

800 2473085



4900S & 4900JR
Single Board Version
Snack/Candy Vendors

5 or 6 Shelf with
CBA-2 Bill Acceptor

**Field Service Manual
and
Parts Catalog**



PART NO. 900-49020E

RECORD OF REVISION OR CHANGE

In order to assure the availability of the most up-to-date and accurate information, Rowe International, Inc. periodically issues bulletins and supplements describing equipment and manual changes. Use the chart provided below to record any changes that affect this manual or the equipment.

| SERVICE BULLETIN | PAGE NUMBER | DESCRIPTION | DATE INCORPORATED |
|------------------|-------------|-------------|-------------------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

warranty

All parts are guaranteed to be free of defects in material and workmanship, and Rowe agrees to repair or replace any part which proves defective, with a similar part without charge, f.o.b. factory, for a period of one year after date of installation.

In the case of parts supplied to Rowe as components, Rowe extends the same warranty period as extended by the original manufacturer.

The above warranty applies provided that all parts of the machine have been serviced properly as directed in the service manual, and provided the alleged defective part, upon examination by Rowe, shall prove to be thus defective.

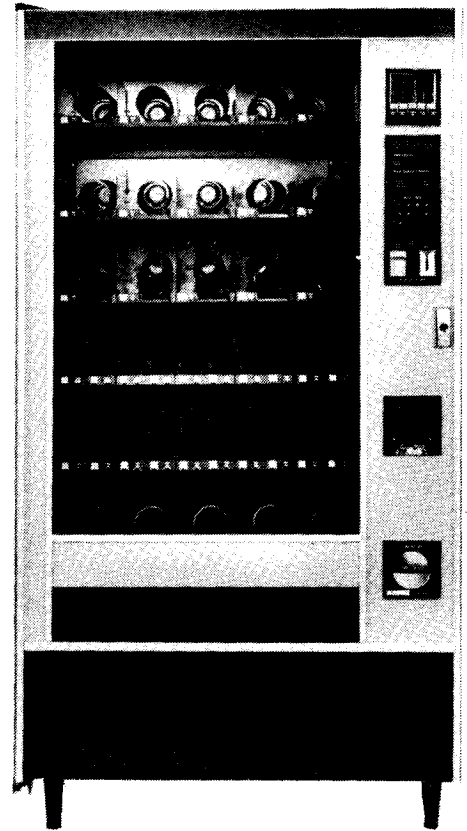
This warranty will not apply to any machine or any part which has been subjected to any accident, abuse, or misuse.

ROWE INTERNATIONAL, INC. EXTENDS NO WARRANTY, EXPRESSED OR IMPLIED, TO PURCHASERS OR USERS OF ITS PRODUCTS EXCEPT AS HEREIN SET FORTH, WHETHER BY OPERATION OF LAW OR OTHERWISE.

Table of Contents

| | |
|--|------|
| SPECIFICATIONS | 2 |
| PRODUCT CAPACITIES | 3&4 |
| PRODUCT CLEARANCES | 5 |
| PRODUCT WIDTHS | 5 |
| SELECTION IDENTIFICATION | 6 |
| SECTION 1 – DESCRIPTION | |
| General Introduction | 1-1 |
| Selection Identification | 1-2 |
| Special Function Buttons | 1-3 |
| SECTION 2 – INSTALLATION | |
| Introduction | 2-1 |
| Unpacking | 2-1 |
| Set-Up Instructions | 2-1 |
| Vendor Switch Set-Up | 2-3 |
| Setting Prices | 2-4 |
| SECTION 3 – OPERATING DESCRIPTION | |
| Introduction | 3-1 |
| Special Function LED's | 3-1 |
| Vendor Set-Up | 3-1 |
| Vendor Operation | 3-3 |
| SECTION 4 – TROUBLESHOOTING | |
| Introduction | 4-1 |
| Troubleshooting Procedures | 4-1 |
| Diagnostic Codes | 4-3 |
| Error Codes | 4-5 |
| Troubleshooting Charts | 4-7 |
| Full System Schematic | 4-11 |
| Main Controller Schematic (5 Diagrams) | 4-12 |
| Power Supply Schematic | 4-18 |
| Power Supply Wiring Diagram | 4-19 |
| Selection Motor Matrix Schematic | 4-17 |
| SECTION 5 – MAINTENANCE | |
| Introduction | 5-1 |
| Cleaning | 5-1 |
| Hex Removal / Replacement | 5-1 |
| Gum & Mint Unit Removal | 5-2 |
| Gum & Mint Sold Out Switch Adjustment | 5-3 |
| Product Drive Motor | 5-3 |
| SECTION 6 – PARTS CATALOG | |
| | 6-1 |

MODELS 4900S and 4900JR SINGLE BOARD VERSION SNACK/CANDY VENDORS SPECIFICATIONS:



| GENERAL: | 4900S | 4900JR |
|------------------------------|------------------------------------|---------|
| Depth | 35-1/2" | 35-1/2" |
| Width | 39" | 33-1/2" |
| Height | 72" | 72" |
| Power Requirements | 120 VAC, 60 Hz, 2 A | Same |
| Power Consumption | 230 Kwh. (Max.) | Same |
| BTU Output | .500 BTU/Hour | Same |
| Product Vend Time | .2.6 Seconds | Same |
| Net Weight } | Approximately 650 lbs. to 750 lbs. | |
| Shipping Weight } | depending upon configuration. | |

PRODUCT SELECTIONS

4900S

25, 30, 35, 40, 45 or 50 Selections plus Gum & Mint (5 Selections) in 5 Shelf Configuration.

30, 35, 40, 45, 50, 55 or 60 Selections plus Gum & Mint (5 Selections) in 6 Shelf Configuration.

4900JR

20, 24, 28, 32, 36 or 40 Selections plus Gum & Mint (5 Selections) in 5 Shelf Configuration.

24, 28, 32, 36, 40, 44 or 48 Selections plus Gum & Mint (5 Selections) in 6 Shelf Configuration.

VENDOR PRODUCT CAPACITY

Models 4900S and 4900 JR vendor product capacity is a function of the shelf configurations. Standard shelf configurations are shown on pages 3 and 4.

COIN MECHANISM

The 4900S and 4900JR vendors are designed to accommodate the Mars MC-5000, TRC-6000 and the Coinco 9300L machine controlled coin mechanisms.

BILL ACCEPTOR

Rowe model CBA - 2 accepts \$1.00 and \$5.00 bills and automatically stacks them in a 500 bill capacity stacker.

PARTS KITS AND ACCESSORIES LIST

| 4900S PART NO. | 4900JR PART NO. | DESCRIPTION | FUNCTION |
|-------------------|--------------------|---------------------------------|----------------------------------|
| 425-6001 | Same | CBA - 2 Bill Acceptor Kit | Allows Currency Acceptance |
| 490-4500 | Same | Shelf Extender Cable Assembly | Service Shelf Outside of Cabinet |
| 490-6007 | Same | Product Filler Kit | Vends Pastry |
| 490-6009 | Same | Gum & Mint Adapter Kit - "Tums" | Vends " Tums " |
| 490-6024 | Same | Can Vendor Kit | Vends Canned Foods |
| 493-6011 | 494-6011 | Kick Plate Kit | Styling |
| 493-6029 | Same | Universal Exhaust Fan Kit | Air Circulation |
| 494-6000 | Same | Door Lock Kit | Improve Locking |
| 490-1925 | Same | Product Pusher Kit | Pushes Product Out |
| 493-6028 | Same | Bill Box Security Kit | Secure Bill Box |

4900S PRODUCT CAPACITIES

6 SHELF MODELS

MODEL 4930S
Capacity: 370 Items*

| | | | | |
|----|----|----|----|----|
| 10 | 10 | 10 | 10 | 10 |
| 10 | 10 | 12 | 12 | 12 |
| 12 | 12 | 12 | 12 | 12 |
| 12 | 12 | 12 | 12 | 12 |
| 12 | 12 | 15 | 15 | 15 |
| 15 | 15 | 15 | 15 | 15 |

MODEL 4935S
Capacity: 508 Items*

| | | | | |
|----|----|----|----|----|
| 10 | 10 | 10 | 10 | 10 |
| 10 | 10 | 12 | 12 | 12 |
| 12 | 12 | 12 | 12 | 12 |
| 12 | 12 | 15 | 15 | 15 |
| 15 | 15 | 18 | 18 | 18 |
| 24 | 24 | 24 | 24 | 24 |
| 15 | 15 | 15 | 15 | 15 |

MODEL 4940S
Capacity: 629 Items*

| | | | | |
|----|----|----|----|----|
| 10 | 10 | 10 | 10 | 10 |
| 12 | 12 | 12 | 12 | 12 |
| 15 | 15 | 15 | 15 | 15 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 15 | 15 | 15 | 24 | 24 |
| 24 | 24 | 24 | 24 | 24 |
| 12 | 12 | 12 | 12 | 12 |

MODEL 4945S
Capacity: 746 Items*

| | | | | |
|----|----|----|----|----|
| 10 | 10 | 10 | 10 | 10 |
| 12 | 15 | 15 | 15 | 15 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 15 | 15 | 15 | 24 | 24 |
| 24 | 24 | 24 | 24 | 24 |
| 12 | 12 | 12 | 12 | 12 |

MODEL 4950S
Capacity: 851 Items*

| | | | | |
|----|----|----|----|----|
| 10 | 10 | 15 | 15 | 15 |
| 12 | 12 | 12 | 12 | 12 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 15 | 15 |
| 15 | 15 | 15 | 24 | 24 |
| 24 | 24 | 24 | 24 | 24 |

MODEL 4955S
Capacity: 931 Items*

| | | | | |
|----|----|----|----|----|
| 10 | 12 | 12 | 12 | 15 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 15 | 15 |
| 15 | 15 | 15 | 24 | 24 |
| 24 | 24 | 24 | 24 | 24 |

MODEL 4960S
Capacity: 1074 Items*

| | | | | |
|----|----|----|----|----|
| 15 | 15 | 15 | 15 | 15 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 15 | 15 | 15 | 24 | 24 |
| 24 | 24 | 24 | 24 | 24 |

*Plus 5 gum and mint selections with 230 items.

5 SHELF MODELS

MODEL 4925S
Capacity: 310 Items

| | | | | |
|----|----|----|----|----|
| 10 | 10 | 10 | 10 | 10 |
| 10 | 10 | 12 | 12 | 12 |
| 12 | 12 | 12 | 12 | 12 |
| 12 | 12 | 15 | 15 | 15 |
| 15 | 15 | 15 | 15 | 15 |

MODEL 4930S
Capacity: 443 Items*

| | | | | |
|----|----|----|----|----|
| 10 | 10 | 10 | 10 | 10 |
| 12 | 12 | 12 | 12 | 12 |
| 15 | 15 | 15 | 15 | 15 |
| 15 | 15 | 18 | 18 | 18 |
| 24 | 24 | 24 | 24 | 24 |
| 12 | 12 | 12 | 12 | 12 |

MODEL 4935S
Capacity: 563 Items*

| | | | | |
|----|----|----|----|----|
| 10 | 10 | 10 | 10 | 10 |
| 12 | 12 | 15 | 15 | 15 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 15 | 15 | 15 | 24 | 24 |
| 24 | 24 | 24 | 24 | 24 |
| 12 | 12 | 12 | 12 | 12 |

MODEL 4940S
Capacity: 689 Items*

| | | | | |
|----|----|----|----|----|
| 10 | 10 | 15 | 15 | 15 |
| 12 | 12 | 12 | 12 | 12 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 15 | 15 | 15 | 24 | 24 |
| 24 | 24 | 24 | 24 | 24 |

MODEL 4945S
Capacity: 805 Items*

| | | | | |
|----|----|----|----|----|
| 10 | 12 | 12 | 12 | 15 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 15 | 15 | 15 | 24 | 24 |
| 24 | 24 | 24 | 24 | 24 |

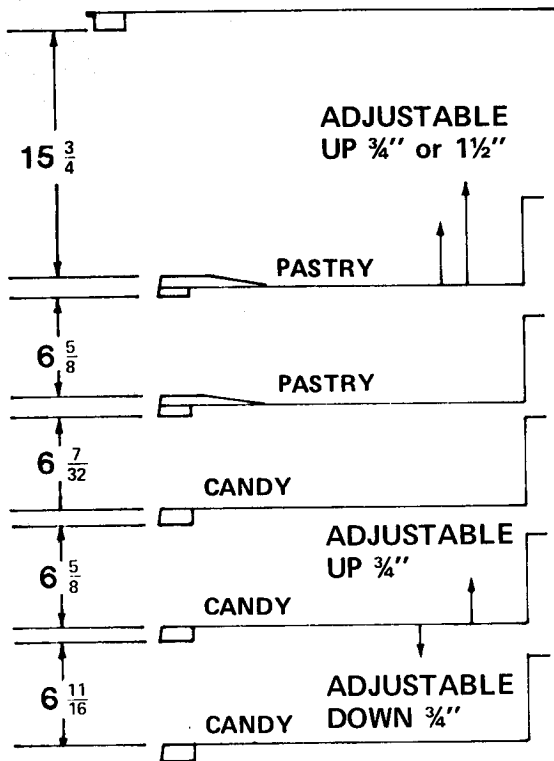
MODEL 4950S
Capacity: 906 Items*

| | | | | |
|----|----|----|----|----|
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 18 | 18 | 18 | 18 | 18 |
| 15 | 15 | 15 | 24 | 24 |
| 24 | 24 | 24 | 24 | 24 |

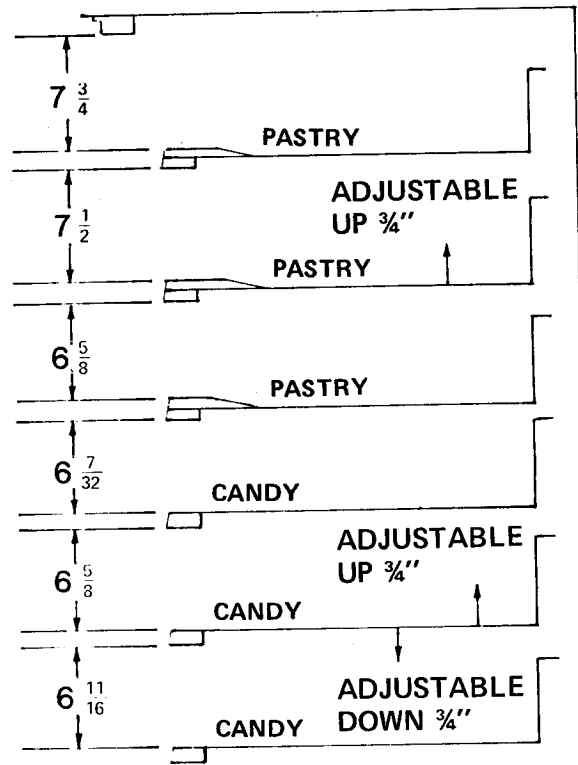
*Plus 5 gum and mint selections with 230 items.

Five and Ten selection shelves fit in any position, see chart above. Helix coils can be freely interchanged with other helix coils of different capacities provided they are the same diameter.

PRODUCT CLEARANCES



5 SHELF MODELS



6 SHELF MODELS

On both 5 Shelf and 6 Shelf Models the second shelf from bottom can be adjusted $\frac{3}{4}$ " higher or lower. There are three sets of rail mounting holes. On 5 Shelf Models the top shelf can be adjusted up $\frac{3}{4}$ " or $1\frac{1}{2}$ ". On 6 Shelf Models the fifth shelf from the bottom is adjustable up $\frac{3}{4}$ ". Note: Product used must not exceed 7" in height.

PRODUCT WIDTHS

4900JR - 4 SELECTION SHELVES
4900S - 5 SELECTION SHELVES

4900JR - 8 SELECTION SHELVES
4900S - 10 SELECTION SHELVES

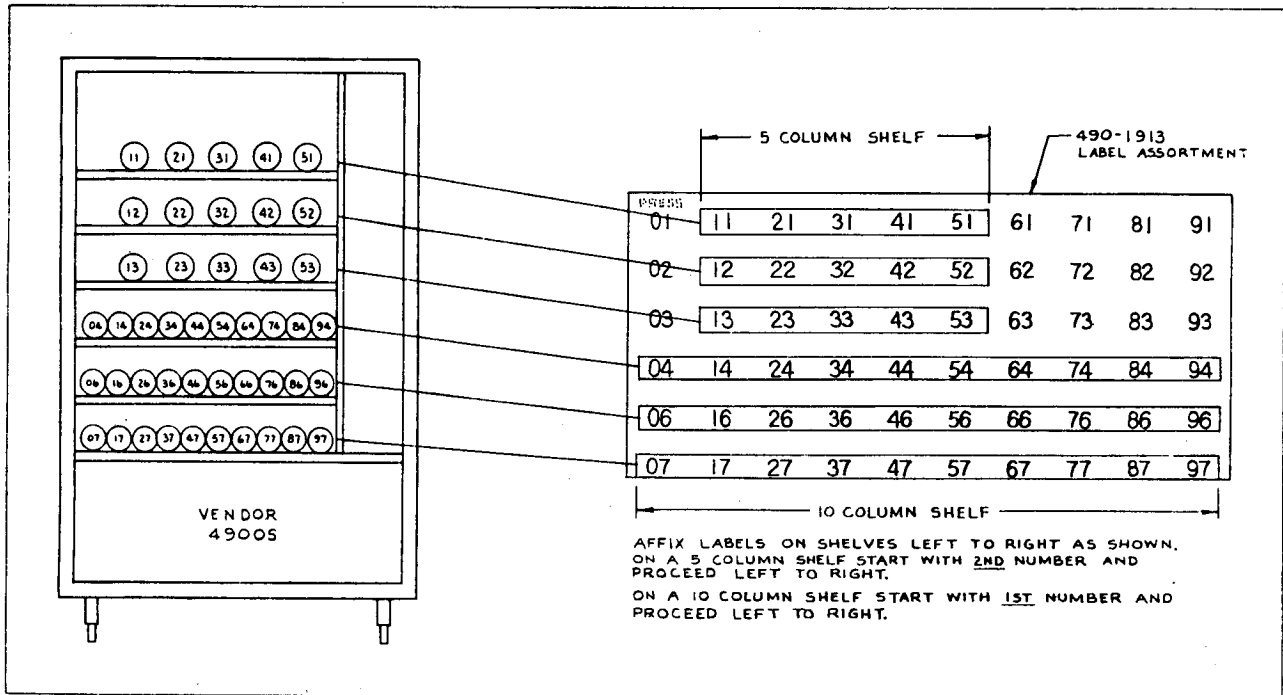
| ITEM PER COMPARTMENT | HELIX PART NO. | MAX. PRODUCT THICKNESS | PRODUCT WIDTH | ITEM PER COMPARTMENT | HELIX PART NO. | MAX. PRODUCT THICKNESS | PRODUCT WIDTH |
|----------------------|----------------|------------------------|---------------|----------------------|----------------|------------------------|---------------|
| | | | (SEE NOTE) | | | | |
| 10 | 490-34 | 2-1/16" | 2-1/2/5-1/4 | 15 | 490-31 | 1-5/16" | 1"/2-1/4" |
| 12 | 490-33 | 1-11/16" | 2-1/2/5-1/4 | 18 | 490-30 | 1-1/16" | 1"/2-1/4" |
| 15 | 490-32 | 1-5/16" | 2-1/2/5-1/4 | 24 | 490-29 | 3/4" | 1"/2-1/4" |

NOTE:

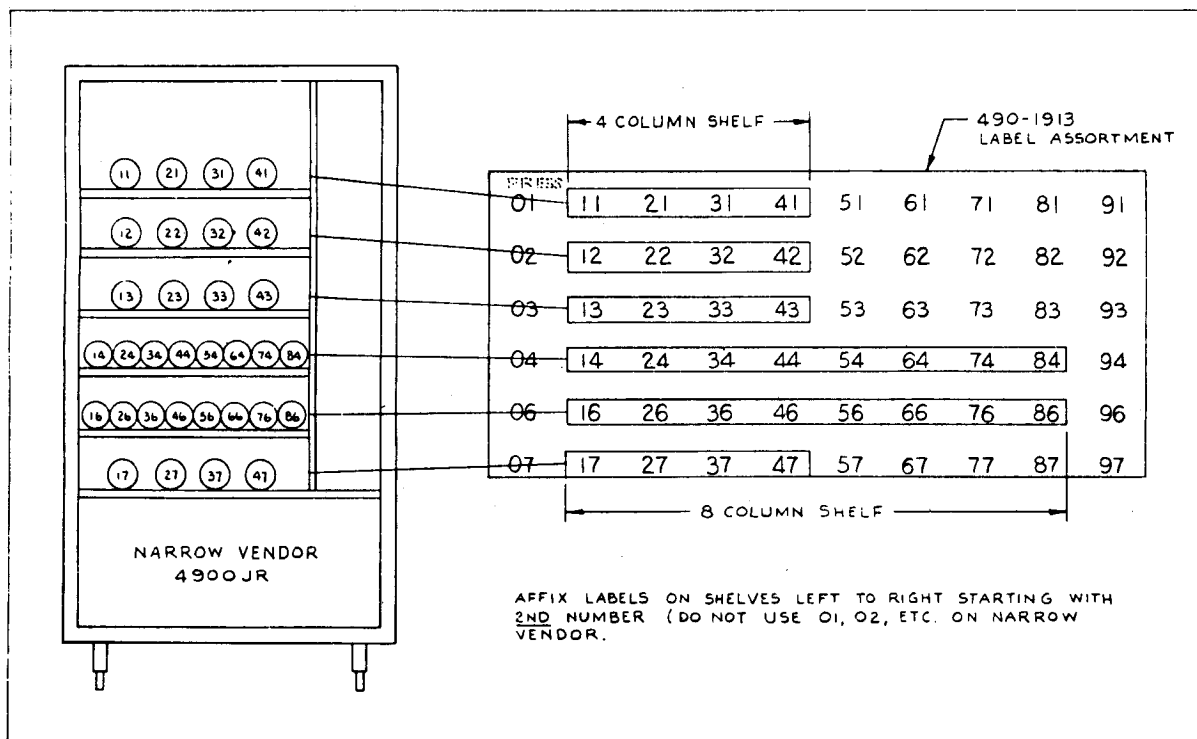
4900S - Partition in selection 4 can be moved to any of 4 locations altering width of selections 4 and 5. Maximum width of selection 4 can be $6\frac{3}{4}$ ", minimum width of selection 5 can be $3\frac{3}{4}$ ".

4900JR - Partition in selection 3 can be moved to any of 4 locations altering width of selections 3 and 4. Maximum width of selection 3 can be $6\frac{3}{4}$ ", minimum width of selection 4 can be $3\frac{3}{4}$ ".

4900S SELECTION IDENTIFICATION



4900JR SELECTION IDENTIFICATION



SECTION 1- DESCRIPTION

GENERAL INTRODUCTION

The all new Rowe Snack Vendors merchandise a wide variety of products in a well lighted display, attractive to customers and servicemen alike. These highly reliable machines are easy to service and are virtually maintenance free.

During a purchase, merchandise is moved from the display shelf by a rotating helix coil, dispensed into a delivery compartment easily accessible to the customer. A newly-designed delivery door is easy for the customer to open, but remains theft-proof. Each product delivery helix is operated by its own motor for trouble-free long life.

Machine product capacity is a function of the size and variety of helix coils used. Coils are removed and replaced without tools, merely by lifting out and dropping straight in.

Product thickness varies considerably and the appropriate size helix coil chosen to vend a particular product should be selected on the basis of the product fitting loosely within the coil. Because some bagged snacks swell in size over their normal shelf life, some trial selection is necessary. The product thickness range specified in this publication for each helix coil is an approximate measurement and will vary according to factors such as: how much a product settles, product type, swelling and weight.

Standard shelf configurations for each model are shown on Pages 3 and 4.

The Gum & Mint Unit is separate from the product shelves and is mounted on a pull-out panel. Releasing the latch allows the unit to be tilted for easy loading and servicing. Column widths can be easily adjusted by simply relocating the column slide to a different slot. Delivery height is adjusted by loosening the thumb screw.

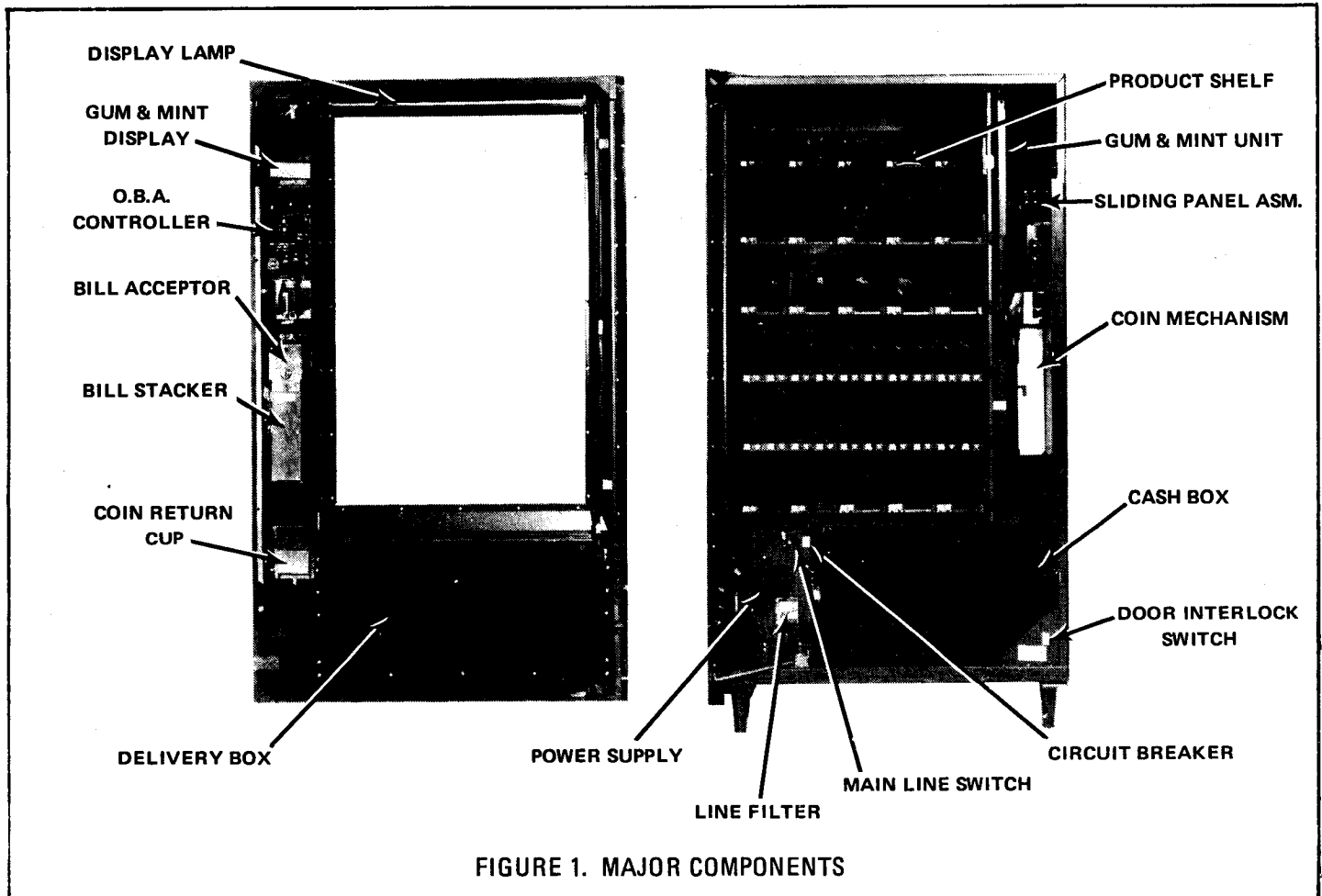


FIGURE 1. MAJOR COMPONENTS

A two note Bill Acceptor (CBA-2 accepts \$1.00 & \$5.00 bills) is available as an option. The Acceptor takes valid currency and has single bill escrow. Combination purchases using a bill and coins are possible and change for the purchase is dispensed from the coin mech.

The Snack/Candy vendor features 24 VDC operation using a completely isolated power supply for safety. The display fluorescent lamp and optional exhaust fan as well as the coin mech (Mars TRC 6000 or Coinco 9300L) operate on 120 VAC.

SELECTION IDENTIFICATION

(SEE PAGE 6)

In order to eliminate any possible confusion on selection identity and price, the digits 5 and 0 are not used to identify selections.

Selection identification is as follows:

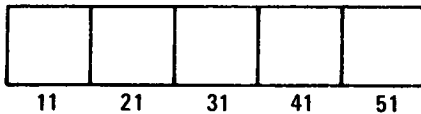
First digit identifies location of item on shelf. On 4 or 5 item shelves, the first item from the left is 1, second is 2, third is 3, etc. On 8 or 10 items shelves, the first item from the left is 0, the second item is 1, the third item is 2, the fourth item is 3, etc.

Second digit identifies shelf locations. Top Shelf is 1, second from top is 2, third from top is 3, fourth from top is 4, fifth from top is 6, sixth from top is 7. Gum and Mint selections are 8. In the case of a five shelf machine the first shelf is eliminated and the digit 1 is not used.

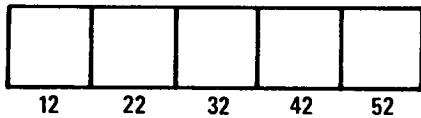
Examples:

Six Shelf Machine

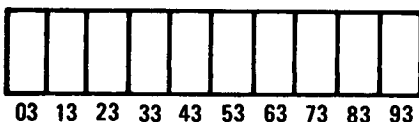
Top Shelf – 5 Items



Second Shelf – 5 Items

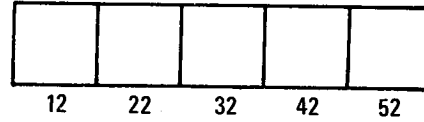


Third shelf – 10 Items

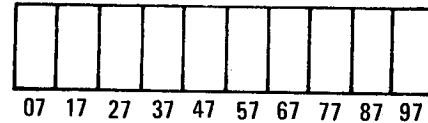


Five Shelf Machine

Top Shelf – 5 Items



Fifth Shelf – 10 Items



MAKING A SELECTION

To make a selection, the customer deposits the proper amount. Price is shown directly beneath each item. He then presses the two digits corresponding to the selection number shown beneath the product.

Purpose of the Reset button is to erase the first number if it is entered incorrectly. This can also be accomplished by pushing the coin return.

SELECTION BUTTONS

There are 10 selection buttons numbered from 1 to 0. There is also a reset button. These buttons are used by the machine patron to make a purchase from the vendor. They are used also by service personnel to perform certain functions covered in a later section.

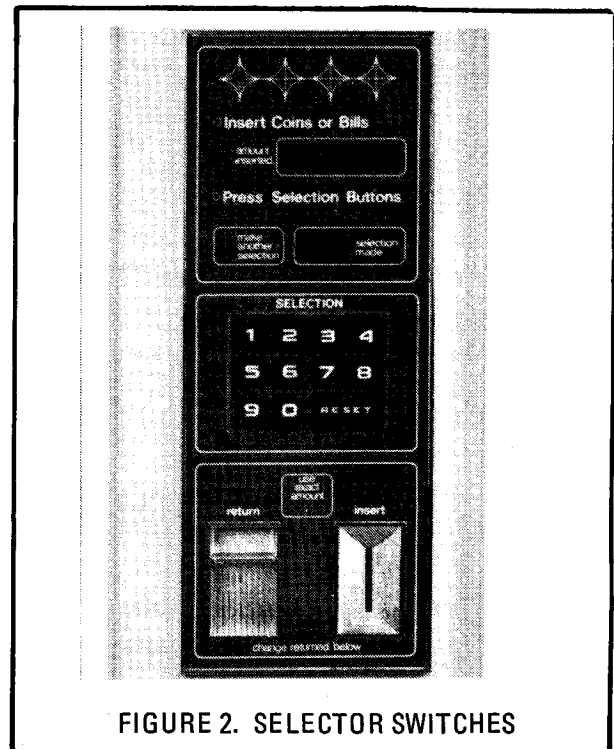
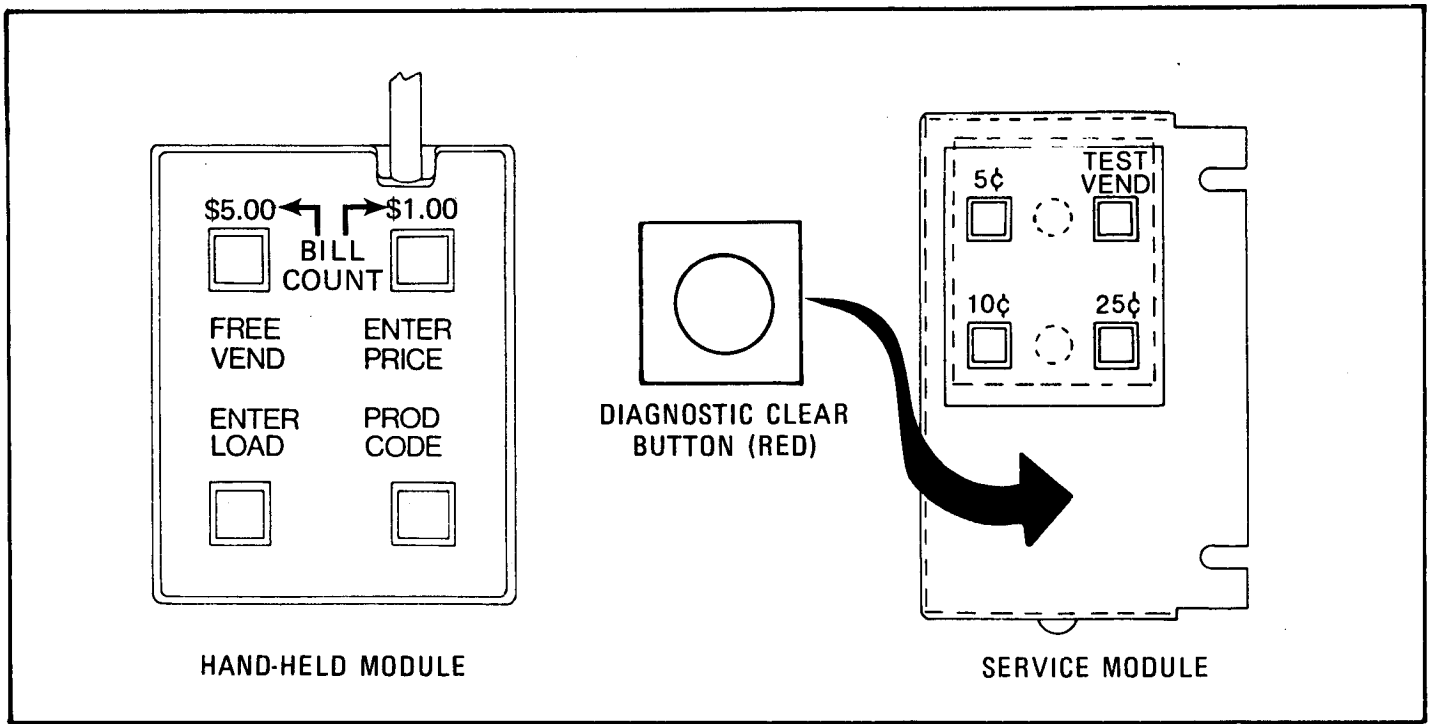


FIGURE 2. SELECTOR SWITCHES

SPECIAL FUNCTIONS

Four Special function buttons are located on a hand-held module located in a holding bracket inside the machine. A service module with other function

buttons is located behind and above the coin mechanism. A "diagnostic clear" button is located behind the service module.



Detailed explanation of the use of these modules is included in Section 2.



SECTION 2- INSTALLATION

INTRODUCTION

This section contains instructions for installing the vendor.

UNPACKING

The Snack Vendor is shipped in one carton with all major assemblies in place, ready for installation. Inspect the exterior and interior of the cabinet for evidence of damage. In case of damage, please notify the delivering carrier at once to call and examine the vendor regardless of the external condition of the carton. Under U.S. Regulations, damage claims must be collected by the consignee. Do not return shipping-damaged merchandise until after your claim has been established. Once your claim is established, damaged merchandise may then be returned to your Rowe Distributor for repair. The invoice for repair charges may then be collected from the carrier. Do not destroy packing material or boxes until the carrier's agent has examined them.

SET-UP INSTRUCTIONS

SPECIAL NOTE:

If it necessary to get through a narrow doorway, proceed as follows. The power cord anchoring plate can be dismantled from the rear wall allowing the power cord and plug to be pushed into the cabinet. Be certain to remount the anchoring plate to prevent damage to the power cord.

If more clearance is required it will be necessary to pivot the door hinges.

1. Open vendor door.
2. Remove door stop rod.
3. Disconnect door harness at plug located below the delivery box on the hinge side.
4. Disconnect bill acceptor harness at power box on cabinet floor if so equipped.
5. Open the main door far enough to expose the three counter sunk screws in the top hinge and block the door to support it's weight.

CAUTION

The door is heavy. Take appropriate precautions before proceeding.

6. Remove the 2 ½" hex head bolts from the cabinet side of the top hinge plate.
7. Remove the three counter sunk screws and nuts from the top hinge plate on the door.
8. Rotate the upper hinge assembly away from the door frame and lift the door straight "up" off the lower hinge point.

NOTE

Take care not to lose the bearing washer on the bottom hinge pin.

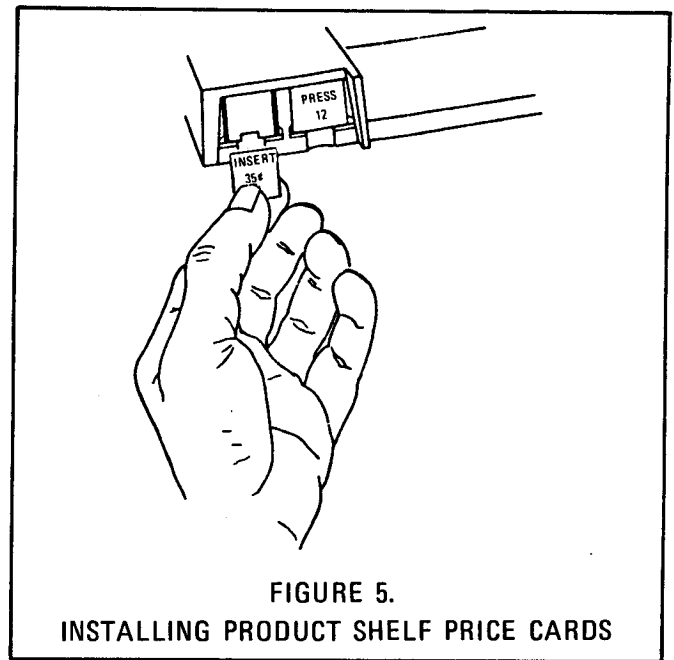
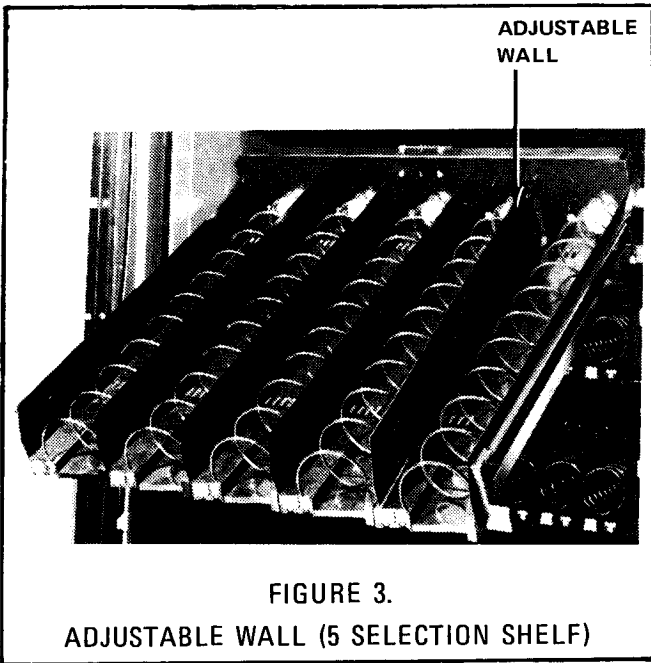
9. If additional clearance is required, the lower hinge can be pivoted by removing the FRONT ½" hex head bolt and loosening the rear bolt one turn. The security shield mounted on the left front edge of the cabinet is also removable if required.
10. After passing through the confined area, reassemble the door to the cabinet being certain to secure all parts and harnesses removed in the preceding steps.

Set up the vendor as follows:

1. Open door all the way.
2. Set main switch OFF.
3. Level cabinet front to rear and side to side. All four cabinet legs are adjustable.
4. Check that fluorescent lamp is secure in its socket and that all electrical plugs are firmly seated in their sockets.
5. Plug the line cord into a 120 volt, 60 hertz grounded receptacle.
6. Set main switch to ON.

CAUTION

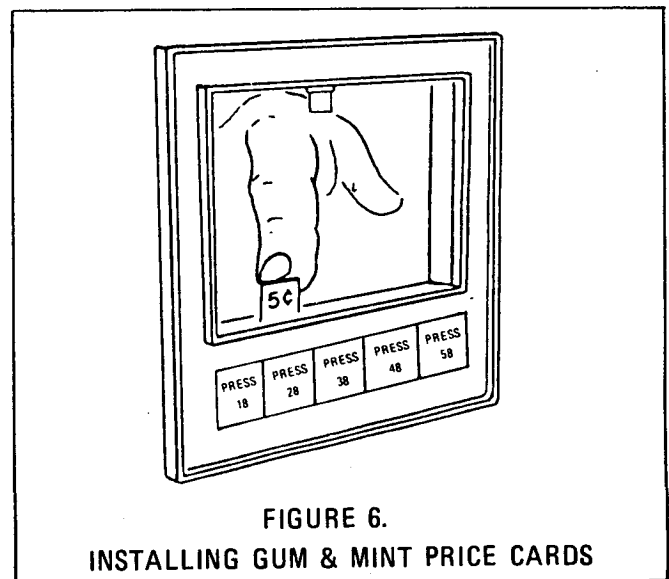
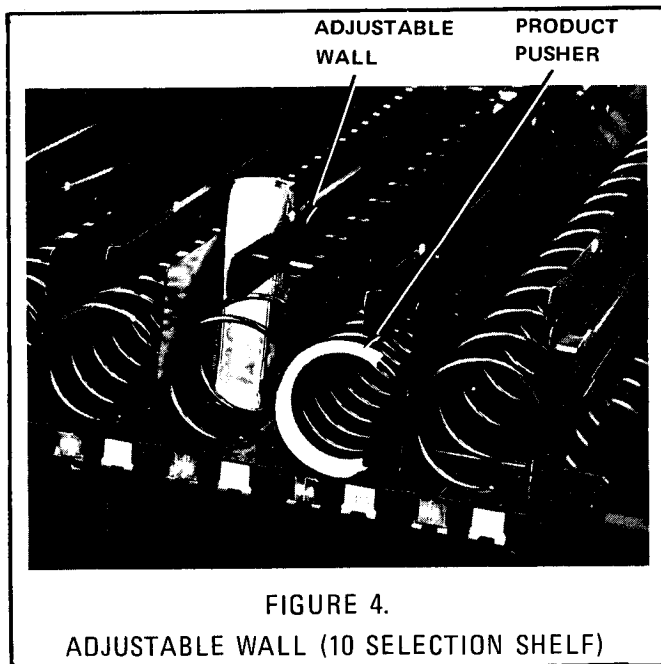
WHEN CHANGING, DISCONNECTING OR CONNECTING ANY ELECTRICAL COMPONENTS, MAIN SWITCH MUST BE IN THE "OFF" POSITION.

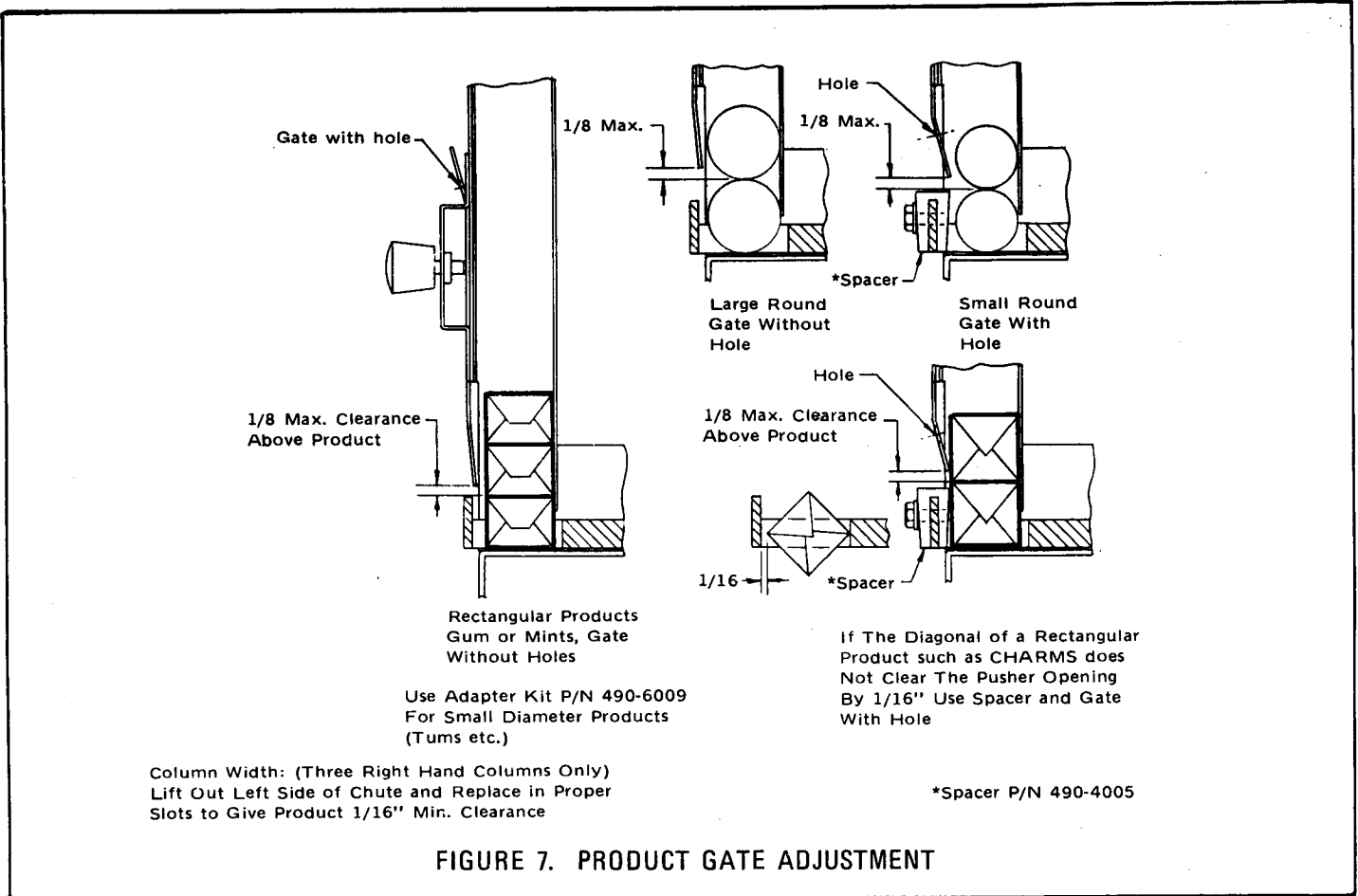


7. Set pricing. Refer to correct procedure under **PRICE SETTING** on Page 2 - 4.
8. Pull top product shelf out and lower to loading position. Load product in accordance with the specifications listed at the beginning of this manual on Page 5.
9. The 4 selection trays feature an adjustable wall located between the 3rd and 4th spirals. On 5 selection trays the adjustable wall is located between the 4th and 5th spirals. The wall can be installed in any one of the four slot positions in

the bottom of the tray. After adjusting the wall for the desired width, check to be certain that the product moves freely forward when the selection on each side of the adjustable wall is vended. (See Figure 3.) Additional tray walls are shipped with each machine and can be installed in the pastry tray slots to accommodate the narrower items. On 8 or 10 selection trays, the adjustable wall swings out from the right side of the shelf wall. (See Figure 4.)

10. Install product pushers when required. The plastic product pusher is pushed onto the helix in the desired position to assure product delivery. (See Figure 4.) (10 count shelves only)





11. Install desired price cards for product shelves as shown in Figure 5.
12. To install price cards for Gum and Mint Unit, simply remove the display box from the inside of the door by lifting up and off. Insert desired price cards into the slots provided against the display glass. (See Figure 6.)

NOTE

Gum and Mint price cards are smaller than shelf price cards.

Check to make sure that the price cards correctly relate to the Gum and Mint products to be displayed. Replace the display box and visually check the display and prices from the outside of the door.

13. Pull out sliding panel assembly at right of vendor, load gum and mint columns. Adjust product gate on gum and mint as shown in Figure 7.
14. Lift out left side of chute and move to proper slots, giving product a minimum of 1/16 inch end clearance.
15. Deposit coins and test vend each selection. Check coin return operation.

VENDOR SET UP

COIN MECH. SELECT (S1 SWITCH)

(See illustration on page 4 - 2)

This set of switches determine which Coin Mechanism will be used in the 4900. These switches must be set correctly for the "Coin Mech" in use to function properly.

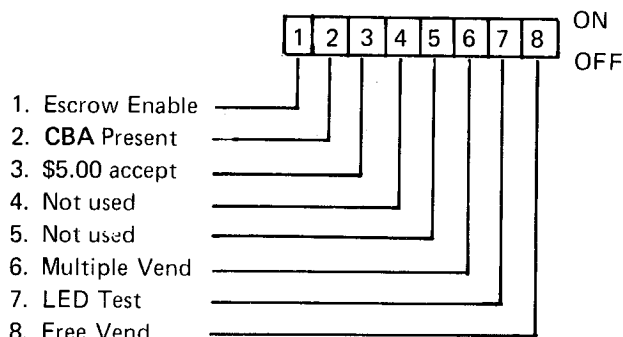
ON = YES/Device Selected
OFF = NO/Device not selected

| S1/1 | S1/2 | S1/3 | |
|------|------|------|----------------------------------|
| OFF | OFF | OFF | Mars TRC 6000 or Coinco 9300L |
| ON | OFF | OFF | Not Used |
| OFF | ON | OFF | Not Used |
| ON | ON | OFF | Mars MS 1600 Executive Coin Mech |
| OFF | OFF | ON | Not Used |
| ON | OFF | ON | Not Used |
| OFF | ON | ON | Not Used |
| ON | ON | ON | Not Used |

OPTIONS SET UP (S2 SWITCH)

Switch position "ON" = YES (Enabled)

Switch position "OFF" = NO (Disabled)



See General Operation Section (DIP Switch S2 Options) for detailed explanation.

AUDIT SWITCHES (S3 and S4)

S3 - Displays Total Accumulated Sales (non resettable)

S4 - Displays Total Resettable Accumulated Sales

See General Operation Section for detailed explanation.

PRICE SETTING

Setting up prices initially is fast and easy. The following procedure should be followed.

1. Open vendor Main Door.
2. Load product as previously described.
3. Install Product Shelf Cards.
4. Set prices for each selection as follows:
 - A. Enter first selection number on selector panel, a price will show in the Credit Display area.
 - B. To change the price, enter the new price using the selection numbers. Enter zero, zero first, then the most significant digit, then the second digit. For instance, if \$0.25 is desired, enter zero, zero then 2, then 5. The digits entered will shift into the Credit Display.
 - C. When the price shown in the Credit Display is correct, press the ENTER PRICE key on the Hand Held Module and the new price will be stored in the microprocessor's memory.
 - D. The selection number will automatically increment to the next selection in order and the price of the new selection will be shown in the Credit Display area. If the price is correct press the ENTER PRICE key and the selection number will increment again. If a price change is desired, proceed as in steps a, b, c, and d.

NOTE

If a selection motor is missing or inoperative, that selection must be set at zero.

5. At the conclusion of the initial price setting it is highly recommended that each selection price be checked again. This is easily accomplished as follows:

Press Reset Button. Enter first selection number (01 or 11). The first selection and its price will show in the display area. Simply pressing the ENTER PRICE key repeatedly will now increment the selection and its price.

HAND HELD MODULE

(See illustration on page 1 - 3)

The Hand Held Module incorporates 4 buttons. These are ENTER PRICE, previously described, FREE VEND, ENTER LOAD and PRODUCT CODE.

FREE VEND

The FREE VEND button is for the convenience of the service person. It permits dispensing a product without depositing coins. This button will work only if a specific selection is made using the selector buttons.

ENTER LOAD and PRODUCT CODE buttons are not used unless the vendor is equipped with one of the MIS (Management Information Systems) options on the market. Instructions for their use will be provided with whatever system is selected.

SERVICE MODULE

(See illustration on page 1 - 3)

TEST VEND

The TEST VEND button is located on the module above and behind the coin mechanism. It can be used in two different ways.

1. To test a specific selection --- enter selection number and press the TEST key.
2. Without a specific selection entered, pressing the TEST VEND key will test every selection motor in the vendor sequentially and automatically.

Additional explanation of the TEST VEND key is included in the General Operation section.

INVENTORY SWITCHES

5¢ - 10¢ - 25¢

These switches are used only with the MARS Coin Mech. and are for the purpose of inventorying the 5¢, 10¢ and 25¢ coin tubes.

If a Coinco Mech. is used, the inventory switches are on the coin mech. itself and the switches on the Service Module are not used.

Section- 3 Operating Description

INTRODUCTION

The text in this section is intended to present an overall operating description of the vendor under one heading in this manual. Using this section to gain an understanding of the correct operating characteristics in conjunction with the "Troubleshooting" section will be helpful when confronted with a service problem.

SPECIAL FUNCTION LED'S

The Single Board 4900 has four "Special Function" LED's. The operation and description of each LED is as follows.

"USE EXACT CHANGE" LED

This LED will light and blink only after a selection is made and only if the Coin Mech does not contain enough coins to provide the required amount of change. This LED will continue to blink until another selection is made or the coin return is depressed at which time the inserted coins will be returned.

"USE EXACT CHANGE" LED - NON U.S.A. VENDORS

If an Executive Coin Mech (MS 1600) is used this LED will operate in the same manner as described above.

"MAKE ANOTHER SELECTION" LED

This LED will light and blink if a vend is not permitted by the Controller (sold out selection in Gum/Mint column or fault on tray selection drive motor etc.). It will continue to blink until another selection is made or the coin return is depressed.

"USE COINS ONLY" LED

The "Use Coins Only" LED is mounted on the front panel near the Bill Acceptor (CBA Unit) and it's purpose is to provide a visual indication that the Bill Acceptor is faulty or simply cannot be used. If the CBA Unit happens to be faulty this LED & the "Error Indication" LED will both be lit and NOT blinking. If the Bill Acceptor IS operative but cannot be used this LED will blink. The "Use Coins Only" LED will blink under the following conditions:

1. If there is less than one dollar (\$1.00) in the Coin Mech inventory tubes.
2. If a bill is being held in escrow.

"ERROR INDICATION" LED

This LED is located to the upper left of the Credit Readout on the front panel and is NOT labeled. Also it is NOT VISIBLE unless it is turned "on". This LED will light whenever any fault condition exists within the vendor and will remain "on" until ALL diagnostic errors and/or fault conditions are cleared by pressing the Diagnostic Clear button. There are several fault conditions that may exist in the vendor, all of which are covered in detail in the section titled "Error Codes" in the Troubleshooting Section.

VENDOR SETUP

Several switches within the 4900 are used to establish the proper operation of the vendor and which devices it will operate with. The following is a description of all the switches and their function(s).

DIP SWITCH S1 - COIN MECH SELECT

This set of switches determine which Coin Mechanism will be used in the 4900. These switches must be set correctly for the "Coin Mech" in use to function properly.

ON = YES/Device Selected

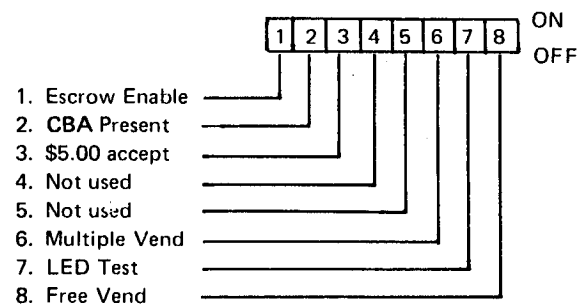
OFF = NO/Device not selected

| S1/1 | S1/2 | S1/3 | |
|------|------|------|----------------------------------|
| OFF | OFF | OFF | Mars TRC 6000 or Coinco 9300L |
| ON | OFF | OFF | Not Used |
| OFF | ON | OFF | Not Used |
| ON | ON | OFF | Mars MS 1600 Executive Coin Mech |
| OFF | OFF | ON | Not Used |
| ON | OFF | ON | Not Used |
| OFF | ON | ON | Not Used |
| ON | ON | ON | Not Used |

DIP SWITCH S2

On = YES (Enabled)

OFF = NO (Disabled)



1. Escrow Enable Switch

If "ON", all bills validated by bill acceptor will be held in escrow until either a purchase is made or the coin return is pressed at which time the bill will be accepted and stacked or returned respectively. If "OFF" all bills will be immediately accepted and stacked following validation

NOTE:

The exceptions to this are:

1. *The maximum number of bills that will be accepted and stacked is limited by the amount of coins in the coin tube inventory.*

EXAMPLE: If the coin mech possesses \$2.25 in coins, the acceptor will only accept and stack two bills. A third bill, if inserted, will be held in escrow.

2. *The maximum number of bills that will be accepted and stacked is one bill less than the highest priced item.*

EXAMPLE: Highest vend price is \$1.50. The first bill inserted will be accepted and stacked. The second bill will be held in escrow until a selection is made.

NOTE:

Once a bill has been accepted and stacked, credit may only be returned in the form of coins.

CBA PRESENT SWITCH

This switch simply indicates to the Control system whether or not a CBA Unit is present (switch set to "on") or not present (switch set to "off"). If the switch is "on" but no Bill Acceptor is present in the vendor a fault condition will be signalled by lighting the front panel "fault" LED. This will have no effect on the vendor with respect to normal operation aside from the fault LED being lit.

\$5.00 ACCEPT SWITCH

The CBA Unit used with the 4900 is capable of accepting \$1.00 and \$5.00 bills. With this switch in the "off" position the Bill Acceptor will accept \$1.00 bills only. If set to the "on" position the CBA will accept \$1.00 AND \$5.00 bills.

MULTIPLE VEND SWITCH

This feature when selected (switch = ON) allows a customer to purchase more than one item after inserting money in the vendor. As long as enough credit and coins (for change) exist to purchase a selected item, the vend will be made. The selected price will then be subtracted from the credit and another item may be purchased or the coin return may be pressed to receive the remaining credit. With this feature disabled (switch = OFF) normal operation of the vendor

will be to vend a selected item and automatically return any remaining change.

LED TEST SWITCH

This feature is available for testing the condition of all LED's and 7 segment displays on the front panel of the vendor. (This test can only be done in service mode.) With the switch in the "ON" position all display segments and discrete LED's on the front panel will be lit.

FREE VEND SWITCH

Having this switch in the "ON" position will allow the vendor to operate in the free vend mode. In this mode no coins or bills will be accepted by the 4900. Since no purchases are allowed by the vendor when the door is open, this switch has no effect unless the door is closed. With the door closed and the Free Vend switch in the "ON" position the word FREE will appear in the credit display. Any item selected that has been priced will automatically be vended.

AUDIT SWITCHES (S3 and S4)

(Only functional with door open)

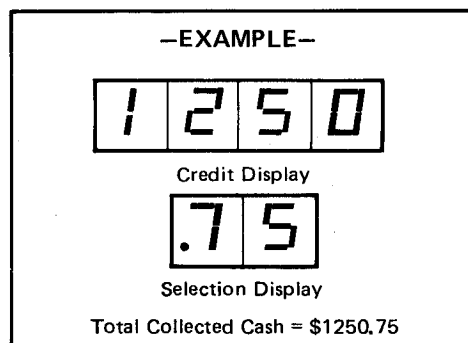
S3 - Displays Total Accumulated Sales (non resettable)

S4 - Displays Total Resettable Accumulated Sales

The 4900 electronically maintains two sales figures, Total Accumulated Sales and Total Resettable Accumulated Sales. The Total Accumulated Sales figure reflects the actual cash sales made by the vendor since it was put into operation. This figure is not resettable and is factory preset to zero. Simply press switch S3 on the 4900 main control board to display this figure on the front panel.

The Total Resettable Accumulated Sales figure reflects the actual cash sales made by the vendor since this figure was last reset to zero. To obtain the Resettable sales figure simply press switch S4. This figure is also factory preset at zero but may be easily reset any time the door is open by pressing both S3 and S4 simultaneously.

NOTE: The maximum cash amount that can be displayed by either of these sales figures is six digits. The four most significant digits appear in the credit display and the two least significant digits appear in the selection display.



OPERATION OF THE 4900 SNACK VENDOR

GENERAL

The 4900 may operate in one of two modes, the Door Open mode or the Door Closed mode. Both modes of operation are discussed separately in the following paragraphs.

DOOR OPEN

In the Door Open mode (also referred to as the Service Mode) all set-up procedures and/or service requirements may be performed. To prevent currency from being deposited in the vendor in this mode, the Coin Mech and Bill Acceptor (if so equipped) are disabled. The following is a list of functions available when the door is open accompanied by a detailed description of each.

1. View Error Code(s)
2. Clear Error Code(s)
3. Enter/View Price
4. Free Vend (On Hand Held Module)
5. Test Vend
6. Dispense Coin(s)
7. Obtain Accumulated Sales Information
8. General Service of Machine

1. VIEW ERROR CODE(S)

Whenever a fault condition exists within the 4900 the corresponding code will automatically be displayed on the front panel, as long as the vendor door is open. To view alternate fault codes, press the RESET key on the selection keyboard. Repeatedly pressing this key will sequentially display all existing error codes. Once all faults have been displayed they will be cleared from the display but retained in memory as long as the Diagnostic Clear button was not pressed. Clearing of the Error Codes in this way is not permanent and may be viewed again by going into the Closed Door Mode and then back to the Open Door Mode.

2. CLEAR ERROR CODE(S)

To clear error codes simply press the Diagnostic Clear Key provided on the Sliding Panel inside the 4900. However, caution should be exercised when pressing this key since this will cause ALL error codes to be erased leaving absolutely no record of what they were. Since these codes are provided to indicate problems and/or areas of the vendor requiring service, these codes should be recorded before being cleared. If the fault condition has not been corrected after all fault codes have been cleared, the code will be regenerated if the vendor is put into the error condition again.

NOTE: The display and keyboard will be completely disabled for any use other than displaying error codes while a fault condition exists until all the error codes have been stepped through by pressing the "reset" key on the keyboard.

3. ENTER/VIEW PRICES

There is only one way to enter the price of a selection into the Controller, but two ways of viewing them. To view the price of a selection, enter the selection number and the current price of that selection will be displayed on the Credit Readout. At this point, pressing the Enter Price Key will cause the Display to advance to the next selection and the current price of that selection will be displayed. In this fashion all prices may be viewed sequentially. The second way to view prices is by specific selection. i.e.: Enter selection number of the price to be examined, examine price on Display, press RESET key to clear display, then enter the selection number of the next price to be examined. To change the price of a selection simply follow either one of the two methods listed above to obtain a display of the current price. With the current price displayed, enter the new price starting with the most significant digit and ending with the least significant digit.

EXAMPLE: Enter 0, Enter 0, Enter 2, Enter 5.

Displayed Price:

| | | | |
|--|--|----|---|
| | | .2 | 5 |
|--|--|----|---|

Price set for \$.25

When the desired price is displayed on the Credit Readout press the Enter Price Key to store the price in the Controller. Prices may be sequentially entered or may be entered by specific selection as described above. To verify that the new price(s) has been saved, follow the "Viewing Prices" steps listed above.

NOTE: (U.S.A. Domestic only) The Controller detects erroneous price entries and prohibits an invalid price from being saved. If an invalid price is present on the display when the "Enter Price" key is pressed the price will be blanked and "Err" will be displayed in it's place. The selection number will not change during this process. It is maintained to indicate the selection for which the error was generated. The price may be corrected and re-entered. Prices are only valid if they end in "0" or "5" and are in the range of \$.00 to \$99.95. Leading Zeros (0s) will never be displayed in the price.

4. FREE VEND (on Hand Held Module)

The Free Vend feature is provided to allow any priced selection to be vended without establishing credit. A "Free Vend" can be initiated by entering the selection number and pressing the Free Vend Button on the hand held module.

5. TEST VEND

The Test Vend feature on the 4900 is provided to allow an operational test to be performed on either a single motor or all motors in the vendor. To perform a Test Vend on a single motor enter the selection number of the motor to be tested and press the Test Vend key mounted on the sliding panel inside the vendor. To test all motors press the RESET key on the selection keyboard until the display blanks and then press the Test Vend Key. This will initiate an operational test sequentially running all motors. The Controller monitors and maintains the status of every motor. If a motor does not operate a diagnostic error (see "Error Codes") will be generated and the price of that selection will be set to zero. If the cause of the error is corrected and a test vend is performed on that selection, assuming the motor functions properly, the price will return to its original setting. The diagnostic error code will remain until a Diagnostic Clear has been performed.

6. DISPENSING COIN(S)

To dispense coins from the coin mech inventory tubes depress the desired button provided on the Sliding Panel. These buttons are clearly marked and pressing anyone of them will cause the corresponding coin to be dispensed.

7. ACCUMULATED SALES INFORMATION

Two sales figures are electronically maintained by the 4900 for cash accountability. The "Total Accumulated Sales" figure represents a total of "ALL" cash sales made by the 4900. The "Resettable Accumulated Sales" figure represents a total of all cash sales made by the 4900 since the figure was last set to zero. Refer to discussion of Audit Switches under Machine Setup for details concerning obtaining these figures.

8. CURRENCY ACCEPTANCE INFORMATION

Pressing the "Free Vend/\$5.00 Count" button on the Hand Held Module with no selection number in the display will show the number of \$5.00 bills accepted since the last service. Pressing the "Enter Price/ \$1.00 Count" button with no selection number in the display will show the number of \$1.00 bills accepted since the last service. To clear the data, press S3 and S4 on the Main Controller simultaneously.

DOOR CLOSED

General:

In the Door Closed mode the 4900 will accept coins/bills, display credit, allow purchases, and return change. If, however, the Free Vend switch S2/8 (see discussion on switches under Machine Setup) is "ON" the 4900 will not accept any form of coins/currency but will allow free purchases. All a customer need do under a Free Vend situation is enter the selection number of an item and it will be vended. Since no money will be accepted under this condition the credit display will never display anything but the word "FREE".

Section- 4 Troubleshooting

CAUTION

WHEN CHANGING, DISCONNECTING OR CONNECTING ANY ELECTRICAL COMPONENTS, MAIN SWITCH MUST BE IN THE "OFF" POSITION.

INTRODUCTION

This section contains the schematics, a troubleshooting chart and illustrations showing various functions. Use this material in conjunction with removal and replacement instructions in Section 5 - Maintenance.

TROUBLESHOOTING PROCEDURES

It is important to troubleshoot logically. Many malfunctions are caused by minor defects such as loose connections or dirty contacts. Check the following before replacing any parts.

Check circuit breakers. These are located on the power supply assembly at the bottom L.H. side of the cabinet.

Check main power switch is ON -- located directly above the power supply.

Check that all plugs are firmly seated in their receptacles.

Check that connector pins are not bent, broken or pushed through the back of the connector or receptacle when mated.

Check that wires are not broken at connector pins.

Check standby condition

MAIN CONTROLLER BOARD

Lit at all times -- Reset, +5VDC, +24VDC LED's.

MAIN POWER SUPPLY

Lit at all times -- 110VPDC, 33VDC, 12VPDC, 5VDC LED's

PROCEDURE FOR LOCATING AND REPAIRING DEFECTIVE VEND MOTORS

(Fault LED on Front Panel will be LIT)

1. Open Main Door, check Credit Display for Er 90 code.

2. Number in Selection Display indicates the motor that has failed to operate.

3. Record this number and press Reset Key to display any additional motor failures.

4. Continue in this manner until all failures have been displayed and recorded. (Credit and Selection Displays will be blank following the last failure).

5. Check all disabled selection spirals for improper loading, jams, etc..

6. Enter Selection Number of first disabled selection (credit display will read .00) and press Test Vend Button.

7. If motor fails to operate, replace defective motor.

8. Run test vend on repaired selection. (Selection price will be restored to original amount).

9. Repeat procedure for all recorded failures.

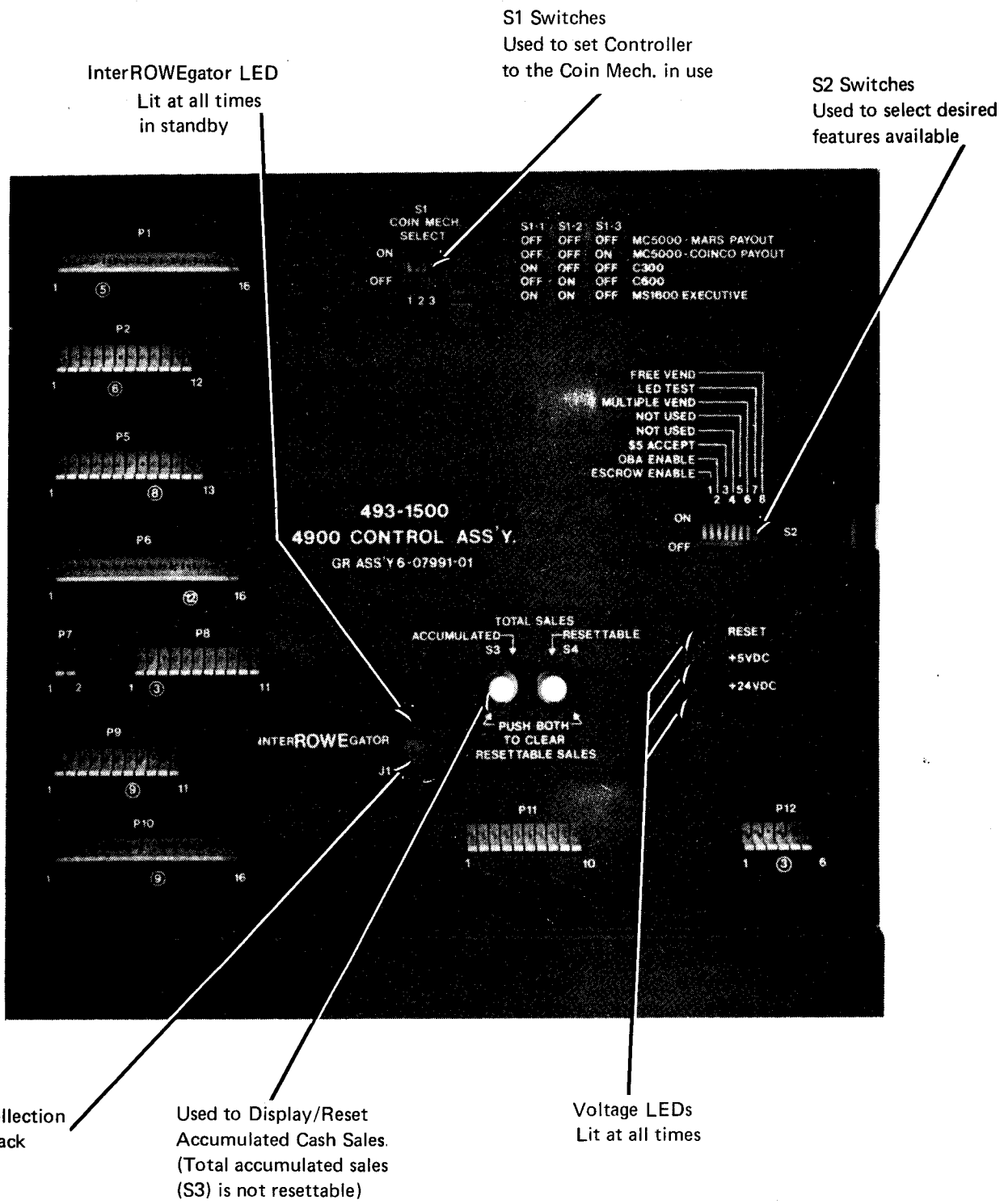
10. Press Diagnostic Clear Button to erase all faults from Controller memory.

ADDITIONAL TROUBLESHOOTING INFORMATION

A. Error Codes -- See Error Code Chart.

Information on corrective action is included in the troubleshooting charts.

B. Testing LED Displays -- Turn "ON" LED Test switch.



Main Controller

DIAGNOSTIC CODES

DIAGNOSTICS - SINGLE BOARD 4900 SNACK VENDOR

The Controller continually checks for faulty operation of all parts of the machine. If a fault is detected at any time the Controller will light the fault LED on the front panel display and display the error code generated for the particular fault when the door to the machine is opened. This section contains a listing and explanation of all error codes that may be generated within the 4900.

An error code may be generated by any of the following:

1. An internal self diagnostic fault.
2. A vendor malfunction.
3. Fault with any permissible Coin Mechanism.
4. Fault with any permissible Bill Acceptor.

Any time an error code is generated a fault LED, mounted on the front panel bezel, will be turned on. This LED will not be labeled so that the customers will not be aware that a fault exists.

Because the fault LED is activated whenever a fault condition exists it does not provide an indication as to whether a single fault or multiple faults exist. To determine the cause of the fault the 4900 must be put in the service mode (Door open). When in the service mode all fault conditions may be viewed on the front panel. To view multiple error codes other than the one displayed, press the RESET key on the selection keyboard. This will cause the other error codes to be successively viewed on the front panel display until the last error is displayed. Pressing the reset key following the last error code will blank out the display.

NOTE: Error codes may be viewed a second time by closing the main door and re-opening it.

To clear error codes, press the diagnostic clear button on the sliding panel. Since ALL error codes are cleared when this button is pressed, DO NOT press until error codes have been recorded unless no record of the codes is desired.

All error codes will be displayed in the following format:

Credit Display*

| | | | |
|---|---|----|----|
| E | r | e1 | e2 |
|---|---|----|----|

Selection Display**

| | |
|---|---|
| X | Y |
|---|---|

* e1, e2 indicates the fault condition.

** X, Y indicates the device that created the fault condition.

- E r 20 Bad price checksum. Check machine prices.
- E r 30 S1 switch settings are invalid (see Machine Setup for valid configurations).
- E r 35 Coin Mech operating improperly. Switch setting S1 may be incorrect. If switch settings are correct Coin Mechanism is probably defective.
- E r 40 Faulty battery or battery circuit on Control Board.
- E r 50 Fault condition with COINCO Data Probe
- X Y
- 0 1 Bad communication link, not receiving data properly from data probe. Probe may require recharging or may be faulty.
- 0 2 Unauthorized validation code received five times.
- 0 3 Incompatible Data Probe sensed. Incorrect communication protocol.
- 0 4 Data Probe did not acknowledge reception of data. Possible fault with transmission circuit.
- 0 5 One or more of the previous errors occurred simultaneously.
- E r 55 Fault condition with MARS Data Probe.
- 0 1 Controller not receiving START correctly from Data Probe needs to be recharged.
- 0 2 Data Probe is not receiving STACK (Start acknowledge) correctly. Problem could be with Data Probe receive circuit or controller transmit circuit.
- 0 3 Bad Security/Control Data received from Data Probe.
- 0 4 Controller received unauthorized validation code from Data Probe five times.
- 0 5 Controller received an error in the vending data.
- E r 60 Fault condition with Coin Mech.
- X Y
- 0 1 Jammed Strobe.
- 0 2 Defective sensor.
- 0 3 Not used.

9300-L

0 4 Coin Mech did not respond correctly to a power condition.

E r 70 Bad memory device on Control Board

A ROM A (IC Z10) is defective

B ROM B (IC Z4) is defective

C RAM (IC Z18) is defective

E r 80 Fault condition exists with Bill Acceptor

X Y

0 1 No response from Bill Acceptor. Check communication link (connector P7) for faulty connection.

0 2 Control board sending too many invalid messages, faulty control board.

0 3 Too many invalid messages received from the C.B.A. Check CBA Unit for faults. (See Service Manual 900-42512 for CBA information).

0 4 Cannot enable CBA to desired configuration. Check configuration of switches for CBA in Service Manual 900-42512 (Rowe link).

41 }
44 }
48 }
49 }

See Bill Acceptor Troubleshooting Charts in the Troubleshooting Section in this manual.

E r 90 Defective selection motor or motor switch X indicates column, Y indicates row (shelf)

E r 95 Bad Column Driver. Must be repaired before machine will operate in closed door mode. Check power transistors Q23 through Q32 for short circuit.

E r 96 Bad Row Driver. The "r" signifies row and the corresponding row number will be displayed in place of "Y". Check power transistors Q16 through Q22 for short circuit.

EXAMPLE: E r 96 Shorted row one Driver (Q19)
 r 1

E r 99 No prices set in vendor.

ERROR CODES
(Displayed on Front Panel)

| | SYMPTOM | PROBABLE CAUSE | CORRECTIVE ACTION |
|-----|------------------------|---------------------------------|---|
| 1. | Er 20 | Bad Price Check Sum | Perform Diagnostic Clear procedure. Reset ALL prices. |
| 2. | Er 20 (cannot clear) | Defective Controller | Replace |
| 3. | Er 30 | S1 Switch incorrectly set | Set for Coin Mech in use |
| 4. | Er 30 (cannot clear) | Defective Controller | Replace |
| 5. | Er 35 | S1 Switch incorrectly set | Set for Coin Mech in use. |
| 6. | Er 35 (cannot clear) | Defective Coin Mech | Replace |
| | | Defective Controller | Replace |
| 7. | Er 40 | Dead Battery | Replace Controller |
| 8. | Er 60 | Fault condition with Coin Mech. | See Diagnostic Codes for detail |
| 9. | Er 70 -- "A", "B", "C" | Defective Controller | Replace |
| 10. | Er 80 01 | No communication from C.B.A. | Check P7 on Main Controller. Check P6 on C.B.A. |
| | | Defective C.B.A. | Replace |
| | | Defective Main Controller | Replace |
| 11. | Er 80 02 | Defective Main Controller | Replace |
| 12. | Er 80 03 | Defective C.B.A. | Replace |

ERROR CODES (Continued)

| | SYMPTOM | PROBABLE CAUSE | CORRECTIVE ACTION |
|-----|-------------------------|--|---|
| 13. | Er 80 0 4 | Improper S2 switch setting on Main Controller | Set S2 to proper configuration. |
| | | Defective C.B.A. | Replace |
| 14. | Er 80 41, 44, 48, 49 | C.B.A. Failure | See Bill Acceptor Troubleshooting Chart. |
| 15. | Er 90 X Y | Defective Selection Motor (X Y indicates affected motor) | Check and Replace if necessary |
| | | Entire Shelf inoperative | Check for either "open" or shorted (to chassis ground) selection motor or full cycle switch "return" wires. Refer to page 4 - 17. |
| | | Entire Column inoperative | Check for either "open" or shorted (to chassis ground) selection motor "drive" wires. Refer to page 4 - 17. |
| 16. | Er 95 | Defective Main Controller | Replace |
| 17. | Er 96 r Y | Selection Motor out of "Home" position on "Power Up" | Clear Diagnostic error and check to be certain diagnostic error does not reoccur on power up. |
| | | Shorted (to chassis ground) Selection motor return wire. | Check motor return wire. Repair as necessary. Refer to page 4 - 17. |
| | | Defective Main Controller | Replace |
| 18. | Er 97 | Motor not "home" when selection was made. | Run Test Vend of that selection. |
| 19. | Er 99 | No prices set in vendor | Set prices and clear diagnostic code. |

Note:

If Er 90 appears continually on a selection that has no vend motor perform the following procedure.

1. Put vendor in "Service Mode".
2. Shut "OFF" main line switch.
3. While holding the "Free Vend" button on the hand held module DOWN, turn the main line switch back "ON".
4. Reprogram ALL data (prices, product code, etc.) in the Main Controller.

TROUBLESHOOTING CHARTS

(Check Error Codes First)

CAUTION

WHEN CHANGING, DISCONNECTING OR CONNECTING ANY ELECTRICAL COMPONENTS, MAIN SWITCH MUST BE IN THE "OFF" POSITION.

| | SYMPTOM | PROBABLE CAUSE | CORRECTIVE ACTION |
|----|---|---|--|
| 1. | All Coins Deposited are rejected | Machine not level | Level Cabinet |
| | | Vendor in "Service Mode" | Main Door open or Defective Door Interlock Switch. |
| | | Defective Coin Mech | Replace |
| | | Free vend switch on | Turn off |
| | | Defective Controller Assembly | Replace |
| 2. | Selection Motor fails to run | Insufficient Credit Established | Check to see that selection price is same as deposited amount. |
| | | Defective Motor Assembly | Test vend bad motor. Replace if defective |
| | | Defective Controller | Replace |
| 3. | All selection Motors do not run (Test or Free Vend) | Defective Controller Assembly | Replace |
| 4. | Selection Motor does not complete cycle | Defective Full Cycle Switch | Remove power. Check switch, replace if defective |
| | | Defective Components on Motor PC Board Assembly | Replace Motor Assembly |
| | | Defective Controller Assembly | Replace |

| | SYMPTOM | PROBABLE CAUSE | CORRECTIVE ACTION |
|-----|--|--|---|
| 5. | Selection Motor Continuously Cycles | Defective Full Cycle Switch | Remove Power; check switch -- replace if defective |
| | | Defective Controller Assembly | Replace Controller Assembly |
| 6. | Two Motors run simultaneously | Defective Controller Assembly | Replace |
| | | Defective component in Gum and Mint Motor Circuit. | Locate and replace defective component |
| 7. | Incorrect Change Dispensed | Vend Price not set to agree with Price Label | Check Vend Price |
| | | Defective Coin Mechanism | Replace |
| | | Defective Controller | Replace |
| 8. | Voltage LED's on the Controller not lit (any) | Defective Power Supply | Check voltage LED's. If "OFF" - Replace Power Supply. |
| | | Defective Controller | Replace |
| 9. | Reset LED on Controller is not lit | Defective Controller | Replace |
| 10. | Gum & Mint does not indicate sold out or always indicates sold out | Setting of Sold-Out Switches not proper | Set Sold-Out Switch Actuators as shown in Figure 14 |
| 11. | Vendor accepts coins -- will not vend (any selection) | Diagnostic Code E r 20 in display | Perform diagnostic clear procedure |
| | | Defective Controller | Replace |

BILL ACCEPTOR TROUBLESHOOTING CHARTS

This section is a guide to help isolate problems and return the bill acceptor to service as quickly as possible. It provides information needed to make minor adjustments or replace defective modules but not to diagnose or repair those modules.

| PROBLEM | SYMPTOM | PROBABLE CAUSE |
|---|---|---|
| Transport Motor does not start when a bill is inserted. | Power LED on CBA Unit not lit. | 1. Problem in 4900 Power Supply. 2. Defective harness to CBA Unit. |
| | Transport does not start but clicking sound is heard in CBA Unit. | 1. Object jammed in Transport mechanism. 2. Defective CBA Unit. |
| | No sound or other indication that Transport is trying to run. | 1. Defective V1 cell in CBA Unit. 2. Defective CBA Unit. 3. Defective Main Controller. |
| | BA STATUS LED is blinking. | 1. CBA is not operational due to a "Fault" condition. (See next "problem") |
| CBA in SHUTDOWN Er 80 In this state the BA Status LED will alternate between "steady on" and "flashing" ("on" for 1 second and then flash one or more times). The number of flashes indicates the cause of the shutdown. Also a SHUTDOWN message with the indicated FAULT code will be sent to the Main Controller. | BA STATUS LED flashes once. FAULT code is 41. | 1. Object in Transport covering V1 cell. 2. Defective CBA Unit. |
| | BA STATUS LED flashes 4 times. FAULT code is 44. | 1. Object in Transport Unit activating Anti-pull back lever. 2. Defective CBA Unit. |
| | BA STATUS LED flashes 5 times. FAULT code is 48 or 49. | 1. Bill Box full. 2. Bill Box jammed in "off home" position. 3. Bill Box home switch out of adjustment. 4. Defective Bill Box. 5. Defective CBA Unit. |

| PROBLEM | SYMPTOM | PROBABLE CAUSE |
|---|---|---|
| <p>Bill Acceptor rejects a large number of valid bills. If the rejected bill is allowed to remain in the Transport opening, the BA STATUS LED will flash one or more times to indicate the cause of the reject.</p> | <p>BA STATUS LED flashes once after rejecting the Bill.</p> | <ol style="list-style-type: none"> 1. Defective V1 or V4 cell in CBA Unit. 2. Defective CBA Unit. |
| | <p>BA STATUS LED flashes twice or three times after rejecting the bill.</p> | <ol style="list-style-type: none"> 1. Twice indicates a defective V2 cell in CBA Unit. 2. Three times indicates a defective V3 cell. |
| | <p>BA STATUS LED flashes 4 times after rejecting the bill.</p> | <ol style="list-style-type: none"> 1. Object lodged in Transport. 2. Binding Anti-pull back lever. 3. Defective V4 cell in CBA Transport Unit. 4. Defective CBA Unit. |
| | <p>BA STATUS LED flashes 5 times after rejecting the bill.</p> | <ol style="list-style-type: none"> 1. Mag adjust set too low. 2. Incorrect motor speed. 3. Defective magnetic head or transport unit. 4. Defective CBA Unit. |
| | <p>BA STATUS LED flashes 6 times after rejecting the bill.</p> | <ol style="list-style-type: none"> 1. Mag adjust may be either too low or too high. 2. Defective harness connection at P6 pins 1 or 2. 3. Defective motor or magnetic head in Transport. 4. Defective CBA Unit. 5. Defective 4900 Power Supply. (+24 VDC) |
| | <p>BA STATUS LED flashes 7 times after rejecting the bill.</p> | <ol style="list-style-type: none"> 1. Incorrect motor speed. (Adjust motor speed) 2. Defective Transport. 3. Defective CBA Unit. |
| <p>Bills jam frequently.</p> | <p>Any Bill transporting failure.</p> | <ol style="list-style-type: none"> 1. Anti-pull back lever not operating freely. 2. Bill pressure roller binding. 3. Transport inlet or track surfaces contain projections, rough spots or dirt. 4. Transport belts out of adjustment or dirty. 5. Transport belts not centered on rollers. 6. Transport upper input roller does not move up and down freely. 7. Defective 4900 Power Supply. (+ 24 VDC) |

Section- 5 Maintenance

INTRODUCTION

This section contains cleaning and repair and replacement procedures.

CLEANING

To project the best selling image to the customer, and to prolong the beauty of the vendor, it is important to keep your Snack Vendor clean.

1. The display window should be cleaned, inside and out, with any good glass cleaner, using clean, soft cloths or paper towels.
2. Metal and vinyl surfaces can be cleaned with warm water and mild detergent, paying particular attention to the delivery box, inside and out.
3. Cleaning the shelves is easily accomplished with helix coils and adjustable walls removed. (See Removal and Replacement.)
4. Check regularly to make sure that coin paths are clean and dry through the coin mechanism.

REMOVAL AND REPLACEMENT

HELIX REPLACEMENT

Helix replacement is easily accomplished without removing the shelf from the vendor.

1. Pull the shelf out and let it tilt to its service position.
- On 10-selection shelves, the adjustable wall must be removed from the compartment. Swing the adjustable wall forward as far as it will go and lift at the two pivot points. Then remove helix as follows:



FIGURE 8.
HELIX REMOVAL (BAG SHELF SHOWN)

2. Grasp the front of the helix coil to be removed and lift straight up. This will release the helix from the helix hub at the rear of the shelf and the helix will be free in your hand. (See Figure 8.)
3. To replace the helix, make sure that the helix tip at the rear is pointing downward into the gap in helix hub. Drop the helix into the compartment. Push bottom coil of helix rearward to snap into detent at bottom of the hub.

SHELF REMOVAL

Shelf removal in the Rowe Snack Vendor is an easy operation. Remove shelf as follows:

1. Pull shelf out to normal service position. (See Figure 9.)

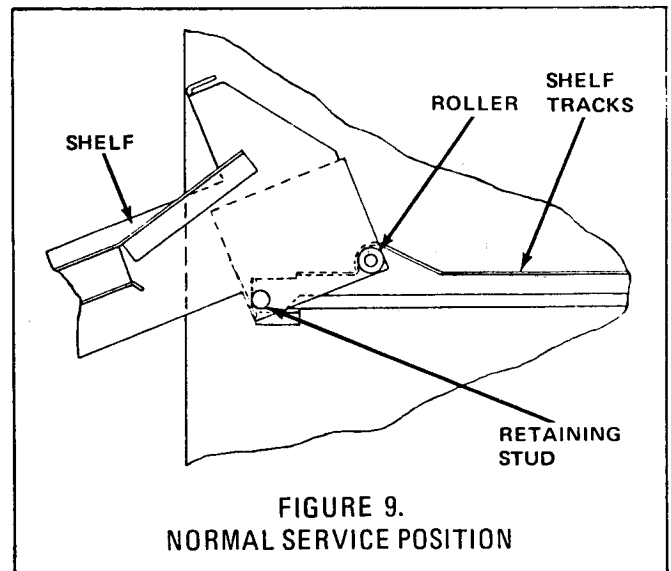


FIGURE 9.
NORMAL SERVICE POSITION

2. Lift front of the shelf and continue to pull forward, making sure that the retaining studs clear the gap in the shelf supports. (See Figure 10.) Continue pulling shelf forward until it stops.
3. Lower the front end of the shelf and it will hang vertically in front of the machine. (See Figure 11.)

CAUTION

WHEN CHANGING, DISCONNECTING OR CONNECTING ANY ELECTRICAL COMPONENTS, MAIN SWITCH MUST BE IN THE "OFF" POSITION.

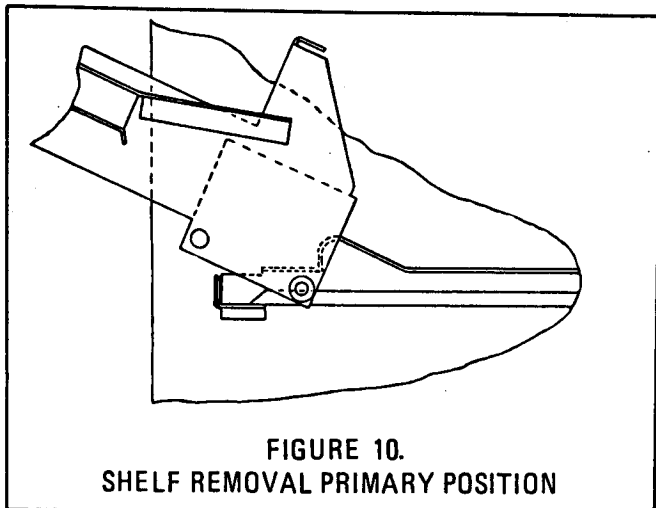


FIGURE 10.
SHELF REMOVAL PRIMARY POSITION

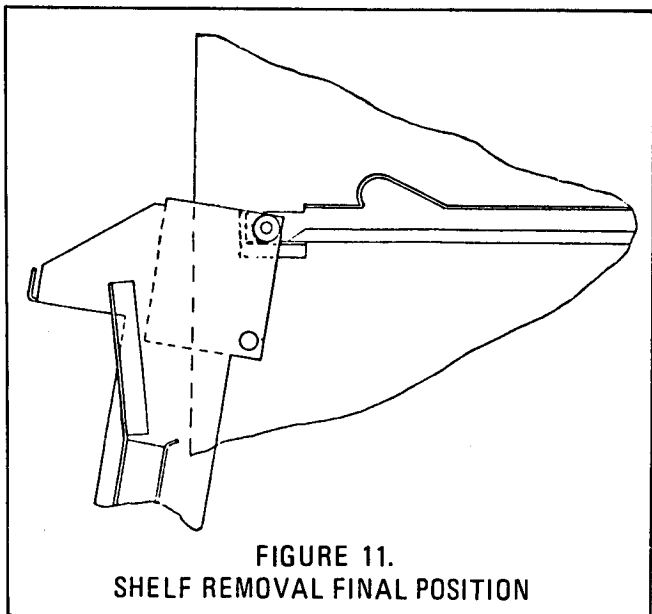


FIGURE 11.
SHELF REMOVAL FINAL POSITION

4. Grasp the sides of the shelf and lift up and out.

GUM AND MINT UNIT REMOVAL

1. Pull sliding panel assembly all the way forward until it stops.
2. Release the latch holding Gum and Mint Unit and lower unit to the servicing position.
3. Disconnect the Gum and Mint harness plug.
4. Grasp the left and right sides of the Gum and Mint Unit and tilt it up to an angle approximately half way between the vertical and servicing positions.

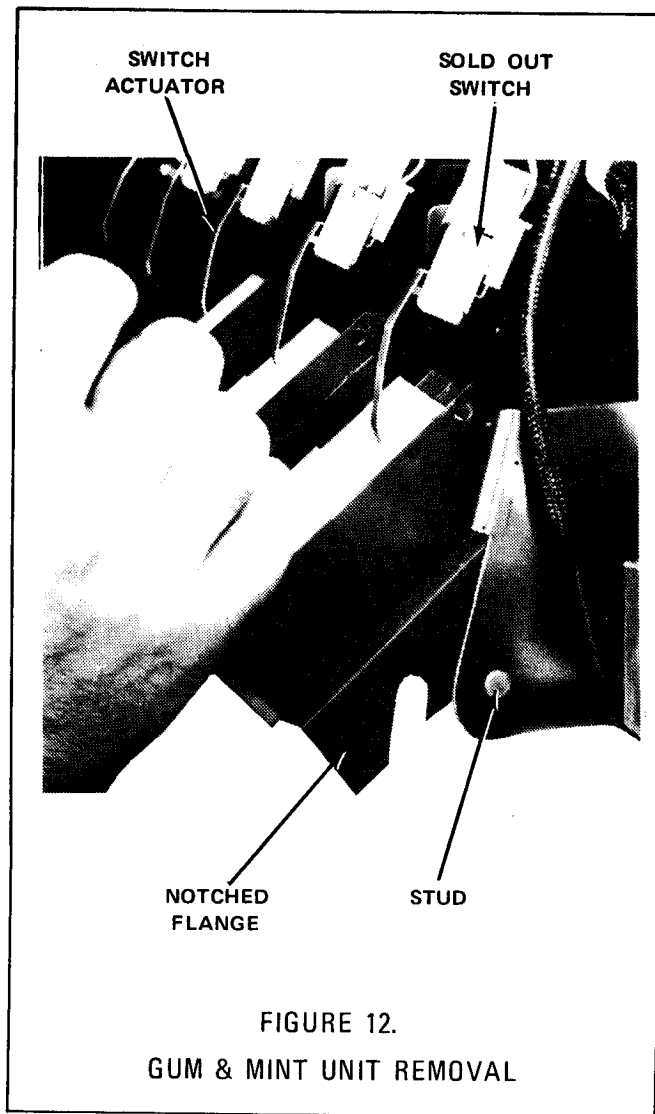
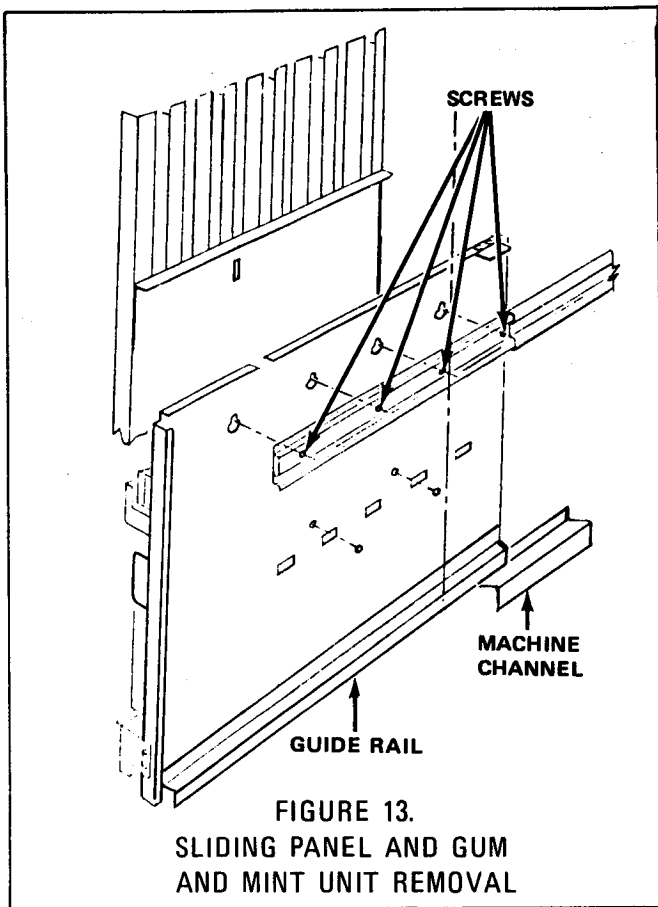


FIGURE 12.
GUM & MINT UNIT REMOVAL

5. Lift the Gum and Mint Unit straight up until the notched flanges disengage the studs on both sides, then allow the entire unit to slide downward and towards you until unit is clear of the Gum and Mint sold out switches. See Figure 12.
6. Reassemble in reverse order.

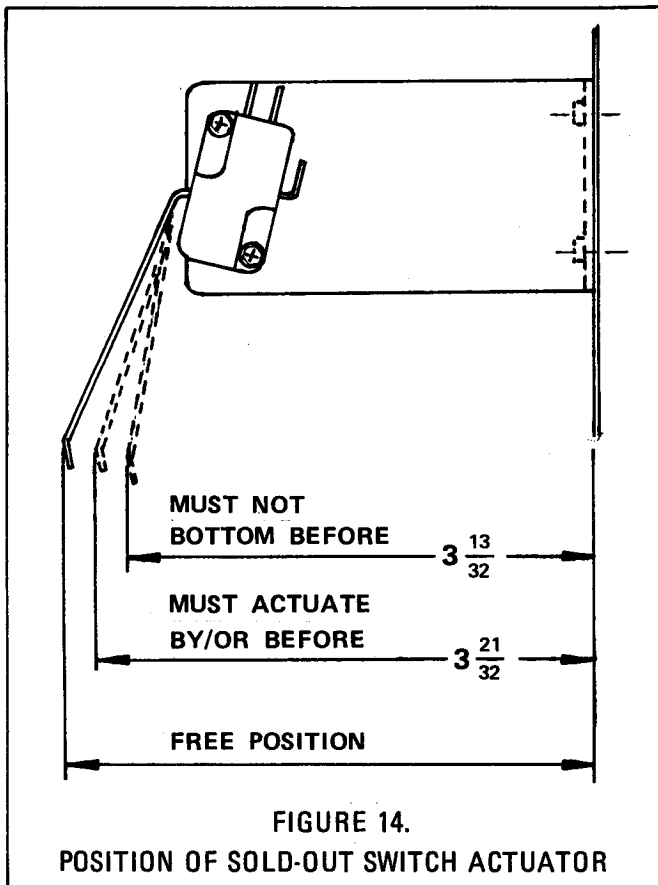
NOTE

When removing or installing the Gum and Mint Unit, care must be taken not to distort the Gum and Mint sold out switch actuators. See Figure 14.



SLIDING PANEL REMOVAL – Figure 13

1. Pull sliding panel assembly all the way forward until it stops.
2. Remove Gum and Mint Unit as described in Gum and Mint Unit Removal section.
3. Disconnect electrical connections to main cabinet harness.
4. Loosen, but do not remove, the four screws holding the sliding panel assembly to the slide rail assembly.
5. Carefully lift sliding panel free of the slide rail assembly.
6. To reinstall the sliding panel, hook the guide rail on the bottom of the panel into the channel secured to the cabinet.
7. Tilt the panel to the vertical position allowing the anchoring screw heads to enter the keyhole slots.
8. Push the panel downwards until the anchoring screws are firmly seated in the keyhole slots. Tighten screws.
9. Reinstall Gum & Mint Unit.
10. Reconnect all electrical harnesses and test vend for proper operation.



DRIVE MOTOR

The 4900S and 4900JR Snack Vendors incorporate the use of a high RPM DC motor. The new DC motor has a much greater starting torque over the AC motors previously used and should provide long, reliable life. Due to the new design the vend motors may no longer be homed by hand. **DO NOT TRY TO TURN THE SPIRALS BY HAND. DAMAGE TO THE MOTOR WILL RESULT.** Let the machine do the homing.

Should it be necessary to replace a motor, follow this procedure:

1. Remove shelf from machine.
2. Remove plastic helix hub (Phillips head screw thru center).
3. Remove 3 screws mounting the motor.
4. Disconnect harnesses from P.C. board and switch.

To install replacement motor, reverse procedure.

SELECTOR BUTTON ASSEMBLY

The Selector Button assembly in the 4900S and in the 4900JR is a sturdy, reliable assembly developed and constantly improved over many years. The buttons exposed to the public are high impact plastic nested to bases soldered into an extremely reliable P.C. Board.

Should it ever be necessary to replace this assembly or parts thereof, proceed as follows:

1. Remove selector cover.
2. Disconnect cable.
3. Remove 4 mounting screws. (Note: do not remove screws mounting the P.C. board.)
4. Remove assembly.

To install, reverse procedure.

PRICE, SELECTION NUMBERS

These are highly reliable, long life LED's. Ordinarily they should last the life of the machine.

Should it become necessary to replace any of these components, proceed as follows:

1. Remove cover.
2. Disconnect cable.
3. Remove 4 mounting screws.
4. Unplug affected number. *Caution — pins are easily bent. Remove and reinstall with care.*
5. Replace and reverse procedure.

NOTE

Indicator LED's (Fault, Make Another Selection) are soldered to the P.C. board. If failure occurs, replace the board assembly.

Section - 6 Parts Catalog

INTRODUCTION

This parts catalog contains a list of replacement parts for the vendor that are available from Rowe Distributors. Each list contains an index of the part, Rowe Part Number, a description of the part and the quantity required for the assembly. Separate parts of riveted or welded assemblies are not available from the factory as replacement parts.

PARTS BREAKDOWN

Each table in the Parts Breakdown contains four columns. Following is a description of each column in the order of appearance on the Parts Breakdown tables.

FIG. AND INDEX NO.

This column lists the figure number as the first entry on each page. An index number keys the part to the figure.

ROWE PART NO.

This column lists the part number of the item that should be used for ordering. The same part, whenever used, retains the same number.

DESCRIPTION

This column gives the name of the assembly or part.

QTY. PER ASSY.

This column contains the exact quantity of the item required for its next higher assembly.

ORDERING REPLACEMENT PARTS

All parts must be ordered from an authorized Rowe Distributor. Parts orders are often delayed because of inadequate or incomplete ordering information. Be sure to include all required information which consists of:

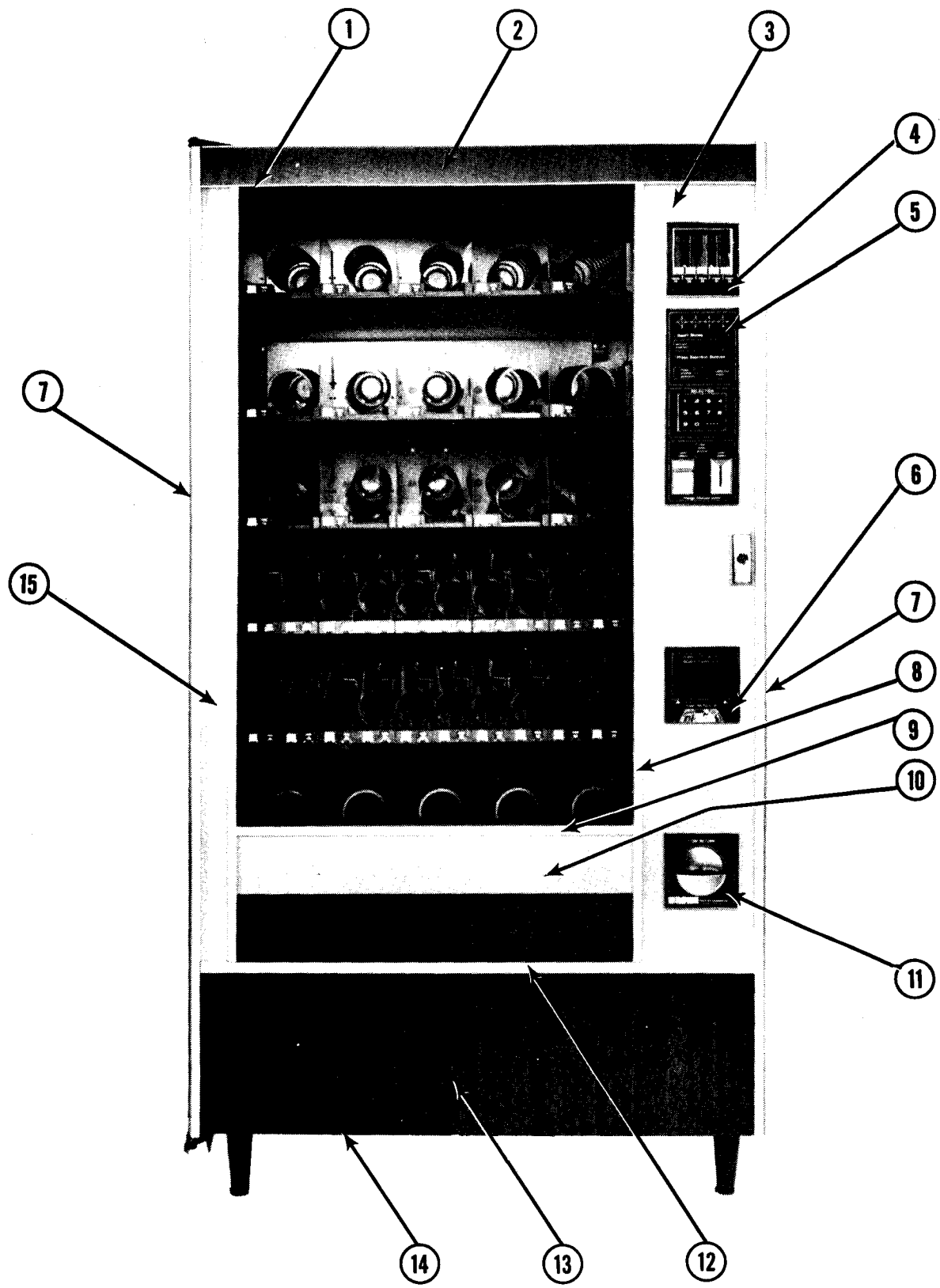
1. Rowe Part Number and Description exactly as it appears in the Parts Catalog. State color if applicable.
2. Quantity being ordered.
3. Model and Serial Number of vendor for which the part is required. This is necessary because of Manufacturing changes.
4. Complete shipping address including ZIP code.
5. Specify shipping instructions. It is advisable to indicate an alternate shipping method if the packages may exceed the size and weight limits established by the shipping agency of your choice.

TABLE OF CONTENTS

| FIG. NO. | TITLE | PAGE |
|----------|---|--------|
| 1 | Main Door Trim and Panels | 6 - 2 |
| 2 | Main Door Exterior | 6 - 4 |
| 3 | Main Door Interior | 6 - 6 |
| 4 | Cabinet Assembly Components | 6 - 8 |
| 5 | Selection Panel Components | 6 - 10 |
| 6 | Shelf Support and Plug Assemblies | 6 - 11 |
| 7 | Lower Cabinet Components | 6 - 12 |
| 8 | Delivery Box Assembly | 6 - 14 |
| 9 | Sliding Panel Components | 6 - 16 |
| 10 | Gum & Mint Unit Assembly | 6 - 18 |
| 11 | Sliding Panel Assembly | 6 - 20 |
| 12 | 8 and 10 Selection Shelf Assembly | 6 - 22 |
| 13 | 4 and 5 Selection Shelf Assembly | 6 - 23 |
| 14 | Power Supply Circuit Board Asm. | 6 - 24 |
| 15 | Main Controller Circuit Board Asm. | 6 - 26 |
| - | Harness List | 6 - 30 |

FIGURE
1

Main Door Trim and Panels



| MODEL & STYLE → | 4900S AWARD | 4900JR AWARD | 4900S STELLAR | 4900JR STELLAR |
|---|------------------------|-------------------------|--------------------------|---------------------------|
| 1. Header Channel → | 983-5 | 983-7 | 983-6 | 983-8 |
| 2. Header Insert → | 985-4-1 | 985-5-1 | 493-1442 | 494-1417 |
| 3. Panel - R/H Vertical w/Gum & Mint, w/ CBA → | 493-502-7 | 493-502-7 | 493-502-79 | 493-502-79 |
| 3. Panel - R/H Vertical w/o Gum & Mint, w/o CBA → | 493-503-7 | 493-503-7 | 493-503-79 | 493-503-79 |
| 4. Overlay - Gum & Mint → | 493-482 | 493-482 | 493-481 | 493-481 |
| 5. Instruction Overlay w/o Bill Acceptor → | 493-480 | 493-480 | 493-479 | 493-479 |
| 5. Instruction Overlay w/Bill Acceptor → | 493-478 | 493-478 | 493-477 | 493-477 |
| 6. Overlay - Bill Acceptor → | 493-505 | 493-505 | 493-506 | 493-506 |
| 7. Trim - L/H & R/H Vertical → | 983-101 | 983-101 | 983-100 | 983-100 |
| 7. Trim Retainer → | 983-325 | 983-325 | 983-325 | 983-325 |
| 8. Trim - R/H Display Window → | 493-427 | 493-427 | 983-475 | 983-475 |
| 9. Trim - Bottom Display → | 493-438 | 494-430 | 983-476 | 983-477 |
| 10. Overlay → | 490-485-7 | 494-432-7 | 490-485-79 | 494-432-79 |
| 11. Overlay - Coin Return Cup → | 408-506 | 408-506 | 408-505 | 408-505 |
| 12. Trim - Delivery Door → | 983-214 | 983-208 | 983-215 | 983-209 |
| 12. Trim Retainer → | 983-333 | 983-330 | 983-333 | 983-330 |
| 13. Panel - Lower Door → | 985-23-1 | 985-24-1 | 493-1443 | 494-1418 |
| 14. Trim - Bottom → | 493-484-246 | 494-442-246 | 493-484-246 | 494-442-246 |
| 15. Panel - L/H Vertical → | 985-32-7 | 985-32-7 | 985-32-79 | 985-32-79 |

There are many combinations of panel and overlay finishes based on individual company preferences. Part numbers for the styling overlays and panels are generally the same with the exception of the last dash number which denotes the finish of the part. For example, item No. 2 above is 985-4-1 (header insert - Roweswood). If this part were desired in a Presidential Walnut finish the part number would be 985-4-2. The chart below lists the dash numbers and the corresponding finish.

HORIZONTAL PANELS

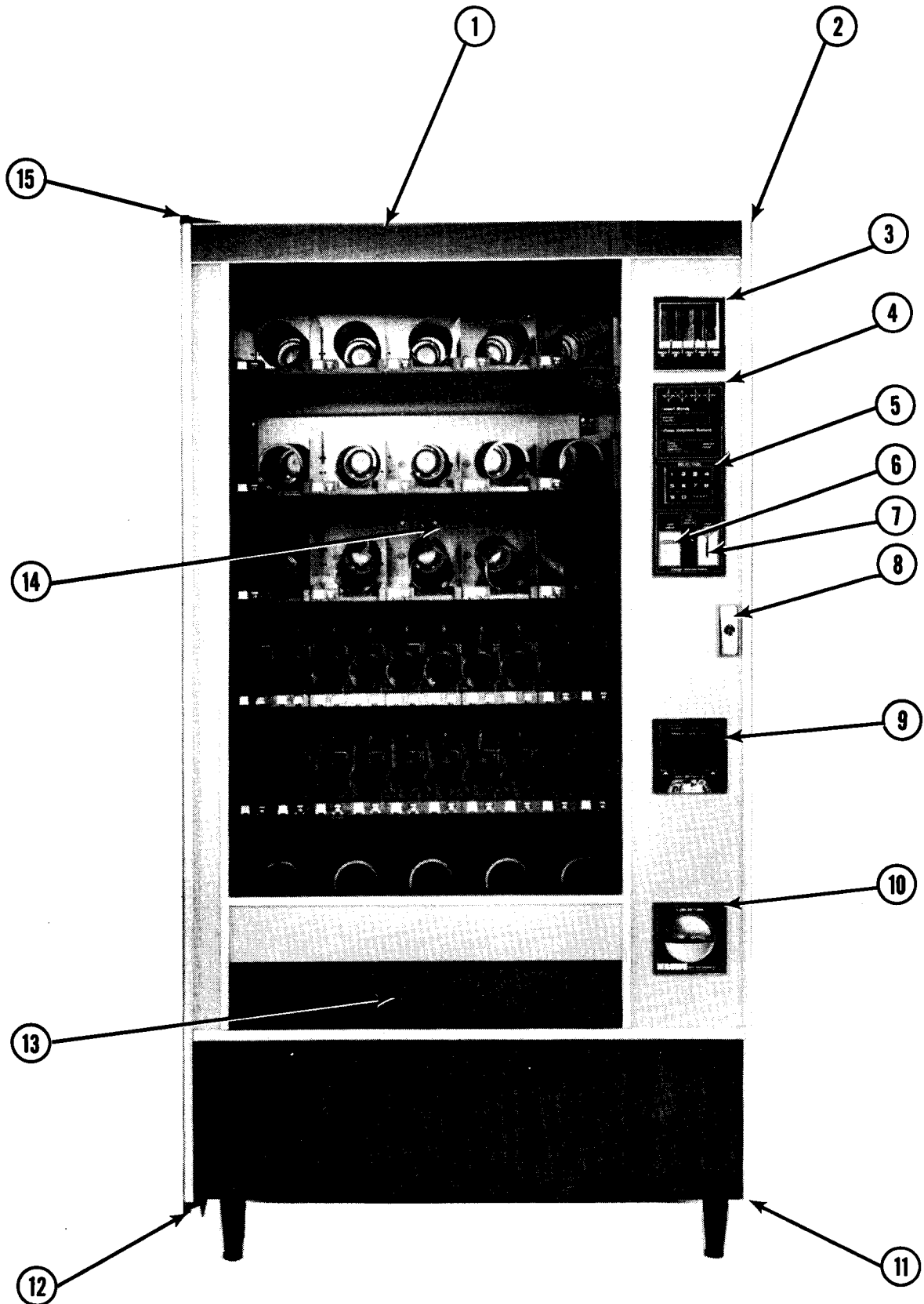
- 1 Roweswood
- 2 Presidential Walnut
- 3 Regency Walnut
- 4 Kashmir Walnut
- 9 Black
- 10 Golden Leather
- 15 Stainless Steel Mylar
- 29 Teak
- 32 Terra Cotta
- 69 Chamois
- 80 Gold (Stellar)

VERTICAL PANELS

- 2 Presidential Walnut
- 7 Shadow Silver
- 11 Brushed Bronze
- 12 Port-Au-Prince
- 15 Stainless Steel Mylar
- 29 Teak
- 79 Charcoal Brown

FIGURE
2

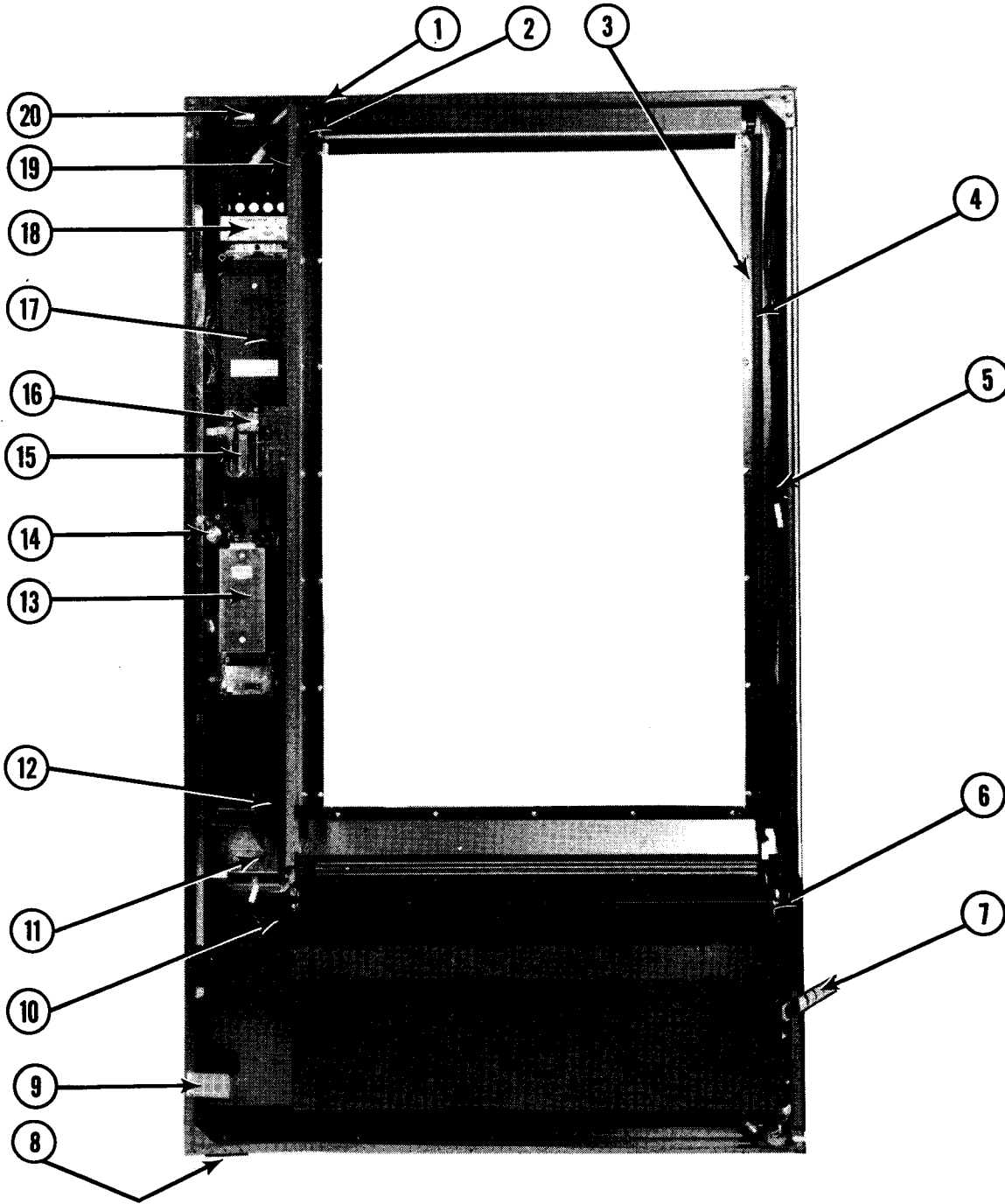
Main Door Exterior



| FIG. AND INDEX NO. | 4900S PART NUMBER | 4900JR PART NUMBER | DESCRIPTION | QTY. PER ASSY |
|--------------------|-------------------|--------------------|---|---------------|
| 1 | 493-1450 | 494-1420 | Main Door Final Asm. | REF |
| | 493-1441-246 | 494-1416-246 | Main Door W/A | REF |
| 2 | 408-511 | Same | Cap, Trim Top | 1 |
| 3 | 408-495 | Same | Bezel, Gum and Mint | 1 |
| | 924-176 | Same | Nut, Bezel Anchoring | 2 |
| 4 | 490-592 | Same | Bezel, Coin Insert and Instruction | 1 |
| | 924-176 | Same | Nut, Bezel Anchoring | 6 |
| 5 | 490-824 | Same | Bezel, Selection Switch (See Fig. 5) | 1 |
| 6 | 490-470 | Same | Slide, Coin Return | 1 |
| 7 | 490-584 | Same | Gate, Coin Insert | 1 |
| 8 | 479-1420 | Same | Handle, Pop-Out | 1 |
| 9 | 408-495 | Same | Bezel, Bill Acceptor | 1 |
| | 924-176 | Same | Nut, Bezel Anchoring | 2 |
| 10 | 490-408 | Same | Bezel, Coin Return Cup | 1 |
| | 924-176 | Same | Nut, Bezel Anchoring | 4 |
| 11 | 408-510 | Same | Cap, Trim Bottom | 1 |
| 12 | 490-1457 | 448-1407 | Pivot Plate R/A, Bottom | 1 |
| 13 | 493-1425 | 494-1402 | Delivery Box Asm. See Fig. 8 | 1 |
| 14 | 493-408 | 494-428 | Glass, Display | 1 |
| | 928-1805 | 928-1809 | Gasket, Display Glass - Top and Bottom | 2 |
| | 928-1808 | Same | Gasket, Display Glass - L/H and R/H Sides | 2 |
| | 490-474 | 494-413 | Mounting Bracket, Display Glass - Upper (Behind Trim) | 1 |
| 15 | 490-1359 | 448-1309 | Pivot Plate R/A, Top | 1 |
| | 921-52 | Same | Machine Screw | 2 |
| | 950-102 | Same | Washer | 2 |
| | 903-20 | Same | Carriage Bolt | 1 |
| | 924-160 | Same | Nut | 1 |
| | 934-413 | Same | Self Drilling Screw | 2 |

Main Door Interior

FIGURE 3

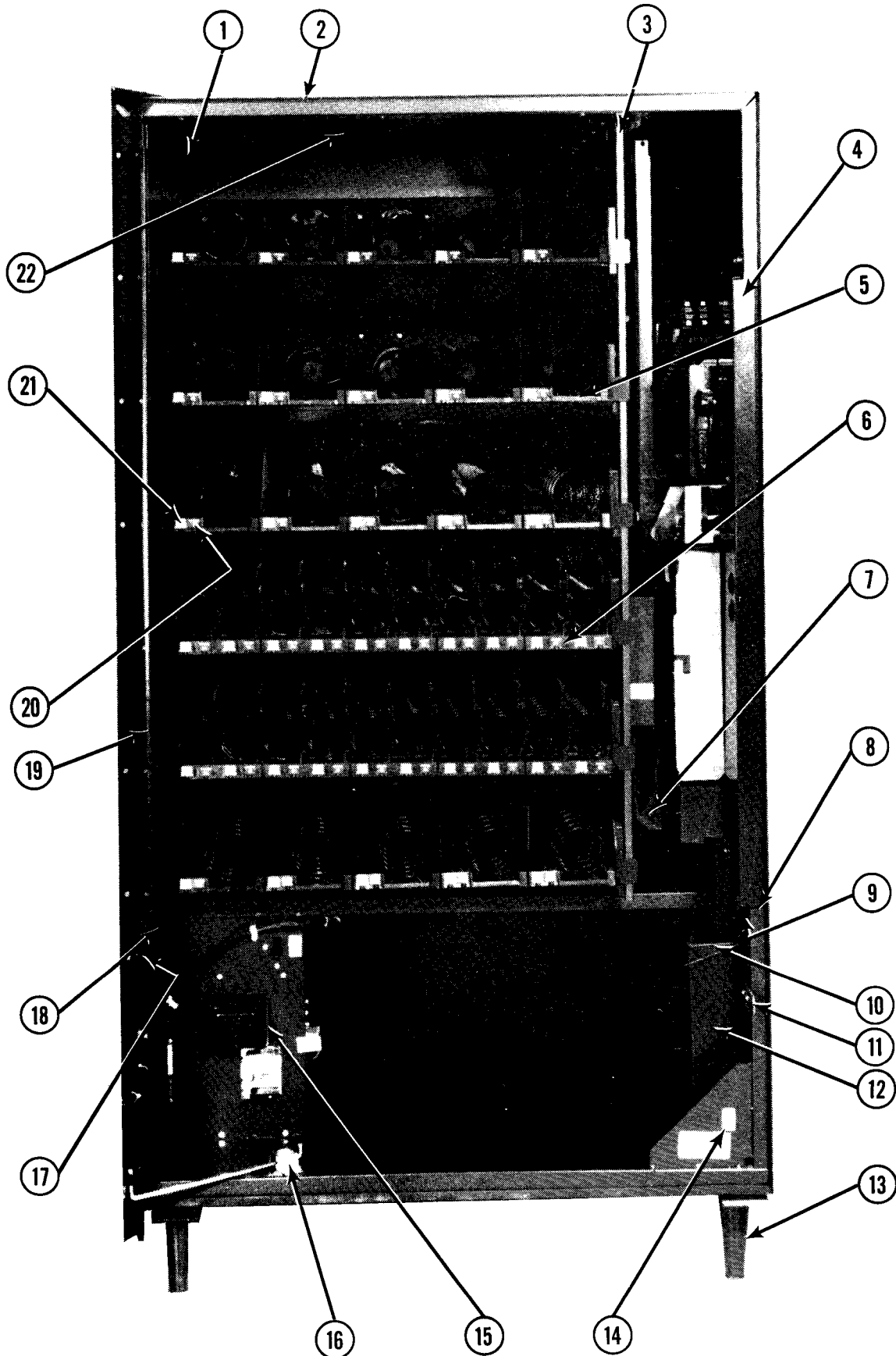


| FIG. AND INDEX NO. | 4900S PART NUMBER | 4900JR PART NUMBER | DESCRIPTION | QTY. PER ASSY |
|--------------------|-------------------|--------------------|---------------------------|---------------|
| 1 | 4900S | 4900JR | Main Door Final Asm. | REF |
| | 493-1460 | 494-1460 | Main Door W/A | REF |
| 2 | 493-1461-246 | 494-1461-246 | Bracket, Lamp Asm. | 1 |
| | 493-1810 | 494-1802 | Starter, Fluorescent Lamp | 1 |
| | 141-828 | 794-461 | Bracket, Lamp Mounting | 1 |
| | 493-412 | 494-411 | Starter and Socket Asm. | 1 |
| | 976-21 | Same | Lamp, Fluorescent | 1 |
| | 917-103 | 794-462 | | 1 |

| FIG. AND INDEX NO. | 4900S PART NUMBER | 4900JR PART NUMBER | DESCRIPTION | QTY. PER ASSY |
|--------------------|-------------------|--------------------|--|---------------|
| 3 | 493-411 | Same | Bracket, Display Glass Mounting - L/H & R/H Sides | 2 |
| | 928-1808 | Same | Gasket, Display Glass - L/H & R/H Sides | 2 |
| 4 | 493-413 | Same | Shroud, Delivery Box - L/H Side | 1 |
| 5 | 490-1872 | Same | Harness Asm., Display Light | 1 |
| | 979-104 | Same | Plug | 1 |
| | 979-1102 | Same | Socket - 2 Pin | 1 |
| 6 | 493-434 | Same | Spring, Delivery Box Link | 2 |
| 7 | 493-1852 | Same | Harness Asm., Controller/Main Door | 1 |
| | 979-1102 | Same | Socket - 2 Pin | 1 |
| | 979-1193 | Same | Socket - 24 Pin | 1 |
| | 979-103 | Same | Plug | 1 |
| | 979-203 | Same | Plug, Keying | 2 |
| | 979-1191 | Same | Socket - 2 Pin | 1 |
| | 979-1212 | Same | Socket - 11 Pin | 2 |
| | 448-739 | Same | Plate, Door Ramp | 1 |
| 8 | 934-380 | Same | Screw, Plate Mounting | 2 |
| | 485-407 | Same | Plate, Interlock Switch Actuating | 1 |
| 9 | 934-485 | Same | Screw, Plate Mounting | 2 |
| | 493-1852 | Same | Harness Asm., Main Door | 1 |
| 10 | 979-102 | Same | Plug | 1 |
| | 979-193 | Same | Plug | 1 |
| | 979-1102 | Same | Socket - 2 Pin | 1 |
| | 979-1186 | Same | Socket - 3 Pin | 1 |
| | 979-1187 | Same | Socket - 5 Pin | 1 |
| | 979-1188 | Same | Socket - 14 Pin | 1 |
| | 979-1212 | Same | Socket - 11 Pin | 1 |
| | 979-203 | Same | Plug, Keying | 2 |
| 11 | 493-1465 | Same | Cup Asm., Coin Return | 1 |
| | 490-409 | Same | Flap, Coin Return Cup | 1 |
| | 490-424 | Same | Pivot Shaft, Coin Return Flap | 1 |
| | 493-1466 | Same | Coin Return Cup W/A | 1 |
| 12 | 493-1407 | Same | Gum & Mint Chute W/A - (Main Door) | 1 |
| | 493-1913 | Same | Filler Blank (for Models W/O Gum & Mint) - Not Shown | 1 |
| 13 | 425-6001 | Same | Bill Acceptor (CBA-2) See Service Manual 900-42512 for detail. | OPT |
| 14 | 493-415 | 494-419 | Cam, Door Lock | 1 |
| | 490-353 | Same | Stop Spring | 1 |
| | 493-1462 | Same | Pin & Locking Bar R/A | 1 |
| 15 | 493-1463 | Same | Coin Insert & Return Asm. | 1 |
| | 490-435 | Same | Pivot Shaft | 2 |
| | 490-498 | Same | Spring, Coin Return | 1 |
| | 490-1406 | Same | Coin Chute & Bracket W/A | 1 |
| | 490-1433 | Same | Coin Return Lever & Nut Asm. | 1 |
| 16 | 448-1598 | Same | Indicator Lamp (Use Exact Amount) | 1 |
| 17 | 493-1444 | Same | Cover W/A, Display & P.C. Board | 1 |
| 18 | 490-1472 | Same | Gum & Mint Display Box W/A | 1 |
| 19 | 493-414 | Same | Shroud, Delivery Box R/H Side | 1 |
| 20 | 490-1885 | Same | Ballast Asm. | 1 |
| | 956-119 | Same | Terminal | 1 |
| | 956-59 | Same | Wire Terminal | 1 |
| | 956-236 | Same | Wire Terminal | 1 |
| | 979-102 | Same | Plug | 1 |

**FIGURE
4**

Cabinet Assembly Components

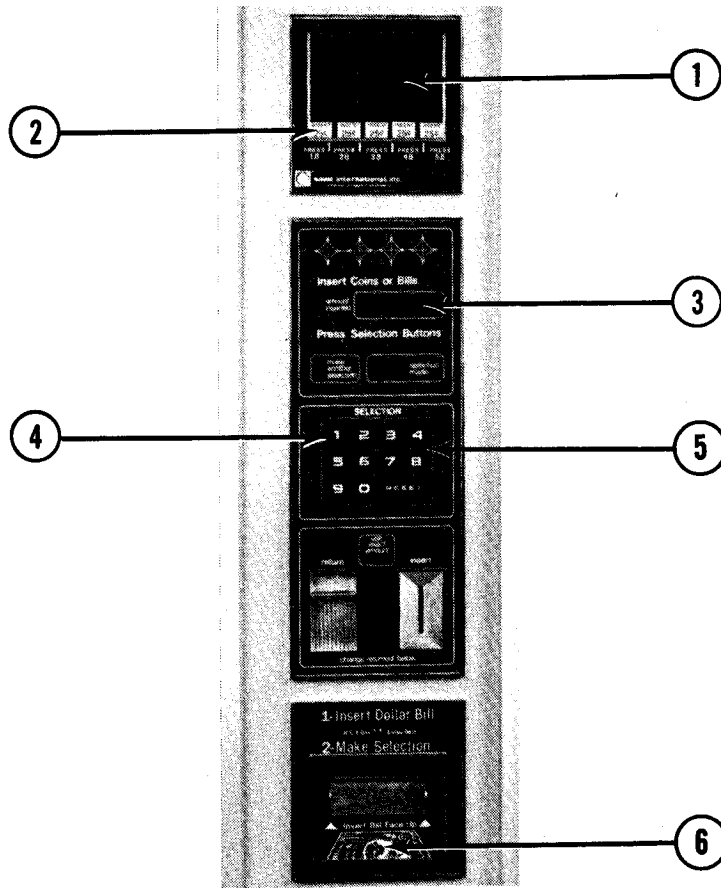


**FIGURE
4**

| FIG. AND INDEX NO. | 4900S PART NUMBER | 4900JR PART NUMBER | DESCRIPTION | QTY. PER ASSY |
|--------------------|-------------------|--------------------|--|---------------|
| | 4900S | 4900JR | | |
| 1 | 493-911 | 494-901 | Shield, Light and Security | 1 |
| | 934-267 | Same | Screw, Shield Anchoring | 3 |
| 2 | 493-1325 | 494-1310 | Cabinet W/A | 1 |
| 3 | 493-334 | Same | Panel W/A, Shelf Mounting R/H Side | 1 |
| 4 | 493-1921 | 494-1911 | Sliding Panel Asm. See Fig. 11 | 1 |
| | 490-906 | Same | Slide Rail, Jonathan (Hidden) | 1 |
| 5 | 493-1025 | 494-1025 | Shelf Asm., 5/4 Selection - See Fig. 13 | REF |
| 6 | 493-1020 | 494-1020 | Shelf Asm., 10/8 Selection - See Fig. 12 | REF |
| 7 | 493-1906 | Same | Gum & Mint Chute W/A | 1 |
| | 493-910 | Same | Deflector, Gum & Mint | 1 |
| | 934-151 | Same | Screw, Chute Mounting | 2 |
| 8 | 866-68001 | Same | Rubber Channel | A/R |
| 9 | 493-931 | Same | Guide, Sliding Panel Interface | 1 |
| | 934-307 | Same | Screw, Guide Mounting | 1 |
| 10 | 493-920 | Same | Bracket, Coin Box Retaining | 1 |
| | 493-930 | Same | Spring, Coin Box Retaining | 1 |
| 11 | 493-325 | Same | Hook, Door Locking | 2 |
| | 934-277 | Same | Screw, Lock Hook Mounting | 6 |
| 12 | 493-1910 | Same | Coin Box W/A | 1 |
| 13 | 408-1316 | Same | Leg W/A, Cabinet (Includes Leveler) | 4 |
| | 408-352 | Same | Leg Leveler | 4 |
| | 490-395 | Same | Channel, Leg Mounting (Not Shown) | 2 |
| 14 | 447-1869 | Same | Switch, Main Door Interlock | 1 |
| 15 | 493-1850 | Same | Power Supply Asm. - See Figs. 7&14 | 1 |
| 16 | 490-388 | 494-911 | Mounting Bracket, Friction Pad | 1 |
| | 490-389 | Same | Pad, Friction | 2 |
| | 490-391 | Same | Washer, Curved | 2 |
| | 934-348 | Same | Screw, Self Tapping | 4 |
| | 493-922 | 494-908 | Stop Rod, Main Door | 1 |
| 17 | 493-1907 | 494-1928 | Bracket W/A, Security | 1 |
| 18 | 493-323 | Same | Baffle, Delivery Box | 1 |
| | 493-324 | Same | Bracket, Baffle Mounting | 1 |
| | 934-154 | Same | Screw, Baffle Mounting | 4 |
| 19 | 493-333 | 494-315 | Panel W/A, Shelf Mounting - L/H Side | 1 |
| 20 | 490-1913 | Same | Selection Indicator Assortment | 1 |
| 21 | 490-1920 | Same | Selection Price Card Assortment | 1 |
| 22 | 493-944 | 494-919 | Top Baffle (5 Shelf Vendors, not shown) | 1 |

**FIGURE
5**

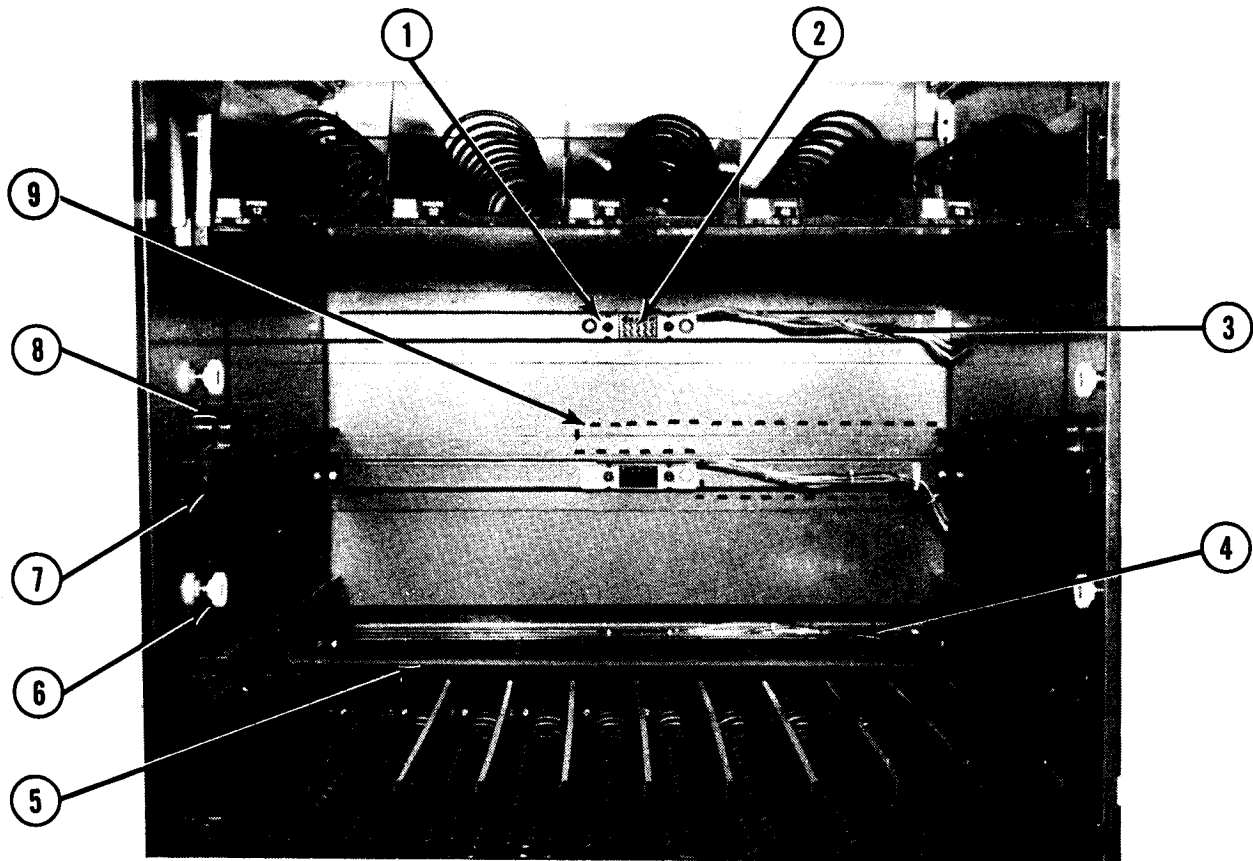
Selection Panel Components



| FIG. AND INDEX NO. | ROWE PART NO. | DESCRIPTION | QTY. PER ASM. |
|--------------------|---------------|--|---------------|
| 1 | 490-505 | Window, Gum & Mint Display | 1 |
| 2 | 490-1921 | Price Card Assortment, Gum & Mint | 1 |
| 3 | 010-60779-001 | Display Board Asm . | 1 |
| 4 | 010-40764-301 | Selector Pushbutton Asm. | 1 |
| | 490-201 | No. 1 Pushbutton | 1 |
| | 490-202 | No. 2 Pushbutton | 1 |
| | 490-203 | No. 3 Pushbutton | 1 |
| | 490-204 | No. 4 Pushbutton | 1 |
| | 490-205 | No. 5 Pushbutton | 1 |
| | 490-206 | No. 6 Pushbutton | 1 |
| | 490-207 | No. 7 Pushbutton | 1 |
| | 490-208 | No. 8 Pushbutton | 1 |
| | 490-209 | No. 9 Pushbutton | 1 |
| | 490-200 | No. 0 Pushbutton | 1 |
| | 490-221 | "Reset" Pushbutton | 1 |
| | 490-1861 | Selector Switch (Part of 490-1860) | 11 |
| | 490-820 | Switch Mounting Plate | 1 |
| | 490-821 | P.C. Board, Selector | 1 |
| | 490-825 | Spacer, P.C. Board Mounting | 4 |
| 5 | 490-824 | Bezel, Selection Switch (Black Plastic Grid Between Buttons) | 1 |
| 6 | 907-2039 | Label, "Insert Bill Face Up" | 1 |
| 6 - 10 | 493-4003 | Service Plate - Covers Hole if Bill Acceptor is removed for service. (Not Shown) | |

Shelf Support and Plug Assemblies

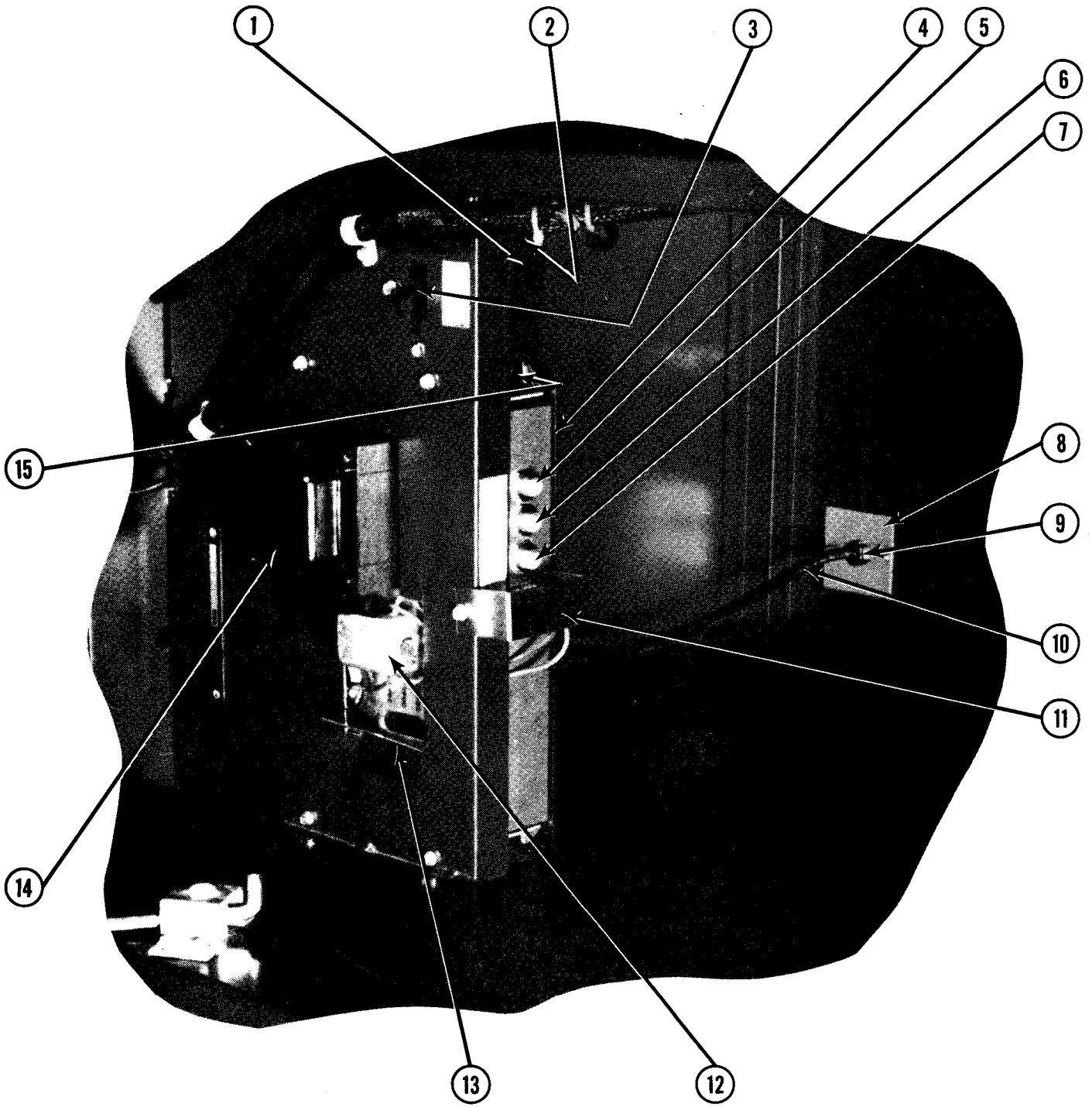
**FIGURE
6**



| FIG. AND INDEX NO. | 4900S PART NUMBER | 4900JR PART NUMBER | DESCRIPTION | QTY. PER ASSY | |
|--------------------|-------------------|--------------------|------------------------------------|---|---|
| 1 | 493-1307 | Same | Plug Bracket W/A | 6 | |
| | 493-315 | Same | Plug Bracket | 1 | |
| | 490-352 | Same | Step Washer | 2 | |
| 2 | 979-1173 | Same | Socket, 15 Pin Female | 6 | |
| 3 | 493-1855 | 494-1806 | Harness Asm., Main Cabinet | 1 | |
| | 979-102 | Same | Plug | 1 | |
| | 979-169 | Same | Pin | 12 | |
| | 979-1105 | Same | Socket - 3 Pin | 1 | |
| | 979-1173 | Same | Socket - 15 Pin | 6 | |
| | 979-1220 | Same | Socket - 10 Pin | 1 | |
| | 979-1221 | Same | Socket - 16 Pin | 1 | |
| | 4 | 493-322 | 494-306 | Main Harness Support (Positions 2 & 5 from top) | 2 |
| | 5 | 490-379 | Same | Tie Bar Bracket | 1 |
| 934-307 | | Same | Screw, Bracket Mounting | 4 | |
| 490-5 | | Same | Roller, Shelf | 12 | |
| 6 | 490-6 | Same | Bushing, Shelf Roller | 12 | |
| | 934-441 | Same | Screw, Self Tapping | 12 | |
| | 7 | 493-1308 | Same | Lower Shelf Support W/A - L/H Side | 4 |
| 493-1309 | | Same | Lower Shelf Support W/A - L/H Side | 4 | |
| 8 | 493-1321 | Same | Upper Shelf Support W/A - L/H Side | 4 | |
| | 493-1322 | Same | Upper Shelf Support W/A - R/H Side | 4 | |
| 9 | 493-813 | 494-800 | Cover, Shelf Harness (Not Shown) | 6 | |

FIGURE
7

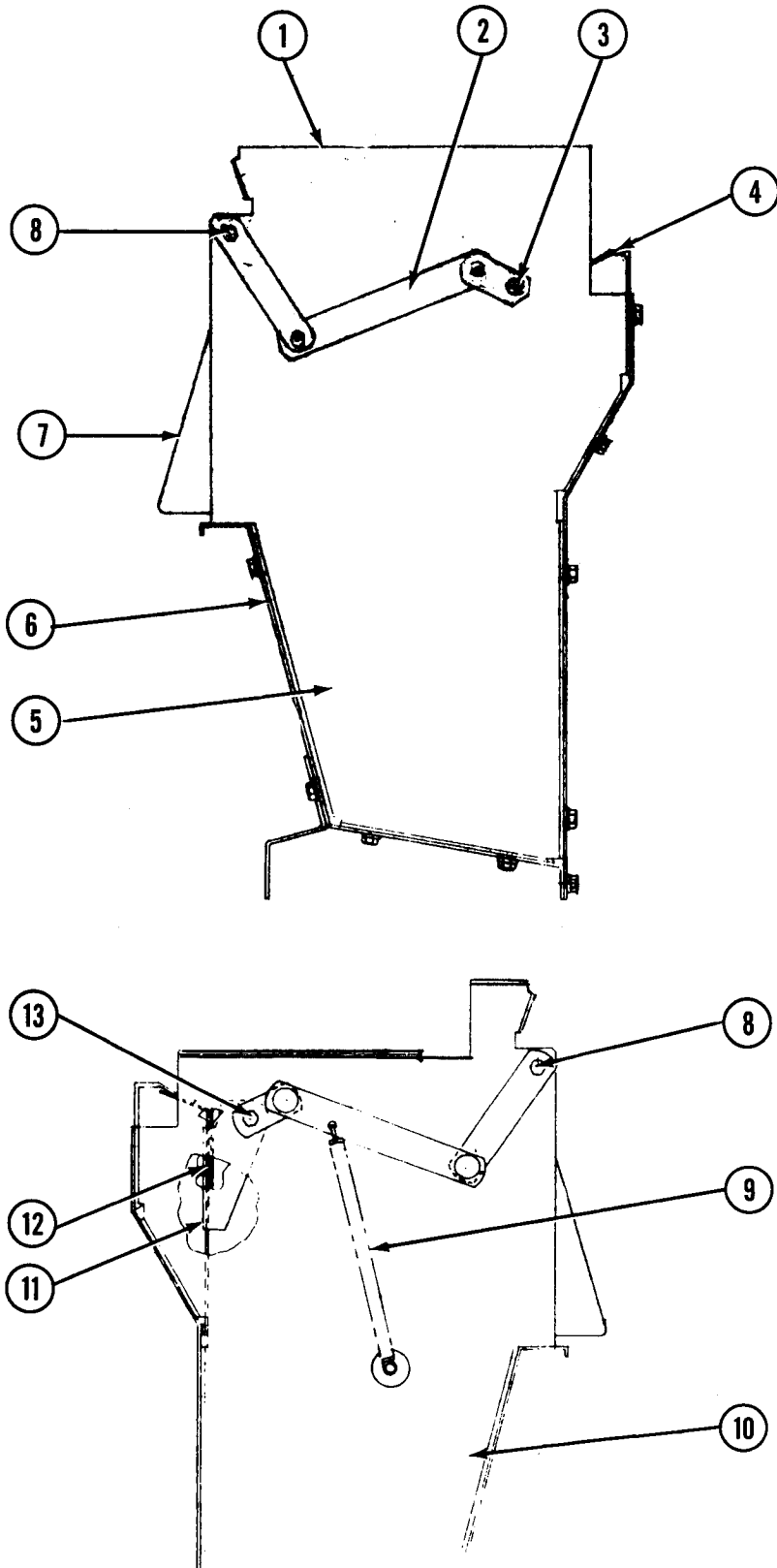
Lower Cabinet Components



| FIG. AND INDEX NO. | ROWE PART NO. | DESCRIPTION | QTY. PER ASM. |
|--------------------|---------------|--|---------------|
| 1 | 493-1861 | Power Switch Asm. | REF |
| 2 | 912-50 | Circuit Breaker, 7 Amp Main Line (not shown) | 1 |
| 3 | 301-1711 | Switch, Main Line | 1 |
| | 921-203 | Screw, Switch Mounting | 2 |
| 4 | 493-1850 | Power Supply Asm. (includes next 4 line items) | 1 |
| | 493-804 | Bracket, Power Supply Mounting | 2 |
| | 493-805 | Cover, Rear | 1 |
| | 934-307 | Screw, Power Supply Mounting | 4 |
| | 448-1597 | Power Supply Asm. only | 1 |
| 5 | 912-76 | Circuit Breaker, 5 Amp | 1 |
| 6 | 912-74 | Circuit Breaker, 2 Amp | 1 |
| 7 | 912-75 | Circuit Breaker, 3 Amp | 1 |
| 8 | 112-20500 | Plate, Grommet | 1 |
| 9 | 916-16 | Grommet, Strain Relief | 1 |
| 10 | 493-1856 | Power Cord Asm. | 1 |
| 11 | 493-806 | Bracket, Plug Retainer | 1 |
| | 934-307 | Screw, Bracket Mounting | 2 |
| 12 | 448-4588 | Filter, Line "Noise" (R.I.F.) | 1 |
| | 934-319 | Screw, Filter Mounting | 2 |
| 13 | 493-328 | Reflector, LED | 1 |
| | 934-307 | Screw, Reflector Mounting | 2 |
| 14 | 40790001 | Transformer, Power Supply | 1 |
| 15 | 448-4039 | Regulator, Voltage (behind wall) | 1 |
| | 70046006 | Insulator, Voltage Regulator | 1 |
| | 934-253 | Screw, Regulator Mounting | 2 |

FIGURE
8

Delivery Box Assembly

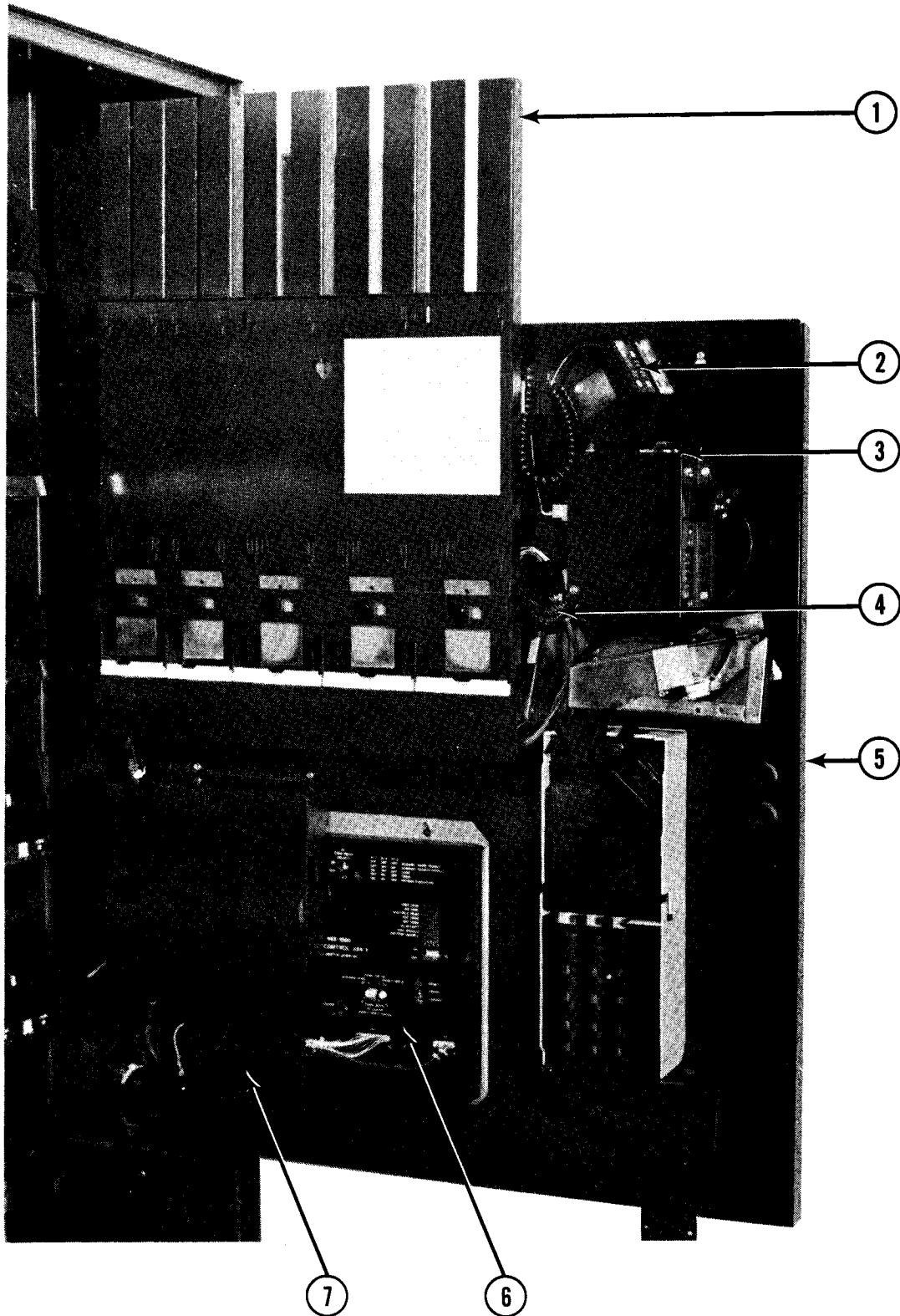


**FIGURE
8**

| FIG. AND INDEX NO. | 4900S PART NUMBER | 4900JR PART NUMBER | DESCRIPTION | QTY. PER ASSY |
|--------------------|-------------------|--------------------|---|---------------|
| 1 | 493-1425 | 494-1402 | Delivery Box Assembly | 1 |
| 2 | 493-1436 | Same | Delivery Box Linkage Rivet Assembly | 2 |
| 3 | 921-310 | Same | Machine Screw 8-32 x 5/16 | 1 |
| | 950-154 | Same | Lock Washer | 1 |
| | 916-88 | Same | Grommet | 2 |
| | 493-456 | Same | Spacer | 2 |
| 4 | 493-1432 | 494-1408 | Rear Cover Weld Assembly | 1 |
| 5 | 493-1438 | Same | Right Hand Frame Weld Assembly | 1 |
| 6 | 493-1433 | 494-1407 | Front Cover Weld Assembly | 1 |
| 7 | 493-1434 | 494-1405 | Front Door Rivet Assembly | 1 |
| 8 | 921-310 | Same | Machine Screw 8-32 x 5/16 | 1 |
| | 950-344 | Same | Lock Washer | 1 |
| | 916-88 | Same | Grommet | 1 |
| | 493-456 | Same | Spacer | 1 |
| 9 | 490-353 | Same | Delivery Door Stop Spring | 1 |
| 10 | 493-1437 | Same | Left Hand Frame Rivet Assembly | 1 |
| 11 | 493-1428 | 494-1406 | Delivery Box Rear Baffle Rivet Assembly | 1 |
| 12 | 490-452 | 494-422 | Rear Baffle | 1 |
| 13 | 921-299 | Same | Machine Screw 8-32 x 5/16 | 1 |
| | 916-88 | Same | Grommet | 1 |
| | 493-456 | Same | Spacer | 1 |

FIGURE
9

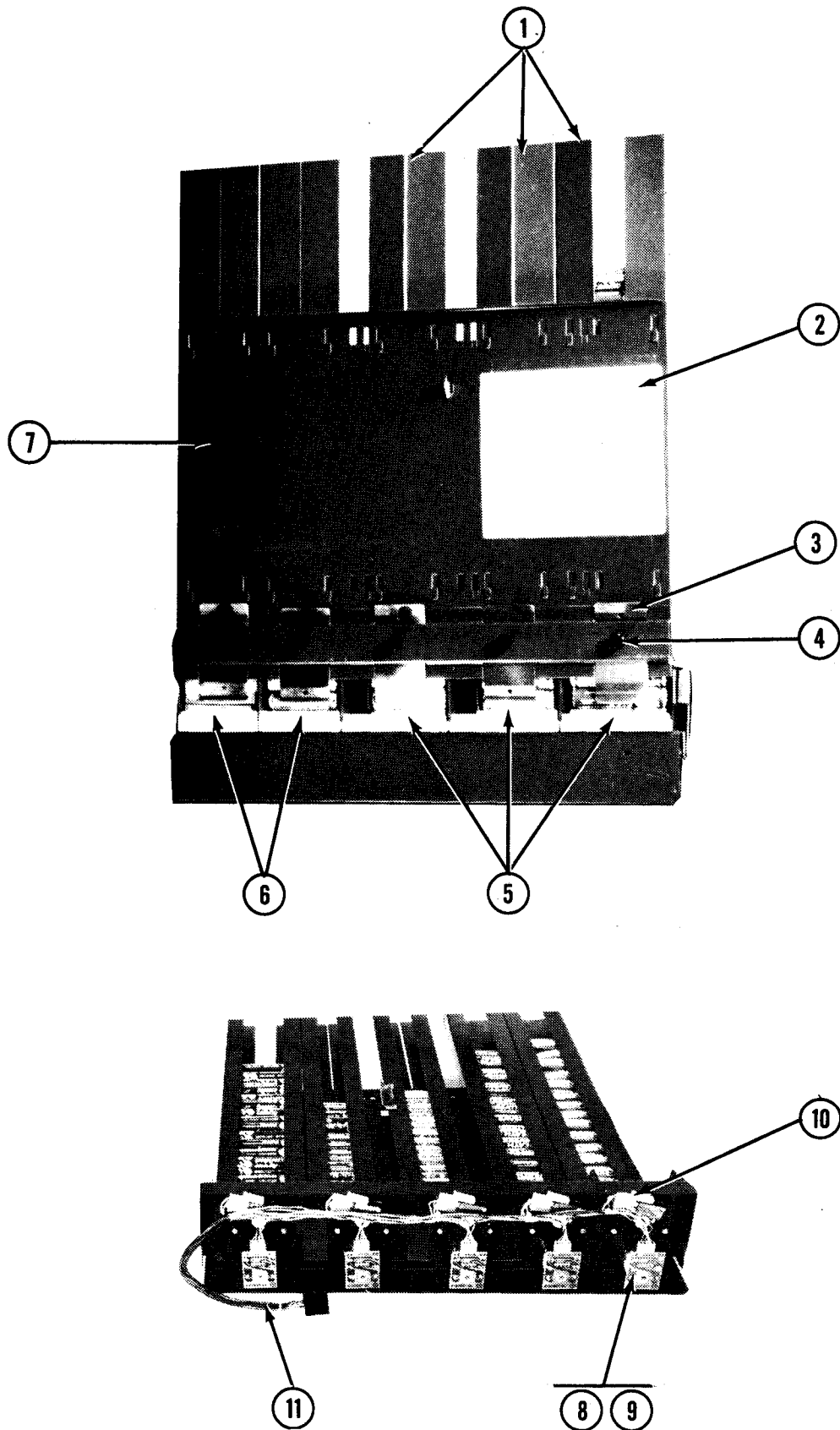
Sliding Panel Components



| FIG. AND INDEX NO. | 4900S PART NUMBER | 4900JR PART NUMBER | DESCRIPTION | QTY. PER ASSY |
|--------------------|-------------------|--------------------|--|---------------|
| | 4900S | 4900JR | | |
| 1 | 493-1700 | Same | Gum & Mint Unit - Complete - See Fig. 10 | 1 |
| 2 | 490-1887 | Same | Hand Held Module Asm. | 1 |
| 3 | 493-1860 | Same | Coin Mech and Vend Switch Asm. | 1 |
| | 204-1812 | Same | "Diagnostic Clear" Switch | 1 |
| | 490-832 | Same | Spacer, P.C. Board | 2 |
| | 490-1884 | Same | Test and Inventory Switch Asm. | 1 |
| | 493-801 | Same | Coin Mech Socket Chassis | 1 |
| | 493-803 | Same | Test Vend Safety Bracket | 1 |
| 4 | 493-1867 | Same | Coin Mech Socket Harness Asm. | 1 |
| | 979-1217 | Same | Socket - 18 Pin | 1 |
| | 979-1218 | Same | Socket - 12 Pin | 1 |
| | 979-74 | Same | Plug - 12 Pin | 1 |
| | 979-203 | Same | Plug (Keying) | 4 |
| | 979-1072 | Same | Socket, Connector | 1 |
| | 979-1102 | Same | Socket - 2 Pin | 1 |
| | 979-1202 | Same | Socket - 13 Pin | 1 |
| | 979-1219 | Same | Socket - 7 Pin | 1 |
| | 979-1221 | Same | Socket - 16 Pin | 1 |
| | 979-1222 | Same | Socket - 12 Pin | 1 |
| 5 | 493-1926 | 494-1926 | Sliding Panel Asm. See Fig. 11 | 1 |
| 6 | 493-1500 | Same | Main Controller Asm. See Fig. 16 | 1 |
| 7 | 493-807 | Same | Cover, Main Controller | 1 |
| | 934-307 | Same | Screw, Cover Mounting | 3 |

FIGURE
10

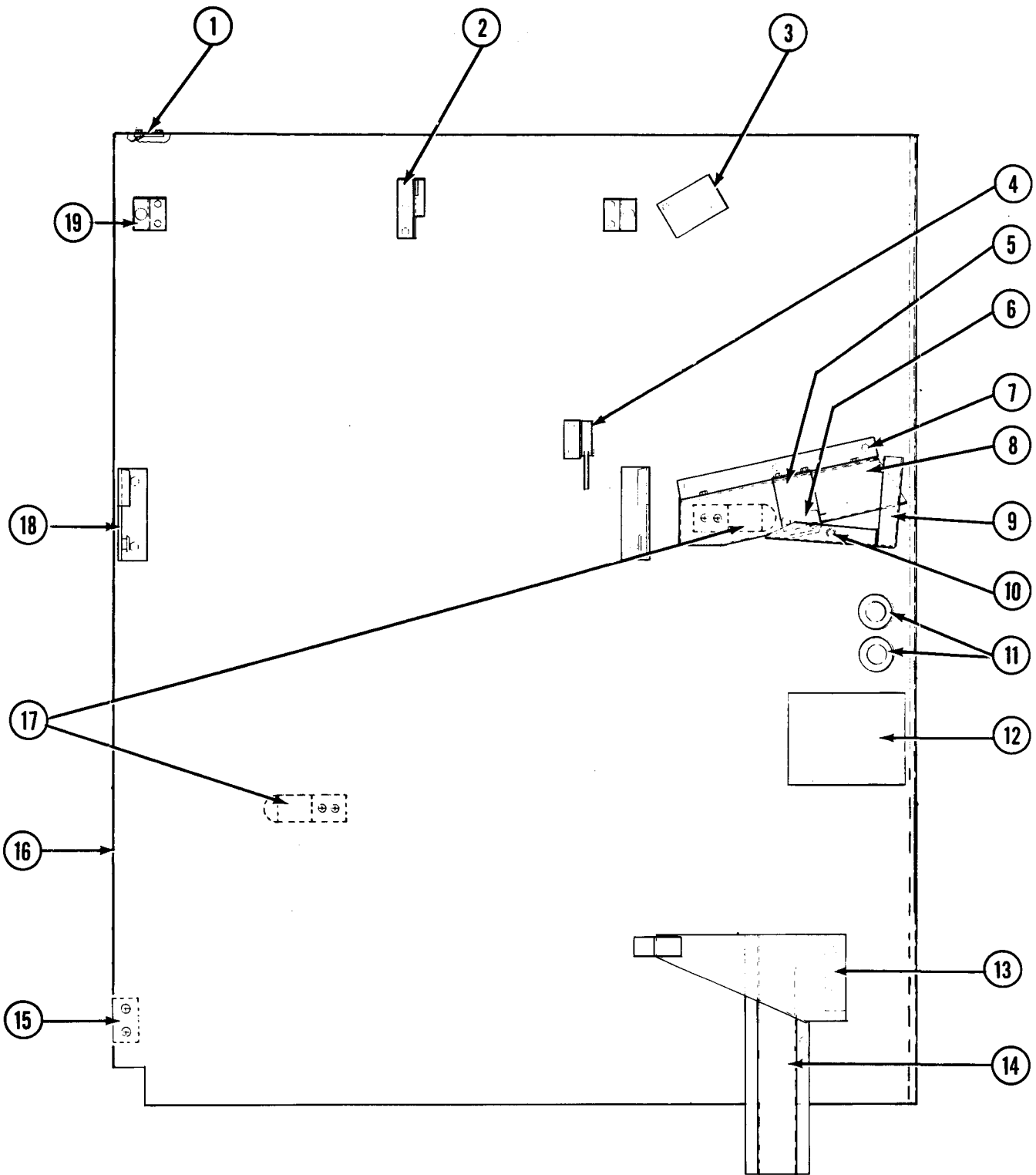
Gum & Mint Unit Final Assembly



| FIG. AND INDEX NO. | ROWE PART NO. | DESCRIPTION | QTY. PER ASSY |
|-----------------------------|---------------------|---------------------------------|---------------------|
| | 493-1700 | Gum and Mint Final Assembly | REF |
| 1 | 493-708 | Gum and Mint Column | 3 |
| 2 | 907-2037 | Gum and Mint Adjust Label | 1 |
| 3 | 493-711 | Gum and Mint Gate | 5 |
| 4 | 408-431 | Torque Knob | 5 |
| 5 | 493-710 | Gum and Mint Slide - 4" | 3 |
| 6 | 493-709 | Gum and Mint Slide - 3" | 2 |
| 7 | 493-1701 | Gum and Mint Unit Weld Assembly | 1 |
| 8 | 490-705 | Gum and Mint Crank Motor | 5 |
| 9 | 490-1725 | Gum and Mint Motor Assembly | 5 |
| 10 | 147-1829 | Motor Full Cycle Sensing Switch | 1 |
| 11 | 493-1874 | Gum and Mint Harness Assembly | 1 |
| | 979-238 | Plug | 1 |
| | 979-1180 | Socket | 5 |

**FIGURE
11**

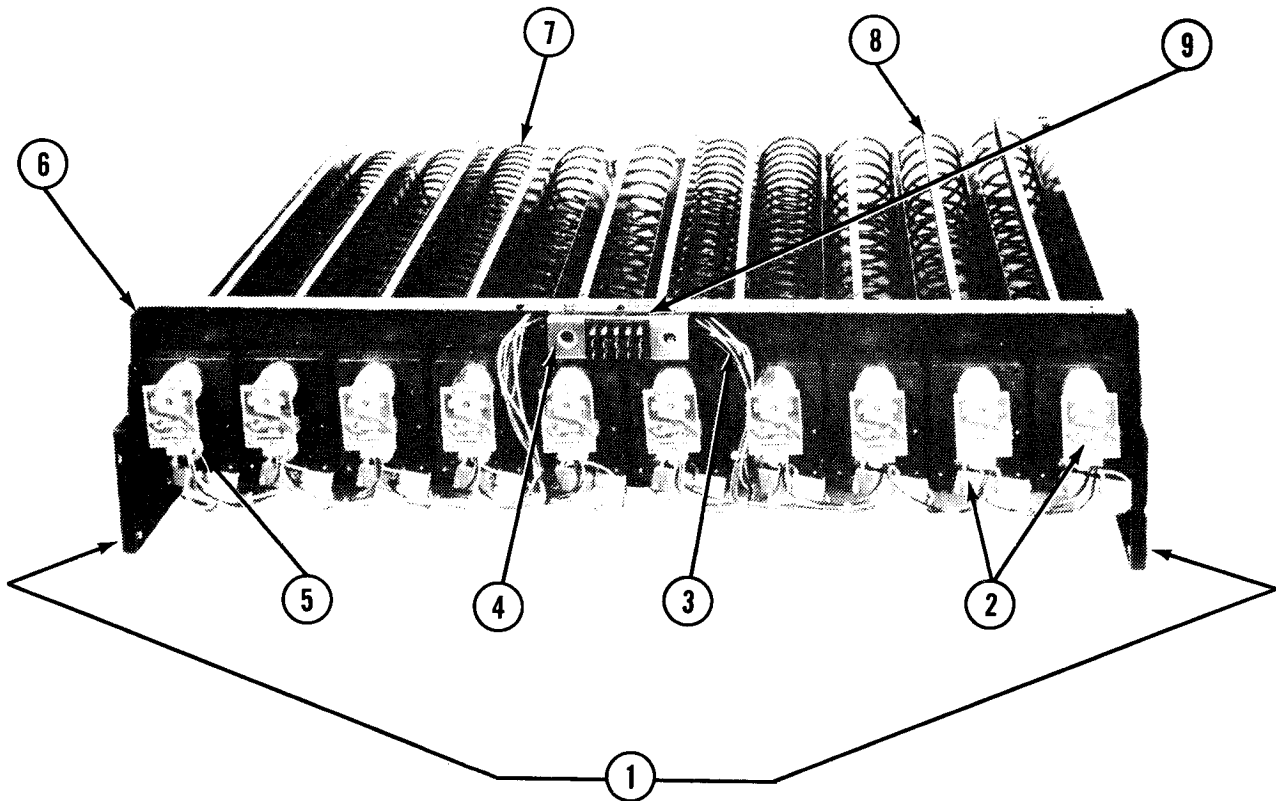
Sliding Panel Assembly



| FIG. AND INDEX NO. | 4900S PART NUMBER | 4900JR PART NUMBER | DESCRIPTION | QTY. PER ASSY |
|--------------------|-------------------|--------------------|--|---------------|
| | 493-1926 | 494-1926 | Sliding Panel Assembly | REF |
| 1 | 490-604 | — | Sliding Panel Stop | 1 |
| 2 | 493-1905 | Same | Gum and Mint Latch Assembly | 1 |
| | 147-49 | Same | Bracket Mounting Alignment Spacer | 1 |
| | 485-647 | Same | Drag Link Spring | 1 |
| | 493-902 | Same | Gum and Mint Latch | 1 |
| | 493-903 | Same | Latch Mounting Bracket | 1 |
| 3 | 490-589 | Same | Hand-Held Unit Mounting Bracket | 1 |
| 4 | 493-1811 | Same | Gum and Mint Switch | 5 |
| | 493-800 | Same | Gum and Mint Switch Bracket | 5 |
| 5 | 493-936 | Same | Bill Acceptor Switch Mounting Bracket | 1 |
| 6 | 212-1742 | Same | Bill Acceptor Switch | 1 |
| 7 | 493-915 | Same | Coin Mech Chute Mounting Bracket | 1 |
| 8 | 493-916 | Same | Coin Mech Chute | 1 |
| | 493-917 | Same | Inner Coin Mech Chute | 1 |
| 9 | 493-1908 | Same | Coin Return Lever Weld Assembly | 1 |
| 10 | 490-612 | Same | Coin Lever Pivot Pin | 1 |
| | 933-30 | Same | Retaining Ring | 1 |
| | 490-616 | Same | Coin Return Torsion Spring | 1 |
| 11 | 493-926 | Same | Recessed Plug | 2 |
| 12 | 907-2113 | Same | Caution Label | 1 |
| 13 | 490-1607 | Same | Slug Cup Chute Weld Assembly | 1 |
| 14 | 493-1928 | 494-1929 | Lower Coin Chute Weld Assembly | 1 |
| 15 | — | 494-906 | Sliding Panel Stop Angle | 1 |
| 16 | 493-1927 | 494-1927 | Sliding Panel Weld Assembly | 1 |
| 17 | 494-915 | Same | Sliding Panel Friction Spring | 2 |
| 18 | 493-1903 | Same | Gum and Mint Unit Mounting Bracket Rivet Assembly — Left Hand | 1 |
| | 493-1904 | Same | Gum and Mint Unit Mounting Bracket Rivet Assembly — Right Hand | 1 |
| 19 | 493-904 | Same | Gum and Mint Unit Stop | 2 |
| | 493-908 | Same | Gum and Mint Deflector | 2 |

**FIGURE
12**

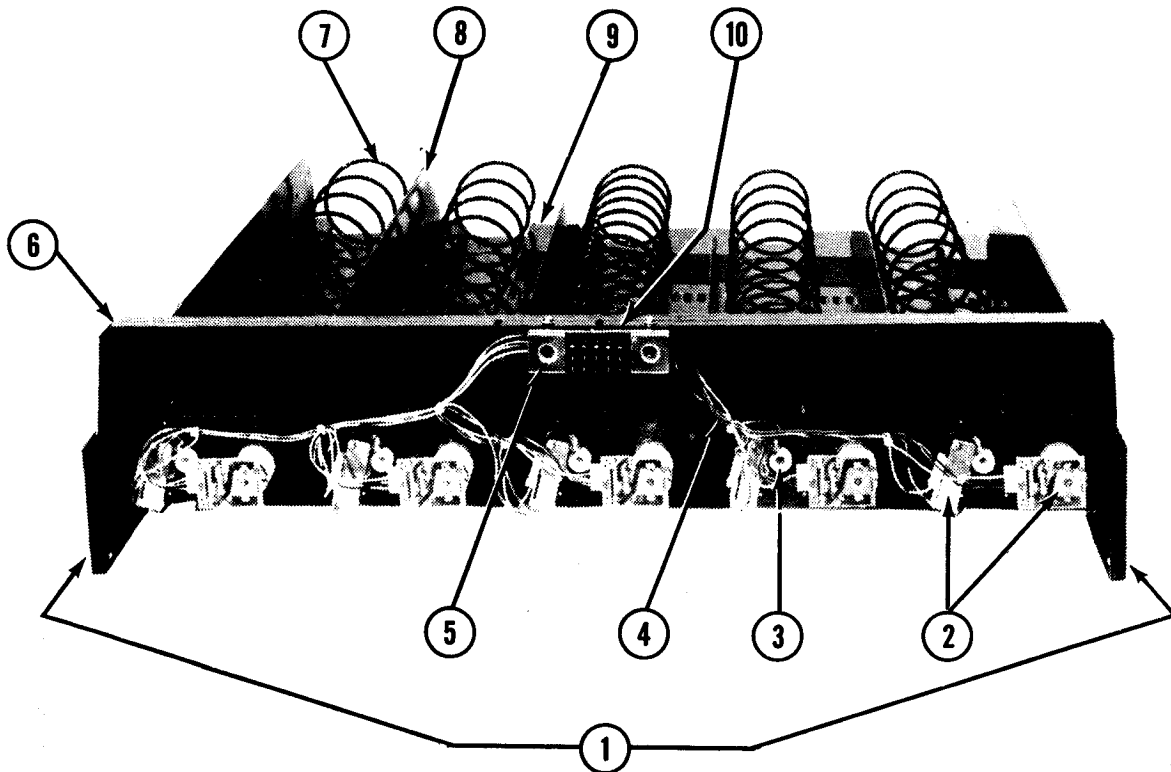
8 or 10 Selection Shelf Assembly



| FIG. AND INDEX NO. | 4900S PART NUMBER | 4900JR PART NUMBER | DESCRIPTION | QTY PER ASSY 4900S | QTY PER ASSY 4900JR |
|--------------------|-------------------|--------------------|-----------------------------------|--------------------|---------------------|
| 1 | 493-1020 | 494-1020 | Shelf Final Assembly | REF | REF |
| | 490-5 | Same | Shelf Roller | 2 | 2 |
| | 490-42 | Same | Shelf Roller Bushing | 2 | 2 |
| | 934-441 | Same | Self Tapping Screw | 2 | 2 |
| | 924-64 | Same | Nut | 2 | 2 |
| 2 | 490-1725 | Same | Motor Assembly | 10 | 8 |
| | 147-1829 | Same | Motor Full Cycle Sensing Switch | 1 | 1 |
| 3 | 490-1866 | Same | Shelf Harness Assembly | 1 | 1 |
| | 979-1180 | Same | Socket | 10 | 8 |
| 4 | 493-2 | Same | Plug Bracket Assembly | 1 | 1 |
| | 979-253 | Same | Plug, 15 Pin, Male | 1 | 1 |
| | 979-169 | Same | Pin, Plug Anchoring | 2 | 2 |
| 5 | 490-27 | Same | Helix Hub | 10 | 8 |
| 6 | 493-1021 | 494-1021 | Shelf Weld Assembly | 1 | 1 |
| 7 | 490-31 | Same | Helix - 15 Item (Candy) | OPT | OPT |
| | 490-30 | Same | Helix - 18 Item (Candy) | OPT | OPT |
| | 490-29 | Same | Helix - 24 Item (Candy) | OPT | OPT |
| | 490-28 | Same | Helix - 30 Item (Candy) | OPT | OPT |
| 8 | 490-4519 | Same | Product Adjustment Arm Assembly | 10 | 8 |
| | 490-8 | Same | Retaining Block | 2 | 2 |
| | 490-19 | Same | Adjustment Wall Arm | 2 | 2 |
| | 490-21 | Same | Adjustment Wall | 2 | 2 |
| | 490-4 | Same | Product Guide - Black (Not Shown) | 4 | 4 |
| | 490-6 | Same | Product Guide - Brown (Not Shown) | 4 | 4 |
| 9 | 493-9 | Same | Shelf Plug Cover (Not Shown) | 6 | 6 |

4 or 5 Selection Shelf Assembly

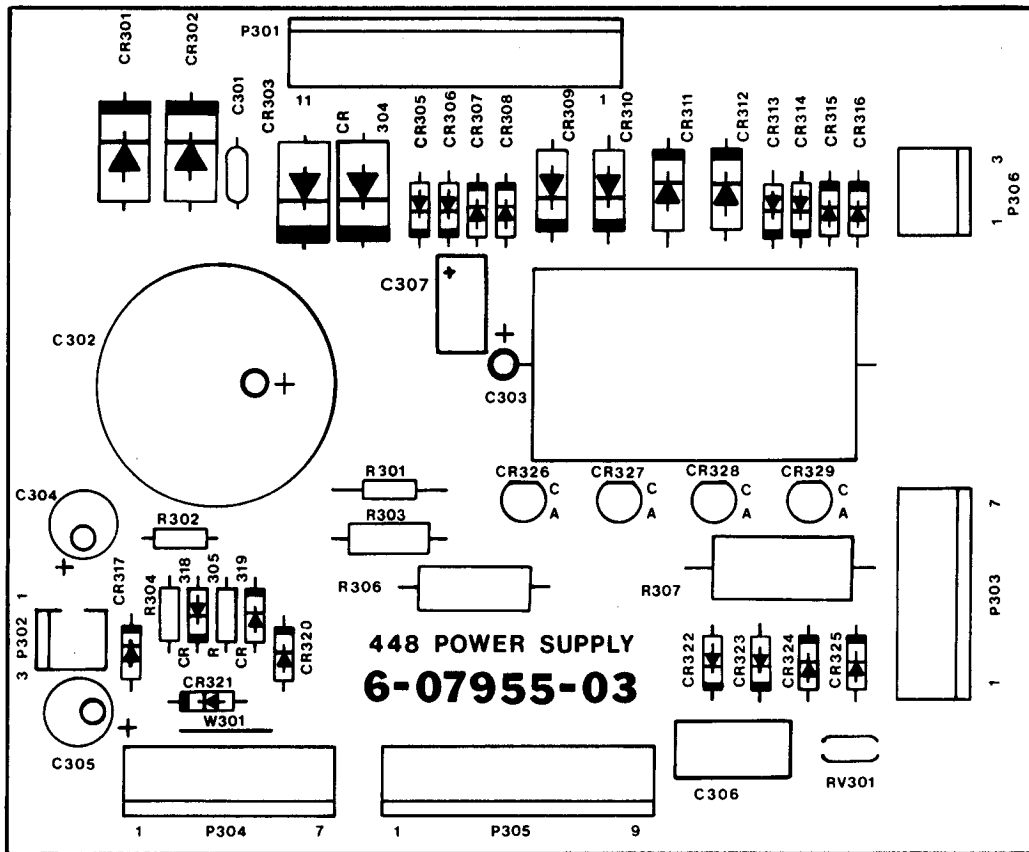
**FIGURE
13**



| FIG. AND INDEX NO. | 4900S PART NUMBER | 4900JR PART NUMBER | DESCRIPTION | QTY PER ASSY 4900S | QTY PER ASSY 4900JR |
|--------------------|-------------------|--------------------|--|--------------------|---------------------|
| 1 | 493-1025 | 494-1025 | Shelf Final Assembly | REF | REF |
| | 490-5 | Same | Shelf Roller | 2 | 2 |
| | 490-42 | Same | Roller Bushing | 2 | 2 |
| | 934-441 | Same | Self Tapping Screw | 2 | 2 |
| | 924-64 | Same | Nut | 2 | 2 |
| 2 | 490-1725 | Same | Motor Assembly | 5 | 4 |
| | 147-1829 | Same | Motor Full Cycle Sensing Switch | 1 | 1 |
| 3 | 490-27 | Same | Helix Hub | 5 | 4 |
| 4 | 490-1865 | Same | Shelf Harness Assembly | 1 | 1 |
| | 979-1180 | Same | Socket | 5 | 4 |
| 5 | 493-2 | Same | Plug, Bracket Assembly | 1 | 1 |
| | 979-253 | Same | Plug, 15 Pin Male | 1 | 1 |
| | 979-169 | Same | Pin, Plug Anchoring | 2 | 2 |
| 6 | 493-1026 | 494-1026 | Shelf Weld Assembly | 1 | 1 |
| 7 | 490-34 | Same | Helix - 10 Item (Snack) | OPT | OPT |
| | 490-33 | Same | Helix - 12 Item (Snack) | OPT | OPT |
| | 490-32 | Same | Helix - 15 Item (Snack) | OPT | OPT |
| 8 | 490-1010 | Same | Product Adjustment Wall Rivet Assembly | 3 | 2 |
| 9 | 490-14 | Same | Product Guide - Black | 5 | 4 |
| | 493-5 | Same | Product Guide - Brown | 5 | 4 |
| 10 | 493-9 | Same | Shelf Plug Cover (Not Shown) | 6 | 6 |

FIGURE
14

Power Supply Circuit Board Asm.



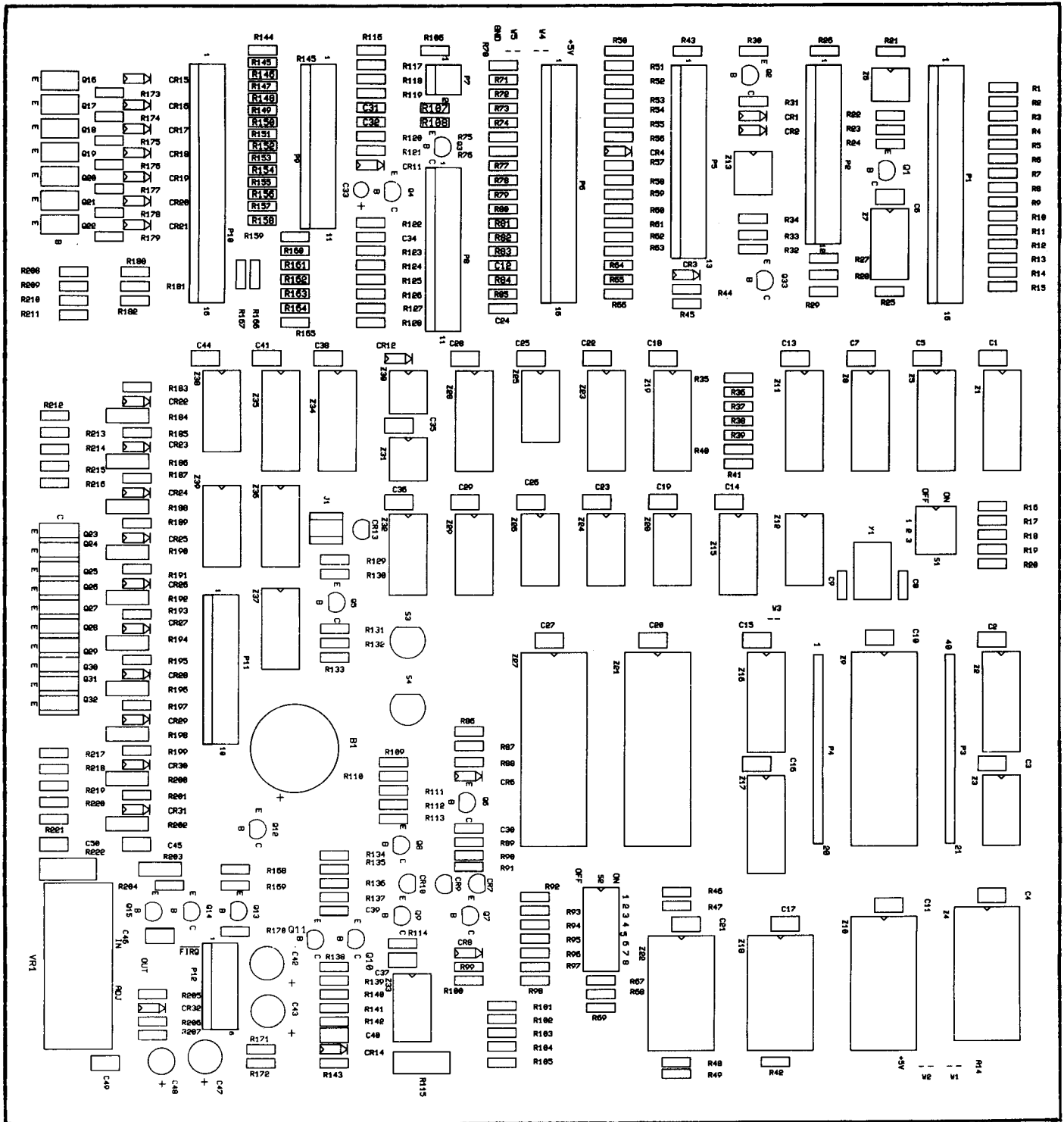
| FIG. AND INDEX NO. | ROWE PART NO. | DESCRIPTION | QTY. PER ASM. |
|--------------------|---------------|-------------|---------------|
|--------------------|---------------|-------------|---------------|

See Fig. 7 for Power Supply Asm. and other components.

| | | | |
|-------|------------|---|---|
| | 448-4556 | Circuit Board Asm. - complete | 1 |
| C301 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1 μ F) | |
| C302 | 7-00236-01 | CAPACITOR - ELECTROLYTIC (6800 μ F) | |
| C303 | 7-00233-10 | CAPACITOR - ELECTROLYTIC (1500 μ F) | |
| C304 | 7-00238-09 | CAPACITOR - ELECTROLYTIC (15 μ F) | |
| C305 | 7-00238-09 | CAPACITOR - ELECTROLYTIC (15 μ F) | |
| C306 | 7-00240-09 | CAPACITOR - MYLAR (.01 μ F) | |
| C307 | 7-00280-12 | CAPACITOR - ELECTROLYTIC (100 μ F) | |
| CR301 | 2-16283-05 | DIODE - SILICON | |
| CR302 | 2-16283-05 | DIODE - SILICON | |
| CR303 | 2-16283-05 | DIODE - SILICON | |
| CR304 | 2-16283-05 | DIODE - SILICON | |
| CR305 | 7-00350-05 | DIODE - SILICON | |
| CR306 | 7-00350-05 | DIODE - SILICON | |
| CR307 | 7-00350-05 | DIODE - SILICON | |
| CR308 | 7-00350-05 | DIODE - SILICON | |
| CR309 | 2-16283-03 | DIODE - SILICON | |
| CR310 | 2-16283-03 | DIODE - SILICON | |
| CR311 | 2-16283-03 | DIODE - SILICON | |
| CR312 | 2-16283-03 | DIODE - SILICON | |
| CR313 | 7-00350-05 | DIODE - SILICON | |
| CR314 | 7-00350-05 | DIODE - SILICON | |
| CR315 | _____ | NOT USED | |
| CR316 | _____ | NOT USED | |
| CR317 | 7-00350-05 | DIODE - SILICON | |
| CR318 | 7-00350-05 | DIODE - SILICON | |
| CR319 | 7-00350-05 | DIODE - SILICON | |
| CR320 | 7-00350-05 | DIODE - SILICON | |
| CR321 | 7-00350-05 | DIODE - SILICON | |
| CR322 | 7-00350-05 | DIODE - SILICON | |
| CR323 | 7-00350-05 | DIODE - SILICON | |
| CR324 | 7-00350-05 | DIODE - SILICON | |
| CR325 | 7-00350-05 | DIODE - SILICON | |
| CR326 | 7-00353-03 | DIODE - LIGHT EMITTING | |
| CR327 | 7-00353-03 | DIODE - LIGHT EMITTING | |
| CR328 | 7-00353-03 | DIODE - LIGHT EMITTING | |
| CR329 | 7-00353-03 | DIODE - LIGHT EMITTING | |
| P301 | 7-00750-11 | WAFER ASSEMBLY - POLARIZING | |
| P302 | 7-00750-02 | WAFER ASSEMBLY - POLARIZING | |
| P303 | 7-00750-07 | WAFER ASSEMBLY - POLARIZING | |
| P304 | 7-00750-07 | WAFER ASSEMBLY - POLARIZING | |
| P305 | 7-00750-09 | WAFER ASSEMBLY - POLARIZING | |
| P306 | 7-00750-03 | WAFER ASSEMBLY - POLARIZING | |
| R301 | 7-9901-821 | RESISTOR - CARBON (1/4W,5%) 820 Ω | |
| R302 | 7-9902-391 | RESISTOR - CARBON (1/4W,2%) 390 Ω | |
| R303 | 7-9904-102 | RESISTOR - CARBON (1/2W,5%) 1K | |
| R304 | 7-9901-682 | RESISTOR - CARBON (1/4W,5%) 6.8K | |
| R305 | _____ | NOT USED | |
| R306 | 2-16282-06 | RESISTOR - CARBON (1W,10%) 2.2K | |
| R307 | 2-16280-22 | RESISTOR - METAL FILM (2W,10%) 12K | |
| RV3-1 | 7-00375-03 | VARIATOR - METAL OXIDE | |

FIGURE 15

Main Controller Circuit Board Asm.



| FIG. AND INDEX NO. | ROWE PART NO. | DESCRIPTION | QTY. PER ASM. |
|--------------------|---------------|---|---------------|
| | 493-1500 | Main Controller Asm. - complete | 1 |
| | 493-1507 | Circuit Board Asm. - Main Controller | |
| | 493-811 | Base, Main Controller | |
| | 493-1510 | Cover, Main Controller | |
| BT1 | 3-08731-01 | BATTERY - LITHIUM (160mA Hours) | |
| C1 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C2 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C3 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C4 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C5 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C6 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C7 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C8 | 7-00287-05 | CAPACITOR - MONOLITHIC CERAMIC (22pF) | |
| C9 | 7-00287-05 | CAPACITOR - MONOLITHIC CERAMIC (22pF) | |
| C10 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C11 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C12 | 7-00285-18 | CAPACITOR - MONOLITHIC CERAMIC (.001uF) | |
| C13 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C14 | | NOT USED | |
| C15 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C16 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C17 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C18 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C19 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C20 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C21 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C22 | | NOT USED | |
| C23 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C24 | 7-00285-02 | CAPACITOR - MONOLITHIC CERAMIC (.01uF) | |
| C25 | | NOT USED | |
| C26 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C27 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C28 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C29 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C30 | 7-00285-02 | CAPACITOR - MONOLITHIC CERAMIC (.01uF) | |
| C31 | 7-00285-18 | CAPACITOR - MONOLITHIC CERAMIC (.001uF) | |
| C32 | 7-00286-12 | CAPACITOR - MONOLITHIC CERAMIC (.47OpF) | |
| C33 | 7-00238-04 | CAPACITOR - ELECTROLYTIC (.1uF) | |
| C34 | 7-00285-18 | CAPACITOR - MONOLITHIC CERAMIC (.001uF) | |
| C35 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C36 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C37 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C38 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C39 | 7-00285-02 | CAPACITOR - MONOLITHIC CERAMIC (.01uF) | |
| C40 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C41 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C42 | 7-00238-09 | CAPACITOR - ELECTROLYTIC (.15uF) | |
| C43 | 7-00238-12 | CAPACITOR - ELECTROLYTIC (.47uF) | |
| C44 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C45 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C46 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C47 | 7-00238-14 | CAPACITOR - ELECTROLYTIC (100uF) | |
| C48 | 7-00238-08 | CAPACITOR - ELECTROLYTIC (10uF) | |
| C49 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| C50 | 7-00285-11 | CAPACITOR - MONOLITHIC CERAMIC (.1uF) | |
| CR1 | 7-00350-12 | DIODE - SILICON | |
| CR2 | 7-00350-12 | DIODE - SILICON | |
| CR3 | 7-00350-12 | DIODE - SILICON | |
| CR4 | 7-00350-12 | DIODE - SILICON | |
| CR5 | | NOT USED | |
| CR6 | 7-00350-12 | DIODE - SILICON | |
| CR7 | 7-00353-03 | DIODE - LIGHT EMITTING | |
| CR8 | 7-00355-01 | DIODE - 5.1 Volt ZENER | |
| CR9 | 7-00353-03 | DIODE - LIGHT EMITTING | |
| CR10 | 7-00353-03 | DIODE - LIGHT EMITTING | |
| CR11 | 7-00350-12 | DIODE - SILICON | |
| CR12 | 7-00350-12 | DIODE - SILICON | |
| CR13 | 7-00353-03 | DIODE - LIGHT EMITTING | |
| CR14 | 7-00350-12 | DIODE - SILICON | |
| CR15 | 7-00350-12 | DIODE - SILICON | |
| CR16 | 7-00350-12 | DIODE - SILICON | |
| CR17 | 7-00350-12 | DIODE - SILICON | |
| CR18 | 7-00350-12 | DIODE - SILICON | |
| CR19 | 7-00350-12 | DIODE - SILICON | |
| CR20 | 7-00350-12 | DIODE - SILICON | |
| CR21 | 7-00350-12 | DIODE - SILICON | |
| CR22 | 7-00350-12 | DIODE - SILICON | |
| CR23 | 7-00350-12 | DIODE - SILICON | |
| CR24 | 7-00350-12 | DIODE - SILICON | |
| CR25 | 7-00350-12 | DIODE - SILICON | |
| CR26 | 7-00350-12 | DIODE - SILICON | |
| CR27 | 7-00350-12 | DIODE - SILICON | |
| CR28 | 7-00350-12 | DIODE - SILICON | |
| CR29 | 7-00350-12 | DIODE - SILICON | |
| CR30 | 7-00350-12 | DIODE - SILICON | |
| CR31 | 7-00350-12 | DIODE - SILICON | |
| CR32 | 7-00350-05 | DIODE - SILICON | |
| J1 | 2-15470-03 | JACK - PHONE (SUBMINIATURE) | |
| P1 | 7-00750-16 | WAFER - POLARIZING ASSEMBLY (16 CKT) | |
| P2 | 7-00750-12 | WAFER - POLARIZING ASSEMBLY (12 CKT) | |
| P3 | 7-00787-10 | WAFER - TEST HEADER 2- USED (10 CKT) | |
| P4 | 7-00787-10 | WAFER - TEST HEADER 2- USED (10 CKT) | |
| P5 | 7-00750-13 | WAFER - POLARIZING ASSEMBLY (13 CKT) | |
| P6 | | NOT USED | |
| P7 | 7-00750-02 | WAFER - POLARIZING ASSEMBLY (2 CKT) | |
| P8 | 7-00750-11 | WAFER - POLARIZING ASSEMBLY (11 CKT) | |
| P9 | 7-00750-11 | WAFER - POLARIZING ASSEMBLY (11 CKT) | |
| P10 | 7-00750-16 | WAFER - POLARIZING ASSEMBLY (16 CKT) | |
| P11 | 7-00750-10 | WAFER - POLARIZING ASSEMBLY (10 CKT) | |
| P12 | 7-00750-06 | WAFER - POLARIZING ASSEMBLY (6 CKT) | |
| Q1 | 7-00300-08 | TRANSISTOR - SILICON (NPN) | |
| Q2 | | NOT USED | |
| Q3 | 7-00300-08 | TRANSISTOR - SILICON (NPN) | |
| Q4 | 7-00301-04 | TRANSISTOR - SILICON (PNP) | |
| Q5 | 7-00301-04 | TRANSISTOR - SILICON (PNP) | |
| Q6 | 7-00300-08 | TRANSISTOR - SILICON (NPN) | |
| Q7 | 7-00301-04 | TRANSISTOR - SILICON (PNP) | |
| Q8 | 7-00300-08 | TRANSISTOR - SILICON (NPN) | |
| Q9 | 7-00300-08 | TRANSISTOR - SILICON (NPN) | |
| Q10 | 7-00300-03 | TRANSISTOR - SILICON (NPN) | |
| Q11 | 7-00301-04 | TRANSISTOR - SILICON (PNP) | |
| Q12 | 7-00313-01 | TRANSISTOR - SILICON (NPN) | |
| Q13 | 7-00300-08 | TRANSISTOR - SILICON (NPN) | |
| Q14 | 7-00301-04 | TRANSISTOR - SILICON (PNP) | |
| Q15 | 7-00300-08 | TRANSISTOR - SILICON (NPN) | |
| Q16 | 7-00302-09 | TRANSISTOR - SILICON DARLINGTON | |
| Q17 | 7-00302-09 | TRANSISTOR - SILICON DARLINGTON | |
| Q18 | 7-00302-09 | TRANSISTOR - SILICON DARLINGTON | |
| Q19 | 7-00302-09 | TRANSISTOR - SILICON DARLINGTON | |
| Q20 | 7-00302-09 | TRANSISTOR - SILICON DARLINGTON | |
| Q21 | 7-00302-09 | TRANSISTOR - SILICON DARLINGTON | |
| Q22 | 7-00302-09 | TRANSISTOR - SILICON DARLINGTON | |
| Q23 | 7-00308-05 | TRANSISTOR - SILICON POWER DARLINGTON | |
| Q24 | 7-00308-05 | TRANSISTOR - SILICON POWER DARLINGTON | |
| Q25 | 7-00308-05 | TRANSISTOR - SILICON POWER DARLINGTON | |
| Q26 | 7-00308-05 | TRANSISTOR - SILICON POWER DARLINGTON | |
| Q27 | 7-00308-05 | TRANSISTOR - SILICON POWER DARLINGTON | |
| Q28 | 7-00308-05 | TRANSISTOR - SILICON POWER DARLINGTON | |
| Q29 | 7-00308-05 | TRANSISTOR - SILICON POWER DARLINGTON | |
| Q30 | 7-00308-05 | TRANSISTOR - SILICON POWER DARLINGTON | |
| Q31 | 7-00308-05 | TRANSISTOR - SILICON POWER DARLINGTON | |
| Q32 | 7-00308-05 | TRANSISTOR - SILICON POWER DARLINGTON | |
| Q33 | 7-00301-04 | TRANSISTOR - SILICON (PNP) | |
| R1 | 7-99013-31 | RESISTOR - CARBON (1/4W 5%) 330 | |
| R2 | 7-99011-53 | RESISTOR - CARBON (1/4W 5%) 15K | |
| R3 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | |
| R4 | 7-99013-31 | RESISTOR - CARBON (1/4W 5%) 330 | |
| R5 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | |
| R6 | 7-99011-53 | RESISTOR - CARBON (1/4W 5%) 15K | |
| R7 | 7-99011-53 | RESISTOR - CARBON (1/4W 5%) 15K | |
| R8 | 7-99011-53 | RESISTOR - CARBON (1/4W 5%) 15K | |
| R9 | 7-99011-53 | RESISTOR - CARBON (1/4W 5%) 15K | |
| R10 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | |
| R11 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | |
| R12 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | |
| R13 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | |
| R14 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | |
| R15 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | |
| R16 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | |
| R17 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | |
| R18 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | |
| R19 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | |
| R20 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | |
| R21 | 7-99011-04 | RESISTOR - CARBON (1/4W 5%) 100K | |
| R22 | 7-99011-04 | RESISTOR - CARBON (1/4W 5%) 100K | |
| R23 | 7-99012-21 | RESISTOR - CARBON (1/4W 5%) 220 | |
| R24 | 7-99012-22 | RESISTOR - CARBON (1/4W 5%) 2.2K | |

**FIGURE
15**

| FIG. AND INDEX NO. | ROWE PART NO. | DESCRIPTION | QTY. PER ASM. |
|--------------------|---------------|----------------------------------|---------------|
| R25 | 7-99611-02 | RESISTOR - CARBON (1/4W 5%) 1K | 10K |
| R26 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R27 | 7-99011-02 | RESISTOR - CARBON (1/4W 5%) 1K | 4.7K |
| R28 | 7-99011-02 | RESISTOR - CARBON (1/4W 5%) 1K | 1K |
| R29 | 7-99011-02 | RESISTOR - CARBON (1/4W 5%) 1K | 1K |
| R30 | 7-99014-72 | RESISTOR - CARBON (1/4W 5%) 4.7K | 100 |
| R31 | 7-99013-31 | RESISTOR - CARBON (1/4W 5%) 330 | 47K |
| R32 | 7-99011-02 | RESISTOR - CARBON (1/4W 5%) 1K | 47K |
| R33 | 7-99012-22 | RESISTOR - CARBON (1/4W 5%) 2.2K | 47K |
| R34 | 7-99012-71 | RESISTOR - CARBON (1/4W 5%) 270 | 47K |
| R35 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 47K |
| R36 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 1K |
| R37 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 10 |
| R38 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 10K |
| R39 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 47K |
| R40 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 100 |
| R41 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 1M |
| R42 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 33K |
| R43 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 270 |
| R44 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 330 |
| R45 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R46 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R47 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R48 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R49 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R50 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 4.7K |
| R51 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 2K |
| R52 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 4.7K |
| R53 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 220 |
| R54 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 2.2K |
| R55 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 2K |
| R56 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 2.2K |
| R57 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 470K |
| R58 | | NOT USED | 22K |
| R59 | | NOT USED | 100K |
| R60 | | NOT USED | 22K |
| R61 | | NOT USED | 22K |
| R62 | | NOT USED | 100K |
| R63 | | NOT USED | 22K |
| R64 | | NOT USED | 100K |
| R65 | | NOT USED | 22K |
| R66 | | NOT USED | 22K |
| R67 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 100K |
| R68 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 100K |
| R69 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 100K |
| R70 | | NOT USED | 100K |
| R71 | | NOT USED | 22K |
| R72 | | NOT USED | 100K |
| R73 | | NOT USED | 22K |
| R74 | | NOT USED | 4.7K |
| R75 | | NOT USED | 1.7K |
| R76 | | NOT USED | 4.7K |
| R77 | | NOT USED | 47K |
| R78 | | NOT USED | 47K |
| R79 | | NOT USED | 47K |
| R80 | | NOT USED | 3.3K |
| R81 | | NOT USED | 1K |
| R82 | | NOT USED | 47K |
| R83 | | NOT USED | 100K |
| R84 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 4.7K |
| R85 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R86 | 7-99014-72 | RESISTOR - CARBON (1/4W 5%) 4.7K | 4.7K |
| R87 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R88 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R89 | 7-99011-01 | RESISTOR - CARBON (1/4W 5%) 100 | 100 |
| R90 | 7-99013-31 | RESISTOR - CARBON (1/4W 5%) 330 | 330 |
| R91 | 7-99013-31 | RESISTOR - CARBON (1/4W 5%) 330 | 330 |
| R92 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R93 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R94 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R95 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R96 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R97 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R98 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R99 | 7-99026-81 | RESISTOR - CARBON (1/4W 2%) 680 | 680 |
| R100 | 7-99014-74 | RESISTOR - CARBON (1/4W 5%) 470K | 470K |
| R101 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 10 K | 10 K |
| R102 | 7-99014-75 | RESISTOR - CARBON (1/4W 5%) 4.7M | 4.7M |
| R103 | 7-99011-86 | RESISTOR - CARBON (1/4W 5%) 18M | 18M |
| R104 | 7-99022-02 | RESISTOR - CARBON (1/4W 2%) 2K | 2K |
| R105 | 7-99011-53 | RESISTOR - CARBON (1/4W 5%) 15K | 15K |
| R106 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R107 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R108 | 7-99013-43 | RESISTOR - CARBON (1/4W 5%) 39K | 39K |
| R109 | 7-99014-72 | RESISTOR - CARBON (1/4W 5%) 4.7K | 4.7K |
| R110 | 7-99011-51 | RESISTOR - CARBON (1/4W 5%) 150 | 150 |
| R111 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R112 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R113 | 7-99014-72 | RESISTOR - CARBON (1/4W 5%) 4.7K | 4.7K |
| R114 | 7-99011-02 | RESISTOR - CARBON (1/4W 5%) 1K | 1K |
| R115 | 7-99201-01 | RESISTOR - CARBON (2W 5%) 100 | 100 |
| R116 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 47K |
| R117 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 47K |
| R118 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 47K |
| R119 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 47K |
| R120 | 7-99013-32 | RESISTOR - CARBON (1/4W 5%) 3.3K | 3.3K |
| R121 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R122 | 7-99011-02 | RESISTOR - CARBON (1/4W 5%) 1K | 1K |
| R123 | 7-99011-00 | RESISTOR - CARBON (1/4W 5%) 10 | 10 |
| R124 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R125 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 47K |
| R126 | 7-99011-01 | RESISTOR - CARBON (1/4W 5%) 100 | 100 |
| R127 | 7-99011-05 | RESISTOR - CARBON (1/4W 5%) 1M | 1M |
| R128 | 7-99013-33 | RESISTOR - CARBON (1/4W 5%) 33K | 33K |
| R129 | 7-99011-01 | RESISTOR - CARBON (1/4W 5%) 270 | 270 |
| R130 | 7-99013-31 | RESISTOR - CARBON (1/4W 5%) 330 | 330 |
| R131 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R132 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R133 | 7-99014-72 | RESISTOR - CARBON (1/4W 5%) 4.7K | 4.7K |
| R134 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R135 | 7-99011-02 | RESISTOR - CARBON (1/4W 5%) 1K | 1K |
| R136 | 7-99014-72 | RESISTOR - CARBON (1/4W 5%) 4.7K | 4.7K |
| R137 | 7-99022-02 | RESISTOR - CARBON (1/4W 2%) 2K | 2K |
| R138 | 7-99014-72 | RESISTOR - CARBON (1/4W 5%) 4.7K | 4.7K |
| R139 | 7-99012-21 | RESISTOR - CARBON (1/4W 5%) 220 | 220 |
| R140 | 7-99022-22 | RESISTOR - CARBON (1/4W 2%) 2.2K | 2.2K |
| R141 | 7-99022-02 | RESISTOR - CARBON (1/4W 2%) 2K | 2K |
| R142 | 7-99012-22 | RESISTOR - CARBON (1/4W 5%) 2.2K | 2.2K |
| R143 | 7-99014-74 | RESISTOR - CARBON (1/4W 5%) 470K | 470K |
| R144 | 7-99012-23 | RESISTOR - CARBON (1/4W 5%) 22K | 22K |
| R145 | 7-99011-04 | RESISTOR - CARBON (1/4W 5%) 100K | 100K |
| R146 | 7-99012-23 | RESISTOR - CARBON (1/4W 5%) 22K | 22K |
| R147 | 7-99011-04 | RESISTOR - CARBON (1/4W 5%) 100K | 100K |
| R148 | 7-99012-23 | RESISTOR - CARBON (1/4W 5%) 22K | 22K |
| R149 | 7-99011-04 | RESISTOR - CARBON (1/4W 5%) 100K | 100K |
| R150 | 7-99012-23 | RESISTOR - CARBON (1/4W 5%) 22K | 22K |
| R151 | 7-99011-04 | RESISTOR - CARBON (1/4W 5%) 100K | 100K |
| R152 | 7-99012-23 | RESISTOR - CARBON (1/4W 5%) 22K | 22K |
| R153 | 7-99011-04 | RESISTOR - CARBON (1/4W 5%) 100K | 100K |
| R154 | 7-99012-23 | RESISTOR - CARBON (1/4W 5%) 22K | 22K |
| R155 | 7-99011-04 | RESISTOR - CARBON (1/4W 5%) 100K | 100K |
| R156 | 7-99012-23 | RESISTOR - CARBON (1/4W 5%) 22K | 22K |
| R157 | 7-99011-04 | RESISTOR - CARBON (1/4W 5%) 100K | 100K |
| R158 | 7-99012-23 | RESISTOR - CARBON (1/4W 5%) 22K | 22K |
| R159 | 7-99014-72 | RESISTOR - CARBON (1/4W 5%) 4.7K | 4.7K |
| R160 | 7-99014-72 | RESISTOR - CARBON (1/4W 5%) 4.7K | 4.7K |
| R161 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 47K |
| R162 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 47K |
| R163 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 47K |
| R164 | 7-99013-32 | RESISTOR - CARBON (1/4W 5%) 3.3K | 3.3K |
| R165 | 7-99011-02 | RESISTOR - CARBON (1/4W 5%) 1K | 1K |
| R166 | 7-99014-73 | RESISTOR - CARBON (1/4W 5%) 47K | 47K |
| R167 | 7-99011-04 | RESISTOR - CARBON (1/4W 5%) 100K | 100K |
| R168 | 7-99014-72 | RESISTOR - CARBON (1/4W 5%) 4.7K | 4.7K |
| R169 | 7-99011-53 | RESISTOR - CARBON (1/4W 5%) 15K | 15K |
| R170 | 7-99013-32 | RESISTOR - CARBON (1/4W 5%) 3.3K | 3.3K |
| R171 | 7-99011-01 | RESISTOR - CARBON (1/4W 5%) 100 | 100 |
| R172 | 7-99022-02 | RESISTOR - CARBON (1/4W 2%) 2K | 2K |
| R173 | 7-99014-71 | RESISTOR - CARBON (1/4W 5%) 470 | 470 |
| R174 | 7-99014-71 | RESISTOR - CARBON (1/4W 5%) 470 | 470 |
| R175 | 7-99014-71 | RESISTOR - CARBON (1/4W 5%) 470 | 470 |
| R176 | 7-99014-71 | RESISTOR - CARBON (1/4W 5%) 470 | 470 |
| R177 | 7-99014-71 | RESISTOR - CARBON (1/4W 5%) 470 | 470 |
| R178 | 7-99014-71 | RESISTOR - CARBON (1/4W 5%) 470 | 470 |
| R179 | 7-99014-71 | RESISTOR - CARBON (1/4W 5%) 470 | 470 |
| R180 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R181 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R182 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | 10K |
| R183 | 7-99014-72 | RESISTOR - CARBON (1/4W 5%) 4.7K | 4.7K |
| R184 | 7-00102-10 | RESISTOR - CARBON (1/2W 5%) 2.2K | 2.2K |
| R185 | 7-99014-72 | RESISTOR - CARBON (1/4W 5%) 4.7K | 4.7K |
| R186 | 7-00102-10 | RESISTOR - CARBON (1/2W 5%) 2.2K | 2.2K |
| R187 | 7-99014-72 | RESISTOR - CARBON (1/4W 5%) 4.7K | 4.7K |
| R188 | 7-00102-10 | RESISTOR - CARBON (1/2W 5%) 2.2K | 2.2K |
| R189 | 7-99014-72 | RESISTOR - CARBON (1/4W 5%) 4.7K | 4.7K |
| R190 | 7-00102-10 | RESISTOR - CARBON (1/2W 5%) 2.2K | 2.2K |
| R191 | 7-99014-72 | RESISTOR - CARBON (1/4W 5%) 4.7K | 4.7K |
| R192 | 7-00102-10 | RESISTOR - CARBON (1/2W 5%) 2.2K | 2.2K |
| R193 | 7-99014-72 | RESISTOR - CARBON (1/4W 5%) 4.7K | 4.7K |
| R194 | 7-00102-10 | RESISTOR - CARBON (1/2W 5%) 2.2K | 2.2K |
| R195 | 7-99014-72 | RESISTOR - CARBON (1/4W 5%) 4.7K | 4.7K |
| R196 | 7-00102-10 | RESISTOR - CARBON (1/2W 5%) 2.2K | 2.2K |

| FIG. AND INDEX NO. | ROWE PART NO. | DESCRIPTION | QTY. PER ASM. |
|--------------------|----------------|---|---------------|
| R197 | 7-99014-72 | RESISTOR - CARBON (1/4W 5%) 4.7K | |
| R198 | 7-00102-10 | RESISTOR - CARBON (1/2W 5%) 2.2K | |
| R199 | 7-99014-72 | RESISTOR - CARBON (1/4W 5%) 4.7K | |
| R200 | 7-00102-10 | RESISTOR - CARBON (1/2W 5%) 2.2K | |
| R201 | 7-99014-72 | RESISTOR - CARBON (1/4W 5%) 4.7K | |
| R202 | 7-00102-10 | RESISTOR - CARBON (1/2W 5%) 2.2K | |
| R203 | 7-00102-10 | RESISTOR - CARBON (1/2W 5%) 2.2K | |
| R204 | 7-99011-53 | RESISTOR - CARBON (1/4W 5%) 15K | |
| R205 | 7-99013-32 | RESISTOR - CARBON (1/4W 5%) 3.3K | |
| R206 | 7-99021-21 | RESISTOR - CARBON (1/4W 2%) 120 | |
| R207 | 7-99022-22 | RESISTOR - CARBON (1/4W 2%) 2.2K | |
| R208 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | |
| R209 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | |
| R210 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | |
| R211 | 7-99011-03 | RESISTOR - CARBON (1/4W 5%) 10K | |
| R212 | 7-99011-02 | RESISTOR - CARBON (1/4W 5%) 1K | |
| R213 | 7-99011-02 | RESISTOR - CARBON (1/4W 5%) 1K | |
| R214 | 7-99011-02 | RESISTOR - CARBON (1/4W 5%) 1K | |
| R215 | 7-99011-02 | RESISTOR - CARBON (1/4W 5%) 1K | |
| R216 | 7-99011-02 | RESISTOR - CARBON (1/4W 5%) 1K | |
| R217 | 7-99011-02 | RESISTOR - CARBON (1/4W 5%) 1K | |
| R218 | 7-99011-02 | RESISTOR - CARBON (1/4W 5%) 1K | |
| R219 | 7-99011-02 | RESISTOR - CARBON (1/4W 5%) 1K | |
| R220 | 7-99011-02 | RESISTOR - CARBON (1/4W 5%) 1K | |
| R221 | 7-99011-02 | RESISTOR - CARBON (1/4W 5%) 1K | |
| R222 | 7-99203-98 | RESISTOR - WIRE WOUND (2W 5%) .39 | |
| S1 | 7-00430-07 | SWITCH - DIP (3 POSITION) | |
| S2 | 7-00430-11 | SWITCH - DIP (8 POSITION) | |
| S3 | 7-00435-02 | SWITCH - PUSHBUTTON | |
| S3 | 7-00435-02 | SWITCH - PUSHBUTTON | |
| VR1 | 7-00365-07 | REGULATOR - VARIABLE POSITIVE VOLTAGE | |
| W1 | 0-05032-00 | WIRE - BARE | |
| W2 | | NOT USED | |
| W3 | 0-05032-00 | WIRE - BARE | |
| W4 | | NOT USED | |
| W5 | | NOT USED | |
| Y1 | 2-51673-06 | CRYSTAL - QUARTZ (4MHz) | |
| Z1 | 7-99402-44 | IC - BUFFER - OCTAL HIGH SPEED CMOS (74HC244) | |
| Z2 | 7-00371-24 | IC - TRANCEIVER - OCTAL BUS (74LS245) | |
| Z3 | 7-99300-32 | IC - OR GATE - QUAD HIGH SPEED CMOS 2 INPUT (74HCT32) | |
| Z4 | 937-401 | IC - EPROM - 32K x 8 (27256) | |
| Z5 | 7-00371-11 | IC - D FLIP-FLOP - OCTAL (74LS374) | |
| Z6 | 7-00337-02 | IC - PHOTOCOUPLER - OPTO ISOLATOR | |
| Z7 | 7-00363-05 | IC - OPEN COLLECTOR BUFFER - HEX (7417) | |
| Z8 | 7-99303-74 | IC - D FLIP-FLOP - OCTAL HIGH SPEED CMOS (74HCT374) | |
| Z9 | 7-00389-01 | IC - MICROPROCESSOR - 8/16 BIT (6809) | |
| Z10 | | IC - NOT USED | |
| Z11 | 7-99402-44 | IC - BUFFER - OCTAL HIGH SPEED CMOS (74HC244) | |
| Z12 | | IC - NOT USED | |
| Z13 | 7-00337-06 | IC - PHOTOCOUPLER - OPTO ISOLATOR | |
| Z14 | | IC - NOT USED | |
| Z15 | | IC - NOT USED | |
| Z16 | 7-00371-18 | IC - BUFFER - OCTAL (74LS244) | |
| Z17 | 7-00371-18 | IC - BUFFER - OCTAL (74LS244) | |
| Z18 | 7-00366-02 | IC - STATIC RAM - CMOS 2K X 8 (6116) | |
| Z19 | 7-99303-74 | IC - D FLIP-FLOP - OCTAL HIGH SPEED CMOS (74HCT374) | |
| Z20 | 7-99300-02 | IC - NOR GATE - HIGH SPRRD CMOS QUAD 2 INPUT (74HCT02) | |
| Z21 | 7-00388-01 | IC - VIA - TIMERS & I/O (6522) | |
| Z22 | 7-00371-22 | IC - DECODER/DEMULTIPLER - 4 TO 16 LINE (74LS154) | |
| Z23 | | IC - NOT USED | |
| Z24 | 7-99300-10 | IC - NAND GATE - TRIPLE HIGH SPEED CMOS 3 INPUT (74HCT10) | |
| Z25 | | IC - NOT USED | |
| Z26 | 7-00371-07 | IC - INVERTER - (74LS04) | |
| Z27 | 7-00388-01 | IC - VIA - TIMERS & I/O (6522) | |
| Z28 | 7-00371-18 | IC - BUFFER - OCTAL (74LS244) | |
| Z29 | 7-00371-23 | IC - DECODER/DEMULTIPLER - DUAL 2 TO 4 LINE (74LS155) | |
| Z30 | 7-00368-02 | IC - DUAL COMPARATOR (LM393) | |
| Z31 | 7-00378-01 | IC - TRANSCIEVER (RS485) | |
| Z32 | 7-00371-25 | IC - DATA SELECTOR 8 TO 1 LINE (74LS251) | |
| Z33 | 7-00368-01 | IC - QUAD COMPARATOR (3302) | |
| Z34 | 7-99402-44 | IC - BUFFER - OCTAL HIGH SPEED CMOS (74HC244) | |
| Z35 | 7-99303-74 | IC - D FLIP-FLOP - OCTAL HIGH SPEED CMOS (74HCT374) | |
| Z36 | 7-00340-28 | IC - DECODER - CMOS BCD TO DECIMAL (4028) | |
| Z37 | 7-00369-01 | IC - DARLINGTON ARRAY | |
| Z38 | 7-00340-51 | IC - MULTIPLEXER/DEMULTIPLER - CMOS ANALOG (4051) | |
| Z39 | 7-00369-01 | IC - DARLINGTON ARRAY | |

Harness List

| <u>MAIN HARNESES</u> | | |
|----------------------|----------|-------------------------|
| 4900S | 4900JR | DESCRIPTION |
| 493-1856 | Same | Main Line Cord Assembly |
| 493-1852 | Same | Main Door |
| 493-1855 | 494-1806 | Main Cabinet |

| <u>ASSEMBLY INTERNAL HARNESES</u> | | |
|-----------------------------------|----------|---|
| 4900S | 4900JR | Description |
| 493-1857 | Same | Main Power Switch Asm. |
| 493-1873 | Same | Gum & Mint Sold Out Switches (on sliding panel) |
| 493-1874 | Same | Gum & Mint Unit (Delivery Motors) |
| 490-1865 | - | 5 Motor Tray |
| 490-1866 | - | 10 Motor Tray |
| - | 494-1804 | 4 Motor Tray |
| - | 494-1805 | 8 Motor Tray |

| <u>POINT TO POINT HARNESES</u> | | |
|--------------------------------|--------|---|
| 4900S | 4900JR | <u>FROM</u> _____ <u>TO</u> |
| 493-1851 | Same | Main Controller _____ Main Door Harness |
| 493-1869 | Same | CBA-2 _____ Power Supply |
| 493-1867 | Same | Main Controller _____ Coin Mech. Socket |
| 493-1868 | Same | Power Supply _____ Main Controller |
| 490-1872 | Same | Main Power Switch Asm. _____ Display Lamp |
| 493-1870 | Same | CBA-2 (P6) _____ Door Harness |

