ROWE

6800
Snack / Candy Vendors

Field Service Manual
and
Parts Catalog

ROWE ®

QUALITY LEADERSHIP
INTO THE 21ST CENTURY

6800 Snack / Candy Vendor

Field Service Manual and Parts Catalog

This manual contains procedures for operating and servicing the Rowe 6800 family of Snack/Candy Vendors. The 6800 family includes the 683 (5/10 column), 684 (4/8 column), and the 681 (3/6 column) Snack/Candy Vendors. The 6800 Snack /Candy Vendors are capable of vending a wide variety of products in several different dynamic configurations. The 6800 (model 683) machine can house up to 75 snack delivery motors and will operate in both the United States and international markets. The machine will host a variety of credit acceptance devices including: coin changers, bill validators and debit card readers.

TABLE OF CONTENTS

900-58301

SECTION 4 - TROUBLESHOOTING

SECTION 5 - MAINTENANCE

SPECIFICATIONS:
6800, 6800JR & 681
SNACK/CANDY VENDORS

GENERAL

	6800 (5 Column)	6800JR (4 Column)	681 (3 Column)
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
Air Cooled Models	Refrigerant - R134A - 7.5 oz. (212.8 g)

ELECTRICAL

Power Requirements (Max)

U.S. Domestic	120 VAC 12A
Non-Domestic	220/240 VAC, 50Hz., 6A

BTU Output

Without refrigeration	100 BTU/hr
With refrigeration	1500 BTU/hr

Power Consumption

Without refrigeration	.030 kWh (Avg.)
With refrigeration	.440 kWh (Avg.)

COIN MECHANISMS

24 V Model - 15 Pin Models only

MARS	TRC-6010-XV
COINCO	9302LF

European Coin Mechs

MARS	MS 1600, MS 1900
	CASHFLOW
ASKOYN	AN-200
NRI	6-26.4400

BILL ACCEPTORS

ROWE   *MAKA   COINCO   MARS

*NOTE: Contact bill acceptor manufacturer.

CARD READERS

Contact Card Reader manufacturer for machine compatibility.

> **CAUTION !**
> Do not use 24 volt Coin Mech with 12 pin plugs! They will not operate in this snack vendor.

VENDOR CAPACITY - Number of Selections

6800	6800JR	681
5 Shelf	**5 Shelf**	**5 Shelf**
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)
6 Shelf	**6 Shelf**	**6 Shelf**
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 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 accounting 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
Coinco						
9300L	Micromech 120 VPDC 12 Pin Con.	X	X	X	X	
9302LF	Micromech 24 VPDC 15 Pin Con.	X	X	X	X	X
9300L+	Micromech 24 VPDC 15 Pin Con.				X	X
Mars						
MC5000	Micromech 120 VPDC 12 Pin Con.	X	X	X	X	
TRC6000	Micromech 120 VPDC 12 Pin Con.	X	X	X	X	
TRC6010XV	Micromech 24 VPDC 15 Pin Con.	X	X	X	X	X
CashFlow	Executive 24VAC		X	X	X	X
MS1600	Executive 24VAC	X	X	X	X	X
MS1700	Executive 24VAC Tropicalized	X	X	X	X	X
MS1900	Executive 24VAC	X	X	X	X	X
NRI						
G-26.4400	Executive 24VAC	X	X	X	X	X
AZKOYEN						
AN-200	Executive 24VAC	X	X	X	X	X

Product Clearances
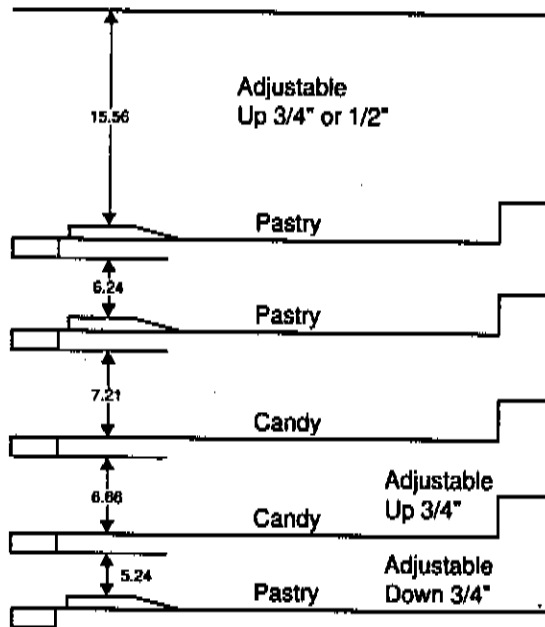
5 SHELF
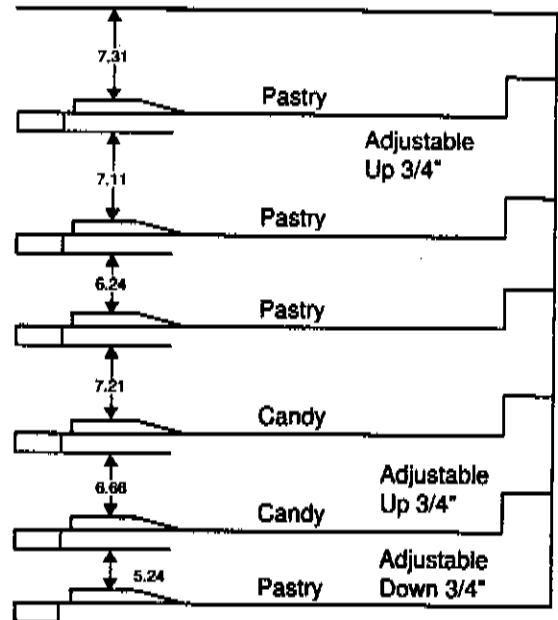
6 SHELF

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

6800JR 4 Selection Shelves 6800 - 5 Selection Shelves				6800JR - 8 Selection Shelves 6800 - 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".

681 PRODUCT CAPACITIES
6 SHELF MODELS

Model 681-18-6
Capacity 218 Items*

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

Model 681-21-6
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 681-24-6
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 681-24-6
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 681-30-6
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 681-33-6
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 681-36-6
Capacity 630 Items*

15	15	15	15	15	16
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

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5 SHELF MODELS

Model 681-15-5
Capacity 182 Items*

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

Model 681-18-5
Capacity 254 Items*

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

Model 681-21-5
Capacity 321 Items*

10	10	10			
12	12	15			
18	18	18	18	18	18
15	15	16	15	24	24
12	12	12			

Model 681-24-5
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 681-27-5
Capacity 495 Items*

18	18	18	18	18	18
18	18	18	18	18	18
18	18	18	18	18	18
15	15	15	16	24	24
12	12	12			

Model 681-30-5
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	16	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

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6800JR PRODUCT CAPACITIES
6 SHELF MODELS

Model 6824-6
Capacity 294 Items*

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

Model 6828-6
Capacity 390 Items*

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

Model 6836-6
Capacity 580 Items*

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

Model 6836-6
Capacity 580 Items*

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

Model 6840-6
Capacity 662 Items*

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

Model 6844-6
Capacity 757 Items*

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

Model 6848-6
Capacity 840 Items*

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

Model 6856JR (7 Shelf)
Capacity 740 Items*

15	15	15	15	15	15	15	15
15	15	15	15	15	15	15	15
15	15	15	15	15	15	15	15
15	15	15	15	15	15	15	15
15	15	15	15	15	15	15	15
15	15	15	15	15	15	15	15

5 SHELF MODELS

Model 6820-5
Capacity 246 Items*

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

Model 6824-5
Capacity 242 Items*

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

Model 6828-5
Capacity 430 Items*

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

* Each machine includes a 4-selection gum & mint unit with a 180 product capacity. The gum and mint capacity is in addition to the indicated capacities.

Model 6832-5
Capacity 530 Items*

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

Model 6850
Capacity 795 Items*

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	18	18	24	24	18	18
10		12		12		15	

Model 6850
Capacity 894 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	18	18	18	18	24	18
15	15	15	15	24	24	18	18

6800 PRODUCT CAPACITIES
6 SHELF MODELS

Model 6830 — Capacity 370 Items*

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

Model 6835 — Capacity 502 Items*

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

Model 6840 — Capacity 617 Items*

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

Model 6845 — Capacity 734 Items*

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

Model 6850 — Capacity 839 Items*

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

Model 6855 — Capacity 955 Items*

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

Model 6860 — Capacity 1062 Items*

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

Model 6870 (7 Shelf) — Capacity 1050 Items*

15	15	15	15	15	15	15	15	15	15
15	15	15	15	15	15	15	15	15	15
15	15	15	15	15	15	15	15	15	15
15	15	15	15	15	15	15	15	15	15
15	15	15	15	15	15	15	15	15	15
15	15	15	15	15	15	15	15	15	15
15	15	15	15	15	15	15	15	15	15

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6 SHELF MODELS

Model 6825 — Capacity 310 Items*

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

Model 6830 — Capacity 437 Items*

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

Model 6835 — Capacity 551 Items*

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

Model 6840 — Capacity 677 Items*

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

Model 6845 — Capacity 793 Items*

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

Model 6850 — Capacity 894 Items*

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

* Each machine includes a 5-selection gum & mint unit with a 225 product capacity. The gum and mint capacity is in addition to the indicated capacities

681 Selection Identification

01	(11)	21	(31)	41	(51)	61
02	(12)	22	(32)	42	(52)	62
03	(13)	23	(33)	43	(53)	63
04	(14)	24	(34)	44	(54)	64

} 3 Column Shelves

| 06 | 16 | 26 | 36 | 46 | 56 | 66 |
| 07 | 17 | 27 | 37 | 47 | 57 | 67 |

} 6 Column Shelves

| | 18 | 28 | 38 |

Gum and Mint Tray

681

Affix labels on shelves, left to right, as shown.

On a Unviersal Shelf configured as a 3 column shelf use the numbers circled above.

On a Universal Shelf configured as a 6 column shelf start with the SECOND number and proceed left to right.
DO NOT use 01, 02, etc., on 3 Column vendor.

The top shelf is always identified with the lowest number series, i.e., 01 or 11.

Start with #18 on the Gum and Mint Unit.

6800JR Selection Identification

01	(11)	21	(31)	41	(51)	61	(71)	81
02	(12)	22	(32)	42	(52)	62	(72)	82
03	(13)	23	(33)	43	(53)	63	(73)	83

} 4 Column Shelves

| 04 | 14 | 24 | 34 | 44 | 54 | 64 | 74 | 84 |
| 06 | 16 | 26 | 36 | 46 | 56 | 66 | 76 | 86 |

} 8 Column Shelves

| 07 | (17) | 27 | (37) | 47 | (57) | 67 | (77) | 87 |

— 4 Column Shelf

| | 18 | 28 | 38 | 48 |

Gum and Mint Tray

6800JR

Affix labels on shelves, left to right, as shown.

On a Unviersal Shelf configured as a 4 column shelf use the numbers circled above.

On a Universal Shelf configured as an 8 column shelf start with the SECOND number and proceed left to right.
DO NOT use 01, 02, etc., on 5900 JR.

Always start with #18 on the Gum and Mint Unit.

6800 Selection Identification

Selection Identification Label Assortment P/N 593-1908

01	(11)	21	(31)	41	(51)	61	(71)	81	(91)
02	(12)	22	(32)	42	(52)	62	(72)	82	(92)
03	(13)	23	(33)	43	(53)	63	(73)	83	(93)
04	14	24	34	44	54	64	74	84	94
06	16	26	36	46	56	66	76	86	96
07	17	27	37	47	57	67	77	87	97
18	28	38	48	58					

5 Column Shelves

10 Column Shelves

Gum and Mint Tray

6800

Affix labels on shelves, left to right, as shown.

On a Unviversal Shelf configured as a 5 column shelf use the numbers circled above.

On a Universal Shelf configured as a 10 column shelf start with the FIRST number and proceed left to right. The top shelf is always identified with the lowest number series, i.e., 01 or 11.

Always start with #18 on the Gum and Mint Unit.

SECTION 1
INSTALLATION

This section contains instructions for unpacking, moving and installing the 6800 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 dismounted from the rear wall, allowing the power cord and plug to be pushed into the cabinet. Be certain to remount the anchoring plate to prevent damage to the power cord. If more clearance is required it will be necessary to pivot the door hinges.

1. Open the main door.
2. Remove the door stop rod.
3. Disconnect the door harnesses at the Power Panel.

4. 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.

5. Remove the two 1/2" hex head bolts from the cabinet side of the top hinge plate.
6. 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.

7. Rotate the upper hinge assembly away from the door frame and lift the door straight "up" off the lower hinge point.
8. 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.

9. 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.
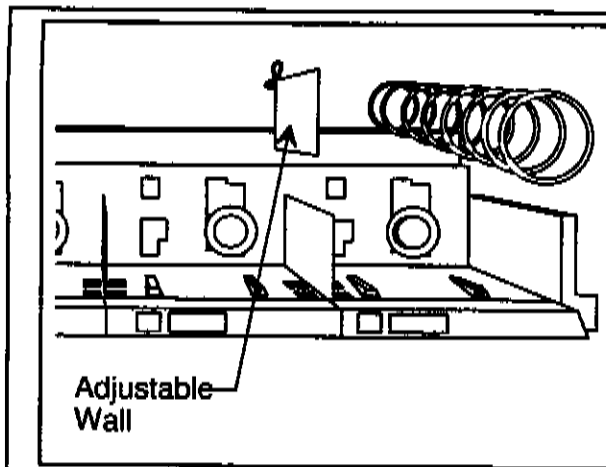
Figure 1-1
Adjustable Wall (5-Selection Shelf)
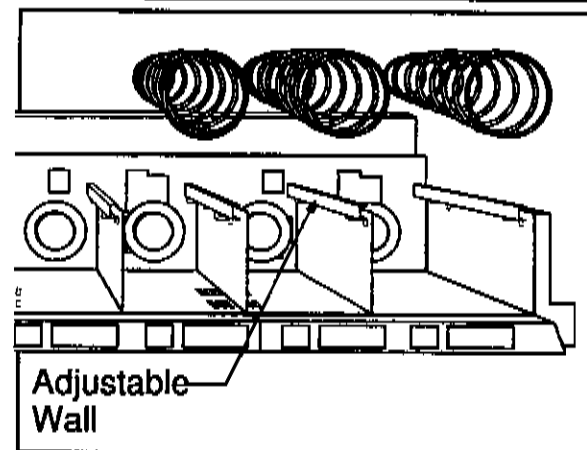
Figure 1-2
Adjustable Wall (10-Selection Shelf)

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 grounded receptacle.

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 (681), four (684) and five (683) 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 *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.

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.

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

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SECTION 2
DESCRIPTION

INTRODUCTION

The Rowe 6800 family of Snack/Candy Vendors includes the large capacity 6800, the medium capacity 6800JR, and the 681 Compact Vendor. All 6800 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.

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 (Refer to page 2-2). Be sure 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 publication for each helix coil is an approximate measurement and will vary according to factors such as how much a product settles, product type, swelling and weight. Standard shelf 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 controller allows the operator to access special functions.

Product Shelves

Universal Shelves

All of the shelves in the 6800 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 may require 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 (683 - 10 Selections, 684 - 8 Selections, 681 - 6 Selections). A candy shelf should be used to vend products up to 2-1/4 inches wide and 2 inches thick.

Pastry Shelf

A pastry shelf has one helix for each pair of motor positions (683 - 5 Selections, 684 - 4 Selections, 681 - 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 (683 - 5 Selections, 684 - 4 Selections, 681 - 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

The 6800 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.
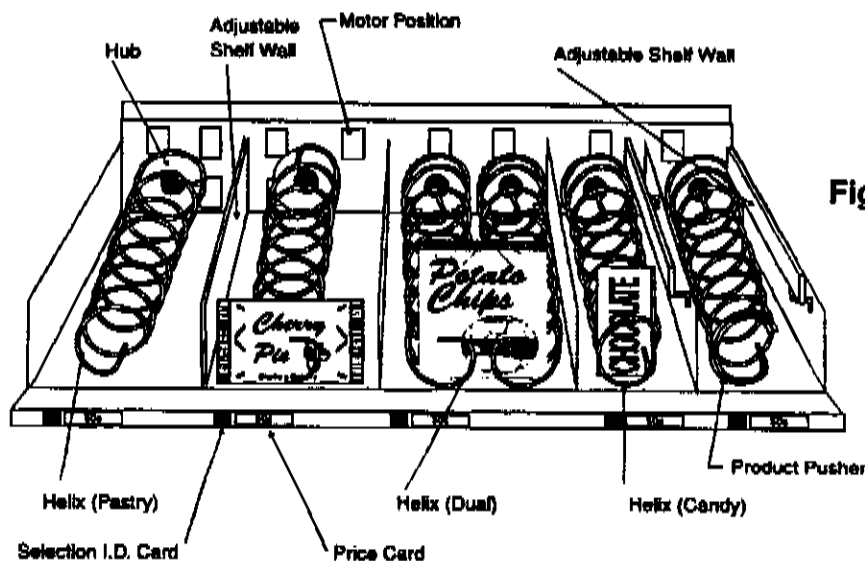
Figure 2-1

Horizontal Gum and Mint Unit

The 6800 Snack/Candy Vendor uses a horizontal gum and mint unit located on its own shelf. The unit slides out 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.

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.

5. Return the Gum and Mint Unit to the vend position.

6. Test vend each selection. Adjust the flippers to prevent double vending.
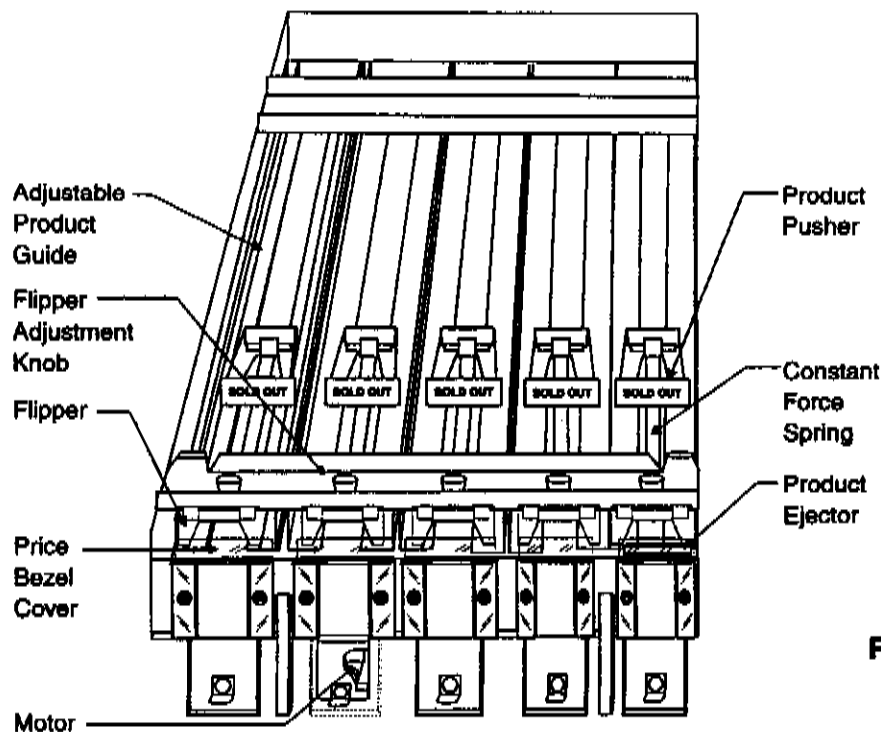
Figure 2-2

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 controller regulates the number of coins accepted and dispensed through the coin mech.

Installing the coin mech

6800 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.

Load Coins Here

Figure 2-3. Coin Mech Loading

Coin Mech Loading

Load each type of coin through the side of the coin mech, directly into the coin tubes, as shown in *Figure 2-3*. Once the coins are loaded, the coin mech tube sensors will detect the presence of coins and send an appropriate message to the snack controller. The snack controller uses the messages from the coin mech to control change payout, and to enable or disable the bill validator (if equipped). No special programming of the controller is required.

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 681 or 684, 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 683, 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

Top Shelf - 5 Selection

11	31	51	71	91

Second Shelf - 5 Selection

12	32	52	72	92

Third Shelf - 10 Selection

03 13 23 33 43 53 63 73 83 93

Fourth Shelf - 5 Selection

14	34	54	74	94

Fifth Shelf - 10 Selection

06 16 26 36 46 56 66 76 86 96

Sixth Shelf - 5 Selection

17	37	57	77	97

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 features. Refer to *Section 3* for detailed programming instructions for the vendor using the service mode.
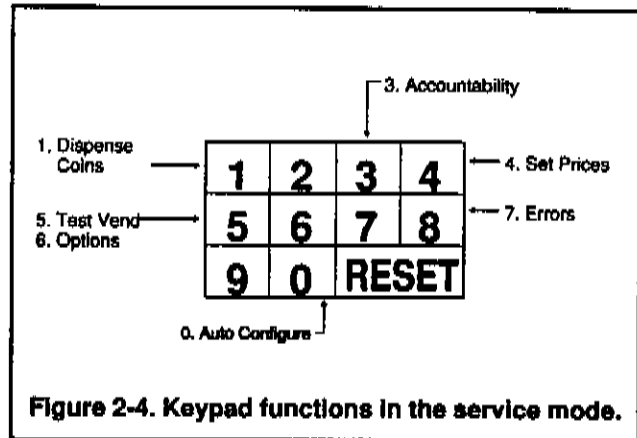
Figure 2-4. Keypad functions in the service mode.

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.
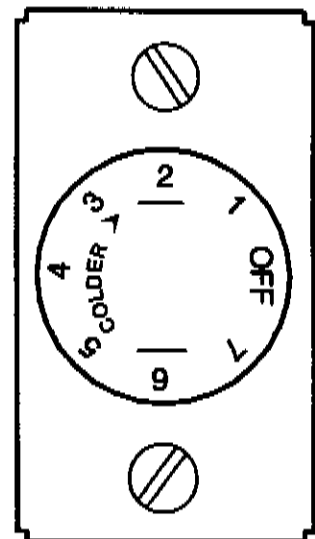
FORCE VEND

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.

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.

SECTION 3
PROGRAM OPERATION

INTRODUCTION

This section contains instructions on how to setup the Rowe Snack Vendor, set prices, get total cash and vend counts.

Service / Setup Mode

The Service / Setup Mode is accessed by pressing the mode switch on the snack controller board. Once in the service / setup mode, the operator will be able to make changes to the controller's programmed operation. The different options in the service / setup mode are located in seven menus. Follow the instructions in this section to program the Rowe Snack Vendor.

Access the Service / Setup Mode

1. Press the <MODE> button on the snack controller. The number of motors present in the machine will appear on the LED display. This is the "root" menu. Pressing the <MODE> button a second time will return the machine to normal operation. If there is no keypad activity for 30 seconds, the machine will return to normal operation. If the route operator "forgets" to return the vendor to normal operation, the controller will do so automatically, after 30 seconds.

2. Press one of the following keys to access the menu of your choice.
   <1> Dispense Coins
   <3> Accountability
   <4> Set Prices
   <5> Test Vend
   <6> Options
   <7> Errors
   <0> Auto Configure

ROWE 6800 Service Mode Flow Chart

```
Operate

[M]  [00.00]

Service

    [40]  Display # of Motors Present

                              KEY
                              [1] → ( Dispense $ 0.05 )
                              [2] → ( Dispense $ 0.10 )
                              [3] → ( Dispense $ 0.25 )
          KEY                 [4] → ( Dispense $ 1.00 )
          [1] → ( Coin Dispensing )  [8] → ( Empty Tubes )
                 [CO,n]       [R]
                              [M]

                              [1] → ( Total Vend Count )
          [3] → ( Accountability )   [2] → ( Total Cash )
                 [RCCE]       [R]
                              [M]

                                                      KEY
          [4] → ( Price Setting )  [C][S] → ( Display Current Price )  [1] → ( Increment Price x Min. Coin )
                 [PR,C]                      [00.00]                   [2] → ( Decrement Price x Min. Coin )
                                    NOTE: 5 & 6 are only              [5] → ( Increment Price by Ten )
                                    available with the               [6] → ( Decrement Price by Ten )
                                    Exec. Mech. Model                 [7] → ( Set Price to Shelf )
                                                                     [9] → ( Set Price to Item
                                                                             Proceed to Next Item )
                                                                     [0] → ( Set Price to Item )
                                                                     [R]
                                                                     [M]
```

Continued on next page

Continued from previous page

5	Test Vend / $tESt$	* C S → Rotate Motor	
		0 0 → Rotate all Present Motors	
		R	
		M	

6	Setup / $OPtn$	1 → Bill Escrow Y/N Toggle	$ESCn$
		2 → Multi-Vend Y/N Toggle	$nuLn$
		3 → Free Vend Y/N Toggle	$FrEn$
		4 → Force Vend Y/N Toggle	$FrCn$
		5 → Bill Acceptor Y/N Toggle	$BiLn$
		R	
		M	

NOTE: 1, 2, 4 and 5 are not available with the Exec. Mech. Model

7	Errors	Scroll Thru List
		$donE$
		$CSoc$
		$CSnr$
		$CSnL$
		R
		M

0	Quick Auto Configure all Motors
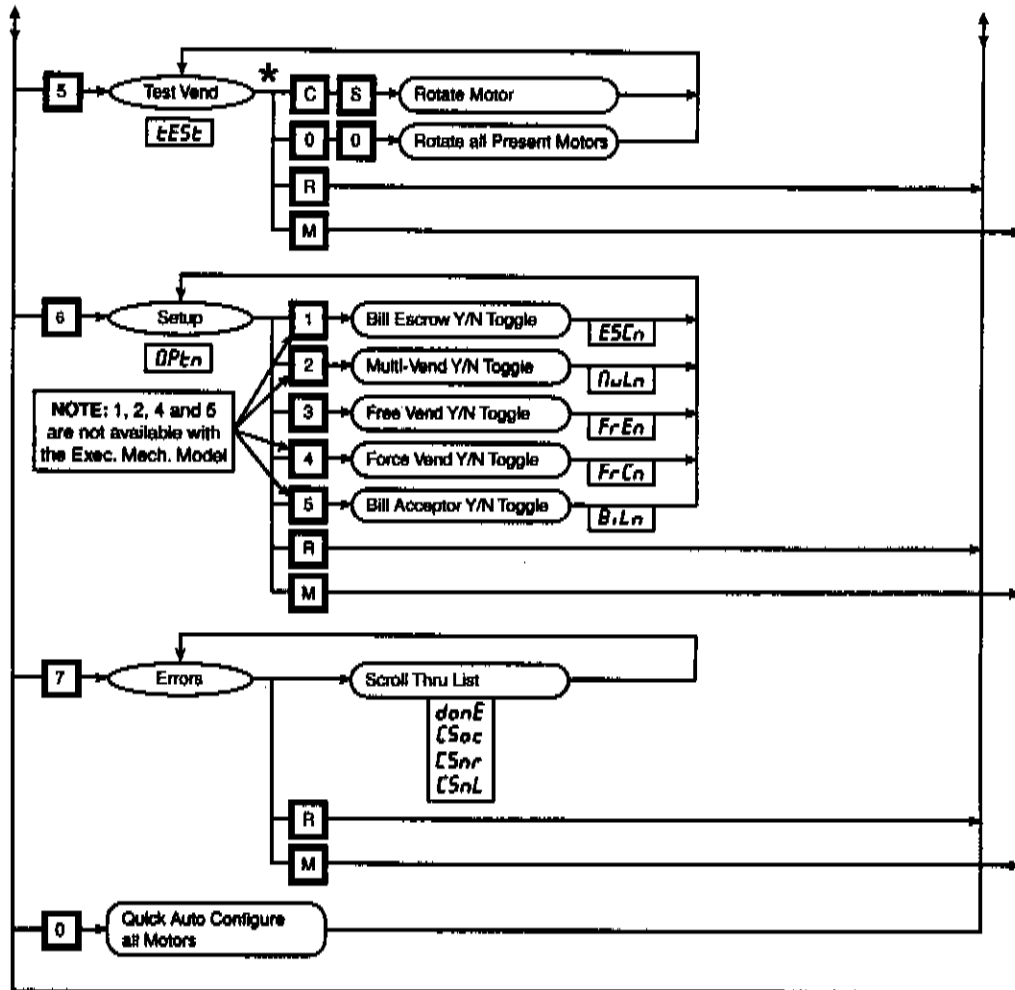
M	MODE
C	COLUMN
R	RESET
S	SHELF

* C S = Product Selection

EXAMPLE: 1 2 = Product Selection; Column 1, Shelf 2

90805054

Key 1 - Coin Dispensing

The purpose of this menu function is to allow the operator to adjust coin levels in each tube, or empty all coins out of all tubes from the coin mech.

INSTRUCTIONS

1. Press the <MODE> button on the snack controller board to enter setup mode, (if you have not done so already). Press <1> on the keypad to enter the coin dispensing mode. The LED display will show $Coin$.

2. Press one of the following keys to dispense the coin of your choice. Pressing the same key multiple times will dispense additional coins.
   <1> Dispense Quarter(s).
   <2> Dispense Nickel(s).
   <3> Dispense Dime(s).

   <4> Dispense Dollar Coin(s).
   <8> Empty All Coin Tubes.
   <Reset> Return to root menu.

Note:
The above listed coins apply to USA and Canadian vendors only, other countries coin denominations will vary according the type and value of coins used. These functions apply only to "dumb" type coin mechs.

Warning:
Pressing key <8> will empty the coin mech of all coins in the tubes. The only way to "abort" this function is to turn off the power to the vendor.

Key 3 - Accountability

The purpose of this menu function is to allow the operator to obtain the total number of vends and the total amount of cash taken in by the vendor from sales.

INSTRUCTIONS

1. Press the <MODE> button on the snack controller board to enter the service setup mode, (if you have not done so already). Press <3> on the keypad to enter the Accountability mode. The LED display will show $Acct$.

2. Press one of the following keys to access the data of your choice.
   <1> Total Vend Count
   <2> Total Cash
   <Reset> Return to root menu.

The Total Vend Count is displayed in a two screen sequence. For example if the total is 532 vends, the first screen will display "0000" followed by the second screen. The second screen will display "0532". The two screens placed end to end would be the equivalent of "00000532". While the first screen is displayed the *"Select Other Item"* LED

will be lit. While the second screen is displayed the *"Use Correct Change"* LED will be momentarily lit. The second screen will remain displayed until the reset key or the mode key is pressed.

The Total Cash is displayed in a three screen sequence. For example if the total cash is $3,158.50, the first screen will display "0000" followed by the second screen. The second screen will display "0031", followed by the third screen. The third would then display "58.50". The three screens placed end to end would be the equivalent of "0000003158.50". The first screen is displayed alone, without any other LED's being lit. The *"Select Other Item"* LED will be lit while the second screen is displayed, and the *"Use Correct Change"* LED will be momentarily lit during the display of the third screen. The third screen will remain displayed until the reset key or the mode key is pressed.

Note:
The total vend count and the total cash are running totals, which are not resettable.

Key 4 - Setting Prices

The purpose of this menu function is to allow the operator to set the sale price of each selection in the vendor.

INSTRUCTIONS

1. Press the <MODE> button on the snack controller board to enter the service setup mode, (if you have not done so already). Press <4> on the keypad to enter the price setting mode. The LED display will show $Pric$.

2. Enter the selection number of the item of you wish to set the price. The current price of the selection entered will appear on the LED display.

3. Press one of the following keys to adjust the price as required.
   <1> Increment the current price by the minimum coin value. In the case of the USA and Canada, this is $.05.
   <2> Decrement the current price by the minimum coin value.
   <5> Increment the price by ten. (Exec type coin mechs only)
   <6> Decrement the price by ten. (Exec type coin mechs only)

4. Press one of the following keys to "lock in" the new price.
   <0> Set this price for selected item, exit to $Pric$
   <9> Set this price for selected item, display next valid selection.
   <7> Set this price for every selection on the same shelf.
   <8> Set this price for every selection in the entire machine.
   <Reset> Aborts current operation, returns to root menu.

Note:
When using Key <9>, please be aware the price displayed for the next valid selection, is the price entered previously. It is not the current price of that selection.

Key 5 - Test Vend

The purpose of this menu selection is to allow the operator a quick method to test the operation of one or all the motors.

INSTRUCTIONS

1. Press the <MODE> button on the snack controller board to enter the service setup mode, (if you have not done so already). Press <5> on the keypad to enter the price setting mode. The LED display will show $tESt$.

2. Press one of the following key combinations.
   <C><S> - Where CS is the column and shelf number (selection number) of the motor to be tested.
   <0><0> - This will test all of the selection motors in the vendor.
   <Reset> - Return to the root menu.

Key 6 - Vendor Setup (Options)

The purpose of this menu selection is to allow the operator to configure certain operations of the machine.

INSTRUCTIONS

1. Press the <MODE> button on the snack controller board to enter the service setup mode, (if you have not done so already). Press <6> on the keypad to enter the vendor setup mode. The LED display will show $OPEn$.

2. Press one of the following keys to access the option of your choice.
   <1> - Bill Escrow Y/N - The LED display will show $ESCn$ or $ESCY$ depending on whether or not this option is enabled or disabled. Pressing the <1> key again will toggle between Y or N.
   <2> - Multi-Vend Y/N - The LED display will show $NULn$ or $NULY$ depending on whether or not this option is enabled or disabled. Pressing the <2> key again will toggle between Y or N.

   <3> - Free Vend Y/N - The LED display will show $FrEn$ or $FrEY$ depending on whether or not this option is enabled or disabled. Pressing the <3> key again will toggle between Y or N.
   <4> - Force Vend Y/N - The LED display will show $FrCn$ or $FrCY$ depending on whether or not this option is enabled or disabled. Pressing the <4> key again will toggle between Y or N.
   <5> - Bill Acceptor Y/N - The LED display will show $biLn$ or $biLY$ depending on whether or not this option is enabled or disabled. Pressing the <5> key again will toggle between Y or N.

Note:
Options 1, 2, 4 & 5 are not available when an Exec type coin mech is installed.

Key 7 - Error List

The purpose of this menu selection is to allow the operator access to error codes recorded by the snack controller.

INSTRUCTIONS

1. Press the <MODE> button on the snack controller board to enter the service setup mode, (if you have not done so already). Press <7> on the keypad to enter the list errors mode. The LED display will show $donE$, if there are no errors.

2. If errors are present, they will be read out in sequence. Once an error is cleared, it will no longer be displayed.

3. Errors are read out directly in the following format. CSoc, CSnr, CSnL; where C is the column number, S is the shelf number, and the last two characters are the error. For example if the error code is shown as $31nL$, this means selection 31 never left [home]. If the error code is shown as $31nr$, this means selection 31 never returned [home]. If the display shows $31oc$, this means that an over current condition was detected by the computer. An over current is generally caused by a product jam, such as loading a "thick" product into a thin (high count) helix.

Key 0 - Quick Configure Motors

The purpose of this menu selection is to allow the operator to quickly configure the shelf motors present in the machine.

INSTRUCTIONS

1. Press Key 0 to configure present shelf motors automatically.

2. This should be done on any new installation and after re-configuring a shelf, adding or removing motors.

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SECTION 4
TROUBLESHOOTING

INTRODUCTION

This section contains Troubleshooting Charts, a schematic diagram of the vendor, and a schematic diagram of the electronic controller. The troubleshooting chart lists common errors and possible solutions.

Errors

Any errors logged into the controller memory, may be accessed by pressing the <mode> key followed by the <7> key. Errors will be displayed as described in Section 3. If there are no errors the word d o n E will be displayed.

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.

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.

Voltage and Polarity Check

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

```
A.C. HOT ───────          SET METER RANGE
                          > 150 V.A.C.
A.C. NEUT ──┐  ■  ■ B
            │            A+B = 117 VAC (± 10%)
EARTH ──────┘  ◣ C       A+C = Less than 1 VAC
GROUND                    B+C = 117 VAC (± 10%)
```
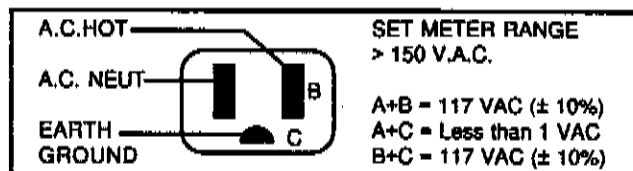
Check List

☑ 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 press the <mode> switch on the Controller Board. Press Key 7 to display the 1st error. Press Key 7 again for the next error. Continue to press the $d o n E$ until "donE" is displayed.

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 3-5.

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 K $d o n E$ ll faults are cleared the display will show "donE".

Compressor Circuit

The Compressor circuit in the 595 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.

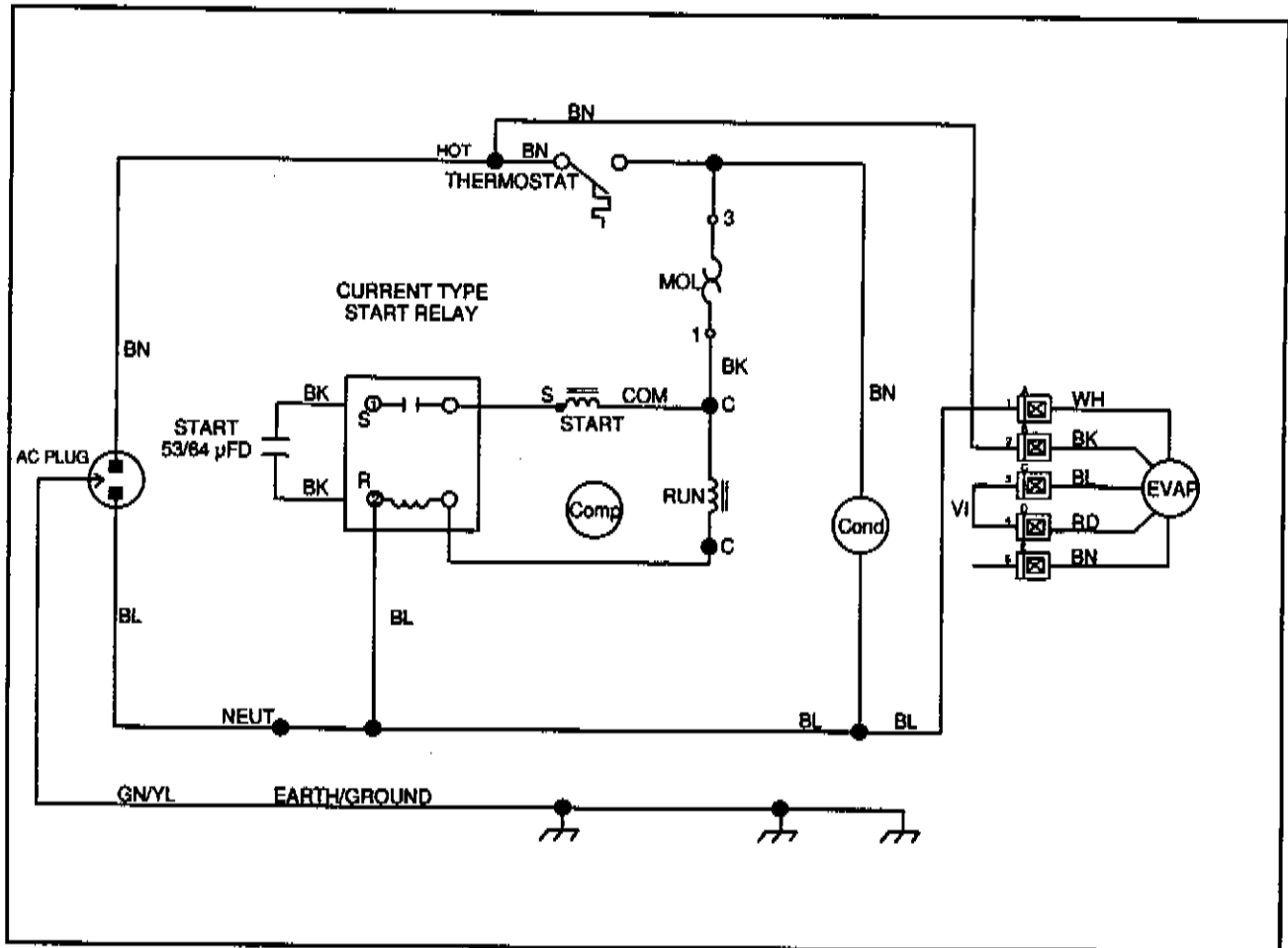# Refrigeration System Wiring Diagram

Figure 4-1. Refrigeration System Wiring Diagram

CAUTION !

Protective eye wear must be worn when testing refrigeration systems. This system is charged with 7.5 oz. of R-134a refrigerant. Repairs should be performed by technicians trained and experienced in refrigeration troubleshooting and safety procedures.

Troubleshooting Chart 4-1
Error Messages (Problem/Solution)

PROBLEM	PROBABLE CAUSE	SOLUTION
Fluorescent lamp is not lit AND LED display is not lit	No AC Power to machine	Check circuit breaker at transformer panel
LED on display not lit	No power to controller board	Check for 24VAC at controller, J7 @ pins 1 & 3. If power is present, replace controller.
LED display shows "--"	Controller lost communication with coin mech.	Check coin mech harness for loose connections. Replace coin mech harness. Replace coin mech.
	No logic power to coin mech.	Check for 5VDC at connector J4 @ pins 8 & 11. If not present, replace controller.
Does not accept coins.	Coin mech is not reset or not receiving coin acceptance signal	Check that accept/enable is low at connector J4 @ pins 2 & 11.
	No logic power to coin mech.	Check for 5VDC at connector J4 @ pins 8 & 11. If not present, replace controller.
	No solenoid power to coin mech.	Check for 24VPDC at connector J4 @ pins 12 & 13.
	Machine not level.	Level vendor.
	Defective coin mech harness.	Replace harness.
	Defective coin mech.	Replace coin mech.
Does not register credit	Coin mech harness	Check for continuity between pin 10 of J4 at the controller and pin 5 of the coin mech socket.
	Defective coin mech.	Replace coin mech.
	Credit pulse not received from bill validator.	Check for continuity between: Controller J6, pin 2 and UBA pin 5.
	Defective bill validator.	Replace validator.
	Defective controller board.	Replace controller.

Troubleshooting Chart 4-1
Error Messages (Problem/Solution) Con't

PROBLEM	PROBABLE CAUSE	SOLUTION
Does not give change	No change in coin mech.	Add change.
	No 24 VPDC to coin mech.	Check for 24 VPDC at connector J4 @ pins 12 & 13.
	Open dispense line(s) to coin mech (micromech versions only)	Check for continuity between: Controller J4 and CM Socket .10 pin 4 pin 8 .25 pin 5 pin 7 .05 pin 6 pin 9 1.00 pin 7 pin 14
	Defective coin mech	Replace coin mech
Incorrect change dispensed	Vend price not set to match price label	Re-price selection or change price label
	Defective coin mech	Replace coin mech
	Open dispense line(s) to coin mech (micromech versions only)	Check for continuity between: Controller J4 and CM Socket .10 pin 4 pin 8 .25 pin 5 pin 7 .05 pin 6 pin 9 1.00 pin 7 pin 14
Two selection motors run simultaneously	Defective components on controller board	Replace controller board.
	Pinched or shorted wire in shelf harness	Locate and repair short.
Shelf motor continuously runs	Defective home switch on motor	Replace motor.
	Defective components on controller board	Replace controller board.
Gum & Mint unit jamming or double vending	Flap guides out of adjustment.	Adjust flap guides.

Troubleshooting Chart 4-2
ROWE Bill Acceptor (Optional)

PROBLEM	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
	BA STATUS LED flashes eight times after rejecting Bill.	UBA was commanded to return the bill held in escrow.
Transport motor does not start when a bill is inserted.	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.
	BA STATUS LED is blinking.	Defective Main Controller. UBA is not operational due to a "Fault" condition (See "UBA in shutdown").
Bills jam frequently.	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 4-2
ROWE Bill Acceptor (Optional) Cont'd

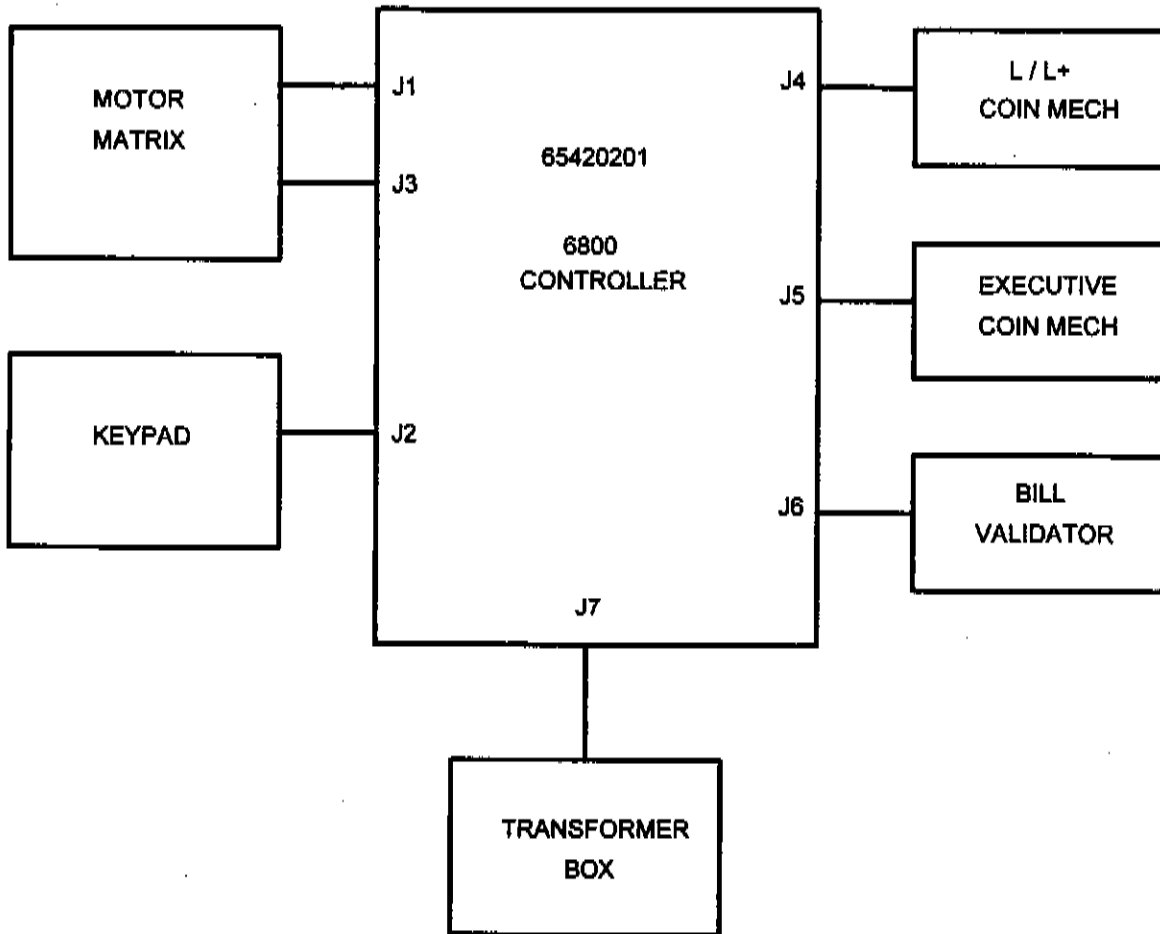| PROBLEM	PROBABLE CAUSE	SOLUTION
UBA in SHUTDOWN In this state, the BA Status LED will flash ON for 1 second and then flash one or more times. The number of flashes indicates the cause of the shutdown.	BA STATUS LED flashes once.	Object in Transport covering V1 cell. Defective UBA Unit.
	BA STATUS LED 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

```
┌──────────────┐         ┌──────────────────────┐         ┌──────────────┐
│              │    J1   │                      │   J4    │    L / L+    │
│    MOTOR     │─────────│                      │─────────│  COIN MECH   │
│    MATRIX    │         │       65420201       │         │              │
│              │    J3   │                      │         └──────────────┘
│              │─────────│                      │
└──────────────┘         │        6800          │   J5    ┌──────────────┐
                         │     CONTROLLER       │─────────│  EXECUTIVE   │
                         │                      │         │  COIN MECH   │
┌──────────────┐         │                      │         └──────────────┘
│              │    J2   │                      │
│    KEYPAD    │─────────│                      │   J6    ┌──────────────┐
│              │         │                      │─────────│     BILL     │
│              │         │                      │         │  VALIDATOR   │
└──────────────┘         │          J7          │         └──────────────┘
                         └──────────┬───────────┘
                                    │
                            ┌───────┴──────┐
                            │ TRANSFORMER  │
                            │     BOX      │
                            └──────────────┘
```

Figure 4-2. Block Diagram

15 Pin Coin Mech Socket

Coin Mechanisms -24V Only

24V Models - 15 Pin ONLY
MARS TRC-6010-XV
COINCO   9302LF
MAKA   USPX

```
  ┌───────────────────────────┐
  │                           │
  │   1      2      3         │   1.  +5 VDC - SLATE
  │  ┌─┐    ┌─┐    ┌─┐        │   2.  5V RTN - WH / RD
  │  │ │    │ │    │ │        │   3.  Send - BROWN
  │  └─┘    └─┘    └─┘        │   4.  Int - WHITE
  │   4      5      6         │   5.  Data - WH / BR
  │  ┌─┐    ┌─┐    ┌─┐        │   6.  Accept Enable - RED
  │  │ │    │ │    │ │        │   7.  Disp Quarters - GREEN
  │  └─┘    └─┘    └─┘        │   8.  Disp. Dimes - YELLOW
  │   7             9         │   9.  Disp. Nickels - BLUE
  │  ┌─┐    8      ┌─┐        │  10. Not Connected
  │  │ │  ┌───┐    │ │        │  11. Reset - ORANGE
  │  └─┘  └───┘    └─┘        │  12. Not Connected
  │  10            12         │  13. -24 V PDC - WH / BL
  │  ┌─┐   11      ┌─┐        │  14. Disp $1 - VIOLET
  │  │ │  ┌───┐    │ │        │  15. +24 V PDC - WH / YL
  │  └─┘  └───┘    └─┘        │
  │  13            15         │
  │  ┌─┐   14      ┌─┐        │
  │  │ │  ┌───┐    │ │        │
  │  └─┘  └───┘    └─┘        │
  └───────────────────────────┘
```

CAUTION!
Do NOT use a 24 volt coin mech
with the 12 pin plug. It will NOT
operate in this Snack Vendor.
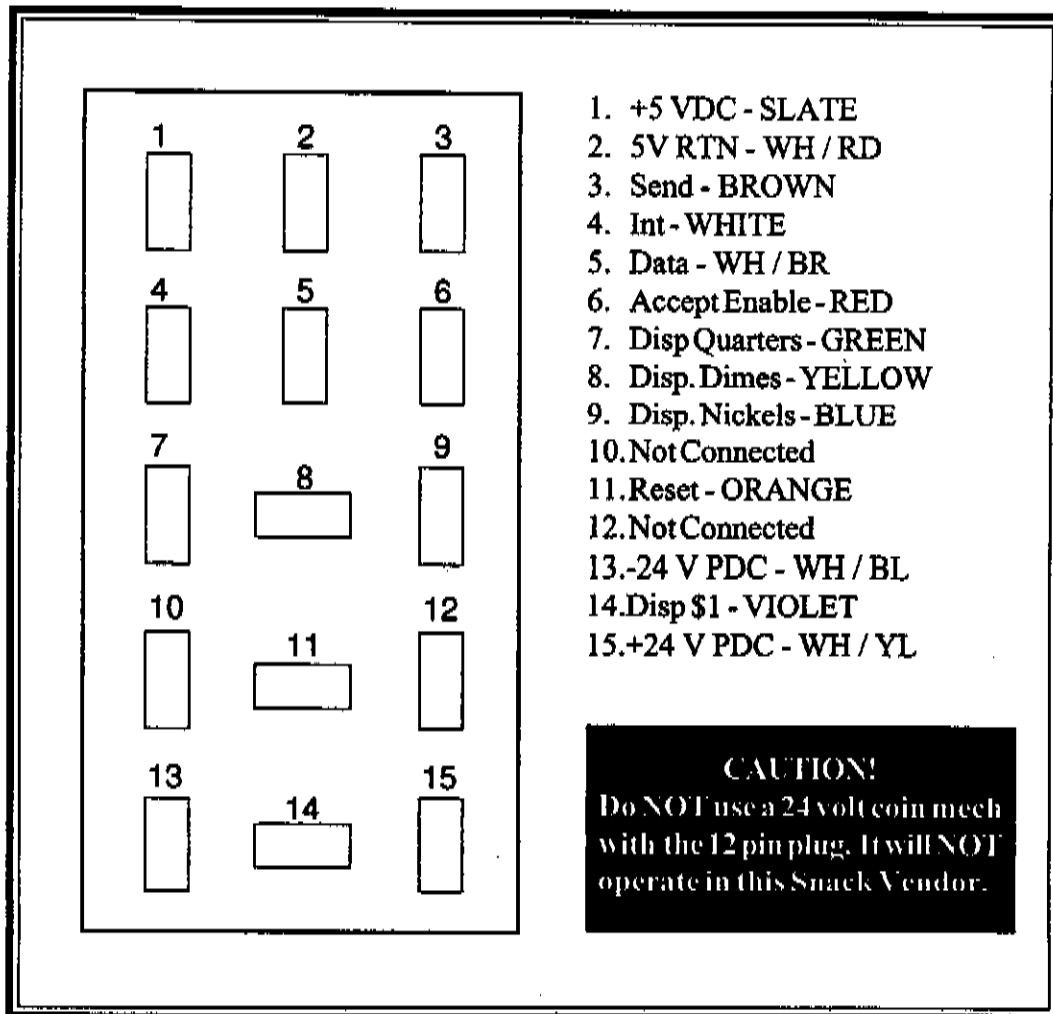
Figure 4-3. Coin Mech Socket
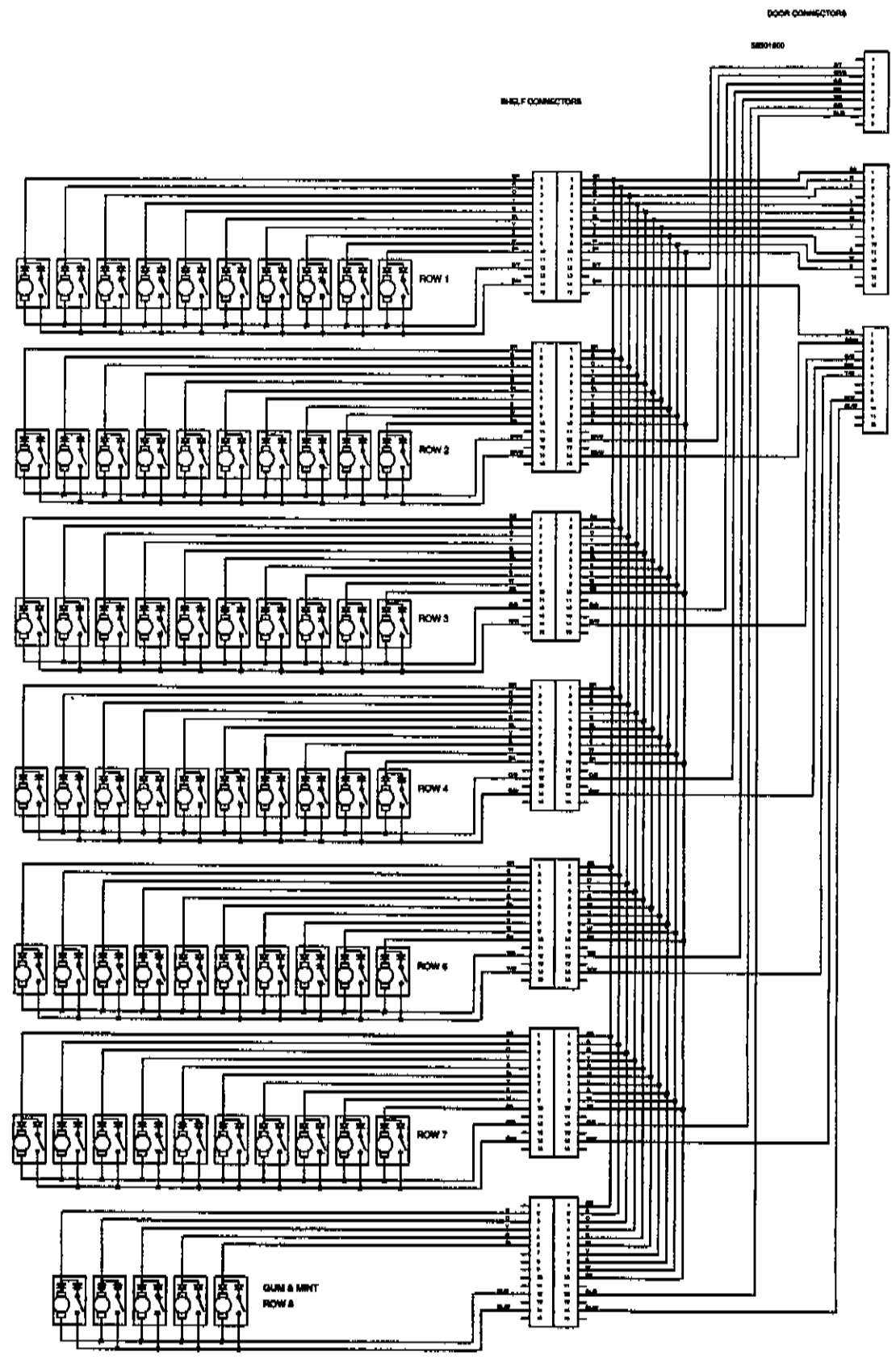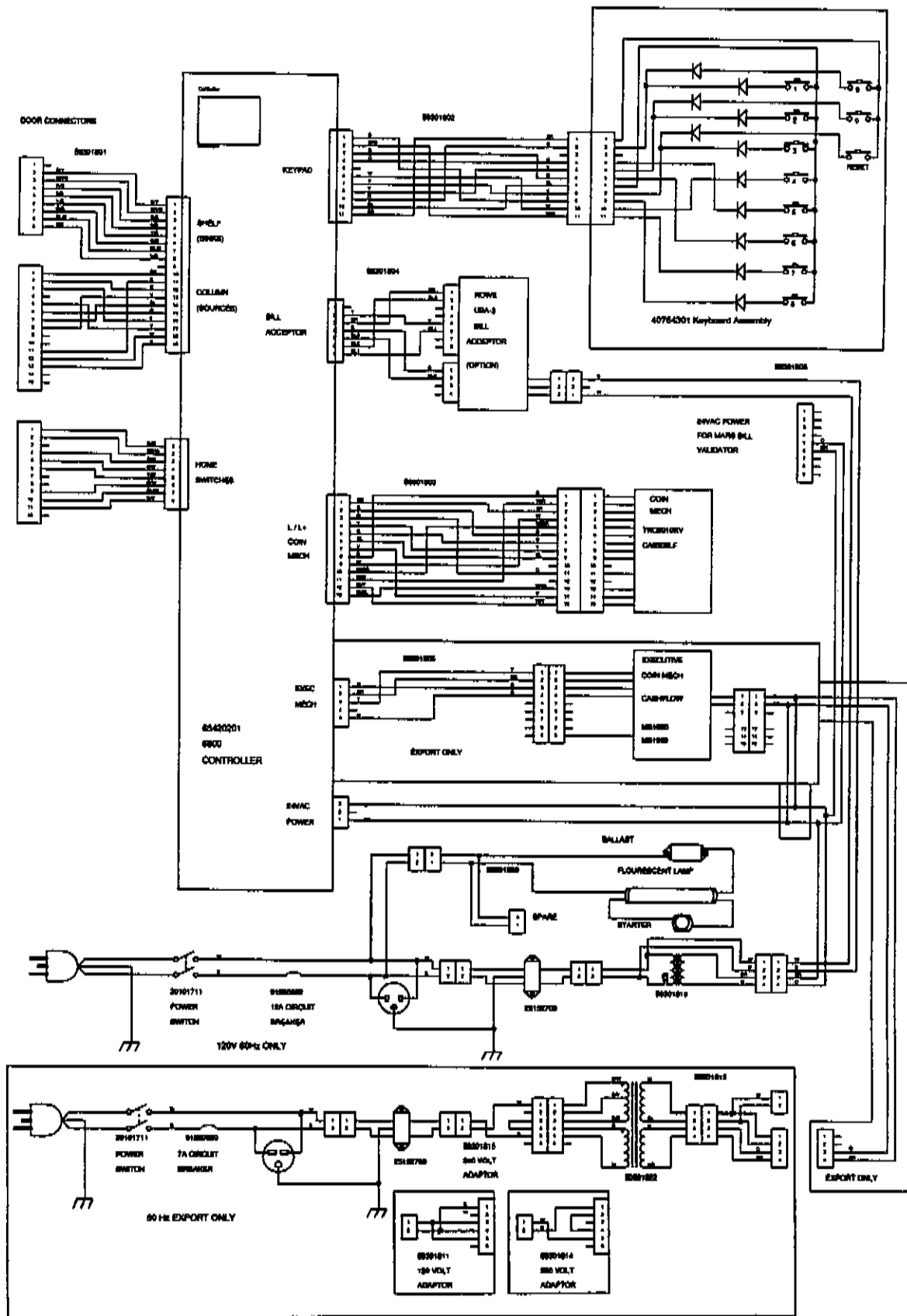
Figure 4-4. 6800 System Schematic
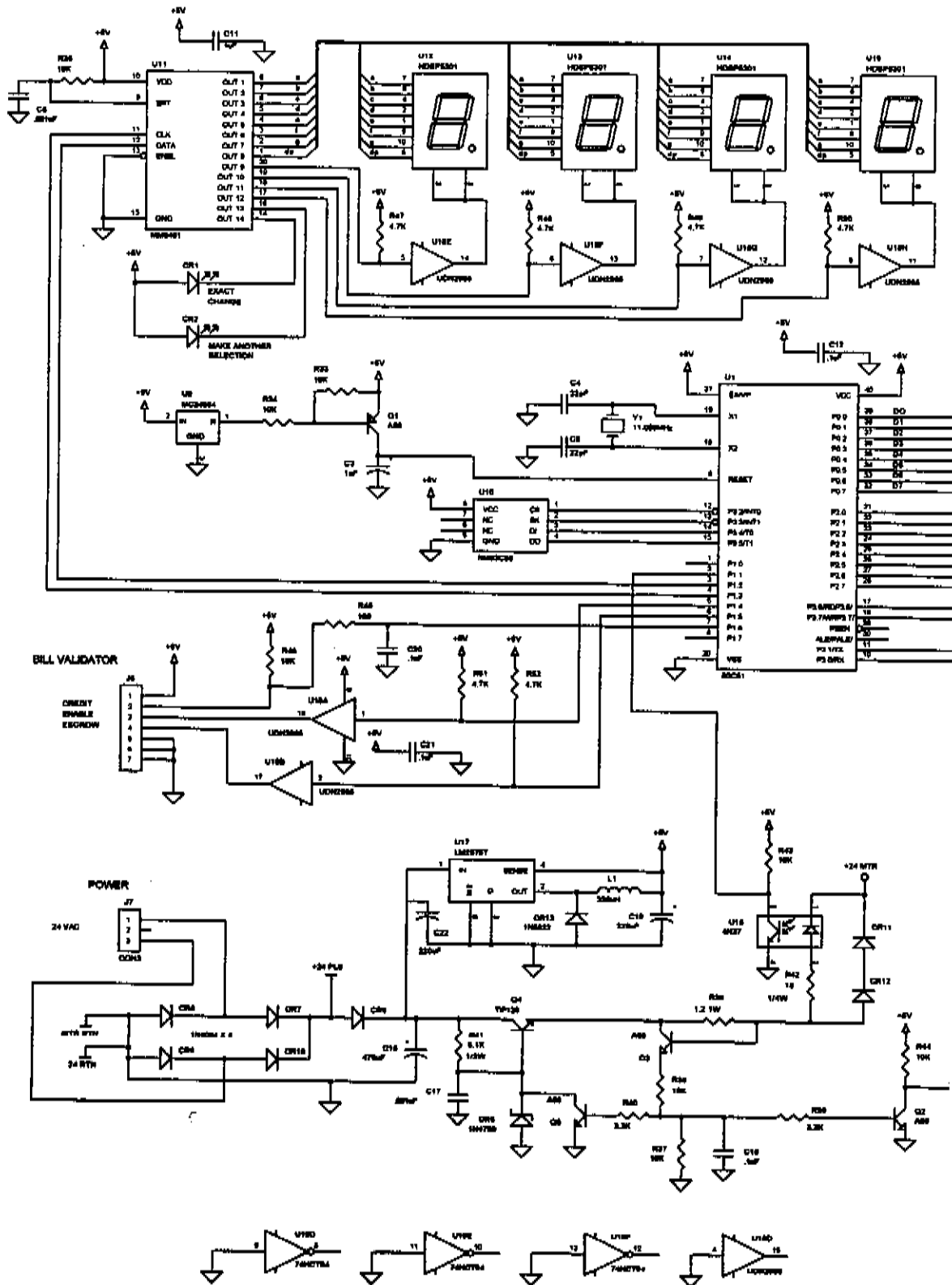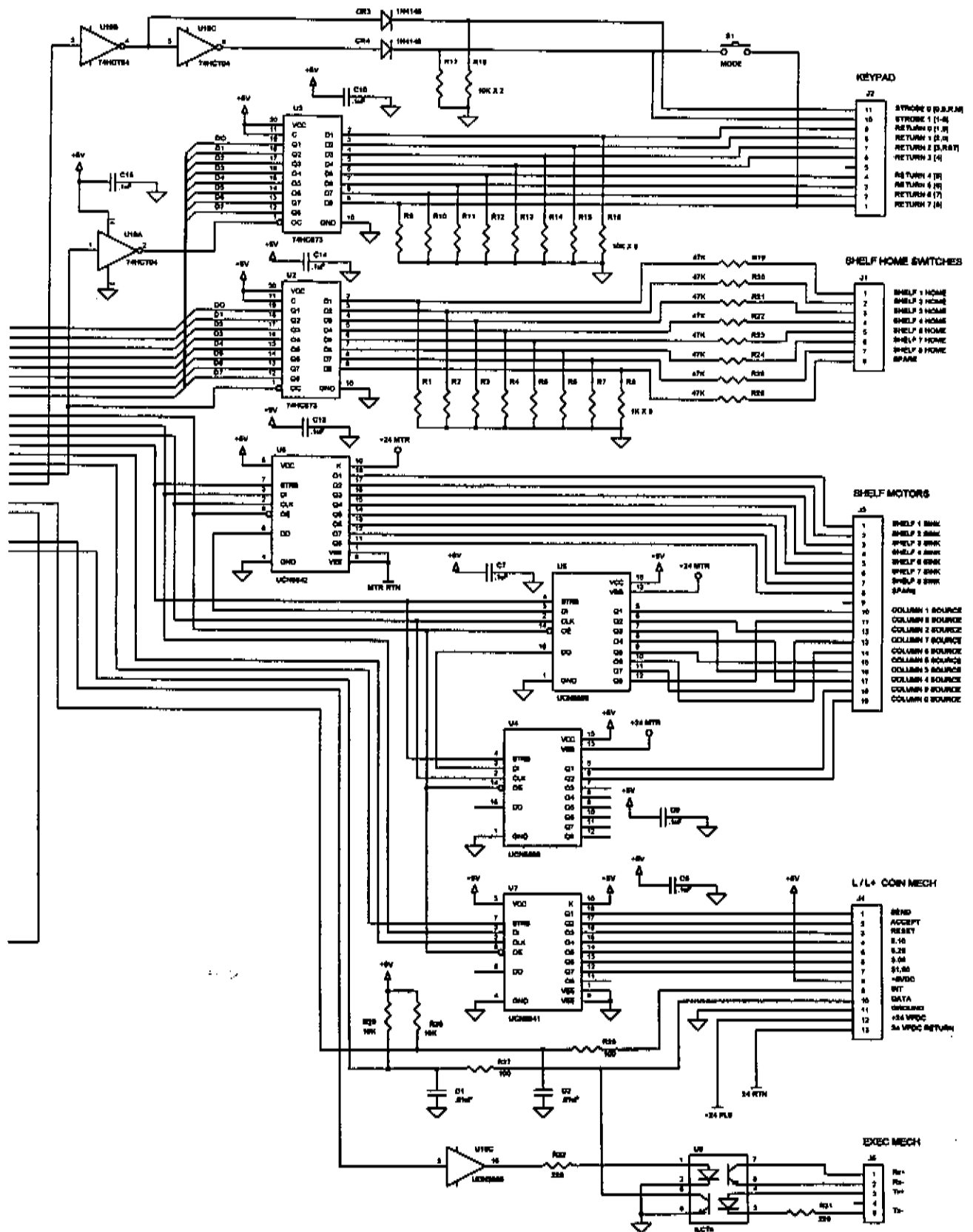
Figure 4-5. 6800 Controller Schematic

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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.

COMPONENT 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 (See Figure 5-4). Lower shelves will not hang vertically.

4. Grasp the sides of the shelf and lift up and out.
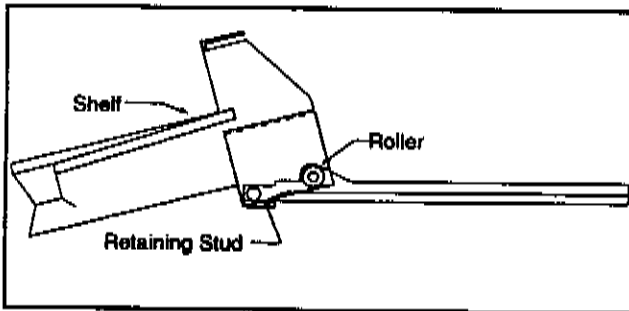
Fig. 5-1
Normal Service Position
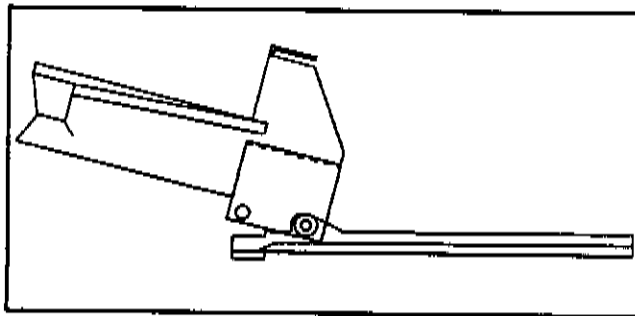
Fig. 5-2
Shelf Removal Primary Position
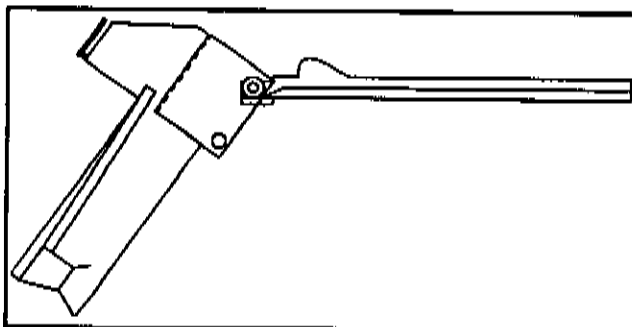
Fig. 5-3
Shelf Removal Final Position

Gum and Mint Unit Removal

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

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.

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 Bill Validator (if equipped).

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.

900-58301

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.

Drive Motor

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

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

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° counterclockwise.
   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.

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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

6800S Part No.	6800JR Part No.	6800C Part No.	DESCRIPTION	FUNCTION
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

6800S Part No.	6800JR Part No.	6800C Part No.	DESCRIPTION	FUNCTION
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.)

Fig. 1 6800 Snack / Candy

Main Door Trim and Panels

PUSH

Fig. 1
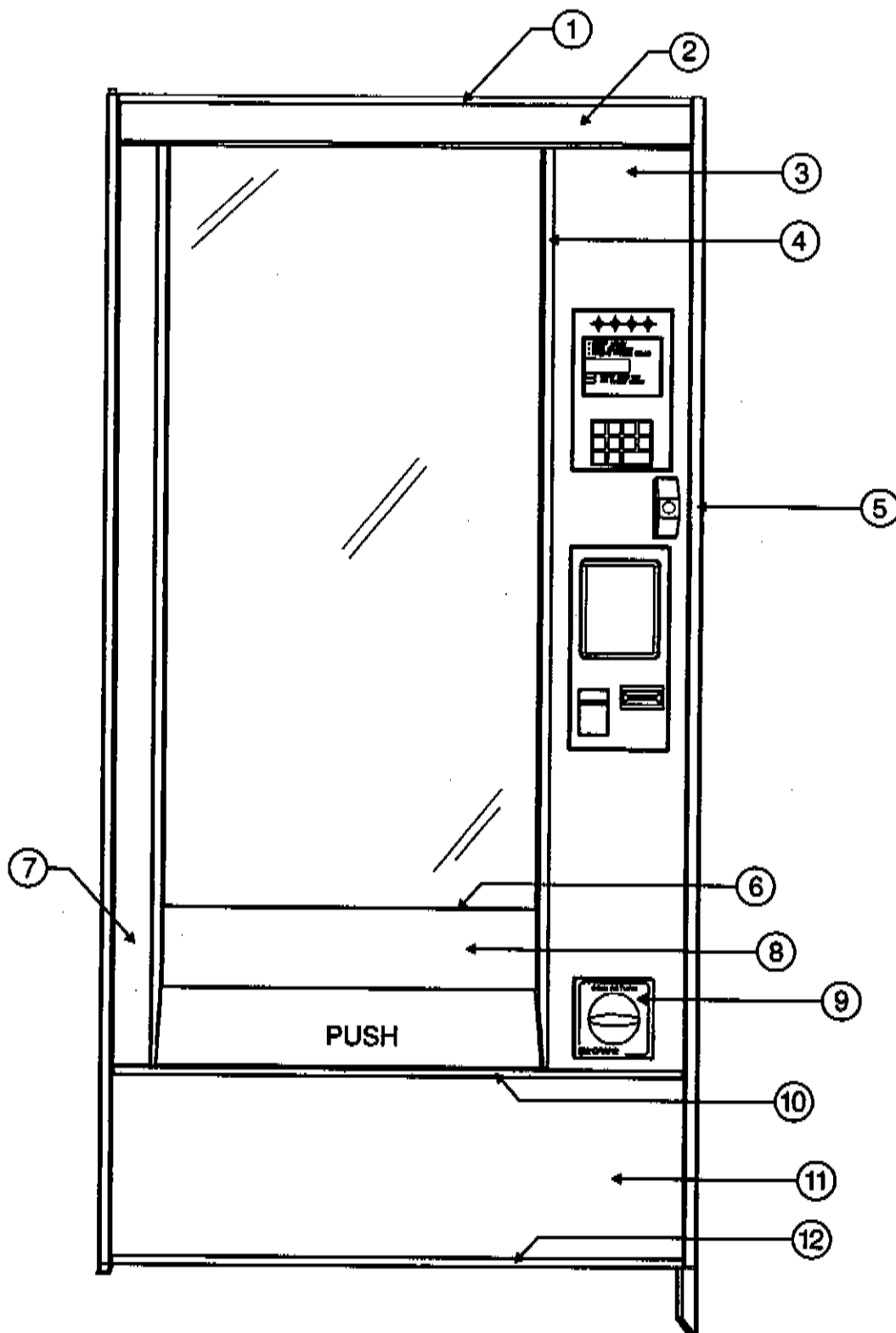
Main Door Trim and Panels

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	98500023-009	98500024-009	59101407-009
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
- 001 Roweswood	- 015 Stainless Steel Mylar	- 002 Presidential Walnut
- 002 Presidential Walnut	- 029 Teak	- 007 Shadow Silver
- 003 Regency Walnut	- 032 Terra Cotta	- 011 Brushed Bronze
- 009 Black	- 069 Chamois	- 012 Port-Au-Prince
- 010 Golden Leather		- 013 Stainless Steel Mylar
		- 029 Teak
		- 079 Charcoal Brown

Fig. 2   6800 Snack / Candy

Main Door Exterior

Fig. 2
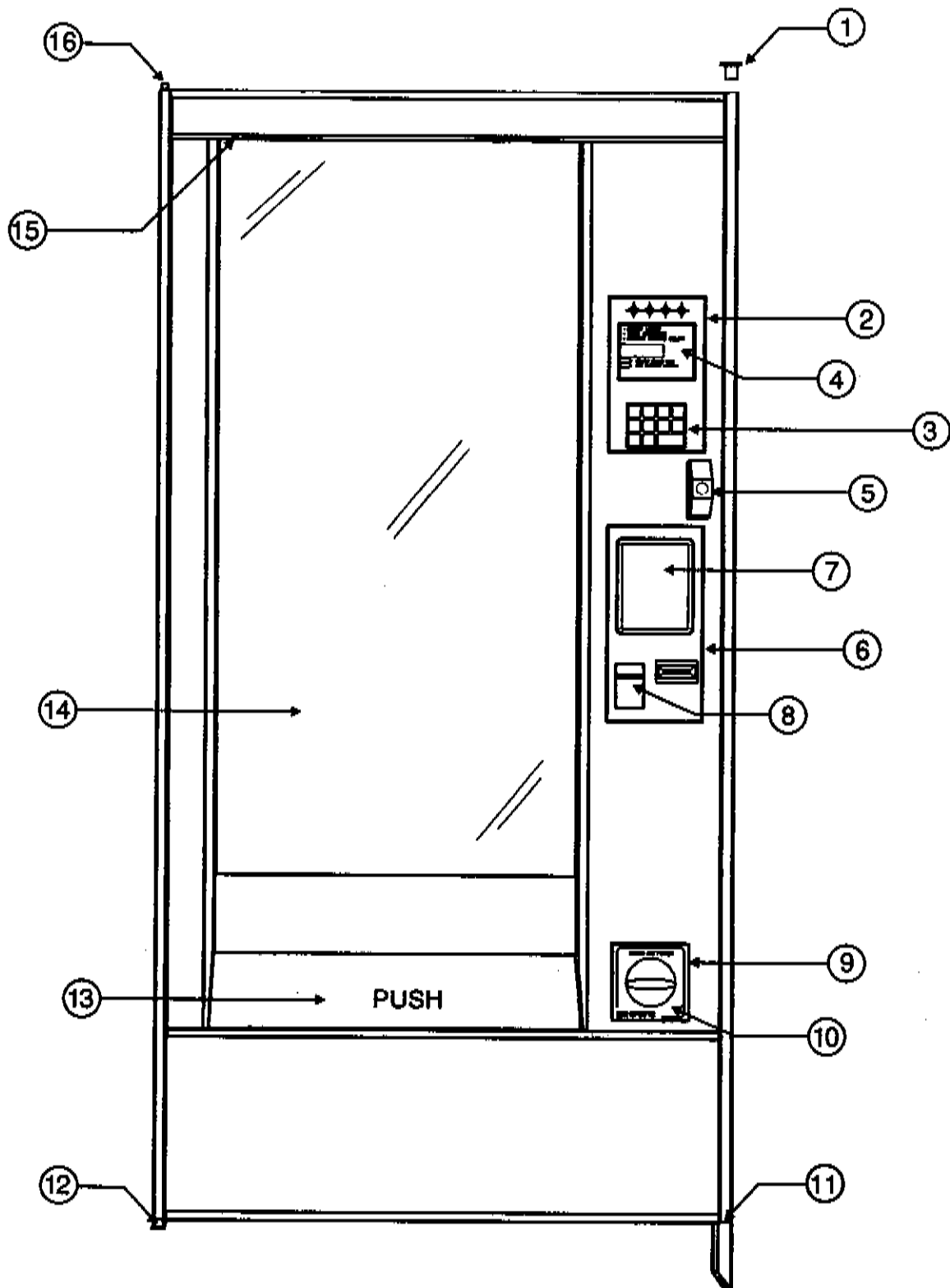
Main Door Exterior

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	58300416	"	"	Overlay Instruction/Readout	1
	58300430	"	"	Overlay Instruction/Readout - Spanish	1
	58300449	"	"	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	"	"	Pivot Plate R/A - Bottom	1
13	58301407	58401402	58101402	Delivery Box Assembly	1
14	49300408	49400428	59100414	Glass - Display	1
15	49300410	Same	Same	Filler Plate & Glass Retainer - Not Shown	1
16	44801309	"	"	Pivot Plate - Top	1

Glass Sizes:
49300408   26 $5/8$ x 42 $3/8$ x $1/8$ Thick Tempered Tuff
49400428   21 $1/4$ x 42 $3/8$ x $1/8$ Thick Tempered Tuff
59100414   15 $7/8$ x 42 $3/8$ x $1/8$ Thick Tempered Tuff

Fig. 3 6800 Snack / Candy

Main Door Interior

Delivery Box Assembly
See Figure 4

Main Door Interior

Fig. 3

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	58301806	"	"	Harness - CBA/UBA Power	1
7	44800739	"	"	Ramp - Door	1
	93400380	"	"	Screw #8 X 3/8 S/T (Stove)	2
8	58301801	"	"	Harness - Main Door	1
9	58301414	"	"	Cup Assembly - Coin Return	1
	49000409	"	"	Flap Coin Return Cup	1
	49000424	"	"	Bracket Door Alignment Bar - Mtg	1
	92400176	"	"	Nut - 3/16 Stud Type	16
10	25245125	"	"	Transport Assembly UBA-2	OPT.
11	49400419	"	"	Cam - Door Lock	1
	92400181	"	"	Nut 1/2-20	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	65420201	"	"	CBA - Snack Controller	1
17	58300303	"	"	Cover - Controller	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	"	"	Leg - Door	1
	93400428	"	"	Screw #8 X 3/8 S/T Truss	3
25	90805054	"	"	Label - Flow Chart 6800	1
	90805055	"	"	Label - Flow Chart 6800 (Spanish)	1
	90805056	"	"	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	55101515	"	"	Coin Box Assembly	1
30	55101517	"	"	Mounting Coin Box	1
31	58300446	"	"	Bracket - 6800 PCB Mtg - Std	1

Fig. 4 | 6800 Snack / Candy

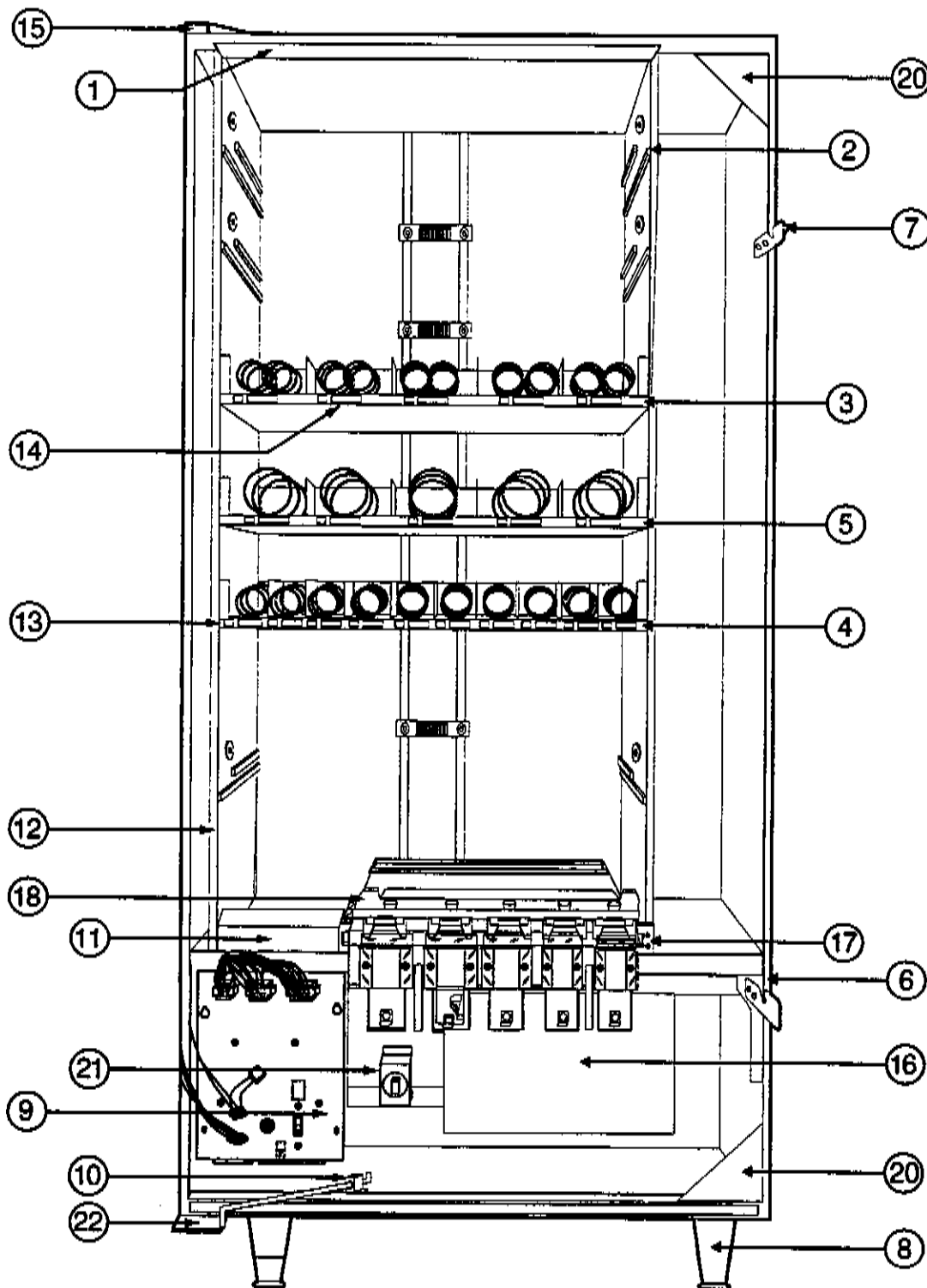# Delivery Box Assembly
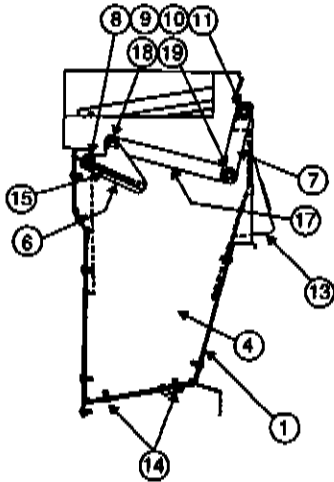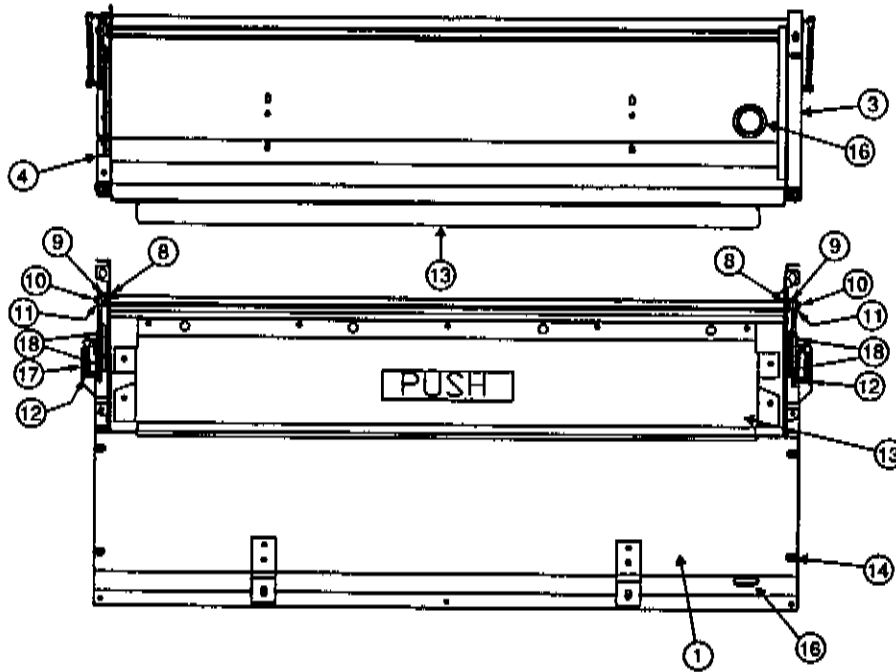
Left Side

Right Side

Fig. 4
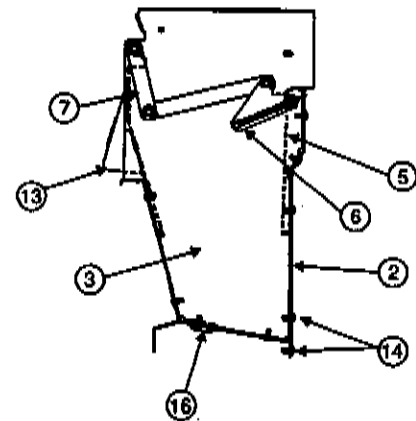
Delivery Box Assembly

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

**Fig. 5** 6800 Snack / Candy

Cabinet Assembly Components

Fig. 5

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	58400459	58100439	Baffle	1
	93400174	93400174	93400174	Screw	2
12	59300913	59300913	59300913	Panel W/A - Shelf Mounting Lh Side	1
	59500913	59500913	59500913	Panel W/A - Shelf Mounting Rh Side (W/Refridge)	1
13	59301908	59301908	59301908	Selection Indicator Assortment	1
14	59301913	59301913	59301913	Selection Price Card Assortment	1
15	44801309	44801309	44801309	Top Pivot Plate Assembly	1
16	59501205	59501205	N/A	Refrigeration Unit (Domestic) See Page 3-32	OPT.
	59521505	59521505	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
	59300746	59400746	59100710	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	44801306	44801306	Pivot Bracket W/A	1

Fig. 6   6800 Snack / Candy

Power Panel Components

Fig. 6
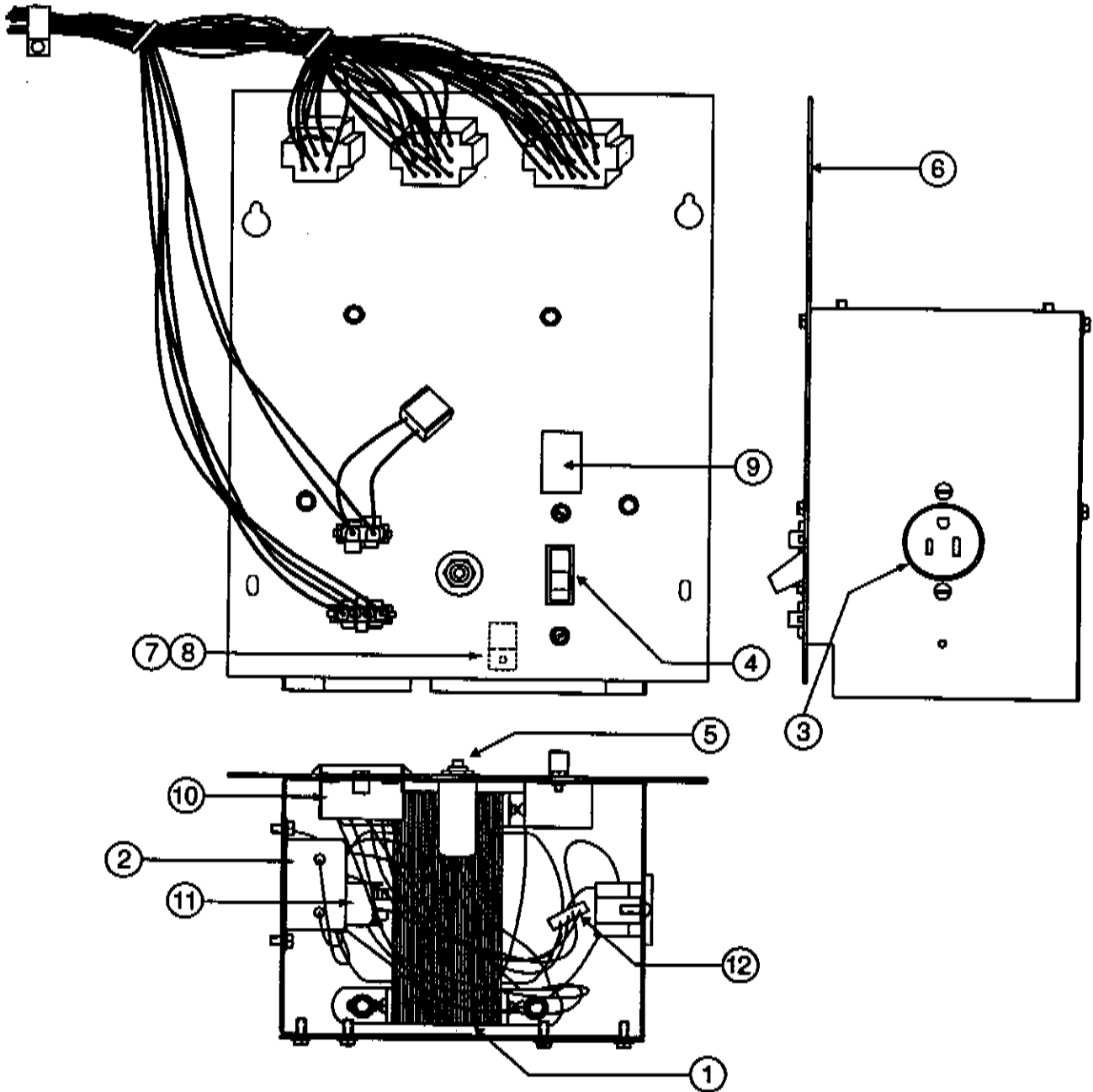
Power Panel Components

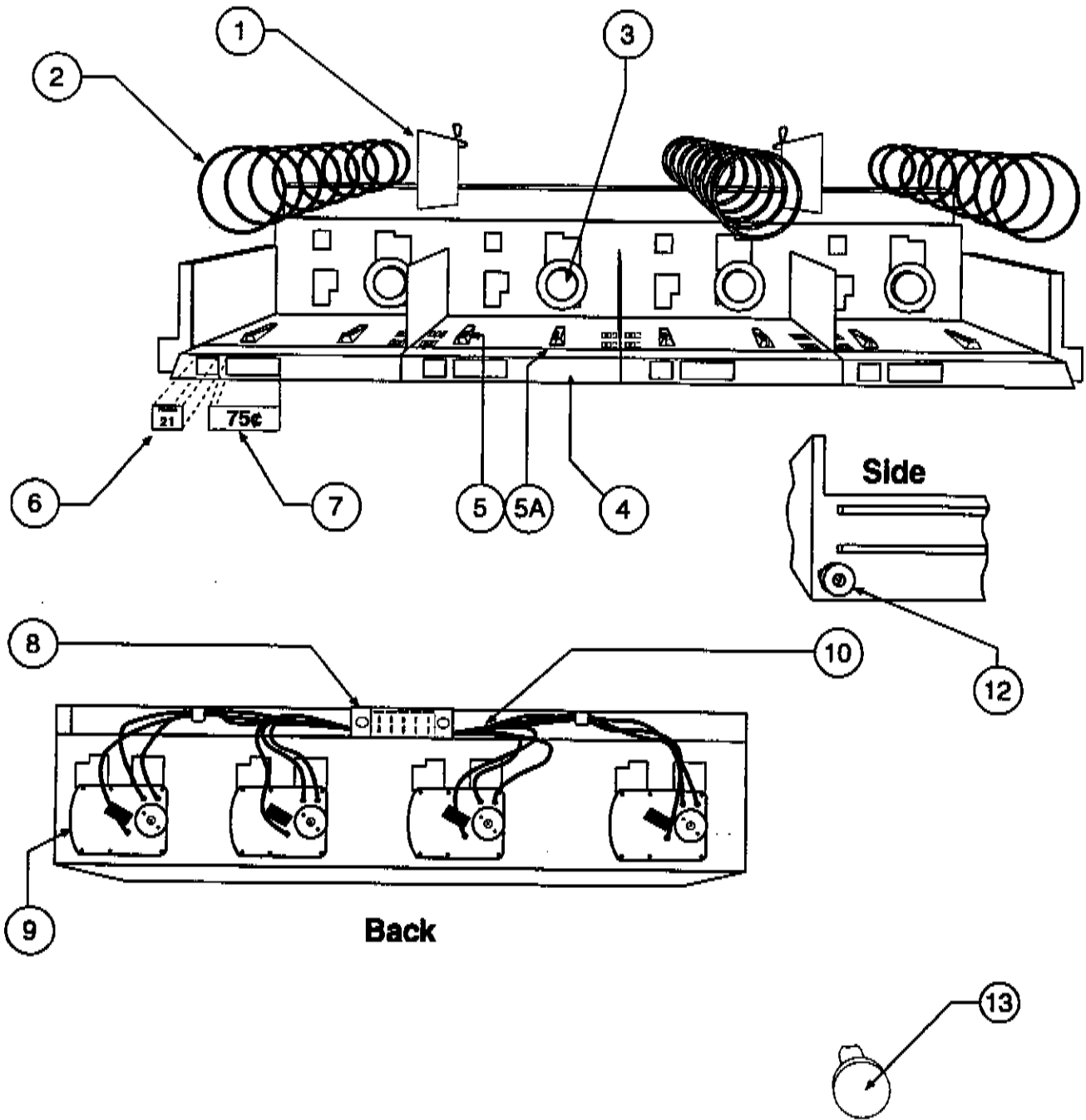| Index Number	Rowe Part Number	Description	Quantity Per Assembly
	58301820	Power Supply F/A 120V 60Hz	REF
	58301821	Power Supply F/A 220V 50Hz	REF
	58301822	Power Supply F/A 240V 50Hz	REF
	58301600	Power Box Assembly (Export)	REF
	58301601	Power Box Assembly (North American)	REF
	82663006	Screw, #8-32 x 3/8 S/T	4
1	58301819	Transformer Assembly (North American)	1
	50501815	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
	70233205	Bushing - Not Shown	1

Fig. 7 6800 Snack / Candy

Shelf Support and Plug Assemblies
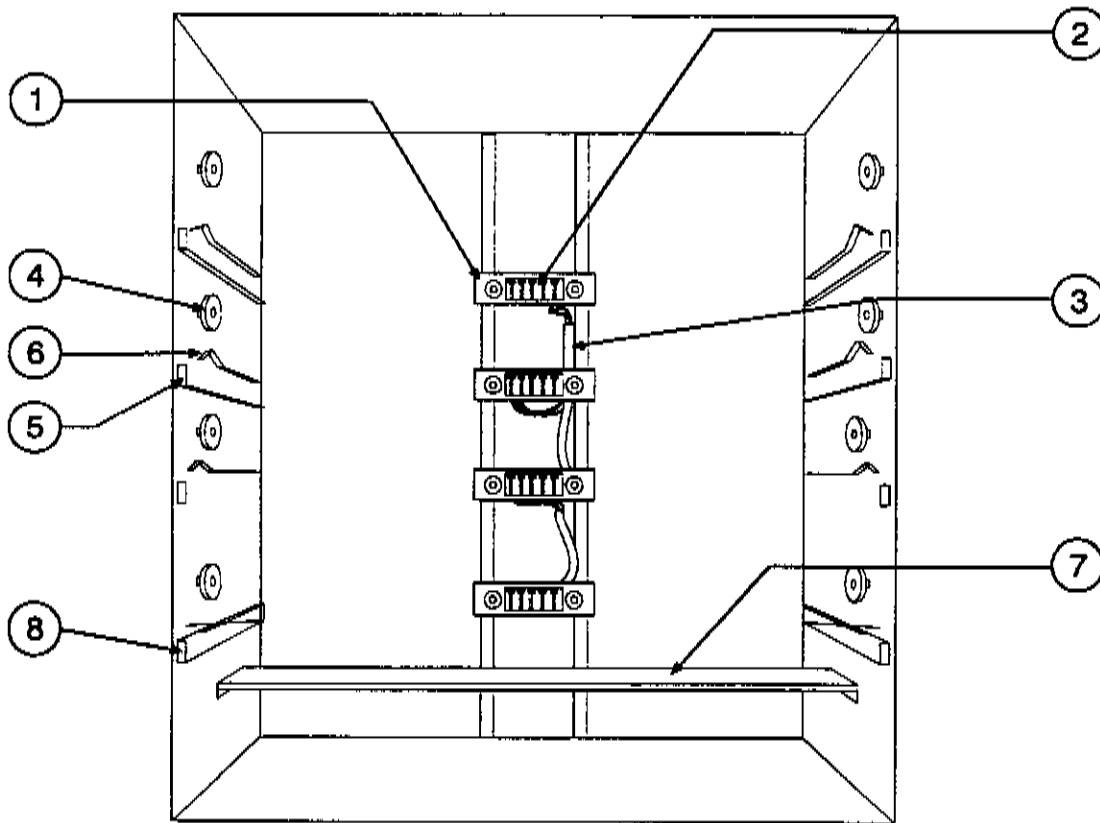
Shelf Support and Plug Assemblies

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
	49000352	"	"	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	49301308	"	"	Lower Shelf Support W/A - L/H Side	4
	49301309	"	"	Lower Shelf Support W/A - R/H Side	4
6	49301321	"	"	Upper Shelf Support W/A - L/H Side	4
	49301322	"	"	Upper Shelf Support W/A - R/H Side	4
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
	49301309	"	"	Shelf Support R/H	3
	9340151	"	"	Screw - Self Tapping	18

Fig. 8 | 6800 Snack / Candy

3, 4, or 5 Selection Shelf Assembly
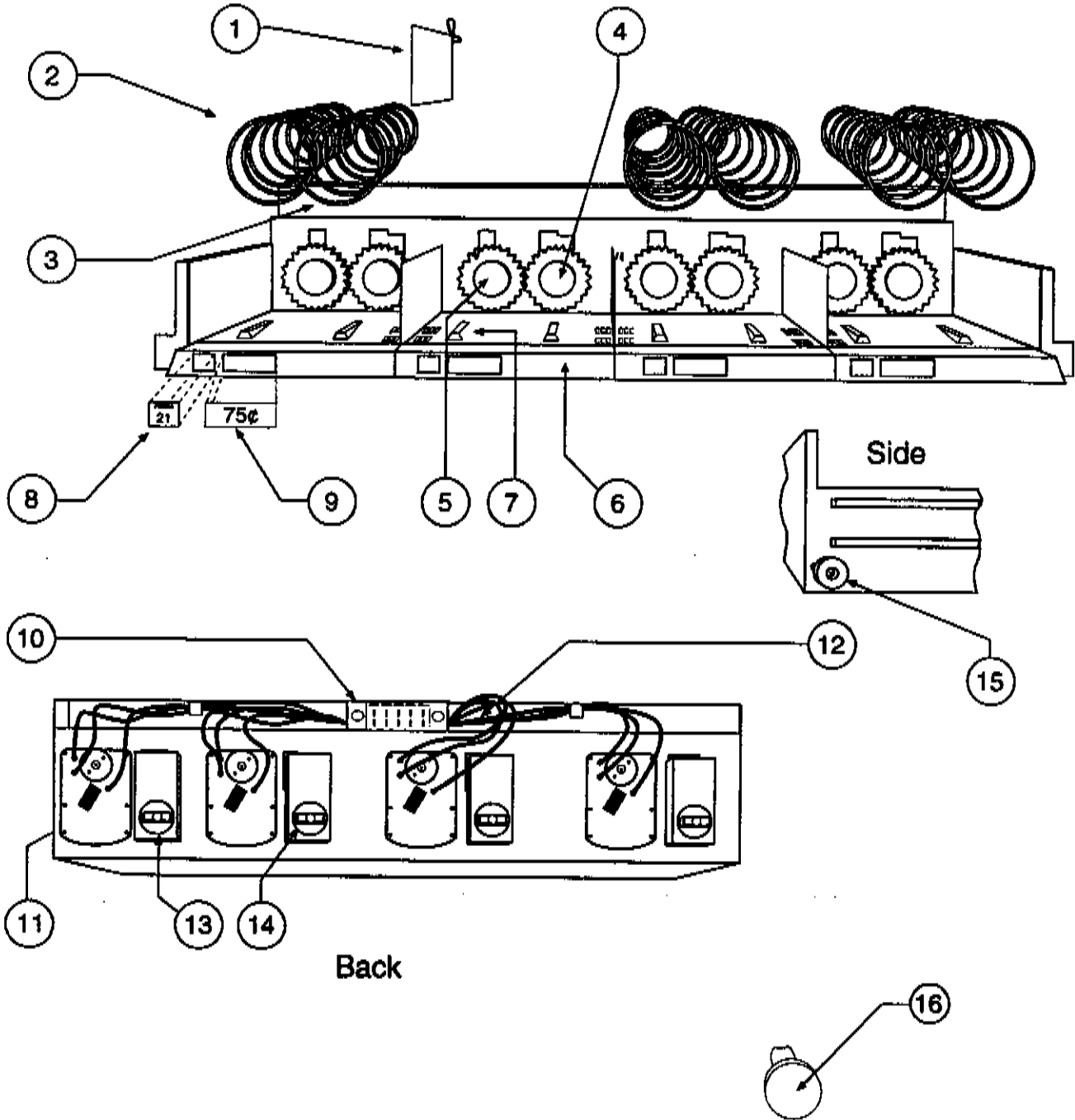
Side

Back

75¢

Fig. 8

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
	93400501	"	"	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	1
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.
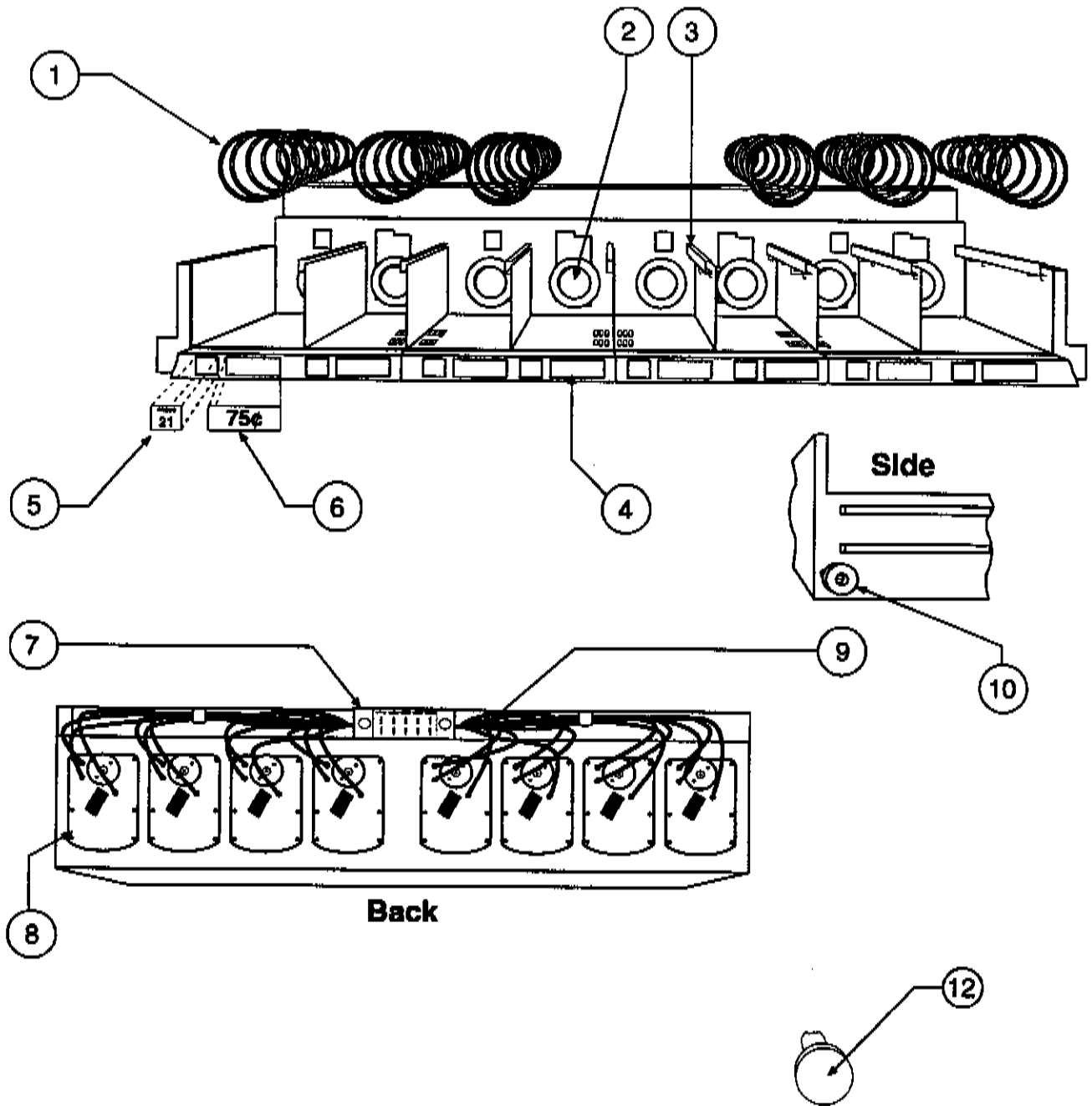
Fig. 9

6800 Snack / Candy

Dual Helix Shelf

Side

Back

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
	93400501	"	"	Screw	10/8/6
7	59300617	"	"	Helix Guide	10/8/6
8	59301908	"	"	Assortment - Number Block	1
9	59301913	"	"	Price Card Assortment	1
10	59300002	"	"	Plug Bracket	1
	97900253	"	"	Plug - 15 Pin Male	1
	97900169	"	"	Pin - Plug Anchoring	1
11	59301847	"	"	Motor Assembly	5/4/3
12	59301848	59401803	59401803	Shelf Harness Assembly	1
	97901180	Same	Same	Socket	5/4/4
13	59300618	"	"	Idler - Dual Helix	5/4/3
14	92901000	"	"	Rivet	5/43
15	49000005	"	"	Shelf Roller	2
	49000042	"	"	Roller Bushing	2
	93400441	"	"	Screw	2
	92400064	"	"	Nut	2
	20100359	"	"	Canoe Clip (Not Shown)	2
16	59300902	"	"	Hub Removal Tool	1

Fig. 10 6800 Snack / Candy

Candy Shelf

Side

Back

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	2/2/2
4	59300614	"	"	Product Guide (Dual Price)	5/4/3
	93400501	"	"	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	1
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

Fig. 11 6800 Snack / Candy

Gum and Mint Unit

Fig. 11
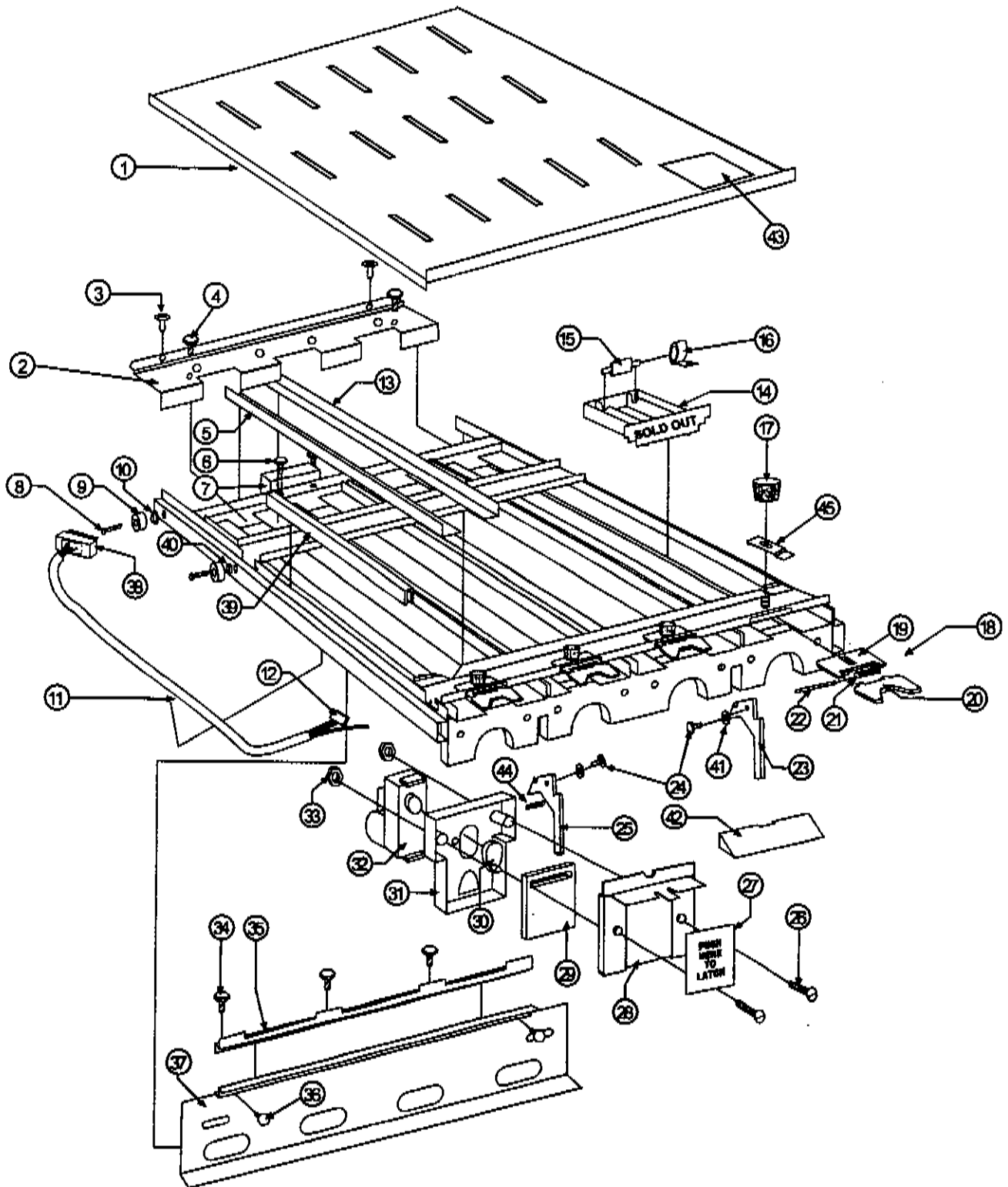
Gum and Mint Unit

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
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
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

Fig.12

6800 Snack / Candy

Refrigeration Unit (Optional)

Fig.12
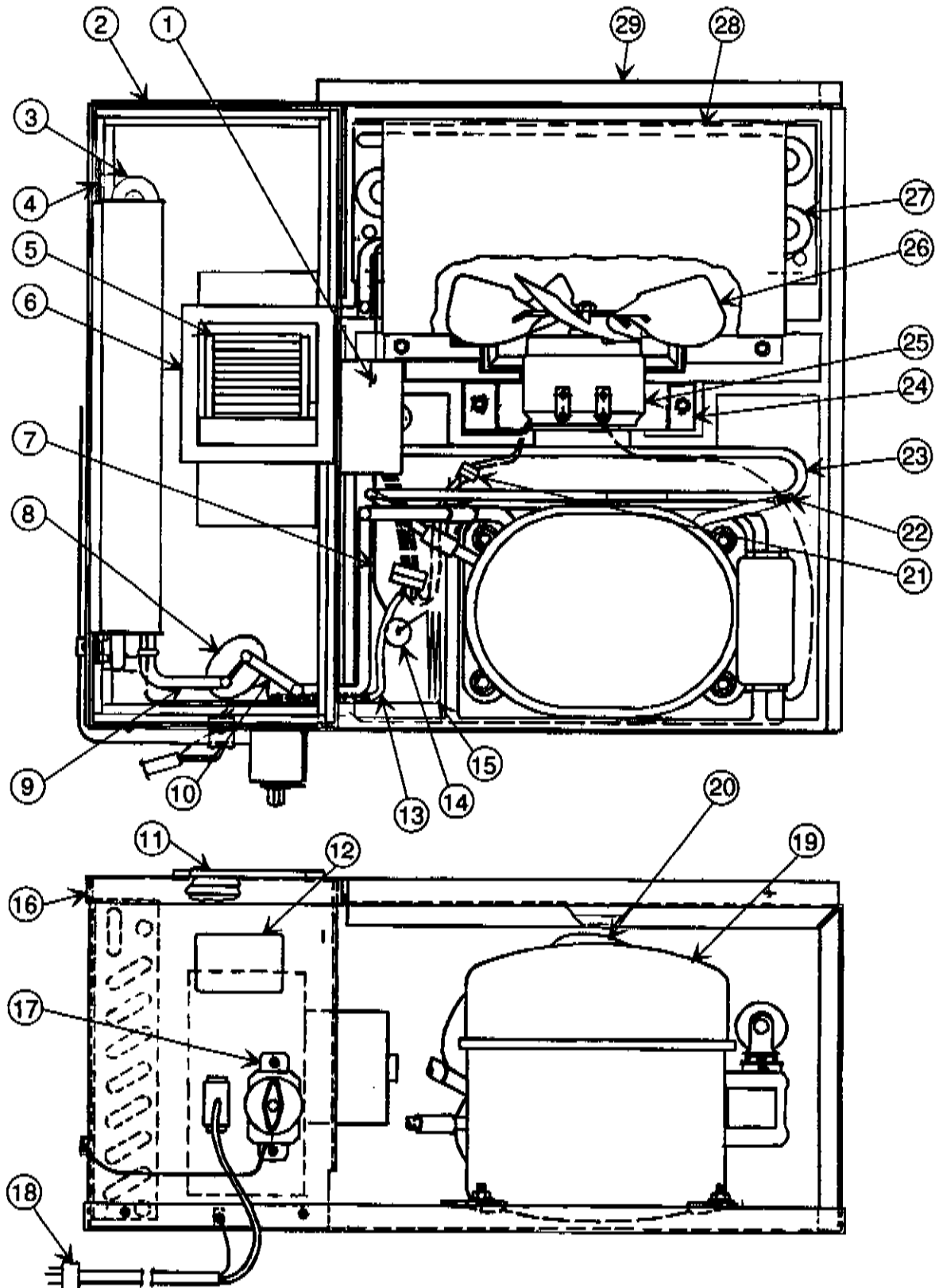
Refrigeration Unit (Optional)

Index Number	Rowe Part Number	Description	Quantity Per Assembly
	595001205	Refrigeration Unit - R12	REF
	595021505	Refrigeration Unit (Euro) 240 Volts - R12	REF
	595001206	Refrigeration Unit - R134A	REF
	595021541	Refrigeration Unit - 220/240 Volts - R134A	REF
1	595021528	Evaporator - Blower Motor	1
2	595020535	Bulkhead, Evaporator	1
	93400448	Screw, Self Tapping	9
3	595021510	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

Fig.13 | 6800 Snack / Candy

Main Controller Circuit Board Assembly

65420201 Cxt Bd Assy
Snack Controller
ROWE INTERNATIONAL
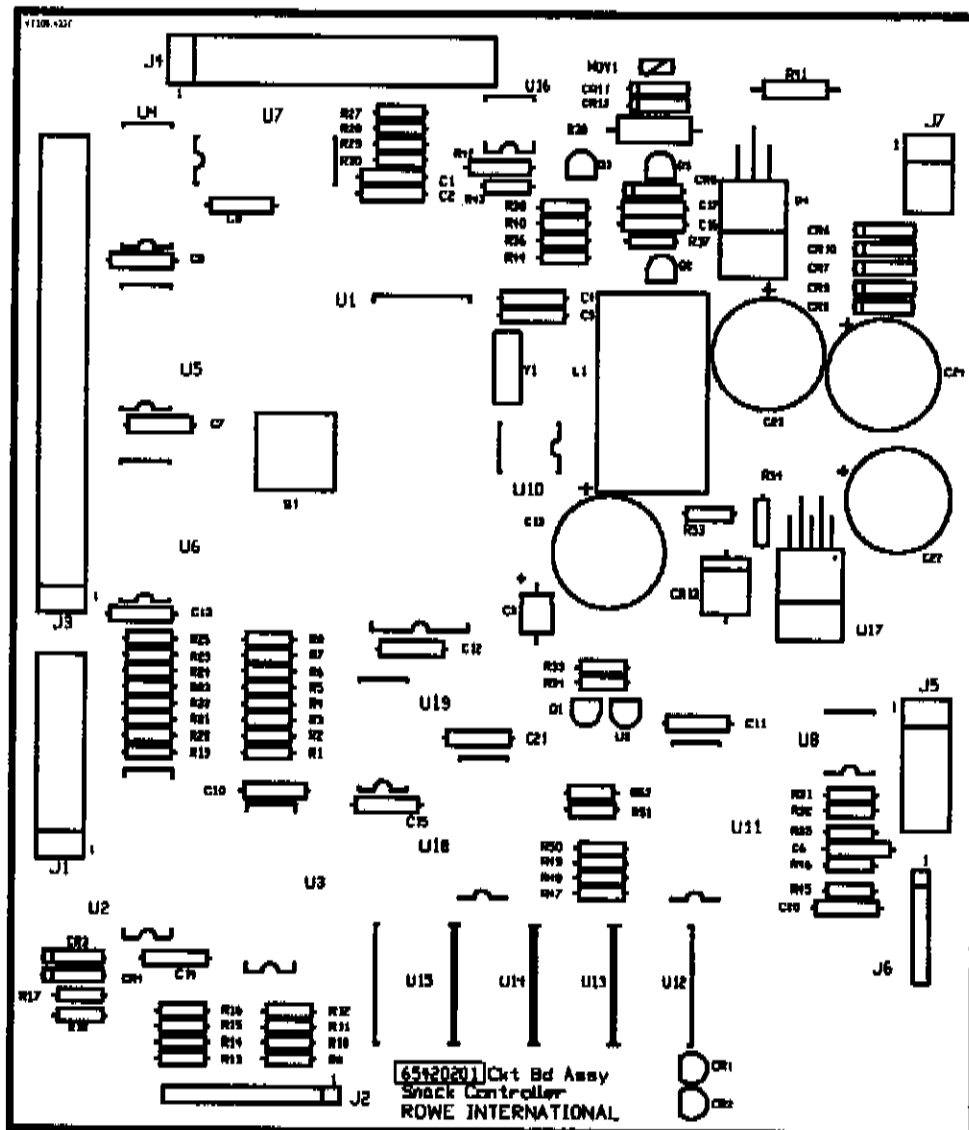
REFERENCE	DESCRIPTION	PART NUMBER
C33, C34	Cap - 22PF 50V 5%	70028705
R1 thru R8	Resistor - Carbon Film 10K, 1/8W 5%	79905103
R9 thru R18	Resistor - Carbon Film 1K, 1/8W 5%	79905102
R19 thru R26	Resistor - Carbon Film 47K, 1/8W 5%	79905473
R27, R28	Resistor - Carbon Film 100 Ohm, 1/8W 5%	79905101
R29, R30	Resistor - Carbon Film 1K, 1/8W 5%	79905102
R31, R32	Resistor - Carbon Film 220 Ohm, 1/8W 5%	79905221
R33, R34, R35	Resistor - Carbon Film 1K, 1/8W 5%	79905102
R36, R40	Resistor - Carbon Film 3.3K, 1/8W 5%	79905332
R37, R38	Resistor - Carbon Film 10K, 1/8W 5%	79905103
R39	Resistor - Wire Wound 1.2 Ohm, 1W, 5%	70010826
R41	Resistor - Carbon Film 5.1K 1/2W 5%	79908512
R42	Resistor - Carbon Film 18 Ohm 1/4W 5%	79901180
R43	Resistor - Carbon Film 1K, 1/8W 5%	79905102
R44	Resistor - Carbon Film 4.7K, 1/8W 5%	79905472
R45	Resistor - Carbon Film 100 Ohm, 1/8W 5%	79905101
R46	Resistor - Carbon Film 1K, 1/8W 5%	79905102
R47 thru R52	Resistor - Carbon Film 4.7K, 1/8W 5%	79905472
R53	Resistor - Carbon Film 6.2K 1/4W 2%	79902622
R54	Resistor - Carbon Film 2K 1/4W 2%	79902202
S1	Switch - Pushbutton	21773304
U1	IC - Microcomputer	See Chart
U2, U3	IC - Octal D-Type Latch 74HC373	79940573
U4, U5	IC - 8 Bit Serial Latched Source Driver	230A000005890A
U6	IC - 8 Bit Latched Driver 5842	70036912
U7	IC - 8 Bit Serial Latched Driver	230A000005841A
U8	IC - Optocoupler ILD2	70033713
U9	IC - Undervoltage Sense Circuit 34064	30800243
U10	IC - EEprom 128x16 Serial 93C56	30800263
U11	IC - LED Display Driver	30800264
U12 thru U15	LED Display - 7 Segment	21766708
U16	IC - Optocoupler 4N37	70033710
U17	IC - Voltage Regulator LM2576T-ADJ	70036520
U18	IC - High Current Source Driver 2981	70036906
U19	IC - CMOS Hex Inverter 74HC04	79940004
UX1	Socket - 40 Pin DIP (U1)	70074240
UX2	Socket - 40 Pin DIP (U12 thru U15)	70074240
Y1	Crystal 11.059 MHz HC-49	254A11X0592001
	Washer - Rectangular	21776101
	#4-40 x 1/2 Hex WHMS	80661608
	#4-40 x Hex Keps Nut	87841600
	PWB - Control Board	65420101

Fig.14 6800 Snack / Candy

Harness List

58301800	Harness, Main Cabinet
58301801	Harness, Main Door
58301802	Harness, Keypad
58301803	Harness, Coin Mech-Domestic
58301804	Harness, CBA/UBA Data
58301805	Harness, Exec Mech Data
58301806	Harness, CBA/UBA Power
58301807	Harness, Exec Mech Power
58301808	Harness, Fluorescent Lamp
58301809	Power Cord Assy - N. America
58301813	Harness, P.S. Box Int.
58301816	Harness, Mars VFM-3 Power
58301817	Harness, Mars VFM-3 Data
58301818	Power Cord - Europe & Export
59301801	Harness, Shelf 10 & 5 Motor
59401801	Harness, Shelf 8 & 4 (and 6 & 3) Motor

900-58301