



# **6800 DELUXE SNACK/CANDY VENDORS**

**FIELD SERVICE MANUAL  
& PARTS CATALOG**

**Part No. 900-68701  
First Edition**

# Contents

# Introduction

SPECIFICATIONS ..... vi

HOW TO USE THIS MANUAL ..... vii

ROWE VENDING MACHINE COIN MECH USAGE CHART ..... viii

PRODUCT CLEARANCES ..... x

- 681 ..... x
- 6800JR ..... xi
- 6800 ..... xii

SELECTION IDENTIFICATION ..... xiii

- 681 ..... xiii
- 6800JR ..... xiii
- 6800 ..... xiv

**SECTION 1 - INSTALLATION**

Unpacking ..... 1-1

Set-up Instructions ..... 1-1

UBA Bill Acceptor Switch Settings ..... 1-3

**Section 2 - Description**

Introduction ..... 2-1

Product Shelves ..... 2-2

Horizontal Gum and Mint Unit ..... 2-3

Coin Mechanism ..... 2-4

Selection Identification ..... 2-5

Temperature Control ..... 2-5

Force Vend ..... 2-6

Service <Mode> Button ..... 2-6

**Section 3 - Program Operation**

Introduction ..... 3-1

ROWE 6800 Service Mode Flow Chart ..... 3-2

Key 1 - Coin Dispensing ..... 3-4

Key 3 - Accountability ..... 3-4

Key 4 - Setting Prices ..... 3-5

Key 5 - Test Vend ..... 3-5

Key 6 - Vendor Setup ..... 3-6

Key 7 - Error List ..... 3-6

Key 0 - Quick Configure Motors ..... 3-7

**Section 4 - Troubleshooting**

Introduction ..... 4-1

Troubleshooting Procedures ..... 4-1

Refrigeration System Wiring Diagram ..... 4-3

Troubleshooting Charts ..... 4-4

- Error Messages ..... 4-4
- ROWE Bill Acceptor ..... 4-6

Interconnect Block Diagram ..... 4-8

15 Pin Coin Mech Socket ..... 4-9

6800 System Schematic ..... 4-11

6800 Controller Schematic ..... 4-13

**Section 5 - MAINTENANCE**

Cleaning ..... 5-1

Component Removal And Replacement

- Helix ..... 5-1
- Shelf ..... 5-2
- Gum & Mint ..... 5-2
- Helix Hub and Motor ..... 5-3
- Drive Motor ..... 5-3

Universal Shelf Conversion ..... 5-3

**Section 6 - Parts Catalog ..... 6-1**

# SPECIFICATIONS: 6800 DELUXE SNACK/CANDY VENDORS

## GENERAL

	<b>6800 (5 Column)</b>	<b>6800JR (4 Column)</b>	<b>6800C (3 Column)</b>
Depth	35-1/2" (87 cm)	35-1/2" (87 cm)	35-1/2" (87 cm)
Width	39-3/16" (96 cm)	33-13/16" (83 cm)	28-1/2" (70 cm)
Height	72" (176.5 cm)	72" (176.5 cm)	72" (176.5 cm)
Net Weight	Approximately 600 to 750 lbs. (1320 - 1650 kg.)		
Shipping Weight	Depending upon configuration		
<b>Air Cooled Models</b>	Refrigerant R134A - 7.5 oz. (212.8g)		

## ELECTRICAL

<b>Power Requirements</b>		<b>BTU Output</b>	
U.S. Domestic	120 VAC 15A	Without refrigeration	100 BTU/hr
Non-Domestic	220/240 VAC, 50Hz., 12A	With refrigeration	1500 BTU/hr
<b>Power Consumption</b>			
Without refrigeration	.030 kWh (Avg.)		
With refrigeration	.440 kWh (Avg.)		

## COIN MECHANISMS

<b>120 V Models - 12 Pin</b>			<b>BILL ACCEPTORS</b>		
MARS	VN4000	TRC - 6000, MC 5000	ROWE	*MAKA	*MARS
COINCO	GLOBAL,L	9300L, 9300L+	<b>*NOTE:</b> Contact bill acceptor manufacturer.		
<b>24 V Models - 15 Pin only</b>			<b>CARD READERS</b>		
MARS	VN4010	TRC - 6010 - XV	Contact Card Reader manufacturer for machine compatibility.		
COINCO	GLOBAL,L	9302LF, 9302L+			
<b>European Coin Mechs</b>			<b>CAUTION !</b> Do not use 24 volt Coin Mech with 12 pin plugs! This will result in permanent damage to the Coin Mech and/or vending machine.		
MARS	MS 1600, MS 1900				
	CASHFLOW				
ASKOYN	AN - 200				
NRI	6-26.4400				

## VENDOR CAPACITY - Number of Selections

<b>6800</b>	<b>6800JR</b>	<b>6800C</b>
<b>5 Shelf</b>	<b>5 Shelf</b>	<b>5 Shelf</b>
25, 30, 35, 40, 45, or 50 plus Gum and Mint (5 selections)	20, 24, 28, 32, 36, or 40 plus Gum and Mint (4 selections)	15, 18, 21, 24, 27, or 30 plus Gum and Mint (3 selections)
<b>6 Shelf</b>	<b>6 Shelf</b>	<b>6 Shelf</b>
30, 35, 40, 45, 50, 55, or 60 plus Gum and Mint (5 selections)	24, 28, 32, 36, 40, 44, or 48 plus Gum and Mint (4 selections)	18, 21, 24, 27, 30, 33 or 36 plus Gum and Mint (3 selections)

# HOW TO USE THIS MANUAL

This manual contains six sections. The front section contains a table of contents, tables and charts to aid in the identification of vendor models by number and specifications for each. Described below is a brief outline of the numbered sections and the information discussed there.

**SECTION 1 - INSTALLATION** - Section 1 contains unpacking, set-up instructions and Bill Acceptor DIP Switch settings. Use this section to install and check out the vendor.

**SECTION 2 - DESCRIPTION** - Section 2 contains a general introduction to the 6800 Deluxe Snack/Candy Vendor. This section provides an overview of the machine's major components, as well as explanations of its vending and management features. Before attempting to operate this vendor, read and familiarize yourself with this section and Section 1 - Installation.

**SECTION 3 - PROGRAM OPERATION** - Section 3 contains step-by-step instructions on how to program all of the machine's features, set prices and access MIS information.

**SECTION 4 - TROUBLESHOOTING** - Section 4 contains it's own table of contents, troubleshooting procedures, and Error Message & Problem/Solution Troubleshooting Charts. Wiring diagrams and machine schematics are also located in this section. Use this in conjunction with the information in Section 5 - Maintenance, to isolate and repair vendor malfunctions.

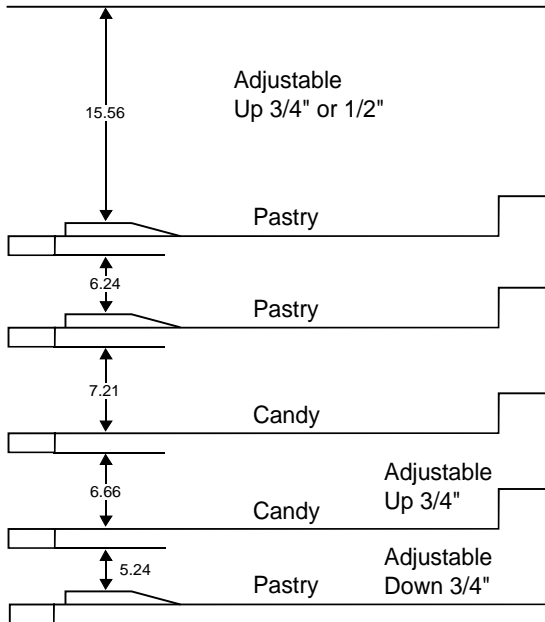
**SECTION 5 - MAINTENANCE** - Section 5 contains instruction for cleaning the snack vendor. It also includes instructions for removing and replacing the shelves, helixes, drive motors, and the Gum and Mint Unit.

**SECTION 6 - PARTS CATALOG** - Section 6 contains it's own table of contents, a list of optional kits and views of each assembly with the part and section called out. Part numbers under a four digit assembly number are indented to the right if they are shipped as a group when ordering the assembly number. If they are not indented they must be ordered individually.

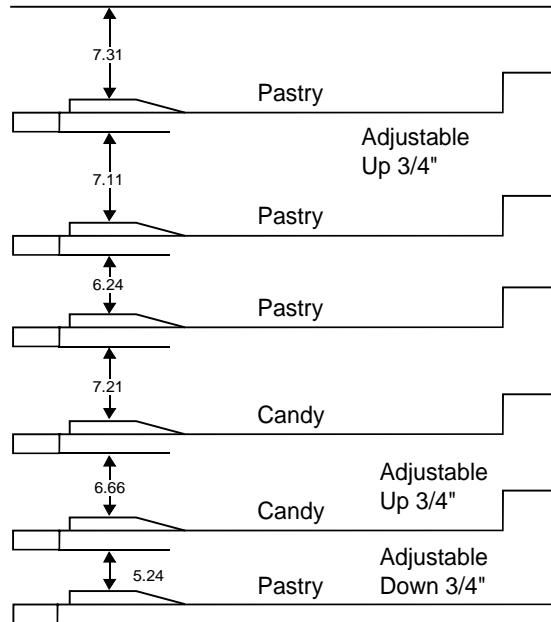
## ROWE Vending Machine Coin Mech Usage Chart

Model		448E2	548/648	550/650	5900	6800	6800Dlx
<b>Coinco</b>							
9300L	Micromech 120 VPDC 12 Pin Con.	X	X	X	X		X
9302LF	Micromech 24 VPDC 15 Pin Con.	X	X	X	X	X	X
9300L+	Micromech 24 VPDC 15 Pin Con.				X	X	X
GLOBAL	Micromech 24 VPDC 15 Pin Con.					X	X
<b>Mars</b>							
MC5000	Micromech 120 VPDC 12 Pin Con.	X	X	X	X		X
TRC6000	Micromech 120 VPDC 12 Pin Con.	X	X	X	X		X
TRC6010XV	Micromech 24 VPDC 15 Pin Con.	X	X	X	X	X	X
VN4010	Micromech 24 VPDC 15 Pin Con.					X	X
<b>CashFlow</b>							
CashFlow	Executive 24VAC		X	X	X	X	X
MS1600	Executive 24VAC	X	X	X	X	X	X
MS1700	Executive 24VAC Tropicalized	X	X	X	X	X	X
MS1900	Executive 24VAC	X	X	X	X	X	X
<b>NRI</b>							
G-26.4400	Executive 24VAC	X	X	X	X	X	X
<b>AZKOYEN</b>							
AN-200	Executive 24VAC	X	X	X	X	X	X

## Product Clearances



**5 SHELF**



**6 SHELF**

On both 5 shelf and 6 shelf models the second shelf from the 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

6800 Deluxe - 3 Selection Shelves 6800JR Deluxe - 4 Selection Shelves 6800C Deluxe - 5 Selection Shelves				6800 Deluxe - 6 Selection Shelves 6800JR Deluxe - 8 Selection Shelves 6800C Deluxe - 10 Selection Shelves			
Items per Compartment	Helix Part Number	Max. Product Thickness	Product Width	Items per Compartment	Helix Part Number	Max. Product Thickness	Product Width
6	593-14	3-5/16"	2-1/2" / 5-1/4"	10	493-16	2"	1" / 2-1/4"
7	490-4013	2-13/16"	2-1/2" / 5-1/4"	12	493-15	1-5/8"	1" / 2-1/4"
10	490-34	2-1/16"	2-1/2" / 5-1/4"	15	490-31	1-5/16"	1" / 2-1/4"
12	490-33	1-11/16"	2-1/2" / 5-1/4"	18	490-30	1-1/16"	1" / 2-1/4"
15	490-32	1-5/16"	2-1/2" / 5-1/4"	24	490-29	3/4"	1" / 2-1/4"

**NOTE:**

- 6800** - The partition in selection 4 can be moved to any of 4 locations, altering the width of selections 4 and 5. The maximum width of selection 4 is 6-3/4". The minimum width for selection 5 is 3-3/4".
- 6800JR** - The partition in selection 3 can be moved to any of 4 locations, altering the width of selections 3 and 4. The maximum width of selection 3 is 6-3/4". The minimum width for selection 4 is 3-3/4".
- 6800C** - The partition in selection 2 can be moved to any of 4 locations, altering the width of selections 2 and 3. The maximum width of selection 2 is 6-3/4". The minimum width for selection 3 is 3-3/4".

## 6800C COMPACT VENDOR PRODUCT CAPACITIES 6 SHELF MODELS

Model 682-18-6  
Capacity 218 Items\*

10	10	10
10	10	12
12	12	12
12	12	12
12	12	15
15	15	15

Model 682-21-6  
Capacity 290 Items\*

10	10	10			
10	10	12			
12	12	12			
12	12	15			
15	15	18	18	18	24
15	15	15			

Model 682-24-6  
Capacity 363 Items\*

10	10	10			
12	12	12			
15	15	15			
18	18	18	18	18	18
15	15	15	15	24	24
12	12	12			

Model 682-24-6  
Capacity 363 Items\*

10	10	10			
12	15	15			
18	18	18	18	18	18
18	18	18	18	18	18
15	15	15	15	24	24
12	12	12			

Model 682-30-6  
Capacity 497 Items\*

10	10	15			
12	12	12			
18	18	18	18	18	18
18	18	18	18	18	18
18	18	18	18	15	15
15	15	15	15	24	24

Model 682-33-6  
Capacity 571 Items\*

10	10	15			
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	24	24

Model 682-36-6  
Capacity 630 Items\*

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

\* Each machine includes a 3-selection gum & mint unit with a 135 product capacity. The gum and mint capacity is in addition to the indicated capacities.

## 5 SHELF MODELS

Model 682-15-5  
Capacity 182 Items\*

10	10	10
10	10	12
12	12	12
12	12	12
15	15	15

Model 682-18-5  
Capacity 254 Items\*

10	10	10			
10	10	12			
12	12	12			
12	12	12	12	12	12
15	15	15			

Model 682-21-5  
Capacity 321 Items\*

10	10	10			
12	12	15			
18	18	18	18	18	18
15	15	15	15	24	24
12	12	12			

Model 682-24-5  
Capacity 395 Items\*

10	10	15			
18	18	18	18	18	18
18	18	18	18	18	18
15	15	15	15	24	24
12	12	12			

Model 682-27-5  
Capacity 495 Items\*

18	18	18	18	18	18
18	18	18	18	18	18
18	18	18	18	18	18
15	15	15	15	24	24
12	12	12			

Model 682-30-5  
Capacity 540 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
15	15	15	15	24	24

\* Each machine includes a 3-selection gum & mint unit with a 135 product capacity. The gum and mint capacity is in addition to the indicated capacities.

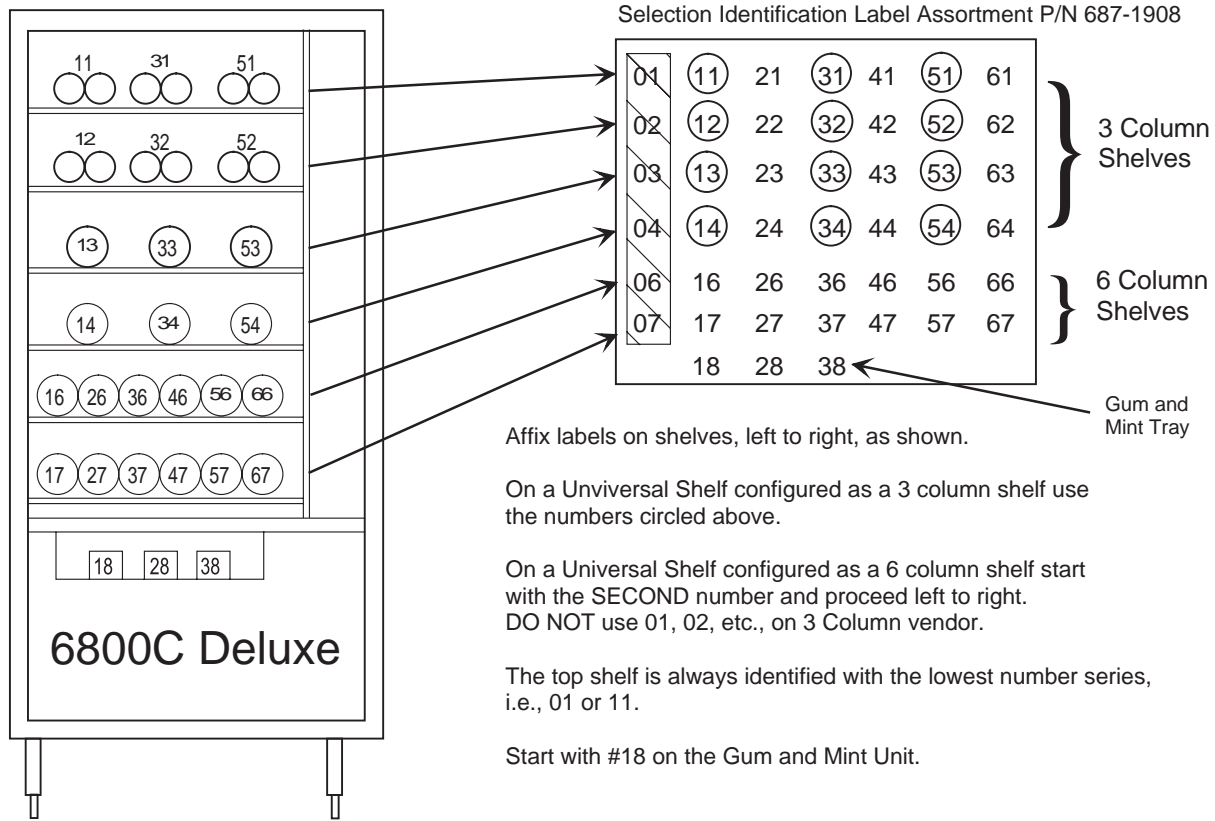
Three and six selection shelves fit in any position, see chart above. Helix coils can be freely interchanged with other helix coils of different capacities, provided they are the same diameter.



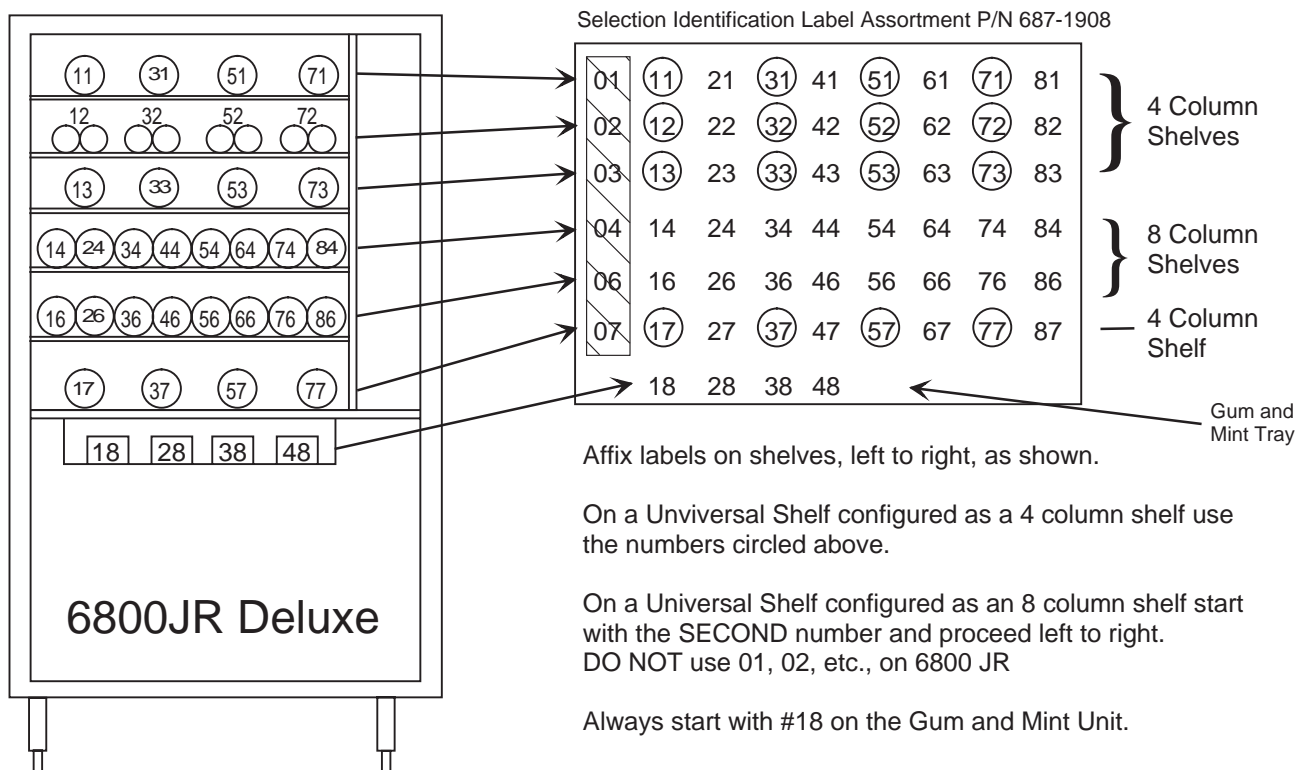




## 6800C Deluxe Selection Identification



## 6800JR Deluxe Selection Identification



# 6800S Deluxe Selection Identification

This section contains instructions for unpacking, moving and installing the 6800 Deluxe vendor on location. Installation is quick and easy when done in the proper sequence.

## 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 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

### Preliminary (Primary Delivery)

If it is necessary to move the vendor through a narrow doorway, proceed as follows. The power cord anchoring plate can be dismantled from the rear wall, allowing the power cord and plug to be pushed into the cabinet. Be certain to remount the anchoring plate to prevent damage to the power cord. If more clearance is required it will be necessary to pivot the door hinges.

1. Open the main door.
2. Remove the door stop rod.
3. Disconnect the door harness at the plug, located below the delivery box on the hinge side.
4. Disconnect the bill acceptor harness at the power box on the cabinet floor (if so equipped).

5. Open the main door far enough to expose the three counter sunk screws in the top hinge. Block the door to support its weight.

## !CAUTION!

The door is heavy. Take appropriate precautions before proceeding.

6. Remove the two 1/2" 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.

## NOTE

*Take care not to lose the bearing washer on the bottom hinge pin in next step.*

8. Rotate the upper hinge assembly away from the door frame and lift the door straight "up" off the lower hinge point.
9. If additional clearance is required, the lower hinge can be pivoted by removing the FRONT 1/2" 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.

## !CAUTION!

**The Main switch must be OFF when changing, connecting or disconnecting any electrical components.**

10. After passing through the confined area, reassemble the door to the cabinet, being certain to secure all of the parts and harnesses removed in the preceding steps.

# Section 1: Installation

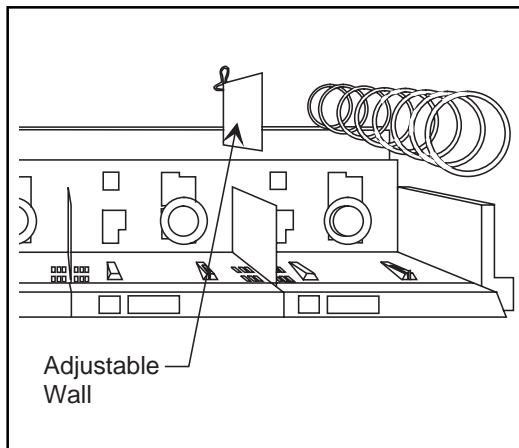


Figure 1-1  
Adjustable Wall (5-Selection Shelf)

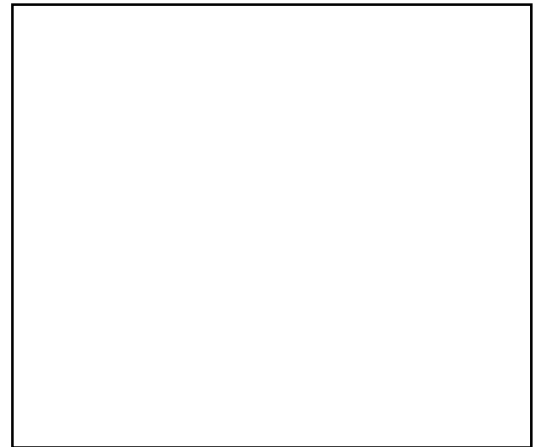


Figure 1-2  
Adjustable Wall (10-Selection Shelf)

### Initial Set-up Procedure

Set up the vendor as follows:

1. Open the main door all the way.
2. Set the main switch to OFF.
3. Level the cabinet front to rear and side to side. All four cabinet legs are adjustable.
4. Ensure that the fluorescent lamp is secure in its socket and that all electrical plugs are firmly seated in their sockets.
5. Plug the line cord into an appropriate receptacle. Ensure good ground.
6. Install a recommended coin mech, if applicable. See Specification sheet on page vi.
  - a) Check coin chute alignment.
  - b) Check return lever operation.
  - c) Adjust if necessary.
7. Set the main switch to ON.
8. Set pricing. (See *Program Operation, Section 3.*)
9. Pull the top product shelf out and lower it to the loading position. Load product in accordance with the specifications listed at the beginning of this manual.
10. Three (682), four (688) and five (687) selection shelves feature an adjustable wall to the left of the far right spiral. The wall can be installed in any one of the four positions in the bottom of the tray. After adjusting the wall for the desired width, check to be certain that the product moves freely when the selection on each side of the adjustable wall is vended (See *Figure 1-1* and Page 6-22). Additional tray walls are shipped with each machine and can be installed in the pastry tray slots to accommodate the narrower items. On 6, 8 or 10 selection trays, the adjustable wall swings out from the right side of the shelf wall (See *Figure 1-2*).
11. Install product pushers where required. The plastic product pushers are snapped onto the helix in the desired position to assure product delivery (See *Page 2-2, Figure 2-1*).
12. Place selection identification labels on selections according to pages xiii & xiv.
13. Place price labels on selections.
14. Gum and Mint Assembly: Unclip price cover bezel and install selection number and price label.
15. Gum and Mint Assembly: Reinstall the price cover bezel by snapping it into place.
16. Gum and Mint Assembly: Load the horizontal Gum and Mint Unit by grasping the pair of handles located on the front of the machine and pulling forward. Slide the cover to the rear of machine.

17. Gum and Mint Assembly: After sliding the cover forward, push the Gum and Mint Unit back into position.
18. Gum and Mint Assembly: Adjust the clear flippers to avoid double vends.
19. Deposit coins and test vend each selection. Check coin return operation.

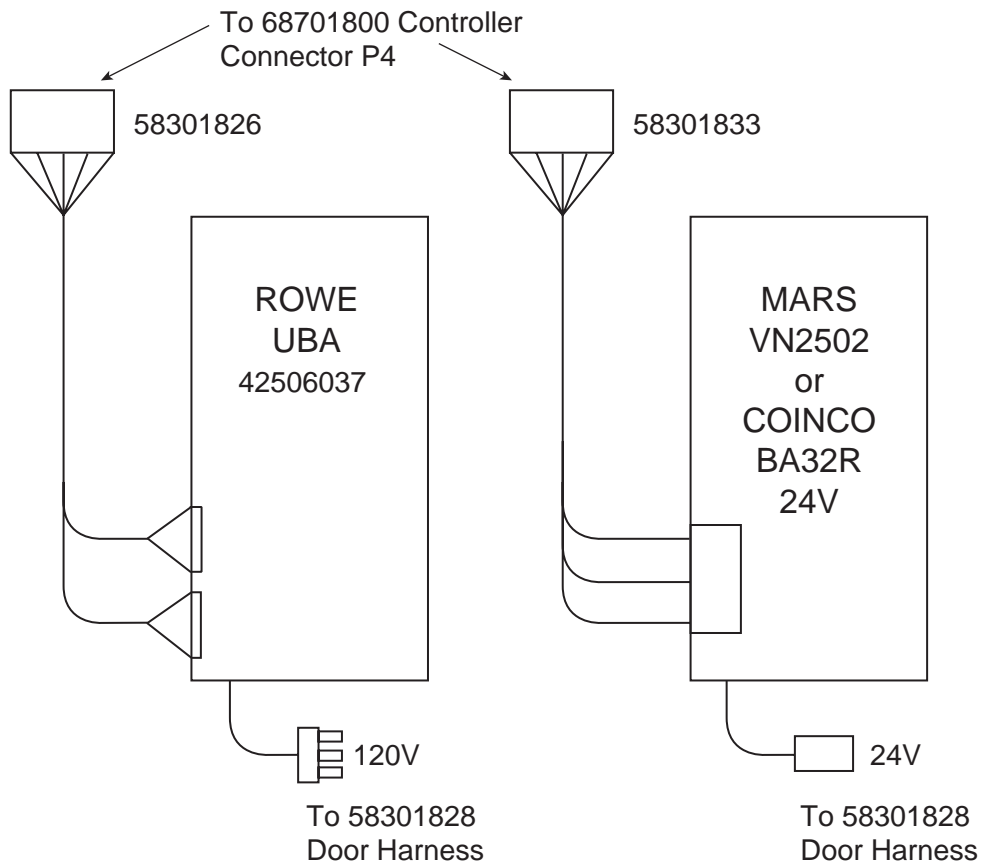
**BILL ACCEPTOR DIP SWITCH SETTINGS**

ROWE	UBA	#2 ON
MAKA	NBE-20	#1 ON
MARS	VFM-3*	#1, #8 & #7 ON
MARS	VFM**	#2, #6 & #7 ON
MARS	VN2502	#7 ON, #8 OFF
COINCO	BA32R	#3 OFF, #6 & #8 ON

**UBA Bill Acceptor Switch Settings**

All of the DIP switch settings located on the Rowe UBA assembly circuit board must be set to the OFF position, except switch #2, which must be set to the ON position.

- \* MARS VFM-3 Version 1-3
- \*\* MARS VFM Version 4-5



P/N 58301816 may be used to adapt MARS 120V units.

Figure 1-3. 687/688/682 Bill Validator Wiring Diagram

This page intentionally left blank.



# Section 2: Description

## INTRODUCTION

The Rowe 6800 Deluxe family of Snack/Candy Vendors includes the large capacity 6800 Deluxe, the medium capacity 6800JR Deluxe and the 6800C Deluxe Compact Vendor. All 6800 Deluxe models vend a wide variety of products from a combination of dual, pastry and candy helixes. Helixes are available in several capacities and are interchangeable between all three models. Each helix is operated by its own motor for trouble-free long life. State of the art electronics provide quick and easy programming, and detailed Management Information System (MIS) data.

During a purchase, merchandise is moved from the display shelf by a rotating helix coil and dispensed into a delivery compartment easily accessible to the customer. A time tested delivery door is easy for the customer to open, but remains theft-proof.

Units with Dual-Helix Shelves will ensure a positive product flow and frontal alignment of larger products. Universal shelves allow the combination of single and Dual-Helix delivery on any shelf creating many snack combinations.

Machine product capacity depends on the size and variety of helix coils used. Coils are removed and replaced without tools, merely by lifting out the existing helix and dropping the replacement straight in.

Product thickness varies considerably. Choose a helix that is appropriate for the product being vended (*See Page 2-2*). Ensure that product fits loosely within the helix coil. Do not place product into a helix that is too small; damage to the product and the vendor may result. Because some bagged snacks swell in size over their normal shelf life, some trial selection is necessary. The product thickness range specified in this publica-

tion 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 capacities for each model are shown on *pages x-xii*.

The slide-out Horizontal Gum and Mint Unit is mounted on its own shelf. Releasing the latch handles on the front of the unit allows it to be pulled forward for easy loading and servicing. Column widths can be easily adjusted by using the product adjustment guides. Double vending is avoided by sliding the product flipper to the proper location and tightening the knob.

A two note Rowe Universal Bill Acceptor (accepts \$1.00 and \$5.00 bills) is available as an option. The acceptor 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 addition of the optional refrigeration unit extends the sales period of temperature sensitive products. Because the cabinet temperature is maintained between 50° F and 70° F, discoloration and melting of chocolate candies and sugar covered pastries is prevented.

The 6800 Deluxe controller allows the operator to access special vending functions and management information. Detailed Management Information System (MIS) data is accumulated by the controller and can be printed on an optional printer or displayed, line by line, on the message center.

## PRODUCT SHELVES

### Universal Shelves

All of the shelves in the 6800 Deluxe Snack/Candy Vendor are universal shelves. This means that all shelves use a universal power connection bracket, which allows them to be placed at any position within the machine. A universal shelf can be modified to support any combination of candy, pastry and dual helixes. Modifying shelves requires removing or adding motors and helixes.

### Shelf Configurations

Shelves are available in three standard configurations: candy, pastry and dual helix. These shelves can be installed at any position within the machine and can be freely interchanged with any other shelf. Helixes can be interchanged to accommodate different product widths. Refer to page ix for helix capacity and part numbers.

### Candy Shelf

A candy shelf has one helix for each possible motor position (687 - 10 Selections, 688 - 8 Selections, 682 - 6 Selections). A candy shelf should be used to vend products up to 2-1/4" wide and 2" thick.

### Pastry Shelf

A pastry shelf has one helix for each pair of motor positions (687 - 5 Selections, 688 - 4 Selections, 682 - 3 Selections). A pastry shelf should be used to vend products that are 2-1/2" to 5-1/4" wide and 1-5/16" to 2-1/16" thick.

### Dual Helix

Dual helix shelves have two helixes working in conjunction with each other at each pair of motor positions (687 - 5 Selections, 688 - 4 Selections, 682 - 3 Selections). A dual helix selection is driven by a single motor which turns a gear and sprocket arrangement, rotating the helixes in opposite directions. A dual helix shelf is used to vend products that are 2-1/2" to 5-1/4" wide and 1-5/16" to 2-1/16" thick.

### Adjustable Shelf Wall

Figure 2-1

The 6800 Deluxe Snack/Candy Vendor uses adjustable shelf walls to accommodate varying product widths.

Dual helix and pastry shelves (3, 4 or 5 selection) have an adjustable shelf wall located between the last two selections on the right side of the shelf. The divider can be removed and placed in one of the four slots in the bottom of the tray. Additional dividers are shipped with each machine.

On candy shelves (6, 8 or 10 selections) the adjustable wall swings out from the right side of the shelf wall.

### Loading a Shelf

1. Pull the shelf forward to the loading position.
2. Place product between the helix coils. Start from the front and work toward the rear.
3. Adjust the shelf walls to fit the product. Ensure that product moves freely.

## HORIZONTAL GUM AND MINT UNIT

The 6800 Deluxe Snack/Candy Vendor uses a horizontal gum and mint unit located on its own shelf. The unit slides out of the vendor for easy loading and servicing.

### Operation

Product is vended from the gum and mint unit by a motor and product ejector system. During a vend, the motor turns and raises the product ejector. The ejector pushes the product up and over the front of the gum and mint unit. The flipper ensures that only one product is released during each vend. The flippers can be adjusted forward or back to coordinate with the product size. Adjustable product guides can be installed to accommodate narrow product.

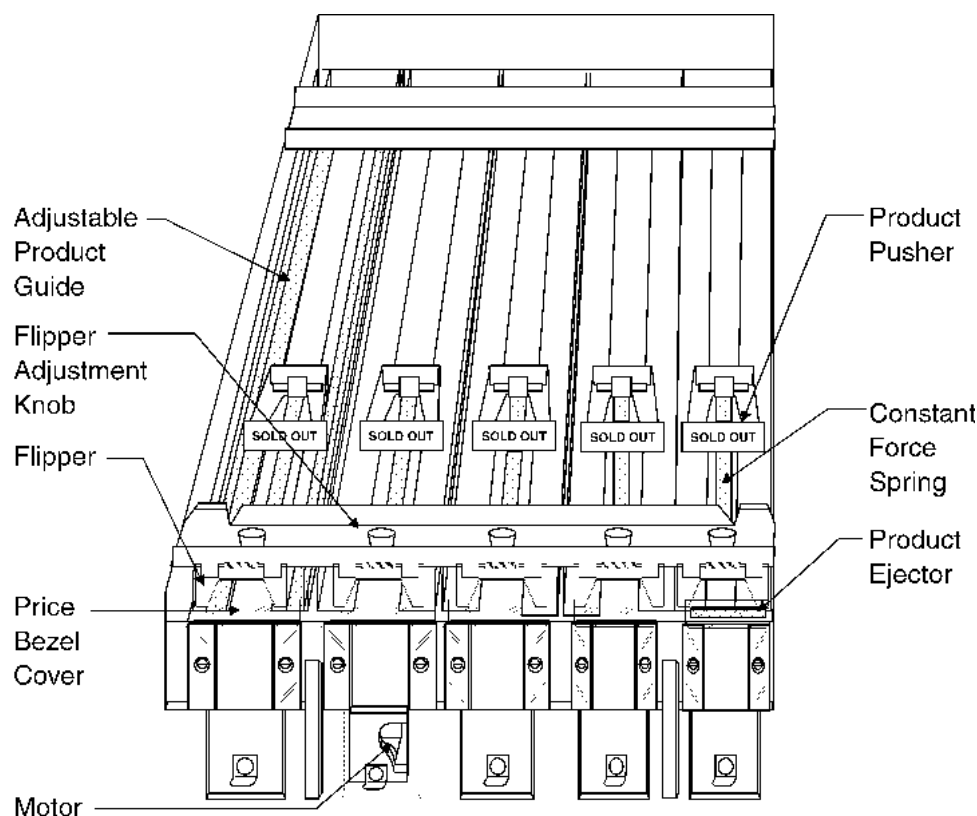


Figure 2-2

### Loading the Gum & Mint Unit

To load the Gum and Mint Unit:

1. Grasp the latch handles and pull the unit forward until it stops. This is the loading position.
2. Slide the cover to the rear of the unit.
3. Install adjustable product guides, if necessary, to accommodate narrow product.
4. Place product in the appropriate selections.

### NOTE

*Do NOT attempt to pull the product pushers forward toward the product. This will damage the constant force springs. When the unit is returned to the vend position, the product pushers will be seated properly against the product.*

6. Return the Gum and Mint Unit to the vend position.
7. Test vend each selection. Adjust the flippers to prevent double vending.

## COIN MECHANISM (DOMESTIC)

A coin mechanism (coin mech) is required to operate this vendor. Refer to *page vi or vii* for compatible coin mech listings. The coin mech works in conjunction with other credit acceptance devices, such as a bill validator or debit card reader, to accept and dispense coins during a vend. The 6800 Deluxe controller regulates the number of coins accepted and dispensed through the coin mech.

### Installing the coin mech

6800 Deluxe Snack Vendors are compatible with several different coin mech models. The coin mech should be installed according to the directions provided by the coin mech manufacturer.

Because this vendor can operate several different coin mech models, it is important to ensure that the coin mech installed on your vendor is aligned properly with the coin chute located on the vendor. Also check to ensure that the vendor's coin return lever actuates the coin return lever on the coin mech. Make the adjustments necessary for the coin mech to operate properly.

## Coin Mech Loading With Cash Accountability

There are three methods of loading coins into the coin mech while in the service mode:

1. Coins can be added to the coin mech through the normal coin insert located on the customer display. If coins are loaded in this manner the number of coins is registered by the controller and automatically added to the coin tube total.
2. Coins can be added through the top flight deck located on the top of the coin mech. If coins are loaded through the top flight deck, the number of coins is registered by the controller and automatically added to the coin tube total.
3. Coins can be added through the side of the coin mech, directly into the coin tubes. If coins are added directly to the coin tubes they are not registered by the controller, and

the number of coins loaded must be entered using Menu 1 - Load and Calibrate Coin Tubes, in the Service Mode. **It is extremely important to record the correct number of coins when loading coins directly into the coin tubes. Payout and acceptance criteria are based upon the number of coins in the coin mech.**

4. Coin count/level should be set to coin count. See *Section 3 - Programming*.

## Coin Mech Loading Without Cash Accountability

1. Load coins directly into the payout tubes, as shown below.
2. Using this method the snack controller relies on sensor information supplied by the coin mech to determine if correct change is available.
3. Make sure coin count/level is set to coin level. See *Section 3 - Programming*.

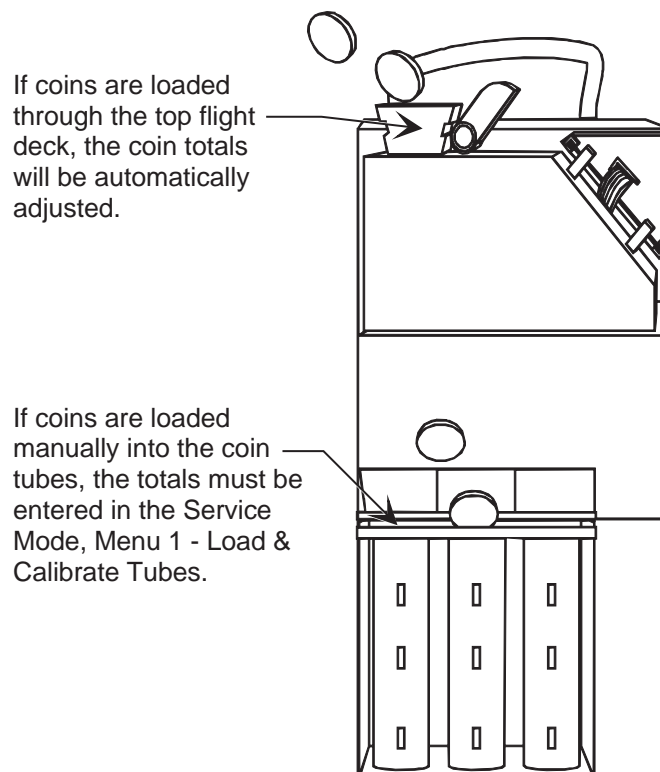


Figure 2-3. Coin Mech Loading

## SELECTION IDENTIFICATION

( See page xiii & xiv)

Selection identification is as follows:

### First digit:

The first digit identifies the location of an item on the shelf.

### Dual Helix & Pastry Shelves

On all models with a 3, 4, or 5 item shelf, the first item from the left is 1, the second is 3, the third is 5, etc.

### Candy Shelves

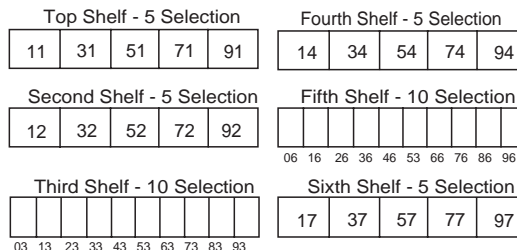
On a model 591 or 594, 6 or 8 selection shelf, the first item from the left is 1, the second item is 2, the third item is 3, etc. On a model 593, 10 selection shelf, the first item is 0, the second item is 1, the third item is 2, etc.

### Second digit:

The second digit identifies the shelf locations. The 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 9 on a 7 shelf configuration and 8 on a 6 shelf configuration. In the case of a five shelf machine the top shelf is designated as #2.

Examples:

### Six Shelf Machine



### Making a Selection

To make a selection, deposit the proper amount of money. The display shows the amount of credit entered. The price is displayed beneath each item. Press the two digits corresponding to the selection number shown beneath the product.

The 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 patron to make a purchase from the vendor. They are also used by service personnel to access the service mode and program all of the machine's operating and management features. Refer to Section 3 for detailed programming instructions for the vendor using the service mode.

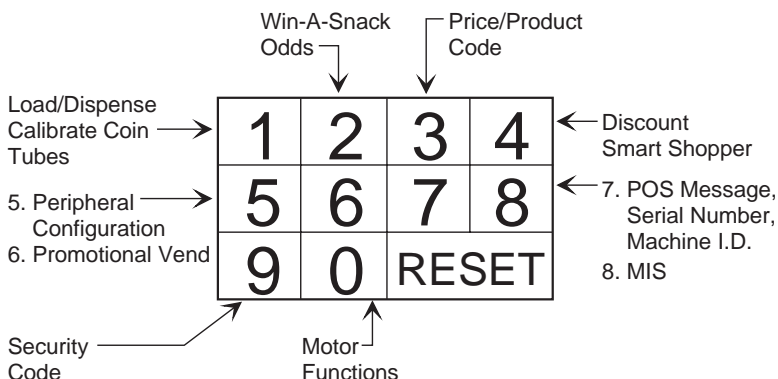
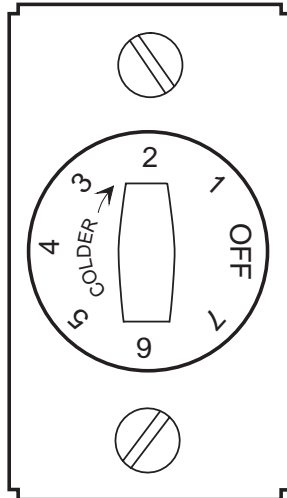


Figure 2-4. Keypad functions in the service mode.

### Temperature Control (Optional)

The temperature control knob is mounted to the refrigeration unit, near its AC power input socket, beside the transformer box assembly.

To maintain an even temperature distribution the evaporator blower runs continuously, even if the control is set to off. Turn the temperature control knob slowly clockwise from the off position until the condenser fan and compressor



start. Let the system run for twenty (20) minutes before checking the cabinet temperature. If a lower temperature is desired turn the control knob clockwise to the next higher number. Allow the system to run twenty (20) minutes before taking another reading.

### Special Vending Modes

The 6800 Deluxe incorporates many special vending features. These features are enabled and disabled using the DIP switches located on the 6800 Deluxe Controller. The DIP switch settings and their associated features are listed below. When the DIP switch is ON, the associated feature is enabled. Setting the DIP switch OFF will disable the feature.

Changing the language setting applies only to the message prompts displayed to the customer (*See Page 2-10*). The text in the service menu as well as error messages will remain in English.

### Dip Switch Settings

Position	Assignment
1	Language
2	Language
3	Force Vend
4	Promotional Vend
5	Multivend
6	Win-A-Snack

### Table For Language Setting

Position 1	Position 2	Language
ON	ON	Spanish
ON	OFF	French
OFF	ON	German
OFF	OFF	English

### Force Vend

This feature is intended to force credit accrued from a bill validator or coin mech to be used to purchase an item. Escrow attempts of the bills held in the bill validator or coins deposited in the coin mech will not be allowed if this feature is active. This credit will not be returned if a vend is unsuccessful or an invalid selection is made. Change will be made.

### Promotional Vend

This feature is intended to free vend a second item when an item is purchased for the programmed price. Five pairs of items may be programmed. *See Page 3-7* for programming instruction.

### **Multivend**

This feature is intended to increase sales and make multiple purchases more convenient for a customer. After a first selection is made, the "SELECT OTHER ITEM" message will be displayed. The remaining credit will be shown on the display and another selection may be made. If more money is inserted, the credit will remain indefinitely, until a vend is made or the coin return is depressed. If there is no machine activity following the first vend, the remaining credit will automatically be returned after 10 seconds.

### **Win-A-Snack**

This feature is intended to free vend a product on a random basis with a prescribed occurrence level being programmed by the service person. When a Win-A-Snack win occurs, the selected item will be vended and the entire credit will be returned. Range of odds: 1:50 to 1:500 in steps of 50.

### **Smart Shopper**

The smart shopper feature allows the customer to purchase two items of the same selection, and receive the second at a discounted price.

When a discount is programmed, this feature is always enabled. If the discount amount is set to zero or greater than the maximum price this feature will have no effect. All items in the machine will be discounted the same amount as programmed. 66 for programming instructions.

To operate this feature, the <RESET> button must be pressed twice before a selection is made. The smart shopper mode will remain active for 60 seconds after the reset button is pressed or until a selection is made. A double vend will be conducted on the chosen selection and change will be returned, with the discounted amount being calculated into the second vend's price.

### **Remote No Sale**

When the Remote No Sale Switch is ON, sales on row 4 will be disabled. The "SELECT OTHER ITEM" message will be displayed if a row 4 selection is attempted. This feature may be used to prevent sales of items during particular times (manual setting).

### **Feature Prioritization**

Win-A-Snack and Promotional Vend  
Multivend  
Smart Shopper Mode  
Force Vend



## Explanation of Prioritization

Assume the following machine configuration:

Win-A-Snack - ON  
 Promotional Vend - ON  
 Force Vend - ON  
 Smart Shopper Mode - ON

Consider the instance of a Win-A-Snack winner after the <RESET> button has been pressed twice. If a purchased side of a promotional pair is selected and sufficient credit was already inserted from a bill validator, the first item will be vended, then the free item will be vended and the entire amount of deposited money returned. In essence the Force Vend and Smart Shopper features have been overruled by the Win-A-Snack feature but the Promotional Vend was performed in conjunction with a Win-A-Snack winner.

## Automatic Lockout

The Automatic Lockout feature is implemented by setting one or more time periods, or events, in which the machine is to be disabled. During a lockout period, the display will scroll the message “MACHINE DISABLED UNTIL XXXX,” where

“XXXX” is the time the machine will return to service. There are 10 programmable events available. An event may be programmed to occur on a particular day, every work day (Monday through Friday), or every day of the week. When programming Automatic Lockout events, make sure events do not overlap and OFF times are always later than ON times.

## COIN PAYOUT BUTTONS

Four momentary push button switches are located on the control board for dispensing coins. The following coins may be dispensed: nickel, dime, quarter, and dollar (for changers with dollar coin payout). These buttons will only be enabled during a Key <1> Load/Dispense/Calibrate routine in the service mode with a domestic changer connected. The approximate rate of dispense with a button depressed is 2 coins per second. These buttons will be ignored if more than one is pressed.

## SERVICE <MODE> BUTTON

The Service <MODE> Button is a momentary push button located on the control board and is used to enter and exit the service mode.

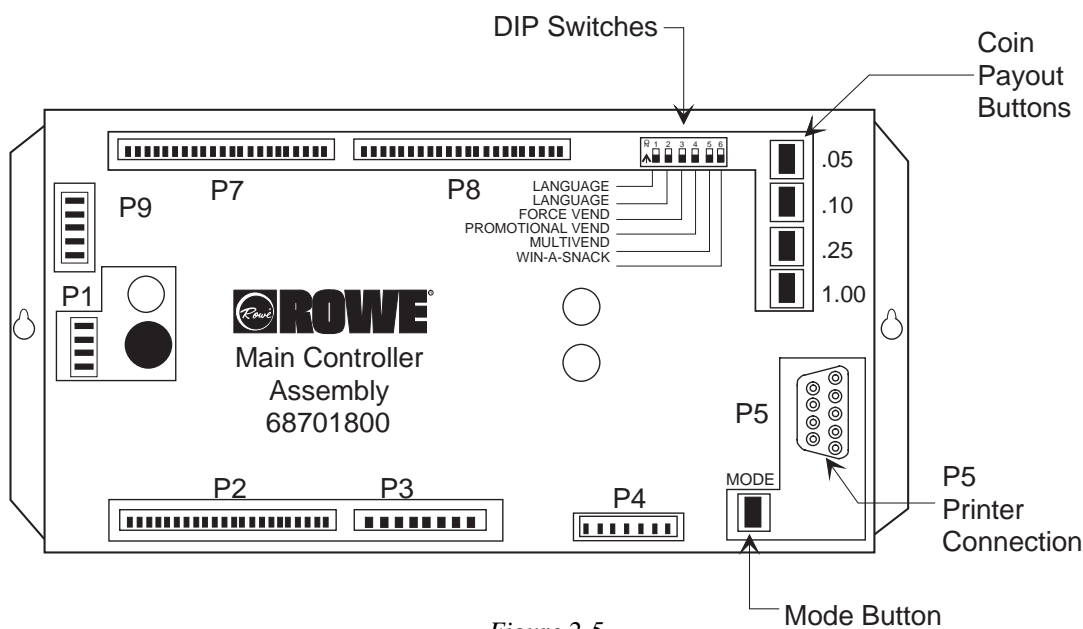


Figure 2-5

**DISPLAY MESSAGE PROMPTS****“EXACT COINS ONLY”**

This message is scrolled when the changer reports that the nickel tube does not contain any coins above the low level sensor. With an MS 1900 Coin Mech, the controller will scroll this message when the changer is signaling an exact change only status (i.e., less than 4 nickels in the coin tubes).

**“SELECT OTHER ITEM”**

This message is shown on the display when a vend is attempted on row 4 with the unit programmed for Remote No Sale, following an unsuccessful vend, following an invalid selection number and during a Multivend operation.

**“PRICE”**

This message is shown for 600 milliseconds after a valid keypad selection has been made. The selection's price will immediately follow the selection on the display.

**“THANKS”**

This message is shown for 600 milliseconds following a successful vend and dispensing of change.

**“CHANGE”**

This message is shown only when using a domestic Coin Mech. It will be shown for 600 milliseconds immediately following a successful vend.

**“COINS ONLY”**

This message is scrolled when the dime and quarter tubes are empty but the nickel tube has coins.

**“MACHINE OUT OF ORDER”**

This message is scrolled when a particular peripheral is selected and a valid start-up message is not received. The bill validator will not disable the machine since no start-up message is available. If no peripherals are selected, the machine will display the Point of Sales message.

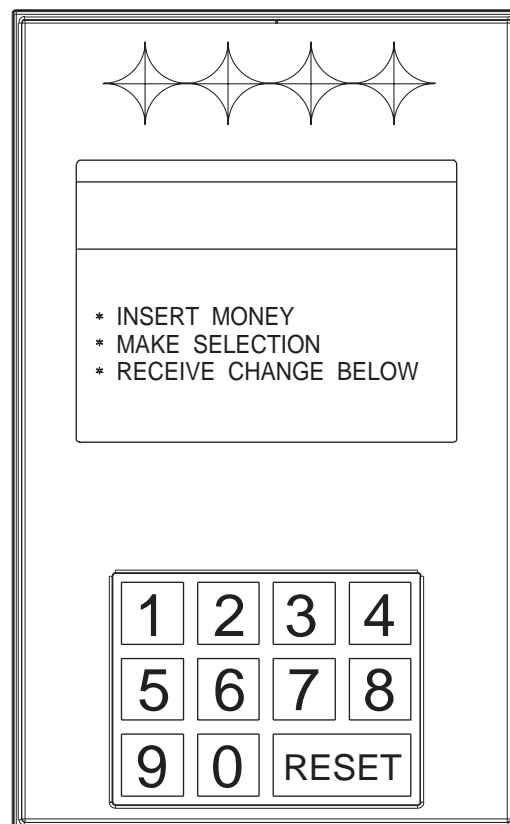
**AUDIO FEEDBACK**

A piezo-type chime mounted on the display board is sounded for the following events:

- Insufficient credit condition after a selection was made (3 - 300 millisecond beeps)
- Unsuccessful vend (3 - 300 millisecond beeps)
- Between Multivend selections
- Successfully decoded keypad entries
- Opening of the door
- Pressing of the service mode button
- Exit from service mode

**THE POINT OF SALE MESSAGE**

This message is scrolled during periods of no activity when the changer is not exhibiting a low coin tube status. The message will be a maximum of 250 characters in length and will be programmable in the service mode. This message will not be



effected by the position of the Language DIP switch. See Page 3-7 for instructions on programming this message.

## MANAGEMENT INFORMATION SYSTEM (MIS) DATA

The 6800 Deluxe controller stores sales and credit information useful in tracking the vendor's performance. MIS information can be displayed on the customer display or printed with an optional printer. For instructions on accessing MIS information refer to page 3-10.

The following information is collected and stored by the 6800 Deluxe controller:

### MACHINE SERIAL NUMBER:

Range: (Blank) to 9999999999

### MACHINE IDENTIFICATION NUMBER

Range: (Blank) to 9999999999

### AUDIT NUMBER: (Non-resettable)

Equals the number of times the retrieval of MIS Information has been performed (Mode Key - <7>)

Range: 1 - 99999

### SALES (Resettable)

Range: 0 - \$999,999.95

### SALES (Non-Resettable)

Range: 0 - \$999,999.95

### BAG TOTAL

Equals total accumulation of Cash Box plus Bill total amounts.

Range: 0 - \$999,999.95

### CASH BOX

Equals total amount in Cash Box

Range: 0 - \$999,999.95

### CARD SALES

Equals total amount in credit sales vended

Range: 0 - \$999,999.95

### BILLS IN STACKER: (Where applicable)

BILL TOTAL - Equals all bill denominations in Bill Acceptor Stacker

Range: 0 - \$999,999.00

Ones 0 - \$65,535.00

Twos 0 - \$131,070.00

Fives 0 - \$327,675.00

Tens 0 - \$655,350.00

Twenties 0 - \$999,980.00

### COINS IN TUBES:

TUBE TOTAL - Equals all coin denominations in Coin Mech Tubes

Range: 0 - \$357.00

\$1 Coin 0 - \$255.00

Quarters 0 - \$63.75

Dimes 0 - \$25.50

Nickels 0 - \$12.75

WIN SNACK VENDS: Equals the total win counts and cash amount given away.

Range: 0 - \$999,999.95

SHOPPER VENDS: Equals the number of vends and cash amount of discounted product dispensed.

Range: 0 - \$999,999.95

PROMO VENDS: Equals the number of vends and cash amount of free selection vended when making a certain paid selection.

Range: 0 - \$999,999.95

VEND PER PRODUCT CODE: Equals the number of times an assigned product code selection had been vended.

## MIS PRINTER SETUP

Previous versions of 6800 Deluxe software required the printer to be configured with 2400 baud, even parity, 8 data bits, and 1 stop bit. This version and later changes this configuration to a selectable baud rate, no parity, 8 data bits, and 1 stop bit. This setup allows the 6800 Deluxe Snack/Candy Vendor to be configured the same as the Rowe 548/648 Showcase Merchandiser, the 550/650 Showcase Merchandiser, and the Rowe CD Jukebox. The same printer may now be used to retrieve data from all these machines without changing the printer setup. Printer wiring has also been simplified. Only three wires are required. Below is the pinout of a generic printer harness. Check the owner's manual for the printer you are using to verify proper connections at the printer end.

Rowe recommends the Seiko DPU-411-21BU Serial printer for retrieving MIS data. A printer harness, Rowe P/N 593-1800, is required to connect the printer to the controller.

<p><b>6800 Deluxe Control Board</b></p> <p>(TxD) P5-3 (GND) P5-5 (CTS) P5-8</p>	<p><b>25 Pin RS232 Printer Plug</b></p> <p>Pin 2 or 3 (RxD) Pin 7 (GND) Pin 5 or 20 (BUSY)</p>
---	--

ROWE INTERNATIONAL ----- SNACK SOFTWARE V 1.0  ACCOUNT RECORD 11:22 11-13-95 -----		
SERIAL #	-	0000000000
MACHINE ID	-	0000000000
AUDIT NUMBER	23	
SALES (R)	-	\$ 1.00
SALES (N)	-	\$ 26.50
BAG TOTAL	-	\$ 6.00
CASH BOX	-	\$ .00
CARD SALES	-	\$ .00
BILLS IN STACKER		
BILL TOTAL	-	\$ 6.00
ONES	- 1	\$ 1.00
TWOS	- 0	\$ .00
FIVES	- 1	\$ 5.00
TENS	- 0	\$ .00
TWENTIES	- 0	\$ .00
COINS IN TUBES		
TUBE TOTAL	-	\$ 8.00
\$1 COIN	- 0	\$ .00
QUARTERS	- 20	\$ 5.00
DIMES	- 20	\$ 2.00
NICKELS	- 20	\$ 1.00
WIN-SNK VENDS	- 0	\$ .00
SHOPPER VENDS	- 0	\$ .00
PROMO VENDS	- 0	\$ .00
FREE VENDS	- 0	\$ .00
VENDS PER PRODUCT CODE		
CODE 01 VENDS	- 2	

*Sample MIS Report  
Figure 2-6*

# Section 3: Program Operation

## INTRODUCTION

This section contains detailed instructions on how to program all of the machine's features, retrieve MIS information, set prices, and load and calibrate the coin tubes.

There are two operation modes that the operator can access. The first mode is the Diagnostic Mode, which is activated when the door is opened. The Diagnostic Mode will list recorded machine errors and allow the operator to clear them from the system. The second mode is the Service Mode, through which the operator can program the various machine functions and retrieve MIS information.

In this manual, messages that appear on the display will be shown in upper case letters enclosed by quotation marks. The keys on the selection panel used to program the machine are enclosed in <> marks.

## DIAGNOSTIC MODE

The following error messages will be displayed during the Diagnostic Mode. They will be displayed repetitively in the following order until cleared or until the Service Mode is entered. To clear an error, press the <RESET> Key. "NO ERRORS" followed by "SYSTEM OK" will be displayed when the last error is cleared.

### Error Messages

**"OVER CRNT= XX"** - This message indicates motors that have been short circuited or jammed.

**"HOME FAIL XX"** - This message lists motors that have not returned to the home position or that have failed to move from the home position.

**"CHK PRICE XX"** - This message indicates selections with corrupted or invalid prices.

**"LINK PWRUP"** - This message appears when a master type peripheral (executive coin mech) is configured and communication is not established.

**"CHGR PWRUP"** - This message appears when a logic type coin changer is configured and communication is not established.

**"CARD PWRUP"** - This message appears when a debit card reader is configured and communication is not established.

**"BILL ERROR"** - This message appears when a bill validator is configured and the validator's diagnostic line has been active.

**"COIN JAM"** or **"BAD SENSOR"** - This message appears when a logic coin changer signals either a coin jam or a bad sensor.

**"TUBE ERROR"** - This message appears when a logic type coin changer is configured and a transaction has been detected on the lower level tube sensors.

To correct any of the errors listed above, refer to *Section 4 - Troubleshooting*.

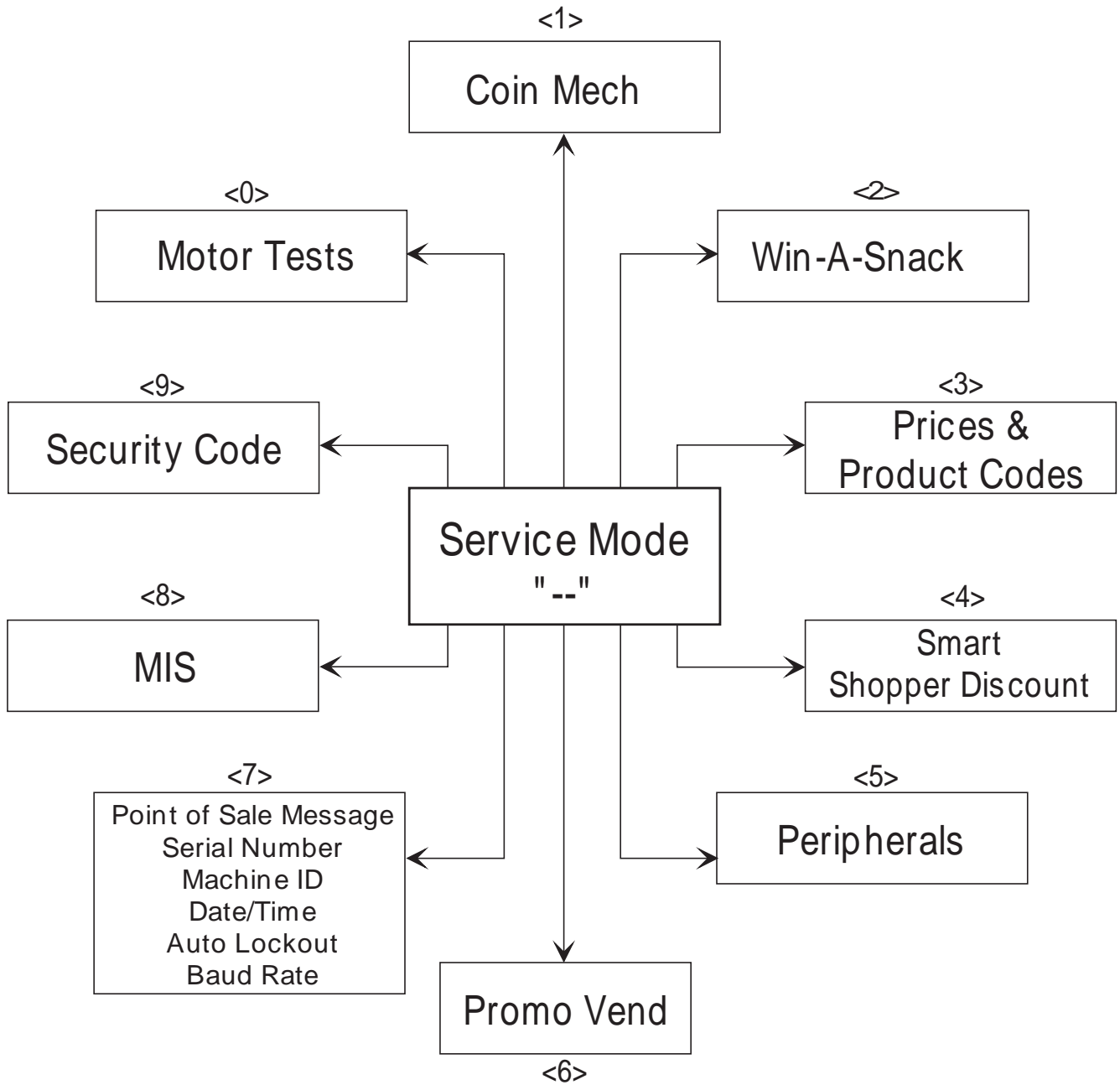


Figure 3-1. Service Mode Flow Chart

## SERVICE MODE OPERATION

The Service Mode is accessed by either pressing the <MODE> button on the control board while the main door is open, or by entering the security code on the keypad. If the security feature is enabled, the service mode must be entered by entering the security code on the keypad, in order to have access to secured menus. Once in the Service Mode, the operator will be able to access all of the 6800 Deluxe operating and management options. The different options in the Service Mode are located in ten menus. The menus are accessed through the number keys on the keypad. Follow the instructions in this section to program the 6800 Snack/Candy Vendor. Refer to the *flow chart on page 3-2*.

### I. Access the Service Mode

1. Press the <MODE> button on the control board. A dash “-” will appear in the far left display digit indicating that the root service menu has been accessed. If the security feature is enabled, enter the security code using the keypad to gain access to all menus. If there is no keypad activity for 60 seconds, the controller will return to the Diagnostic Mode.
2. Press one of the following keys to access the menu you wish to program.
  - <1> Load and Calibrate the Change Tubes
  - <2> Win-A-Snack Odds Programming
  - <3> Price, Product Code, and Discount Eligibility
  - <4> Smart Shopper and Discount Amount Programming
  - <5> Manual Peripheral Configuration
  - <6> Promotional Vend Pairing
  - <7> POS Message, Serial and ID Number Programming, Date, Time, and Auto Lockout Setup

<8> MIS Display and Printer Communications

<9> Programming the Security Code and Security Features

<0> Motor Functions

3. Press the <RESET> key to exit the current menu and return to the root menu.

### KEY 1

#### II. KEY 1 - Load/Dispense/Calibrate the Changer Tubes

##### Purpose:

To allow the operator to inventory and adjust the number of coins in the coin tubes. If coins are manually added to the tubes, the coin count must be adjusted in this menu. If coins are deposited or paid out while in this mode the display will automatically show the inventory level of the last coin dropped. The coin tubes are listed as “NIKLS”, “DIMES”, “QUTRS” AND “DOLRS”.

### NOTE

*When coins are paid out below the tube level sensor, the count is reset to four, and coin tube counts may become corrupted.*

#### Programming Instructions

1. Press <1> on the keypad.
2. Response will be: “NICKELS XXX”. XXX represents the number of nickels in the tubes.
3. Press <0> to move to the next coin tube without changing the coin count in this tube.
4. Press <1> to increment the tube total.
5. Press <2> to decrement the tube total.
6. Press <0> to move to the next tube after inventory changes.
7. Press <RESET> to return to the root menu without saving changes.
8. Repeat steps 1-6 for each of the coin tubes.

**NOTE**

Payout and acceptance criteria are based on the values of the coin tube levels.

**KEY 2****III. KEY 2 - Win-a-Snack Odds Programming****Purpose:**

To program the Win-a-Snack odds. The odds range from 1:50 to 1:500.

**Programming Instructions:**

1. Press <2> on the keypad.
2. Response will be "ODDS 1/XXX". XXX represents a number between 50 and 500.
3. Press <1> to increment the odds at intervals of 50.
4. Press <2> to decrement the odds at intervals of 50.
5. Press <0> to save the change and return to the root menu.
6. Press <RESET> to return to the root menu without saving changes.

**NOTE**

Dip switch #6 on the control board must be ON to enable this feature.

**KEY 3****IV. KEY 3 - Price, Product Code, and Discount Eligibility Setting****Purpose:**

To set prices and product codes and to enable the Smart Shopper discount. The amount of the Smart Shopper discount will be programmed in the next menu. Only selections that have a motor present can be modified in this menu.

**NOTE**

Ensure that the shelf to be programmed is in the vend position, with the electrical connector at the rear of the shelf engaged with the electrical connector mounted to the cabinet.

**NOTE**

When installing a new control board, all selections must be reprogrammed to avoid setting error messages in the diagnostics. Selections that had prices previously set but whose motors are no longer detected will be flagged as "CHK PRICE" in the diagnostic display.

**Programming Instructions:**

1. Press <3> on the keypad.
2. Response will be "SET PRICE?".
3. Enter a two digit selection number.
4. Response will be "AA BBBB \* CC".
  - 'AA' = Selection number
  - 'BBBB' = Price
  - '\*' = Discount eligibility
  - 'CC' = Product code
5. Press <1> to increment the price.
6. Press <2> to decrement the price.
7. Press <3> to increment the product code.
8. Press <4> to decrement the product code.
9. Press <5> to toggle the discount eligibility option (The asterisk indicates that the option is enabled).
10. Choose one of the following applicable options to save price changes.
  - Press <7> to save the price to the entire shelf and exit to the root menu.
  - Press <8> to save the price to every selection in the entire machine and exit to the root menu.



- Press <9> to save the changes. The information saved will be displayed at the next selection on the shelf. To modify the settings on the rest of the selections, repeat steps 5-9. To keep the settings the same, press <9> again. In this manner prices may be copied from one selection to the next.

## NOTE

When reviewing the settings in Prices, Key <6> may now be used to quickly view one setting after another without having to SAVE each setting.

### KEY 4

#### V. KEY 4 - Smart Shopper Discount Amount

##### Purpose:

To set the amount of the Smart Shopper discount. The Smart Shopper discount is only valid on items on which the Smart Shopper option was enabled in Menu 3.

##### Programming Instructions:

- Press <4> on the keypad.
- Response will be "DSCNT XXX". XXX represents the amount of the discount.
- Press <1> to increment discount.
- Press <2> to decrement discount.
- Press <0> to save the discount amount.

### KEY 5

#### VI. Key 5 - Manual Peripheral Configuration

##### Purpose:

To configure major peripherals on the vendor. The following options are configured in this menu:

Link Master (Executive Coin Mech)  
Price Hold  
Price Display  
Dumb Mech

Coin Count/Coin Level  
Debit Card Reader  
Bill Validator  
\$ Escrow  
Dollar Changer  
\$1 Enable  
Scale and Decimal Position  
Free Vend

#### COIN COUNT/COIN LEVEL

This feature is available when a Dumb Coin Changer is selected. With **COIN COUNT** enabled, bill validator enable and the **COINS ONLY** messages are activated based on coin tube counts stored in the MIS section. With **COIN LEVEL** enabled, not only are the coin tube counts that are stored in MIS used, but the low coin level sensors in the coin changer are used as well. If the coin count for one of the coins is greater than 4 and the level sensor is blocked, the count is modified with the normal acceptance and dispensing of coins. If the level sensor should open up and the count is greater than 4, the count is automatically adjusted to 4 and a **TUBE ERROR** is recorded. On the other hand, if the count goes below 4 and the sensor is still covered up, the count will be set back to 4. Again, bill validator enable and the **COINS ONLY** messages are activated based on the coin counts; however, the counts may be modified based on the true coin levels.

#### SCALE/DECIMAL

A bill validator may be added without a coin changer. Because the coin changer sets the scale factor and decimal location for pricing, those items must be programmed when a coin changer is missing.

#### \$ ESCROW Y/N

This feature is designed to allow the use of alternate bill validators that do not have an escrow feature. Check with the bill validator manufacturer to see if the validator you wish to use conforms to the Rowe CBA-2 escrow protocol. Only set \$ESCROW to

YES if the bill validator being used has an escrow circuit. This setting does not automatically hold a bill in escrow if turned on. It only lets the controller know that the validator has an escrow circuit.

### **\$1 ONLY**

This feature was previously called \$5 ENABLE. Because the Snack/Candy Vendor can accept up to a \$20 bill, this feature has been renamed to better describe its function. Set \$1 ONLY to YES to accept \$1 bills only and reject all others. Set \$1 ONLY to NO to accept all denominations from \$1 to \$20 based on available change in the coin changer and notes enabled in the bill validator.

### **Programming Instructions:**

1. Press <5> on the keypad.
2. Response will be "LNK MSTR Y" or "LNK MSTR N".
3. Press <1> to toggle "Y" or "N".
4. Press <5> to proceed to the next menu option.
  - a. If "LNK MSTR" was enabled, the next menu item will be "PRC HOLD N".
  - b. If "LNK MSTR" was disabled, proceed to step 37, "SNACK/SODA".

### **NOTE**

***If Link Master Y is selected, the coin mech must also be reconfigured. Refer to coin mech manufacturer's instructions.***

The following instructions are for price hold and price display options.

5. Press <1> to toggle Y/N to enable or disable "PRC HOLD".
6. Press <5> to proceed to the next menu item.
7. If "PRC HOLD" was enabled, the next menu item will be "PRC DISP". If "PRC HOLD" is disabled, "PRC DISP" is automatically disabled.

8. To enable or disable "PRC DISP" press <1> to toggle Y/N.
9. Press <5> to proceed to the "DUMB MECH" option.
10. The display will read "DUMB MEC Y".
11. Press <1> to toggle Y/N.
12. Press <5> to save and proceed to the next option.
 

If "DUMB MEC Y" was selected, the next menu item will be "COIN COUNT/COIN LEVEL". If "DUMB MEC Y" was selected, go to step 15.
13. Press <1> to toggle between 'COIN COUNT' and 'COIN LEVEL'.
14. Press <5> to save and proceed to the next menu option.
15. Display will read "CARD RDR N".
16. Press <1> to toggle Y/N.
17. Press <5> to save and proceed to the next menu option.
18. Display will read "BILL VAL Y".
19. Press <1> to toggle Y/N.
20. Press <5> to proceed to the next menu item.
 

If the bill validator is enabled, and "DUMB MEC N" was selected, go to step 31 to set up the scale factor and decimal placement. If "DUMB MEC Y" was selected, the next menu option will be "\$ ESCROW".
21. Display will read "\$ ESCROW Y/N".
22. Press <1> to toggle Y/N.
23. Press <5> to save and proceed to the next menu option.
24. If "\$ ESCROW Y" was selected, the next option will be "\$ CHNGR N". If "\$ ESCROW N" was selected, proceed to step 37.
25. Display will read "\$ CHNGR Y/N".
26. Press <1> to toggle Y/N.
27. Press <5> to save and proceed to the next menu option.

28. Display will read "\$1 ONLY Y/N".
29. Press <1> to toggle Y/N.
30. Press <5> to save and proceed to step 37.
31. Display will read "SCALE 5".
32. Press <1> to change the scale to 1, 5, 10, 50, 100, or 500.
33. Press <5> to save and proceed to set the decimal position.
34. Display will read "DEC 0.00".
35. Press <1> to change the decimal position to .000, 000, 00.0, or 0.00.
36. Press <5> to save and proceed to the next menu option.
37. The display will read "FREE VNDN".
38. Press <1> to toggle Y/N.
39. If Free Vend is chosen the display will read "HIT KEY '0'". This is a safety feature that prevents the snack vendor from accidentally being placed in the free vend mode.
4. Press <2> to decrement the purchase selection.
5. Press <3> to increment the free selection.
6. Press <4> to decrement the free selection.
7. Press <5> to save the selection and proceed to the next pair of selections.
8. Press <0> to save the last pair entered and return to the root menu.
9. Press <RESET> to ignore the last entered pair and return to the root menu.
10. Repeat steps 1-7 to set up to five pairs.

## NOTE

*Dip switch #4 on the control board must be ON to enable this feature.*

## NOTE

*When reviewing the settings in Peripheral Configuration, Key <6> may now be used to quickly view one setting after another without having to SAVE each setting.*

## KEY 6

### VII. KEY 6 - Promotional Vend Pair Programming

#### **Purpose:**

To select which items will be vended free with selected purchases when the Promotional Vend feature is enabled.

#### **Programming Instructions:**

1. Press <6> on the keypad.
2. The display will read "01 PXX FXX". "01" represents the selected pair. "PXX" refers to the purchased selection. "FXX" refers to the item that will be vended free.
3. Press <1> to increment the purchase selection.

## KEY 7

### VIII. KEY 7 - Point-of-Sale Message Serial Number

Machine ID  
Date/Time  
Auto Lockout  
Baud Rate

#### **Purpose:**

To program the point-of-sale message and the machine's serial and ID numbers.

#### **Programming Instructions:**

1. Press <7> on the keypad.
2. Press <1> to program the POS Message. Press <2> to program the Serial Number. Press <3> to program the Machine ID number. Press <4> to set the date. Press <5> to set the time and the day of the week. Press <6> to program the Automatic Lockout Feature. Press <7> to set the date format. Press <8> to set the printer baud rate.

**A. Programming the POS Message**

1. The display will read "P>\_A". The 'P>' is the prompt to enter the message. The dash is where the letters will appear as they are placed in the POS message. The 'A' at the right side of the display is the character that will be placed in the message. Programmable characters are; uppercase A-Z, 0-9, space, # and \$.
2. Erase previous message
  - a. Press <9>
  - b. Press <0>
3. Press <7> to return to the POS menu.
4. Press <1> to begin programming message.
5. Use the following keys to program the POS message:
  - <1> Move cursor position to the right.
  - <2> Move cursor position to the left.
  - <3> Increment character.
  - <4> Decrement character.
  - <5> Place character in message.
  - <9> First of two keystrokes required to delete to the end of the message. The <0> must be pressed to complete this function.
  - <0> Save message and exit to root menu.
  - <RESET> Exit to the root menu with no changes saved.
6. Press <3> until the column on the right scrolls to the desired letter. Hold the key down to scroll more quickly.
7. Press <5> to enter the letter.
8. Repeat step 6 until the message is complete. Use the other control keys as needed.
9. Press <0> to save the message and return to the root menu.

**B. Programming the Serial Number**

1. Press <7> on the keypad.
2. Press <2> to get to the serial number programming mode.

3. Use the same control keys used to program the POS message.
4. Program the number.
5. Press <0> to save the message and return to the root menu.

**C. Programming the ID Number**

1. Press <7> on the keypad.
2. Press <3> to get to the ID programming mode.
3. Use the same control keys used to program the POS message and the serial number to program the ID number.
4. Program the ID number.
5. Press <0> to save the message and return to the root menu.

**D. Programming the Date**

1. Press <7> on the keypad.
2. Press <4> to get to the date programming mode. The date format will be shown before the date is displayed.
3. Press <1> to increase the MM field. Press <2> to decrease the MM field.
4. Press <3> to increase the DD field. Press <4> to decrease the DD field.
5. Press <7> to increase the YY field. Press <8> to decrease the YY field.
6. When the correct date is showing in the display, press <0> to save and exit the date programming mode.
7. Press <RESET> to exit without saving the new date.

**E. Programming the Time and Day**

1. Press <7> on the keypad.
2. Press <5> to get to the time and day programming mode. The time and day will be displayed as "HH.MM DAY".
3. Press <1> to increase the HH field. Press <2> to decrease the HH field.
4. Press <3> to increase the MM field. Press <4> to decrease the MM field.

5. Press <7> to increase the DAY field.  
Press <8> to decrease the DAY field.
6. When the correct time and day is showing in the display, press <0> to save and exit the time and day programming mode.
7. Press <RESET> to exit without saving the new date.
9. Follow steps 6 and 7 to set the OFF time.
10. Follow steps 3 through 8 to set up other programmed lockout days and times.
11. Press <7> to set the displayed event OFF and to reset the ON and OFF times to '00.00'.
12. Press <RESET> to exit the lockout programming mode. All settings are automatically saved as they are made.

## F. Programming the Lockout Feature

1. Press <7> on the keypad.
2. Press <6> to get to the lockout programming mode. The display will show "PGM X DAY", where 'X' is a number from 0 to 9 and 'DAY' is a specific day of the week, or 'WKDS', indicating work days Monday through Friday, or 'WEEK', indicating every day of the week, or 'OFF,' indicating that this program entry is not used.
3. Press <6> to change the program event number. There are 10 programmable events, numbered 0 to 9.
4. Press <1> or <2> to change the DAY.
5. Press <5> to display the ON time for the program event. The display will show "ON HH.MM", where 'ON' indicates the time 'HH.MM' that the machine will be disabled.
6. Press <1> to increment the hours HH.  
Press <2> to decrement the hours HH.
7. Press <3> to increment the minutes MM.  
Press <4> to decrement the minutes MM.
8. Press <5> to display the OFF time for the program event. The display will show "OFF HH.MM", where 'OFF' indicates the time 'HH.MM' that the machine will go back into service. Be sure the OFF time is later than the ON time.

## G. Setting the Date Format

1. Press <7> on the keypad.
2. Press <7> again to get to the date format mode.
3. Press <1> to toggle the date format between MM/DD/YY and DD/MM/YY.
4. Press <0> to save the new date format and exit.
5. Press <RESET> to exit the date format mode without saving any changes.

## H. Programming the Printer Baud Rate

1. Press <7> on the keypad.
2. Press <8> to get to the baud rate mode.
3. Press <1> to change the baud rate.
4. Press <0> to save the new baud rate and exit.
5. Press <RESET> to exit the baud rate mode without saving any changes.

## KEY 8

### IX. KEY 8 - MIS Display and Printer Communications

#### Purpose:

To retrieve MIS information. The controller will attempt to send MIS information to the printer. If there is not a printer present or powered-up, the controller will display the information, line by line, on the customer display.

#### Programming Instructions:

1. Press <8> on the keypad. If the printer is present, all the information will be printed; proceed to step 5. If the printer is not present, follow the steps below to display the MIS data on the message center.
2. Response will be "SERIAL NUMBER" (the first line of MIS data).
3. Press <0> to proceed to the next line of MIS data.
4. Repeat step three until you reach the end of the MIS data. The last line will prompt the operator, "CLR MIS N".
5. Press <1> to toggle Y/N.
6. Press <RESET> at any time to return to the root menu.

## KEY 9

### X. Key 9 - Security Code Programming

#### Purpose:

To protect specific menus from unauthorized access. If the security feature is enabled, the operator must select which menus are protected by the security feature. Menus that are protected by the security feature will only be available if the Service Mode is accessed by entering the security code on the keypad. Menus that are not protected by the security feature will be accessible when the service mode is accessed by pressing the "MODE" button on the controller.

#### Programming Instructions:

1. Press <9> on the keypad.
2. Response will be "ENTER CODE".
3. Enter a four digit security code.
4. The code number will flash four times.
5. The display will read "SECURE OFF/ON".
6. Press <1> to toggle Off/On.
7. Press <5> to step through each menu.
8. Press <1> to toggle Off/On.

### NOTE

***This feature must be set to ON to prevent unauthorized access or code changes. Menu 9 must also be set to ON.***

9. Press <0> to save the new security status and return to the root menu.
10. Press <RESET> to exit this function without saving.

### XI. KEY 0 - Motor Count and Test Vend

#### Purpose:

To test all of the motors in the machine to make sure they are working. There are three options available in this menu. Key 1 is motor count. Key 2 is the individual test vend option. Key 3 will test all the motors in the machine.

#### Programming Instructions:

##### A. Motor Count

1. Press <0> to get to the motor function menu.
2. The display will read "MTR FUNCT?".
3. Press <1> to run motor count display.
4. Display will be "XX". *XX represents the number of motors detected.*
5. The display will return to "MTR FUNCT?".

**B. Test Vend Individual Motors**

1. Press <0> on the keypad.
2. Display will read “MTR FUNCT?”.
3. Press <2> on the keypad.
4. Display will read “SELECTION”.
5. Enter 2 digit selection.
6. Display will read “AA XX.XX”.  
*AA = Selection Number.*  
*XX.XX = Selection Price.*
7. The machine will test vend selection.
8. The display will read “MOTOR FUNCTION?” after the individual test vend is completed.

**C. Test Vend All Motors**

1. Press <0> on the keypad.
2. Display will read “MTR FUNCT?”.
3. Press <3> on the keypad.
4. The machine will test vend all connected motors in a shelf by shelf order.
5. Display will read “VEND XX”.  
*XX represents total motors vended.*
6. The display returns to “MTR FUNCT?”.

This page intentionally left blank.



# Section 4: Troubleshooting

## INTRODUCTION

This section contains Troubleshooting Charts, a Block Wiring Diagram, and an Interconnect Block Diagram. The first chart lists the error messages that may be displayed while in the diagnostic mode. The second lists possible problems and suggested solutions.

### Clear Errors

Diagnostic error messages are cleared by pressing <RESET> while in the diagnostic mode. Following a diagnostic reset, "NO ERRORS" will be displayed for 1 second. *Clearing errors does not correct the problems indicated by the error messages, it only removes the message from the machine's memory.*

### Price Checksum

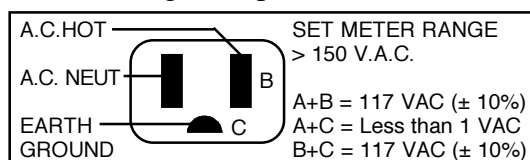
A checksum is made on the selection price before attempting a vend. If an error occurs with the price, the selection is flagged as being bad and "SELECT OTHER ITEM" is displayed. The selection will also be marked as "CHK PRICES=" in the diagnostic mode. Error messages will be displayed after all "CHK PRICES."

## TROUBLESHOOTING PROCEDURES

It is important to troubleshoot logically. Many malfunctions are caused by minor defects such as loose connections or dirty contacts. Ensure that the vendor is connected to a good power source and follow the checklist at right before replacing any parts.

### Voltage and Polarity Check

With a voltmeter, check for proper voltage, polarity and good ground using the following example:



### Check List

- Check circuit breakers. These are located on the Transformer Box assembly at the bottom left hand side of the cabinet.
- Check to ensure that the Main power switch is ON - located directly above the Transformer Box.
- Check to ensure that all plugs are firmly seated in their receptacles.
- Check to ensure that connector pins are not bent, broken or pushed through the back of the connector or receptacle when mated.
- Check to ensure that wires are not broken at connector pins.

### Locating and Replacing Defective Motors

1. Open the main door and check the display for "OVER CRNT=" or "HOME FAIL=" errors.
2. Record all the selection numbers that follow these error messages.
3. Check all disabled selection helixes for improper loading, jams, etc.
4. Run a single selection motor test on each disabled selection by following the instructions in Motor Count and Test Vend on page 3-11.
5. If the motor fails to operate, first check applicable wires and connectors to the motor. Second, replace defective motor assembly as follows:
  - a. Remove helix.
  - b. Insert hub removal tool (593-902) and pull hub off.
  - c. Compress motor retaining tabs and remove motor.
6. Run a test vend on repaired selections.
7. After all repairs are made, press <RESET> while viewing the error messages to clear all faults.

## REFRIGERATION SYSTEM (OPTIONAL)

If the refrigeration system compressor is inoperative, perform the following checks before replacing the unit. Be sure to hold the Refrigeration Interlock Switch closed when making the operational checks.

1. Measure the line voltage. If it is below 105 volts, the compressor may fail to start or it may run hot.
2. If line voltage is correct, check automatic control thermostat operation by connecting a jumper wire across the terminal with power disconnected.
3. The Start Capacitor, Run Capacitor, and Start Relay are best tested by substituting them with known good components. This way there can be no doubt of test results.
4. Check Thermal Overload for continuity.
5. With motor leads disconnected from circuits, check compressor motor windings with Volt/Ohm meter set on R x 1 scale.  
(Readings ± 10%)  
Common to Start . . . . . 32 Ohms  
Common to Run . . . . . 7 Ohms  
Start to Run . . . . . 38 Ohms\*  
\* Measured at ambient room temperature.
6. Check for grounded winding with Volt/Ohm meter from Start Capacitor to metal casing and Run Capacitor to metal casing. There should be no continuity. If there is, replace the compressor.

### Compressor Circuit

The Compressor circuit in the 689 Air Cooled unit is a Permanent Split Capacitor Start Motor. This utilizes a single Start Capacitor with a value of 53/64 µFD. There is a Start Relay Mounted on the Compressor; this is a Current Type Relay. When the Current in the Run Winding is

above a certain level, the Coil energizes. When the Coil energizes, the normally open contact closes, connecting the Start Capacitor to the Start Winding of the motor. The Start Relay @ Start Capacitor circuit causes a high starting torque to accelerate the Compressor Rotor Shaft to full speed. When the Compressor Rotor Shaft is at its running speed, the current through the Run Winding will drop to the normal Run Current, allowing the Coil of the Start Relay to de-energize. When the Coil de-energizes, the contact will open and break the Starting Circuit. The motor will continue to run via the current through the Run Winding. If the Run Winding current rises (i.e., the motor stops or stalls), the Start Relay Coil will again energize and the cycle above repeats itself.

### Refrigeration Removal Instructions

1. Unplug the Snack/Candy vendor from wall.
2. Unplug the Refrigeration Unit.
3. Remove the four (4) screws securing the Door switch Bracket. Remove the wires from the switch.
4. Remove the Cash Box.
5. Remove the two (2) square Phillips screws securing the Cash Box Bracket.
6. Remove the four (4) screws holding the Stop Rod Bracket. Swing the Stop Rod out of way.
7. Remove the five (5) square Phillips screws securing the Condenser Intake Cover.
8. Remove the four (4) square Phillips screws securing the Screen.
9. Remove the two (2) screws securing the Refrigeration Unit hold-down bracket into the Base.
10. Remove the bottom shelf.
11. Reach into access hole in the deck and with two fingers, unscrew the Transition Duct to Refrigeration thumb screw.

12. The refrigeration unit is now ready to be removed.
13. To install, reverse the above procedures.

## !CAUTION!

Protective eye wear must be worn when testing refrigeration systems. This system is charged with 7.5 oz. of R134a refrigerant. Repairs should be performed by technicians trained and experienced in refrigeration troubleshooting and safety procedures.

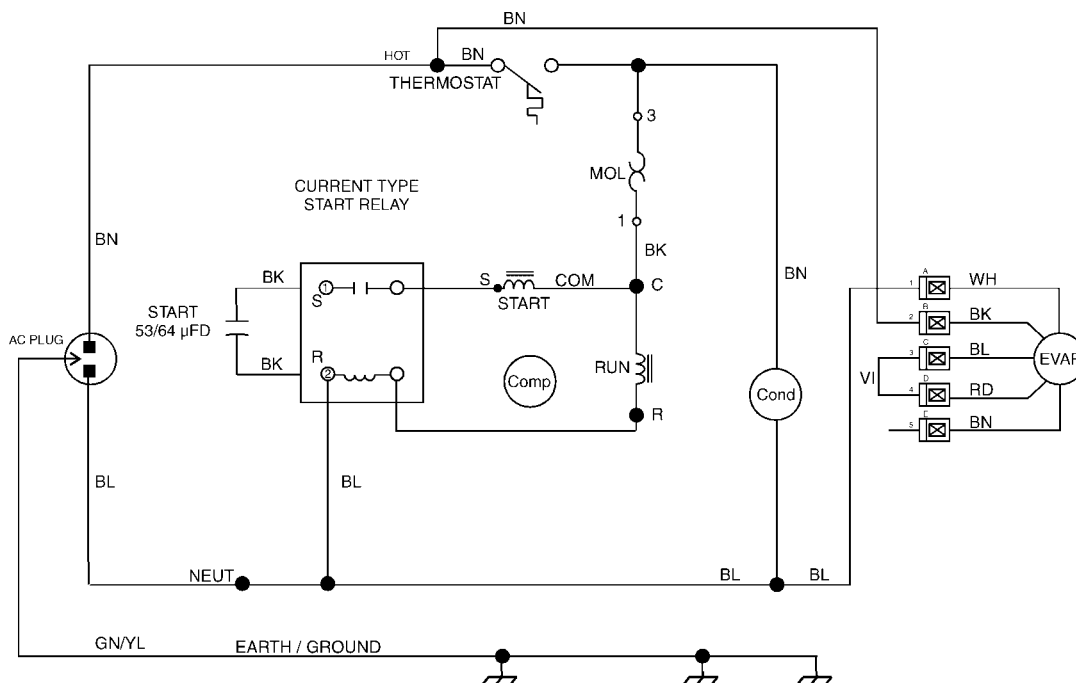


Figure 4-1. Refrigeration System Wiring Diagram

## Troubleshooting Chart 4-1 Error Messages

ERROR MESSAGE	PROBABLE CAUSE	SOLUTION
“OVER CRNT=”	Shorted or jammed motor	Follow instructions on page 4-3 for locating and replacing defective motors.
“HOME FAIL=”	Motor did not complete full rotation or leave the home position	Follow instructions on page 4-3 for locating and replacing defective motors.
“COIN JAM”	Coin jammed in coin mech	Clear jammed coin
“BAD SENSOR”	Defective Coin Mech level sensor	Replace
“CHGR PWRUP”	Coin mech not sending power-up message	Check that coin mech is connected Check Peripheral Configuration
	Defective Coin Mech	Replace
“CARD PWRUP”	Card reader not sending power-up message	Check that card reader is connected Check Peripheral Configuration
“LNK PWRUP”	Defective Card Reader	Replace
	European Executive Coin Mech not sending power-up message	Check that Executive Mech is connected Check Peripheral Configuration
	Defective Executive Coin Mech	Replace
“BILL ERROR”	Faulty credit messages from Bill Acceptor	Check BA connection
	Defective Bill Acceptor	Check Peripheral Configuration Replace
“MACHINE OUT OF ORDER” shows on display when door closed	Valid start-up message not received from configured peripheral	Check for error message and follow steps in the troubleshooting chart for that error message.  Check Peripheral Configuration.
“CHK PRICES=”	Selection contains corrupted price.	Reprice selection.
		Reinstall shelf.

## Troubleshooting Chart 4-2 Problem/Solution

PROBLEM	PROBABLE CAUSE	SOLUTION
No Indicator lights in machine	No AC power into machine	Check P1 of Controller 24 VAC @ pins 1 and 2 120 VAC @ pins 4 and 6 Check circuit breaker in transformer assembly.
Display does not light	No power to display	Check +5 VDC at display @ pins 12 to 14  Check +24 VDC at display @ pins 11 to 12
No Display	Loose or defective Harness	Check that P6 of Controller is seated  Check connection @ P6 on Controller and P1 on Display
Does not accept coins	Coin Mech not reset or not receiving coin acceptance signal	Check that Accept Enable is low @ pins 6 to 2 on Coin Mech Socket  Check +5 VDC @ pin 1 to 2 at Coin Mech Socket  <b>Check Coin Mech Manufacturer's Instructions</b>  Check +120 VPDC @ pin 10 to 12 at Coin Mech Socket  Check +24 VPDC @ pin 13 to 15 at Coin Mech Socket  Clear coin track
Does not accept bills	Machine not level	Level cabinet
	Defective Coin Mech	Replace
	Bill Acceptor not receiving bill acceptance signal	Insufficient change in coin tubes Check Coin Mech tube amounts in program Mode 1  Check peripheral configuration.  Check for Accept Enable held low @ P4 pins 1 to 7 on Controller  Check power to Bill Validator 120 VAC @ AC connector  Check +5 VDC @ P4 pins 4 to 7 on Controller



## Troubleshooting Chart 4-2 (Problem/Solution)

PROBLEM	PROBABLE CAUSE	SOLUTION
Two motors run simultaneously	Defective Controller	Replace
	Pinched or shorted wires in wire harness	Repair or replace wire harness.
Fluorescent light does not light	Defective lights or starter	Replace
Cannot buy from row 4	No sale switch ON	Set switch to OFF
	Controller P9 pin 1 and 2 shorted	Replace Controller
Fan does not run	Defective harness	Check for 120 VAC @ fan connector
	Defective fan	Replace
Display always shows "SYSTEM OK"	Defective door switch	Replace
	Door switch not activated when the door is closed	Adjust switch bracket until activation occurs

## Troubleshooting Chart 4-3

### Rowe Bill Acceptor

ERROR MESSAGE	PROBABLE CAUSE	SOLUTION
Bill Acceptor rejects a large number of valid bills. The BA STATUS LED will flash one or more times to indicate the cause of the reject.	BA STATUS LED flashes once after rejecting Bill.	Defective V1 or V4 cell. Defective UBA Unit.
	BA STATUS LED flashes twice or three times after rejecting Bill.	Twice indicates a defective V2 cell.  Three times indicates a defective V3 cell or an object lodged in the transport.
	BA STATUS LED flashes four times after rejecting Bill.	Object lodged in Transport. Binding Anti-pull back lever. Defective lower harness and cell assembly. Defective UBA Unit.
	BA STATUS LED flashes five times after rejecting Bill.	Defective magnetic head or Transport. Defective UBA Unit.
	BA STATUS LED flashes six times after rejecting Bill.	Bill denomination has not been enabled
Transport motor does not start when a bill is inserted.	BA STATUS LED flashes eight times after rejecting Bill.	UBA was commanded to return the bill held in escrow.
	Power LED on UBA Unit not lit.	Problem in Power Supply. Defective harness to UBA Unit.
	Transport does not start, but clicking sound is heard in UBA Unit.	Object jammed in Transport. Defective UBA Unit.
	No sound or any other indication that Transport is trying to run.	Defective V1 cell. Defective UBA Unit. Defective Main Controller.
Bills jam frequently.	BA STATUS LED is blinking.	UBA is not operational due to a "Fault" condition (See "UBA in shutdown").
	Any bill transporting failure.	Anti-pull back lever not operating freely. Bill pressure roller binding. Transport inlet or track surfaces contain projections, rough spots or dirt. Transport belts out of adjustment or dirty. Transport belts not centered on rollers. Transport upper input roller does not move up and down freely. Defective Power Supply.



## Troubleshooting Chart 4-3 Rowe Bill Acceptor

PROBLEM	PROBABLE CAUSE	SOLUTION
<p><b>UBA in SHUTDOWN</b> In this state, the BA Status LED will flash ON for 1 second and then flash one or more times. The number of flashes indicates the cause of the shutdown.</p>	BA STATUS LED flashes once.	Object in Transport covering V1 cell. Defective UBA Unit.
	BA STATUS LED flashes 3 times.	Object covering V3 cell. Defective lower harness and cell assembly. Defective UBA unit.
	BA STATUS LED flashes 4 times.	Object in Transport Unit activating anti-pull back lever. Defective lower harness and cell assembly. Defective UBA Unit.
	BA STATUS LED flashes 5 times.	Bill Box full. Bill Box jammed in “off home” position. Bill Box home switch out of adjustment. Defective Bill Box. Defective UBA Unit.
	BA STATUS LED flashes 7 times.	Motor speed could not be adjusted. Incorrect belt tension. Defective drive motor. Defective UBA Unit.

## Interconnect Block Diagram

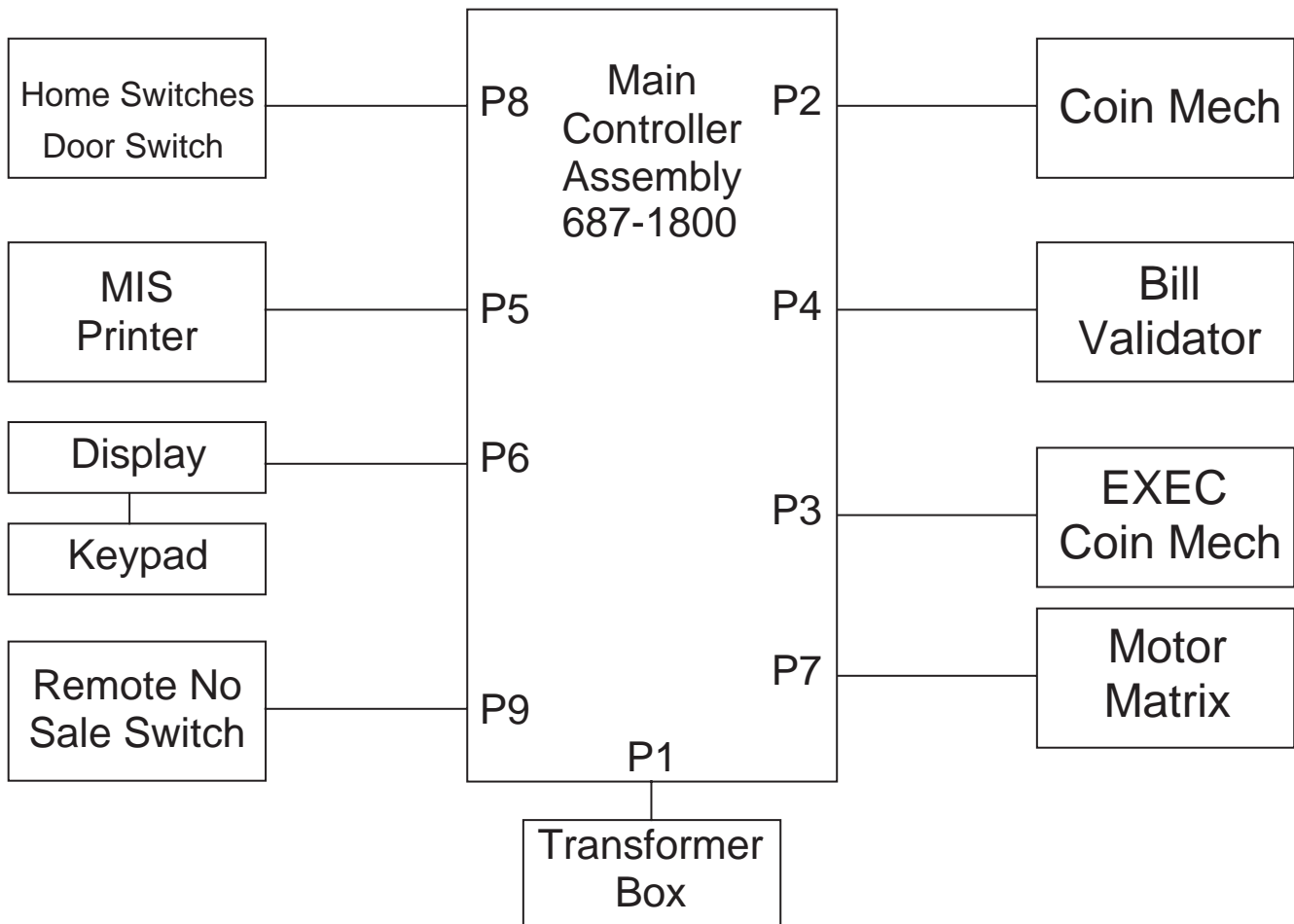


Figure 4-2. Block Diagram

## 15 Pin Coin Mech Socket

### Coin Mechanisms

#### 120V Models - 12 Pin

MARS	TRC-6000
MARS	VN4000
MARS	MC5000
COINCO	9300L

#### 24V Models - 15 Pin ONLY

MARS	TRC-6010-XV
MARS	VN4010
COINCO	9302LF
COINCO	GLOBAL, LINT.
MAKA	USPX

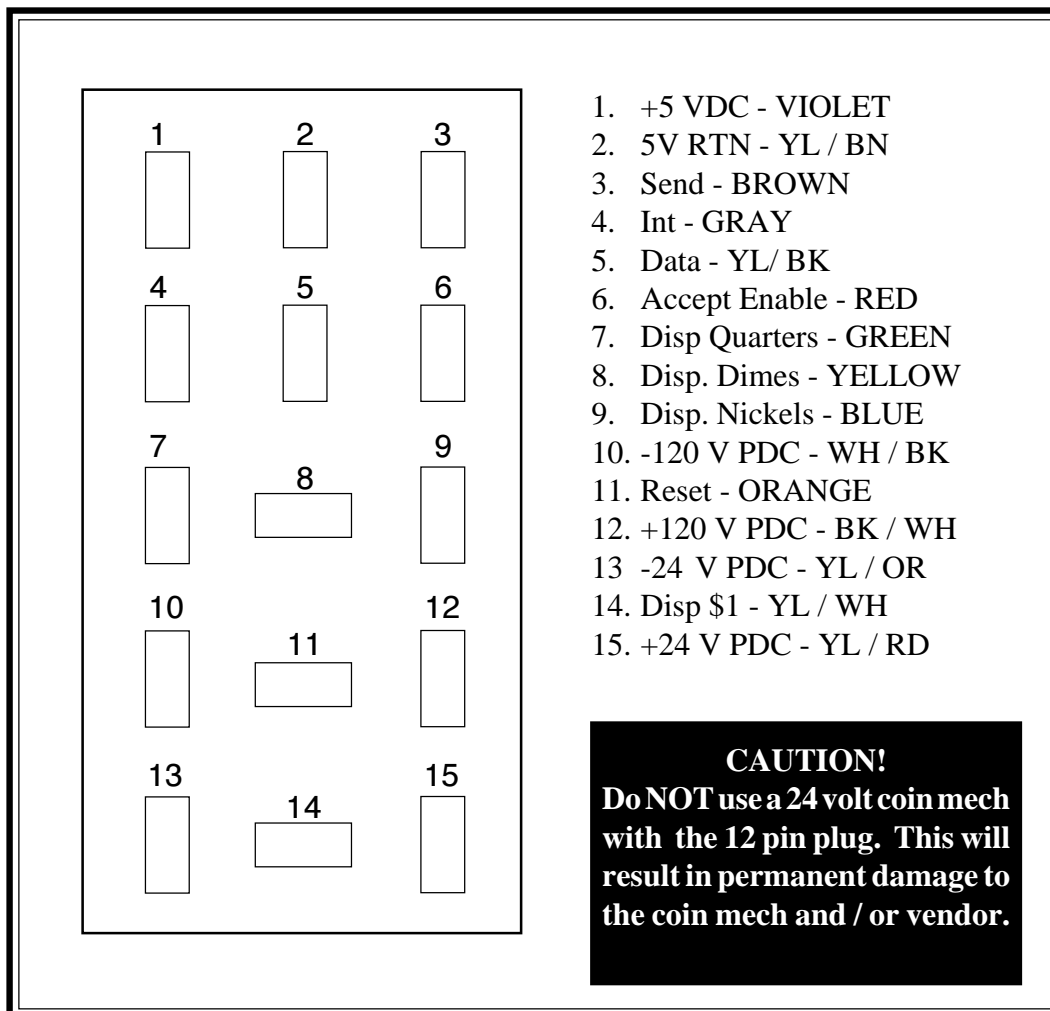


Figure 4-3. Coin Mech Socket



*Figure 4-4. 6800 Deluxe System Schematic Diagram, Sheet 1*



*For Equivalent Engineering Drawing See 90059311  
Figure 4-5. 6800 Deluxe Controller Schematic Diagram, Sheet 1*

*For Equivalent Engineering Drawing See 90059311  
Figure 4-5. 6800 Deluxe Controller Schematic Diagram, Sheet 2*



This page intentionally left blank.



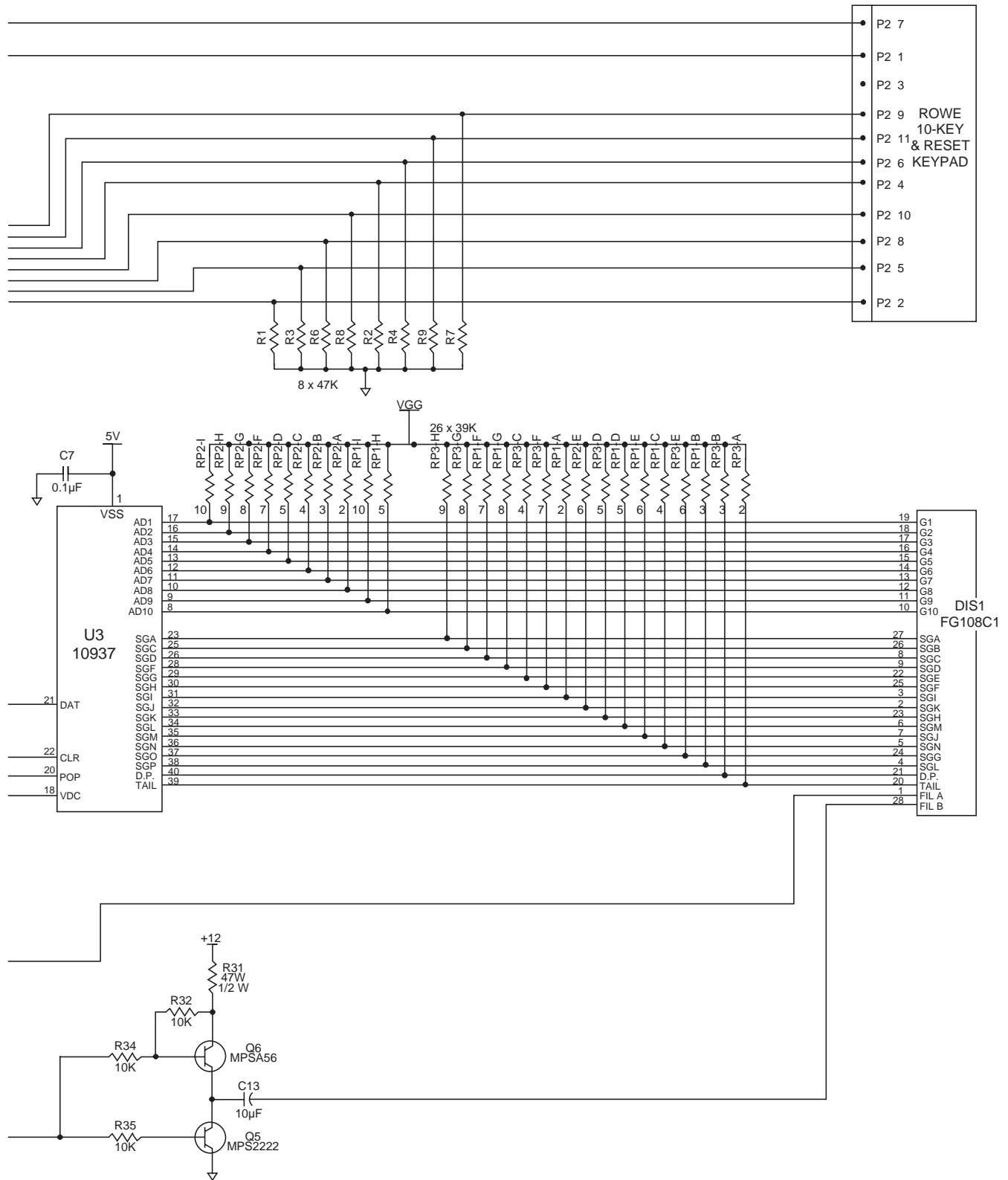


Figure 4-6. 6800 Deluxe Display Board Schematic Diagram

This page intentionally left blank.

# Section 5: Maintenance

## INTRODUCTION

This section contains information on proper cleaning procedures, as well as instructions on how to remove and replace key vendor components

## CLEANING

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

1. The display window should be cleaned inside and out with any good glass cleaner, using clean, soft cloths or paper towels.
2. Painted metal and vinyl surfaces can be cleaned with warm water and mild detergent, paying particular attention to the delivery box, inside and out. **DO NOT** get water on electrical components.
3. Use suitable metal cleaner for the brushed and polished metal located on front door.
4. Cleaning the shelves is easily accomplished with helix coils and adjustable walls removed (*See Removal and Replacement below*).
5. Check regularly to make sure that coin paths are clean and dry through the coin mechanism.

## REMOVAL AND REPLACEMENT

### Single Selection Helix

Helix replacement is easily accomplished without removing the shelf from the vendor. On 10-selection shelves, the adjustable wall must be removed from the compartment. Swing the adjustable wall forward as far as it will go and lift at the two pivot points. Then remove the helix as follows:

1. Pull the shelf out and let it tilt to its service position.

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

### Dual Selection Helix

1. Pull the shelf out and let it tilt in its service position.
2. If the shelf is equipped with adjustable walls, remove by swinging the adjustable wall forward as far as it will move then lift upwards.
3. Right Side Helix - Grasp the front section of the helix spiral and lift up approximately 3 to 5 inches. Turn the helix clockwise until it snaps loose from the helix hub.

### NOTE

*The right side main helix is larger than its left side counterpart.*

4. Left Side Helix - Grasp the front section of the helix spiral and lift up approximately 3 to 5 inches. Turn the helix counterclockwise until it snaps loose from the helix hub.
5. Install the right and left side helix as follows:
  - a. Right Side Helix - Insert the helix end into the hub slot, then push in and twist the helix counter clockwise.
  - b. Left Side Helix - Insert the helix end into the hub slot then push in and twist clockwise.
6. If applicable, reinstall the adjustable wall.

## SHELF REMOVAL

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

1. Carefully pull the shelf out to a normal service position (See Figure 5-2).
2. Lift the front of the shelf and continue to pull forward, making sure that the retaining studs clear the gap in the shelf supports (See Figure 5-3). Continue pulling the shelf forward until it stops.
3. Lower the front end of the shelf so that it will hang vertically in front of the machine. Lower shelves will not hang vertically.
4. Grasp the sides of the shelf and lift up and out.

### Drive Motor

The 6800 Deluxe Snack/Candy Vendor uses a high RPM DC motor. The DC motor has a high starting torque and should provide long, reliable life.

## GUM AND MINT UNIT REMOVAL

1. Pull out and remove the shelf above the gum and mint assembly.

**!CAUTION!**

**DO NOT try to turn the motors by hand. Damage to the motor will result. Allow the machine to home the motors.**

2. Remove the left shroud.
3. Remove the left and right (white) nylon shelf guides.
4. Pull the gum and mint release levers forward and slide the shelf out to the stop position.
5. Disconnect the spring overtravel prevention bracket.
6. Shift the shelf to left and pull it out.
7. To reassemble, reverse this procedure.

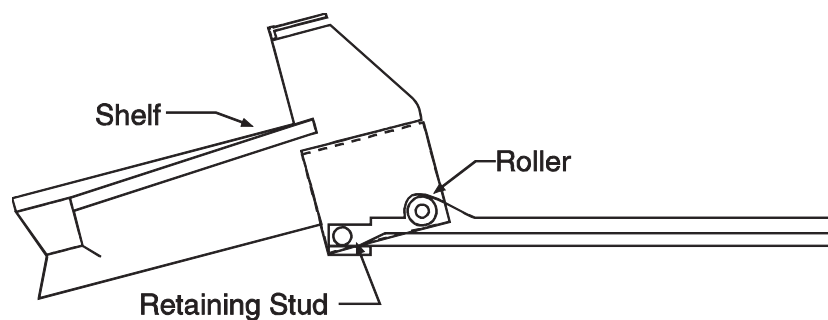


Fig. 5-1  
Normal Service Position

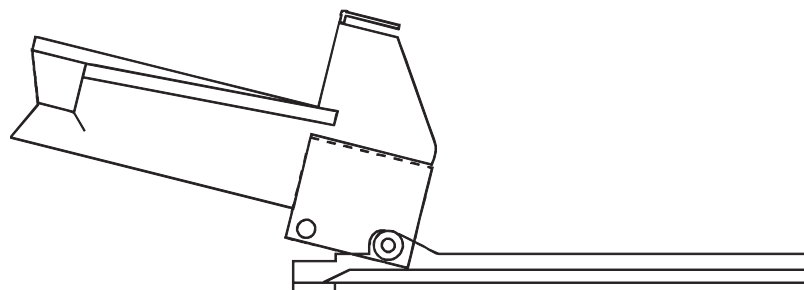


Fig. 5-2  
Shelf Removal Primary Position

## SELECTOR BUTTON ASSEMBLY REMOVAL

The selector button assembly in the snack vendor is a sturdy, reliable assembly developed and constantly improved over many years. The buttons exposed to the public are high impact plastic nested to bases soldered into an extremely reliable P.C. Board.

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

1. Remove the selector cover.
2. Disconnect the cable.
3. Remove the 4 mounting screws.

### NOTE

*Do not remove the screws that mount the P.C. board.*

4. Remove assembly.
5. To install, reverse this procedure.

## HELIX HUB/MOTOR REMOVAL

1. Turn the power OFF.
2. Slide the shelf forward, lift the shelf upward and out. Let the shelf hang down.
3. Locate the hub removal tool (P/N 593-902) supplied with vendor.
4. Line up the hub tool "V" cutout (horizontally for 4 & 5 shelves, vertically for 8 & 10 shelves) to the motor shaft gap.
5. Push the hub tool in while pulling on the helix hub outward. Helix should snap off.
6. Disconnect the motor harness connection.
7. Press down on the top locking tab and push the motor out.
8. To install the motor and hub reverse this procedure.

### NOTE

*Hub Tool not needed to reinstall hub. When reattaching the helix to the hub, push until it snaps on.*

9. Turn the main power ON.

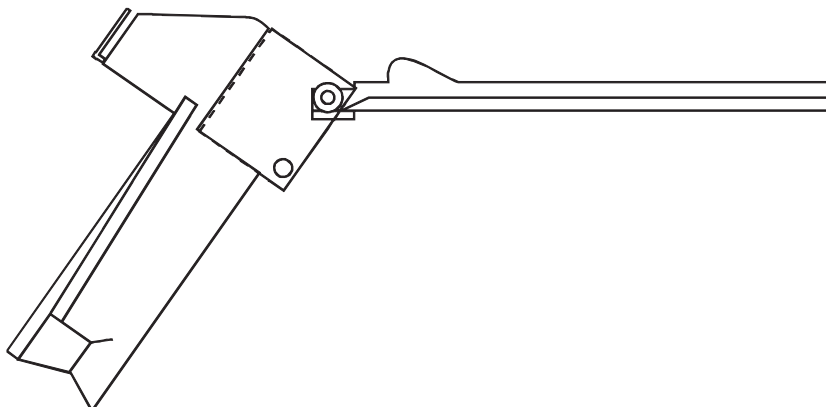


Fig. 5-3  
Shelf Removal Final Position

## UNIVERSAL SHELF CONVERSION

1. Converting from a Dual Helix to a Single Helix selection.
  - a. Remove the left and right helixes.
  - b. Remove the right side helix hub using the Hub Removal Tool (P/N 593-902).
  - c. Remove the left side gear hub by unscrewing the black rivet plate on the idler box.
  - d. Remove the idler box from the shelf weld assembly. Press down on the top locking tab and push outward.
  - e. Remove the motor assembly by pressing down on the top locking tab and pushing outward.
  - f. Rotate the motor 90° counter-clockwise.
  - g. Reinstall the motor assembly to the lower opening by snapping it in place.
  - h. Install the helix hub by positioning the hub slot opening to the right and pushing in until it snaps on.
  - i. Install the main larger helix spiral to the helix hub.
  - j. Reposition the product adjustable wall as desired.
2. Converting from a single to a dual helix.
  - a. Remove the helix.
  - b. Remove the helix hub by using the hub removal tool (P/N 593-902) supplied in vendor.
  - c. Remove the product adjustable wall for extra space.
  - d. Remove the motor assembly from the shelf weld assembly by pressing down on the top locking tab and pushing motor assembly outward.
    - e. Rotate the motor 90° clockwise.
    - f. Reinstall the motor assembly to the right most slot opening.
    - g. Reinstall the helix hub by positioning the hub slot opening to the right and pushing until it snaps on.
    - h. Install the idler box to the left most slot opening.
    - i. Install the gear hub using the black rivet plate. Position the gear hub with its slot opening to the left side.
    - j. Install the larger size helix to the right side hub and install the smaller size helix to the left side gear hub.
    - k. Reposition the Product Adjustment Wall as desired.



# SECTION 6

# PARTS CATALOG

---

## INTRODUCTION

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

### Parts Callout

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

### Figure 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 Number

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.

### Quantity Per Assembly

This column contains the exact quantity of the item required for this 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. To avoid such delays, make sure to include all necessary information as indicated below.

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 and updates.
4. Complete shipping address.
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.

**Note the voltage of electrical components.**

# OPTIONAL KITS

<b>6800S</b> <b>Part No.</b>	<b>6800JR</b> <b>Part No.</b>	<b>6800C</b> <b>Part No.</b>	<b>DESCRIPTION</b>	<b>FUNCTION</b>
42506037	"	"	UBA Bill Acceptor kit	Allows currency acceptance
49001925	"	"	Product Pusher Kit	Pushes product out
49004501	"	"	Shelf Extender Cable Assembly	Service shelf outside of cabinet
49006007	"	"	Product Filler Kit	Vends pastry
59306001	49406011	59106000	Kick Plate Kit	Styling
59306004	"	"	Fan Kit	Provides circulation
59306006	"	"	Additional Honor Guard	Removable cash bag
59306007	"	"	Gum and Mint Adapter Kit (Tums)	Vends "Tums & Certs"
59306015	"	"	Can Vendor Kit (12 Ounce)	Vends canned foods

## SERVICE PARTS ONLY

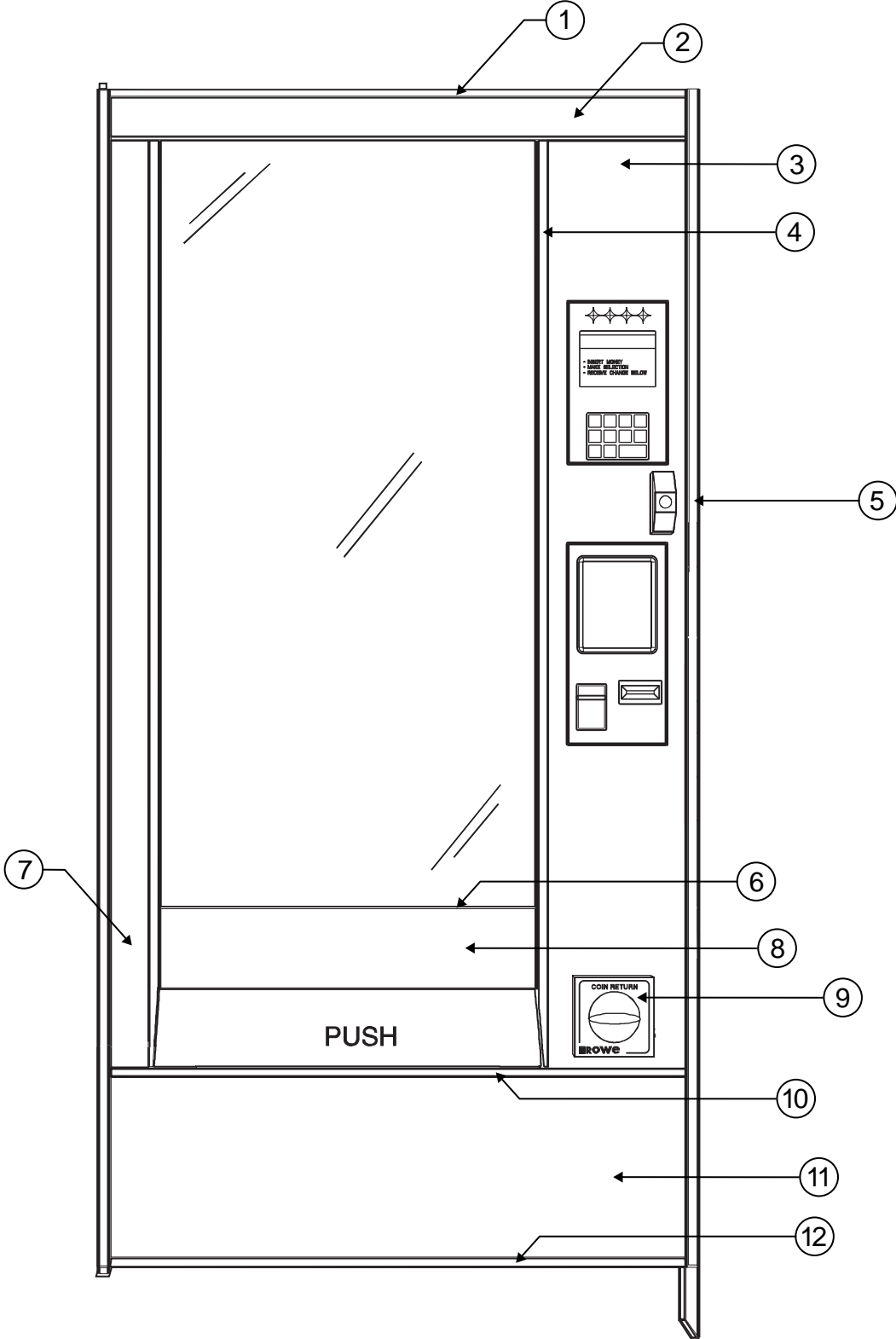
49000028	"	"	Helix, 30 Count - Candy	
49000029	"	"	Helix, 24 Count - Candy	Fits Product <3/4"
49000030	"	"	Helix, 18 Count - Candy	Fits Product <1 1/16"
49000031	"	"	Helix, 15 Count - Candy	Fits Product <1 5/16"
49000032	"	"	Helix, 15 Count - Pastry	Fits Product <1 5/16"
49000033	"	"	Helix, 12 Count- Pastry	Fits Product <1 11/16"
49000034	"	"	Helix, 10 Count - Pastry	Fits Product <2 1/16"
49004013	"	"	Helix, 7 Count (Can) (12 Ounce)	Fits Can Products
49300015	"	"	Helix, 12 Count - Candy	Fits Product <1 5/8"
49300016	"	"	Helix, 10 Count - Candy	Fits Product <2"
59300011	"	"	Reverse Helix 15 Count - Candy	Fits Product <1 5/16"
59300012	"	"	Reverse Helix, 12 Count - Candy	Fits Product <1 5/8"
59300013	"	"	Reverse Helix, 10 Count - Candy	Fits Product <2"
59300014	"	"	Helix, 6 Count	Fits Lunch Bucket
59300015	"	"	Helix - Dual, Reverse Prod. L/H	(30 Ct.)

# PARTS CATALOG

## Table of Contents

<b>FIG. NO.</b>	<b>TITLE</b>	<b>PAGE</b>
1	Main Door Trim and Panels	6 - 4
2	Main Door Exterior	6 - 6
3	Main Door Interior	6 - 8
4	Delivery Box Assembly	6 - 10
5	Cabinet Assembly Components	6 - 12
6	Power Panel Components	6 - 14
7	Shelf Support and Plug Assemblies	6 - 16
8	3/4/5 Selection Shelf	6 - 18
9	Dual Helix Shelf	6 - 20
10	Candy Shelf	6 - 22
11	Gum & Mint Unit Final Assembly	6 - 24
12	Refrigeration Unit	6 - 26
13	Main Controller Circuit Board Assembly	6 - 38
14	Display Board	6 - 32
15	Harness List	6 - 34

# Main Door Trim and Panels



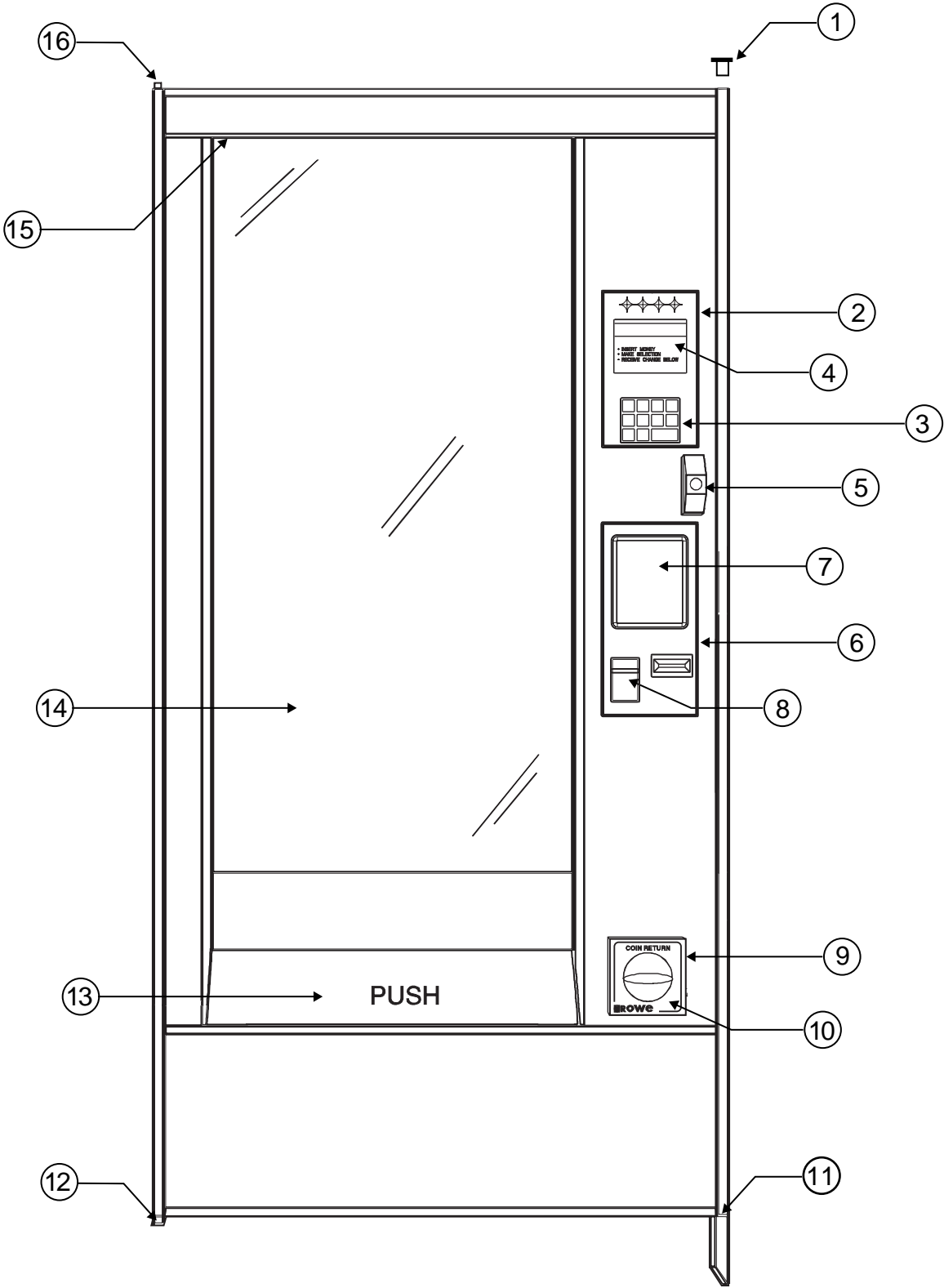
## Main Door Trim and Panels

MODEL & STYLE		6800S GENESIS	6800JR GENESIS	6800C GENESIS
1	Header Channel	98300005	98300007	98300003
2	Header Insert	98500004-009	98500005-009	98500020-009
3	Overlay Selector	58300421-009	58300421-009	58300421-009
4	Trim - R/H & L/H Display Window	98300478	98300478	98300478
5	Trim - L/H & R/H Vertical	98300101	98300101	98300101
	Trim Retainer	98300325	98300325	98300325
6	Trim - Bottom Display	98300479	98300480	98300481
7	Overlay L/H Vertical	98500032-009	98500032-009	98300032-009
8	Overlay Center	49000485-078	49400432-078	59100411-078
9	Overlay Coin Return Cup	90701097	90701097	90701097
10	Trim Bottom Display	98300225	98300226	98300234
11	Overlay Lower Door (Black)	98500023-009	98500024-009	98500035-009
	Overlay Lower Door (Stripes)	49301476	49401422	59101407
12	Trim Bottom	49300484-309	49400442-309	59100412-309

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 98500004-009 (Header Insert - Black). If this part were desired in a Presidential Walnut finish, the part number would be 98500004-002. The chart below lists the dash numbers and the corresponding finish.

HORIZONTAL PANELS	VERTICAL PANELS
- 002 Presidential Walnut	- 002 Presidential Walnut
- 009 Black	- 007 Shadow Silver
- 015 Stainless Steel Mylar	- 012 Port-Au-Prince
- 078 Sterling Royce	- 078 Sterling Royce
- 141 Dove Archos	- 141 Dove Archos

# Main Door Exterior



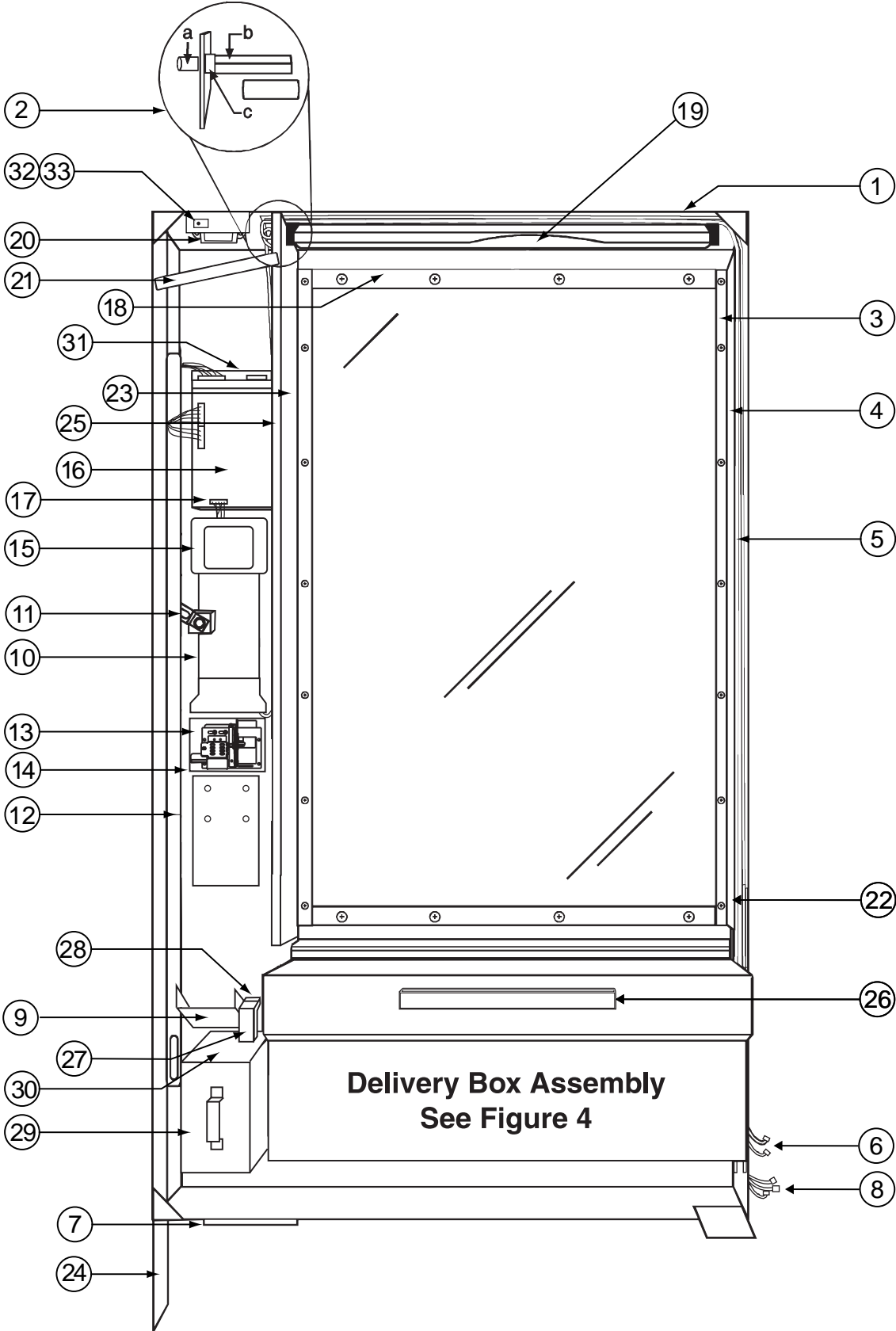
## Main Door Exterior

Index No.	6800S Part Number	6800JR Part Number	6800C Part Number	Description	Quantity Per Assembly
	58301400	58401400	58101400	Door F/A	1
REF	58301401	58401401	58101401	Door Weld Assembly	1
1	40800511	Same	Same	Cap - Top Trim	1
2	58300404	"	"	Bezel - Keyboard/Display	1
3	40764301	"	"	PCB Assembly - Push Button Switch	1
4	58300451-001	"	"	Overlay Instruction/Readout	1
	58300451-002	"	"	Overlay Instruction/Readout - Spanish	1
	58300451-003	"	"	Overlay Instruction/Readout - French	1
5	47901420	"	"	Handle Assembly - Popout	1
6	58300405	"	"	Bezel - B/A & Coin	1
7	58300423	"	"	Filler Plate - Bezel	1
8	49000470	"	"	Slide Coin Return	1
9	49000408	"	"	Bezel - Coin Return Cup	1
	92400176	"	"	Nut - 3/16 Stud Type	16
10	90701097	"	"	Overlay Coin Return	1
11	40800510	"	"	Cap - Bottom Trim	1
12	44801407-246	"	"	Pivot Plate R/A - Bottom	1
13	58301407	58401402	58101402	Delivery Box Assembly	1
14	49300408	49400428	59100414	Glass - Display	1
15	49300410	49400412	59100415	Filler Plate & Glass Retainer - Not Shown	1
16	44801309	"	"	Pivot Plate - Top	1

### Glass Sizes:

49300408	26 <sup>5</sup> / <sub>8</sub> x 42 <sup>3</sup> / <sub>8</sub> x <sup>1</sup> / <sub>8</sub> Thick Tempered Tuff
49400428	21 <sup>1</sup> / <sub>4</sub> x 42 <sup>3</sup> / <sub>8</sub> x <sup>1</sup> / <sub>8</sub> Thick Tempered Tuff
59100414	15 <sup>7</sup> / <sub>8</sub> x 42 <sup>3</sup> / <sub>8</sub> x <sup>1</sup> / <sub>8</sub> Thick Tempered Tuff

# Main Door Interior

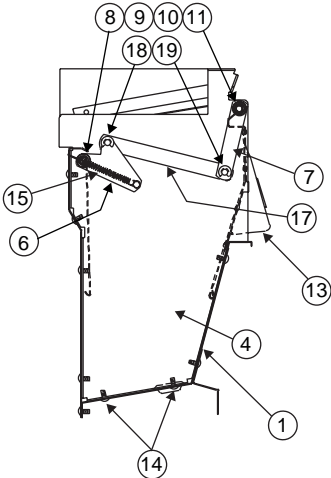
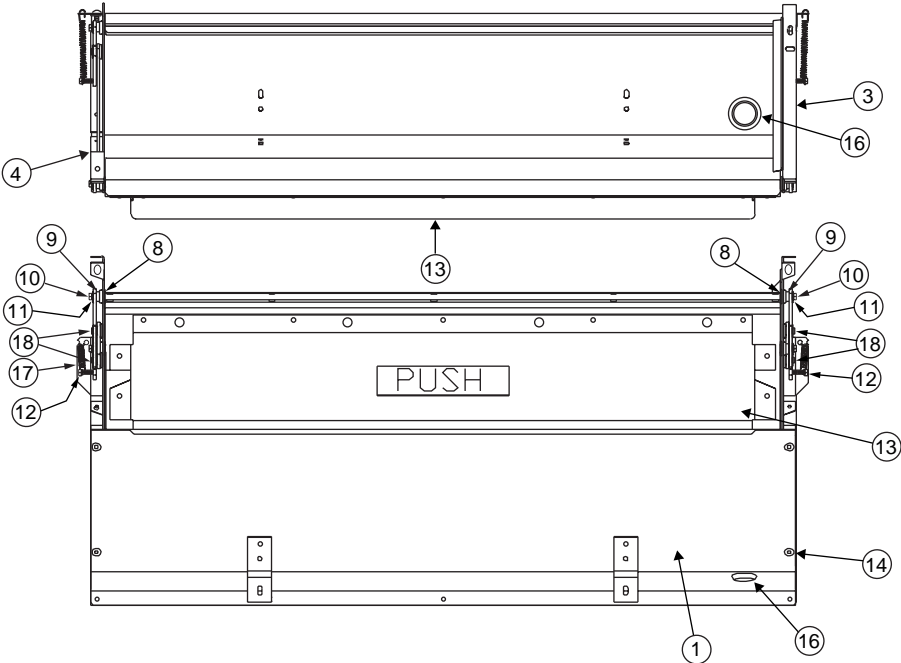




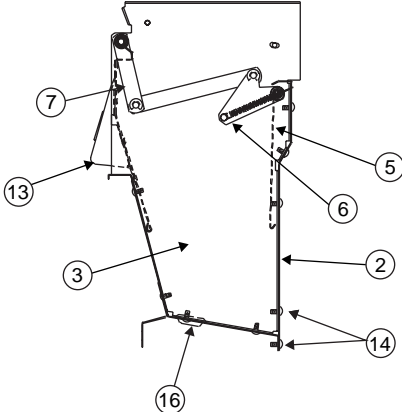
# Main Door Interior

Index No.	6800S Part Number	6800JR Part Number	6800C Part Number	Description	Quantity Per Assembly
	58301400	58401400	58101400	Door F/A	1
1	58301401	58401401	58101401	Door Weld Assembly	1
2	49301810	49401802	59101800	Bracket & Lamp Assembly	1
2a	70080003	70080001	70080001	Starter - Fluorescent Lamp	1
2b	49300412	49400411	59100800	Bracket - Lamp Mounting	1
2c	97600021	Same	Same	Starter Socket Assembly	1
3	49300411	"	"	Bracket - Display Glass Mtg R&L Sides	2
4	49300413	"	"	Delivery Box Shroud - Left	1
	93400286	"	"	Screw #8 X 1/2 S/T	12
5	58301808	"	"	Harness - Fluorecent Lamp	1
6	58301828	"	"	Harness - Data	1
7	44800739	"	"	Ramp - Door	1
	93400380	"	"	Screw #8 X 3/8 S/T (Stove)	2
8	58301829	"	"	Harness - Main Door	1
9	58301414	"	"	Cup Assembly - Coin Return	1
	49000409	"	"	Flap Coin Return Cup	1
	49000424	"	"	Bracket Door Alignment Bar - Mtg	1
10	25245125	"	"	Transport Assembly UBA-2	OPT.
11	49400419	"	"	Cam - Door Lock	1
	92400181	"	"	Nut 1/2-20	1
	93300007	"	"	E-Ring	1
	49000353	"	"	Spring - Door Stop	1
12	58301408	"	"	Pin & Lockbar Assembly	1
13	58300415	"	"	Gate - Coin Insert	1
14	58301402	"	"	Coin Insert And Return Assembly	1
	58301403	"	"	Coin Return W/A	1
	58301404	"	"	Coin Return Cam R/A	1
	58301405	"	"	Coin Chute W/A	1
	58300414	"	"	Lever - Coin Return	1
	25600801	"	"	Rivet - Shoulder Coin Return	2
	70143005	"	"	Ring - External Retianing	2
	70143002	"	"	Ring - External Retianing	1
	21083601	"	"	Spring - Tension	1
15	40764301	"	"	PCB Assembly - Pushbutton Switch	1
16	68701800	"	"	Main Controller Assembly - Complete	1
17	59301827	"	"	PCB Assembly - Display	1
18	49000474	49400413	59100416	Upper Glass Mounting Bracket	1
19	91700103	70060022	91700115	Lamp Fluorecent	1
20	58301824	Same	Same	Ballast Assembly - 60hz	1
	58301825	Same	Same	Ballast Assembly - 50hz (Export)	1
21	49400437	"	"	Brace Door Shroud	1
22	92801531	"	"	Gasket Type 59 - 12" Long	1
23	59300423	"	"	Shroud Delivery Box Rh	1
24	44800575-246	"	"	Leg - Door	1
	93400428	"	"	Screw #8 X 3/8 S/T Truss	3
25	58300458-001	"	"	Label - Flow Chart 6800	1
	58300458-002	"	"	Label - Flow Chart 6800 (Spanish)	1
	58300458-003	"	"	Label - Flow Chart 6800 (French)	1
26	92801433	"	"	Gasket - Type 55 (8.5" Long)	1
27	58300442	"	"	Coin Chute - Top	1
28	58300441	"	"	Coin Chute - Bottom	1
29	59301904	"	"	Coin Box Assembly	1
30	55101517	"	"	Mounting Coin Box	1
31	58300450	"	"	Bracket - 6800 PCB Mtg - Dlx	1
32	58300448	"	"	Bracket Switch	1
33	44701869	"	"	Switch - Service	1

# Delivery Box Assembly



**Left Side**

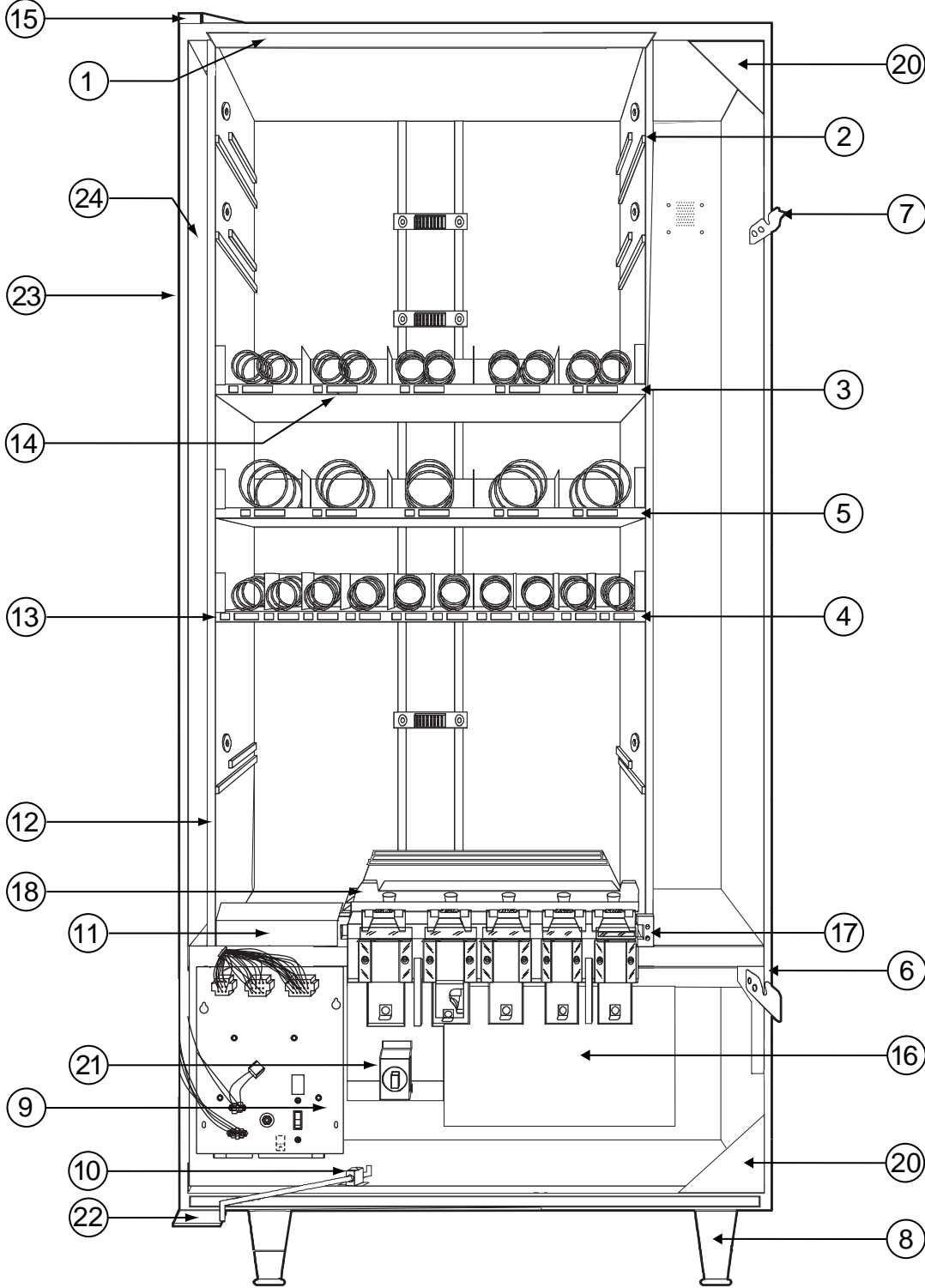


**Right Side**

# Delivery Box Assembly

Index No.	6800S Part Number	6800JR Part Number	6800C Part Number	Description	Quantity Per Assembly
	58301407	58401402	58101402	Delivery Box Assembly	1
1	58301413	58401413	58101402	Front Cover W/A	1
2	58300427	58400427	58100427	Cover Rear Delivery Box	1
3	58301412	Same	Same	Side Plate Assembly Rh	1
4	58300437	"	"	Side Plate Lh	1
5	58301411	58401411	58101411	Door Assembly - Back	1
6	58300426	Same	Same	Link - Delivery Door	2
7	58300433	"	"	Link - Front Door	2
8	91600088	"	"	Plug Type 13 For .531 D. Hole	4
9	49300456	"	"	Spacer	4
10	92100310	"	"	Screw Machine #8-32 X 5/16	4
11	95000344	"	"	Washer	4
12	80443010	"	"	Screw #8-32 X 5/8 Tf	2
13	58301410	58401410	58101410	Front Door Assembly	1
14	93400485	Same	Same	Screw S/T #8 X 3/8	21
15	25181701	"	"	Spring - Tension	2
16	49300426	"	"	Plug - Recessed	1
17	58300434	"	"	Link - Middle	2
18	58300435	"	"	Pin - Linkage	4
19	70143004	"	"	Ring - External Retaining	4

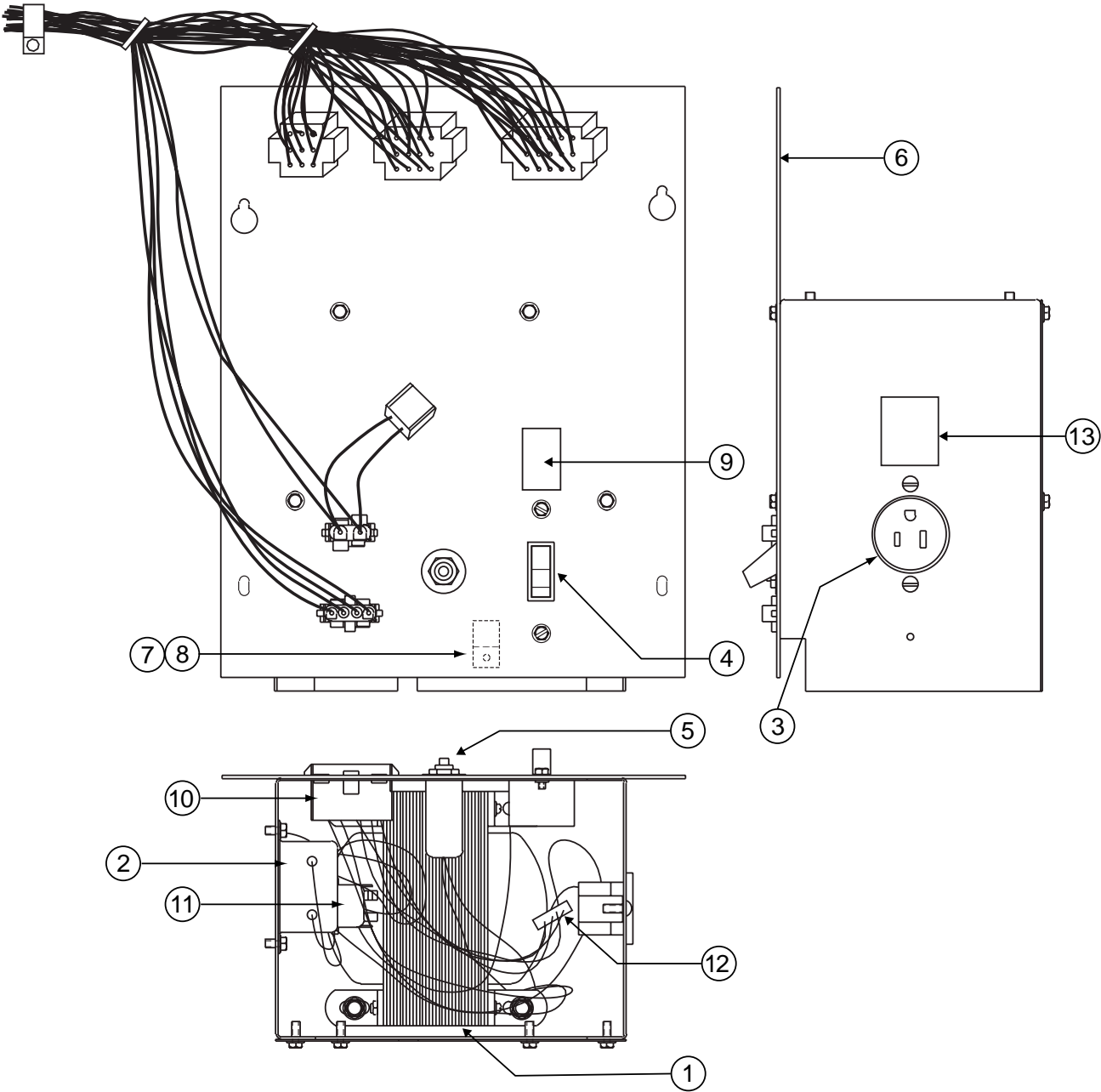
# Cabinet Assembly Components



# Cabinet Assembly Components

Index No.	6800S Part Number	6800JR Part Number	6800C Part Number	Description	Quantity Per Assembly
	58301900	58401900	58101900	Cabinet Assembly	REF.
	58301301	58401301	58101301	Cabinet Weld Assembly	1
1	49300911	49400901	59100902	Shield, Light & Security	1
	93400284	93400284	93400284	Screw - Shield Anchoring	3
2	59300914	59300914	59300914	Panel W/A, Shelf Mounting Rh Side	1
3	59301600	59401600	59101600	Shelf Assembly - Dual Helix - See Fig. 2	REF.
4	58301610	59401610	59101606	Shelf Assembly - 10/8/6 Selection See Fig. 11	REF.
5	59301605	59401605	59101603	Shelf Assembly - 5/4/3 Selction - See Fig. 11	REF.
6	86668001	86668001	86668001	Rubber Channel	A/R
7	49300325	49300325	49300325	Hook, Door Locking	2
	93400394	93400394	93400394	Screw - Lock Hook Mounting	4
8	54801323	54801323	54801323	Leg W/A - Includes Leveler	4
	40800352	40800352	40800352	Leveler	4
	49000395	49000395	49000395	Channel - Leg Mounting (Not Shown)	2
9	58301820	58301820	58301820	Transformer Box Assembly - See Fig. 8	1
10	59500912	59500912	59500912	Mounting Bracket - Friction Pad	1
	49000389	49000389	49000389	Pad - Friction	2
	49000391	49000391	49000391	Washer - Curved	2
	93400394	93400394	93400394	Screw - Self Tapping	4
	59500911	59500911	59500911	Stop - Rod/Main Door	1
11	58300439	58400439	58100439	Baffle	1
	93400174	93400174	93400174	Screw	2
12	59500920	59500920	59500920	Panel W/A - Shelf Mounting Lh Side	1
13	59301908	59301908	59301908	Selection Indicator Assortment	1
14	59301913	59301913	59301913	Selection Price Card Assortment	1
15	44801309-246	44801309-246	44801309-246	Top Pivot Plate Assembly	1
16	59501206	59501206	N/A	Refrigeration Unit (Domestic) See Page 3-32	OPT.
	59501241	59501241	N/A	Refrigeration Unit (Euro.) See Page 3-32	OPT.
17	59300742	59300742	59300742	Support - Front (Nylon)	2
	93400172	93400172	93400172	Screw - #8 X 5/8	4
	58300440	58400440	58100440	Baffle - Gum & Mint Removal (Not Shown)	OPT.
18	59301712	59301712	59301712	Bracket & Gusset Assembly	1
19	86655001	86655001	86655001	Gasket - Sponge Rubber 1/4 X 1/2	1
20	59300322	59300322	59300322	Gusset - Cabinet	2
21	59521507	59521507	N/A	Thermostat & Bracket Assembly	1
	59521514	59521514	N/A	Thermostat	1
	59520501	59520501	N/A	Cover - Temperature Control	1
	92100035	92100035	N/A	Screw - Machine #8-32 X 1/4	2
22	44801306-246	44801306-246	44801306-246	Pivot Bracket W/A	1
23	49401928-246	49401928-246	49401928-246	Security Bracket W/A	1
24	58300432	58300432	58300432	Product Battle	1

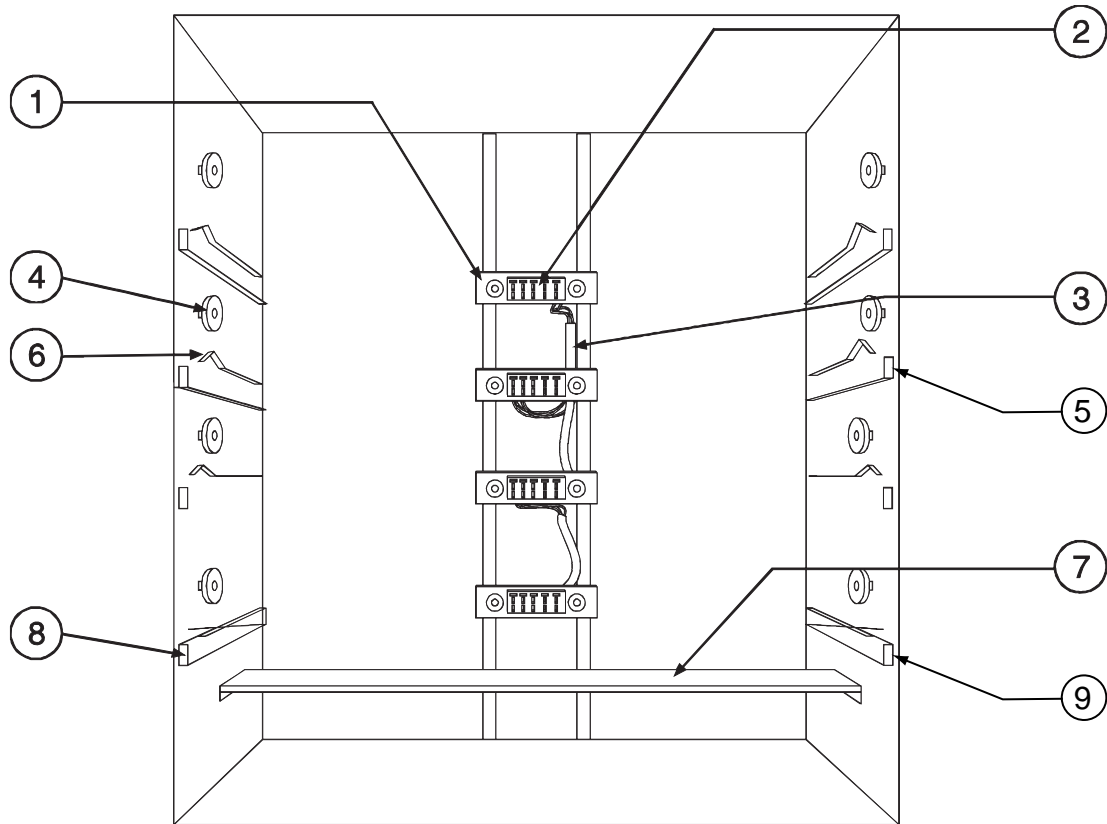
# Power Panel Components



## Power Panel Components

Index Number	Rowe Part Number	Description	Quantity Per Assembly
	58301820	Power Supply F/A 120V 60Hz	REF
	58301821	Power Supply F/A 220V 50Hz	REF
	58301822	Power Supply F/A 240V 50Hz	REF
	58301600	Power Box Assembly (Export)	REF
	58301601	Power Box Assembly (North American)	REF
	82663006	Screw, #8-32 x 3/8 S/T	4
1	58301819	Transformer Assembly (North American)	1
	50501822	Transformer, Main (Export)	1
	93400436	Screw - SEMS S/T #10 x 3/8, Type Z	4
2	25152709	Filter & Lug Assembly	1
3	97901275	Socket, Outlet (North American)	1
	97901276	Socket, Outlet (Export)	1
4	30101711	Switch, Toggle	1
5	91200052	Circuit Breaker - 12 Amp	1
6	58300300	Panel - Power	1
7	70093104	Cable Clamp - 5/8	1
8	93700307	Screw - SEMS S/T #8 x 3/8, Type Z	5
9	90702083	Label - "Power ON - OFF"	1
10	58301812	Wire Set - Power Box (Export)	1
11	58301813	Harness, P.S. Box Internal (Export)	1
12	58301814	Harness, Voltage Adaptor - 220V (Export)	1
	58301815	Harness, Voltage Adaptor - 240V (Export)	1
	58301811	Harness, Voltage Adaptor - 120V (Export)	1
	58301809	Power Cord (North American) - Not Shown	1
	58301818	Power Cord (Export)	1
	70233205	Bushing - Not Shown	1
13	90702237	Label - 120V 60Hz 2A	1

# Shelf Support and Plug Assemblies

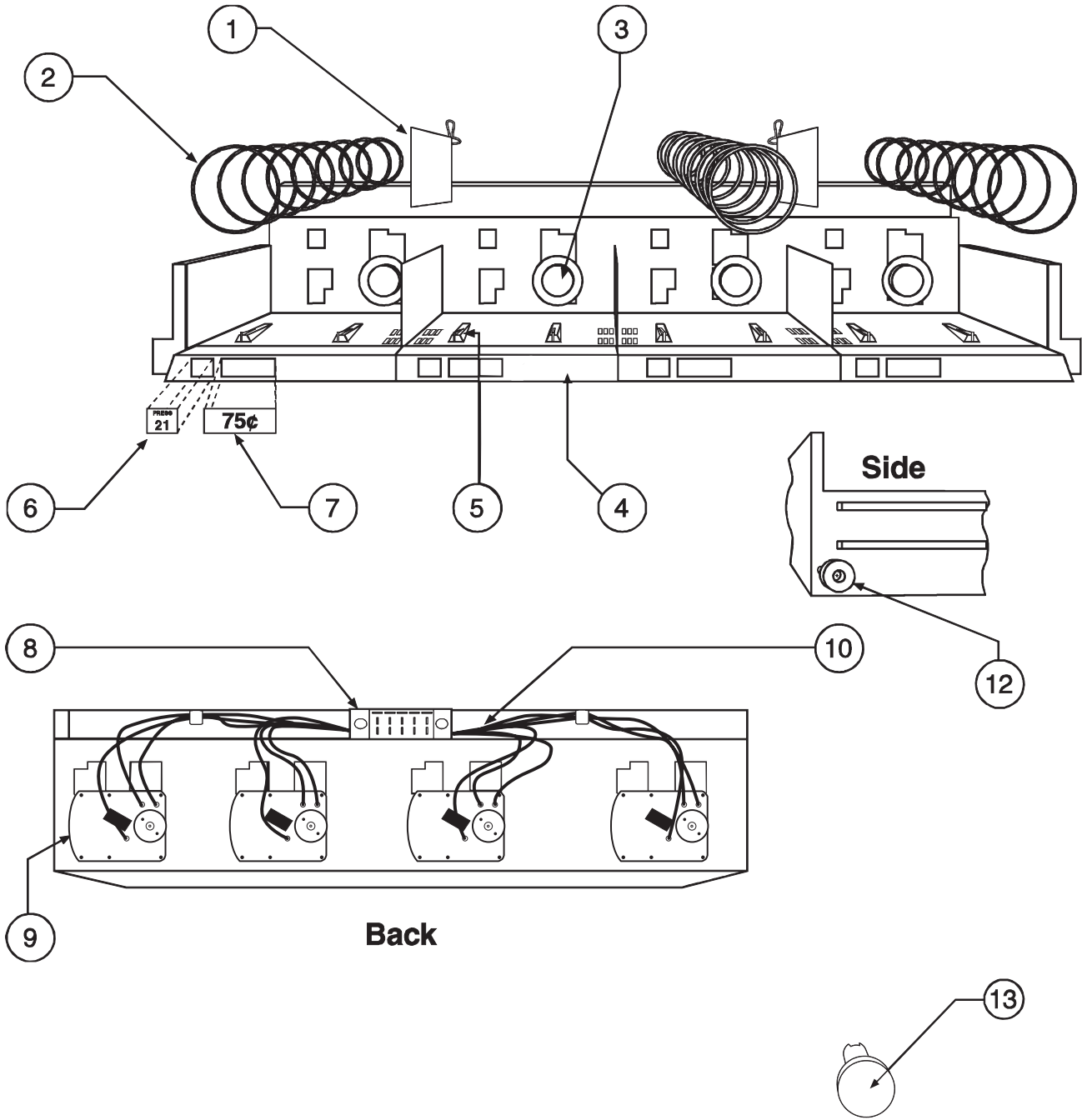




## Shelf Support and Plug Assemblies

Index No.	6800S Part Number	6800JR Part Number	6800C Part Number	Description	Quantity Per Assembly
1	59301824	Same	Same	Plug Bracket W/A	6
	59300805	"	"	Plug Bracket	1
	44802480	"	"	Step Washer	2
2	97901253	"	"	Socket, 15 Pin Female	6
3	58301800	"	"	Harness Asm., Main Cabinet (Behind Cover)	1
	30749005	"	"	Socket - 9 Pin	1
	30749006	"	"	Socket - 12 Pin	1
	30749007	"	"	Socket - 15 Pin	1
4	49000005	"	"	Roller, Shelf	12
	49000006	"	"	Bushing, Shelf Roller	12
	93400484	"	"	Screw, Self Tapping	10
5	49301322	"	"	Upper Shelf Support W/A - R/H Side	3
6	49301321	"	"	Upper Shelf Support W/A - L/H Side	3
7	59300314	59400314	59100314	Tie Bar L/H & R/H Partition	1
	93400307	Same	Same	Screw, Self Tapping	4
8	49301308	"	"	Shelf Support L/H	3
9	49301309	"	"	Shelf Support R/H	3
	93400151	"	"	Screw - Self Tapping	18

# 3, 4, or 5 Selection Shelf Assembly

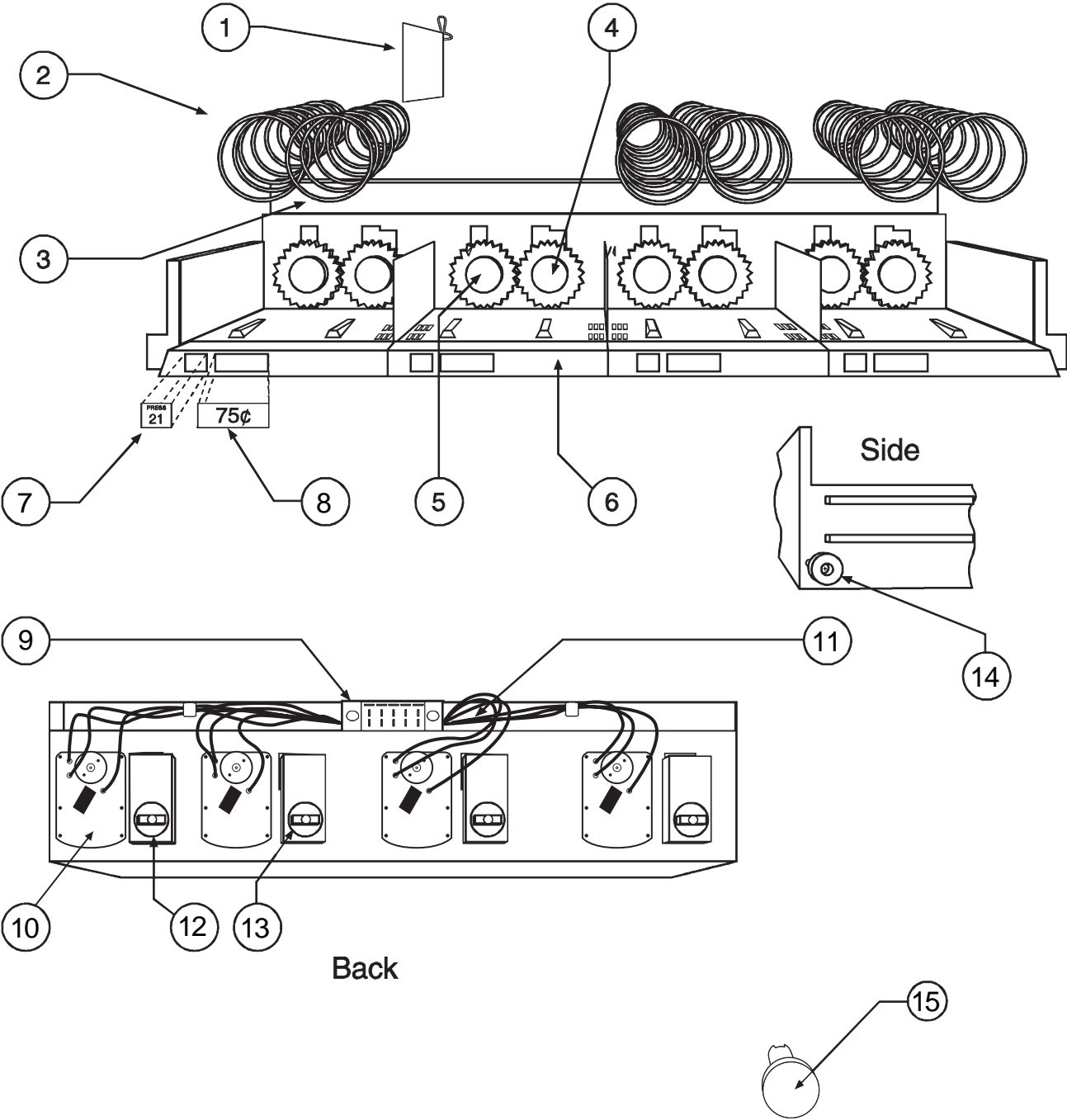


## 3, 4, or 5 Selection Shelf Assembly

Index No.	6800S Part Number	6800JR Part Number	6800C Part Number	Description	Quantity Per Assembly
	59301615	59401615	59101615	Shelf W/A	REF
	59301605	59401604	59101603	Shelf Assembly - 3/4/5 Select	REF
1	59301617	Same	Same	Adjustable Shelf Wall - Product	2/2/2
2	49000034	"	"	Pastry Helix - 10 Select	5/4/3
	49000033	"	"	Pastry Helix - 12 Select	5/4/3
	49000032	"	"	Pastry Helix - 15 Select	5/4/3
	59300014	"	"	Helix - 6 Count (for "Lunch Bucket" size items)	5/4/3
3	49000027	"	"	Helix Hub	5/4/3
4	59300613	"	"	Product Guide (Single Price)	5/4/3
	89293016	"	"	Screw	10/8/6
5	59300617	"	"	Helix Guide	10/8/6
6	59301908	"	"	Assortment - Number Block	1
7	59301913	"	"	Price Card Assortment	1
8	59300002	"	"	Plug Bracket	1
	97900253	"	"	Plug - 15 Pin Male	1
	97900169	"	"	Pin - Plug Anchoring	2
9	59301847	"	"	Motor Assembly	5/4/3
10	59301848	59401803	59401803	Shelf Harness Assembly	1
	97901180	Same	Same	Socket	5/4/4
11	49001925	"	"	Product Pusher Assortment (Not shown)	1
12	49000005	"	"	Shelf Roller	2
	49000042	"	"	Roller Bushing	2
	93400441	"	"	Screw	2
	92400064	"	"	Nut	2
	20100359	"	"	Canoe Clip (Not Shown)	2
13	59300902	"	"	Hub Removal Tool	1

\*For other count helixes available as service parts only, see page 6-2.

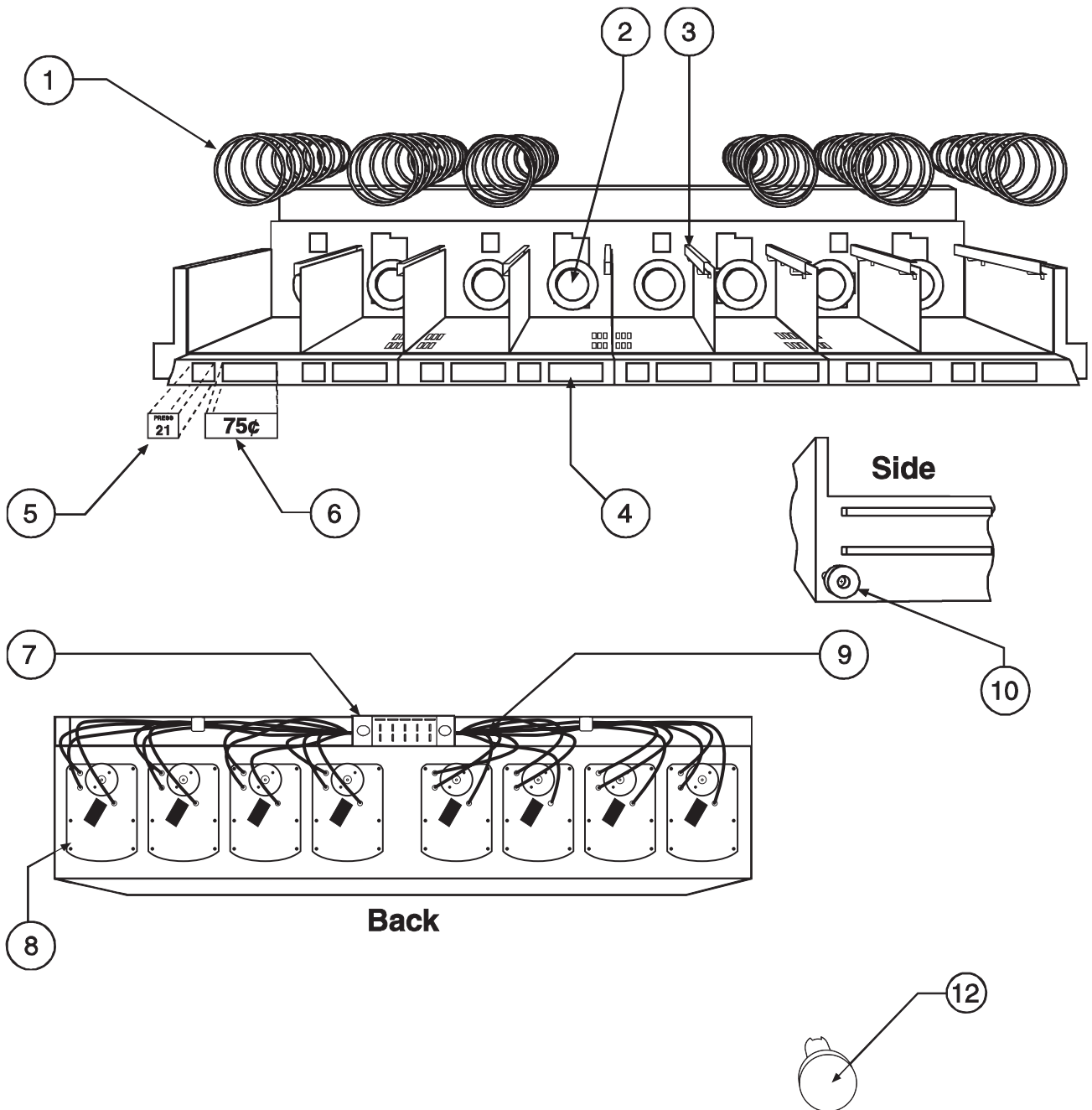
# Dual Helix Shelf



## Dual Helix Shelf

Index No.	6800S Part Number	6800JR Part Number	6800C Part Number	Description	Quantity Per Assembly
	59301615	59401615	59101615	Shelf W/A	REF
	59301600	59401600	59101600	Shelf Assembly - Dual Helix 3/4/5 Select	REF
1	59301617	Same	Same	Adjustable Shelf Wall - Product	1/1/1
2	59300013	"	"	Reverse Helix - 10 Select	5/4/3
	59300012	"	"	Reverse Helix - 12 Select	5/4/3
	59300011	"	"	Reverse Helix - 15 Select	5/4/3
	59300015	"	"	Reverse Helix - 30 Select	5/4/3
3	49300016	"	"	Candy Helix - 10 Select	5/4/3
	49300015	"	"	Candy Helix - 12 Select	5/4/3
	49000031	"	"	Candy Helix - 15 Select	5/4/3
	49000018	"	"	Candy Helix - 30 Select	5/4/3
4	59300616	"	"	Helix Hub - Dual Helix Drive Gear	5/4/3
5	59300615	"	"	Helix Hub - Dual Helix Idler Gear	5/4/3
6	59300613	"	"	Product Guide (Single Price)	5/4/3
	89293016	"	"	Screw	10/8/6
7	59301908	"	"	Assortment - Number Block	1
8	59301913	"	"	Price Card Assortment	1
9	59300002	"	"	Plug Bracket	1
	97900253	"	"	Plug - 15 Pin Male	1
	97900169	"	"	Pin - Plug Anchoring	2
10	59301847	"	"	Motor Assembly	5/4/3
11	59301848	59401803	59401803	Shelf Harness Assembly	1
	97901180	Same	Same	Socket	5/4/4
12	59300618	"	"	Idler - Dual Helix	5/4/3
13	92901000	"	"	Rivet	5/4/3
14	49000005	"	"	Shelf Roller	2
	49000042	"	"	Roller Bushing	2
	93400441	"	"	Screw	2
	92400064	"	"	Nut	2
	20100359	"	"	Canoe Clip (Not Shown)	2
15	59300902	"	"	Hub Removal Tool	1

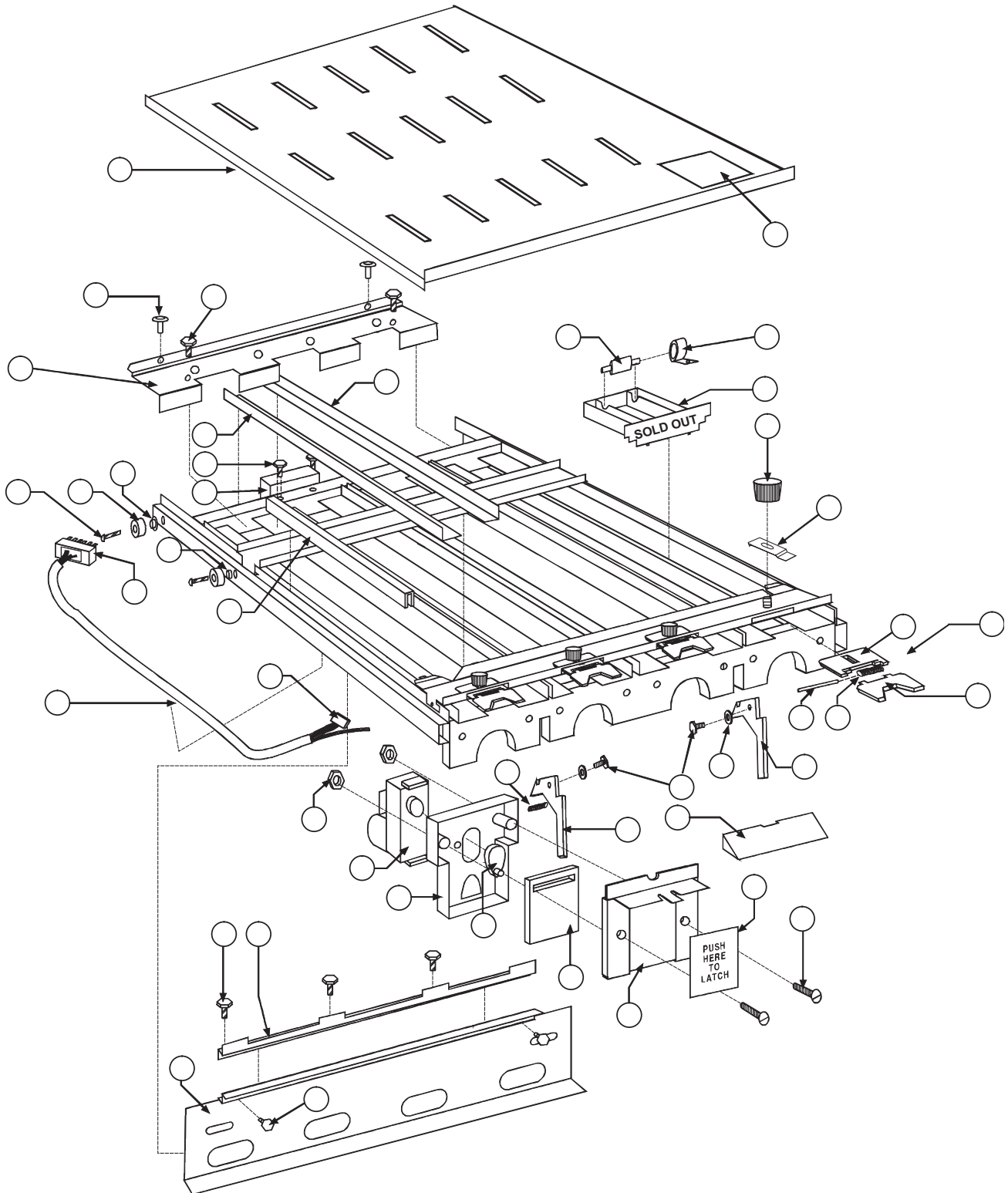
# Candy Shelf



# Candy Shelf

Index No.	6800S Part Number	6800JR Part Number	6800C Part Number	Description	Quantity Per Assembly
	59301615	59401615	59101615	Shelf W/A	REF
	59301610	59401608	59101606	Shelf Assembly - Candy 6/8/10 Select	REF
1	49300016	"	"	Candy Helix - 10 Select	10/8/6
	49300015	"	"	Candy Helix - 12 Select	10/8/6
	49000031	"	"	Candy Helix - 15 Select	10/8/6
	49000030	"	"	Candy Helix - 18 Select	10/8/6
	49000029	"	"	Candy Helix - 24 Select	10/8/6
	49000028	"	"	Candy Helix - 30 Select	10/8/6
2	59300616	"	"	Helix Hub	5/4/3
3	59301616	"	"	Product Adjustment Arm Assembly	10/8/6
	49000008	"	"	Retaining Block	2/2/2
	59300619	"	"	Adjustment Wall Arm	2/2/2
	49000021	"	"	Adjustment Wall	1/1/1
4	59300614	"	"	Product Guide (Dual Price)	5/4/3
	89293016	"	"	Screw	10/8/6
5	59301908	"	"	Assortment - Number Block	1
6	59301913	"	"	Price Card Assortment	1
7	59300002	"	"	Plug Bracket	1
	97900253	"	"	Plug - 15 Pin Male	1
	97900169	"	"	Pin - Plug Anchoring	2
8	59301847	"	"	Motor Assembly	5/4/3
9	59301848	59401803	59401803	Shelf Harness Assembly	1
	97901180	Same	Same	Socket	5/4/4
10	49000005	"	"	Shelf Roller	2
	49000042	"	"	Roller Bushing	2
	93400441	"	"	Screw	2
	92400064	"	"	Nut	2
11	49001925	"	"	Product Pusher Assortment (Not Shown)	1
12	59300902	"	"	Hub Removal Tool	1

# Gum and Mint Unit

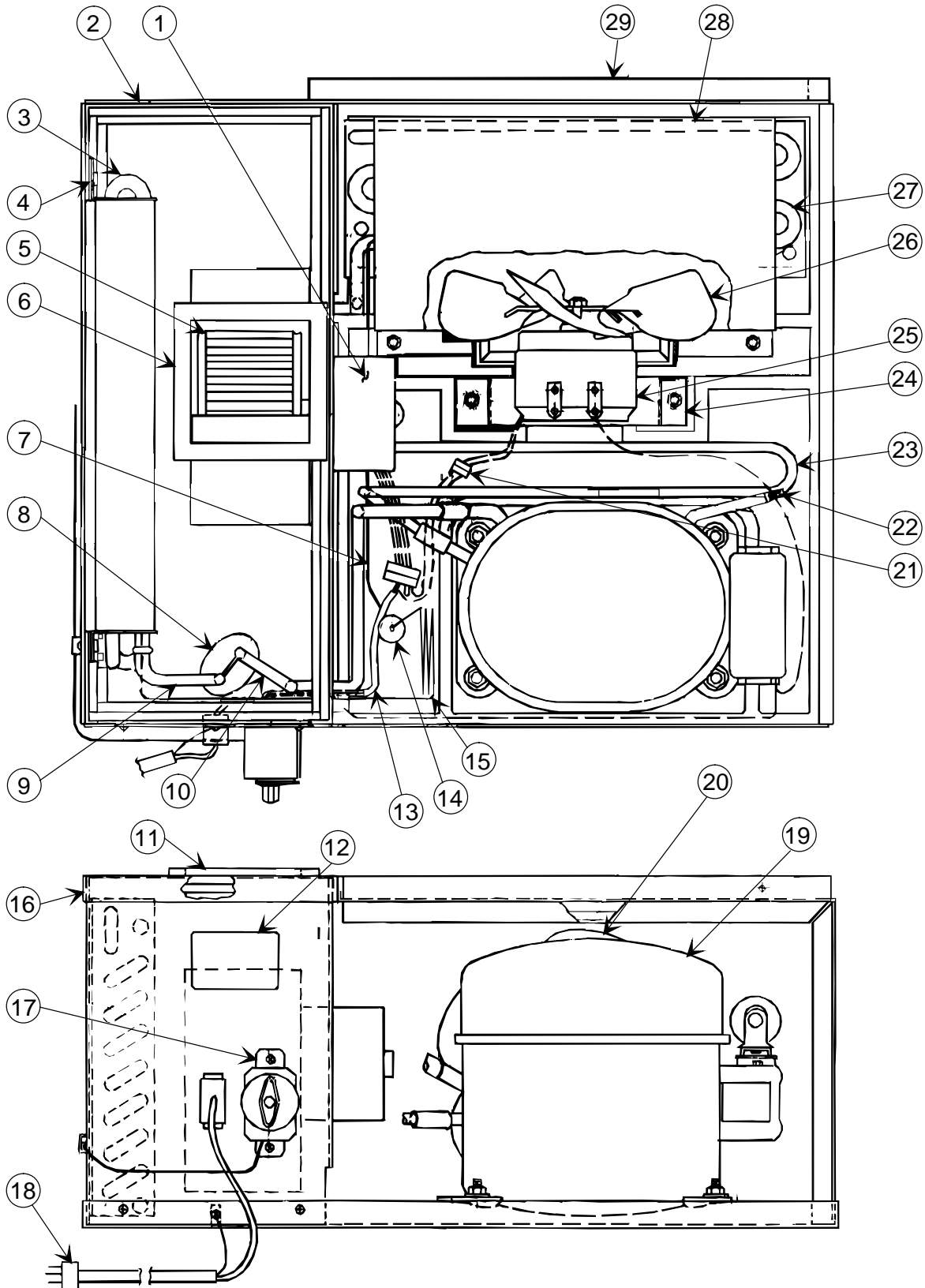




# Gum and Mint Unit

Index No.	6800S Part Number	6800JR Part Number	6800C Part Number	Description	Quantity Per Assembly
	59301715	59401715	59101700	Gum and Mint Final Assembly	REF
	59301710	59401710	59101701	Gum and Mint Weld Assembly	REF
1	59300726	59400726	59100700	Cover Gum and Mint Unit	1
2	59300725	59400725	59100706	Retainer - Product Pusher	1
3	20100359	Same	Same	Canoe Clip	4
4	93400307	"	"	Screw - #8 x 3/8"	2
5	59300723	"	"	Product Guide - Adjustable (Left)	2(1-682)
6	93400307	"	"	Screw - #8 - 3/8"	2
7	59300002	"	"	Plug Bracket Mounting	1
8	93400484	"	"	Screw - 1/4-200 x 3/4"	4
9	49000005	"	"	Roller	4
10	49000006	"	"	Bushing - Roller	2
11	59301849	"	"	Harness - Gum and Mint	1
12	97901180	"	"	Socket	5
13	59300724	"	"	Product Guide - Adjustable (Right)	2(1-682)
14	59300729	"	"	Product Pusher	5/4/3
15	59300733	"	"	Hub - Negator	5/4/3
16	59300730	"	"	Spring - Constant Force	5/4/3
17	59300747	"	"	Torque Knob	5/4/3
18	59301706	"	"	Flipper Assembly	5/4/3
19	59300731	"	"	Bracket - Flipper Assembly	5/4/3
20	59300732	"	"	Product Flipper	5/4/3
21	59300734	"	"	Spring - Flipper	5/4/3
22	59300728	"	"	Pivot Pin - Flipper	5/4/3
23	59300760-002	"	"	Lever - Latch (Right)	1
24	93400307	"	"	Screw - #8 x 3/8"	2
25	59300760-001	"	NA	Lever - Latch (Left)	1
26	80663116	"	Same	Screw - Machine 8-32, 1"	10/8/6
27	90702241	"	"	Decal - "Push to Latch"	2/2/1
28	59300740	"	"	Bezel - Price Card	5/4/3
29	59300743	"	"	Product Ejector	5/4/3
30	59300738	"	"	Crank - Gum and Mint Motor	5/4/3
31	59300739	"	"	Housing - Motor Mounting	5/4/3
32	59301847	"	"	Motor Assembly	5/4/3
33	92400004	"	"	Nut 8-32	10/8/6
34	59300758	59400748	59100711	Spring Overtravel Prevention Retainer	1
35	93400307	Same	Same	Screw	5/4/3
36	93400307	"	"	Screw	2
37	59300759	59400749	59100712	Bracket - Spring Retainer	1
38	97900253	Same	Same	Plug	1
39	92803051	"	"	Rubber Gasket	2
40	49000042	"	"	Bushing	2
41	49900466	"	"	Washer - Step	2
42	59300741	"	"	Cover - Price Bezel	5/4/3
43	90702228	"	"	Label - Gum and Mint Cover	1
44	44800514	"	"	Latch Spring	10/8/6
45	59100420	"	"	Support - Flipper	5/4/3

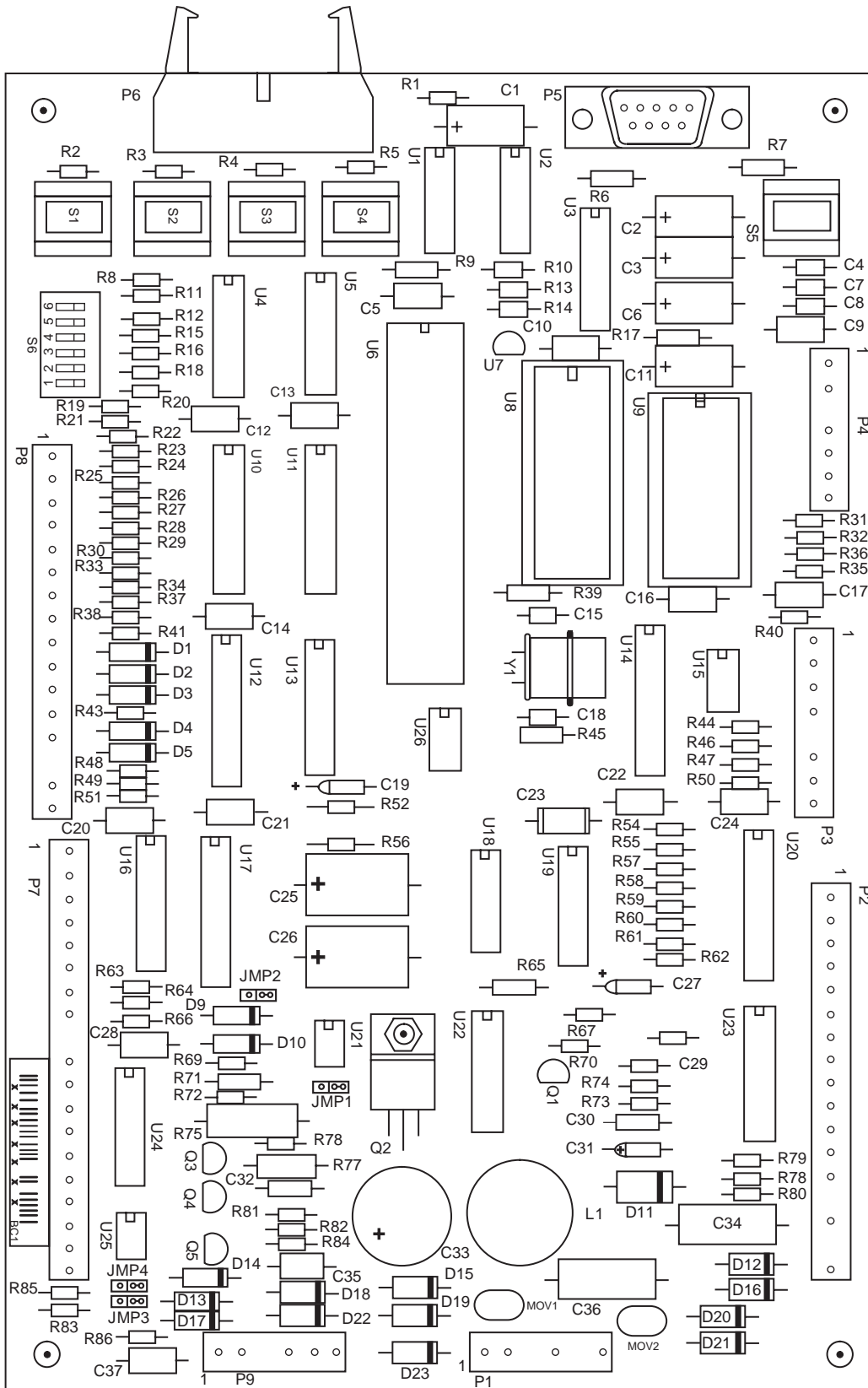
# Refrigeration Unit (Optional)



## Refrigeration Unit (Optional)

Index Number	Rowe Part Number	Description	Quantity Per Assembly
	59501206	Refrigeration Unit - R134A	REF
	59521541	Refrigeration Unit - 220/240 Volts - R134A	REF
1	59521528	Evaporator - Blower Motor	1
2	59520535	Bulkhead, Evaporator	1
	93400448	Screw, Self Tapping	9
3	59521510	Evaporator	1
	93400486	Screw, Self Tapping	4
	94100062	Nut, Speed	4
4	59520510	Spacer - Evaporator	2
5	59521526	Blower Wheel	1
6	59521527	Scroll	1
7	59520525	Tube, Condenser to Drier	1
8	11101217	Accumulator	1
9	59520523	Tube, Evaporator to Accumulator	1
10	59520527	Tube, Suction Accumulator to Compressor	1
11	59520511	Gasket - Evaporator, Output	1
12	90600536	Data Plate - 6800	1
13	59521511	Harness, Refrigeration - Europe	1
14	59501201	Drier	1
	59521543	Drier - R134A	1
15	59521531	Tube, Capillary	1
16	59520503	Cover, Evaporator	1
17	59521507	Thermostat & Bracket Assembly	1
	93400448	Screw, Self Tapping	2
18	59501800	Line Cord, Refrigeration	1
	59521512	Line Cord, Refrigeration (Euro)	1
19	59521509-001	Compressor 115 Volts - R12	1
	59-21509-002	Compressor (Euro) 240 Volts - R12	1
	59501207	Compressor 115 Volts - R134A	1
	59521542	Compressor 220/240 Volts - R134A	1
	92400015	Nut	4
	95000337	Washer	4
	44800237	Sleeve - Grommet	4
	44800238	Grommet	4
20	59520509	Fan - Condenser	1
21	97901194	Connector, Capacitor	1
22	59520524	Tube - Process to Compressor	1
23	59520526	Tube - Discharge Compressor to Condenser	1
24	59520507	Bracket - Motor Mounting Condenser	1
25	59521515-001	Motor - Fan, 115V	1
	59521515-002	Motor - Fan, 230V	1
26	59520509	Fan - Condenser	1
	92400013	Nut	1
27	59521521	Condenser	1
28	86655001	Gasket - Rubber, Sponge	1
29	86680005	Gasket - Rubber	1

# Main Controller Circuit Board Assembly



# Main Controller Circuit Board Assembly

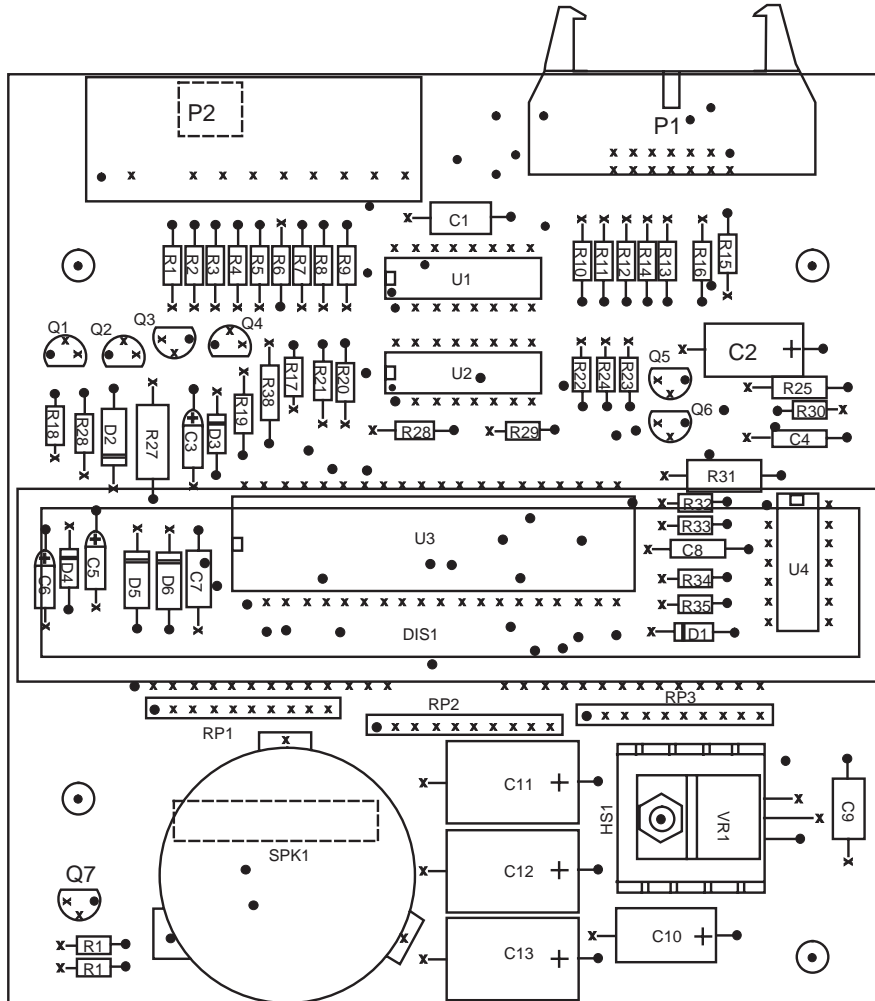
REFERENCE	PART NUMBER	DESCRIPTION	QUANTITY
C1, C2, C3, C6, C11	203A7D61002206	Capacitor, 22UF 25V 20% Axial	5
C4, C7, C8	70028612	Capacitor, 470PF 50V 10% Axial	3
C5, C9, C10, C12, C13, C14	70028649	Capacitor, .1uF 50V 10% Axial	16
C15, C16, C17, C18, C20, C21, C22	70028705	Capacitor, 22PF 50V 10% Axial	2
C23, C24, C28, C35, C37	70025301	Capacitor, 1UF 35V 10% Axial Tantalum	3
C25, C26	203A7D61002207	Capacitor, 220UF 25V 20% Axial	2
C29	70028624	Capacitor, 2200PF 50V 10% Axial	1
C30	203A0F51203303	Capacitor, .033UF 50V 10% Axial	1
C32	70028618	Capacitor, 1000PF 50V 10% Axial	1
C33	203A7H60004707	Capacitor, 470UF 100V 20% Radial	1
C34, C36	203A5L51001004	Capacitor, .1UF 250V 10% Axial	2
D1, D2, D3, D4, D5, D9, D10, D13, D14	70035005	Diode, Rectifier 400V 1A 1N4004	9
D11	220A00500SB360	Diode, Schottky 60V 3A SB360	1
D12, D15, D16, D18, D19, D20, D21, D22, D23	220A01500GP15J	Diode, 600V 1.5A DO-1 GP15J	9
D17	222A0021N4750A	Diode, Zener, 27V 1W 10% 1N4750A	1
JMP1, JMP2, JMP3, JMP4	70078703	Connector, Header 3POS .1"CTR	4
L1	206A215070001	Inductor, 150MH 2A Ferrite core	1
MOV1	70037506	Varistor, 2.3J 35VRMS	1
MOV2	256A150013001	Varistor, 13J 150V	1
P1, P9	350A2648106100	Connector, Header 6POS .156"CT	2
P2	350A2648117100	Connector, Header 17POS .156"C	1
P3	350A2648108100	Connector, Header 8POS .156"CT	1
P4	350A2648107100	Connector, Header 7POS .156"CT	1
P5	350A0208006100	Connector, D-Sub 9 Position PCB Mount	1
P6	350A0499786200	Connector, Header 14POS 90DEG	1
P7	350A2648119100	Connector, Header 19POS .156"C	1
P8	350A2648116100	Connector, Header 16POS .156"C	1
Q1, Q3, Q5	225A000MPS2222	Transistor, NPN 30V .6A TO-92 MPS2222	3
Q2	225A0020TIP120	Transistor, NPN Darlington 60V TIP120	1
Q4	70030104	Transistor, PNP -80V .5A MPSA56	1
R1, R2, R3, R4, R5, R11, R13, R14, R15, R16, R18, R19, R20, R21, R32, R36, R47, R52, R54, R55, R56, R57, R58, R59, R60, R61, R62, R63, R64, R66, R78, R81, R82	79905103	Resistor, 10K 1/8W 5% CF	33
R6, R7, R17, R39	79901471	Resistor, 470 OHM 1/4W 5%	4
R8, R68	79905473	Resistor, 47K 1/8W 5% CF	2
R9	79901100	Resistor, 10 OHM 1/4W 5% C	1
R10, R67, R72, R74, R83	79905472	Resistor, 4.7K 1/8W 5% CF	5
R12, R40, R50, R80	79905104	Resistor, 100K 1/8W 5% CF	4
R22, R24, R26, R28, R30, R34, R38, R41, R49	79905823	Resistor, 82K 1/8W 5% CF	9
R23, R25, R27, R29, R33, R37, R43, R48, R51	79905203	Resistor, 20K 1/8W 5% CF	9
R31, R35, R86	79905101	Resistor, 100 OHM 1/8W 5%	3
R44, R46	79905201	Resistor, 200 OHMS 1/8W 5%	2
R45	79901106	Resistor, 10M 1/4W 5% CF	1
R65	79901273	Resistor, 27K 1/4W 5% CF	1
R69, R70	79905102	Resistor, 1K 1/8W 5% CF	2
R71	79901180	Resistor, 18 OHM 1/4W 5% C	1

# Main Controller Circuit Board Assy Cont.

REFERENCE	PART NUMBER	DESCRIPTION	QUANTITY
R73	79905153	Resistor, 15K 1/8W 5% CF	1
R75	70010826	Resistor-1.2 OHM 1W 5	1
R76,R84	79905332	Resistor, 3.3K 1/8W 5% CF	2
R77	79908512	Resistor, 5.12K 1/2W 5% CF	1
R79,R85	79905331	Resistor, 330 OHM 1/8W 5%	2
S1,S2,S3,S4,S5	258A00001F001	Switch, SPST Momentary NO	5
S6	70043003	Switch, DIP 6 Position	1
U1,U2,U18	232A00074HC00N	IC, Quad 2-Input NAND Gate 74HC00N	3
U3	230A00LT1181CN	IC, Dual RS232 Driver MAX232	1
U4	70034050	IC, Hex Buffer CD4050BCN	1
U5	70036901	IC, Darlington Array ULN2003N	1
U6	236A068HC11A1P	IC, Microprocessor 68HC11	1
U7	30800243	IC, Under Voltage Sensor MC34064P-5	1
U8	79800437	Firmware, Programmed EPROM 27C512	1
U9	70036615	I.C. 8K X 8 Timekeeper RAM DS1643	1
U10,U11,U12	232A0074HC245N	Octal 2-Way Transceiver 74HC245N	3
U13	70036906	IC, High Current Source UDN2981A	1
U14	232A0074HC373N	Octal D Flip-Flop 3-State 74HC373N	1
U15	70033713	IC, Optoisolator ILD-2	1
U16	230A000005841A	IC, 8-Bit Serial Latch UCN5841A	1
U17,U20	232A0074HC374N	Octal D Flip-Flop 3-State 74HC374N	2
U19	28030201	Firmware, Address Decoder	1
U21,U25	238A0000004N37	IC, Optoisolator Transistor Output 4N37	2
U22	230A00000L4962	IC, Voltage Regulator, Adjustable 1.5A L4962	1
U23	230A000002595A	IC, 8-Bit Sync Driver UDN2595A	1
U24	230A000005890A	IC, 8-Bit Serial Latch UCN5890A	1
U26	70037702	IC, Precision Voltage Ref. 5V MC1404U5	1
Y1	25167313	Crystal, 4.9152MHZ	1
	70709201	Cap for Pushbutton Switch	5
	70080801	Shunt, Jumper	4
	59301817	Base & Stud Assembly	1
	93901502	Insulator, Fishpaper	1
	28025302	Cover, 6800 DeLuxe Controller	1
	28001603	PCB Assembly - Complete	1

This page intentionally left blank.

# Display Board





INDEX NUMBER	ROWE PART NUMBER	DESCRIPTION	QUANTITY PER ASSEMBLY
	593-1827	Display Board	REF
REFERENCE	DESCRIPTION	PART NUMBER	
C33,C34	Cap - 22PF 50V 5%	70028705	
C4,C8	Cap - 220PF 50V 10%	70028620	
C1,C7,C9	Cap - .1UF 50V 20%	70028649	
C3,C5,C6	Cap - 1UF 35V 10%	203A6E5100-1005	
C2,C10	Cap - 22UF 50V 20%	203A7D6100-2206	
C11,C12,C13	Cap - 10UF 50V 20%	203A7F6100-1006	
D2,D5,D6	Diode - 100V 1Amp.	220A002-01N4002	
D1	Zener - 9.1V 1W 5%	222A002-1N4739A	
D4	Zener - 4.7V .25W 5%	222A000-01N4688	
D3	Zener - 15V .4W 5%	70035522	
R5,R12	Res - 1.0K 1/8W 5%	79905102	
R17,R18,R32,R34,R35	Res - 10K 1/8W 5%	79905103	
R30	Res - 100K 1/8W 5%	79905104	
R10,R11,R13-R16,R36	Res - 2.2K 1/8W 5%	79905222	
R33	Res - 24K 1/8W 5%	79905243	
R19	Res - 3.3K 1/8W 5%	79905332	
R20	Res - 39K 1/8W 5%	79905393	
R21,R26,R37	Res - 4.7K 1/8W 5%	79905472	
R1-R4,R6-R9,R22-R24, R28,R29	Res - 47K 1/8W 5%	79905473	
R38	Res - 2.2 Ohm 1/4W 5%	79901229	
R25	Res - 68K 1/4W 5%	79901683	
R27	Res - 1K 1/2W 5%	79908102	
R31	Res - 47 Ohm 1/2W 5%	79908470	
RP1 - RP3	Res Net - 39K x 9 10 Pin 200PPM	200A004935-0393	
Q6	Xstr, PNP -80V .5Amp	70030104	
Q3,Q4	Xstr - G.P. PNP 40V .1Amp	225A000-0MPSA70	
Q1,Q2,Q5,Q7	Xstr - NPN G.P. 30V .6Amp	225A000-MPS2222	
U1	IC - Shift Reg, 8 Stage	70034021	
U2	IC - Non-Inv. Hex Buffer	7034050	
U4	IC - Hex Inverter, Schmidt	70034106	
HS1	Heatsink to 220	335A-A210R0-0001	
DIS1	Display - 10 Char Vacuum	70714701	
SPK1	Alarm - Audible 70 DB. 1.3"	278A28-0006-001	
P1	Connector - 14 Pos.	350A04997862-00	
VR1	IC - Volt Reg 12V Linear	70036518	
U3	IC - Display Driver Vacuum Fluor.	30800237	
P2	Connector - 11 Pos.	350A26603110-00	

## Harness List

58301800	Harness, Main Cabinet
58301829	Harness, Main Door - 6800 Deluxe
58301827	Harness, Keypad - 6800 Deluxe
58301830	Harness, Coin Mech-Domestic
58301826	Harness, CBA/UBA Data - 6800 Deluxe
58301832	Harness, Exec Mech Data - 6800 Deluxe
58301828	Harness, Door-Power - Dom.
58301833	Harness, Door-Power - Exec.
58301808	Harness, Fluorescent Lamp
58301809	Power Cord Assy - N. America
58301813	Harness, P.S. Box Int. (Export)
58301816	Harness, Mars VFM-3 Power Adapter
58301834	Harness, Mars VFM-3 Data - 6800 Deluxe
58301818	Power Cord - Europe & Export
59301848	Harness, Shelf 10 & 5 Motor
59401803	Harness, Shelf 8 & 4 (and 6 & 3) Motor
58301831	Harness, Display Board - 6800 Deluxe
59301849	Harness, Gum & Mint Unit