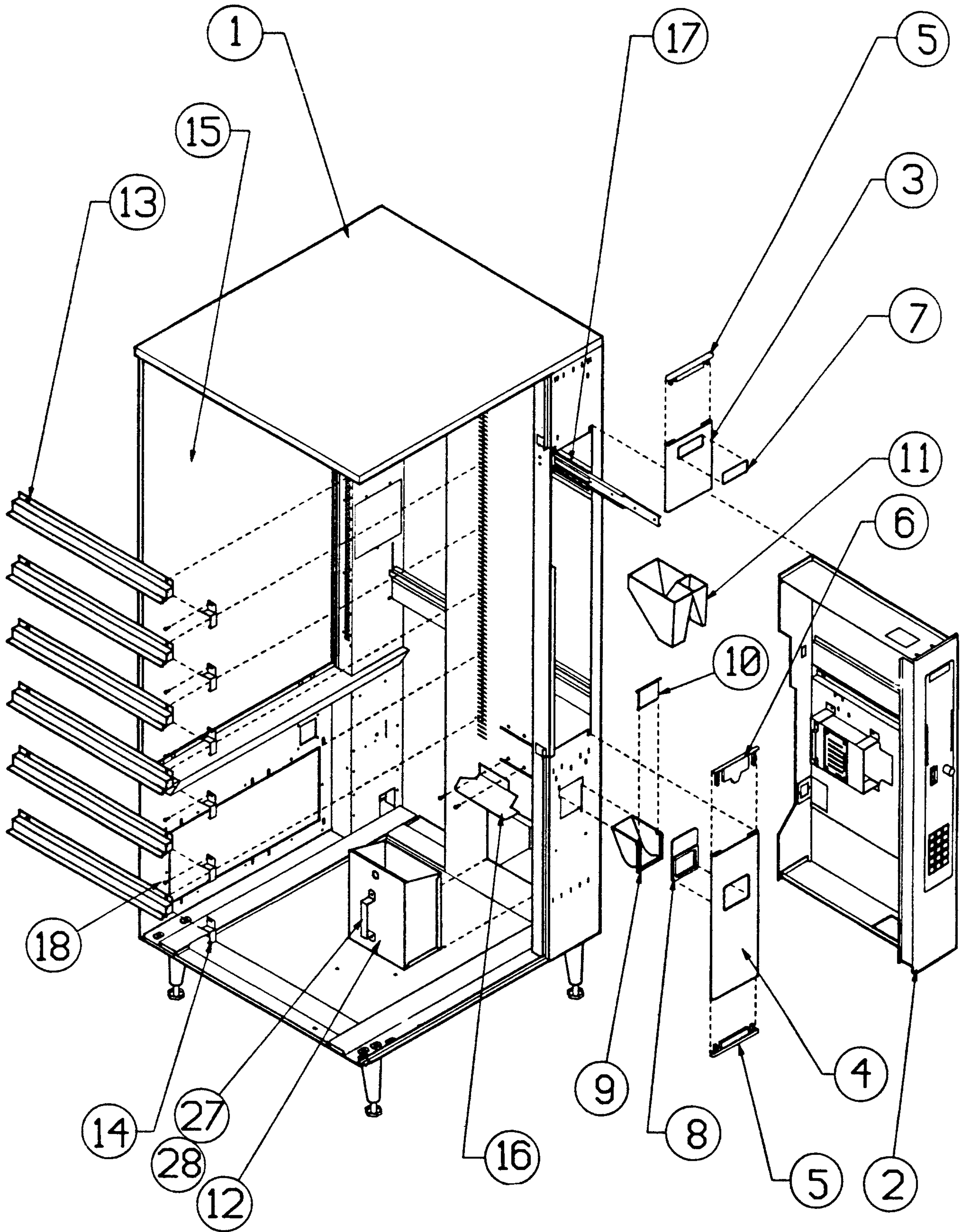
# **DRAWINGS & PARTS LISTS**



**WIRING DIAGRAM**

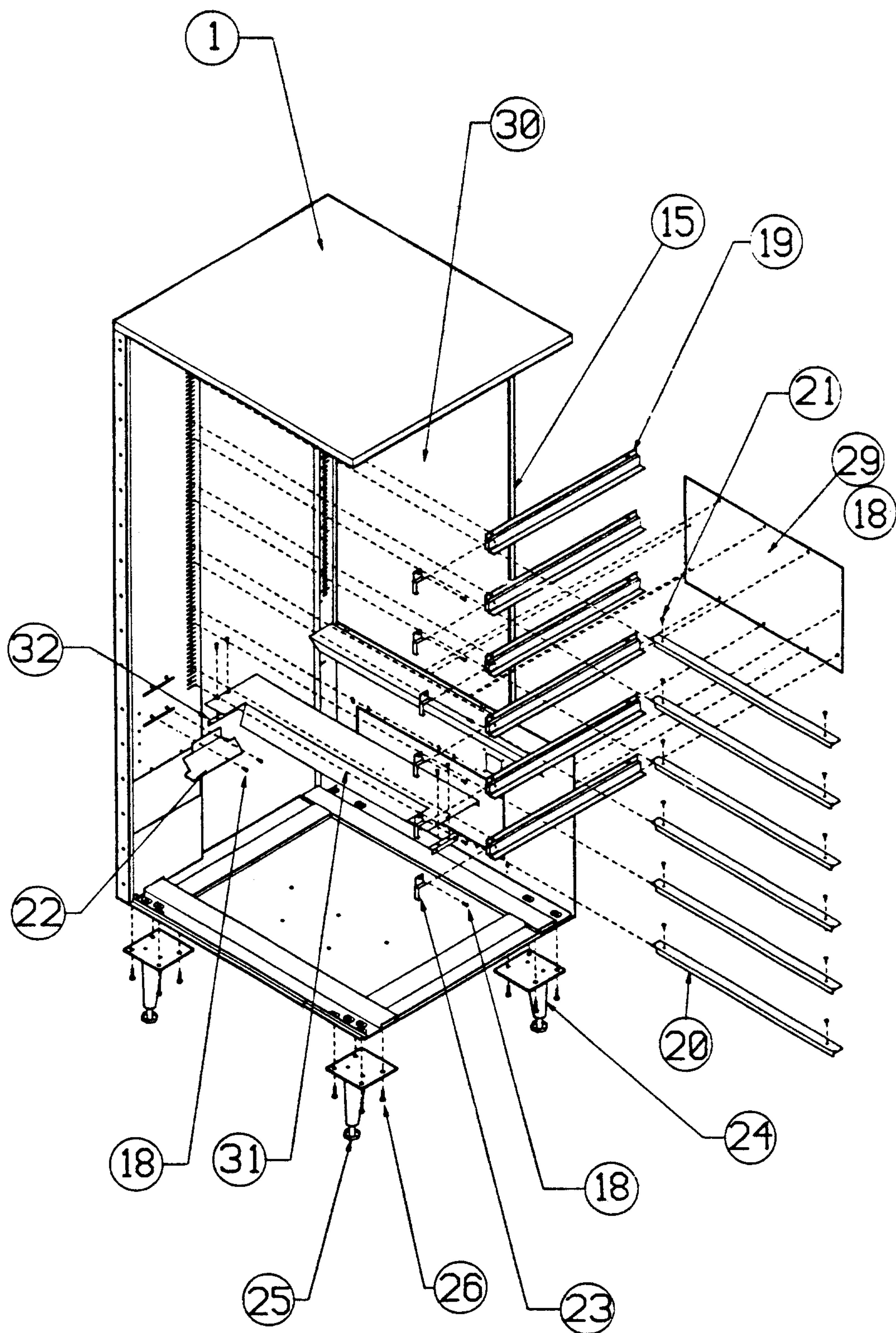
## CABINET WIRING ASSEMBLY PARTS LIST

ITEM	DESCRIPTION	MID-SIZE PART NO.	FULL SIZE PART NO.	QTY.
1	CABINET W/A (SPECIFY COLOR)	21408	21449	1
2	DRAWER ASSEMBLY	21520	21520	1
3	POWER BOX ASSEMBLY	24417	24417	1
4	POWER BOX MOUNT	21478	21478	1
5	SCREW	01298BLK	0129BLK	4
6	POWER CORD COVER	22684	22684	1
7	STRAIN BUSHING	02438	02438	1
8	CLAMP	0853801	0853801	1
9	CLAMP	0853802	0853802	6
10	TRAY HARNESS 8 SELECT	2146501	N/A	—
11	TRAY HARNESS 10 SELECT	N/A	2146201	—
12	LAMP ASSEMBLY HARNESS	21498	21498	1
13	MOTOR JUNCTION BOARD	2142401	2142401	1
14	POWER EXTENSION HARNESS	23512	23512	1
15	POWER CORD	23573	23573	1



## COMPLETE ASSEMBLY

USED IN CONJUNCTION WITH PAGES 36 & 37



## COMPLETE ASSEMBLY

USED IN CONJUNCTION WITH PAGES 36 & 37



**COMPLETE CABINET ASSEMBLY  
MID-SIZE SERIES 5000  
PARTS LIST**

ITEM	DESCRIPTION	PART NO.	QTY.
1	CABINET W/A (SPECIFY COLOR)	21408	1
2	DRAWER ASSEMBLY	2413901	1
3	UPPER ESCUTCHEON PLATE	23125	1
4	LOWER ESCUTCHEON PLATE	23151	1
5	ESCUTCHEON END CAP	17917BLK	1
6	MIDDLE ESCUTCHEON CAP	17916BLK	1
7	DECAL "POLYVEND"	18136	1
8	COIN RETURN TRIM	17868BLK	1
9	COIN RETURN CUP	17866BLK	1
10	COIN CUP DOOR	17865BLK	1
11	COIN HOPPER	17823	1
12	COIN BANK	2307101	1
13	RIGHT HAND RAIL	2158401	6
14	R.H. TRAY SUPPORT STIFFENER	2337103	6
15	REAR DOOR COVER PLATE	21582	1
16	R.H. PRODUCT DEFLECTOR	20128BLK	1
17	DRAWER SLIDE	17964	1
18	SCREW	01298BLK	20
19	LEFT HAND RAIL	2158401	6
20	TRAY FRONT SUPPORT	2145801	1
21	CANOE CLIP	210-8012	24
22	L.H. PRODUCT DEFLECTOR	20127BLK	1
23	L.H. TRAY SUPPORT STIFFENER	2337103	6
24	TAPERED LEGS	2307701	4
25	LEG LEVELER	19765	4
26	BOLT 5/16"	19302	16
27	COIN BOX HANDLE	21470	1
28	POP RIVET	00729	2
29	COVER PLATE	22512	1
30	REAR INSULATION	233001	1
31	FALSE BOTTOM	2148903	1
32	FALSE BOTTOM MOUNT	21479	2

TO BE USED IN CONJUNCTION WITH PAGES 34 & 35



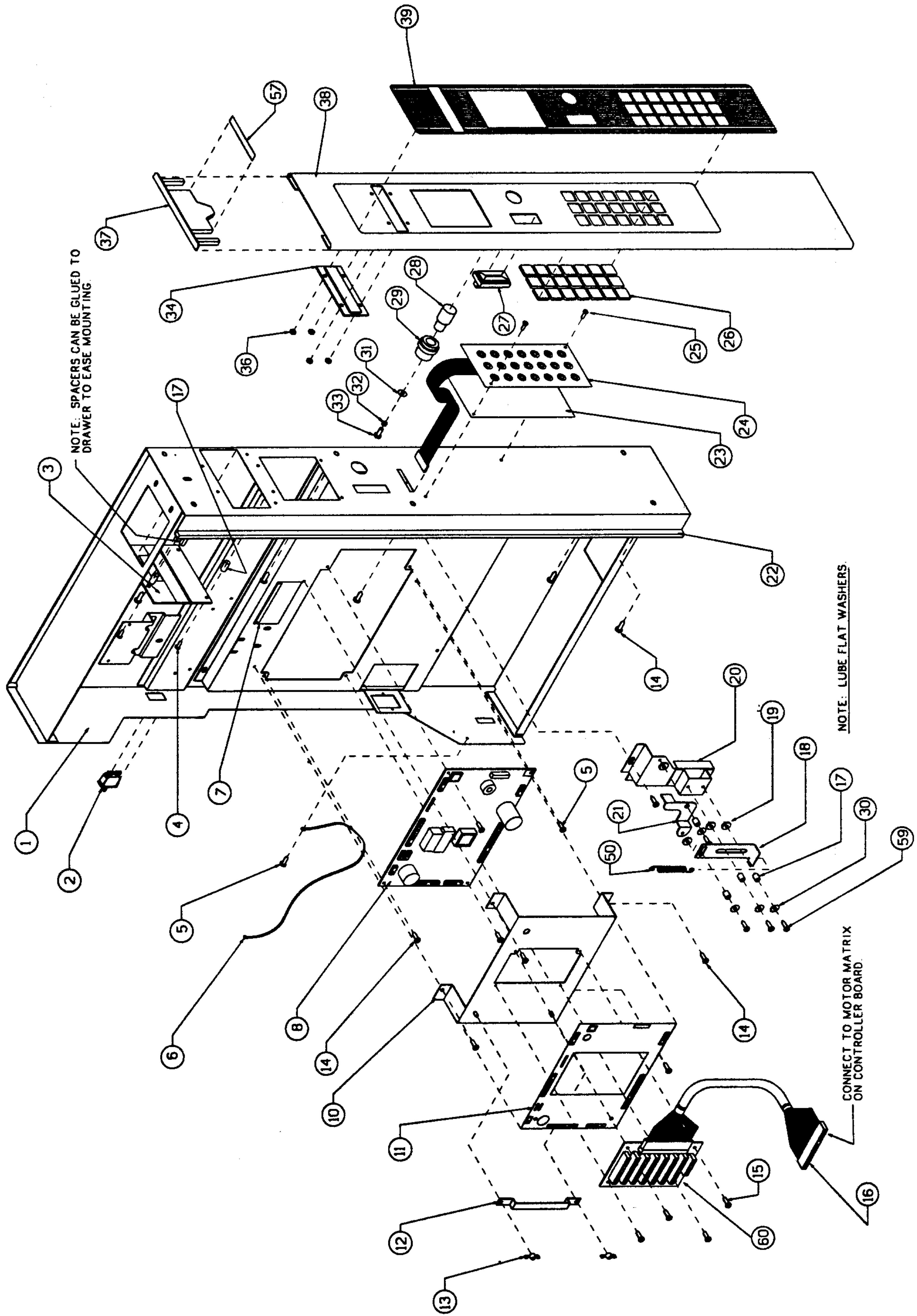


**COMPLETE CABINET ASSEMBLY  
FULL SIZE SERIES 6000  
PARTS LIST**

ITEM	DESCRIPTION	PART NO.	QTY
1	CABINET W/A (SPECIFY COLOR)	21449	1
2	DRAWER ASSEMBLY	2413901	1
3	UPPER ESCUTCHEON PLATE	23125	1
4	LOWER ESCUTCHEON PLATE	23151	1
5	ESCUTCHEON END CAP	17917BLK	1
6	MIDDLE ESCUTCHEON CAP	17916BLK	1
7	DECAL "POLYVEND"	18136	1
8	COIN RETURN TRIM	17868BLK	1
9	COIN RETURN CUP	17866BLK	1
10	COIN CUP DOOR	17865BLK	1
11	COIN HOPPER	17823	1
12	COIN BANK	2307101	1
13	RIGHT HAND RAIL	2346801	6
14	R.H. TRAY SUPPORT STIFFENER	2337102	6
15	REAR DOOR COVER PLATE	21528	1
16	R.H. PRODUCT DEFLECTOR	20128BLK	1
17	DRAWER SLIDE	17964	1
18	SCREW	01298BLK	20
19	LEFT HAND RAIL	2158401	6
20	TRAY FRONT SUPPORT	2142101	1
21	CANOE CLIP	210-8012	24
22	L.H. PRODUCT DEFLECTOR	20127BLK	1
23	L.H. TRAY SUPPORT STIFFENER	2337101	6
24	TAPERED LEGS	2307701	4
25	LEG LEVELER	19765	4
26	BOLT 5/16"	19302	16
27	COIN BOX HANDLE	21470	1
28	POP RIVET	00729	2
29	COVER PLATE	22512	1
30	REAR INSULATION	233001	1
31	FALSE BOTTOM	2148902	1
32	FALSE BOTTOM MOUNT	21479	2

TO BE USED IN CONJUNCTION WITH PAGES 34 & 35

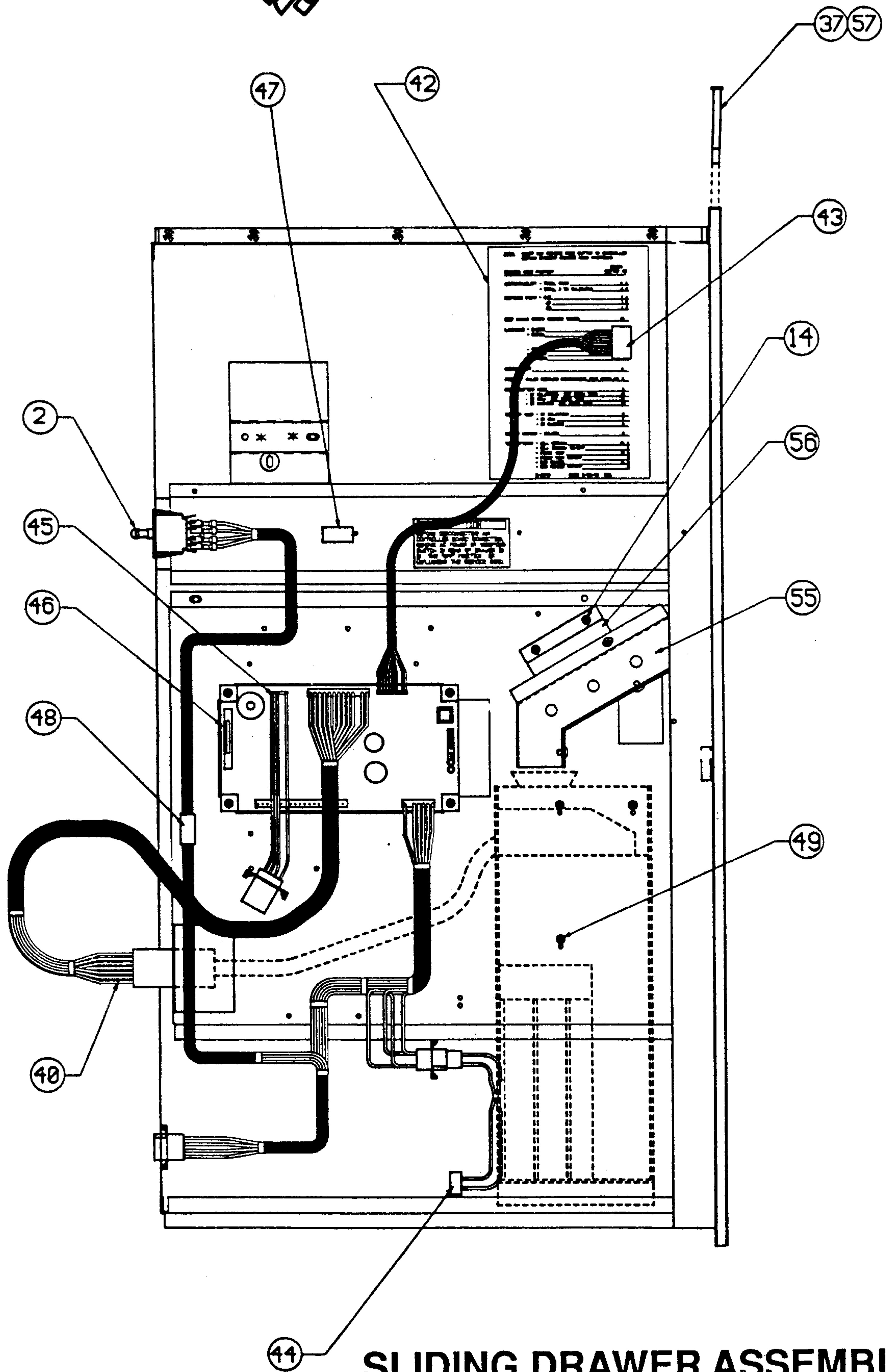




## SLIDING DRAWER ASSEMBLY

## SLIDING DRAWER ASSEMBLY PARTS LIST

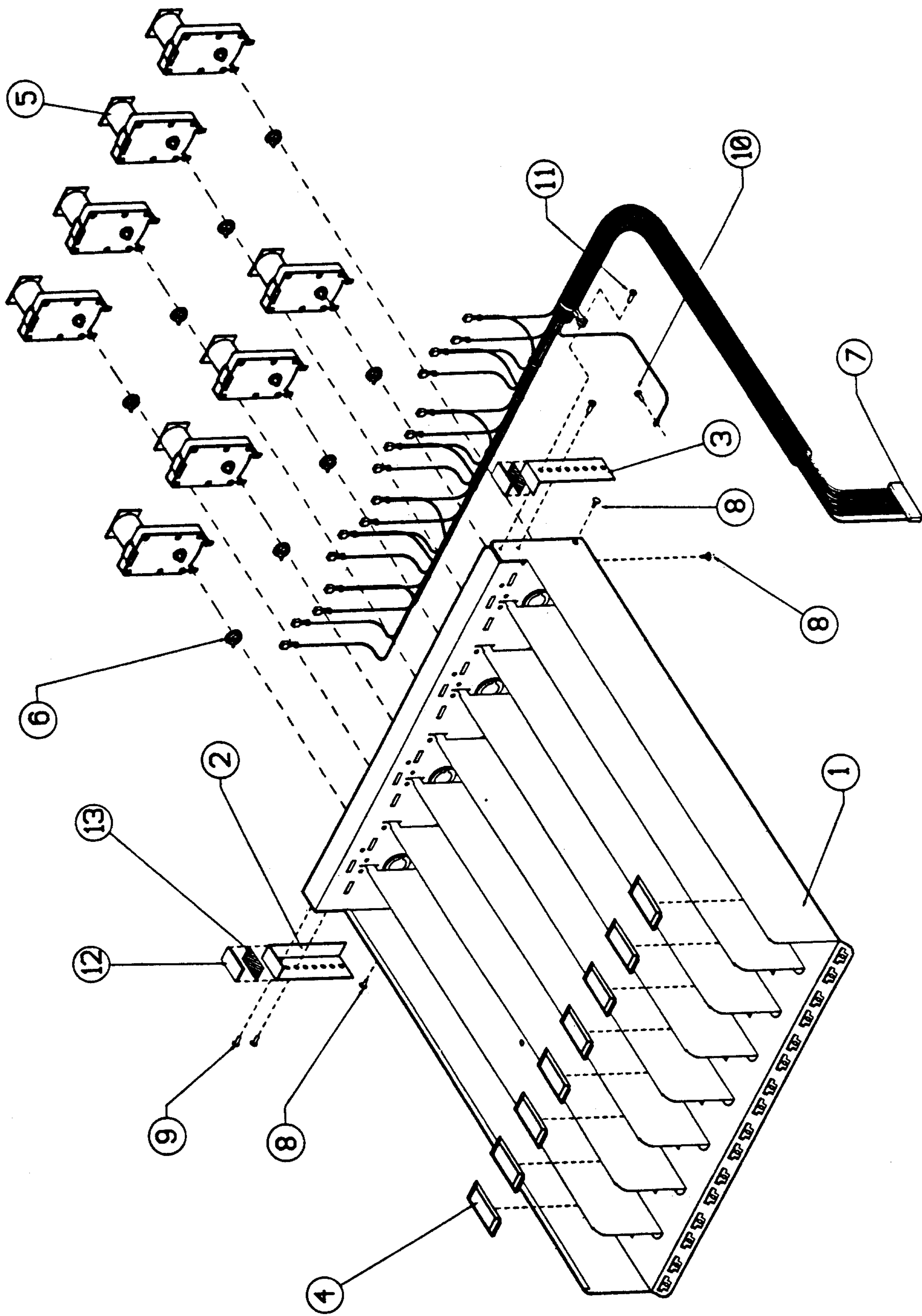
ITEM	DESCRIPTION	PART NO.	QTY.
–	DRAWER ASSEMBLY	2413901	1
1	DRAWER W/A	2413801	1
2	SWITCH	19746	1
3	DISPLAY	21153	1
4	SCREW	02614BLK	4
5	SCREW	01715	3
6	GROUND HARNESS	20797	1
7	CAUTION DECAL	19819	1
9	INTERNATIONAL CONTROL BOARD	23357	1
10	CONTROL BOARD COVER	2330901	1
11	CONTROL BOARD COVER DECAL	23315	1
12	MOTOR HARNESS CLAMP	23321	1
13	WING NUT	19170	2
14	SCREW	01298BLK	25
15	SCREW	18370BLK	6
16	MOTOR INTERCONNECT HARNESS	21501	1
17	STEEL SPACER	00827	8
18	COIN REJECT	21476	1
19	WASHER	04280	5
20	COIN REJECT BASE W/A	21474	1
21	COIN REJECT CAM	21475	1
22	NEOPRENE GASKET	23129	1
23	KEYPAD MOUNTING PLATE	23230	1
24	KEYPAD MULTINATIONAL	19576	1
25	SCREW	21274	2
26	SELECTION BUTTON SET	29909ST	1
27	COIN INLET	17930	1
28	COIN REJECT BUTTON	21125	1
29	COIN REJECT BUSHING	21126	1
30	WASHER	03276	1
31	WASHER	23810	1
32	SPACER SLEEVE	22201	1
33	SCREW (BRASS)	24167	1
34	LENS	21061	1
36	NUT	01958	4
37	MIDDLE ESCUTCHEON CAP	17916BLK	1
38	DRAWER ESCUTCHEON (SPECIFY COLOR)	2153604	1
39	ESCUTCHEON DECAL (SPECIFY COLOR)	21516	1
50	SPRING	00611	1
60	P.C. BOARD	2142401	1



**SLIDING DRAWER ASSEMBLY  
WIRING DIAGRAM**

**SLIDING DRAWER ASSEMBLY  
ELECTRICAL WIRING  
PARTS LIST**

ITEM	DESCRIPTION	PART NO.	QTY.
2	INTERLOCK SWITCH	19746	1
40	CHANGER HARNESS L+	2155101	1
40A	CHANGER HARNESS MDB	099-550701	1
42	PROGRAM CHART DECAL	19766	1
43	DISPLAY HARNESS	1973501	1
44	POWER HARNESS MS-1600	19816	1
45	DATA HARNESS MS-1600	19740EXP	1
46	HARNESS MS-1600	19946	1
48	CLAMP	0853801	2
49	SCREW	11894	3
55	COIN CHUTE ASSEMBLY	23000	1
56	COIN CHUTE	21523BLK	1
57	ADHESIVE	18880	1
59	SCREW	22482	4
60	MOTOR HARNESS JUNCTION BOARD	2142401	1
61	DEX HARNESS (NOT SHOWN)	098-5258	1

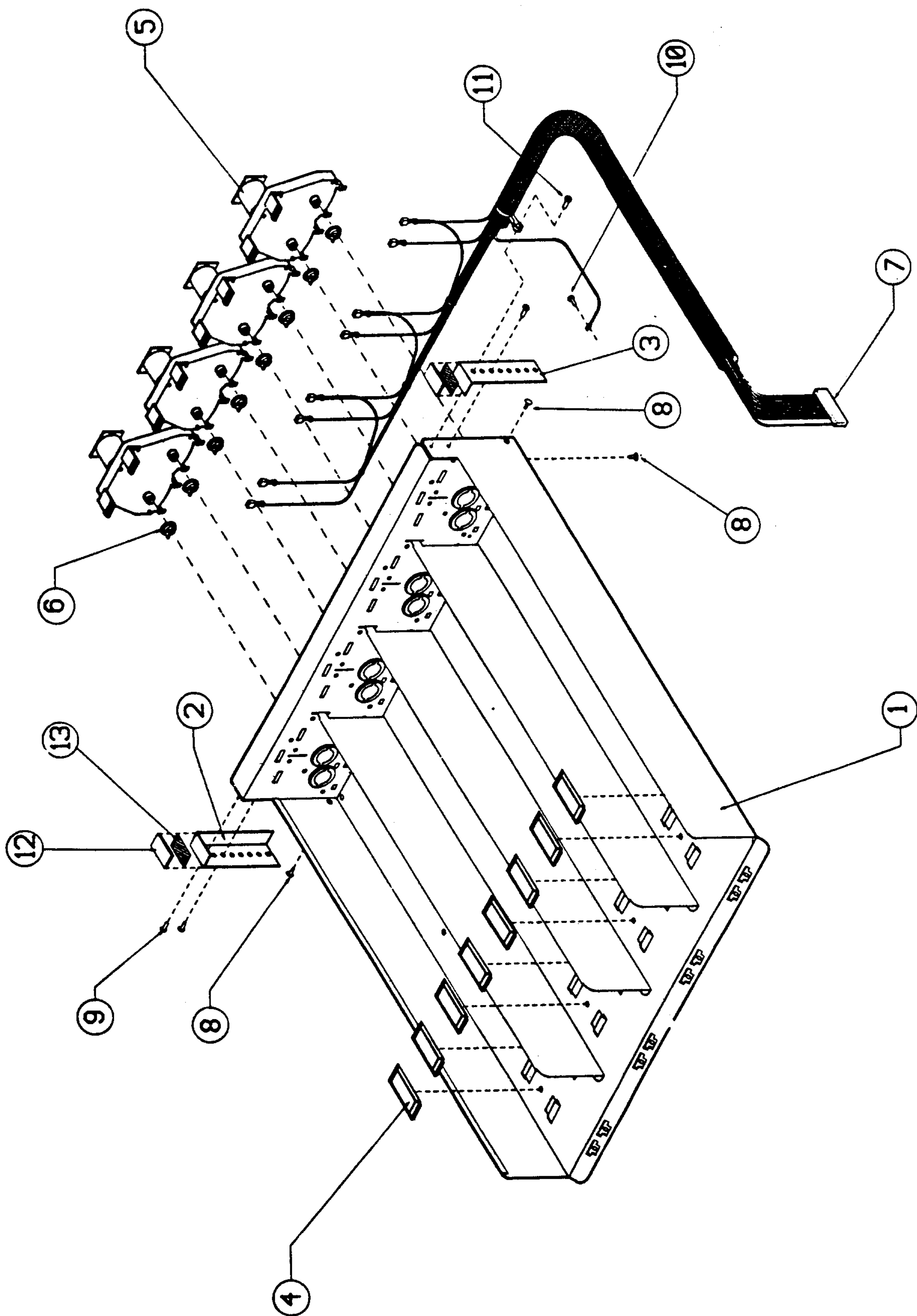


# CANDY TRAY ASSEMBLY

**COMPLETE CANDY TRAY ASSEMBLY  
NON-ADJUSTABLE DIVIDERS  
8 SELECTION  
PARTS LIST**

ITEM	DESCRIPTION	PART NO.	QTY.
1	TRAY W/A	2141805	1
2	TILT BRACKET L.H.	2145302	1
2A	TILT BRACKET L.H. 4 TRAY MACH.	2156602	1
3	TILT BRACKET R.H.	2145303	1
3A	TILT BRACKET R.H. 4 TRAY MACH.	2156603	1
4	WEAR PLATE	210-3010B	8
5	MOTOR	18365-3CC	8
6	HUB COUPLING	17537	8
7	TRAY HARNESS	21527	1
8	CANOE CLIP	210-8021	4
9	SCREW	01298BLK	3
10	SCREW	01715	1
11	SCREW	02614BLK	1
12	TILT BRACKET PAD	21438	2
13	ADHESIVE PAD	18880	1.312"





# **PASTRY TRAY ASSEMBLY** DUAL HELIX



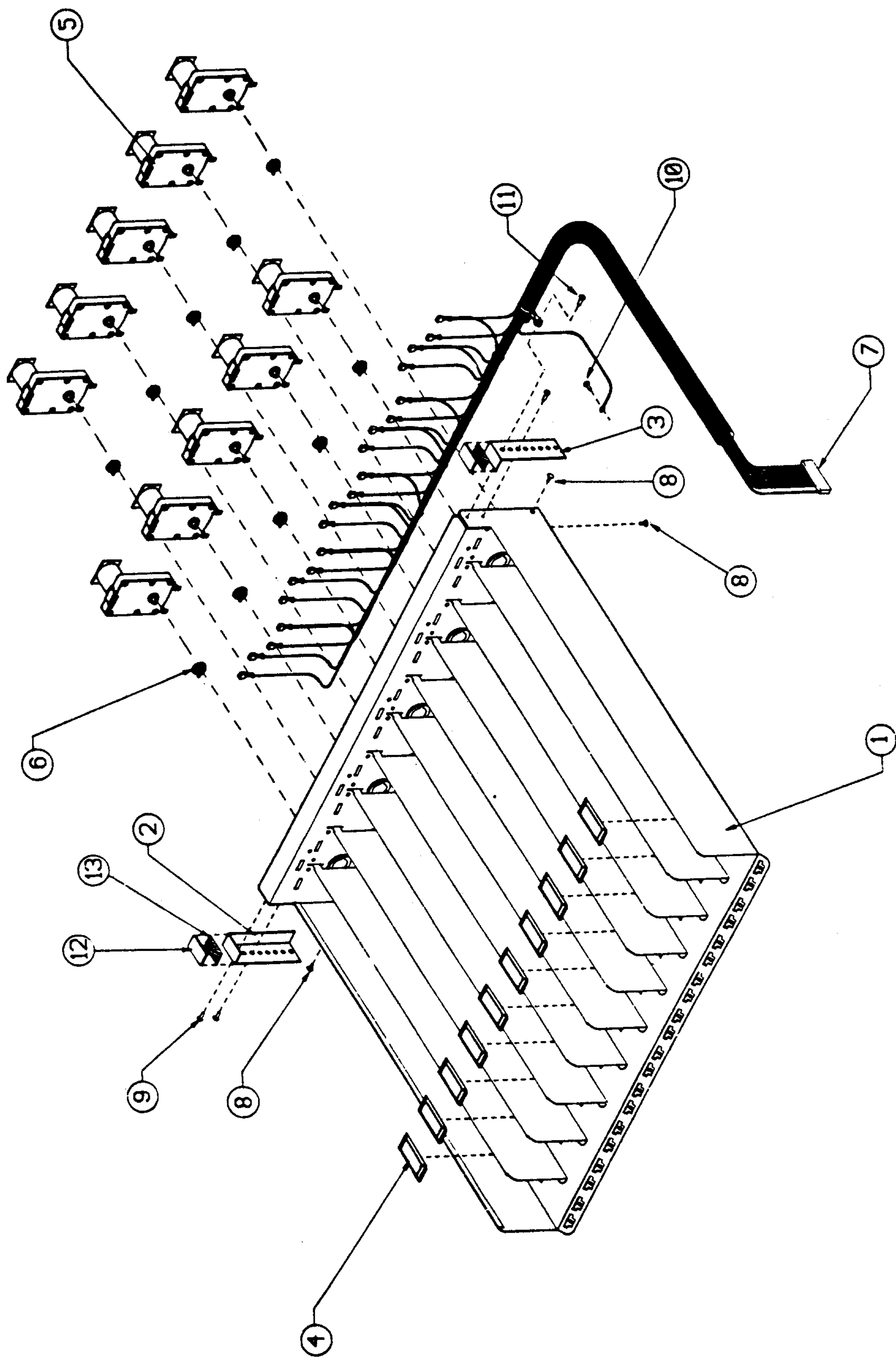
**COMPLETE PASTRY TRAY ASSEMBLY  
NON-ADJUSTABLE DIVIDERS  
4 SELECTION DUAL HELIX  
PARTS LIST**

ITEM	DESCRIPTION	PART NO.	QTY.
1	TRAY W/A	2141801	1
2	TILT BRACKET L.H.	2145302	1
2A	TILT BRACKET L.H. 4 TRAY MACH.	2155602	1
3	TILT BRACKET R.H.	2145303	1
3A	TILT BRACKET R.H. 4 TRAY MACH.	2155603	1
4	WEAR PLATE	210-3010B	8
5	MOTOR	21365	4
6	HUB COUPLING	17537	8
7	TRAY HARNESS 4 SEL.	21463	1
8	CANOE CLIP	210-8021	4
9	SCREW	01298BLK	3
10	SCREW	01715	1
11	SCREW	02614BLK	1
12	TILT BRACKET PAD	21438	2
13	ADHESIVE STRIP	18880	1.312"

**COMPLETE PASTRY TRAY ASSEMBLY  
NON-ADJUSTABLE DIVIDERS  
4 SELECTION LARGE HELIX  
PARTS LIST**

**USE SAME DRAWING AS FOR DUAL HELIX TRAY**

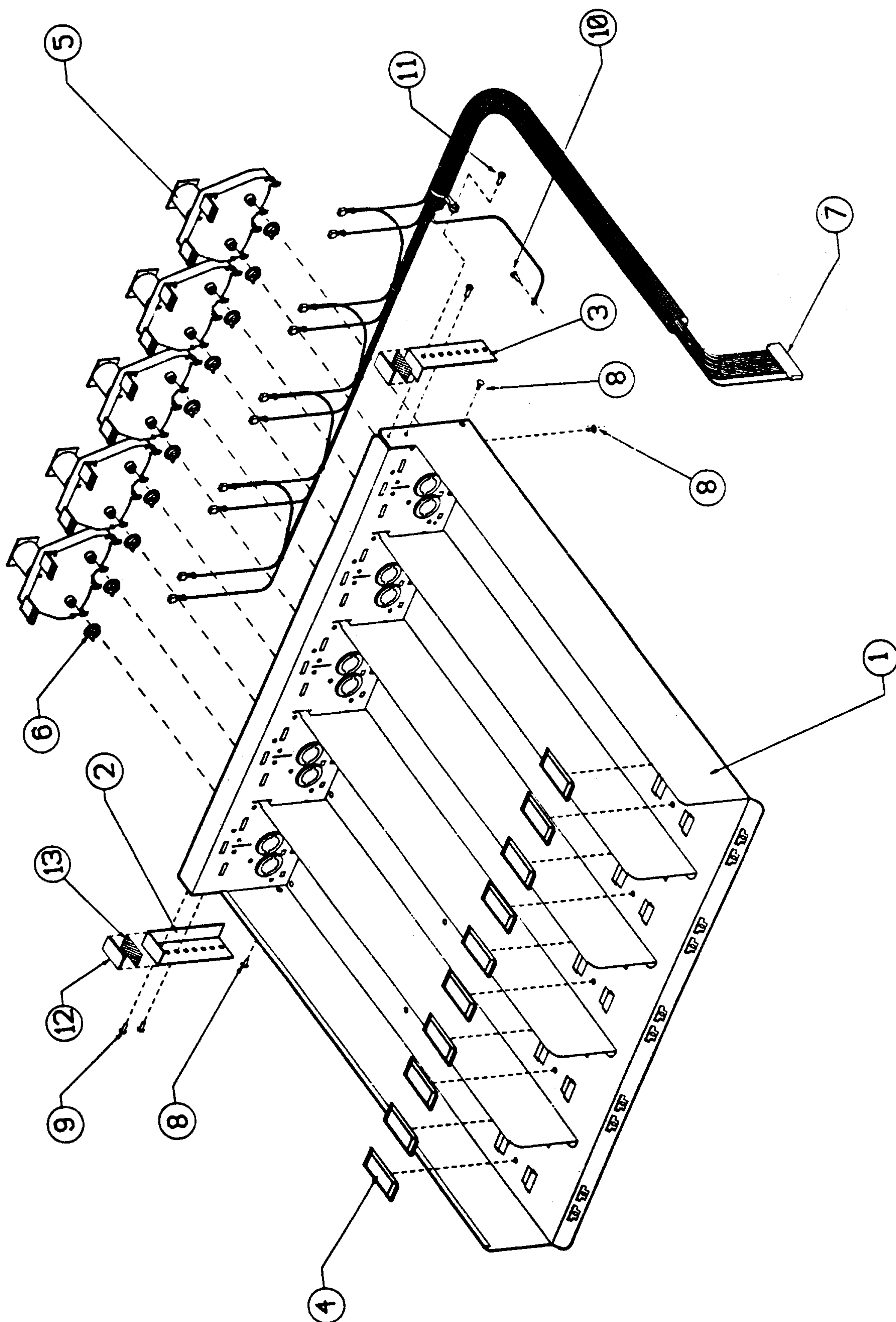
ITEM	DESCRIPTION	PART NO.	QTY.
1	TRAY W/A	2141801	1
2	TILT BRACKET L.H.	2145302	1
2A	TILT BRACKET L.H. 4 TRAY MACH.	2155602	1
3	TILT BRACKET R.H.	2145303	1
3A	TILT BRACKET R.H. 4 TRAY MACH.	2155603	1
4	WEAR PLATE	210-3010B	8
5	MOTOR	18365-3CC	4
6	HUB COUPLING	17537	8
7	TRAY HARNESS 4 SEL.	21463	1
8	CANOE CLIP	210-8021	4
9	SCREW	01298BLK	3
10	SCREW	01715	1
11	SCREW	02614BLK	1
12	TILT BRACKET PAD	21438	2
13	ADHESIVE PAD	18880	1.312"



**CANDY TRAY ASSEMBLY**

**COMPLETE CANDY TRAY ASSEMBLY  
NON-ADJUSTABLE DIVIDERS  
10 SELECTION  
PARTS LIST**

ITEM	DESCRIPTION	PART NO.	QTY.
1	TRAY W/A	2143705	1
2	TILT BRACKET L.H.	2145302	1
3	TILT BRACKET R.H.	2145303	1
4	WEAR PLATE	210-3010	10
5	MOTOR	18365-3CC	10
6	HUB COUPLING	17537	10
7	TRAY HARNESS 10 SEL.	21497	1
8	CANOE CLIP	210-8021	4
9	SCREW	01298BLK	3
10	SCREW	01715	1
11	SCREW	02614BLK	1
12	TRAY TILT BRACKET PAD	21438	2
13	ADHESIVE	18880	1.312"



**PASTRY TRAY ASSEMBLY**  
DUAL HELIX



**COMPLETE PASTRY TRAY ASSEMBLY  
NON-ADJUSTABLE DIVIDERS  
5 SELECTION DUAL HELIX  
PARTS LIST**

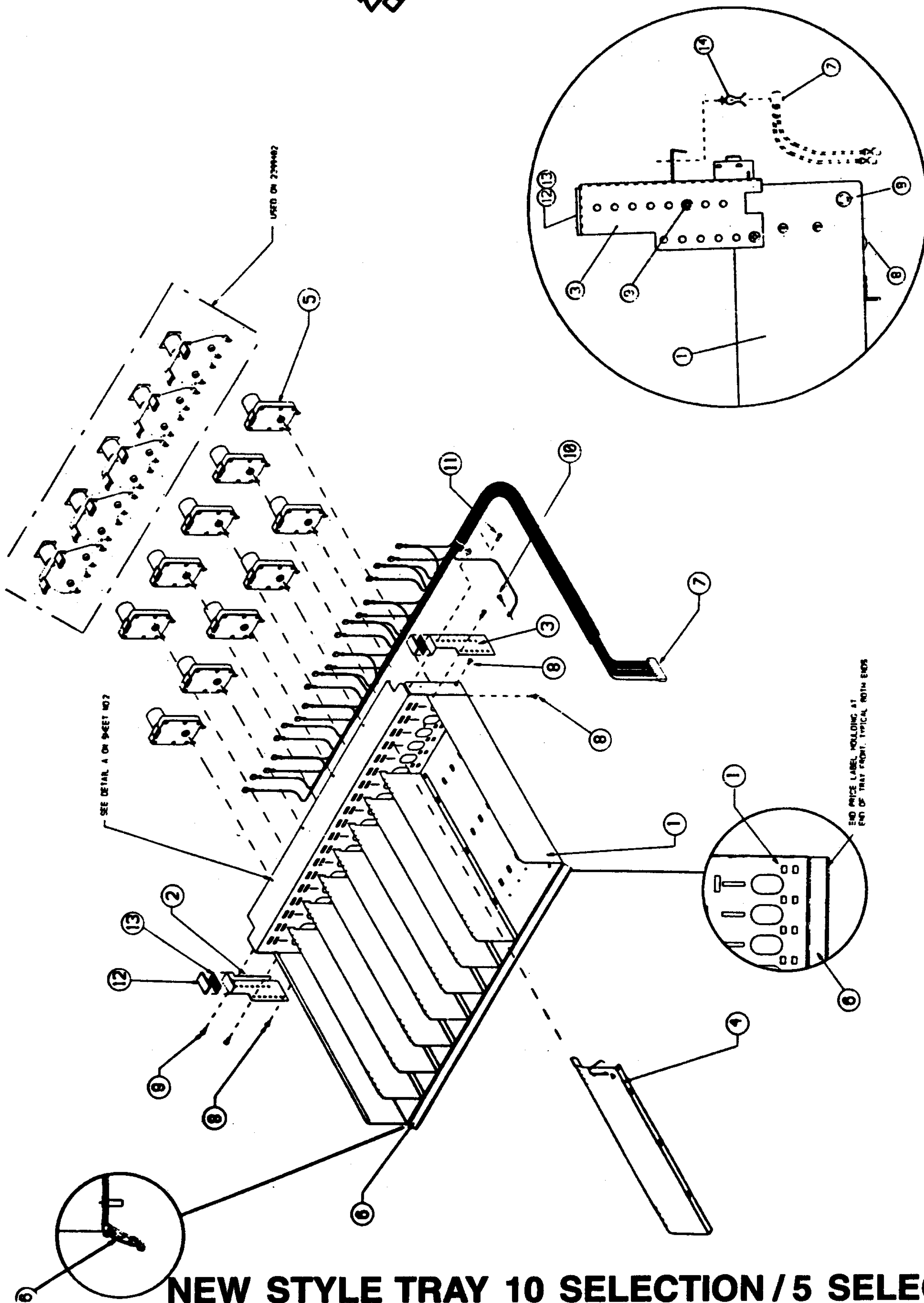
ITEM	DESCRIPTION	PART NO.	QTY.
1	TRAY W/A	2143701	1
2	TILT BRACKET L.H.	2145302	1
3	TILT BRACKET R.H.	2145303	1
4	WEAR PLATE	210-3010B	10
5	MOTOR	21365	5
6	HUB COUPLING	17537	10
7	TRAY HARNESS	21464	1
8	CANOE CLIP	210-8021	4
9	SCREW	01298BLK	3
10	SCREW	01715	1
11	SCREW	02614BLK	1
12	TILT BRACKET PAD	21438	2
13	ADHESIVE STRIP	18880	1.312"

**COMPLETE PASTRY TRAY ASSEMBLY  
NON-ADJUSTABLE DIVIDERS  
5 SELECTION LARGE HELIX  
PARTS LIST**

**USE SAME DRAWING AS FOR DUAL HELIX TRAY**

ITEM	DESCRIPTION	PART NO.	QTY.
1	TRAY W/A	2143701	1
2	TILT BRACKET L.H.	2145302	1
3	TILT BRACKET R.H.	2145303	1
4	WEAR PLATE	210-3010	10
5	MOTOR	18365-3CC	5
6	HUB COUPLING	17537	5
7	TRAY HARNESS	21464	1
8	CANOE CLIP	210-8021	4
9	SCREW	01298BLK	3
10	SCREW	01715	1
11	SCREW	02614BLK	1
12	TILT BRACKET PAD	21438	2
13	ADHESIVE	18880	1.312"





## NEW STYLE TRAY 10 SELECTION / 5 SELECTION

TO BE USED IN CONJUNCTION WITH PAGES 51 & 52

**NEW STYLE TRAY WITH REMOVABLE DIVIDERS  
PARTS LIST  
10 SELECTION  
TRAY ASSEMBLY**

Note: New style trays installed in all machines starting with serial number 19767 and higher.

ITEM	DESCRIPTION	PART NO.	QTY.
-	TRAY ASSEMBLY COMPLETE	23994	1
1	TRAY W/A	2399503	1
2	TRAY TILT BRACKET LH	24128LH	1
3	TRAY TILT BRACKET RH	24128RH	1
4	TRAY ASSEMBLY DIVIDER	24000	9
5	MOTOR	23894	10
6	PRICE LABEL MOLDING	24042	1
7	TRAY MOTOR HARNESS 8-SELECT	2146201	1
8	CANOE CLIP	210-8021	4
9	SCREW #8-32 X 3/8	01298BLK	3
10	SCREW #8-32 X 3/8 SEMS	01715	1
11	SCREW #8-32 X 1/2	02614BLK	1
12	TRAY TILT BRACKET PAD	21438	2
13	ADHESIVE TAPE	18880	1.312"
14	PURSE LOCK STANDOFF	24002	4

**NEW STYLE TRAY WITH REMOVABLE DIVIDERS  
PARTS LIST  
5 SELECTION TRAY ASSEMBLY  
LARGE HELIX**

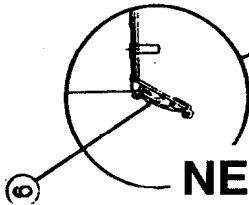
Note: New style trays installed in all machines starting with serial number 19767 and higher.

ITEM	DESCRIPTION	PART NO.	QTY.
-	TRAY ASSEMBLY COMPLETE	2399401	1
1	TRAY W/A	2399503	1
2	TRAY TILT BRACKET LH	24128LH	1
3	TRAY TILT BRACKET RH	24128RH	1
4	TRAY ASSEMBLY DIVIDER	24000	4
5	MOTOR	23894	5
6	PRICE LABEL MOLDING	24042	1
7	TRAY MOTOR HARNESS 8-SELECT	2146201	1
8	CANOE CLIP	210-8021	4
9	SCREW #8-32 X 3/8	01298BLK	3
10	SCREW #8-32 X 3/8 SEMS	01715	1
11	SCREW #8-32 X 1/2	02614BLK	1
12	TRAY TILT BRACKET PAD	21438	2
13	ADHESIVE TAPE	18880	1.312"
14	PURSE LOCK STANDOFF	24002	4

**PARTS LIST  
5 SELECTION TRAY ASSEMBLY  
DUAL HELIX**

ITEM	DESCRIPTION	PART NO.	QTY.
-	TRAY ASSEMBLY COMPLETE	2399402	1
1	TRAY W/A	2399503	1
2	TRAY TILT BRACKET LH	24128LH	1
3	TRAY TILT BRACKET RH	24128RH	1
4	TRAY ASSEMBLY DIVIDER	24000	4
5	MOTOR	23216	5
6	PRICE LABEL MOLDING	24042	1
7	TRAY MOTOR HARNESS 8-SELECT	2146201	1
8	CANOE CLIP	210-8021	4
9	SCREW #8-32 X 3/8	01298BLK	3
10	SCREW #8-32 X 3/8 SEMS	01715	1
11	SCREW #8-32 X 1/2	02614BLK	1
12	TRAY TILT BRACKET PAD	21438	2
13	ADHESIVE TAPE	18880	1.312"
14	PURSE LOCK STANDOFF	24002	4





## NEW STYLE TRAY 8 SELECTION / 4 SELECTION

**TO BE USED IN CONJUNCTION WITH PAGES 55 & 56**

**NEW STYLE TRAY WITH REMOVABLE DIVIDERS  
PARTS LIST  
8 SELECTION  
TRAY ASSEMBLY**

Note: New style trays installed in all machines starting with serial number 19767 and higher.

ITEM	DESCRIPTION	PART NO.	QTY.
-	TRAY ASSEMBLY COMPLETE	24009	1
1	TRAY W/A	2399501	1
2	TRAY TILT BRACKET LH	24128LH	1
3	TRAY TILT BRACKET RH	24128RH	1
4	TRAY ASSEMBLY DIVIDER	24000	7
5	MOTOR	23894	8
6	PRICE LABEL MOLDING	2404201	1
7	TRAY MOTOR HARNESS 8-SELECT	2146501	1
8	CANOE CLIP	210-8021	4
9	SCREW #8-32 X 3/8	01298BLK	3
10	SCREW #8-32 X 3/8 SEMS	01715	1
11	SCREW #8-32 X 1/2	02614BLK	1
12	TRAY TILT BRACKET PAD	21438	2
13	ADHESIVE TAPE	18880	1.312"
14	PURSE LOCK STANDOFF	24002	3



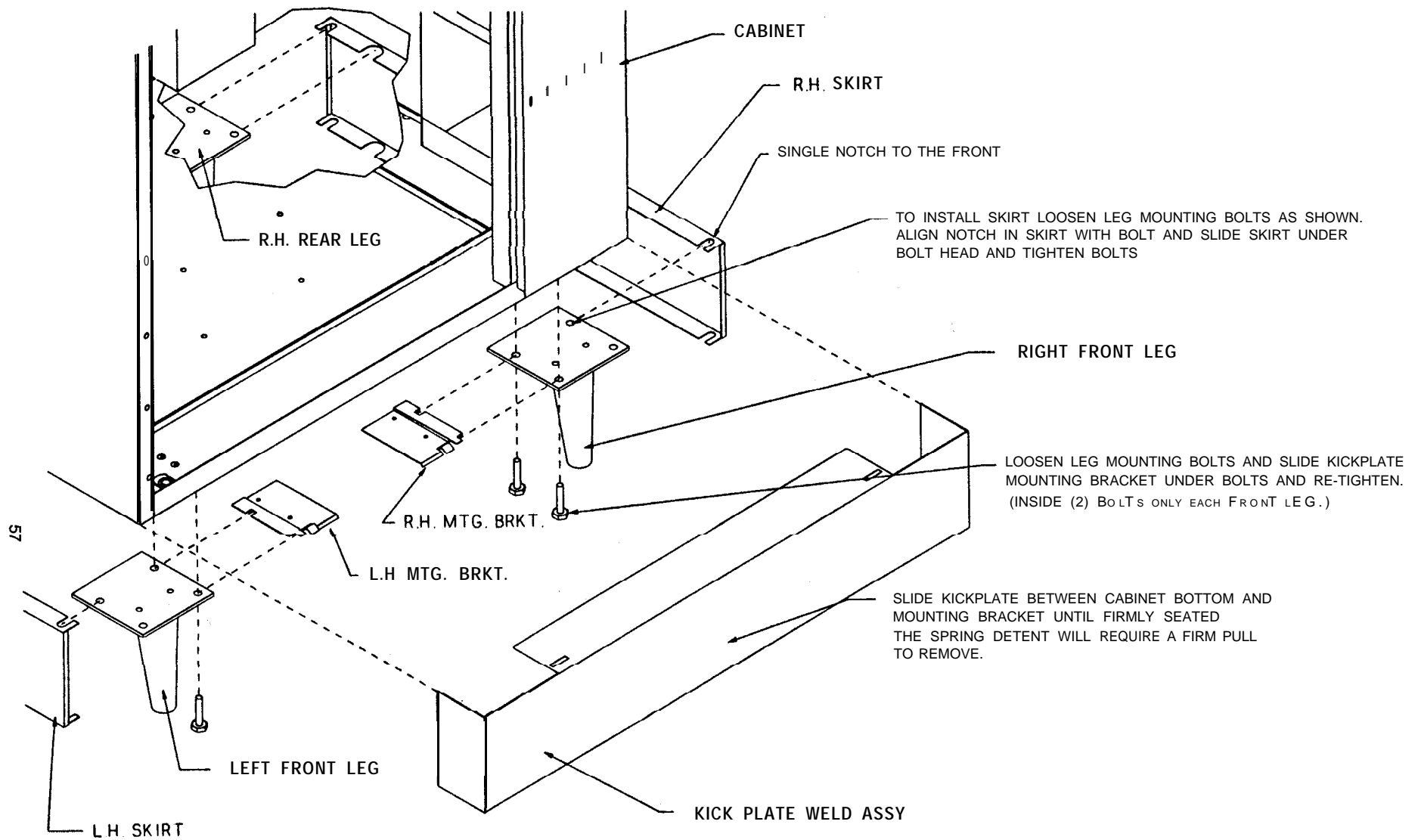
**NEW STYLE TRAY WITH REMOVABLE DIVIDERS  
PARTS LIST  
4 SELECTION  
LARGE HELIX**

Note: New style trays installed in all machines starting with serial number 19767 and higher.

ITEM	DESCRIPTION	PART NO.	QTY.
	TRAY ASSEMBLY COMPLETE	2400901	1
1	TRAY W/A	2399501	1
2	TRAY TILT BRACKET LH	24128LH	1
3	TRAY TILT BRACKET RH	24128RH	1
4	TRAY ASSEMBLY DIVIDER	24000	3
5	MOTOR	23894	4
6	PRICE LABEL MOLDING	2404201	1
7	TRAY MOTOR HARNESS 8-SELECT	2146501	1
8	CANOE CLIP	21 O-8021	4
9	SCREW #8-32 X 3/8	01298BLK	3
10	SCREW #8-32 X 3/8 SEMS	01715	1
11	SCREW #8-32 X 1/2	02614BLK	1
12	TRAY TILT BRACKET PAD	21438	2
13	ADHESIVE TAPE	18880	1.312"
14	PURSE LOCK STANDOFF	24002	3

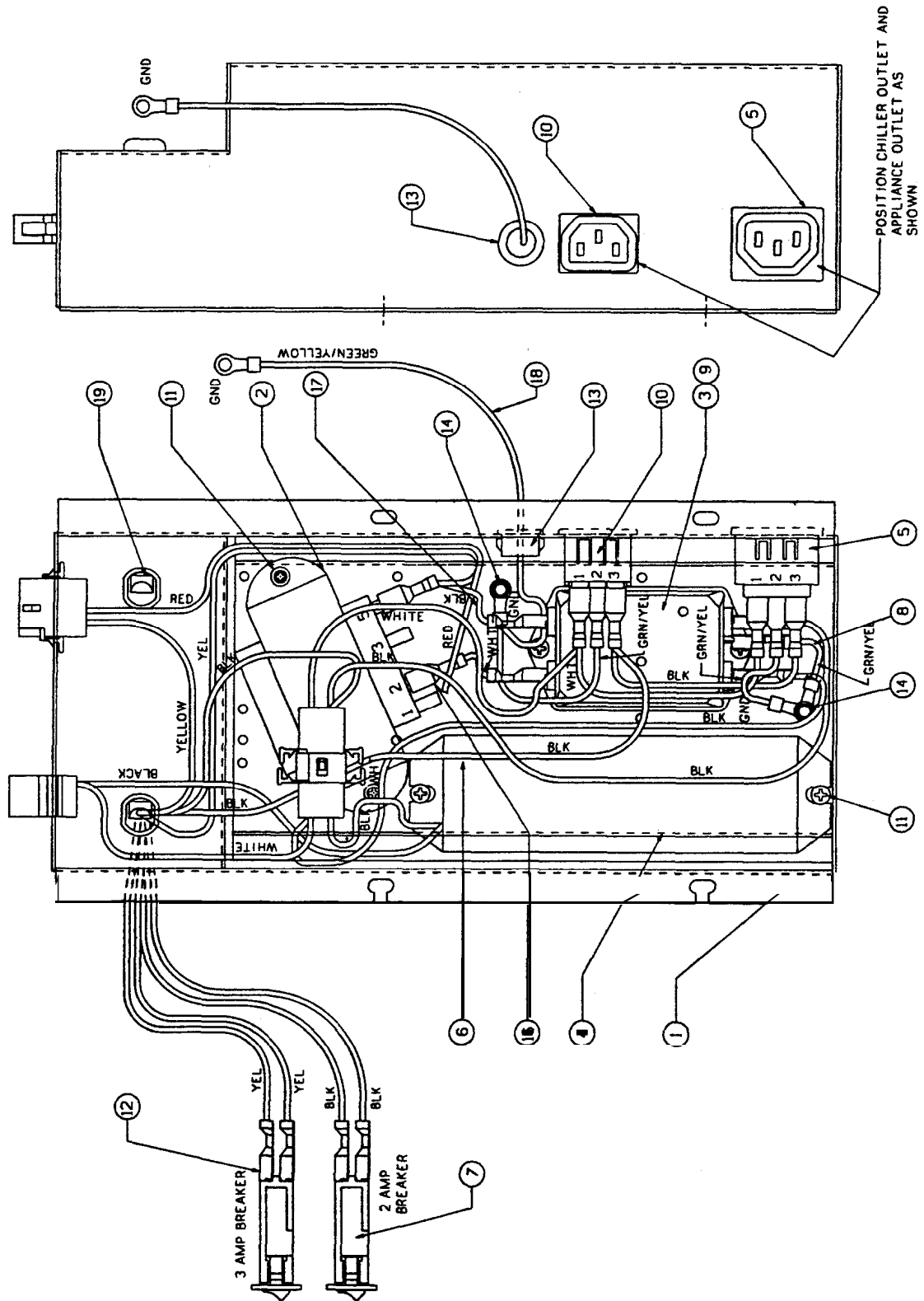
**PARTS LIST  
4 SELECTION  
DUAL HELIX**

ITEM	DESCRIPTION	PART NO.	QTY.
	TRAY ASSEMBLY COMPLETE	2415511	1
1	TRAY WIA	23995	1
2	TRAY TILT BRACKET LH	24128LH	1
3	TRAY TILT BRACKET RH	24128RH	1
4	TRAY ASSEMBLY DIVIDER	24000	3
5	MOTOR	23216	4
6	PRICE LABEL MOLDING	2404201	1
7	TRAY MOTOR HARNESS 8-SELECT	2146501	1
8	CANOE CLIP	21 O-8021	4
9	SCREW #8-32 X 3/8	01298BLK	3
10	SCREW #8-32 X 3/8 SEMS	01715	1
11	SCREW #8-32 X 1/2	02614BLK	1
12	TRAY TILT BRACKET PAD	21438	2
13	ADHESIVE TAPE	18880	1.312"
14	PURSE LOCK STANDOFF	24002	3



PART NO.	DESCRIPTION
2313202	MOUNTING BRACKET R.H.
2313203	MOUNTING BRACKET L.H.
23131	1 KICKPLATE (SPECIFY COLOR)
23123	1 SKIRT- (SPECIFY COLOR)

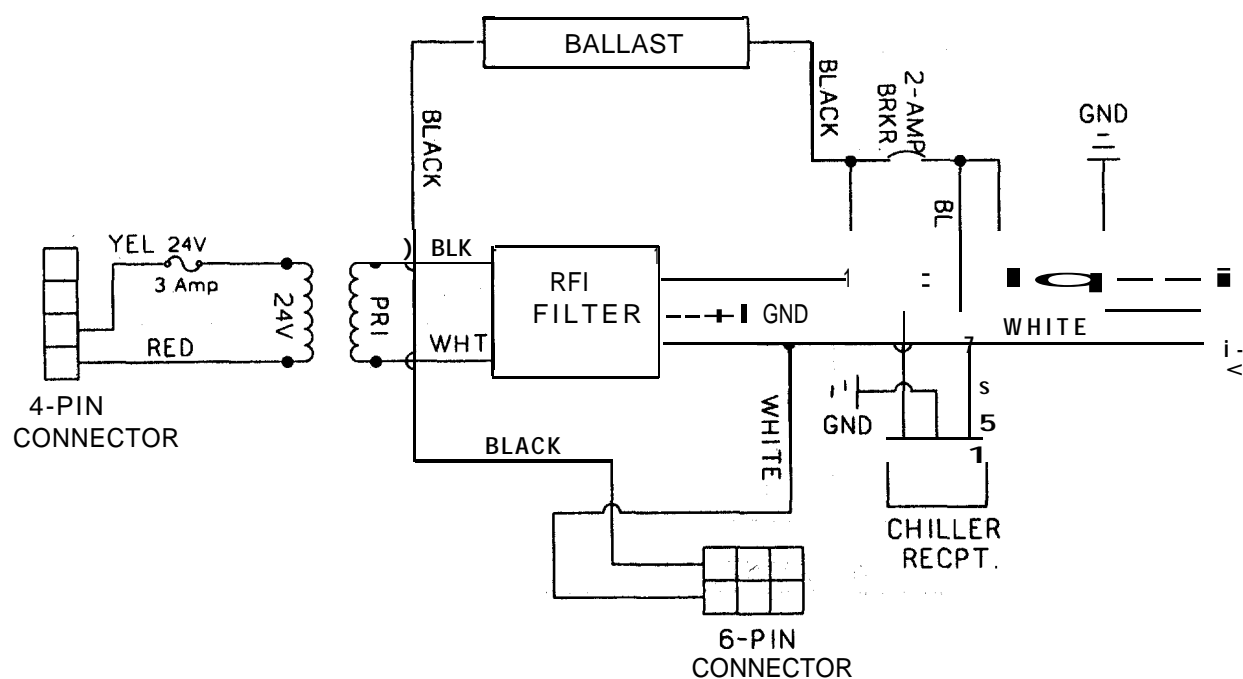
## KICK PLATE ASSEMBLY



## POWER BOX

## POWER BOX ASSEMBLY PARTS LIST

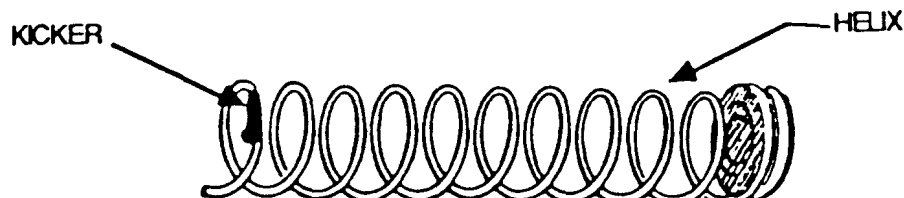
ITEM	DESCRIPTION	PART NO.	QTY.
1	POWER BOX ASSEMBLY	24417	1
2	POWER BOX W/A	23623	1
3	TRANSFORMER 115/208/240 TO 24 VOLT	23835	1
4	RFI FILTER	20758	1
5	BALLAST ASSEMBLY - 15 WATT	24416	1
6	OUTLET	19663	1
7	POWER SUPPLY HARNESS	23633	1
8	2 AMP CIRCUIT BREAKER	2233001	1
9	GROUND HARNESS	19703	2
10	SCREW #8-18 X 3/8	01298BLK	2
11	OUTLET	23566	1
12	SCREW	01715	4
13	3 AMP CIRCUIT BREAKER	2233002	1
14	BUSHING	020562	1
16	WHITE JUMPER WIRE	2363701	1
17	BLACK JUMPER WIRE	23837	1
18	HARNESS GROUND APPLIANCE	23584	1
19	PLUG	097-8054	1



## SCHEMATIC DIAGRAM

## HELIX ASSEMBLY

(used with old style tray with non-adjustable dividers)



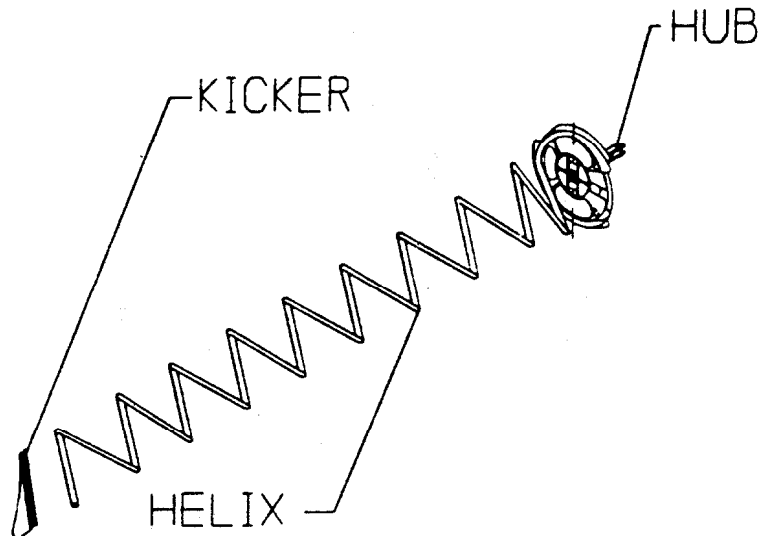
SNACK			CANDY		
Helix	Part No.	Product Thickness	Helix	Part No.	Product Thickness
14 ct	18374-02	1'	22 ct	18372-09	5/8"
10ct	18374-04	1 1/2"	14 ct	18372-01	1"
8ct	18374	1 7/8"	12 ct	18372-03	1 1/4"
6ct	18374-06	2 1/2"	10 ct	18372-02	1 1/2"
SEPARATE KICKER - 16303			SEPARATE KICKER - 18302		

## DUAL HELIX

HELIX	PART NO.	PRODUCT THICKNESS
14 CT.	2208073D	7/8"
12 CT.	22080750	1"
10 CT.	2208074D	1 1/4"
a CT.	2208076D	1 1/2"
SEPARATE KICKER - 23337		

## HELIX ASSEMBLY

USED WITH NEW STYLE TRAY WITH REMOVABLE DIVIDERS

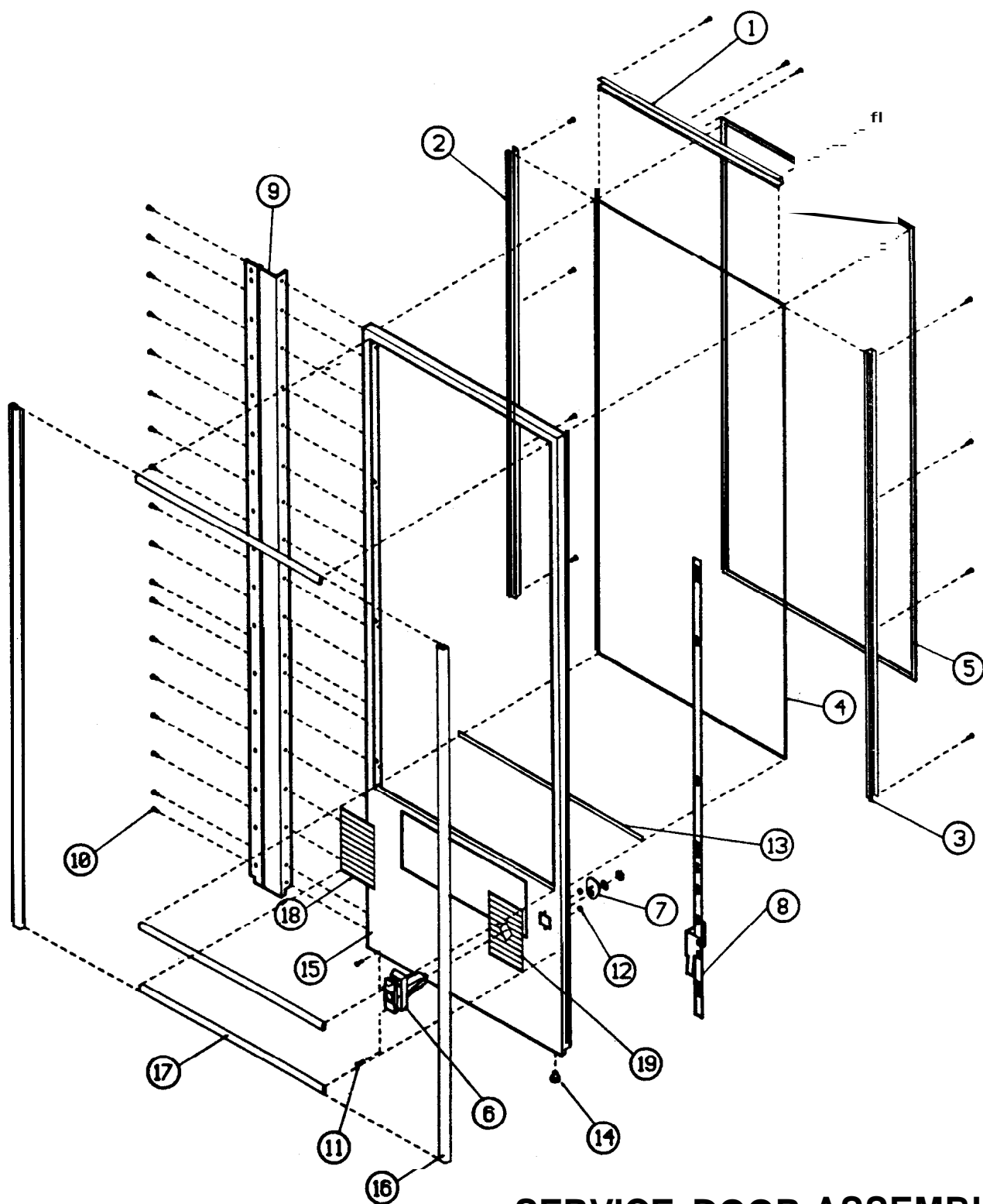


PASTRY			CANDY		
HELIX	PART NO.	PROD. THICKNESS	HELIX	PART NO.	PROD. THICKNESS
14 CT.	23978L3	1"	22 CT.	23977L6	5/8"
10 CT.	23978L2	1 1/2"	14 CT.	23977L4	1"
8 CT.	23978L1	1 7/8"	12 CT.	23977L3	1 1/4"
6 CT.	23978L4	2 1/2"	10 CT.	23977L2	1 1/2"
SEPARATE KICKER 18303 HUB ASSEMBLY 23886			SEPARATE KICKER 21 o-30208 HUB ASSEMBLY 23886		

## DUAL HELIX

HELIX	PART NO. RIGHT	PART NO. LEFT	PRODUCT THICKNESS
18 CT.	23977R5	23997L5	1/2"
14 CT.	23977R4	23977L4	7/8"
12 CT.	23977R3	23977L3	1"
10 CT.	23977R2	23977L2	1 1/4"
8 CT.	23977R 1	23977LI	1 1/2"
SEPARATE KICKER 21 o-30208 HUB ASSEMBLY 23886			





**SERVICE DOOR ASSEMBLY**

**SERVICE DOOR ASSEMBLY  
SERIES 5000  
PARTS LIST**

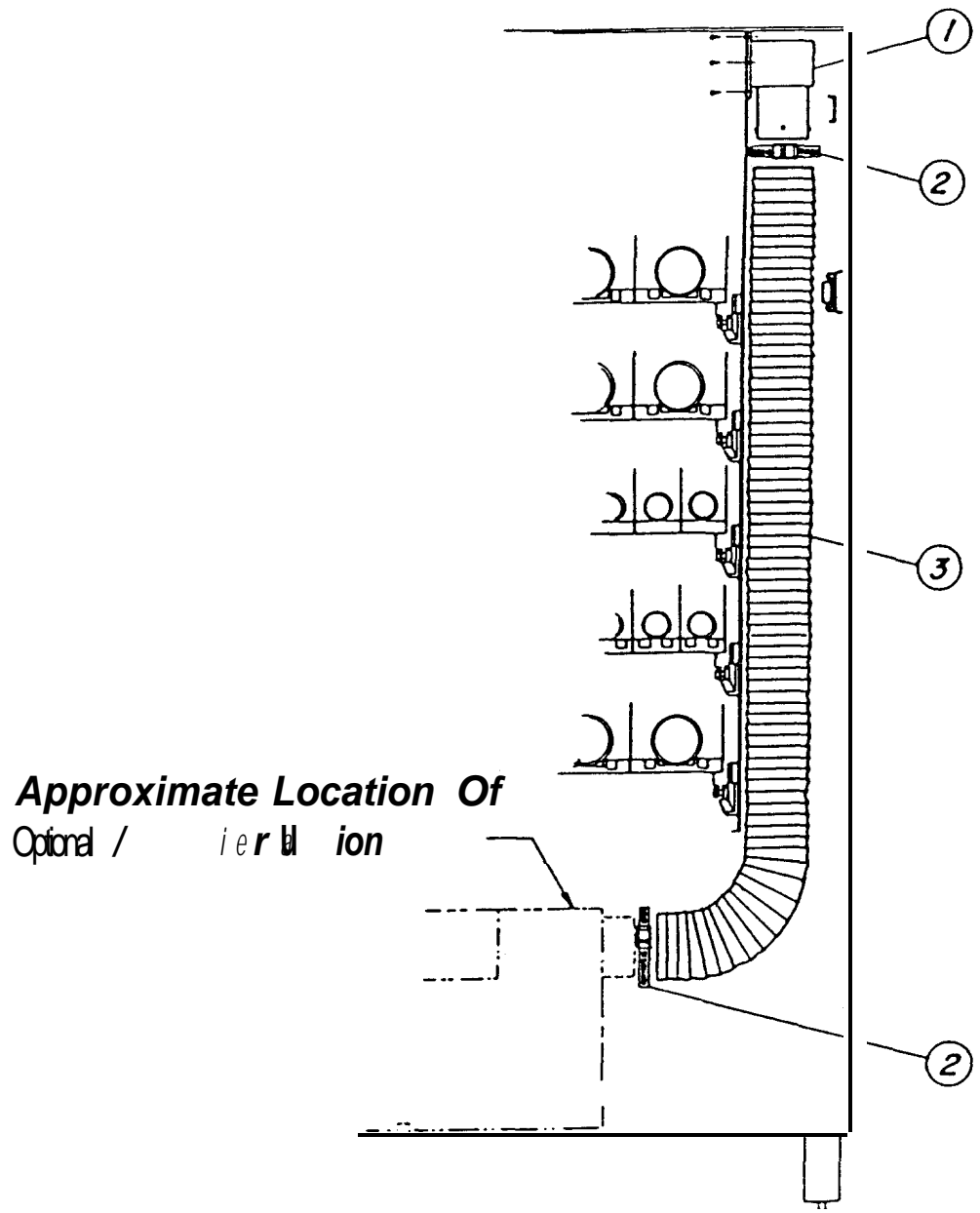
ITEM	DESCRIPTION	PART NO.	QTY.
1	TOP GLASS HOLDER	18499-BLK	1
2	LEFT SIDE GLASS HOLDER	17954-BLK	1
3	RIGHT SIDE GLASS HOLDER	17954-BLK	1
4	SERVICE DOOR GLASS (TEMPERED GLASS)	18761	1
5	SERVICE DOOR GASKET	17970	12.6'
6	LARGE HANDLE DOOR LOCK	19379-BLK	1
7	CAM-LOCK	17457-BLK	1
8	LOCKING BAR	18001 -BLK	1
9	SERVICE DOOR HINGE	22030-DG	1
10	SCREW #8 - 18 X 1/4	S39C818-6	29
11	CARRIAGE BOLT #10 - 24 X 3/4	15249	2
12	STAR LOCKNUT	19566	2
13	NEOPRENE STRIPPING	18245-00	2.33'
14	RETAINING PLUG	18442	1
15	SERVICE DOOR	18721	1
16	VERTICAL TRIM L.H. & R.H.	22448	2
17	HORIZONTAL TRIM	18502	3
18	L.H. TRIM PANEL	19983	1
19	R.H. TRIM PANEL	19982	1
20	ROLL PIN 1/8 X 3/4	19171	1

**SERVICE DOOR ASSEMBLY  
SERIES 6000  
PARTS LIST**

ITEM	DESCRIPTION	PART NO.	QTY.
1	TOP GLASS HOLDER	17934-BLK	1
2	LEFT SIDE GLASS HOLDER	17954-BLK	1
3	RIGHT SIDE GLASS HOLDER	17954-BLK	1
4	SERVICE DOOR GLASS (TEMPERED GLASS)	18222	1
5	SERVICE DOOR GASKET	17970	12.8'
6	LARGE HANDLE DOOR LOCK	19379-BLK	1
7	CAM-LOCK	17457	1
8	LOCKING BAR	18001 -BLK	1
9	SERVICE DOOR HINGE	22030	1
10	SCREW #8-18X1/4	01868-BLK	29
11	CARRIAGE BOLT #10 - 24 X 3/4	15249	2
12	STAR LOCKNUT	19566	2
13	NEOPRENE STRIPPING	18245-00	2.33'
14	RETAINING PLUG	18442	1
15	SERVICE DOOR	17924	1
16	VERTICAL TRIM L.H. & R.H.	22448	2
17	HORIZONTAL TRIM	17967	3
18	L.H. TRIM PANEL	19983	1
19	R.H. TRIM PANEL	19982	1
20	ROLL PIN 1/8 X 3/4	19171	1

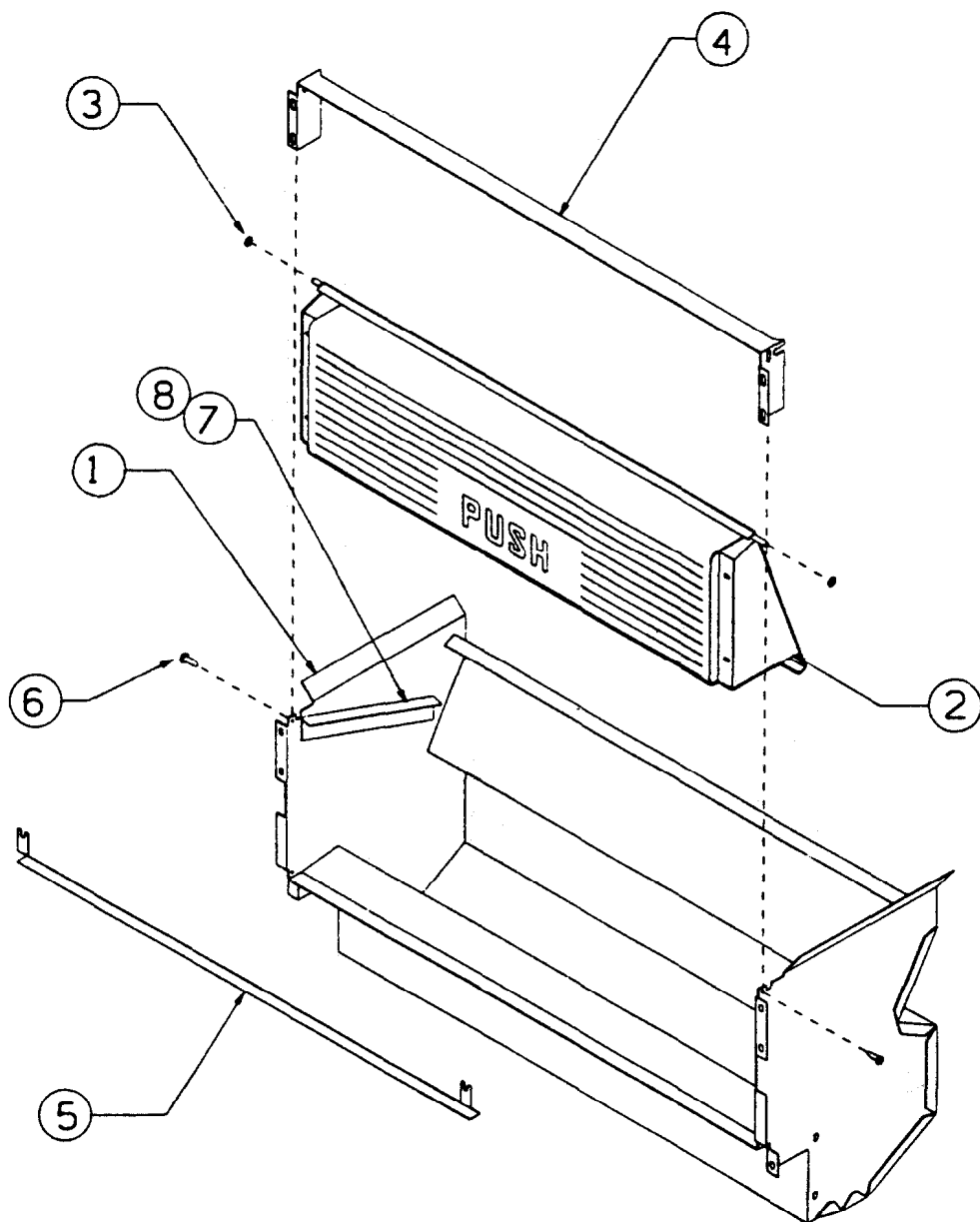
• When ever replacing door glass ALWAYS USE 3/16" THICK TEMPERED GLASS.

## CHILLER DUCT ASSEMBLY

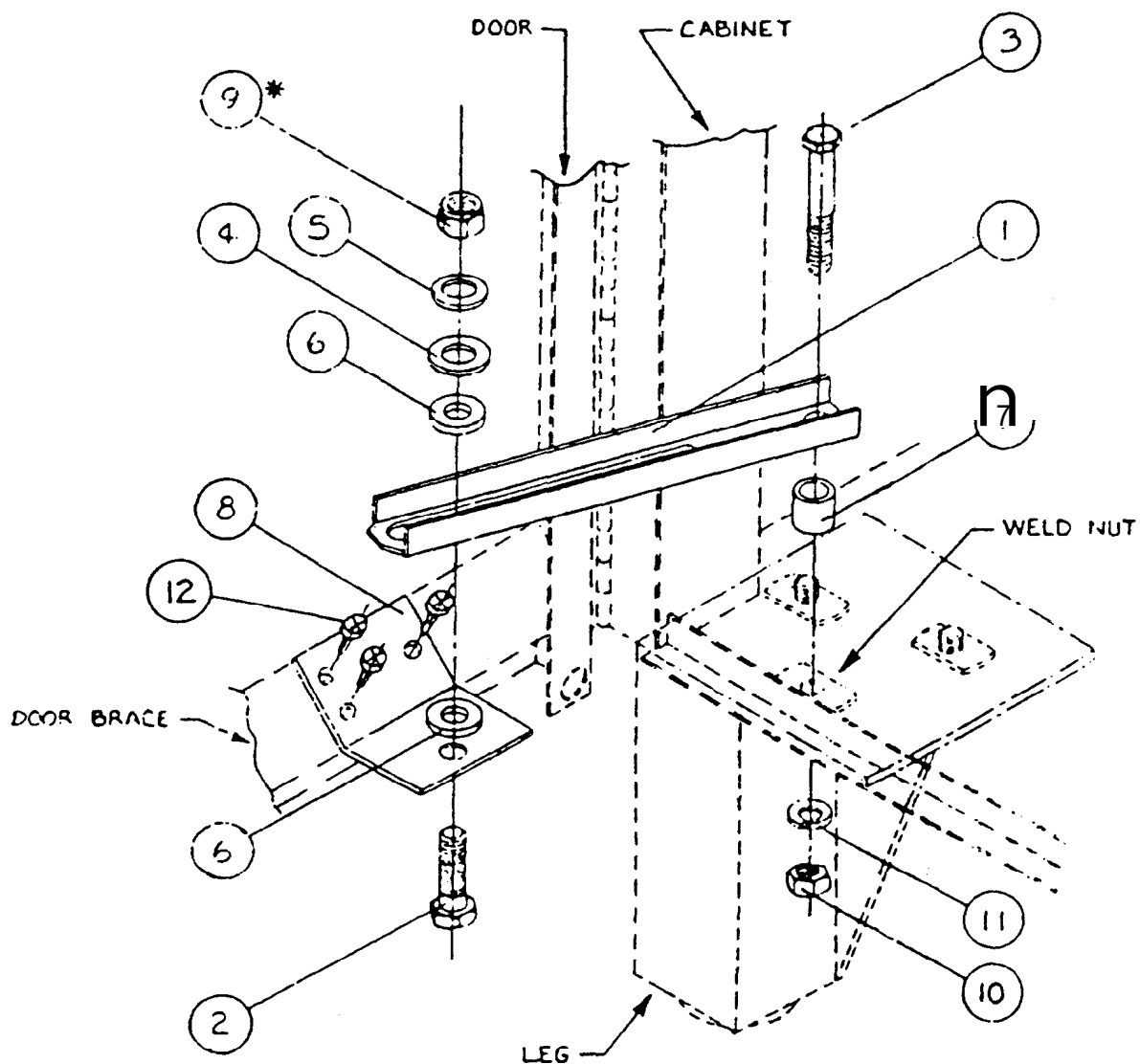


ITEM	PART NO.	DESCRIPTION	QTY
1		TRANSITION, REFRIG.	1
2	19693	CLAMP, HOSE	2
3	19691	TUBING, FLEXIBLE, 4	1
-	1298-BLK	SCREWS, 8 - 1/8 X 3/8 TAP	6

## DELIVERY COMPARTMENT ASSEMBLY



ITEM	DESCRIPTION	SERIES 5000	SERIES 6000	QTY.
1	DELIVERY COMPARTMENT ASSEMBLY	18492	19580	1
2	DOOR ASSEMBLY - DELIVERY COMPARTMENT	19987E	19986E	1
3	WASHER - 1/4" NYLON	18684	18684	2
4	RETAINER - DELIVERY DOOR	18672	18672	1
5	DEFLECTOR - PRODUCT	-20126MBK	20126FBK	1
6	SCREW, #8-18 X 3/8"	01298BLK	01298BLK	2
7	BRACKET, ANTI-THEFT	20961 BLK	20961BLK	2
8	RIVET, POP	00729	00729	4



PIVOT

ADJUST LOCK NUT FOR 3+- LBS. OPENING/CLOSING  
FORCE MEASURED AT DOOR EDGE OPPOSITE  
OF HINGE.

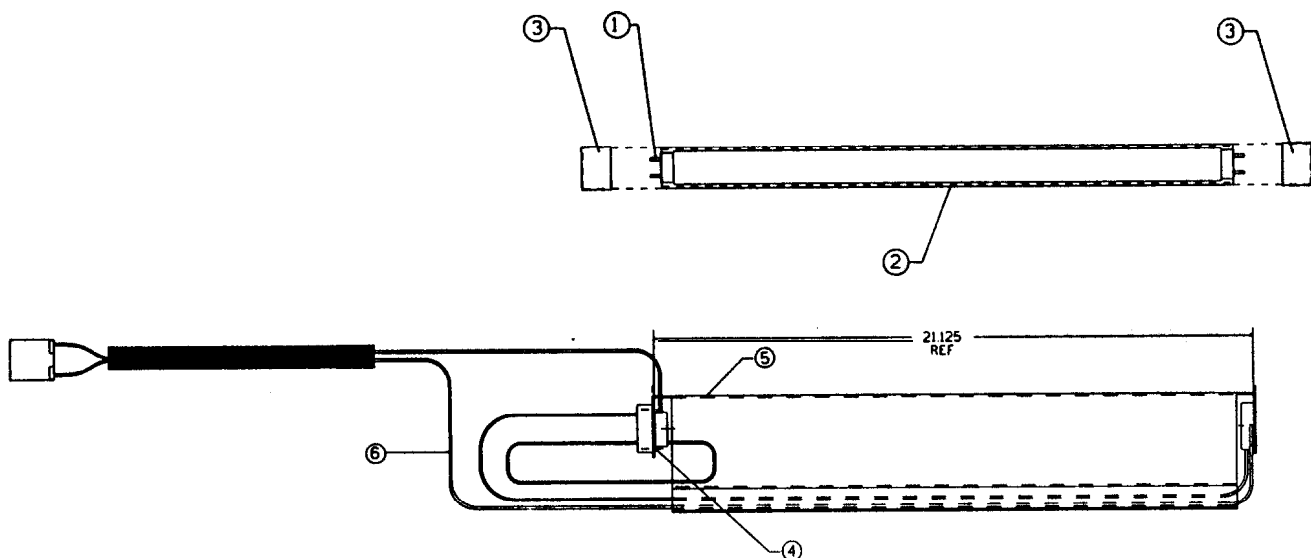
## DOOR STOP ASSEMBLY

**DOOR STOP ASSEMBLY  
PARTS LIST  
CHANNEL STYLE**

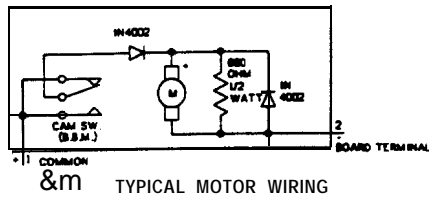
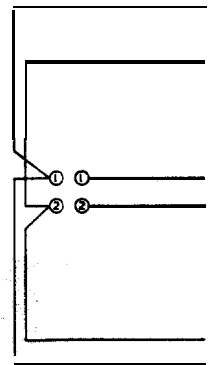
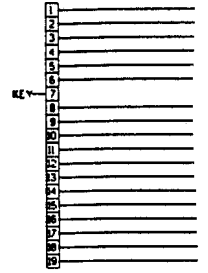
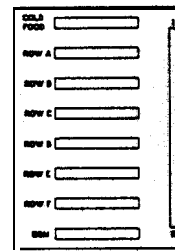
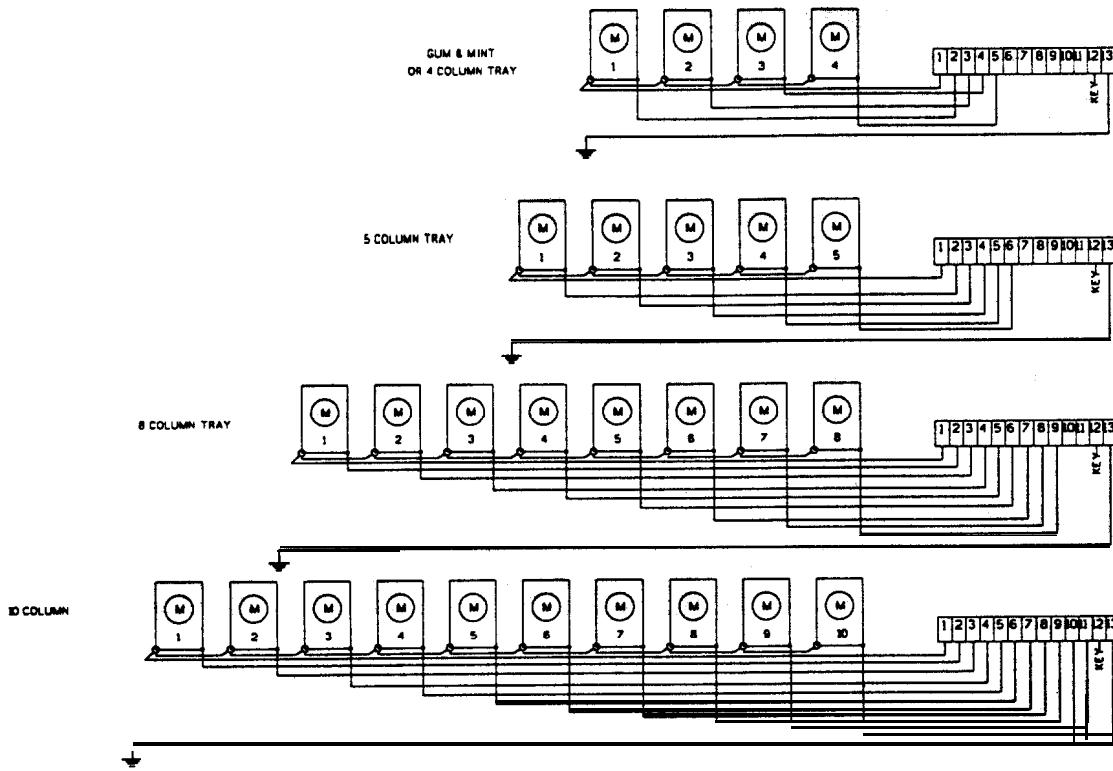
ITEM	DESCRIPTION	PART NO.	QTY.
-	COMPLETE ASSEMBLY	22026	1
1	DOOR STOP CHANNEL	20175	1
2	HEX HEAD BOLT 3/8-24 X 1 1/4	20176	1
3	HEX HEAD BOLT 5/16-18 X 2 1/4	20177	1
4	PRECISION WASHER	20178	1
5	BELLEVILLE WASHER	20179	1
6	NYLON WASHER	20180	2
7	DOOR STOP SPACER	20181	1
8	DOOR BRACKET	20182-00	1
9	LOCK NUT	20196	1
10	NUT	14937	1
11	SPLIT WASHER	285	1
12	SCREW 10-24 X 5/16	13140	3

## LAMP ASSEMBLY PARTS LIST

ITEM	DESCRIPTION	PART NO.	QTY.
-	LAMP ASSEMBLY	24353	1
1	LAMP BULB - 15 WATT	00101	1
2	TUBE POLYCARBONATE	21562	1
3	END CAP	19708	2
4	SCREW	13261	2
5	LAMP BRACKET	24402	2
6	HARNESS STD. LAMP ASSY.	24352	1
	STARTER FS-2	24398	1

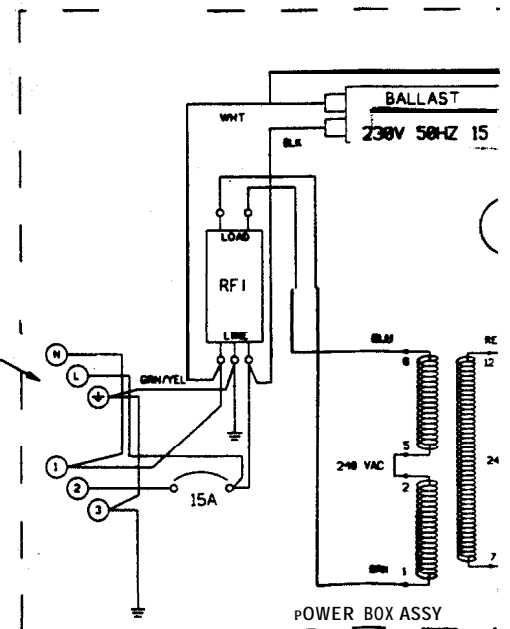
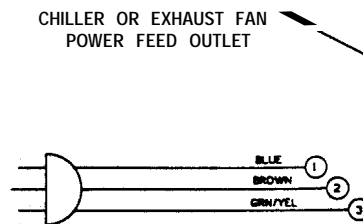






#### WARNING

UNPLUG MACHINE BEFORE DISCONNECTING OR CONNECTING ANY ELECTRICAL PLUG. THIS WILL PREVENT POSSIBLE DAMAGE TO ELECTRONICS







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