ROWE®

490S & 490JR
Single Board Version
Snack/Candy Vendors
5 or 6 Shelf
w/Bill Acceptor

Field Service Manual
and
Parts Catalog

Technical Services

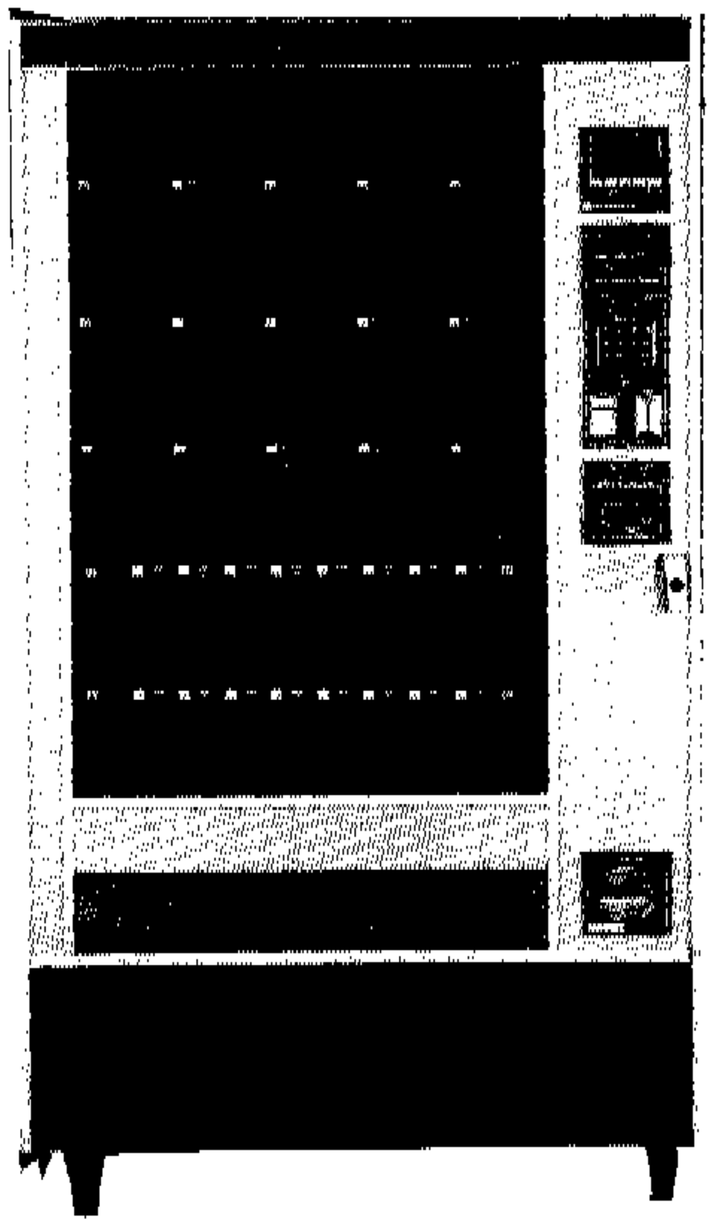
PART NO. 900-49020D
FOURTH EDITION

Table of Contents

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 / Shipping Weight	Approximately 650 lbs. to 750 lbs. depending upon configuration.	600-750



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 4900JR vendor product capacity is a function of the shelf configurations. Standard shelf configurations are shown on Pages iii and iv.

COIN MECHANISM

The 4900S and 4900JR vendors are designed to accommodate Mars MC5000 and Coinco C300/C600 machine controlled coin mechanisms.

BILL ACCEPTOR

Rowe Model OBA accepts **$1.00 & $5.00 bills.**
Automatic bill stacker with capacity of 500 bills standard.

PARTS KITS AND ACCESSORIES LIST

4900S PART NO.	4900JR PART NO.	DESCRIPTION	FUNCTION
493-6011	494-6011	Kickplate Kit	Styling
493-6029	Same	Universal Exhaust Fan Kit (Fits All Snack/Candy 4900's)	Air Circulation
65057024	Same	O.B.A. Bill Acceptor Kit	Currency Acceptance
490-4500	Same	Shelf Extender Cable Assembly	Service Shelf Out of Cabinet
490-6007	Same	Product Filler Kit	Vends Pastry
490-6009	Same	Gum & Mint Adaptor Kit – "Tums"	Vends "Tums"
490-6024	Same	Can Vendor Kit	Vends Food Cans
494-6000	Same	Door Lock Kit	Improve Locking

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	18	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	15	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	18	18	18	18	18
15	15	15	15	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	18	18
18	18	18	18	15	15	15	15	15	15
15	15	15	15	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	18	18	18	18	18	18	18
18	18	18	18	15	15	15	15	15	15
15	15	15	15	24	24	24	24	24	24

MODEL 4960S
Capacity: 1074 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	18	18	18	18	18
18	18	18	18	18	18	18	18	18	18
15	15	15	15	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	18	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	18	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	18	18	18	18	18
15	15	15	15	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
18	18	18	18	15	18	18	18	18	18
15	15	15	15	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	15	15	15	15	15	15
15	15	15	15	24	24	24	24	24	24

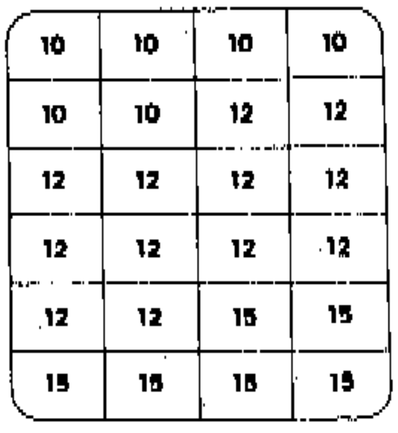
*Plus 5 gum and mint selections with 230 items.

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.

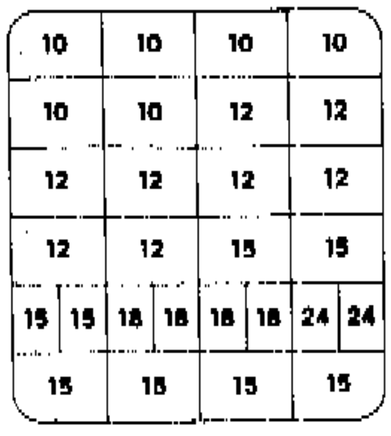
4900JR PRODUCT CAPACITIES

6 SHELF MODELS

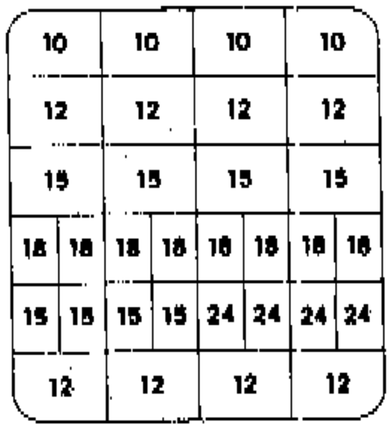
MODEL 4924-6
Capacity: 294 items*



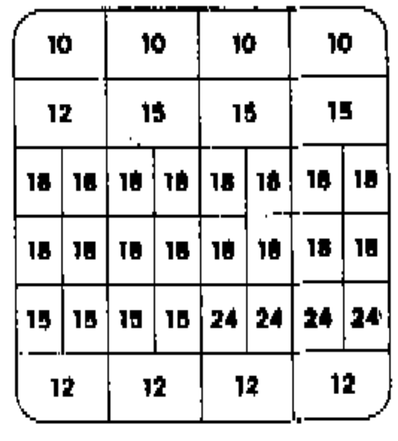
MODEL 4928-6
Capacity: 398 items*



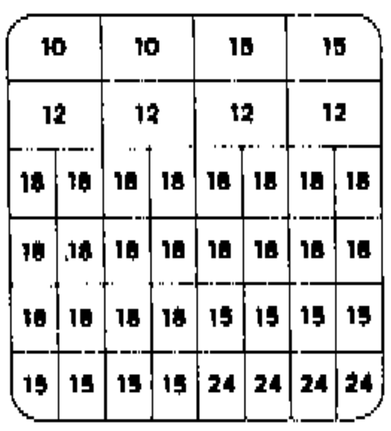
MODEL 4932-6
Capacity: 496 items*



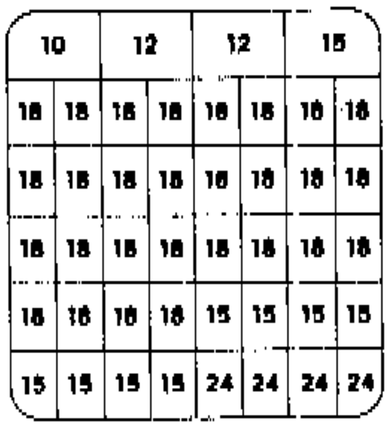
MODEL 4936-6
Capacity: 589 items*



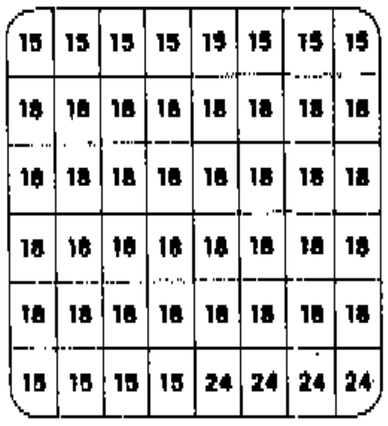
MODEL 4940-6
Capacity: 674 items*



MODEL 4944-6
Capacity: 769 items*



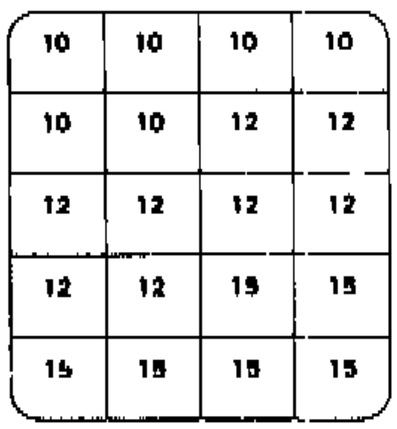
MODEL 4948-6
Capacity: 852 items*



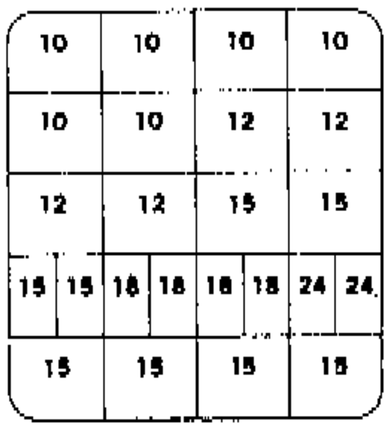
*Plus 5 gum and mint selections with 230 items.

5 SHELF MODELS

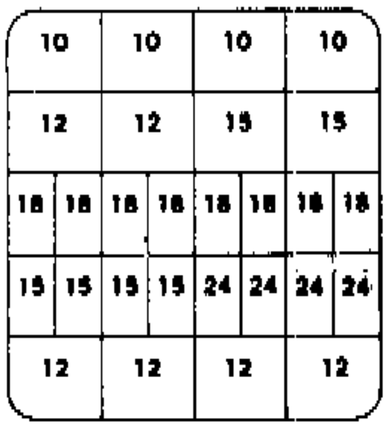
MODEL 4920-5
Capacity: 246 items*



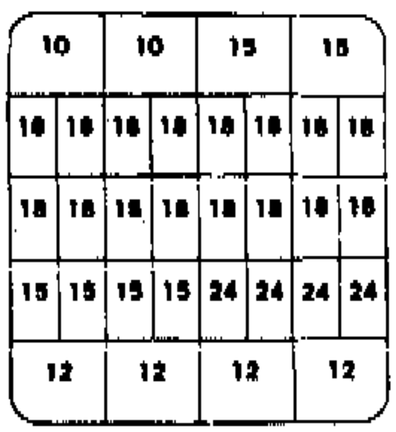
MODEL 4924-5
Capacity: 348 items*



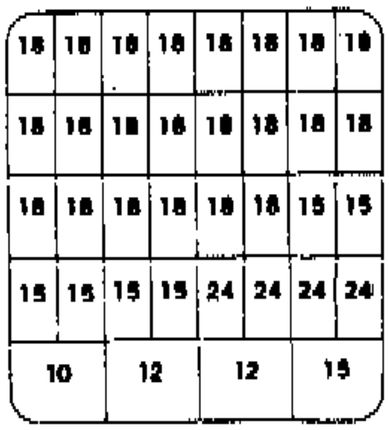
MODEL 4928-5
Capacity: 442 items*



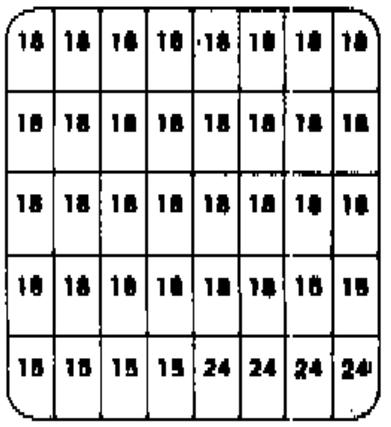
MODEL 4932-5
Capacity: 542 items*



MODEL 4936-5
Capacity: 631 items*



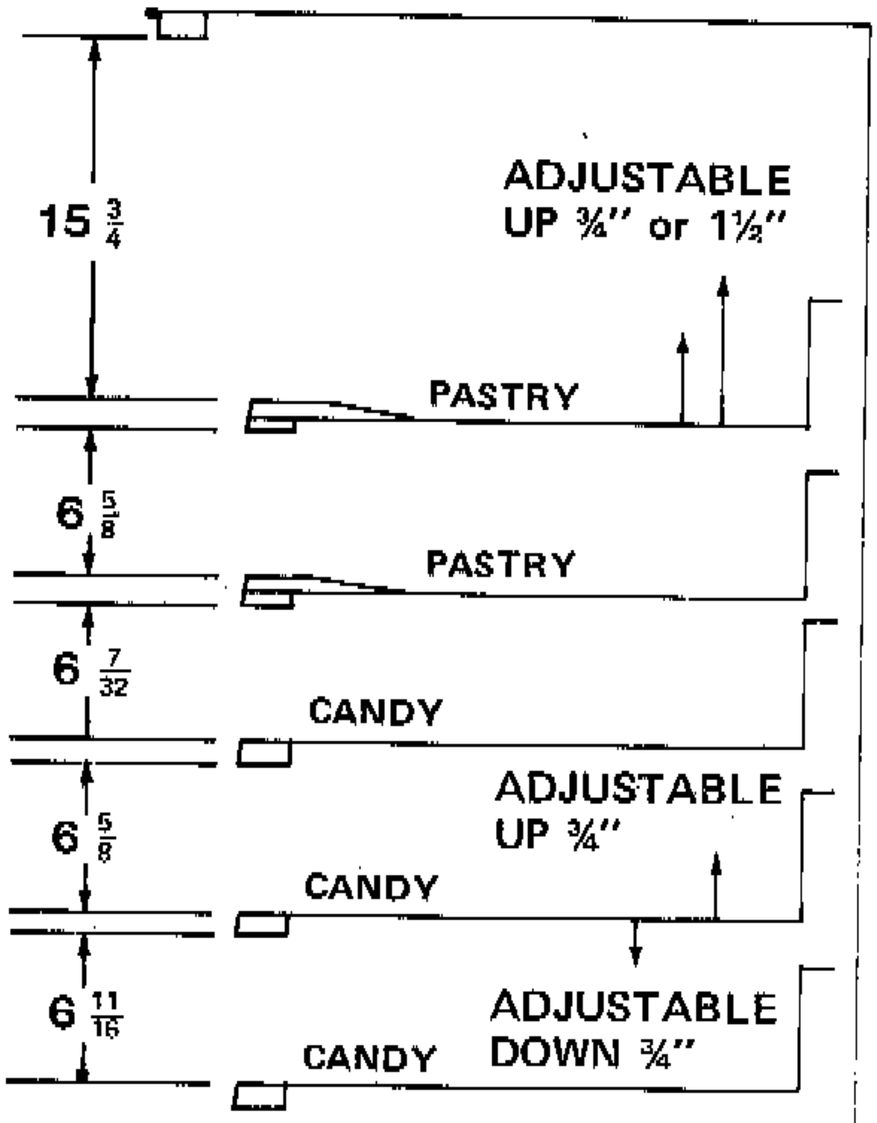
MODEL 4940-5
Capacity: 726 items*



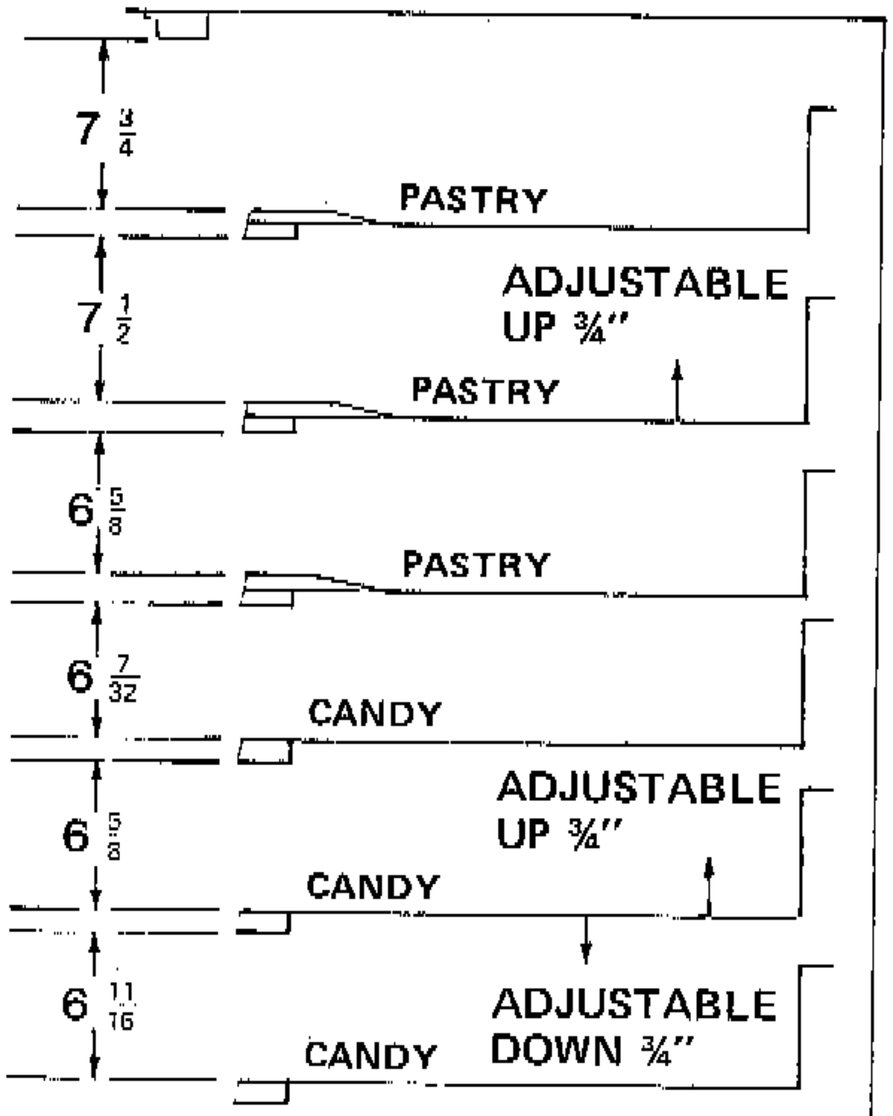
*Plus 5 gum and mint selections with 230 items.

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

PRODUCT WIDTHS

4900JR — 4 SELECTION SHELVES
4900S — 5 SELECTION SHELVES

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
12	490-33	1-11/16"	2-1/2/5-1/4
15	490-32	1-5/16"	2-1/2/5-1/4

4900JR — 8 SELECTION SHELVES
4900S — 10 SELECTION SHELVES

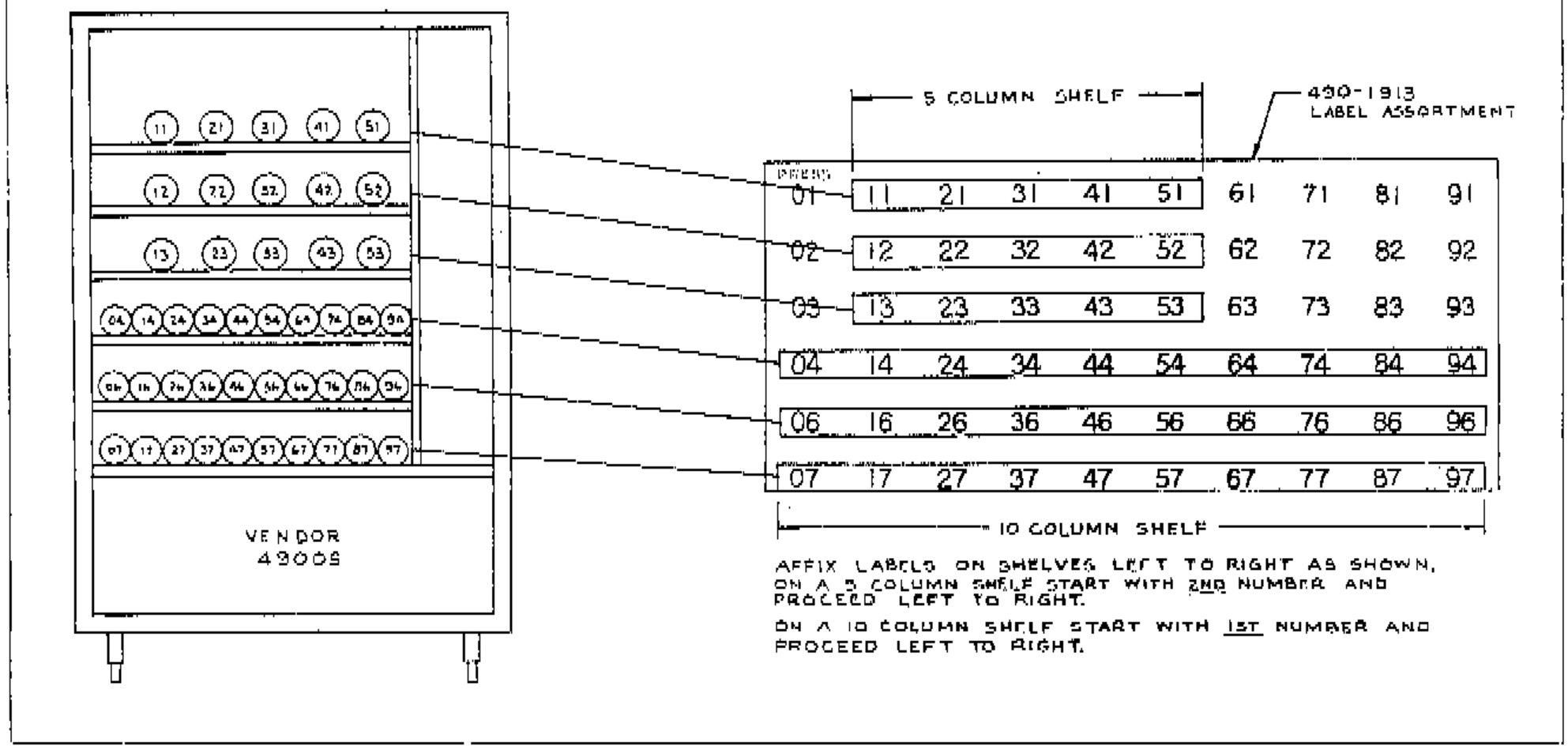
ITEM PER COMPARTMENT	HELIX PART NO.	MAX. PRODUCT THICKNESS	PRODUCT WIDTH
15	490-31	1-5/16"	1"/2-1/4"
18	490-30	1-1/16"	1"/2-1/4"
24	490-29	3/4"	1"/2-1/4"

NOTE:

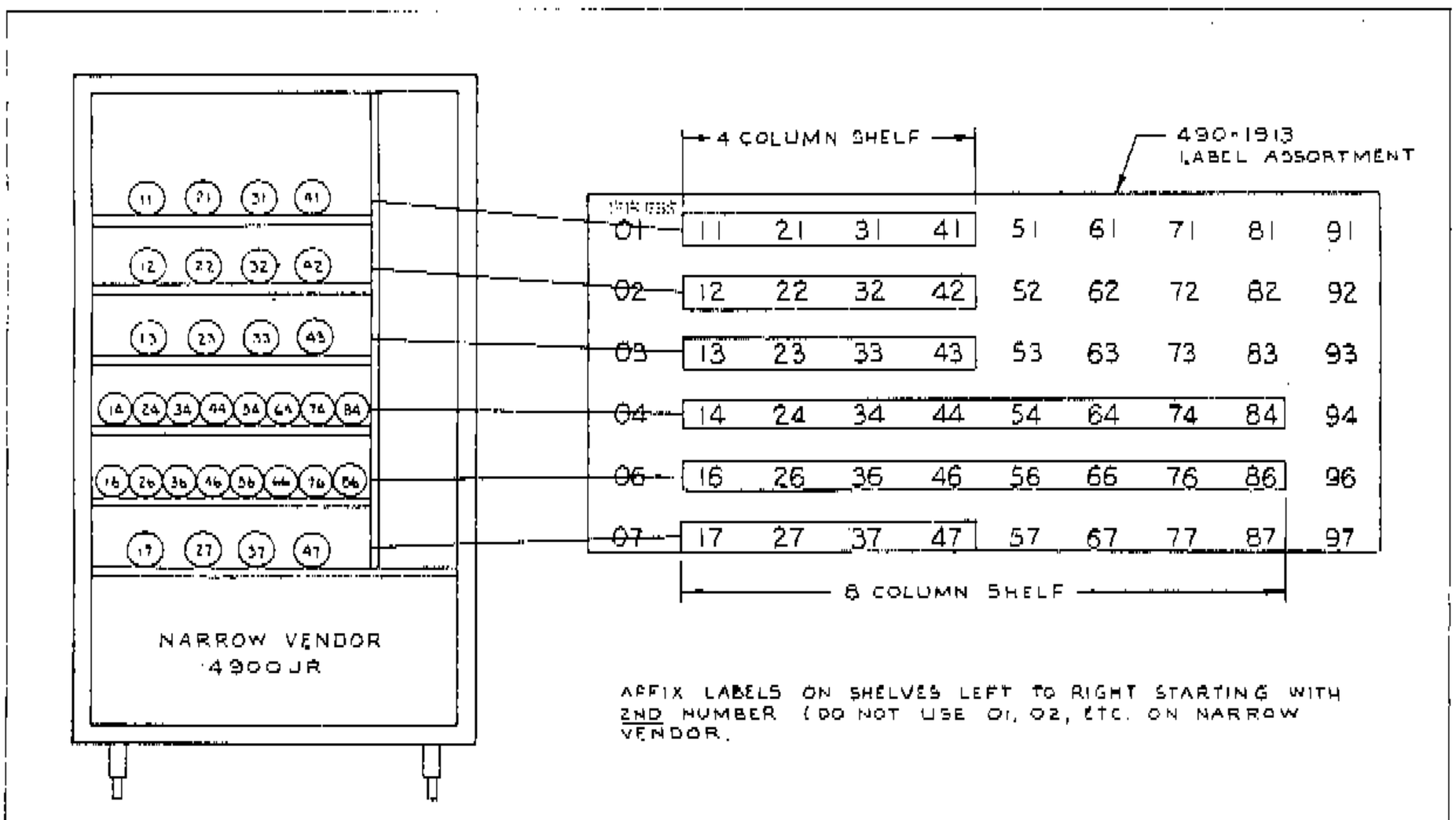
4900S — Partition in selection 4 can be moved to any of 4 locations altering width of selections 4 and 5. Maximum width of selection 4 can be 6 3/4", minimum width of selection 5 can be 3 3/4".

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 3/4", minimum width of selection 4 can be 3 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.

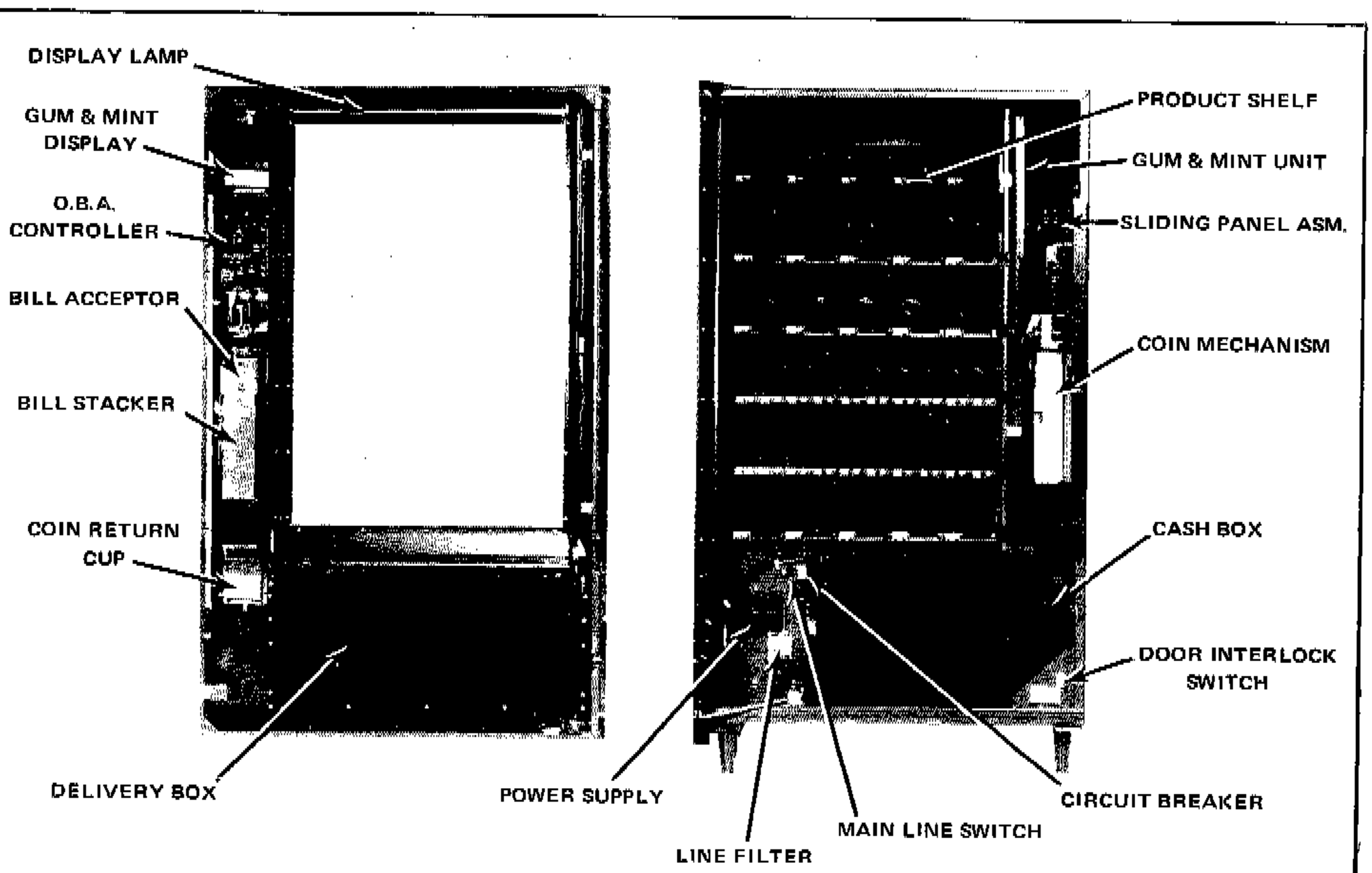


FIGURE 1. MAJOR COMPONENTS

A One Dollar Bill Acceptor is available as an option. The Acceptor takes valid dollar bills 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 Vendor features 24-volt operation using a completely isolated power supply for safety. The display fluorescent lamp and optional exhaust fan operate at 120 VAC. The optional Coinco coin mech operates at 24 VAC, the Mars at 120 VAC.

SELECTION IDENTIFICATION
(SEE PAGE VI)

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:

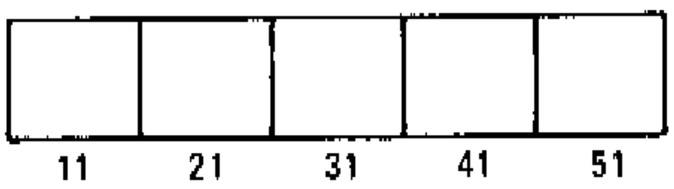
First digit identifies location of item on shelf. On 4 or 5 item shelves, the first item from the left is 1, second is 2, third is 3, etc. On 8 or 10 items shelves, the first item from the left is 0, the second item is 1, the third item is 2, the fourth item is 3, etc.

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:

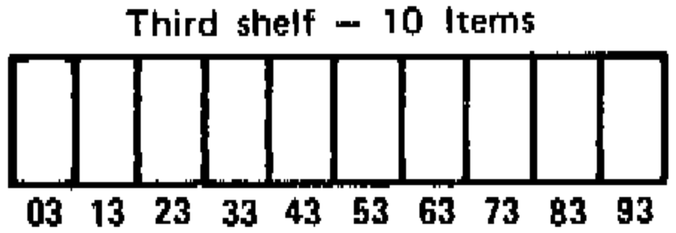
Six Shelf Machine

Top Shelf — 5 Items



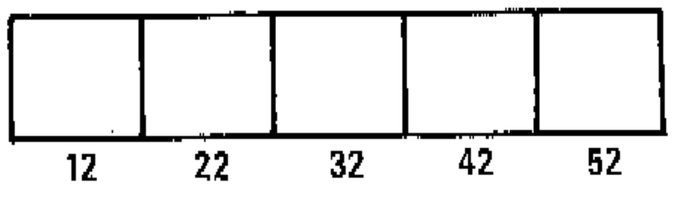
Second Shelf — 5 Items

Third shelf — 10 Items

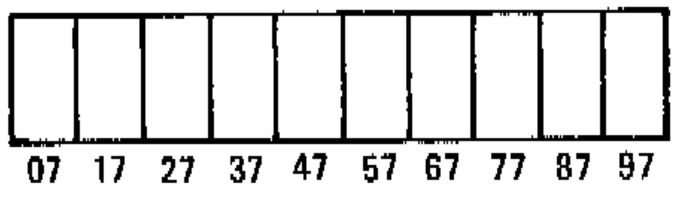


Five Shelf Machine

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.

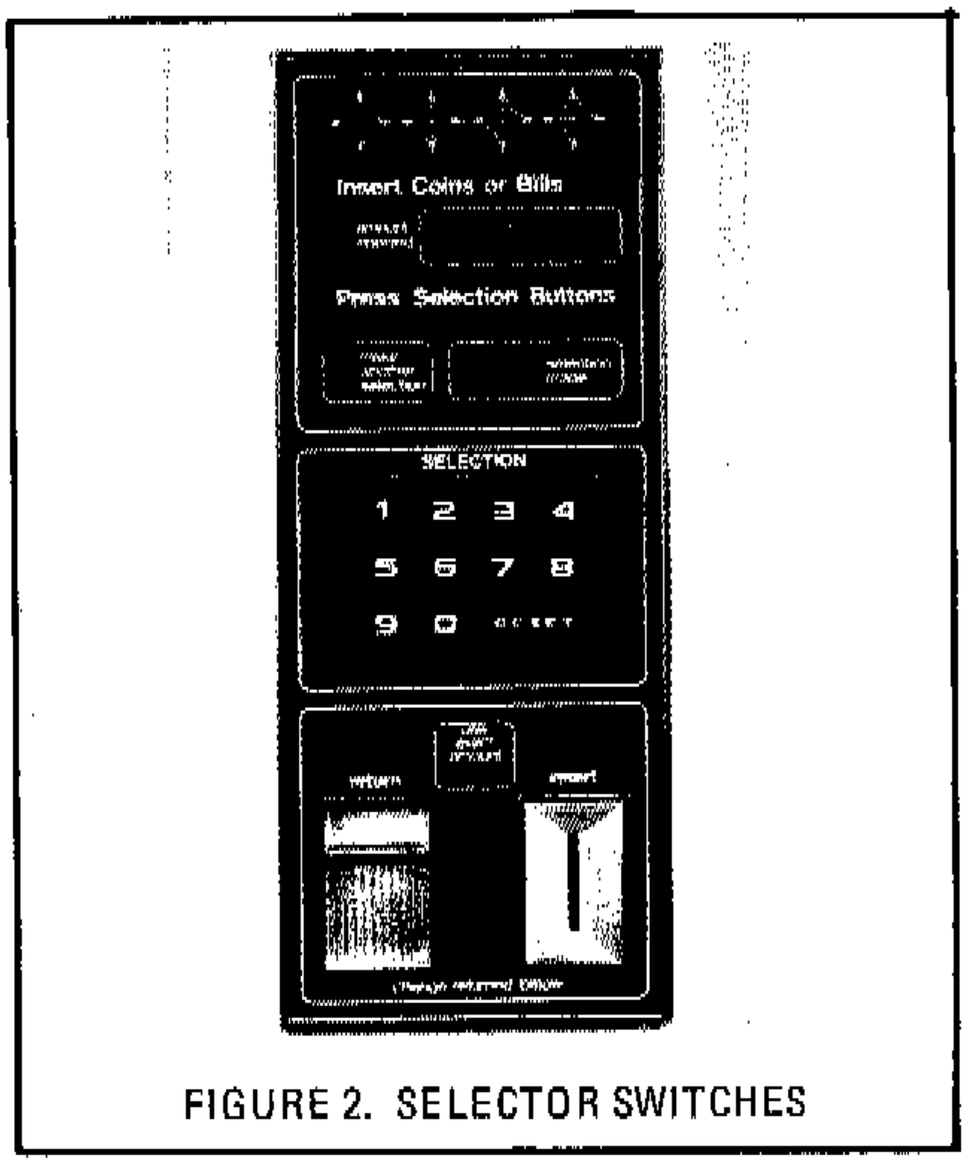
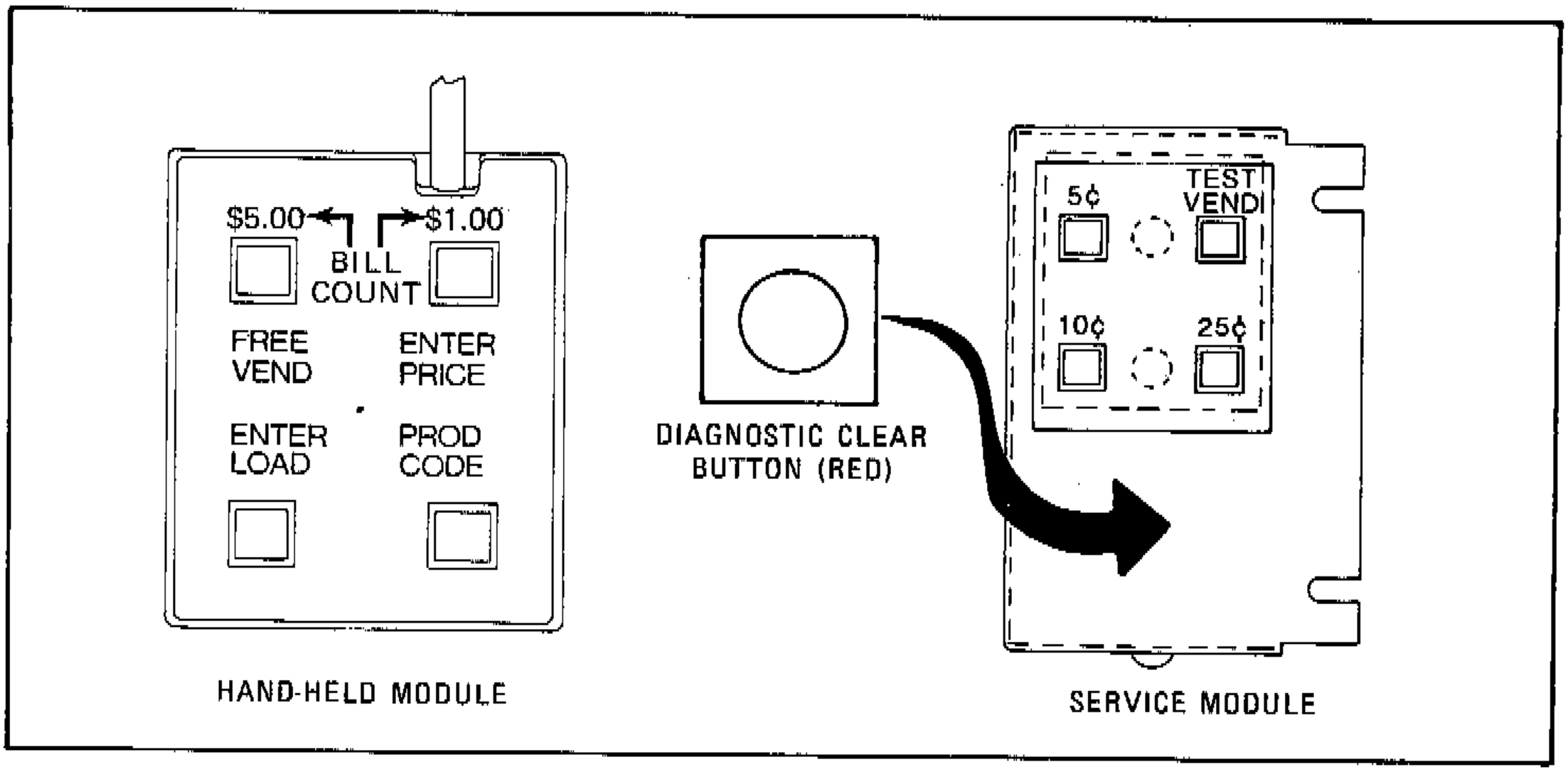


FIGURE 2. SELECTOR SWITCHES

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 dismounted 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 preceeding 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.

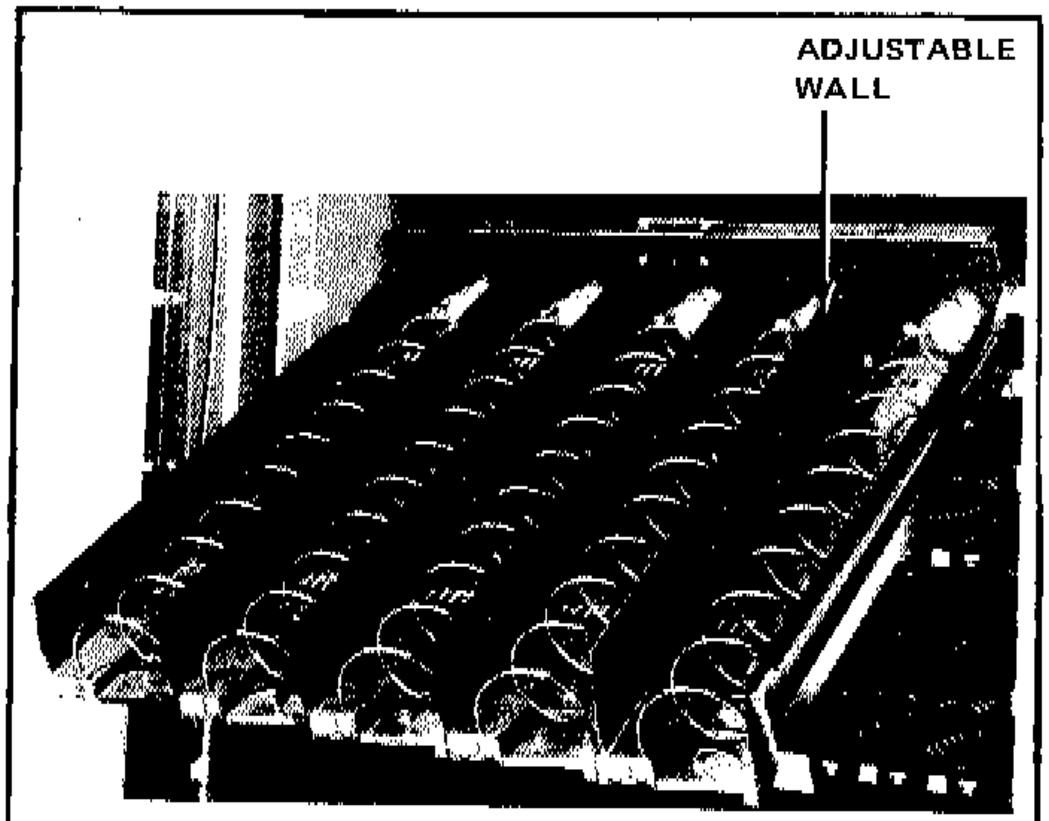


FIGURE 3.
ADJUSTABLE WALL (5 SELECTION SHELF)

7. Set pricing. Refer to correct procedure under PRICE SETTING on Page 6.

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 1.

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.)

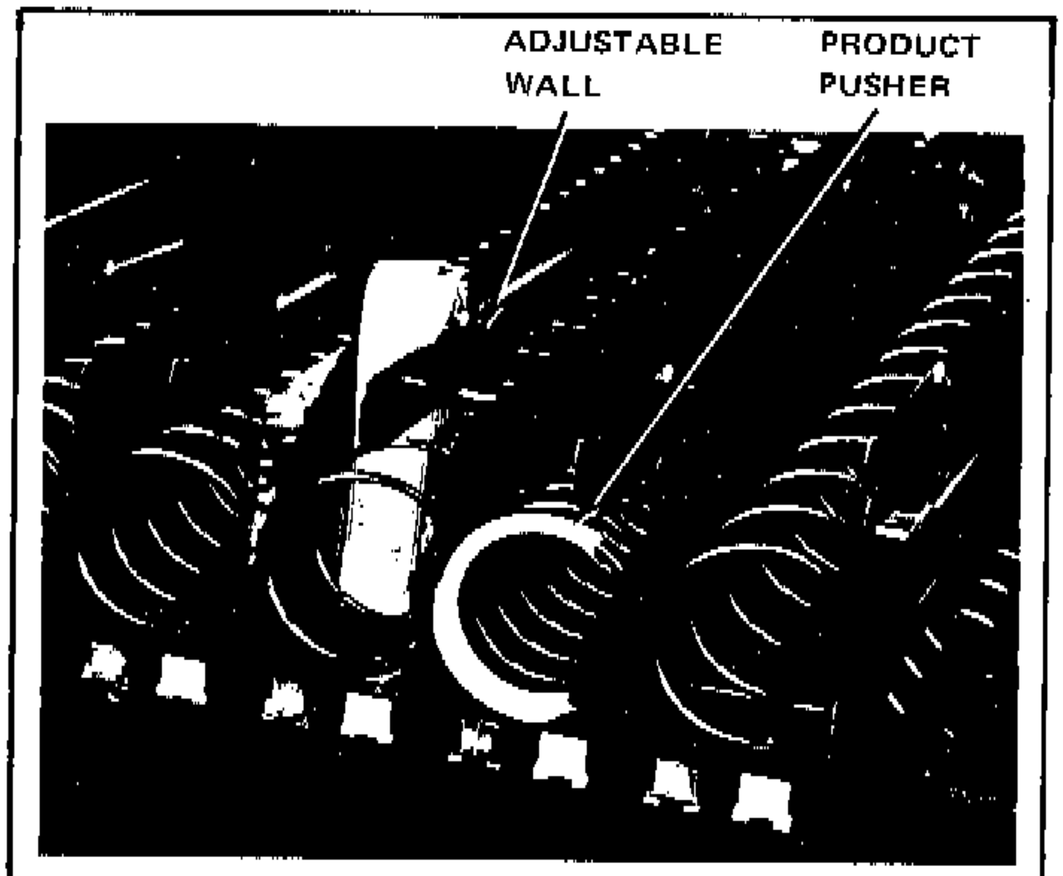


FIGURE 4.
ADJUSTABLE WALL (10 SELECTION SHELF)

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)

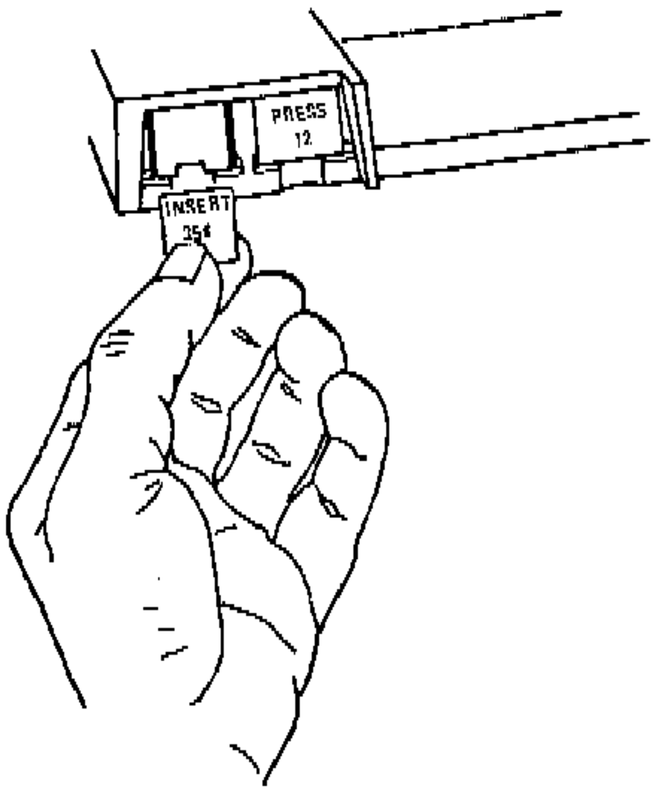


FIGURE 5.
INSTALLING PRODUCT SHELF PRICE CARDS

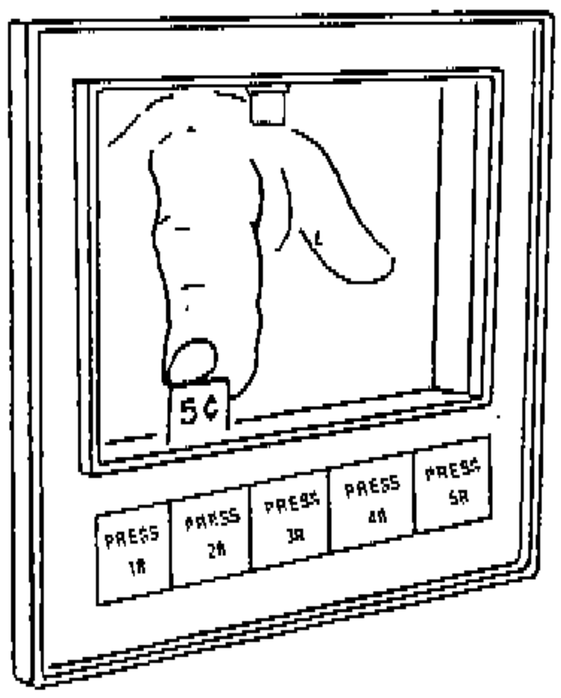


FIGURE 6.
INSTALLING GUM & MINT PRICE CARDS

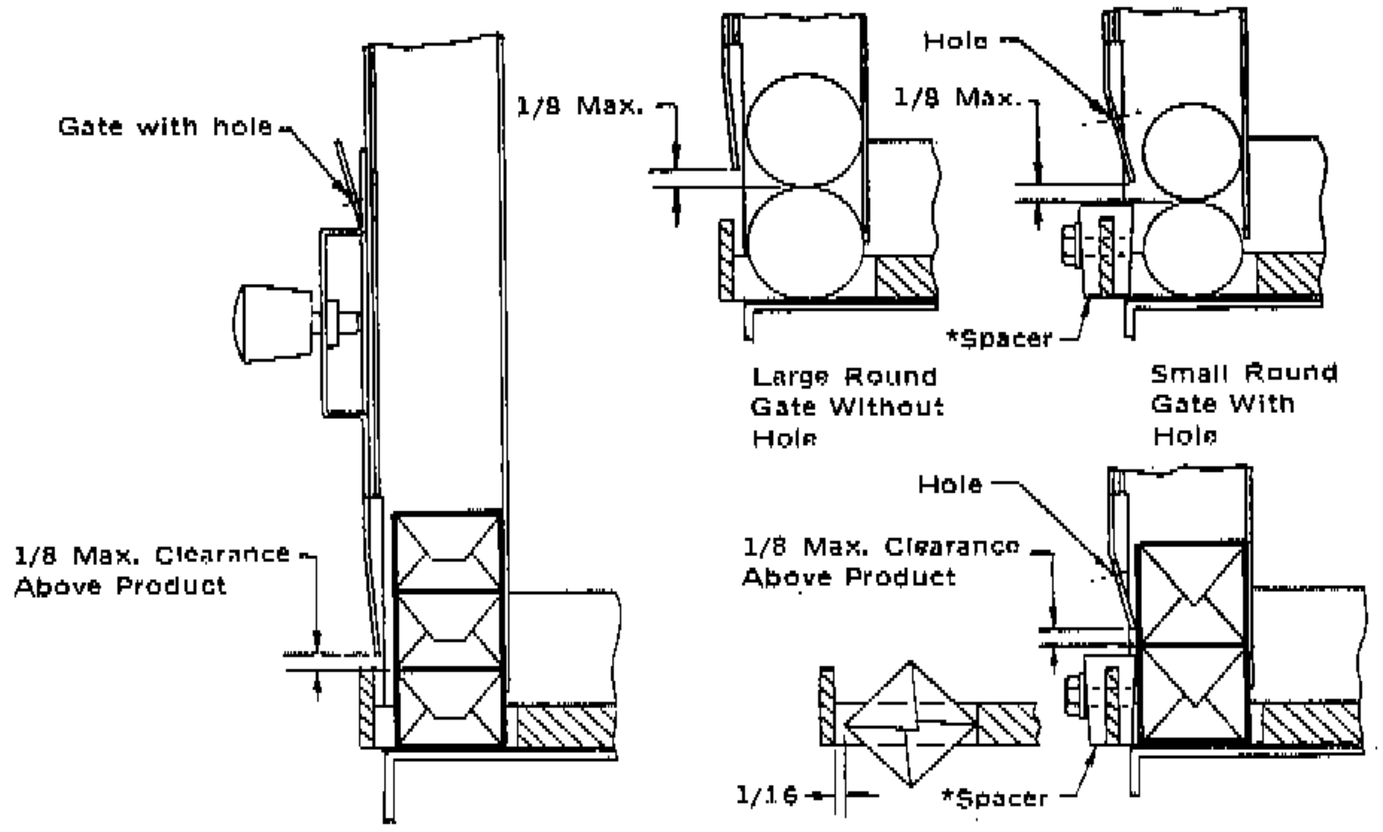


FIGURE 7. PRODUCT GATE ADJUSTMENT

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

When using a MARS MC5000 set Coin Control Switch No.2 on the back of the coin acceptor to the HI LEVEL position.

COIN MECH. SELECT (S1 SWITCH)

(See illustration on Page 20)

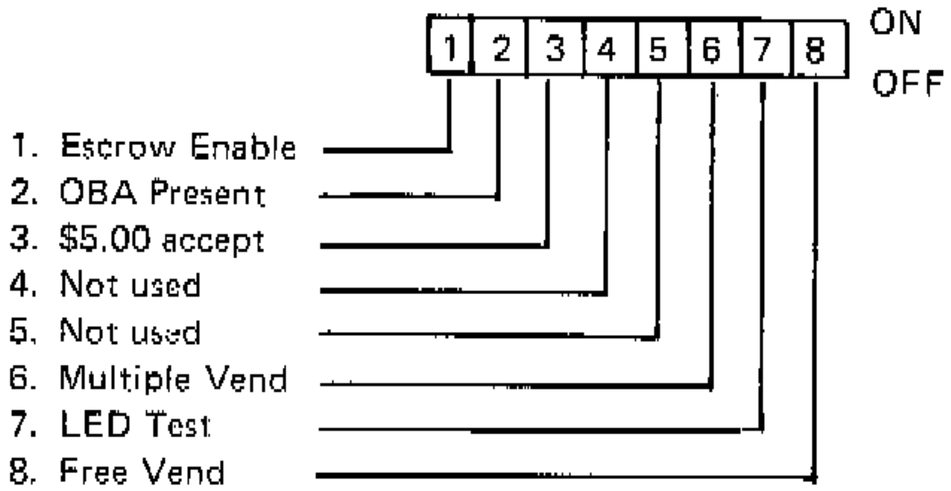
This set of switches determine which Coin Mechanism will be used in the 4900. These switches must be set correctly for the "Coin Mech" in use to function properly.

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

S1/1	S1/2	S1/3	
OFF	OFF	OFF	Mars MC5000 Coin Mech w/Mars payout mode
ON	OFF	OFF	Coinco C300 Coin Mech
OFF	ON	OFF	Coinco C600 Coin Mech
ON	ON	OFF	Mars MS1600 Executive Coin Mech
OFF	OFF	ON	Mars MC5000 Coin Mech w/Coinco payout mode
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.

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 9)

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 9)

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

The operation of this LED is dependant upon which coin mechanism is present in the vendor. If a Coinco C-300 or C-600 is being used this LED will light immediately upon detection of a low coin tube and will remain "on" as long as any of the coin tubes indicate a low status.

If a Mars MC5000 is being used this LED may be selected to operate in one of two ways depending on the state of switches S1/3 (see description of switches on 4900 Controller Board). If the Mars payout mode of operation is selected 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. (MS1600) is used this LED will operate in the same manner as that described above when using a Mars MC5000 coin mech. with the Mars payout mode selected.

"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 (OBA Unit) and its purpose is to provide a visual indication that the Bill Acceptor is faulty or simply cannot be used. If the OBA Unit happens to be faulty this LED AND 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 on "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.

DIP SWITCH S1 - COIN MECH. SELECT

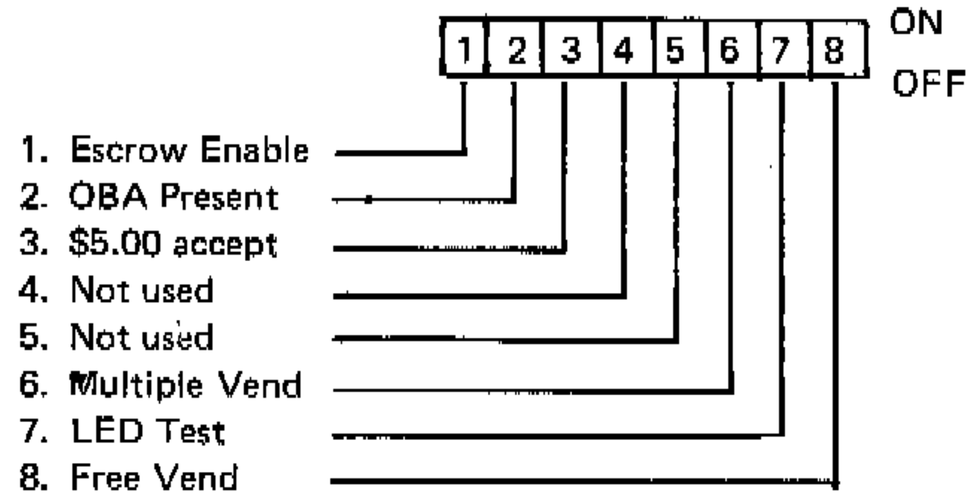
This set of switches determine which Coin Mechanism will be used in the 4900. These switches must be set correctly for the "Coin Mech" in use to function properly.

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

S1/1	S1/2	S1/3	
OFF	OFF	OFF	Mars MC5000 Coin Mech w/Mars payout mode
ON	OFF	OFF	Coinco C300 Coin Mech
OFF	ON	OFF	Coinco C600 Coin Mech
ON	ON	OFF	Mars MS1600 Executive Coin Mech
OFF	OFF	ON	Mars MC5000 Coin Mech w/Coinco payout mode
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.

OBA PRESENT SWITCH

This switch simply indicates to the Control system whether or not an OBA unit is present (switch = ON) or not present (switch = OFF). If the switch is "ON" and no OBA unit is present in the system 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 OBA unit used with the 4900 is capable of accepting $1.00 and $5.00 bills. Unless a fault condition exists with the OBA to prevent it from operating properly it will always accept $1.00 bills and only $1.00 bills if this switch is in the "OFF" position. If this switch is "ON" the bill acceptor will accept both $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.

—EXAMPLE—

Credit Display

Selection Display

Collected Cash = $1250.75

SWITCHES ON THE OBA CONTROL BOARD

Below is the configuration of these switches necessary for proper operation with the 4900. For a more detailed description see the O.B.A. section of this manual on page 39.

Switch 1 - OFF (left is "off" position
Switch 2 - OFF
Switch 3 - ON
Switch 4 - ON

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 below.

DOOR OPEN

In the Door Open mode (also referred to as the service mode) all setup 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 present) 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. Enter Product Code
5. Enter Load Count
6. Free Vend (On Hand Held Module)
7. Test Vend
8. Dispense Coin(s)
9. Extract Data Collection Information With:
   a. InterRowegator
   b. Coinco Data Probe
   c. Mars Data Probe
10. Obtain Accumulated Sales Information
11. 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 still held in memory as long as the diagnostic clear button was not pressed. Clearing of the error codes in this way is not permanent and maybe viewed again by going into the Closed Door Mode and then back to 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 codes have been cleared the code will be regenerated if it is put into an 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 of the error codes have been stepped through by hitting the reset key on the keyboard.

3. ENTER/VIEW PRICE

There is only one way to enter the price of a selection into the Controller, but there are two ways of viewing prices. 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 to 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 price to be examined, examine price on display, press RESET key to clear display, and enter selection of next price to be examined. To change the price of a selection simply follow either of the two methods just mentioned to obtain a display of the current price. With the current price displayed enter 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 steps mentioned previously for viewing prices.

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 its 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. ENTER PRODUCT CODE

The entire process for entering product codes is identical to that of entering prices, except the product codes cannot be examined on the credit display. The product code for a selection will only be visible on the credit display while it is being entered in and only until the Enter Product Code key is pressed at which time the display will advance to the next selection and the price of that selection will be displayed. Product code entries must be within the range of 0 to 255 to be valid. Any value outside this range will cause "Err" to be displayed

5. ENTER LOAD COUNT

The process for entering load count is the same in all respects as that of entering the product code. The range of valid entries is the only difference. Product load count is limited by the number of items that may be loaded into a given selection. The maximum allowable load count is 50 for gum and mint and 30 for all other selections. Therefore only a load count within these specifications will be accepted. Any value outside these established limits will cause "Err" to be displayed.

6. 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.

7. 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.

8. DISPENSING COIN(s)

The method for dispensing a coin(s) varies with the type of coin mech used in the vendor. All coin mech's compatible with the 4900 except the Mars model MC5000 have payout switches on the mech itself. To dispense coins from the MC5000 there are three payout buttons provided on the sliding panel. These buttons are clearly marked and pressing anyone of them will cause the corresponding coin to be dispensed.

9. EXTRACTING DATA COLLECTION INFORMATION

There are two devices available for obtaining Data Collection Information on the 4900. The Mars Data Probe and the Coinco Data Probe. The first

device available for extracting Data Collection information is the Coinco Data Probe. This device may be used with the 4900 when the door is open or closed. A magnetic sensor mounted on the front panel of the 4900 is used for sensing the presence of and transmitting data to the Coinco Data Probe. The Probe must be placed against this sensor to properly receive the Data Collection Information. When the Data Probe is activated it transmits a security code and then waits to receive data. The Controller must receive a valid security code before it will begin transmitting data. If the Controller receives an invalid security code five times it will signal a fault condition and then ignore any further attempts by the Data Probe to extract data for a period of one hour. If the security code sent by the Data Probe matches that maintained by the Controller, the Controller will proceed to send all Data Collection Information to the Data Probe. There are two indicators on the Coinco Data Probe to provide visual indication of operation. The red indicator will light when the Data Probe is sending its' security code and the yellow indicator will light during the time the Data Probe is receiving data. The yellow indicator will only light if the Data Probe is receiving data properly. The second device compatible with the 4900 for extracting Data Collection Information is the Mars Data Probe. This device operates via an infrared receiver and transmitter mounted on the front panel of the 4900. This Data Probe, like the Coinco Data Probe, also sends a security code when it is activated. If the Controller receives an invalid security code from a Mars Data Probe it will signal an error and ignore the Data Probe's request. Once the Controller receives a valid security code it will proceed to send all Data Collection Information to the Data Probe. There are indicators on the Mars Data Probe to aid in operating the device, an LED and an audible tone. If the Data Probe receives data properly it will blink it's LED (green in color) and beep rapidly. If the Data Probe detects an error in data transmission or malfunctions it will blink it's LED (red in color) and buzz at a constant rate. Any faults detected by the Controller will generate a fault code which may be viewed in the door open mode.

10. 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 reset to zero. Refer to discussion of Audit Switches under Machine Setup for details concerned with obtaining these figures.

11. 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 4 - 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, InterRowegator LED's.

MAIN POWER SUPPLY

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

O.B.A. CONTROL BOARD (in O.B.A. Section)

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

Additional Troubleshooting Information

A. Error Codes — See Error Code Chart.

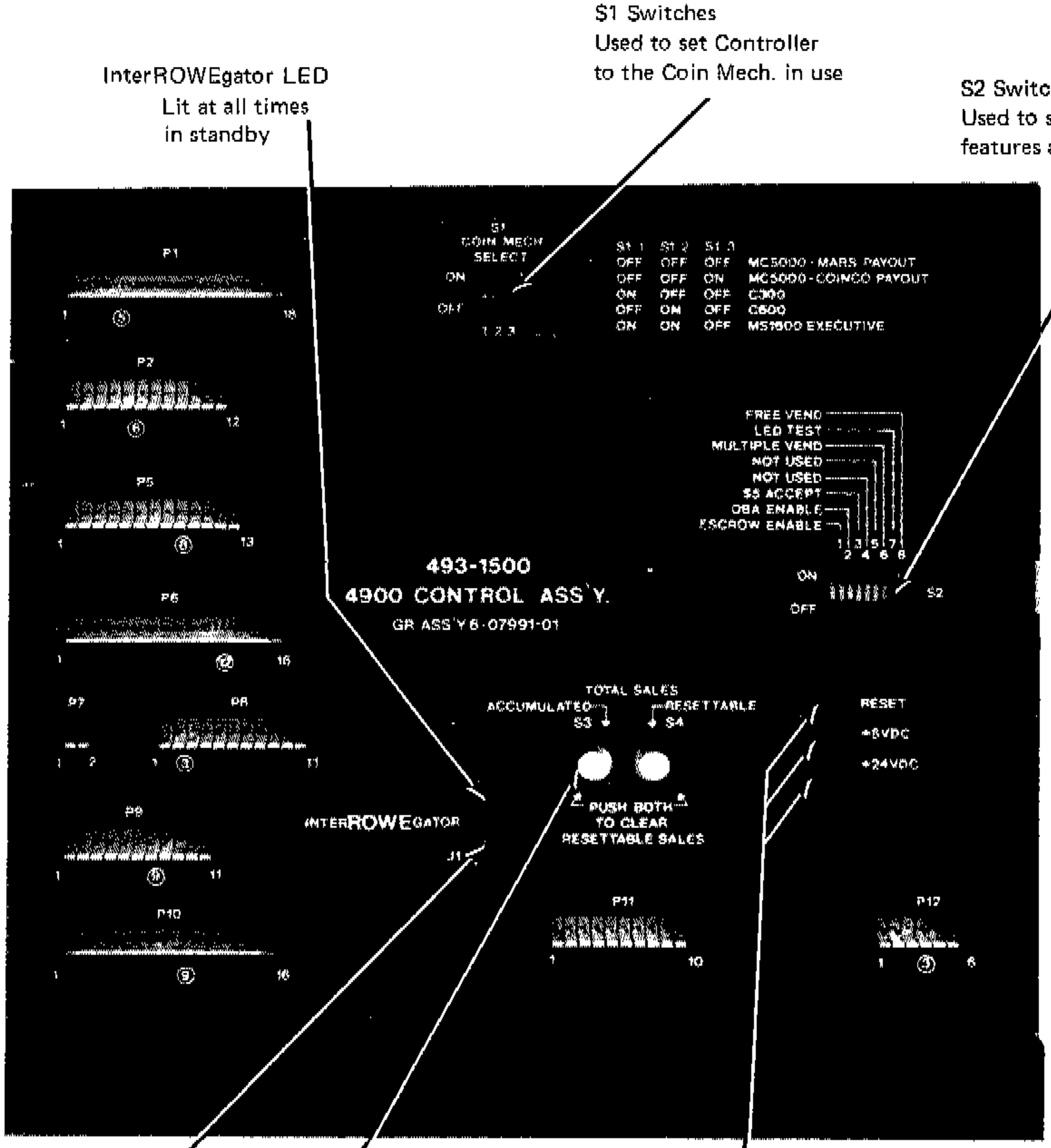
Information on corrective action is included in the troubleshooting charts.

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

Procedure for locating and repairing defective 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 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 selections 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 memory.


InterROWEgator LED
Lit at all times
S1 Switches
Used to set Controller
to the Coin Mech. in use
S2 Switches
Used to select desired
features available
S1
COIN MECH
SELECT
ON
OFF
1 2 3
S1 1 S1 2 S1 3
OFF OFF OFF MC5000 - MARS PAYOUT
OFF OFF ON MC5000 - COINCO PAYOUT
ON OFF OFF C300
OFF ON OFF C500
ON ON OFF MS1500 EXECUTIVE
FREE VEND
LED TEST
MULTIPLE VEND
NOT USED
NOT USED
$5 ACCEPT
OBA ENABLE
ESCROW ENABLE
1 3 5 7
2 4 6 8
ON
OFF
S2
P1
P2
P5
P6
P7
P8
P9
P10
P11
P12
493-1500
4900 CONTROL ASS'Y.
GR ASS'Y 6-07991-01
TOTAL SALES
ACCUMULATED
S3
RESETTABLE
S4
PUSH BOTH
TO CLEAR
RESETTABLE SALES
RESET
+5VDC
+24VDC
INTERROWEGATOR
J1
Data Collection
phono jack
Used to Display/Reset
Accumulated Cash Sales
(Total accumulated sales
(S3) is not resettable)
Voltage LEDs
Lit at all times

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 diagnotisc 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 occured 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 MARS MC5000 Coin Mech.

X Y

0 1 Jammed Strobe.

0 2 Defective sensor.

0 3 Not used.

0 4 Mars 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 OBA. Check OBA control unit for faults.

0 4 Cannot enable OBA to desired configuration. Check configuration of switches on OBA control unit and set as described under Setup in this manual.

41, 44, 48, 49 — See OBA Troubleshooting Section for detail

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
r Y 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
r 1 Shorted row one Driver (Q19)

ERROR CODES

(Displayed on Front Panel)

	SYMPTOM	PROBABLE CAUSE	CORRECTIVE ACTION
1.	E r 20	Bad Price Check Sum	Perform Diagnostic Clear procedure. Reset ALL prices.
2.	E r 20 (cannot clear)	Defective Controller	Replace
3.	E r 30	S1 Switch incorrectly set	Set for Coin Mech in use
4.	E r 30(cannot clear)	Defective Controller	Replace
5.	E r 35	S1 Switch incorrectly set	Set for Coin Mech in use.
6.	E r 35(cannot clear)	Defective Coin Mech	Replace
		Defective Controller	Replace
7.	E r 40	Dead Battery	Replace Controller
8.	E r 60	Fault condition with Mars MC5000	See Diagnostic Codes for detail
9.	E r 70 -- "A", "B", "C"	Defective Controller	Replace
10.	E r 80 0 1	No communication from O.B.A. Controller	Check P7 on Main Controller. Check P4 on O.B.A. Controller
		Defective O.B.A. Controller	Replace
		Defective Main Controller	Replace
11.	E r 80 0 2	Defective Main Controller	Replace
12.	E r 80 0 3	Defective O.B.A. Controller	Replace

ERROR CODES (Continued)

	SYMPTOM	PROBABLE CAUSE	CORRECTIVE ACTION
13.	Er 80 0 4	Improper S2 switch setting on O.B.A. Controller.	Set S2 to proper configuration.
		Defective O.B.A. Controller	Replace
14.	Er 80 41, 44, 48, 49	O.B.A. Failure	See O.B.A. Troubleshooting Section
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 34A.
		Entire Column inoperative	Check for either "open" or shorted (to chassis ground) selection motor "drive" wires. Refer to page 34A.
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 34A.
		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

Section - 7 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

FIGURE 1

Main Door Trim and Panels

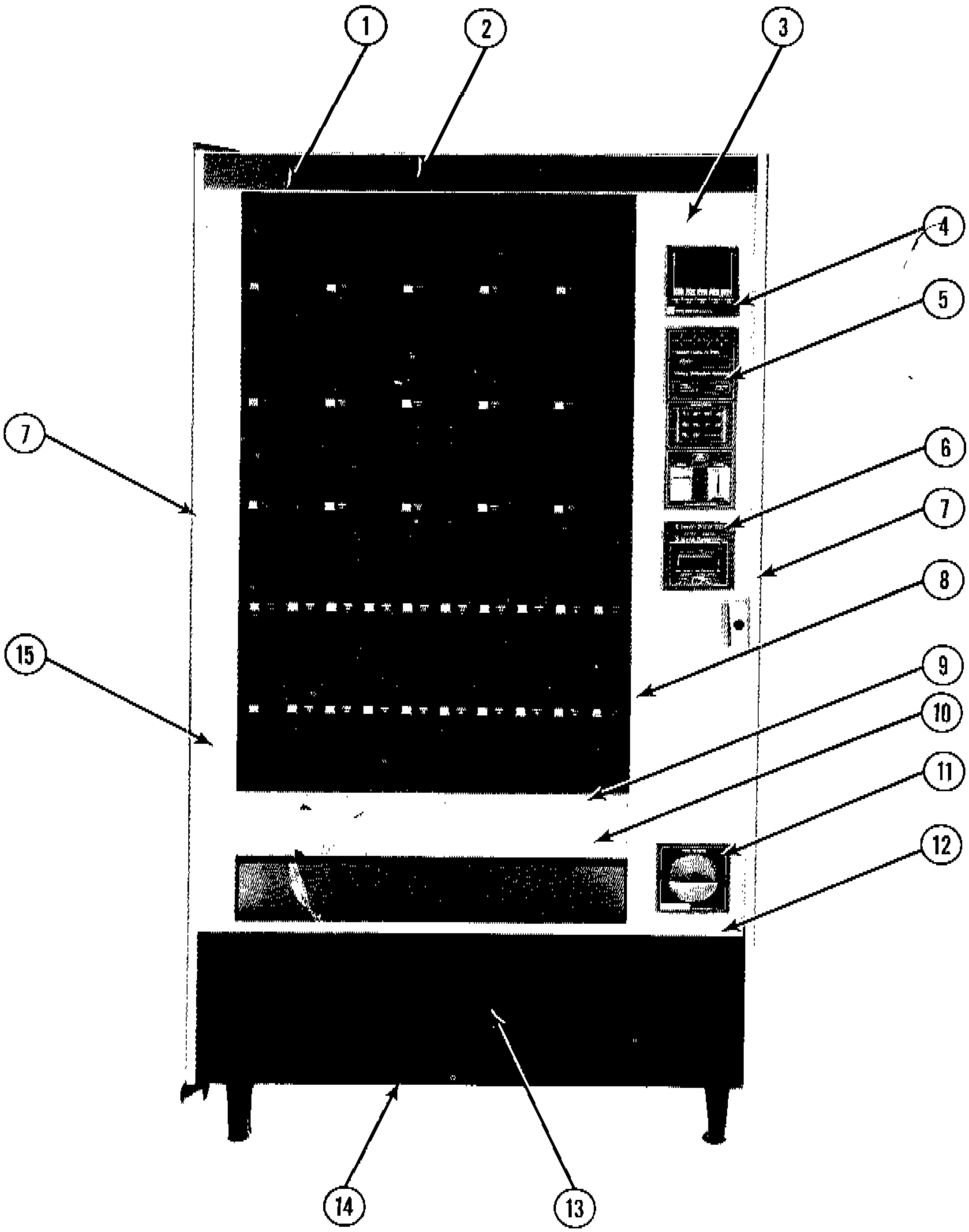


FIGURE 1

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/OBA →	493-471-7	493-471-7	493-471-79	493-471-79
3. Panel - R/H Vertical w/o Gum & Mint, w/o OBA →	493-472-7	493-472-7	493-472-79	493-472-79
3. Panel - R/H Vertical w/o Gum & Mint, w/OBA →	493-473-7	493-473-7	493-473-79	493-473-79
3. Panel - R/H Vertical w/Gum & Mint, w/o OBA →	493-474-7	493-474-7	493-474-79	493-474-79
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 →	408-496	408-496	408-497	408-497
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

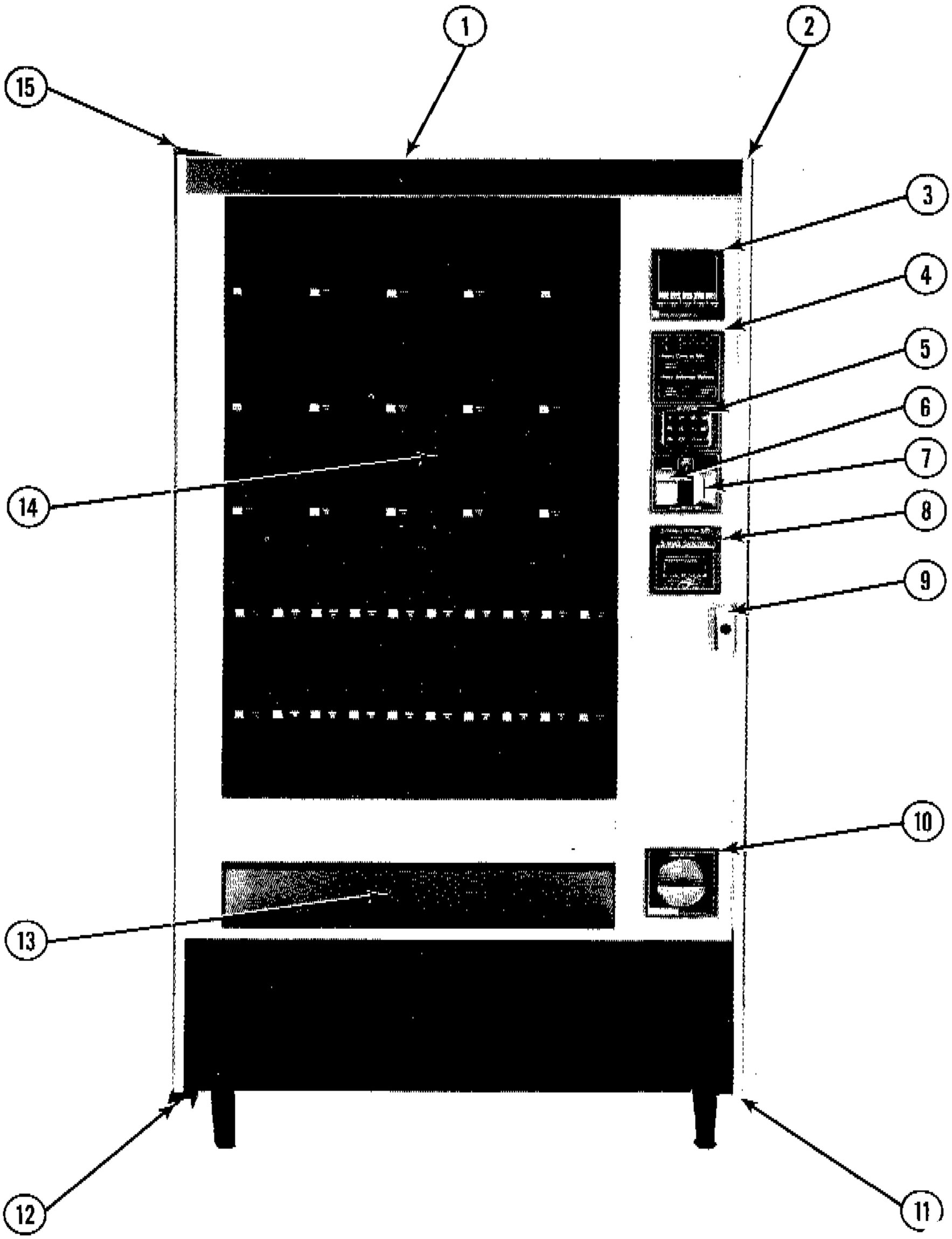


FIGURE 2

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	1
6	490-470	Same	Slide, Coin Return	1
7	490-584	Same	Gate, Coin Insert	1
8	408-495	Same	Bezel, Bill Acceptor	1
	924-176	Same	Nut, Bezel Anchoring	2
9	479-1420	Same	Handle, Pop-Out	1
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

FIGURE 3

Main Door Interior

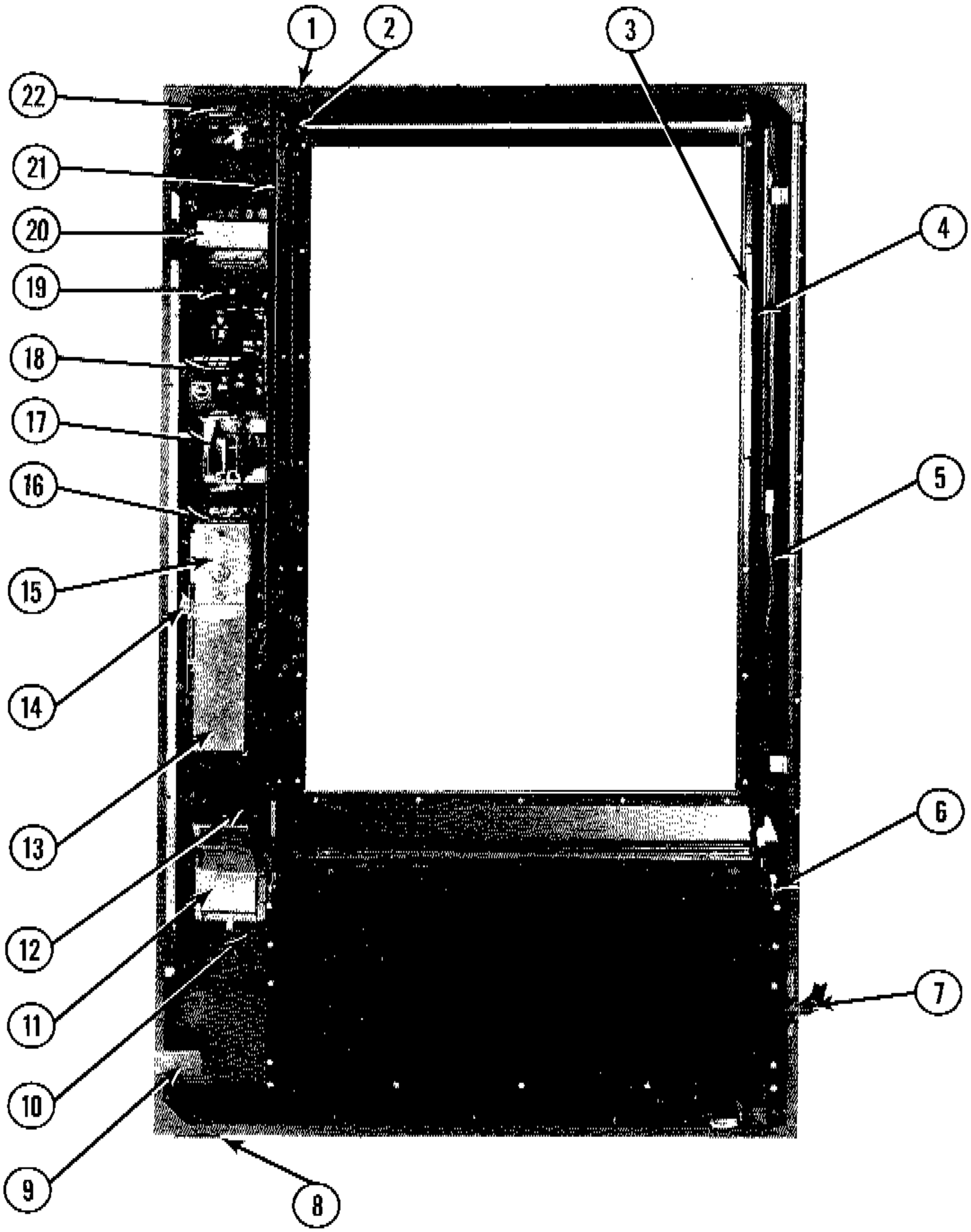


FIG. AND INDEX NO.	4900S PART NUMBER	4900JR PART NUMBER	DESCRIPTION	QTY. PER ASSY
	4900S	4900JR		
1	493-1450	494-1420	Main Door Final Asm.	REF
	493-1441-246	494-1416-245	Main Door W/A	REF
2	493-1810	494-1802	Bracket, Lamp Asm.	1
	141-828	794-461	Starter, Fluorescent Lamp	1
	493-412	494-411	Bracket, Lamp Mounting	1
	976-21	Same	Starter and Socket Asm.	1
	917-103	794-462	Lamp, Fluorescent	1

FIGURE 3

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
8	448-739	Same	Plate, Door Ramp	1
	934-380	Same	Screw, Plate Mounting	2
9	485-407	Same	Plate, Interlock Switch Actuating	1
	934-485	Same	Screw, Plate Mounting	2
10	493-1852	Same	Harness Asm., Main Door	1
	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	493-1403	Same	Cup Asm., Coin Return	1
	490-409	Same	Flap, Coin Return Cup	1
	490-424	Same	Pivot Shaft, Coin Return Flap	1
	493-1404	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	493-1505	Same	Bill Stacker Asm.	OPT
	493-1853	Same	Harness Asm., Stacker to O.B.A. Controller	1
14	493-415	494-419	Cam, Door Lock	1
	490-353	Same	Stop Spring	1
	493-1405	Same	Pin & Locking Bar R/A	1
15	493-1504	Same	Bill Transport Asm.	OPT
	493-1506	Same	Harness Asm., Interconnect	1
16	493-465	Same	Guard, Splash/Light - Bill Transport	1
17	490-1405	Same	Coin Insert & Return Asm.	1
	490-435	Same	Pivot, Coin Insert	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
18	493-1501	Same	O.B.A. Controller	OPT
19	493-1444	Same	Cover W/A, Display & P.C. Board	1
20	490-1472	Same	Gum & Mint Display Box W/A	1
21	493-414	Same	Shroud, Delivery Box R/H Side	1
22	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

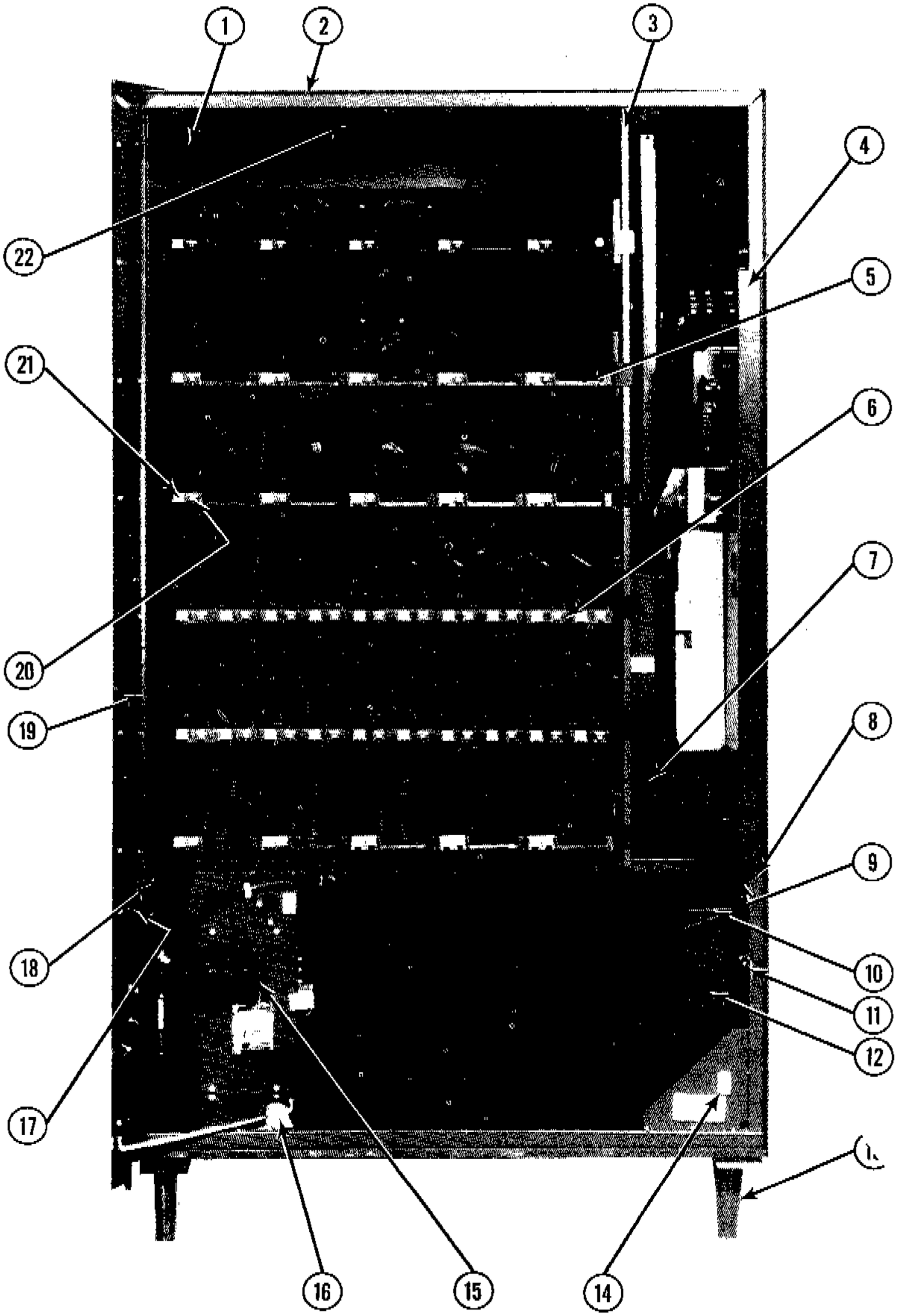


FIGURE 4

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	493-1315	494-1305	Cabinet, W/A	1
3	493-1311	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	493-1000	494-1000	Shelf Asm., 5 Selection - See Fig. 13	REF
6	493-1015	494-1015	Shelf Asm., 10 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, Fricton 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	494-1903	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	493-313	494-311	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)	

FIGURE 5

Selection Panel Components

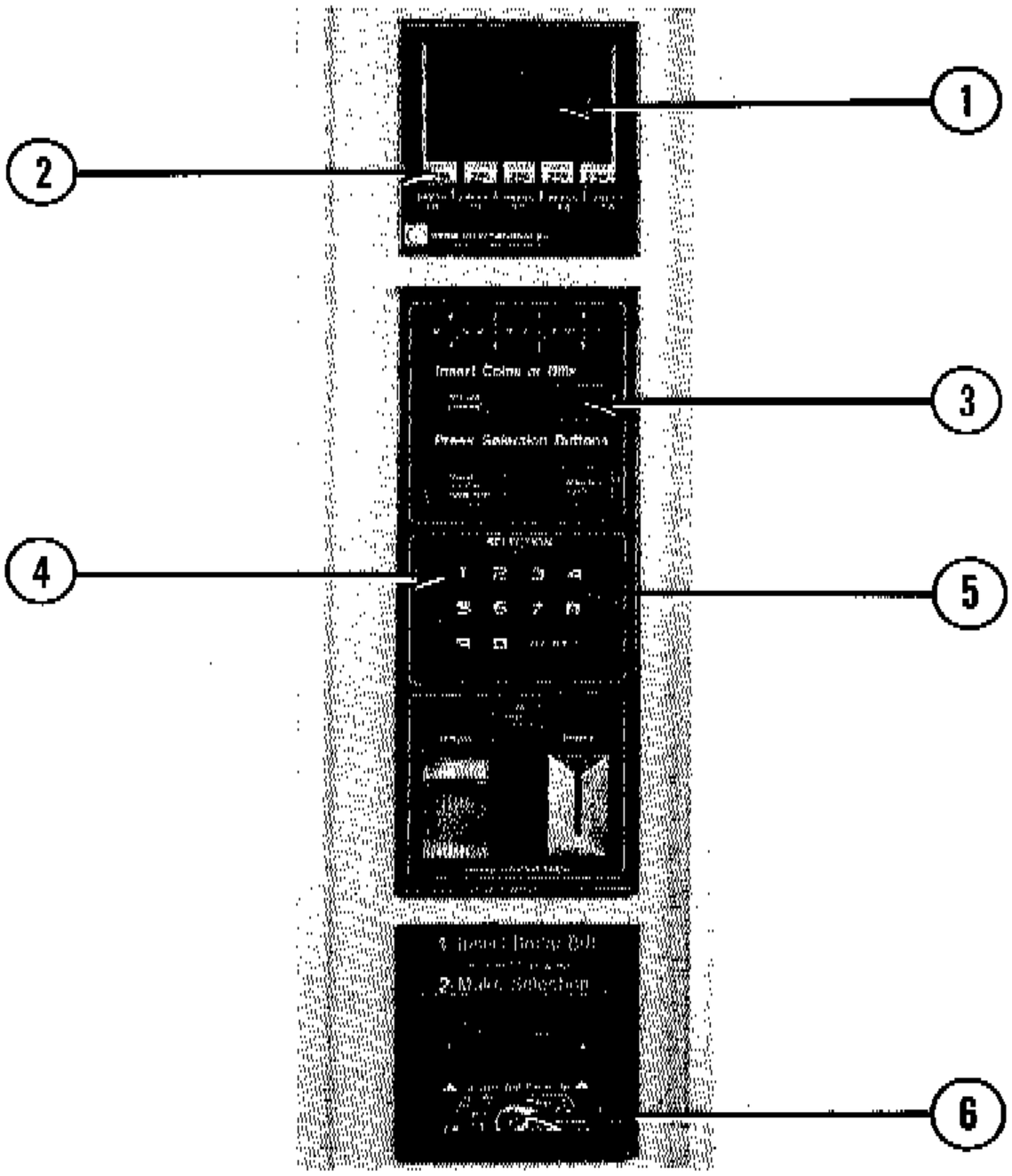


FIG. AND INDEX NO.	ROWE PART NO.	DESCRIPTION	QTY. PER ASM.
1	490-505	Window, Gum & Mint Display	1
2	490-1921	Price Card Assortment, Gum & Mint	1
3	493-1502	Display Board Asm .	1
4	490-1860	Selector Pushbutton Asm.	1
	490-201	No. 1 Pushbutton	1
	490-202	No. 2 Pushbutton	1
	490-203	No. 3 Pushbutton	1
	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	11
	490-1861	Selector Switch (Part of 490-1860)	1
	490-820	Switch Mounting Plate	1
	490-821	P.C. Board, Selector	4
	490-825	Spacer, P.C. Board Mounting	1
5	490-824	Bezel, Selection Switch (Black Plastic Grid Between Buttons)	1
6	907-2039	Label, "Insert Bill Face Up"	
	493-4003	Service Plate — Covers Hole if OBA is Removed (Not Shown)	

Shelf Support and Plug Assemblies

FIGURE 6

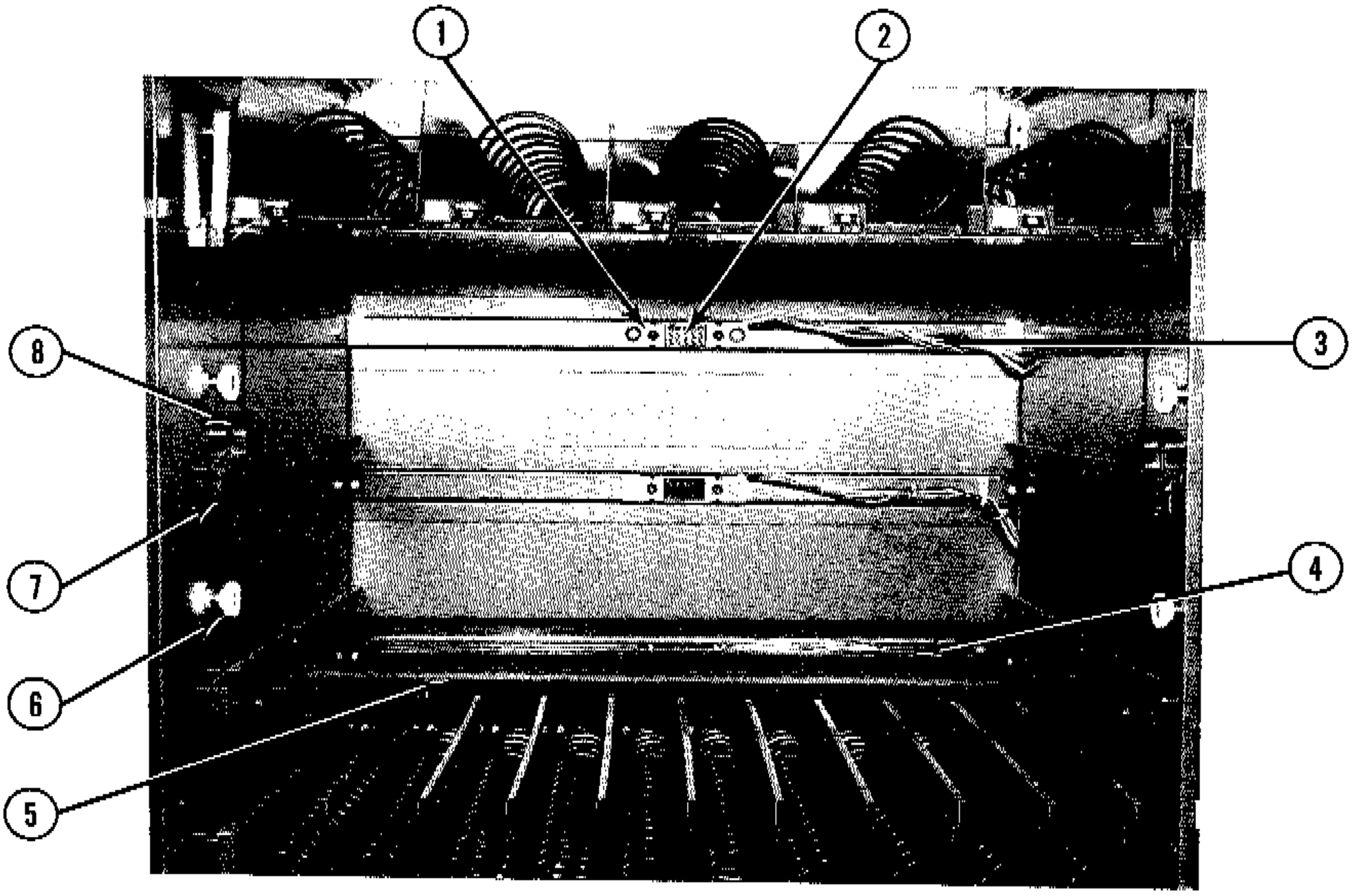


FIG. AND INDEX NO.	4900S PART NUMBER	4900JR PART NUMBER	DESCRIPTION	QTY. PER ASSY
	4900S	4900JR		
1	493-1307	Same	Plug Bracket W/A	6
	493-315	Same	Plug Bracket	1
	954-7	Same	Weld Pin	1
	490-352	Same*	Step Washer	2
	934-307	Same	Machine Screw	2
2	979-1173	Same	Socket, 15 Pin Female	6
3	493-1855	494-1806	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
6	490-5	Same	Roller, Shelf	12
	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 - R/H Side	4
8	493-1305	Same	Upper Shelf Support W/A - L/H Side	4
	493-1306	Same	Upper Shelf Support W/A - R/H Side	4

FIGURE 7

Lower Cabinet Components

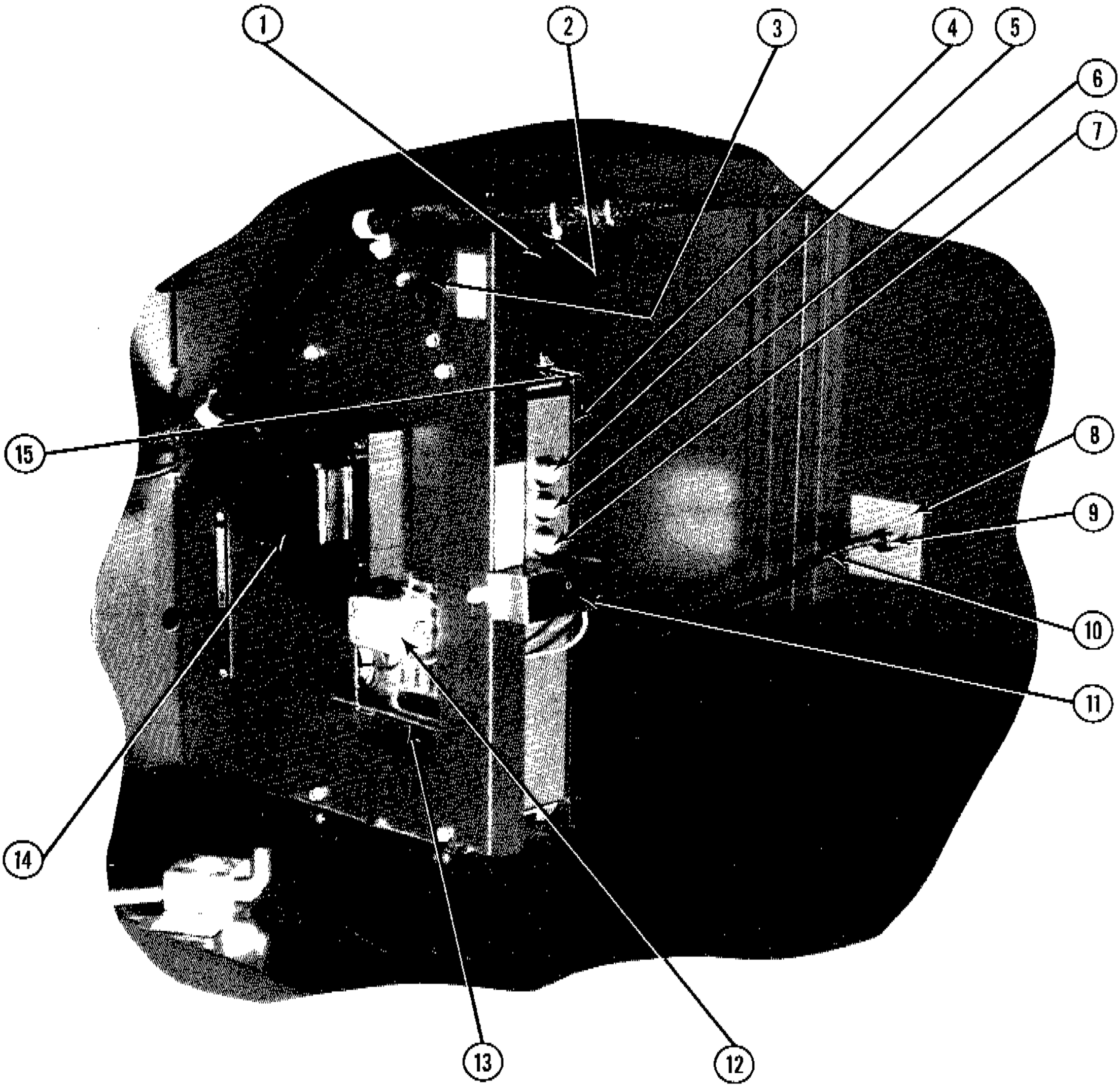
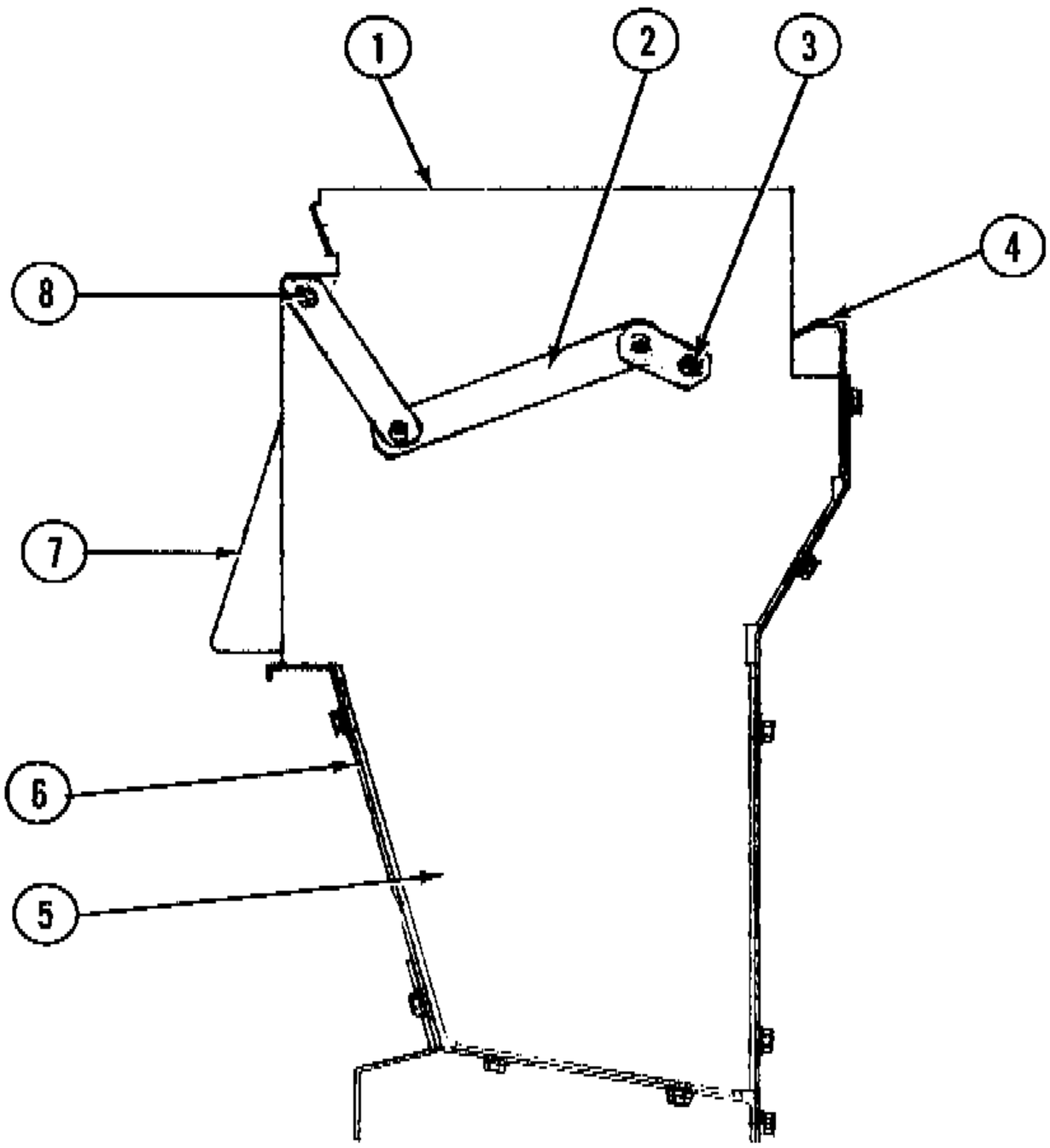


FIGURE 7

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



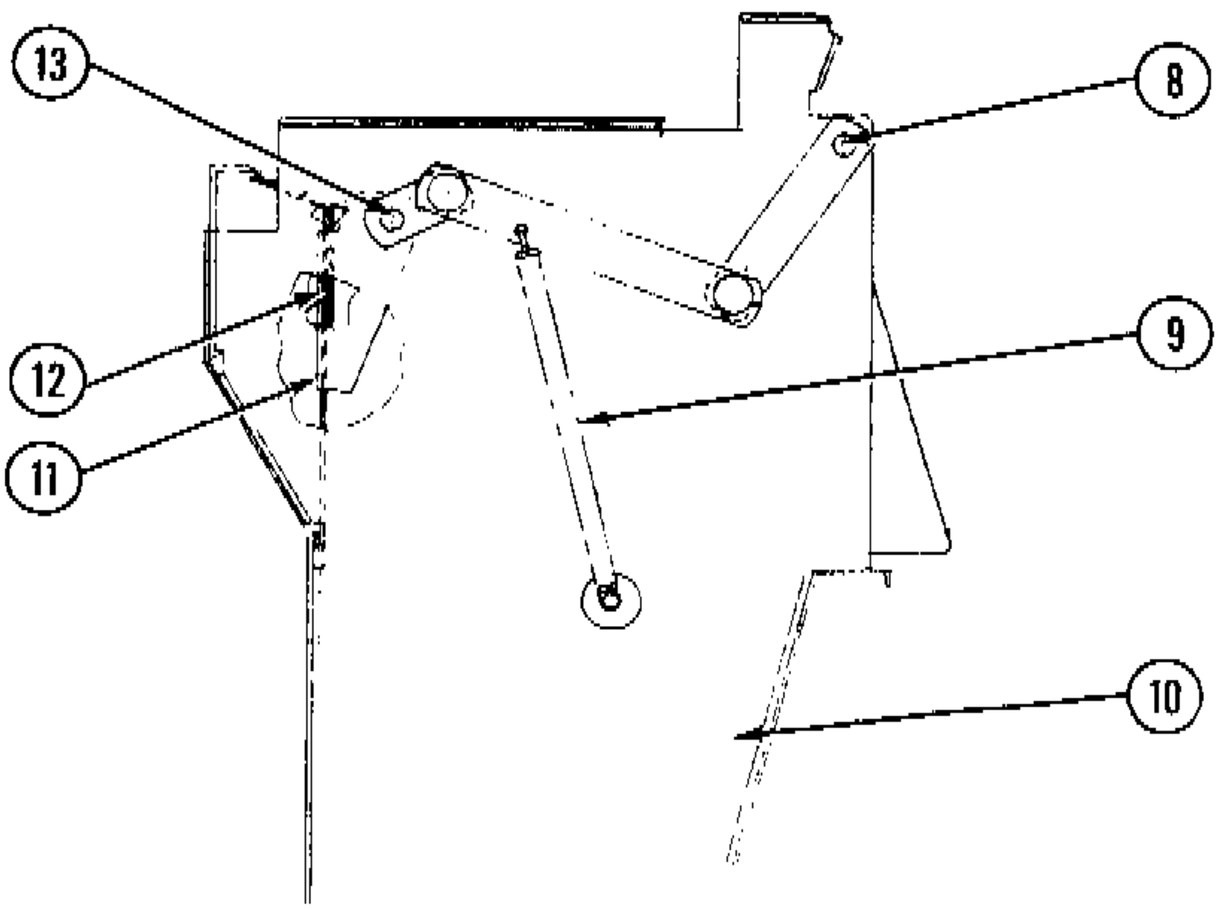


FIGURE 8

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

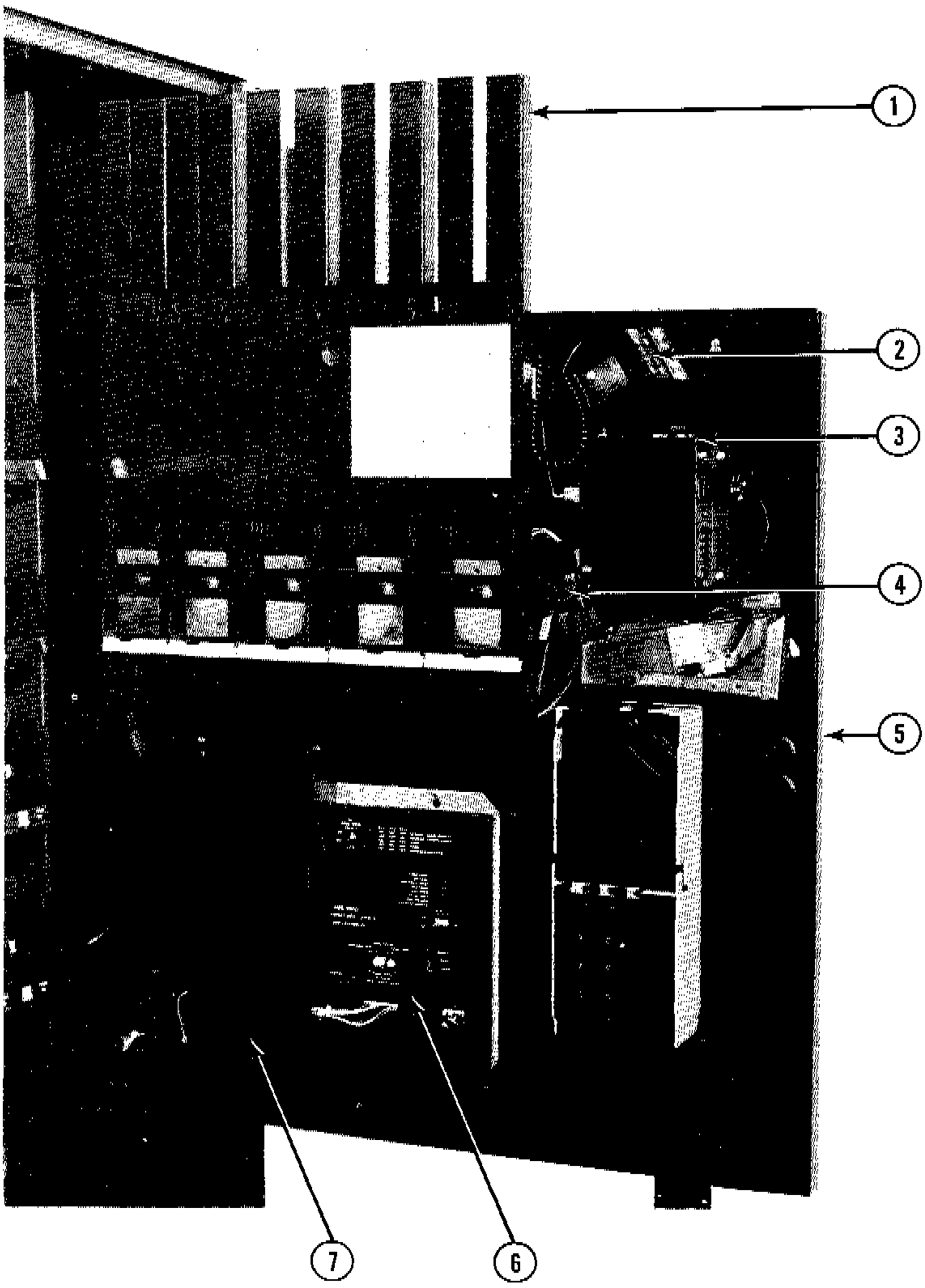


FIGURE 9

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	493-1854	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	493-1921	494-1911	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

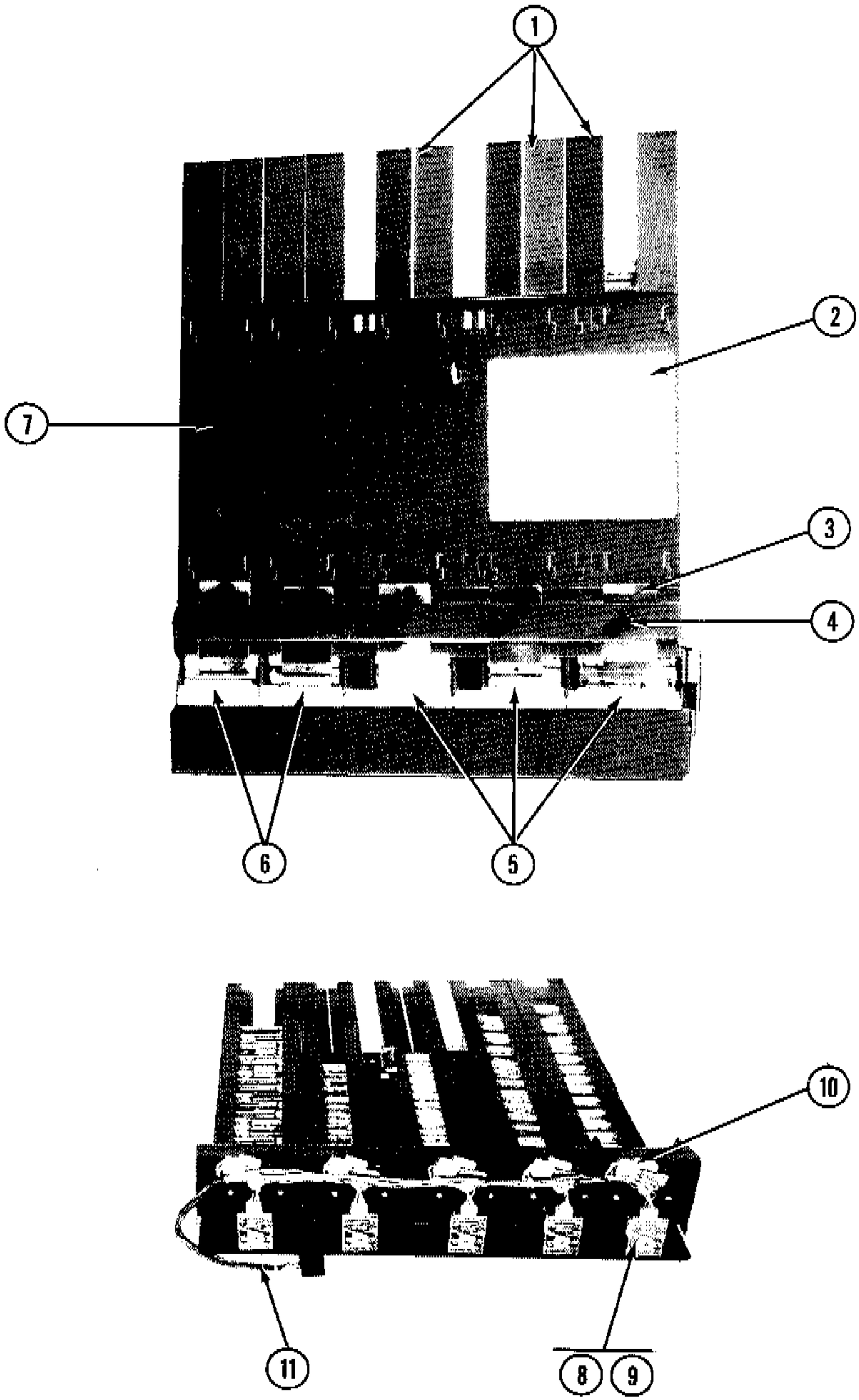


FIGURE 10

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	493-1809	Gum and Mint Harness Assembly	1
	979-238	Plug	1
	979-1180	Socket	5

FIGURE 11

Sliding Panel Assembly

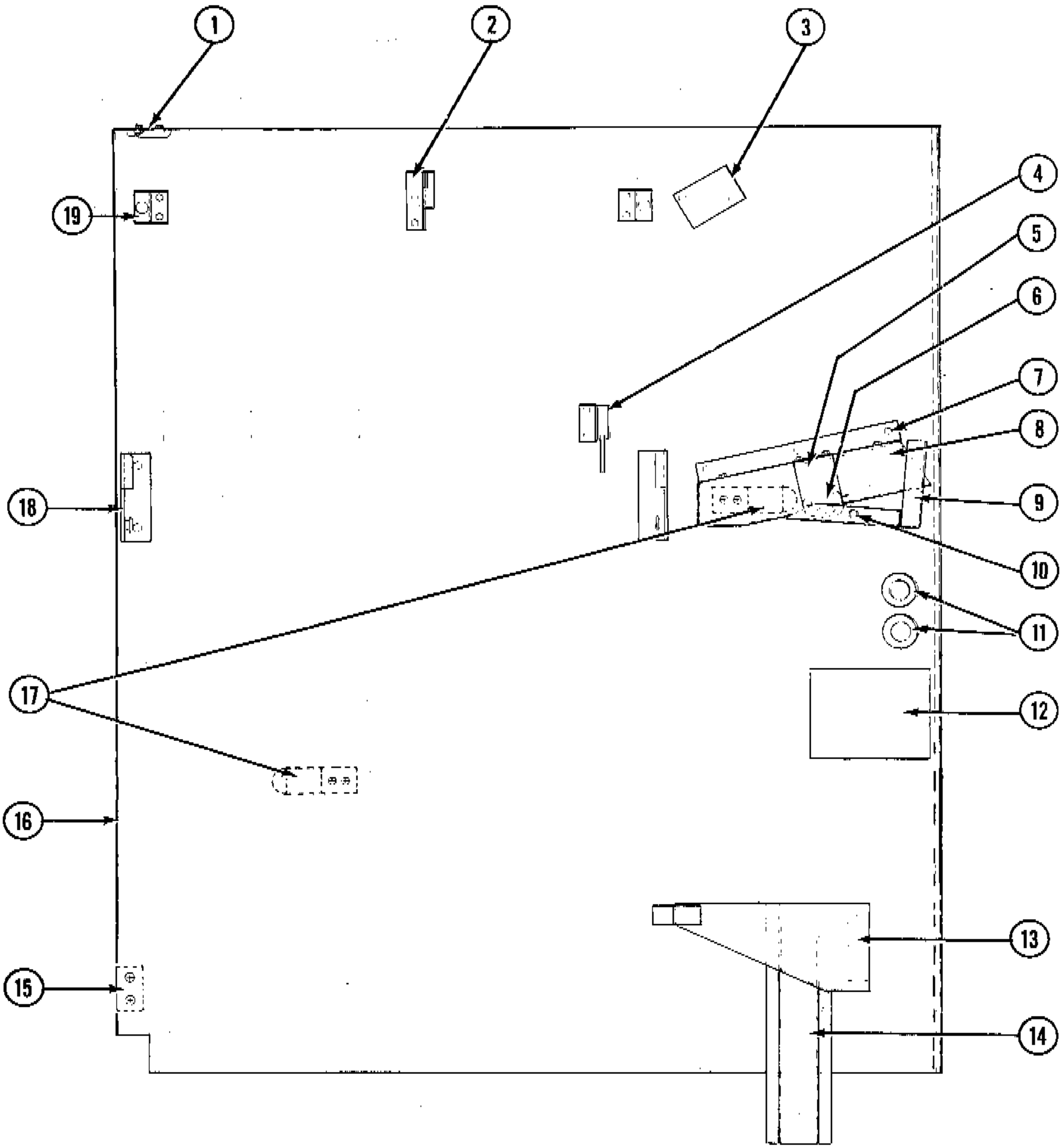


FIGURE 11

FIG. AND INDEX NO.	4900S PART NUMBER	4900JR PART NUMBER	DESCRIPTION	QTY. PER ASSY
	493-1921	494-1911	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	493-1909	494-1904	Lower Coin Chute Weld Assembly	1
15	—	494-906	Sliding Panel Stop Angle	1
16	493-1902	494-1902	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 Assemlby — 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

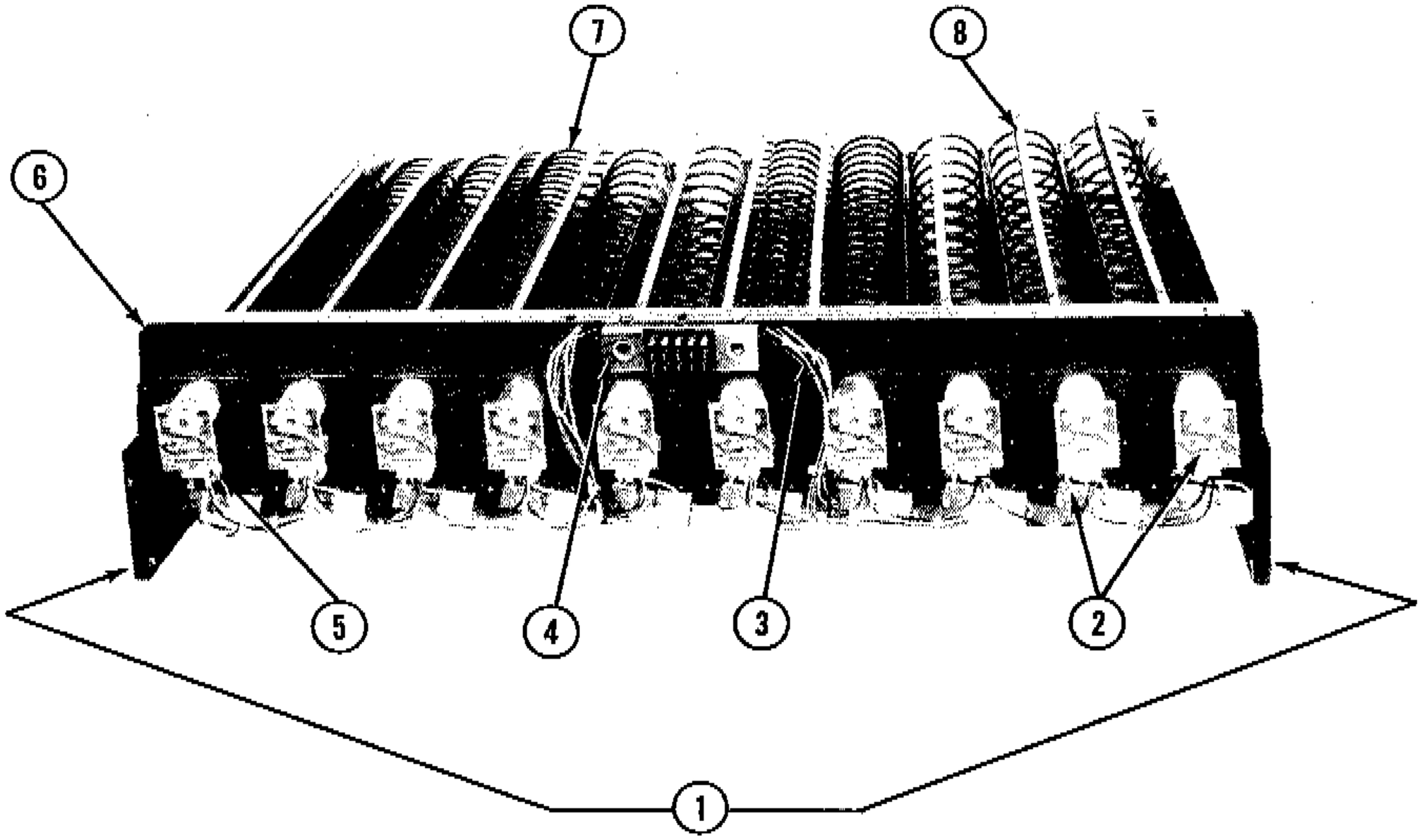


FIG. AND INDEX NO.	4900S PART NUMBER	4900JR PART NUMBER	DESCRIPTION	QTY PER ASSY 4900S	QTY PER ASSY 4900JR
	493-1015	494-1015	Shelf Assembly	REF	REF
1	490-5	Same	Shelf Roller	2	2
	490-42	Same	Shelf Roller Bushing	2	2
	934-441	Same	Self Tapping Screw	2	2
	924-64	Same	Nut	2	2
2	490-1725	Same	Motor Assembly	10	8
	147-1829	Same	Motor Full Cycle Sensing Switch	1	1
3	490-1866	Same	Shelf Harness Assembly	1	1
	979-173	Same	Plug	1	1
	979-1180	Same	Socket	10	8
4	493-2	Same	Socket Bracket	1	1
5	490-27	Same	Helix Hub	10	8
6	493-1010	494-1010	Shelf Weld Assembly	1	1
7	490-31	Same	Helix — 15 Item (Candy)	REF	REF
	490-30	Same	Helix — 18 Item (Candy)	REF	REF
	490-29	Same	Helix — 24 Item (Candy)	REF	REF
	490-28	Same	Helix — 30 Item (Candy)	REF	REF
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	1	1
	490-4	Same	Product Guide — Black (Not Shown)	4	4
	493-6	Same	Product Guide — Brown (Not Shown)	4	4
	490-1925	Same	Product Pusher Kit	4	4

4 or 5 Selection Shelf Assembly

FIGURE 13

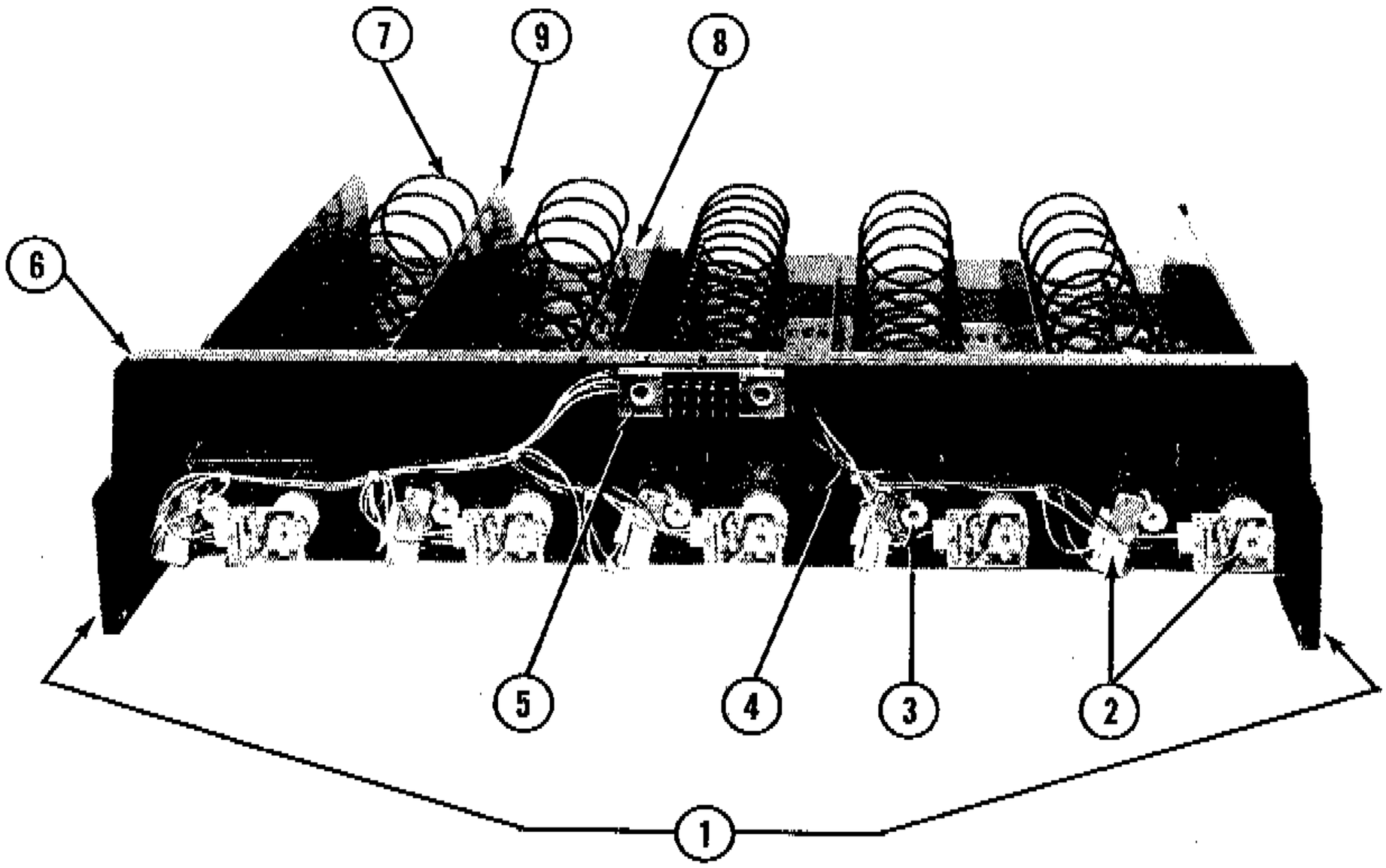


FIG. AND INDEX NO.	4900S PART NUMBER	4900JR PART NUMBER	DESCRIPTION	QTY PER ASSY 4900S	QTY PER ASSY 4900JR
	493-1000	494-1000	Shelf Assembly	REF	REF
1	490-5	Same	Shelf Roller	2	2
	490-42	Same	Roller Bushing	2	2
	934-441	Same	Self Tapping Screw	2	2
	924-64	Same	Nut	2	2
2	490-1725	Same	Motor Assemby	5	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
	979-173	Same	Plug	1	1
	979-1180	Same	Socket	5	4
5	493-2	Same	Socket Bracket	1	1
6	493-1011	494-1011	Shelf Weld Assembly	1	1
7	490-34	Same	Helix — 10 Item (Snack)	REF	REF
	490-33	Same	Helix — 12 Item (Snack)	REF	REF
	490-32	Same	Helix — 15 Item (Snack)	REF	REF
8	490-14	Same	Product Guide — Black	5	4
	493-5	Same	Product Guide — Brown	5	4
9	490-1010	Same	Product Adjustment Wall Rivet Assembly	3	2

FIGURE 14 Power Supply Circuit Board Asm.

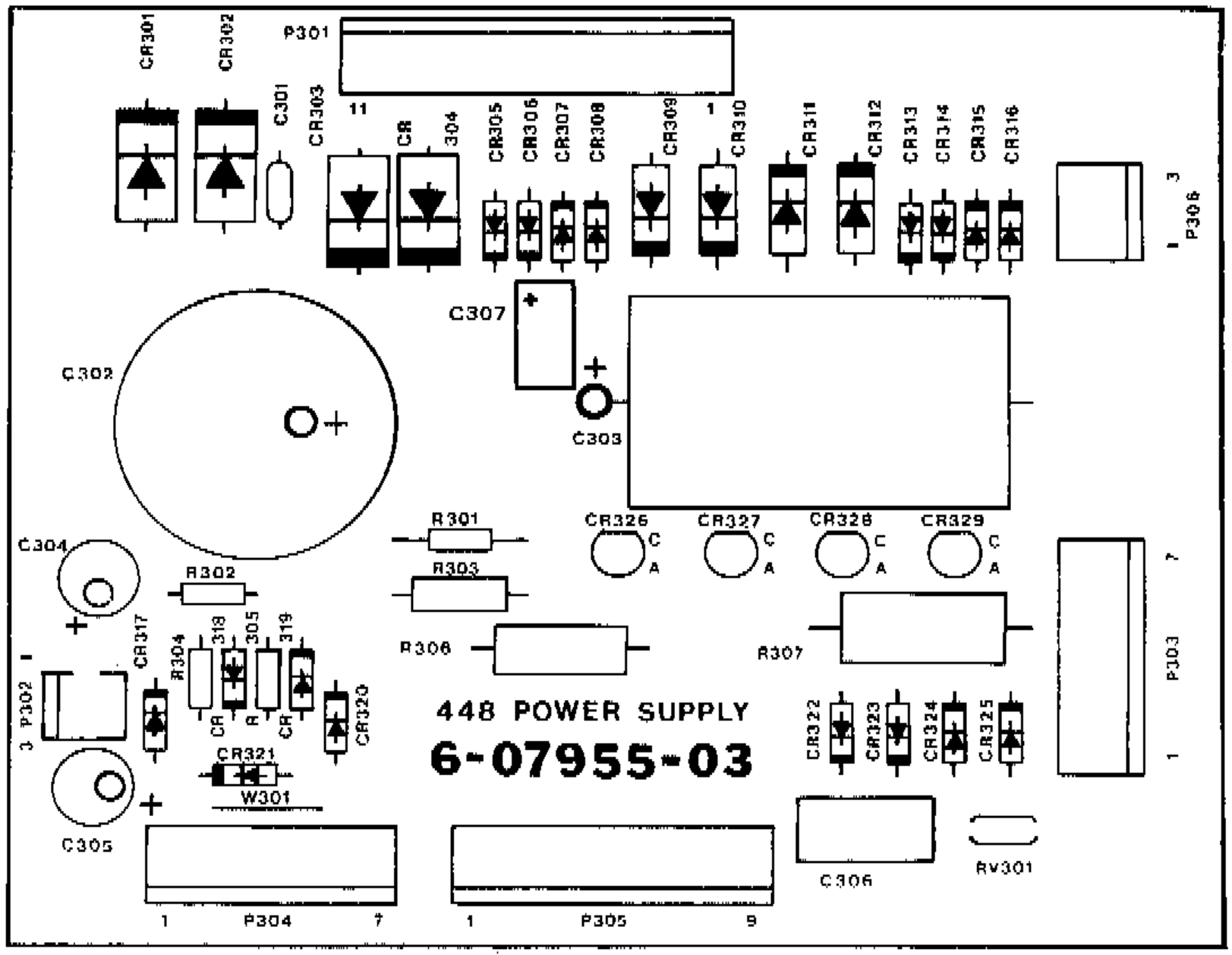


FIGURE 14

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	
C301	7-00285-11	CAPACITOR - MONOLITHIC CERAMIC (.1µF)	
C302	7-00236-01	CAPACITOR - ELECTROLYTIC (6800µF)	
C303	7-00233-10	CAPACITOR - ELECTROLYTIC (1500µF)	
C304	7-00238-09	CAPACITOR - ELECTROLYTIC (15µF)	
C305	7-00238-09	CAPACITOR - ELECTROLYTIC (15µF)	
C306	7-00240-09	CAPACITOR - MYLAR (.01µF)	
C307	7-00280-12	CAPACITOR - ELECTROLYTIC (100uF)	
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%) 820Ω	
R302	7-9902-391	RESISTOR - CARBON (1/4W,2%) 390Ω	
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	VARISTOR - METAL OXIDE	

Harness List

MAIN HARNESSES

4900S	4900JR	DESCRIPTION
493-1856	Same	Main Line Cord Assembly
493-1852	Same	Main Door
493-1855	494-1806	Main Cabinet

ASSEMBLY INTERNAL HARNESSES

4900S	4900JR	Description
493-1857	Same	Main Power Switch Asm.
493-1859	Same	Gum & Mint Sold Out Switches (on sliding panel)
493-1809	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

POINT TO POINT HARNESSES

4900S	4900JR	FROM	TO
493-1851	Same	Main Controller	Main Door Harness
493-1853	Same	O.B.A. Controller	Bill Stacker
493-1854	Same	Main Controller	Coin Mech. Socket
493-1858	Same	Power Supply	Main Controller
490-1872	Same	Main Power Switch Asm.	Display Lamp
493-1506	Same	O.B.A. Controller	Bill Transport Unit

FIGURE 15

FIG. AND INDEX NO.	ROWE PART NO.	DESCRIPTION	QTY. PER ASM.
	493-1501	OBA Controller Asm. - complete	1
	493-1508	Circuit Board Asm. - OBA Controller	
	493-1511	Base, OBA Controller	
	493-1512	Cover, OBA Controller	
C1	7-00238-14	CAPACITOR - ELECTROLYTIC (100 MFD)	
C2	7-00285-14	CAPACITOR - MONOLITHIC (.1 MFD)	
C3	7-00285-14	CAPACITOR - MONOLITHIC (.1 MFD)	
C4	7-00287-01	CAPACITOR - MONOLITHIC (10 PF)	
C5	7-00287-01	CAPACITOR - MONOLITHIC (10 PF)	
C6	7-00285-14	CAPACITOR - MONOLITHIC (.1 MFD)	
C7	7-00238-06	CAPACITOR - ELECTROLYTIC (4.7 MFD)	
C8	7-00251-19	CAPACITOR - TANTALUM (.33 MFD)	
C9	7-00251-19	CAPACITOR - TANTALUM (.33 MFD)	
C10	7-00238-14	CAPACITOR - ELECTROLYTIC (100 MFD)	
C11	7-00238-10	CAPACITOR - ELECTROLYTIC (22 MFD)	
C12	7-00285-14	CAPACITOR - MONOLITHIC (.1 MFD)	
C13	7-00285-14	CAPACITOR - MONOLITHIC (.1 MFD)	
C14	7-00238-10	CAPACITOR - ELECTROLYTIC (22 MFD)	
C15	7-00285-14	CAPACITOR - MONOLITHIC (.1 MFD)	
C16	7-00215-49	CAPACITOR - MYLAR (.1 MFD)	
C17	7-00285-14	CAPACITOR - MONOLITHIC (.1 MFD)	
C18	7-00215-25	CAPACITOR - MYLAR (.01 MFD)	
C19	7-00215-45	CAPACITOR - MYLAR (.068 MFD)	
C20	7-00285-14	CAPACITOR - MONOLITHIC (.1 MFD)	
C21	7-00215-45	CAPACITOR - MYLAR (.068 MFD)	
C22	7-00286-49	CAPACITOR - MONOLITHIC (.1 MFD)	
C23	7-00215-45	CAPACITOR - MYLAR (.068 MFD)	
C24	7-00215-09	CAPACITOR - MYLAR (.0022 MFD)	
C25	7-00285-14	CAPACITOR - MONOLITHIC (.1 MFD)	
C26	7-00215-25	CAPACITOR - MYLAR (.01 MFD)	
C27	7-00285-14	CAPACITOR - MONOLITHIC (.1 MFD)	
C28	7-00287-19	CAPACITOR - MONOLITHIC (330 PF)	
C29	7-00285-14	CAPACITOR - MONOLITHIC (.1 MFD)	
C30	7-00285-14	CAPACITOR - MONOLITHIC (.1 MFD)	
C31	7-00287-13	CAPACITOR - MONOLITHIC (100 PF)	
C32	7-00285-14	CAPACITOR - MONOLITHIC (.1 MFD)	
C33	7-00285-14	CAPACITOR - MONOLITHIC (.1 MFD)	
C34	7-00238-06	CAPACITOR - ELECTROLYTIC (4.7 MFD)	
C35	7-00285-14	CAPACITOR - MONOLITHIC (.1 MFD)	
C36	7-00286-06	CAPACITOR - MONOLITHIC (220 PF)	
C37	7-00286-06	CAPACITOR - MONOLITHIC (220 PF)	
CR1	7-00350-05	DIODE - SILICON	
CR2	7-00350-05	DIODE - SILICON	
CR3	7-00350-05	DIODE - SILICON	
CR4	7-00350-05	DIODE - SILICON	
CR5	7-00350-05	DIODE - SILICON	
CR6	7-00353-03	DIODE - LED	
CR7	7-00353-03	DIODE - LED	
CR8	7-00350-05	DIODE - SILICON	
CR9	7-00353-05	DIODE - LED	
CR10	7-00353-03	DIODE - LED	
CR11	7-00350-12	DIODE - SILICON	
CR12	7-00350-12	DIODE - SILICON	
CR13	7-00350-12	DIODE - SILICON	
CR14	7-00355-14	DIODE - ZENER	
CR15	7-00350-12	DIODE - SILICON	
K1	2-51912-01	RELAY - DPDT	
K2	2-51912-01	RELAY - DPDT	
P1	7-00750-05	POLARIZING WAFER - (5 CKT.)	
P2	7-00750-15	POLARIZING WAFER - (15 CKT.)	
P3	7-00750-05	POLARIZING WAFER - (5 CKT.)	
P4	7-00750-03	POLARIZING WAFER - (3 CKT.)	
Q1	7-00300-07	TRANSISTOR - NPN SILICON	
Q2	7-00300-07	TRANSISTOR - NPN SILICON	
Q3	7-00300-05	TRANSISTOR - PNP SILICON	
Q4	7-00301-04	TRANSISTOR - PNP SILICON	
Q5	7-00300-07	TRANSISTOR - NPN SILICON	
Q6	7-00300-07	TRANSISTOR - NPN SILICON	
Q7		NOT USED	
R1	7-9901-222	RESISTOR - 1/4 W 5% (2.2 K)	
R2	7-9901-102	RESISTOR - 1/4 W 5% (1 K)	
R3	7-9901-102	RESISTOR - 1/4 W 5% (1 K)	
R4	7-9901-103	RESISTOR - 1/4 W 5% (10 K)	
R5	7-9901-562	RESISTOR - 1/4 W 5% (5.6 K)	
R6	7-9901-331	RESISTOR - 1/4 W 5% (330 OHM)	
R7	7-00107-24	RESISTOR - 1/2 W 10% (22 OHM)	
R8	7-00110-08	RESISTOR - 5W 10% (7.5 OHM)	
R9	7-9904-332	RESISTOR - 1/2 W 5% (3.3 K)	
R10		NOT USED	
R11	7-9901-103	RESISTOR - 1/4 W 5% (10 K)	
R12	7-9901-103	RESISTOR - 1/4 W 5% (10 K)	
R13	7-9901-272	RESISTOR - 1/4 W 5% (2.7 K)	
R14	7-9901-102	RESISTOR - 1/4 W 5% (1 K)	
R15	7-9901-562	RESISTOR - 1/4 W 5% (5.6 K)	
R16	7-9901-562	RESISTOR - 1/4 W 5% (5.6 K)	
R17	7-9901-150	RESISTOR - 1/4 W 5% (15 OHM)	
R18	7-9901-331	RESISTOR - 1/4 W 5% (330 OHM)	
R19	7-9901-331	RESISTOR - 1/4 W 5% (330 OHM)	
R20	7-9901-562	RESISTOR - 1/4 W 5% (5.6 K)	
R21	7-9901-392	RESISTOR - 1/4 W 5% (3.9 K)	
R22	7-9901-100	RESISTOR - 1/4 W 5% (10 OHM)	
R23	7-9901-103	RESISTOR - 1/4 W 5% (10 K)	
R24	7-9901-104	RESISTOR - 1/4 W 5% (100 K)	
R25	7-9901-222	RESISTOR - 1/4 W 5% (2.2 K)	
R26		NOT USED	
R27	7-9901-222	RESISTOR - 1/4 W 5% (2.2 K)	
R28	7-9901-222	RESISTOR - 1/4 W 5% (2.2 K)	
R29	7-00104-05	RESISTOR - 1/2 W 10% (1.5 K)	
R30	7-9901-103	RESISTOR - 1/4 W 5% (10 K)	
R31	7-9901-103	RESISTOR - 1/4 W 5% (10 K)	
R32		NOT USED	
R33		NOT USED	
R34	7-9901-224	RESISTOR - 1/4 W 5% (220 K)	
R35	7-9901-334	RESISTOR - 1/4 W 5% (330 K)	
R36	2-15207-06	POTENTIOMETER - 5 K	
R37	2-15207-02	POTENTIOMETER - 50 K	
R38	7-9901-473	RESISTOR - 1/4 W 5% (47 K)	
R39	7-9901-103	RESISTOR - 1/4 W 5% (10 K)	
R40	7-9901-103	RESISTOR - 1/4 W 5% (10 K)	
R41	7-9901-103	RESISTOR - 1/4 W 5% (10 K)	
R42	7-9901-103	RESISTOR - 1/4 W 5% (10 K)	
R43	7-9901-103	RESISTOR - 1/4 W 5% (10 K)	
R44	7-9901-822	RESISTOR - 1/4 W 5% (8.2 K)	
R45	7-9901-184	RESISTOR - 1/4 W 5% (180 K)	
R46	7-9901-104	RESISTOR - 1/4 W 5% (100 K)	
R47	7-9901-103	RESISTOR - 1/4 W 5% (10 K)	
R48	7-9901-334	RESISTOR - 1/4 W 5% (330 K)	
R49	7-9901-123	RESISTOR - 1/4 W 5% (12 K)	
R50	7-9901-224	RESISTOR - 1/4 W 5% (220 K)	
R51	7-9901-272	RESISTOR - 1/4 W 5% (2.7 K)	
R52	7-9901-824	RESISTOR - 1/4 W 5% (820 K)	
R53	7-9901-222	RESISTOR - 1/4 W 5% (2.2 K)	
R54	7-9901-104	RESISTOR - 1/4 W 5% (100 K)	
R55	7-9901-222	RESISTOR - 1/4 W 5% (2.2 K)	
R56	7-9901-103	RESISTOR - 1/4 W 5% (10 K)	
R57	7-9901-101	RESISTOR - 1/4 W 5% (100 OHM)	
R58	7-9901-103	RESISTOR - 1/4 W 5% (10 K)	
R59	7-9901-103	RESISTOR - 1/4 W 5% (10 K)	
S1	7-00435-02	SWITCH - PUSH BUTTON	
S2		NOT USED	
VR1	7-00365-06	IC-+5VDC REGULATOR	
Y1	2-51673 -08	CRYSTAL - 3.58 MHZ	
Z1	7-00393-04	IC-MICROCOMPUTER-8 BIT (8049)	
Z2	7-00376-01	IC-CURRENT REGULATOR (LM334Z)	
Z3	3-08002-16	IC-QUAD OP AMP (LM324)	
Z4	7-00363-04	IC-TTL HEX INVERTER (7404)	
Z5	7-00369-01	IC-DARLINGTON ARRAY (ULN2003)	
Z6	7-00378-01	IC-RS485 TRANCEIVER SN75176	
Z7	3-08002-18	IC-F/V CONVERTER (LM2917)	
Z8	3-08002-14	IC-DUAL OP AMP (LM358)	
Z9	3-08002-14	IC-DUAL OP AMP (LM358)	
Z10	7-00338-01	IC-TIMER (LM555)	

* Note: Use 7-00393-01 & 7-00395-37 for Z-1 until 7-00393-04 becomes available.

FIGURE 16 Main Controller Circuit Board Asm.

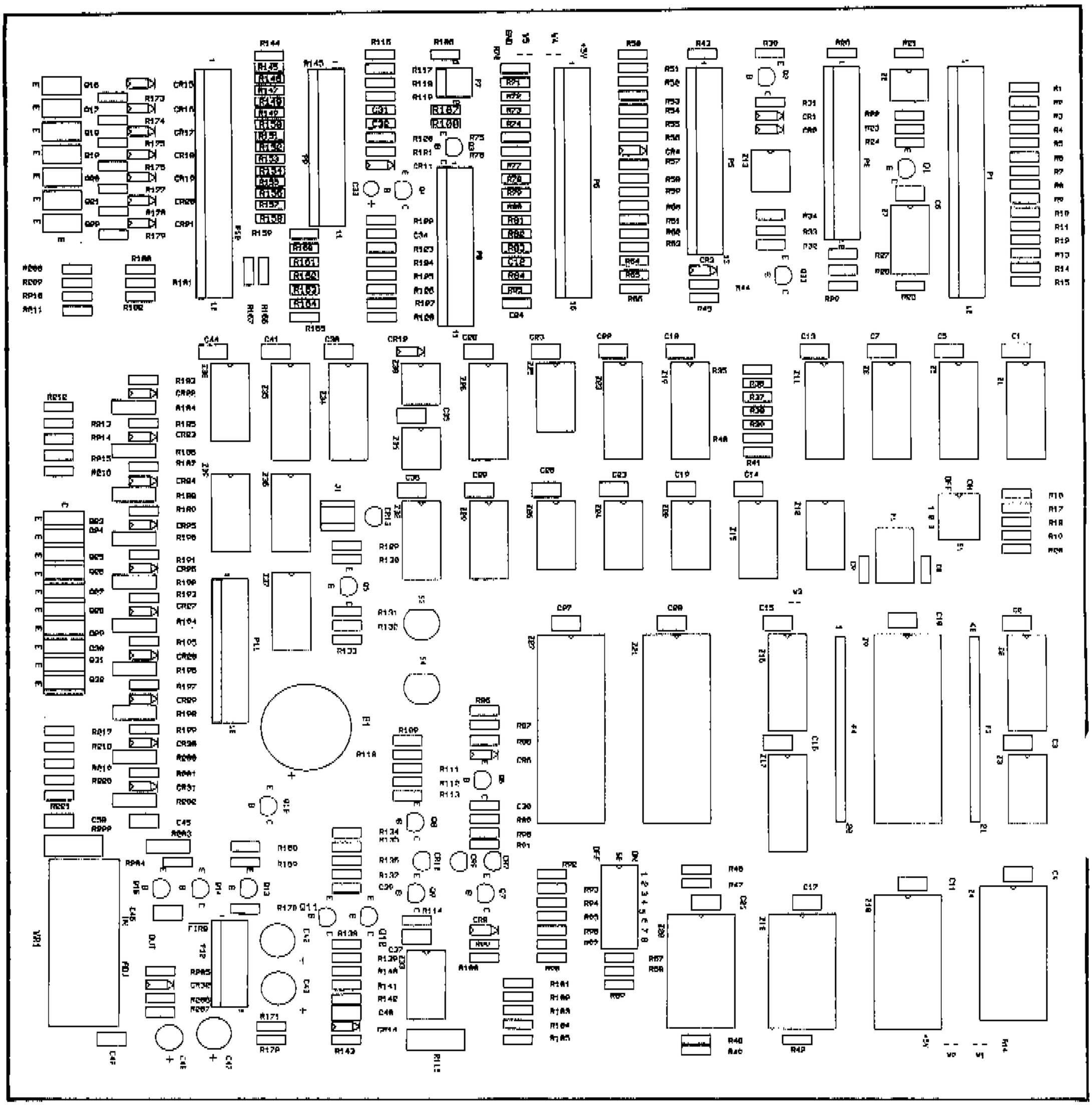


FIGURE 16

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 (470pF)	
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	7-00239-08	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	7-00350-06	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	7-00300-08	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 16

FIG. AND INDEX NO.	ROWE PART NO.	DESCRIPTION	QTY. PER ASM.
R25	7-99011-02	RESISTOR - CARBON (1/4W 5%) 1K	
R26	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R27	7-99011-02	RESISTOR - CARBON (1/4W 5%) 1K	
R28	7-99011-02	RESISTOR - CARBON (1/4W 5%) 1K	
R29	7-99011-02	RESISTOR - CARBON (1/4W 5%) 1K	
R30	7-99014-72	RESISTOR - CARBON (1/4W 5%) 4.7K	
R31	7-99013-31	RESISTOR - CARBON (1/4W 5%) 330	
R32	7-99011-02	RESISTOR - CARBON (1/4W 5%) 1K	
R33	7-99012-22	RESISTOR - CARBON (1/4W 5%) 2.2K	
R34	7-99012-71	RESISTOR - CARBON (1/4W 5%) 270	
R35	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R36	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R37	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R38	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R39	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R40	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R41	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R42	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R43	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R44	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R45	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R46	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R47	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R48	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R49	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R50	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R51	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R52	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R53	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R54	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R55	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
556	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R57	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R58		NOT USED	
R59		NOT USED	
R60		NOT USED	
R61		NOT USED	
R62		NOT USED	
R63		NOT USED	
R64		NOT USED	
R65		NOT USED	
R66		NOT USED	
R67	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R68	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R69	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R70		NOT USED	
R71		NOT USED	
R72		NOT USED	
R73		NOT USED	
R74		NOT USED	
R75		NOT USED	
R76		NOT USED	
R77		NOT USED	
R78		NOT USED	
R79		NOT USED	
R80		NOT USED	
R81		NOT USED	
R82		NOT USED	
R83		NOT USED	
R84	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R85	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R86	7-99014-72	RESISTOR - CARBON (1/4W 5%) 4.7K	
R87	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R88	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R89	7-99011-01	RESISTOR - CARBON (1/4W 5%) 100	
R90	7-99013-31	RESISTOR - CARBON (1/4W 5%) 330	
R91	7-99013-31	RESISTOR - CARBON (1/4W 5%) 330	
R92	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R93	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R94	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R95	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R96	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R97	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R98	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R99	7-99026-81	RESISTOR - CARBON (1/4W 2%) 680	
R100	7-99014-74	RESISTOR - CARBON (1/4W 5%) 470K	
R101	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10 K	
R102	7-99014-75	RESISTOR - CARBON (1/4W 5%) 4.7M	
R103	7-99011-86	RESISTOR - CARBON (1/4W 5%) 18M	
R104	7-99022-02	RESISTOR - CARBON (1/4W 2%) 2K	
R105	7-99011-63	RESISTOR - CARBON (1/4W 5%) 15K	
R106	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R107	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R108	7-99013-93	RESISTOR - CARBON (1/4W 5%) 33K	
R109	7-99014-72	RESISTOR - CARBON (1/4W 5%) 4.7K	
R110	7-99011-61	RESISTOR - CARBON (1/4W 5%) 150	
R111	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R112	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R113	7-99014-72	RESISTOR - CARBON (1/4W 5%) 4.7K	
R114	7-99011-02	RESISTOR - CARBON (1/4W 5%) 1K	
R115	7-99201-01	RESISTOR - CARBON (2W 5%) 100	
R116	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R117	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R118	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R119	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R120	7-99013-32	RESISTOR - CARBON (1/4W 5%) 3.3K	
R121	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R122	7-99011-02	RESISTOR - CARBON (1/4W 5%) 1K	
R123	7-99011-00	RESISTOR - CARBON (1/4W 5%) 10	
R124	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R125	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R126	7-99011-01	RESISTOR - CARBON (1/4W 5%) 100	
R127	7-99011-05	RESISTOR - CARBON (1/4W 5%) 1M	
R128	7-99013-33	RESISTOR - CARBON (1/4W 5%) 33K	
R129	7-99012-71	RESISTOR - CARBON (1/4W 5%) 270	
R130	7-99013-31	RESISTOR - CARBON (1/4W 5%) 330	
R131	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R132	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R133	7-99014-72	RESISTOR - CARBON (1/4W 5%) 4.7K	
R134	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R135	7-99011-02	RESISTOR - CARBON (1/4W 5%) 1K	
R136	7-99014-72	RESISTOR - CARBON (1/4W 5%) 4.7K	
R137	7-99022-02	RESISTOR - CARBON (1/4W 2%) 2K	
R138	7-99014-72	RESISTOR - CARBON (1/4W 5%) 4.7K	
R139	7-99012-21	RESISTOR - CARBON (1/4W 5%) 220	
R140	7-99022-22	RESISTOR - CARBON (1/4W 2%) 2.2K	
R141	7-99022-02	RESISTOR - CARBON (1/4W 2%) 2K	
R142	7-99012-22	RESISTOR - CARBON (1/4W 5%) 2.2K	
R143	7-99014-74	RESISTOR - CARBON (1/4W 5%) 470K	
R144	7-99012-23	RESISTOR - CARBON (1/4W 5%) 22K	
R145	7-99011-04	RESISTOR - CARBON (1/4W 5%) 100K	
R146	7-99012-23	RESISTOR - CARBON (1/4W 5%) 22K	
R147	7-99011-04	RESISTOR - CARBON (1/4W 5%) 100K	
R148	7-99012-23	RESISTOR - CARBON (1/4W 5%) 22K	
R149	7-99011-04	RESISTOR - CARBON (1/4W 5%) 100K	
R150	7-99012-23	RESISTOR - CARBON (1/4W 5%) 22K	
R151	7-99011-04	RESISTOR - CARBON (1/4W 5%) 100K	
R152	7-99012-23	RESISTOR - CARBON (1/4W 5%) 22K	
R153	7-99011-04	RESISTOR - CARBON (1/4W 5%) 100K	
R154	7-99012-23	RESISTOR - CARBON (1/4W 5%) 22K	
R155	7-99011-04	RESISTOR - CARBON (1/4W 5%) 100K	
R156	7-99012-23	RESISTOR - CARBON (1/4W 5%) 22K	
R157	7-99011-04	RESISTOR - CARBON (1/4W 5%) 100K	
R158	7-99012-23	RESISTOR - CARBON (1/4W 5%) 22K	
R159	7-99014-72	RESISTOR - CARBON (1/4W 5%) 4.7K	
R160	7-99014-72	RESISTOR - CARBON (1/4W 5%) 4.7K	
R161	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R162	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R163	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R164	7-99013-32	RESISTOR - CARBON (1/4W 5%) 3.3K	
R165	7-99011-02	RESISTOR - CARBON (1/4W 5%) 1K	
R166	7-99014-73	RESISTOR - CARBON (1/4W 5%) 47K	
R167	7-99011-04	RESISTOR - CARBON (1/4W 5%) 100K	
R168	7-99014-72	RESISTOR - CARBON (1/4W 5%) 4.7K	
R169	7-99011-53	RESISTOR - CARBON (1/4W 5%) 15K	
R170	7-99013-32	RESISTOR - CARBON (1/4W 5%) 3.3K	
R171	7-99011-01	RESISTOR - CARBON (1/4W 5%) 100	
R172	7-99022-02	RESISTOR - CARBON (1/4W 2%) 2K	
R173	7-99014-71	RESISTOR - CARBON (1/4W 5%) 470	
R174	7-99014-71	RESISTOR - CARBON (1/4W 5%) 470	
R175	7-99014-71	RESISTOR - CARBON (1/4W 5%) 470	
R176	7-99014-71	RESISTOR - CARBON (1/4W 5%) 470	
R177	7-99014-71	RESISTOR - CARBON (1/4W 5%) 470	
R178	7-99014-71	RESISTOR - CARBON (1/4W 5%) 470	
R179	7-99014-71	RESISTOR - CARBON (1/4W 5%) 470	
R180	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R181	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R182	7-99011-03	RESISTOR - CARBON (1/4W 5%) 10K	
R183	7-99014-72	RESISTOR - CARBON (1/4W 5%) 4.7K	
R184	7-00102-10	RESISTOR - CARBON (1/2W 5%) 2.2K	
R185	7-99014-72	RESISTOR - CARBON (1/4W 5%) 4.7K	
R186	7-00102-10	RESISTOR - CARBON (1/2W 5%) 2.2K	
R187	7-99014-72	RESISTOR - CARBON (1/4W 5%) 4.7K	
R188	7-00102-10	RESISTOR - CARBON (1/2W 5%) 2.2K	
R189	7-99014-72	RESISTOR - CARBON (1/4W 5%) 4.7K	
R190	7-00102-10	RESISTOR - CARBON (1/2W 5%) 2.2K	
R191	7-99014-72	RESISTOR - CARBON (1/4W 5%) 4.7K	
R192	7-00102-10	RESISTOR - CARBON (1/2W 5%) 2.2K	
R193	7-99014-72	RESISTOR - CARBON (1/4W 5%) 4.7K	
R194	7-00102-10	RESISTOR - CARBON (1/2W 5%) 2.2K	
R195	7-99014-72	RESISTOR - CARBON (1/4W 5%) 4.7K	
R196	7-00102-10	RESISTOR - CARBON (1/2W 5%) 2.2K	

FIGURE 16

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	7-99209-98	RESISTOR - WIRE WOUND (2W 5%) .39	
S1	7-00430-07	SWITCH - DIP (3 POSITION)	
S2	7-00630-11	SWITCH - DIP (8 POSITION)	
S3	7-00435-02	SWITCH - PUSHBUTTON	
S4	7-00435-02	SWITCH - PUSHBUTTON	
VR1	7-00366-07	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	7-00383-10	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	7-00371-19	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/DEMULTIPLEXER - 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 - (74LS.04)	
Z27	7-00388-01	IC - VIA - TIMERS & I/O (6522)	
Z28	7-00371-18	IC - BUFFER - OCTAL (74LS244)	
Z29	7-00371-23	IC - DECODER/DEMULTIPLEXER - DUAL 2 TO 4 LINE (74LS155)	
Z30	7-00368-02	IC - DUAL COMPARATOR (LM393)	
Z31	7-00378-01	IC - TRANSCEIVER (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/DEMULTIPLEXER - CMOS ANALOG (4051)	
Z39	7-00369-01	IC - DARLINGTON ARRAY	

Harness List

MAIN HARNESSES

4900S	4900JR	DESCRIPTION
493-1856	Same	Main Line Cord Assembly
493-1852	Same	Main Door
493-1855	494-1806	Main Cabinet

ASSEMBLY INTERNAL HARNESSES

4900S	4900JR	Description
493-1857	Same	Main Power Switch Asm.
493-1859	Same	Gum & Mint Sold Out Switches (on sliding panel)
493-1809	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

POINT TO POINT HARNESSES

4900S	4900JR	FROM	TO
493-1851	Same	Main Controller	Main Door Harness
493-1853	Same	O.B.A. Controller	Bill Stacker
493-1854	Same	Main Controller	Coin Mech. Socket
493-1858	Same	Power Supply	Main Controller
490-1872	Same	Main Power Switch Asm.	Display Lamp
493-1506	Same	O.B.A. Controller	Bill Transport Unit