

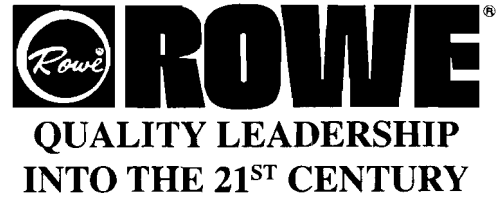


7700/7800

Snack / Candy Vendors

Field Service Manual
and
Parts Catalog

Part Number 900-58302
REV C



7800 Snack / Candy Vendor

Field Service Manual and Parts Catalog

This manual contains procedures for operating and servicing the Rowe 7800 family of Snack/Candy Vendors. The 7800 family includes the 783 (5/10 column), 784 (4/8 column), and the 781 (3/6 column) Snack/Candy Vendors. The 7800 Snack / Candy Vendors are capable of vending a wide variety of products in several different dynamic configurations. The 7800 (model 783) 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.

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SPECIFICATIONS: 7800, 7800JR & 7800C SNACK/CANDY VENDORS

GENERAL

	<u>7800 (5 Column)</u>	<u>7800JR (4 Column)</u>	<u>7800C (3 Column)</u>
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 - 6.0oz. (212.8 g)		

ELECTRICAL

Power Requirements (Max)		BTU Output	
U.S. Domestic	120 VAC 12A	Without refrigeration	100 BTU/hr
Non-Domestic	220/240 VAC, 50Hz., 6A	With refrigeration	1500 BTU/hr
Power Consumption			
Without refrigeration	.030 kWh (Avg.)		
With refrigeration	.440 kWh (Avg.)		

COIN MECHANISMS

24 V Models - 15 Pin only

MARS	VN4010	TRC - 6010 - XV
COINCO	GLOBAL,L	9302LF,9302L+

European Coin Mechs

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

MDB Coin Mechs

MARS	VN4510, TRC6510, CASHFLOW 560
COINCO	93
COINCO	9302GX GLOBALMDBPLUS

BILL ACCEPTORS

ROWE *MAKA *MARS

*NOTE: Contact bill acceptor manufacturer.

MDB BILL VALIDATORS

MARS VN2300, VN2500, AE2600
COINCO BA32R

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

7800	7800JR	7800C
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 7800 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.

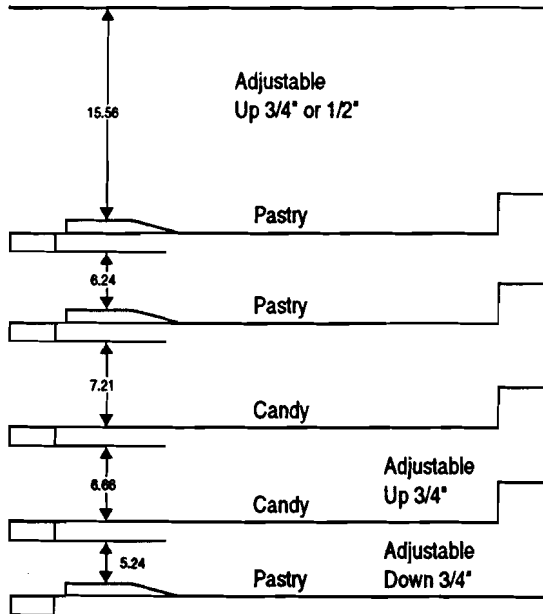
SECTION 5 - MAINTENANCE - Section 5 contains instruction for cleaning the snack vendor. It also includes instructions for removing and replacing the shelves, helixes, drive motors, and the Gum and Mint Unit.

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.

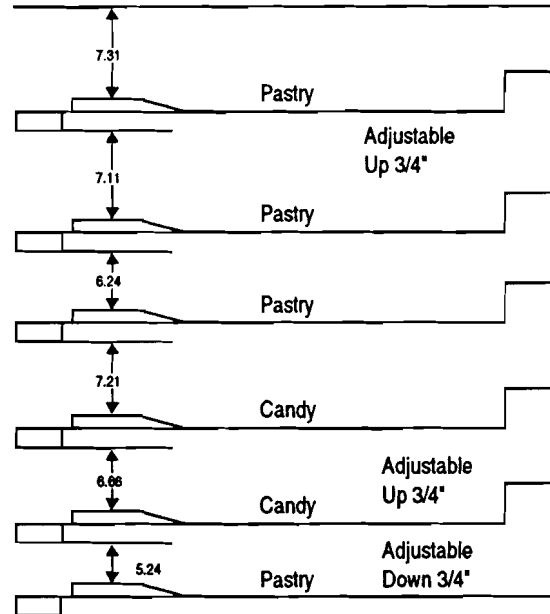
ROWE Vending Machine Coin Mech Usage Chart

Model		448E2	548/648	550/650	5900	7800
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
GLOBAL	Micromech 24 VPDC 15 Pin Con.					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
VN4010	Micromech 24 VPDC 15 Pin Con.					X
CashFlow						
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

7800 - 3 Selection Shelves 7800JR - 4 Selection Shelves 7800 - 5 Selection Shelves				7800 - 3 Selection Shelves 7800JR - 8 Selection Shelves 7800 - 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:

- 7800 -** 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".
- 7800JR -** 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".
- 7800C -** 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".

7800C PRODUCT CAPACITIES 6 SHELF MODELS

Model 781-18-6
Capacity 218 Items*

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

Model 781-21-6
Capacity 290 Items*

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

Model 781-24-6
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 781-24-6
Capacity 363 Items*

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

Model 781-30-6
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	18	18
15	15	15
15	24	24

Model 781-33-6
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
15	15	15
15	24	24

Model 781-36-6
Capacity 630 Items*

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

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

5 SHELF MODELS

Model 781-15-5
Capacity 182 Items*

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

Model 781-18-5
Capacity 254 Items*

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

Model 781-21-5
Capacity 321 Items*

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

Model 781-24-5
Capacity 395 Items*

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

Model 781-27-5
Capacity 495 Items*

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

Model 781-30-5
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
24	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

7800JR PRODUCT CAPACITIES 6 SHELF MODELS

Model 7841-6
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 7818-6
Capacity 390 Items*

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

Model 7836-6
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
15	15	18	18
24	18		
15	15	15	15

Model 7836-6
Capacity 580 Items*

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

Model 7840-6
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
18	18	18	18
15	15	15	15
15	15	15	15
24	24	18	18

Model 7844-6
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 7848-6
Capacity 840 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
24	24	18	18

Model 78466 (7 Shelf)
Capacity 720 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 7810-5
Capacity 246 Items*

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

Model 7814-5
Capacity 242 Items*

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

Model 7818-5
Capacity 430 Items*

10	10	10	10
10	10	12	12
18	18	18	18
18	18	18	18
15	15	18	18
15	15	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 7832-5
Capacity 530 Items*

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

Model 7830
Capacity 622 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
15	15	18	18
24	24	18	18
10	12	12	15

Model 7840
Capacity 702 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
15	15	18	18
15	15	18	18
24	24	18	18

7800 PRODUCT CAPACITIES 6 SHELF MODELS

Model 7830
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 7835
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
15	15	18	18	18
24	24	24	24	18
15	15	15	15	15

Model 7840
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
18	18	18	18	18
15	15	15	24	24
24	24	24	18	18
15	15	15	15	15

Model 7845
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	24	24
24	24	24	18	18
15	15	15	15	15

Model 7830
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	15	15
15	15	15	24	24
24	24	24	15	15
15	15	15	15	15

Model 7835
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	15	15
15	15	15	24	24
24	24	24	15	15
15	15	15	15	15

Model 7830
Capacity 1044 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	15	15
15	15	15	24	24
24	24	24	18	18
15	15	15	15	15

6 SHELF MODELS

Model 7825
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 7830
Capacity 437 Items*

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

Model 7835
Capacity 551 Items*

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

* 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.

Model 7840
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	15	15
15	15	15	24	24
24	24	24	18	18
15	15	15	15	15

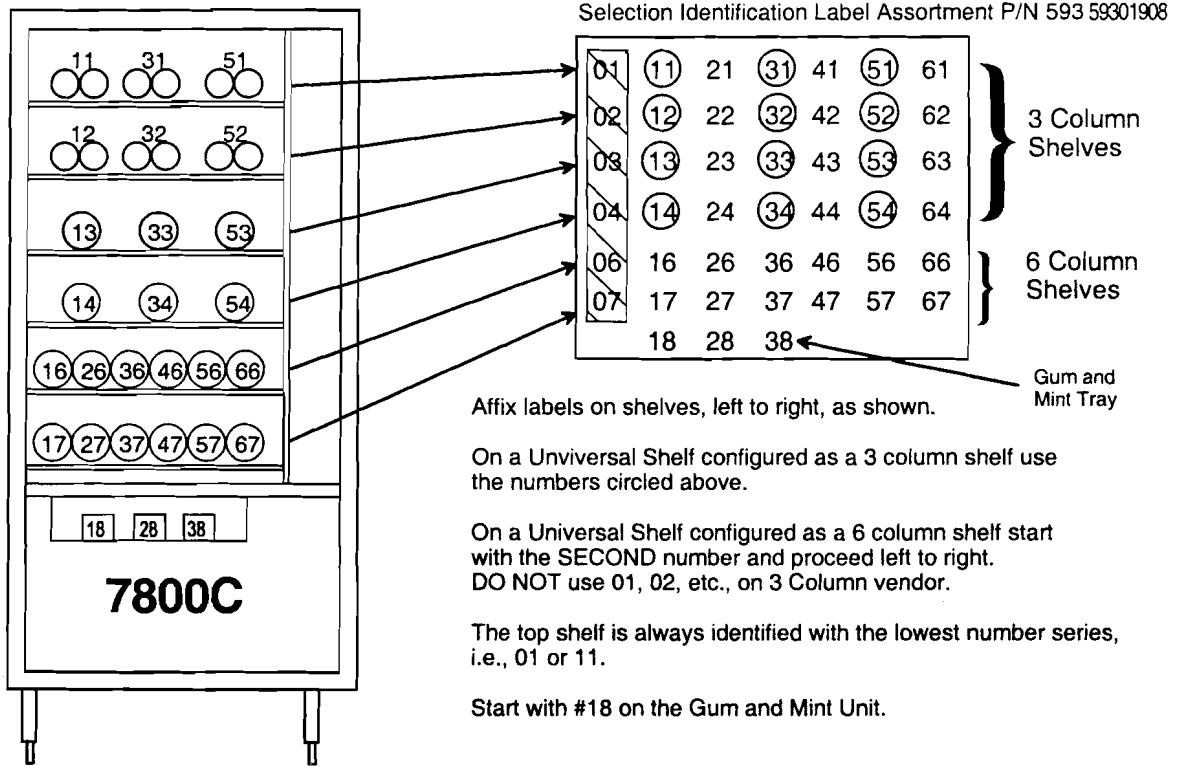
Model 7845
Capacity 793 Items*

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

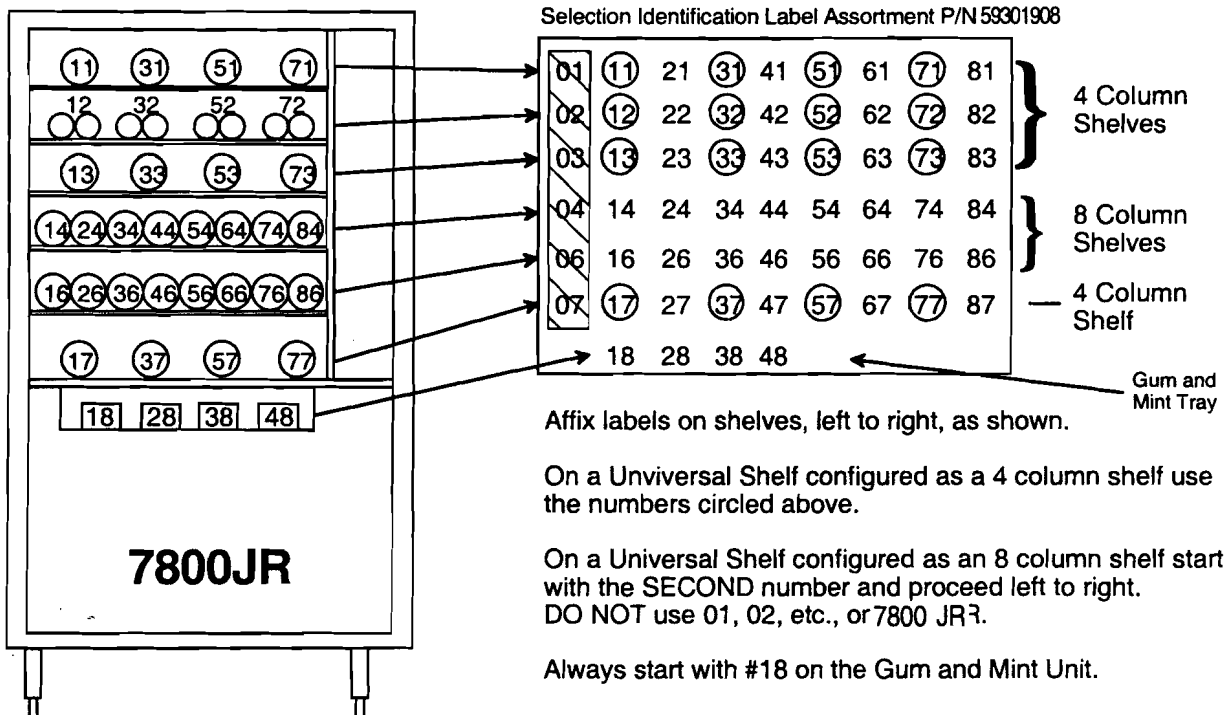
Model 7730
Capacity 894 Items*

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

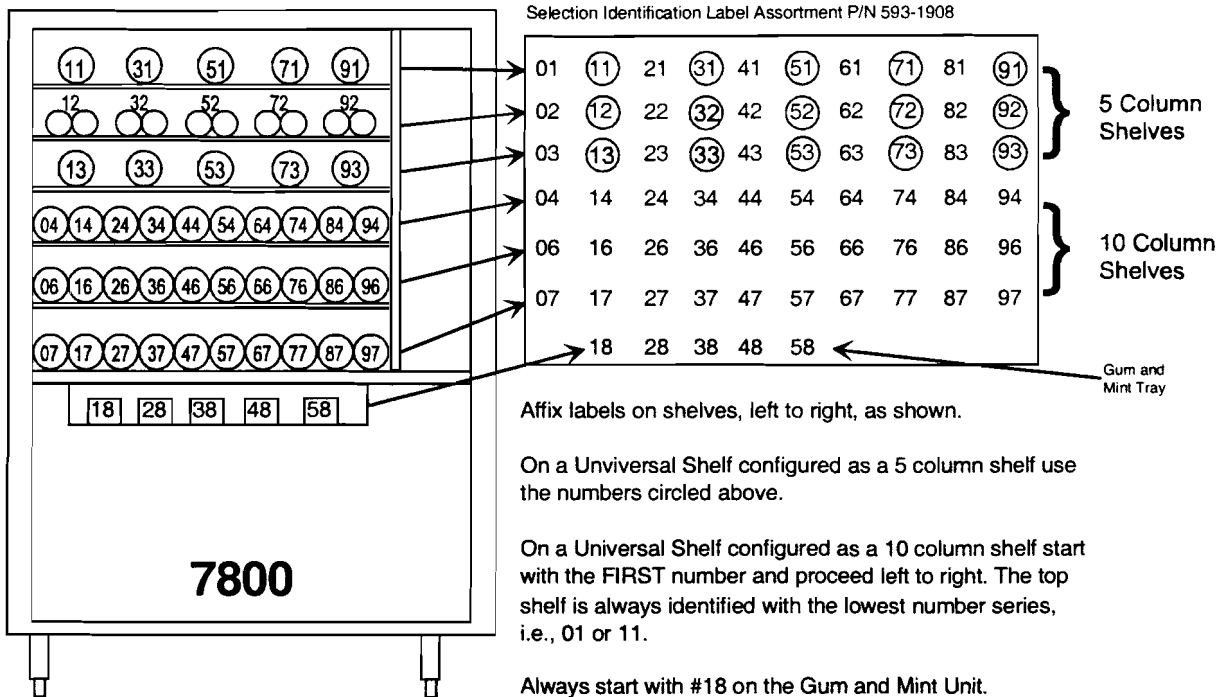
7800C Selection Identification



7800JR Selection Identification



7800 Selection Identification



SECTION 1

INSTALLATION

This section contains instructions for unpacking, moving and installing the 7800 vendor on location. Installation is quick and easy when done in the proper sequence.

UNPACKING

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

SET-UP INSTRUCTIONS

Preliminary (Primary Delivery)

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

1. Open the main door.
2. Remove the door stop rod.
3. Disconnect the door 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.
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.

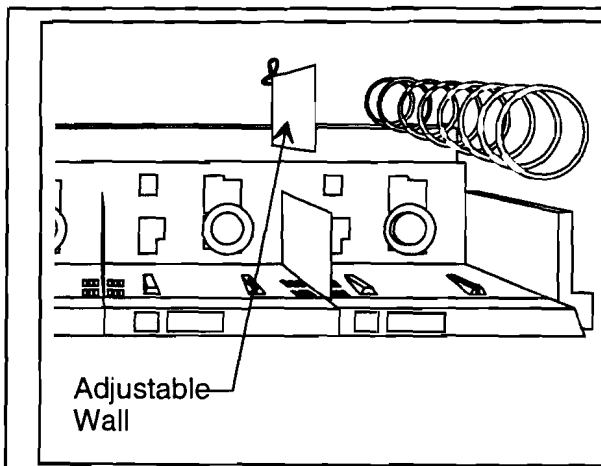


Figure 1-1
Adjustable Wall (5-Selection Shelf)

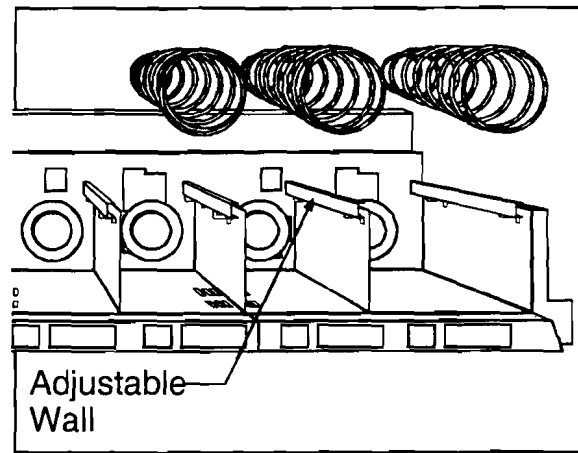


Figure 1-2
Adjustable Wall (10-Selection Shelf)

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 (781), four (784) and five (783) 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 7800 family of Snack/Candy Vendors includes the large capacity 7800, the medium capacity 7800JR, and the 7800 Compact Vendor. All 7800 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 7800 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 (783 - 10 Selections, 784 - 8 Selections, 781 - 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 (783 - 5 Selections, 784 - 4 Selections, 781 - 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 (783 - 5 Selections, 784 - 4 Selections, 781 - 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 7800 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.

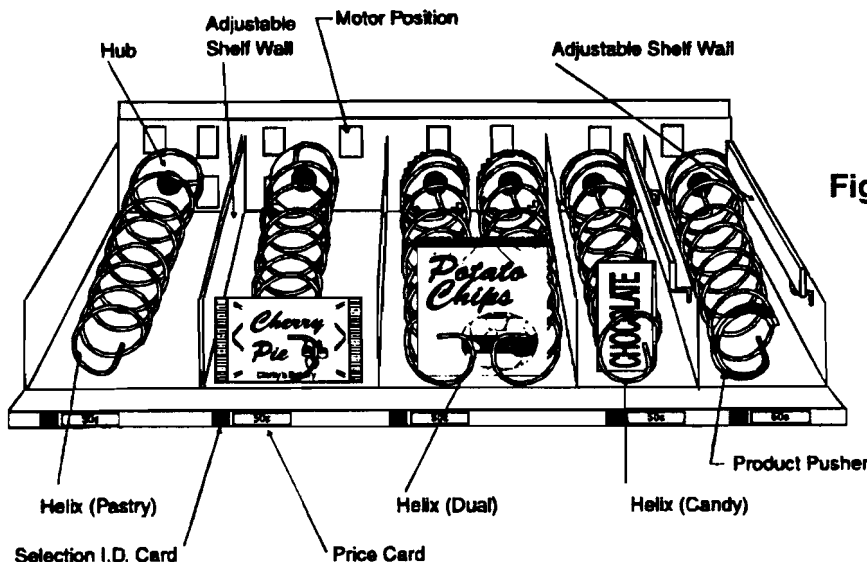


Figure 2-1

Horizontal Gum and Mint Unit

The 7800 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.

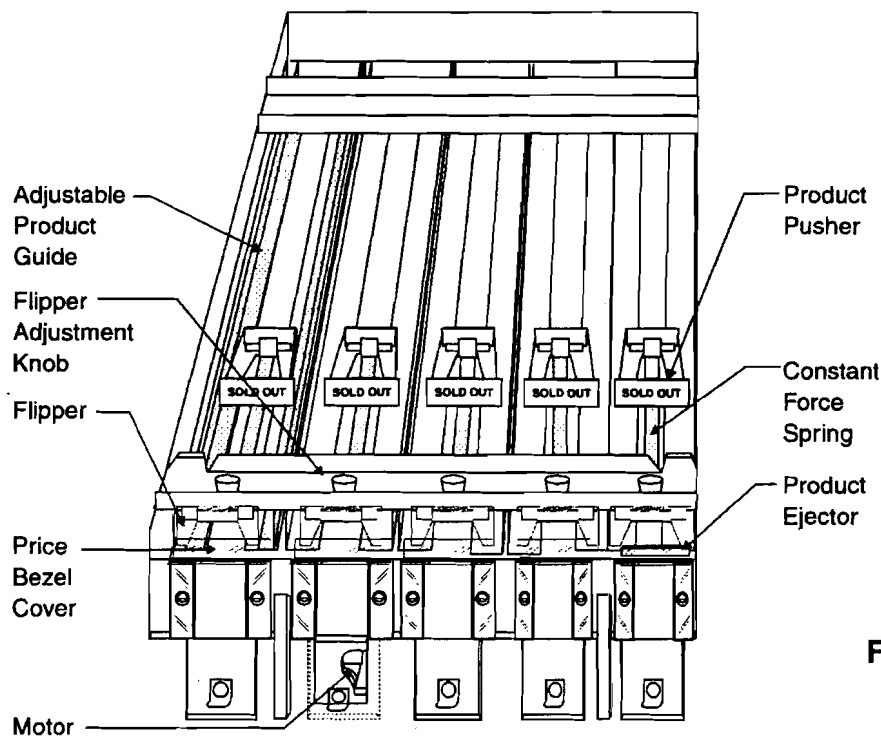


Figure 2-2

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 7800 controller regulates the number of coins accepted and dispensed through the coin mech.

Installing the coin mech

7800 Snack Vendors are compatible with several different coin mech models. The coin mech should be installed according to the directions provided by the coin mech manufacturer.

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

Coin Mech Loading

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.

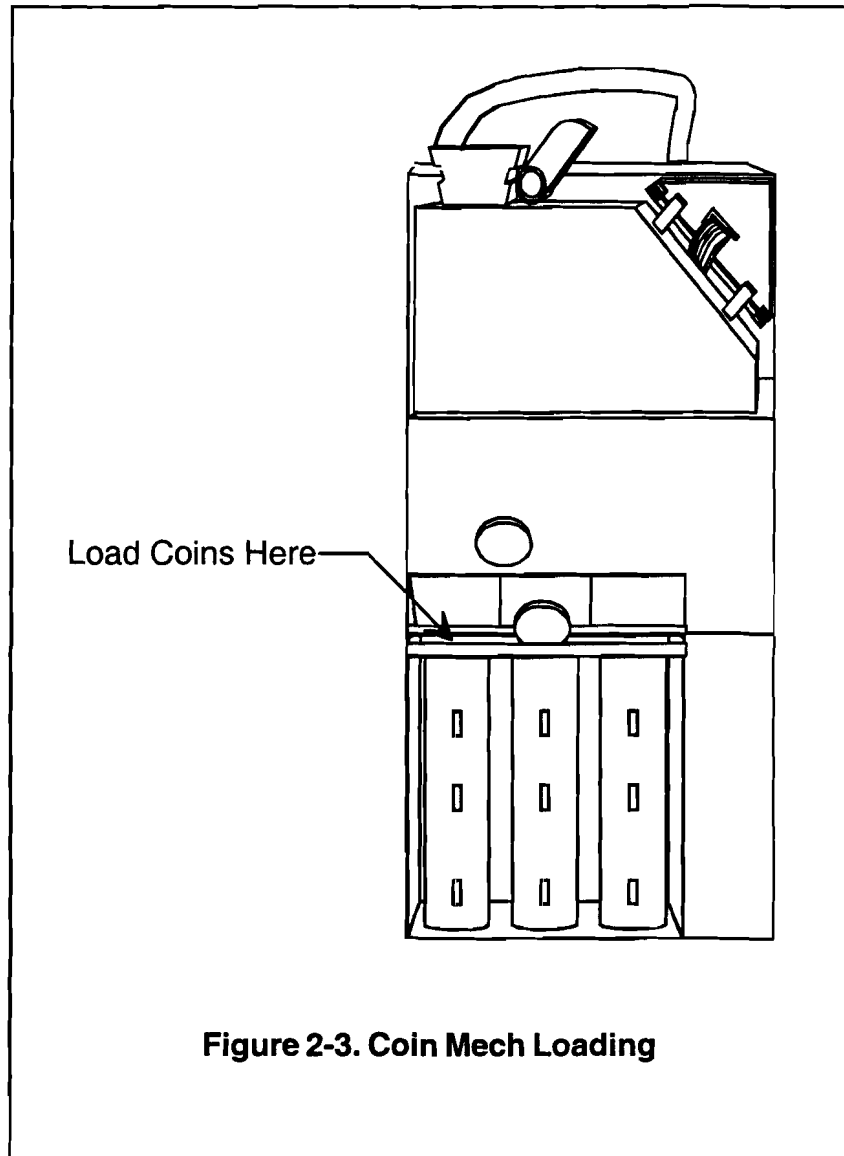


Figure 2-3. Coin Mech Loading

SELECTION IDENTIFICATION

(See page *xiii & xiv*)

Selection identification is as follows:

First digit:

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

Dual Helix & Pastry Shelves

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

Candy Shelves

On a model 781 or 784, 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 783, 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					Fourth Shelf - 5 Selection									
11	31	51	71	91	14	34	54	74	94					
Second Shelf - 5 Selection					Fifth Shelf - 10 Selection									
12	32	52	72	92	06	16	26	36	46	53	66	76	86	96
Third Shelf - 10 Selection					Sixth Shelf - 5 Selection									
03	13	23	33	43	53	63	73	83	93	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.

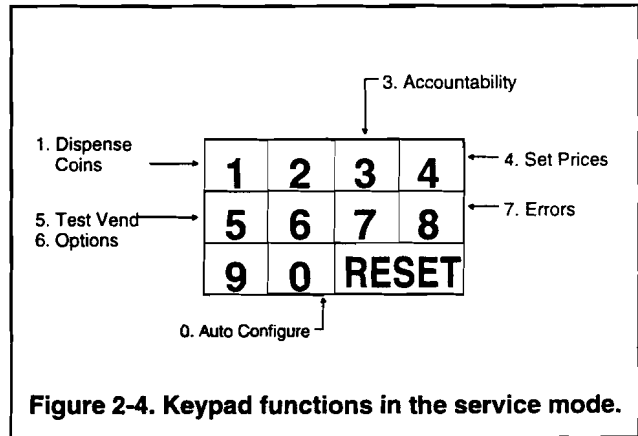
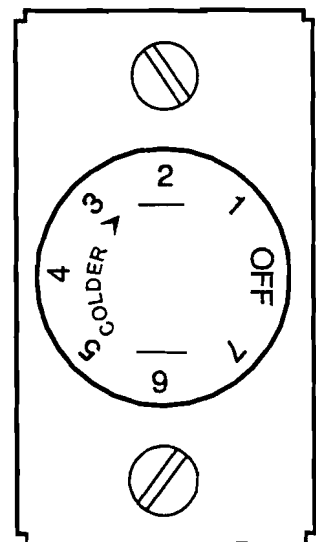


Figure 2-4. Keypad functions in the service mode.

Temperature Control (Optional)

The temperature control knob is mounted to the refrigeration unit, at shelf level on the right side of the cabinet.

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.

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.

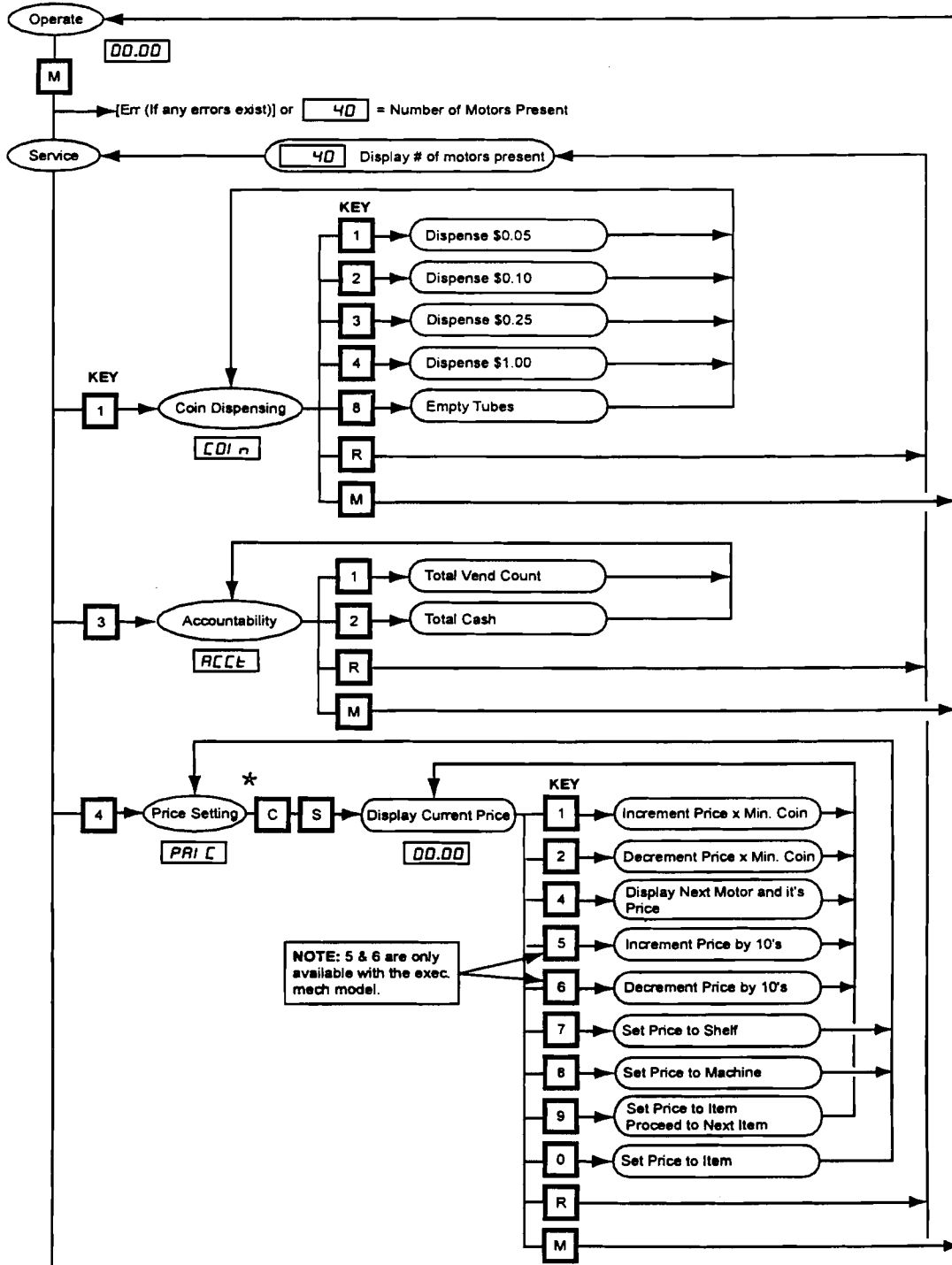
Service / Setup Mode

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

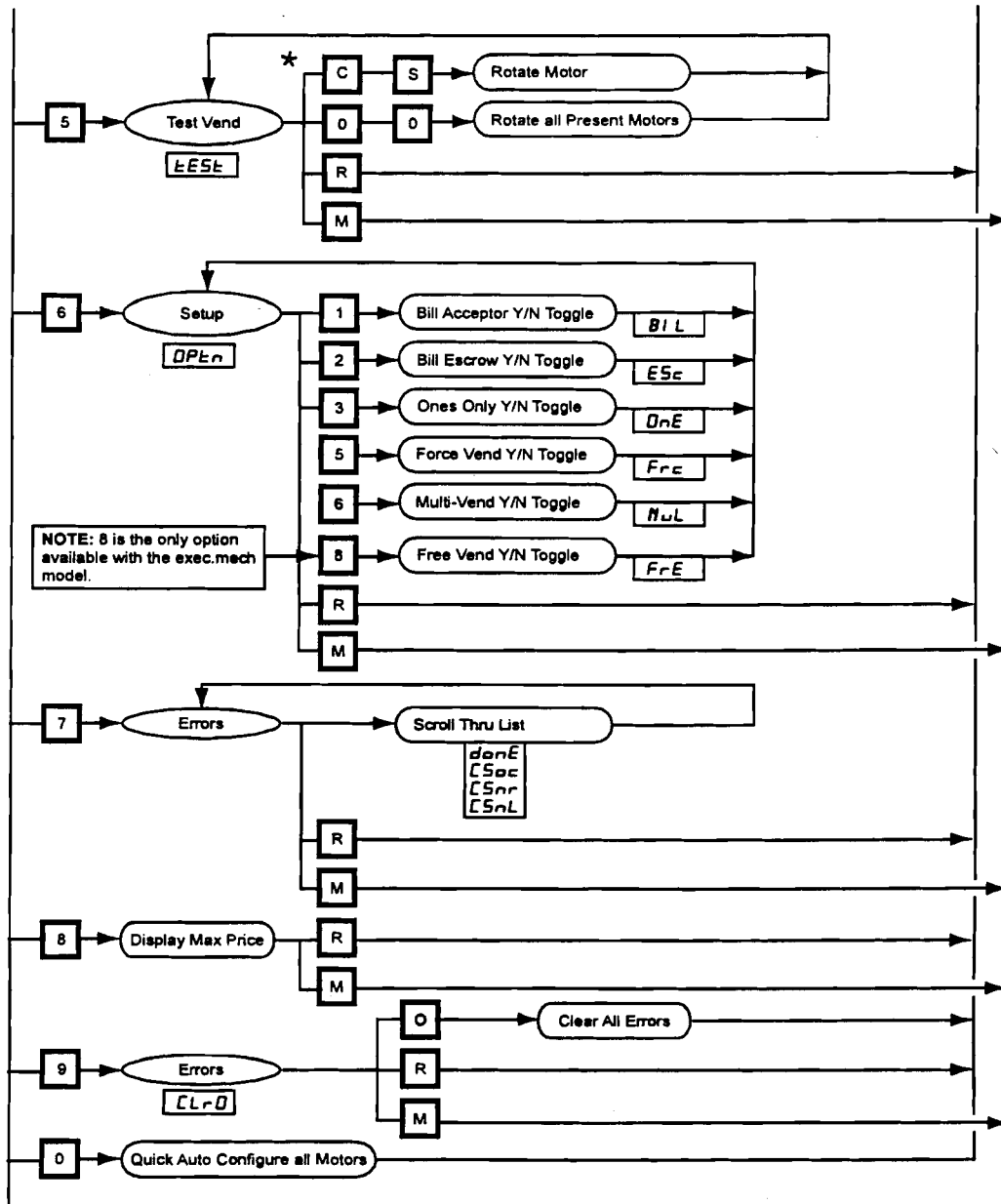
1. Press the <MODE> button on the snack controller. If a motor error was recorded by the snack controller, the LED display will show Err when entering service/setup mode, otherwise the number of motors will be displayed. This is the "root" menu. Pressing the <MODE> button a second time will return the 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> Show Errors
 - <8> Show Max Price
 - <9> Clear Errors
 - <0> Auto Configure

ROWE 7700/7800 Service Mode Flow Chart



Continued on next page

Continued from previous page



M MODE C COLUMN R RESET S SHELF * C S = Product Selection

EXAMPLE C S = Product Selection: Column 1, Shelf 2

For Equivalent Engineering Drawing, see 90805059 rev. B

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 $\overline{C} o i n$.
2. Press one of the following keys to dispense the coin of your choice. Pressing the same key multiple times will dispense additional coins.

<u>Logic Coin Mech</u>	<u>MDB Coin Mech</u>
<1> Dispense Quarter(s).	Dispense lowest coin
<2> Dispense Nickel(s).	Dispense 2nd lowest coin
<3> Dispense Dime(s).	Dispense 3rd lowest coin
<4> Dispense Dollar Coin(s).	Dispense highest coin
<8> Empty All Coin Tubes.	Empty all coin tubes
<Reset> Return to root menu.	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 and MDB 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.

Note:

When using MDB type coin mechs, some manufacturers will "hide" coins from the controller to help ensure reliable coin pay-out. In this case it may not be possible to completely empty the coin tubes using these functions.

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 $A c c t$.
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 *P r l c*.
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 *P r l c*
 - <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 *EESt*.
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 *DPEn*.
2. Press one of the following keys to access the option of your choice.
 - <1> - 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 <1> key again will toggle between Y or N.
 - <2> - 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 <2> key again will toggle between Y or N.
 - <3> - Accept one Dollar Bills only. The LED Display will show *OnEY* or *OnEn* depending on whether or not this option is enabled or disabled. Pressing the <3> key again will toggle between Y or N.
 - <5> - Force Vend Y/N - The LED display will show *FrLn* or *FrLY* depending on whether or not this option is enabled or disabled. Pressing the <5> key again will toggle between Y or N.
 - <6> - Multi-Vend Y/N - The LED display will show *MuLn* or *MuLY* depending on whether or not this option is enabled or disabled. Pressing the <6> key again will toggle between Y or N.
 - <8> - 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 <8> key again will toggle between Y or N.

NOTE:

8 is the only option available with the Exec. mech model.

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 *31 nL*, this means selection 31 never left [home]. If the error code is shown as *31 nr*, this means selection 31 never returned [home]. If the display shows *31 oc*, 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 8 - Display Max Price

The purpose of this menu selection is to display to the operator the highest price on the machine.

INSTRUCTIONS

1. Press <MODE> button on the snack controller board to enter the service setup mode, (if you have not done so already). Press <8> on the keypad to display the highest price on the machine.
2. Press <RESET> to return to the root menu.

Key 9 - Clear Errors

The purpose of this menu selection is to allow the operator to erase 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 <9> on the keypad to enter the clear errors mode. The LED display will show *Clr*.

2. Press <0> on the keypad to erase errors. The LED display will show *done* when errors are erased. Press reset to exit without erasing errors.

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 *dOnE* 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)

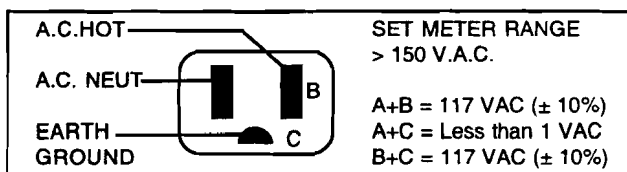
If the refrigeration system compressor is inoperative, perform the following checks before replacing the unit. Be sure to hold the Refrigeration Interlock Switch closed when making the operational checks.

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 $\pm 10\%$)
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:



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 on the bottom of the Power Panel.
- 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 <7> key 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 Key 7. If all faults are cleared the display will show done.

Compressor Circuit

The Compressor circuit in the 7700 Air Cooled unit is a Permanent Split Capacitor Start Motor. This utilizes a single Start Capacitor with a value of 53/64 μ FD. 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. Remove the four (4) screws securing the bottom right hand gusset.
3. Remove the G&M shelf if present.
4. Remove the bottom right cover of the Machine Room.
5. Unplug the Refrigeration Unit.
6. Remove the intake air screen and (2) cable clamps that held the screen.
7. Remove the (2) screws securing the Refrigeration Unit at the bottom of the cabinet.
8. The refrigeration unit is now ready to slide out.
9. To install, reverse the above procedures making sure Evaporator Unit fully engages the tab of Retaining Bracket at rear of machine.

Refrigeration System Wiring Diagram

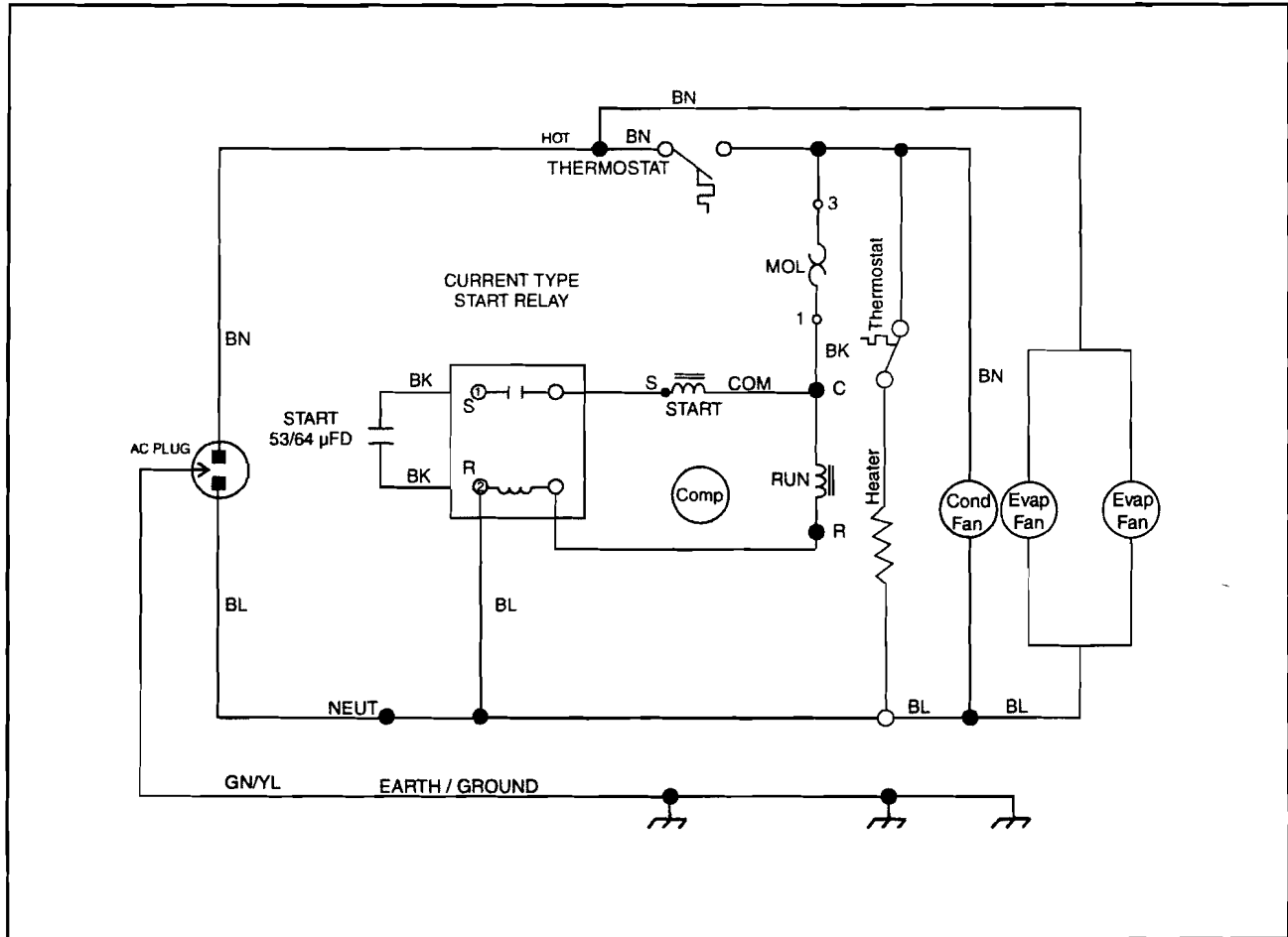


Figure 4-1. Refrigeration System Wiring Diagram

CAUTION !

Protective eye wear must be worn when testing refrigeration systems. This system is charged with 6.0 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, P5 or 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 power to logic coin mech.	Check for 5VDC at connector P1 or J4 @ pins 8 & 11. If not present, replace controller.
	No power to MDB coin mech.	Check for 24V pulsing DC @ connector P6, pins 1 & 2.
Does not accept coins.	Logic coin mech is not reset or not receiving coin acceptance signal	Check that accept/enable is low at connector P1 or J4 @ pins 2 & 11.
	No power to logic coin mech.	Check for 5VDC at connector P1 or J4 @ pins 8 & 11. If not present, replace controller.
	No solenoid power to logic coin mech.	Check for 24VPDC at connector P1 or 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	Logic coin mech harness
Defective coin mech.		Replace coin mech.
Credit pulse not received from bill validator.		Check for continuity between: Controller J6 or P7, pin 2 and UBA pin 5.

Troubleshooting Chart 4-1

Error Messages (Problem/Solution) Con't

PROBLEM	PROBABLE CAUSE	SOLUTION
Does not give change	Defective bill validator.	Replace validator.
	Defective controller board.	Replace controller.
	No change in coin mech.	Add change.
	No 24VPDC to logic coin mech.	Check for 24VPDC at connector P1 or J4 @ pins 12 & 13.
Incorrect change dispensed	Open dispense line(s) to logic coin mech (micromech versions only)	Check for continuity between: Controller P1 or 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
	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 logic coin mech (micromech versions only)	Check for continuity between: Controller P1 or 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. BA STATUS LED is blinking.	Defective V1 cell. Defective UBA Unit. 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
<p>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.</p>	BA STATUS LED flashes once.	Object in Transport covering V1 cell. Defective UBA Unit.
	BA STATUS LED flashes 3 times.	Object covering V3 cell. Defective lower harness and cell assembly. Defective UBA unit.
	BA STATUS LED flashes 4 times.	Object in Transport Unit activating anti-pull back lever. Defective lower harness and cell assembly. Defective UBA Unit.
	BA STATUS LED flashes 5 times.	Bill Box full. Bill Box jammed in "off home" position. Bill Box home switch out of adjustment. Defective Bill Box. Defective UBA Unit.
	BA STATUS LED flashes 7 times.	Motor speed could not be adjusted. Incorrect belt tension. Defective drive motor. Defective UBA Unit.

Interconnect Block Diagram

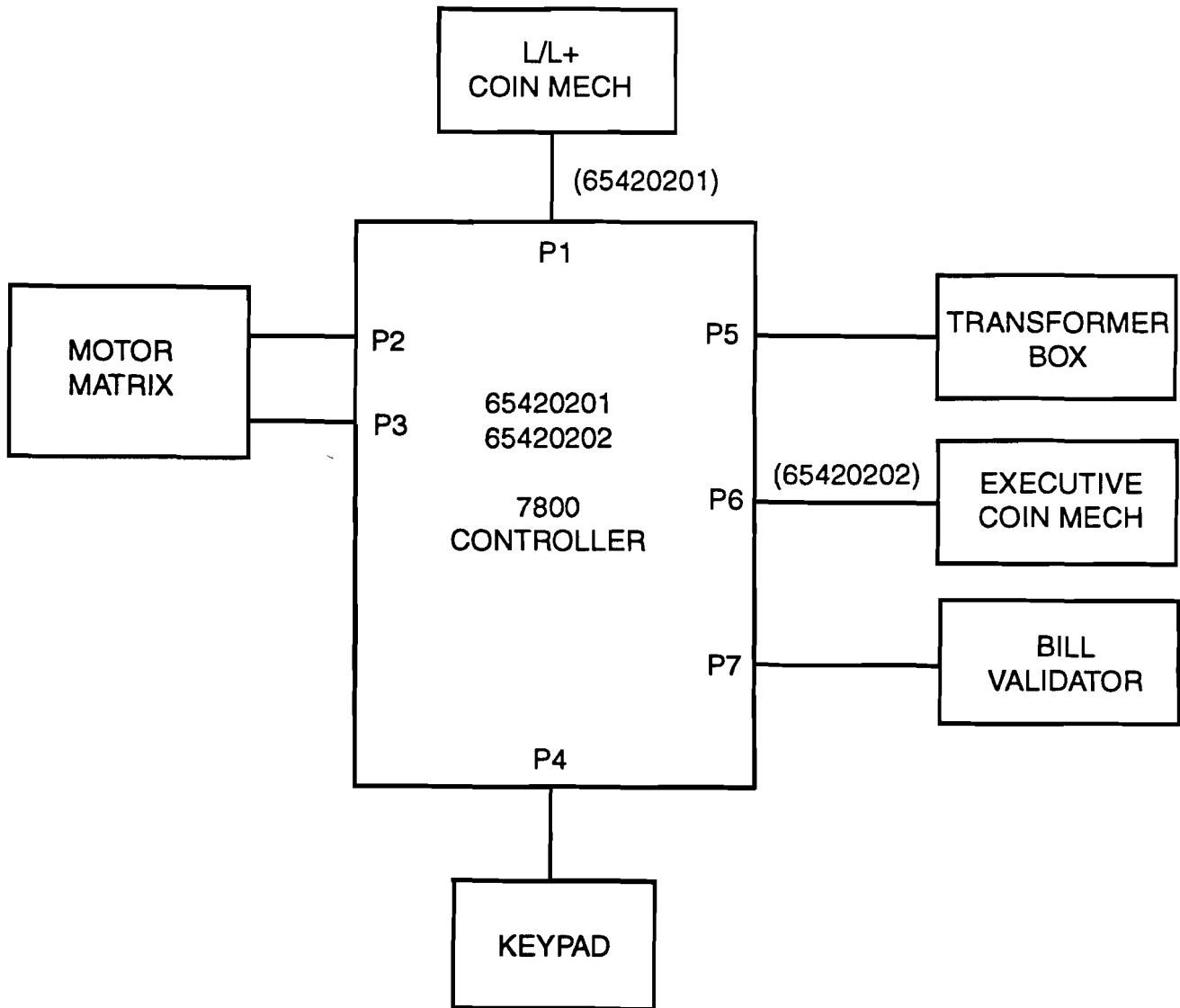


Figure 4-2. Block Diagram

Interconnect Block Diagram

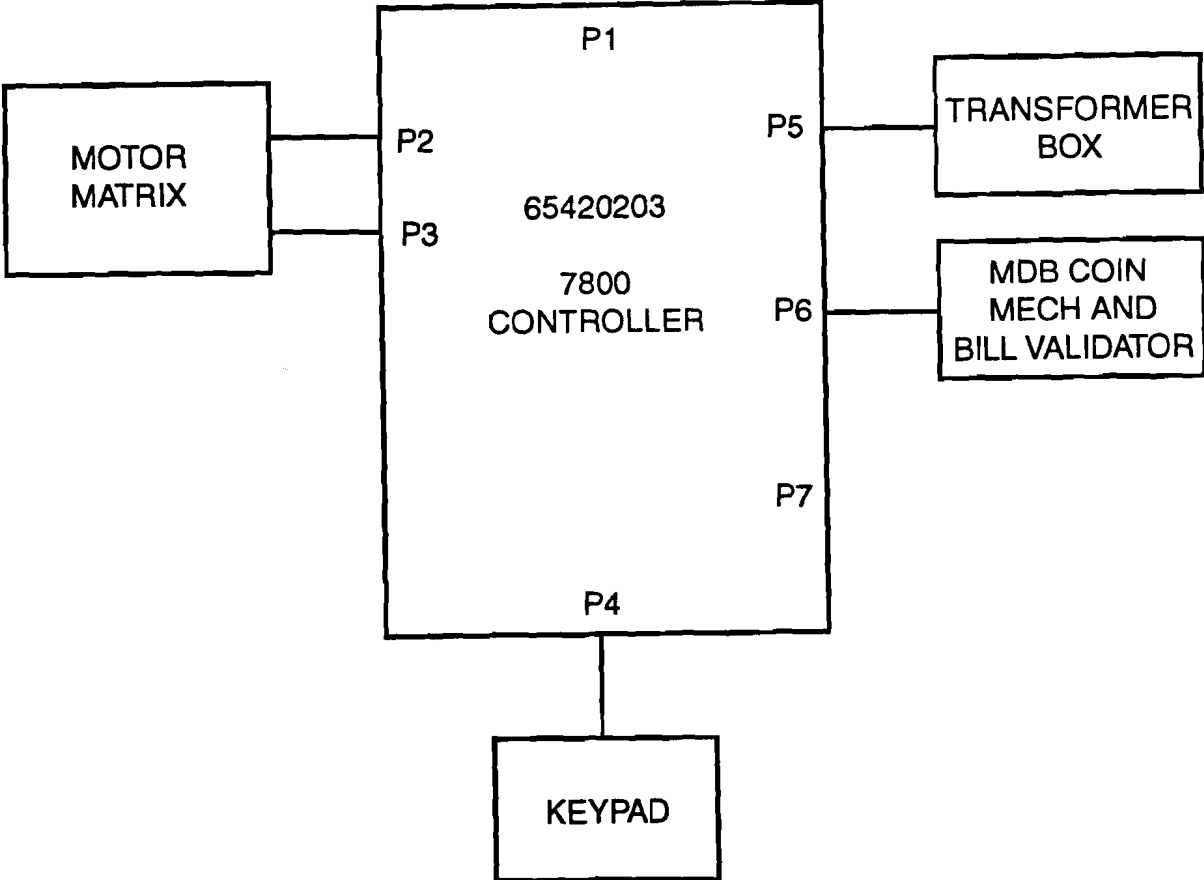


Figure 4-3. Block Diagram

15 Pin Coin Mech Socket

Coin Mechanisms -24V Only

24V Models - 15 Pin ONLY

MARS TRC-6010-XV

COINCO 9302LF

MAKA USPX

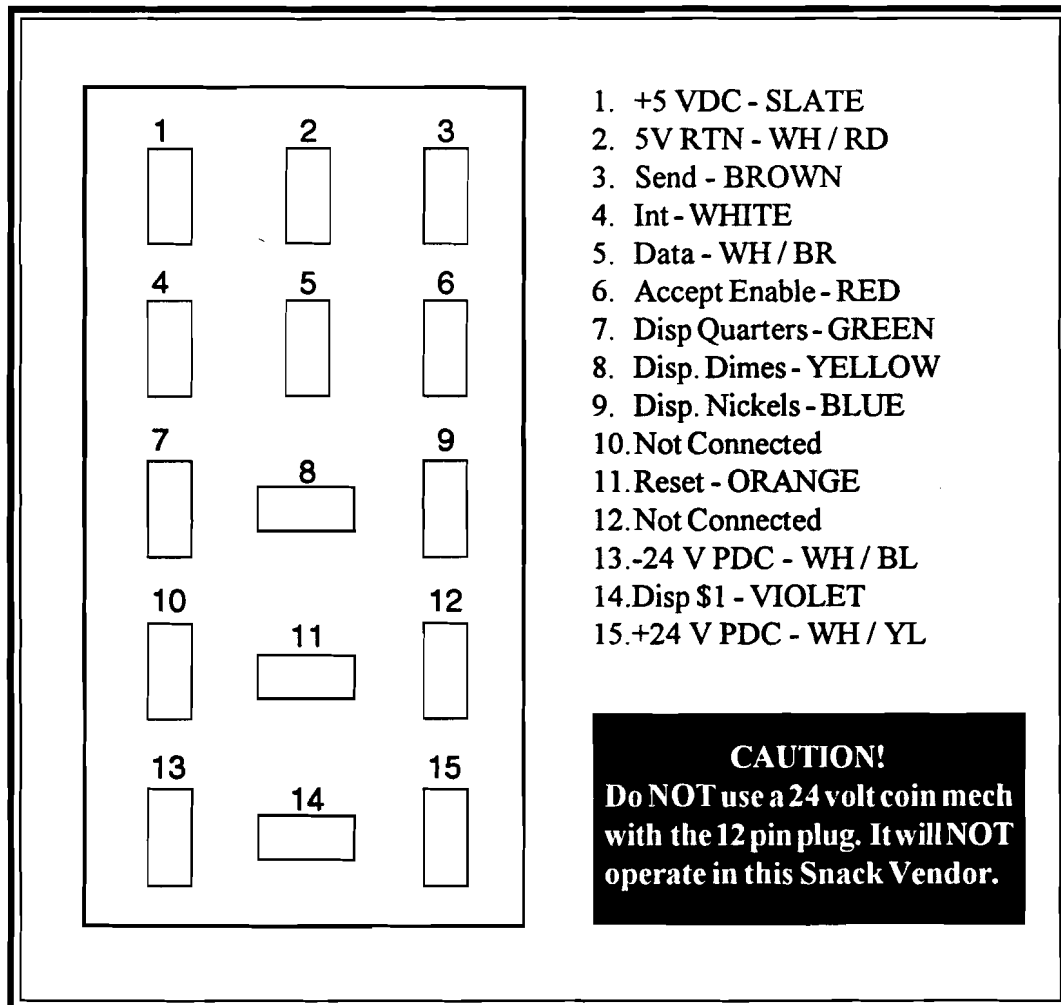
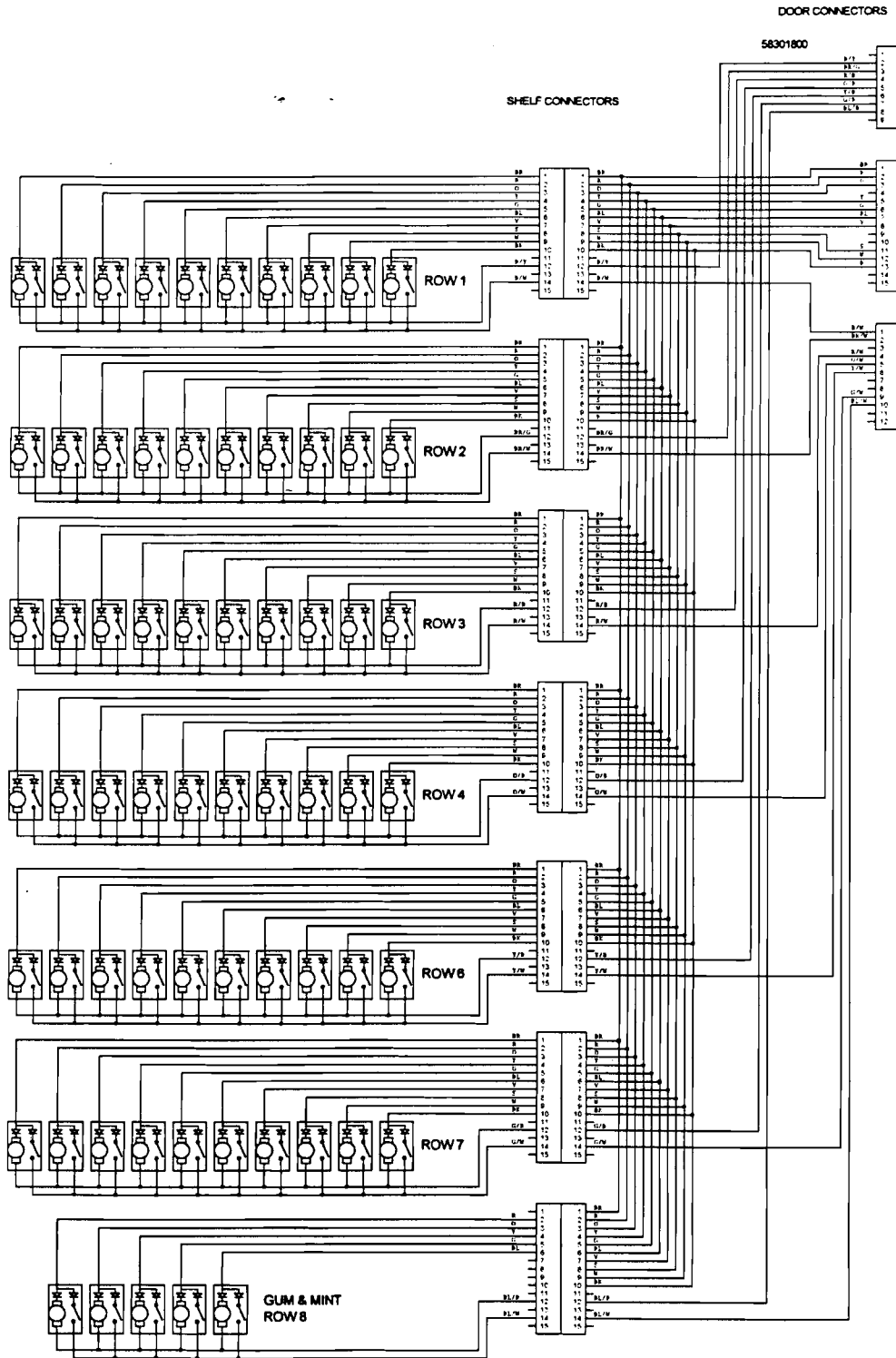


Figure 4-3. Coin Mech Socket



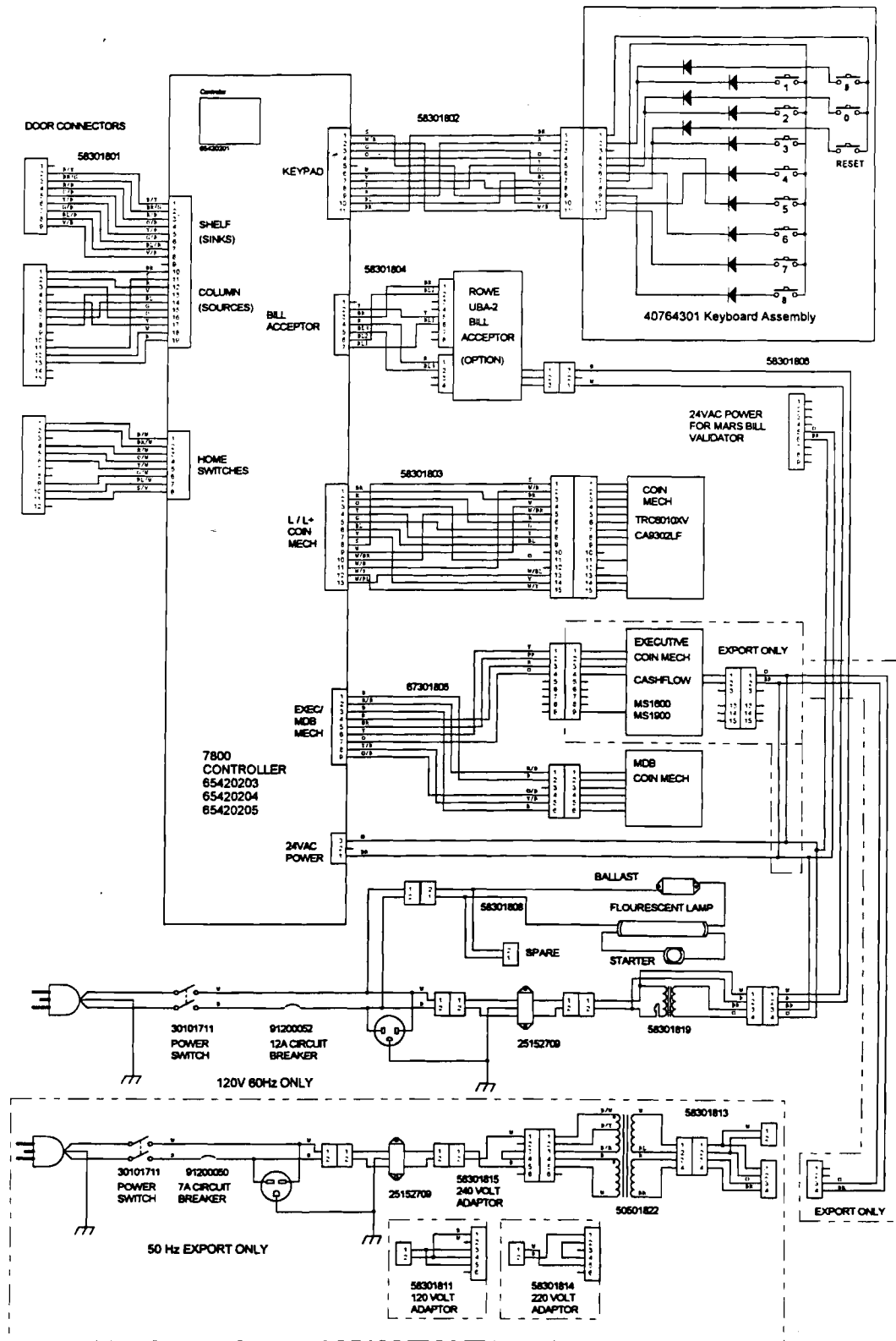
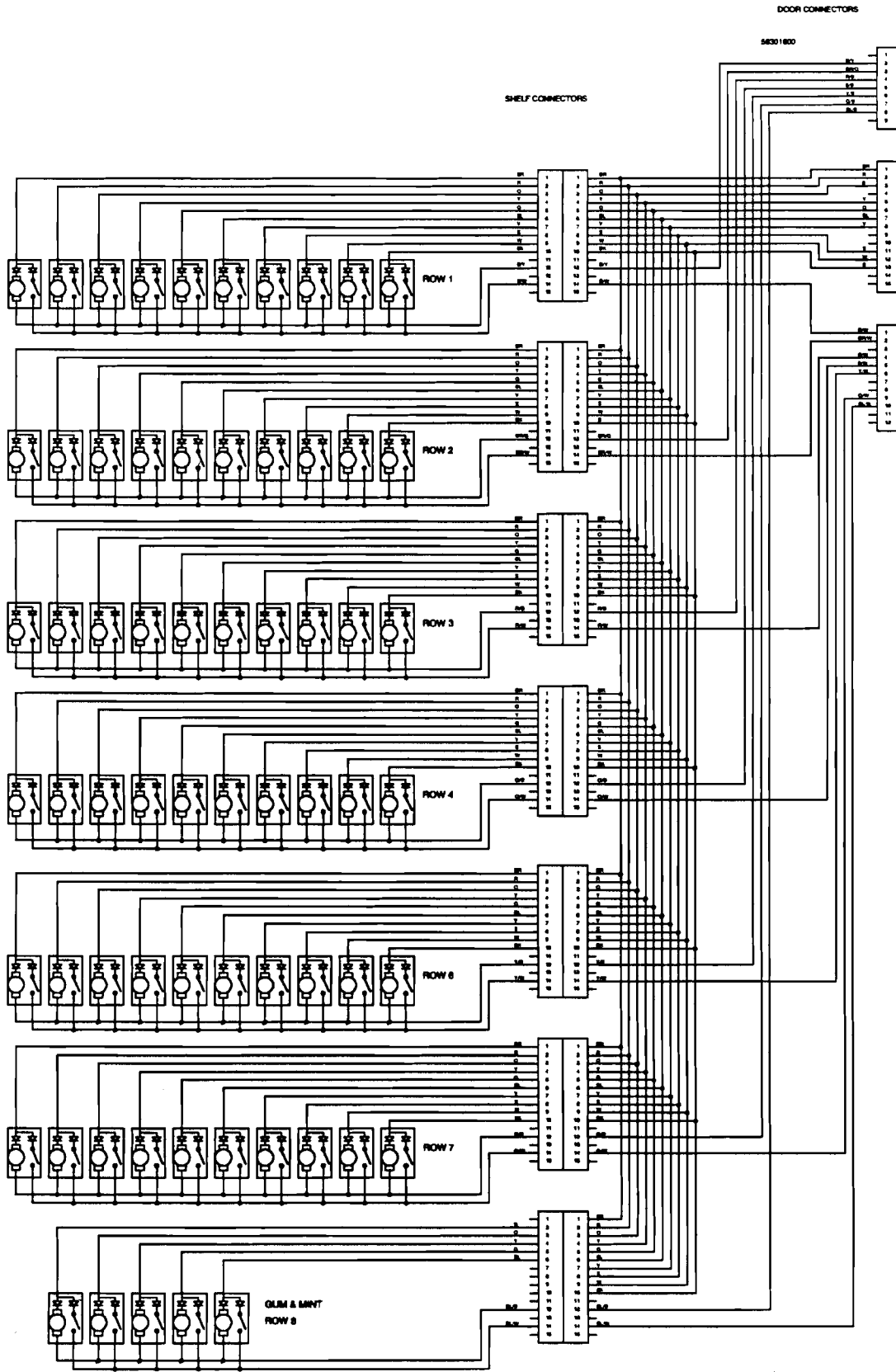


Figure 4-4A. 7800 System Schematic



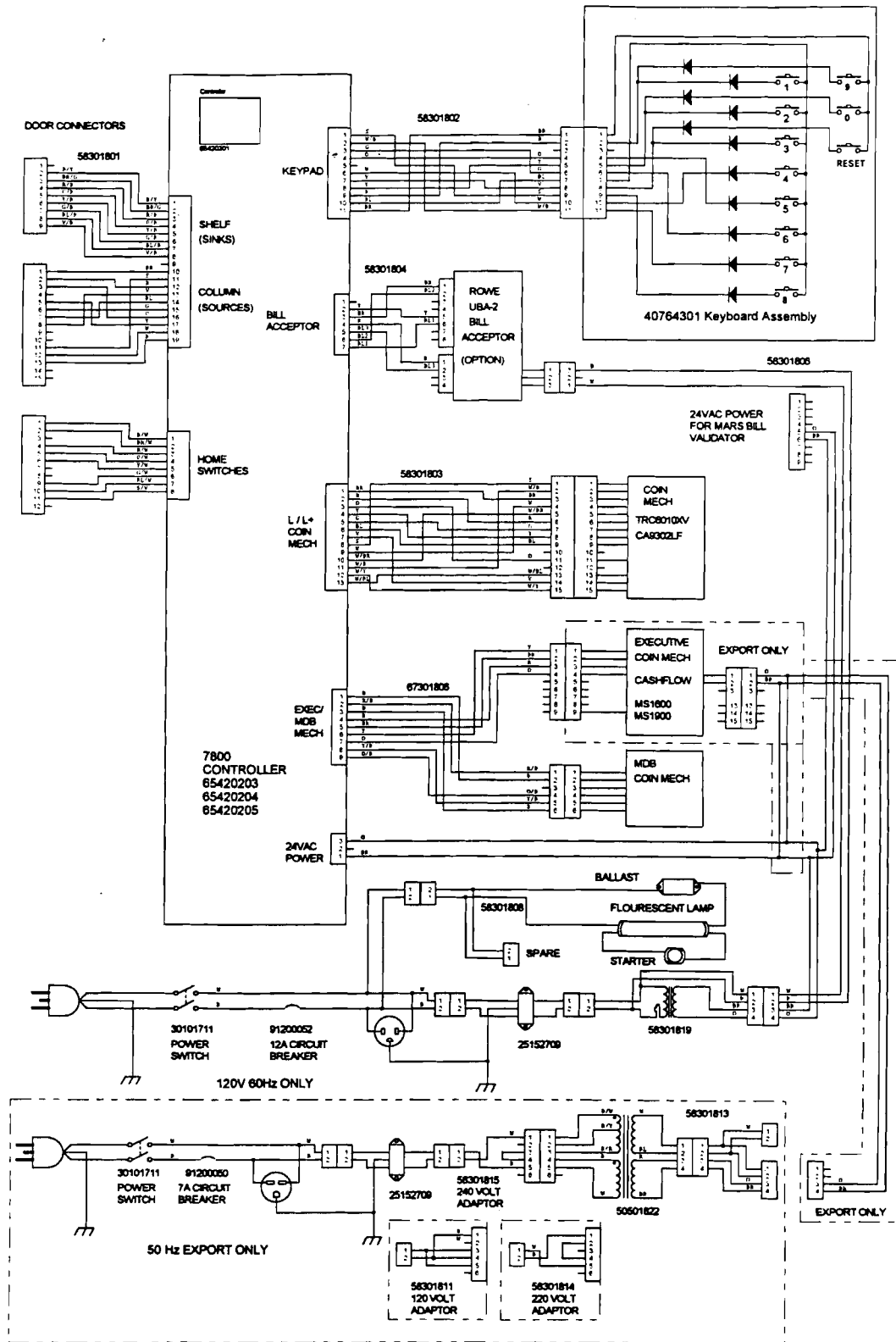
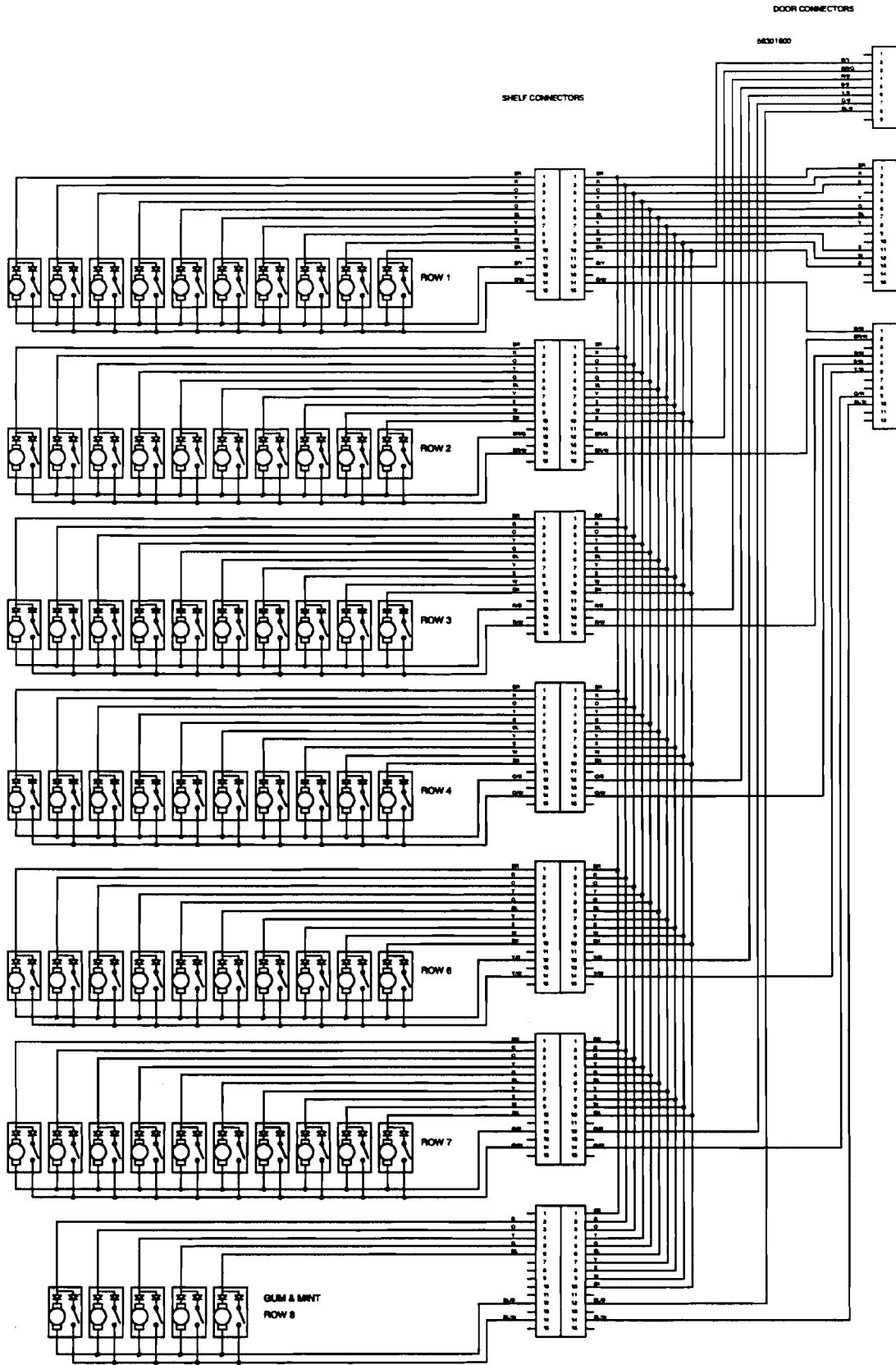


Figure 4-4A. 7800 System Schematic



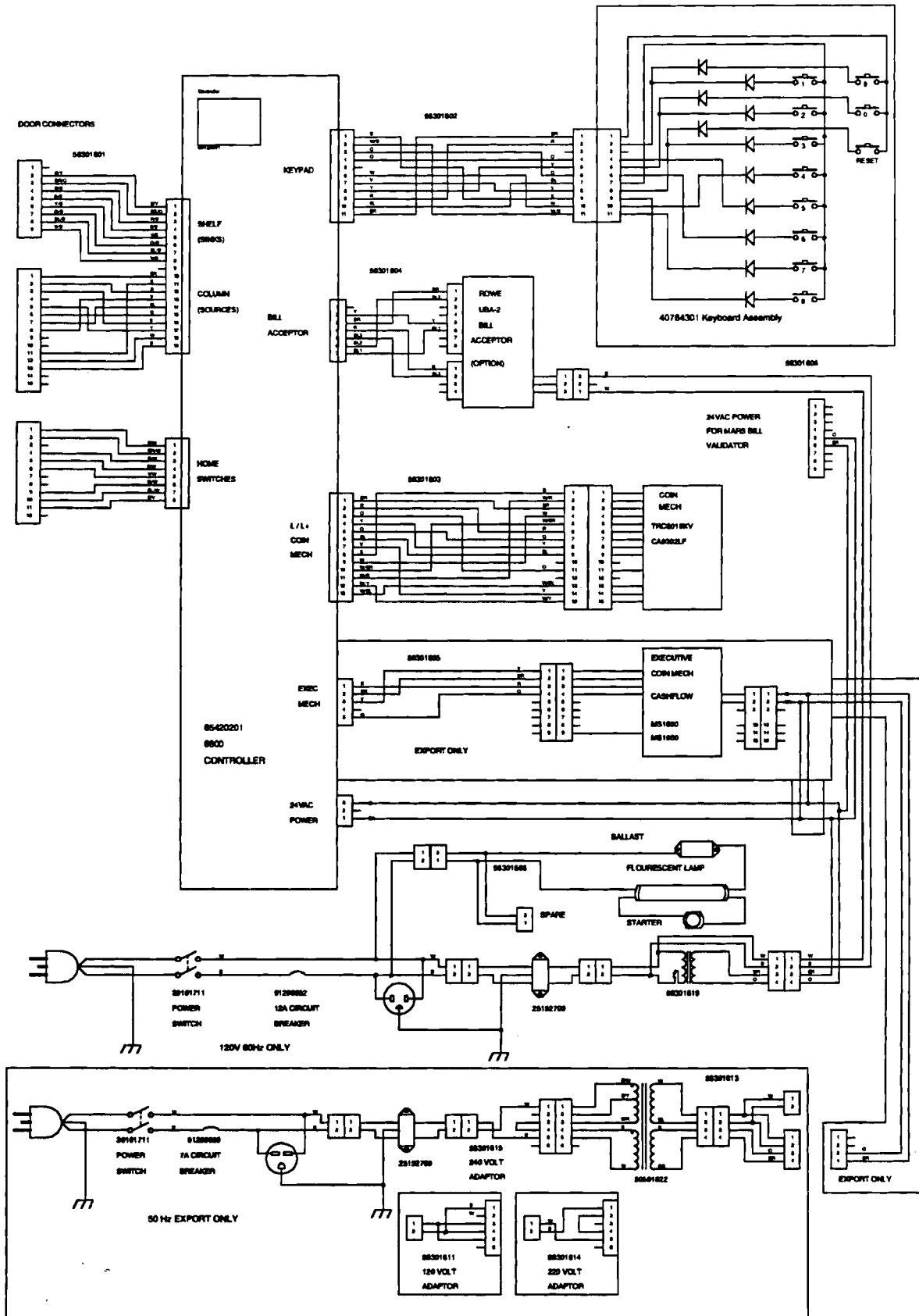
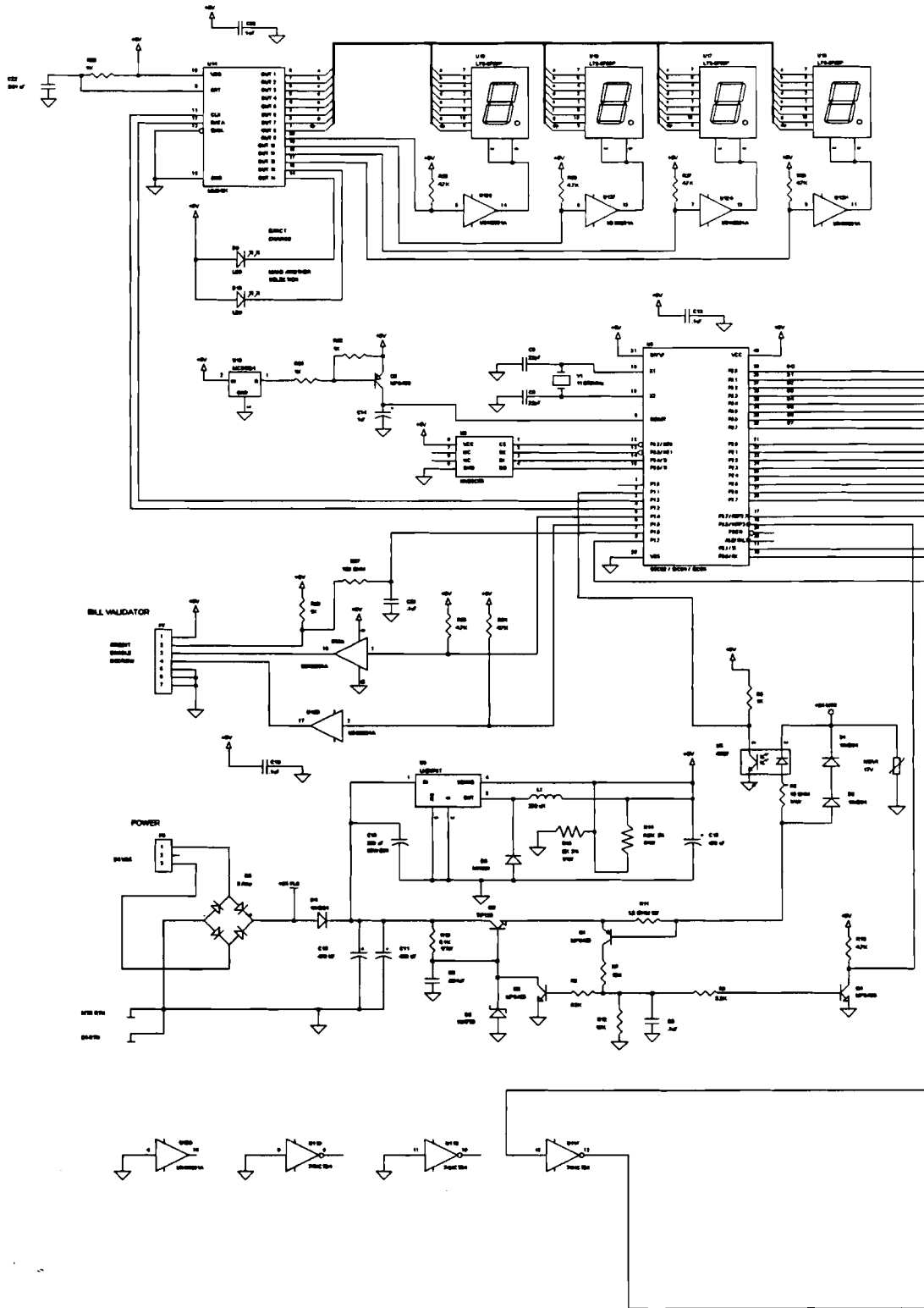


Figure 4-4B. 7800 System Schematic



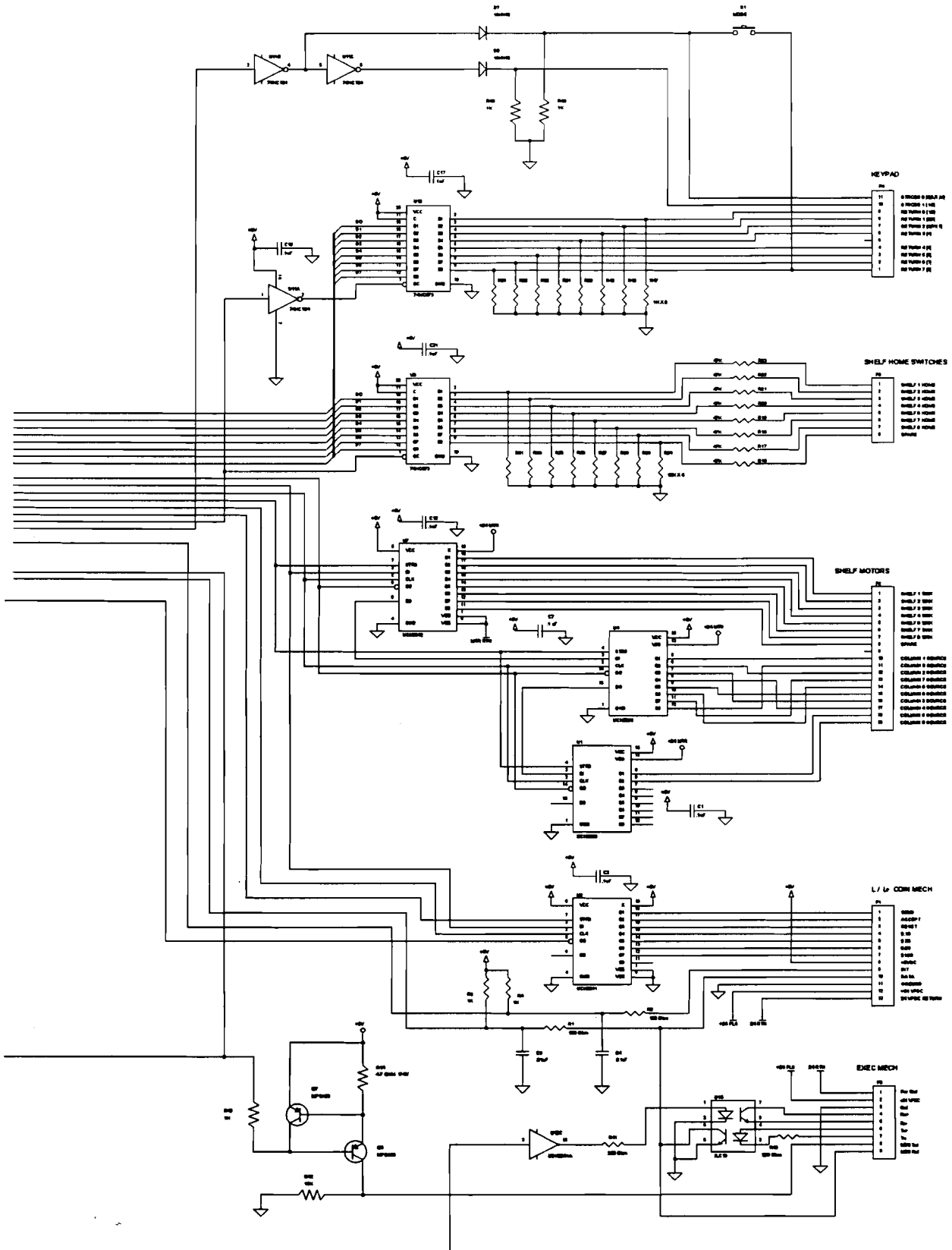
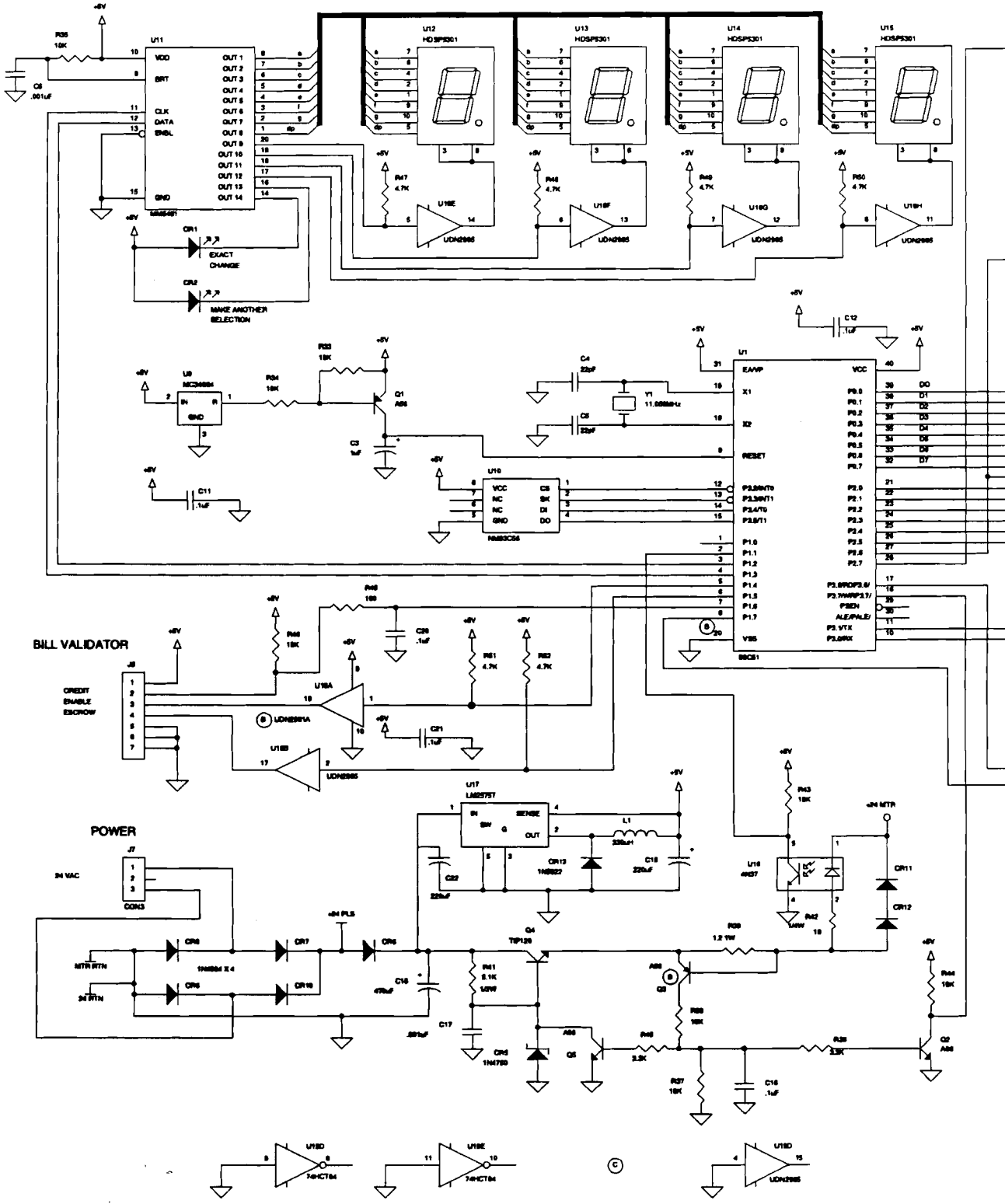


Figure 4-5. 7800 Controller Schematic
(65420203) (65420204) (65420205)



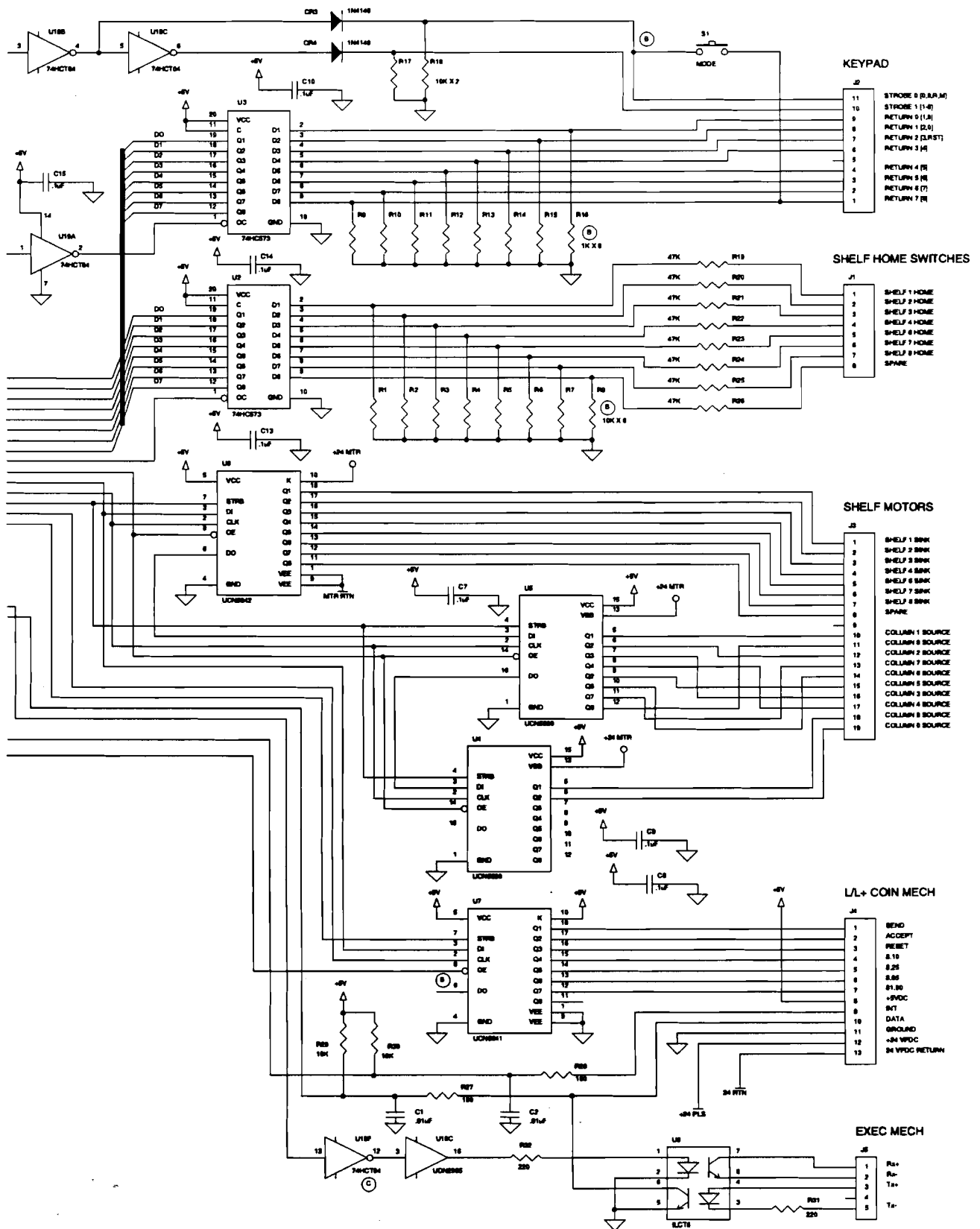


Figure 4-6. 7800 Controller Schematic (65420201) (65420202)

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 counterclockwise.
 - 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.

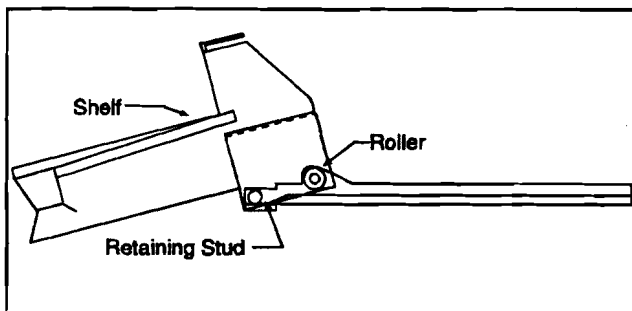


Fig. 5-1
Normal Service Position

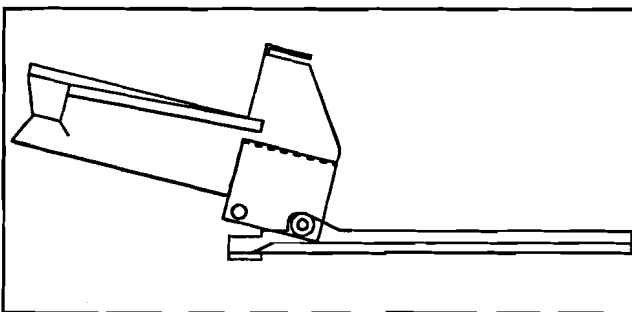


Fig. 5-2
Shelf Removal Primary Position

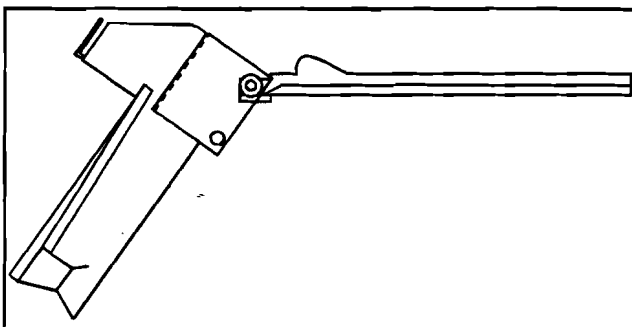


Fig. 5-3
Shelf Removal Final Position

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.

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 7800 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.

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

7800 Part No.	7800JR Part No.	7800C 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

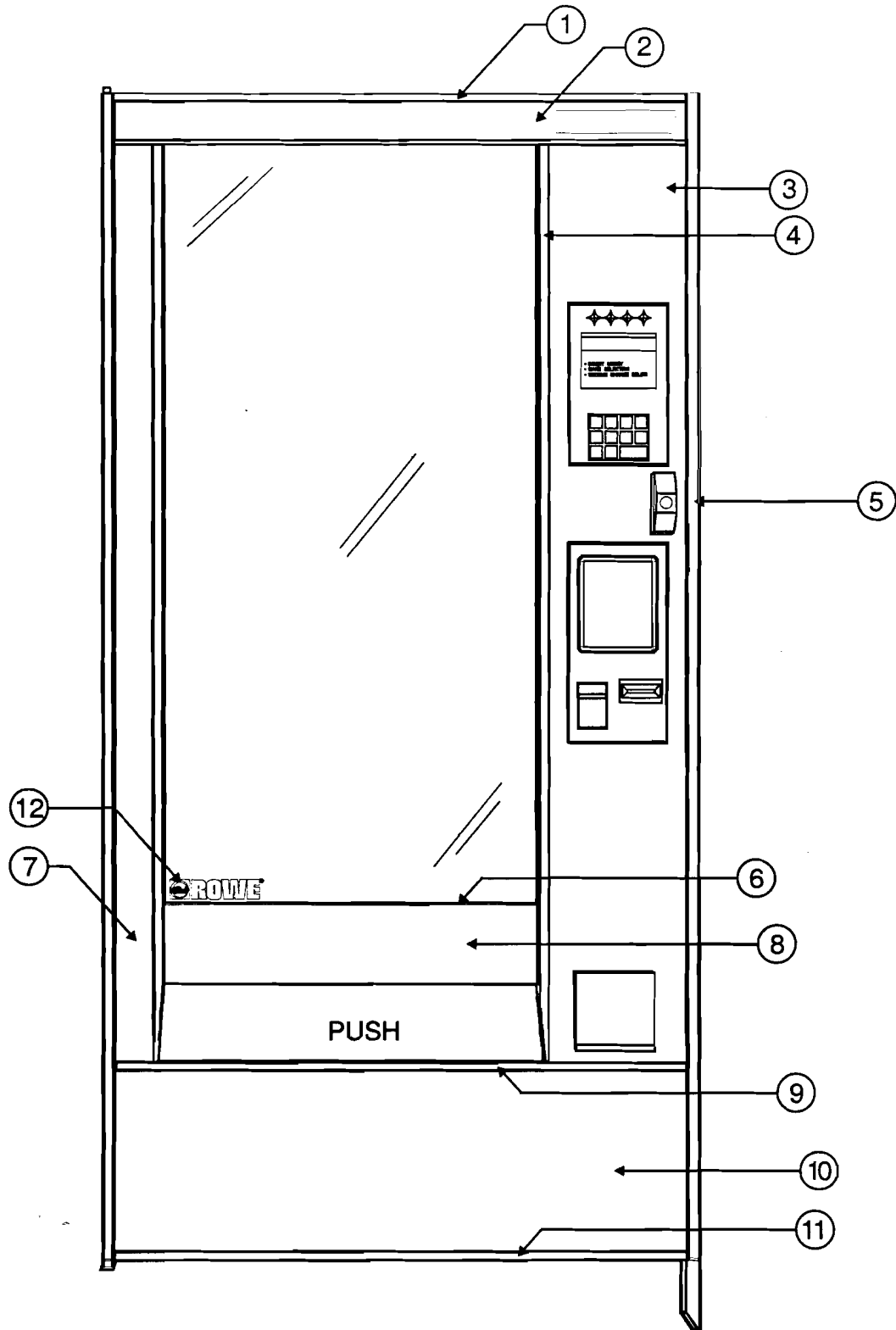
49000028	"	"	Helix, 30 Count - Candy	
49000029	"	"	Helix, 24 Count - Candy	Fits Product <3/4"
49000030	"	"	Helix, 18 Count - Candy	Fits Product <1 1/16"
49000031	"	"	Helix, 15 Count - Candy	Fits Product <1 5/16"
49000032	"	"	Helix, 15 Count - Pastry	Fits Product <1 5/16"
49000033	"	"	Helix, 12 Count-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

PARTS CATALOG

Table of Contents

FIG. NO.	TITLE	PAGE
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6	Power Panel Components	6 - 14
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Main Door Trim and Panels



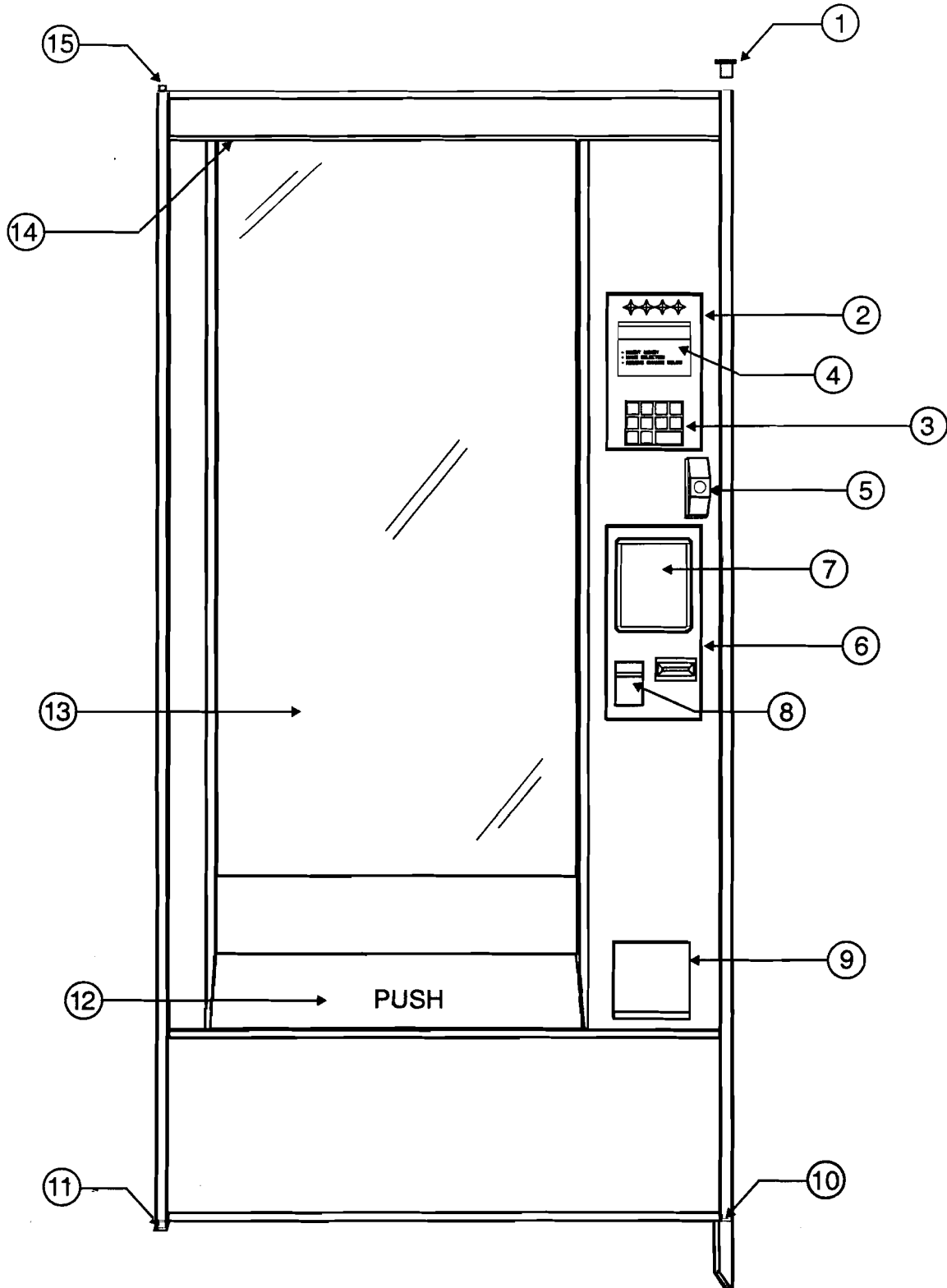
Main Door Trim and Panels

MODEL & STYLE		7800 GENESIS	7800JR GENESIS	7800C GENESIS
1	Header Channel	98300005	98300007	98300003
2	Header Insert	98500004-009	98500005-009	98500020-009
3	Overlay Selector (opt.)	67300408-009	67300408-009	67300408-009
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 (opt.)	98500032-009	98500032-009	98300032-009
8	Overlay Center (opt.)	49000485-078	49400432-078	59100411-078
9	Trim Bottom Display	98300225	98300226	98300234
10	Overlay Lower Door (Stripes)(opt.)	49301476	49401422	59101407
11	Trim Bottom (with item 10)	49300484-309	49400442-309	59100412-309
12	Label - Rowe Logo	67300413	67300413	67300413

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

Main Door Exterior



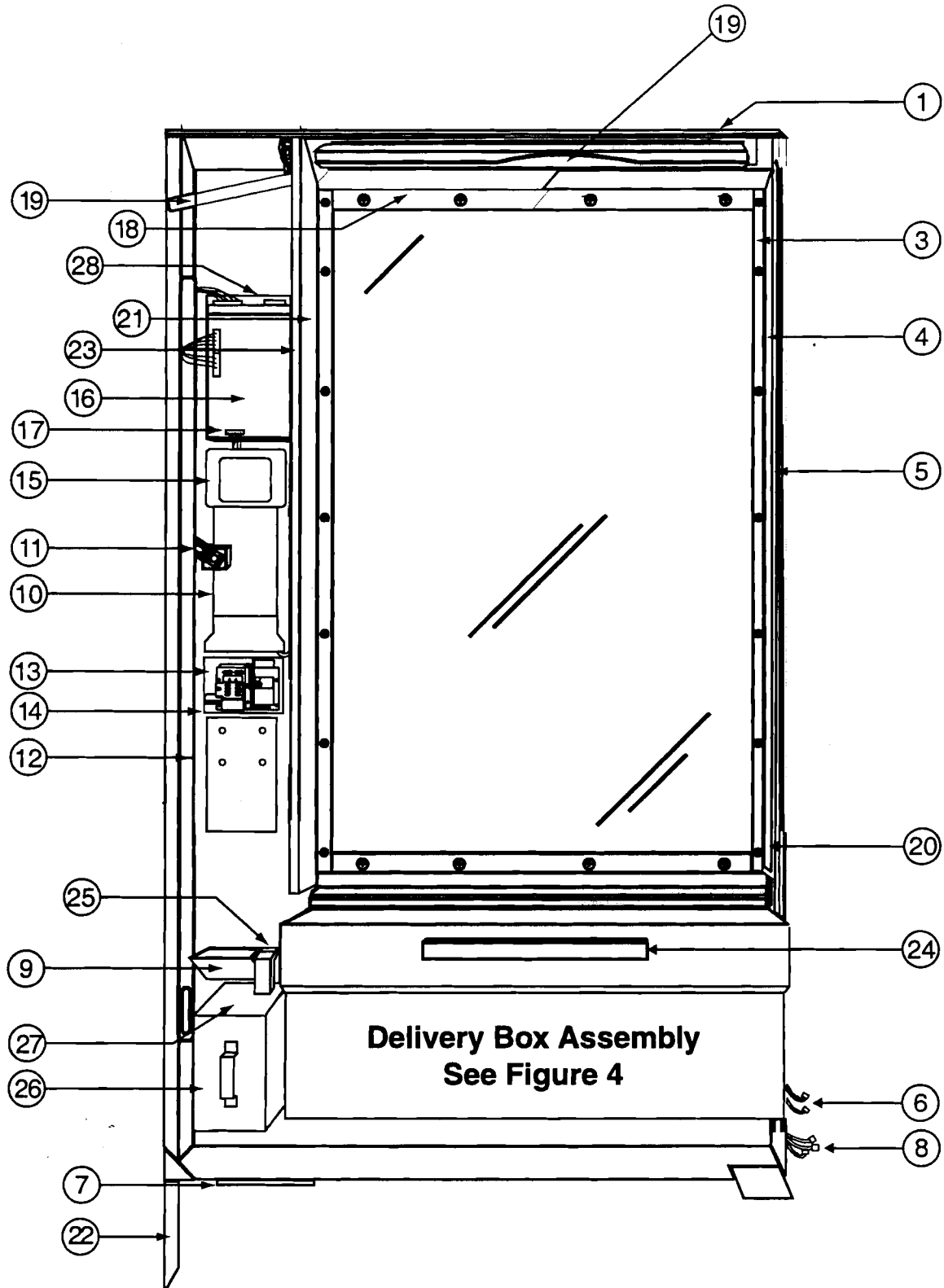
Main Door Exterior

Index No.	7800 Part Number	7800JR Part Number	7800C Part Number	Description	Quantity Per Assembly
	67301400	67401400	67101400	Door F/A	1
REF	67301401	67401401	67101401	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
	92400176	"	"	Nut - 3/16 Stud Type	12
7	58300423	"	"	Filler Plate - Bezel	1
8	49000470	"	"	Slide Coin Return	1
9	45085604	"	"	Cupassy - Changer	1
10	40800510	"	"	Cap - Bottom Trim	1
11	44801407-309	"	"	Pivot Plate R/A - Bottom	1
12	67301404	67401402	67101402	Delivery Box Assembly	1
13	49300408	49400428	59100414	Glass - Display	1
	58300475	58400448	58100441	Glass - Insulated Display	1
14	49300410	Same	Same	Filler Plate & Glass Retainer - Not Shown	1
15	44801309-309	"	"	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

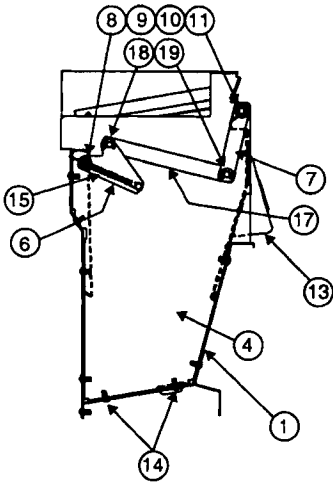
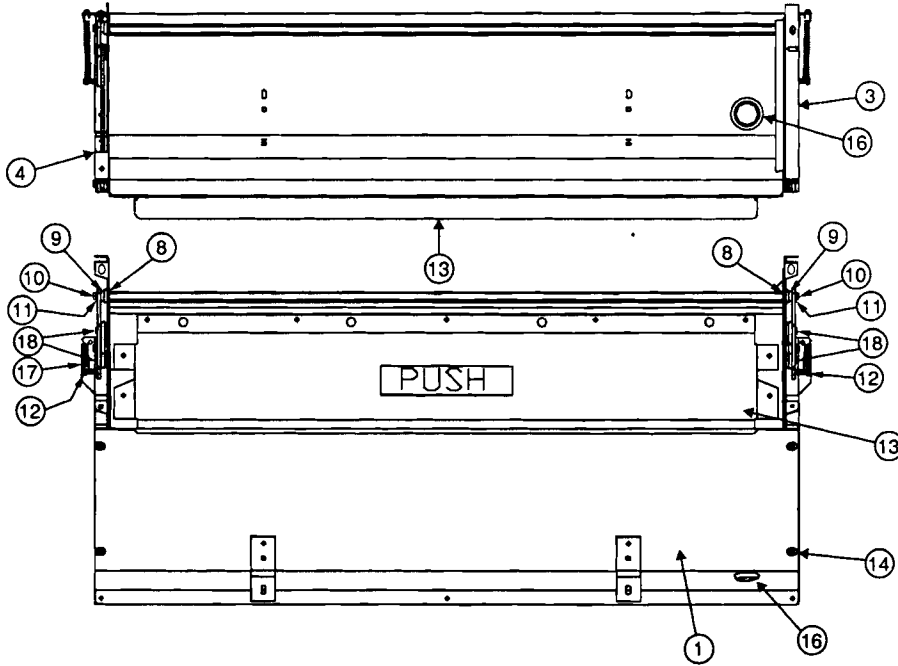
Main Door Interior



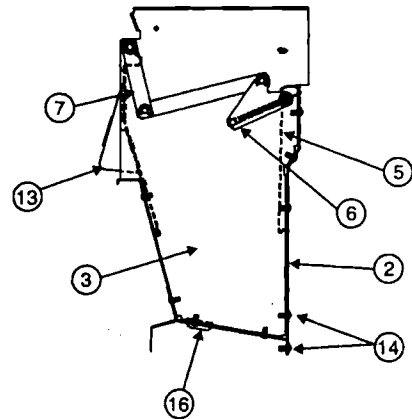
Main Door Interior

Index No.	7800 Part Number	7800JR Part Number	7800C Part Number	Description	Quantity Per Assembly
	67301400	67401400	67101400	Door F/A	1
1	67301401	67401401	67101401	Door Weld Assembly	1
2	67301801	67401800	67101800	Lamp Bracket Assy	1
	70080003	70080001	70080001	Starter - Fluorescent	1
	58300473	58400446	58100451	Bracket - Lamp Mounting	1
	97600021	Same	Same	Starter - Socket Assembly	1
	91700103	70060022	91700115	Lamp - Fluorescent	1
	58301824	Same	Same	Ballast Assembly - 60 HZ	1
	58301825	"	"	Ballast Assembly - 50 HZ	1
3	49300411	"	"	Bracket - Display Glass Mtg Non/Ins	2
	58100442	"	"	Bracket - Display Glass Mtg A/C	2
4	49300413-239	"	"	Delivery box Shroud - Left	1
	93400468	"	"	Screw #8 x 1/2 S/T	12
5	58301808	"	"	Harness - Fluorescent 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	58301829	"	"	Harness - Main Door	1
9	45085604	"	"	Cup Assembly - Coin Return	1
	35116901	"	"	Door - Change Cup	1
	35121501	"	"	Bracket - Coin Cup Mtg	2
10	25245125	"	"	Transport Assembly - UBA-2	1
	65079043	"	"	Transport Assembly - RBA7	1
11	58300467	"	"	Cam - Door Lock	1
	92400181	"	"	Nut 1/2 -20	1
	93300007	"	"	E-Ring	1
	49000353	"	"	Spring - Door Stop	1
12	58301408	"	"	Pin & Lockbar Assembly	1
13	58300415	"	"	Gate - Coin Insert	1
14	58301402	"	"	Coin Insert and Return Assembly	1
	58301403	"	"	Coin Return W/A	1
	58301404	"	"	Coin Return Cam R/A	1
	58301405	"	"	Coin Chute W/A	1
	58300414	"	"	Lever - Coin Return	1
	25600801	"	"	Rivet - Shoulder Coin Return	2
	70143005	"	"	Ring External Retaining	2
	70143002	"	"	Ring External Retaining	1
	21883601	"	"	Spring - Tension	1
15	40764301	"	"	PCB Assembly - Pushbutton Switch	1
16	65420201	"	"	CBA Snack Controller (Micro)	1
	65420203	"	"	MDB	1
	65420202	"	"	Exec. Mech	1
17	58300421	"	"	Cover Controller	1
18	58300469	58400443	58100450	Upper/Lower Glass Mounting Non/Ins	2
	58300468	58400442	58100444	Upper/Lower Glass Mounting A/C	2
19	49400437-239	Same	Same	Brace - Door Shroud	1
21	58100454	"	"	Shroud Delivery Box -RH	1
22	44800575-309	"	"	Leg - Door	1
	93400428	"	"	Screw #8 x 3/8 S/T (Truss)	3
23	90805059	"	"	Label - Flow Chart 6800	1
	90805060	"	"	Label - Flow Chart 6800 - (Spanish)	1
	90805061	"	"	Label - Flow Chart 6800 - (French)	1
25	67301402	"	"	Coin Chute Assembly	1
	67300404	"	"	Coin Chute - Cover	1
	67300405	"	"	Coin Chute	1
26	67301903	"	"	Coin Box Assembly	1
27	67301902	"	"	Nest - Coin Box Assembly	1
28	58300446	"	"	Bracket - 6800PCB MTG-STD	1

Delivery Box Assembly



Left Side

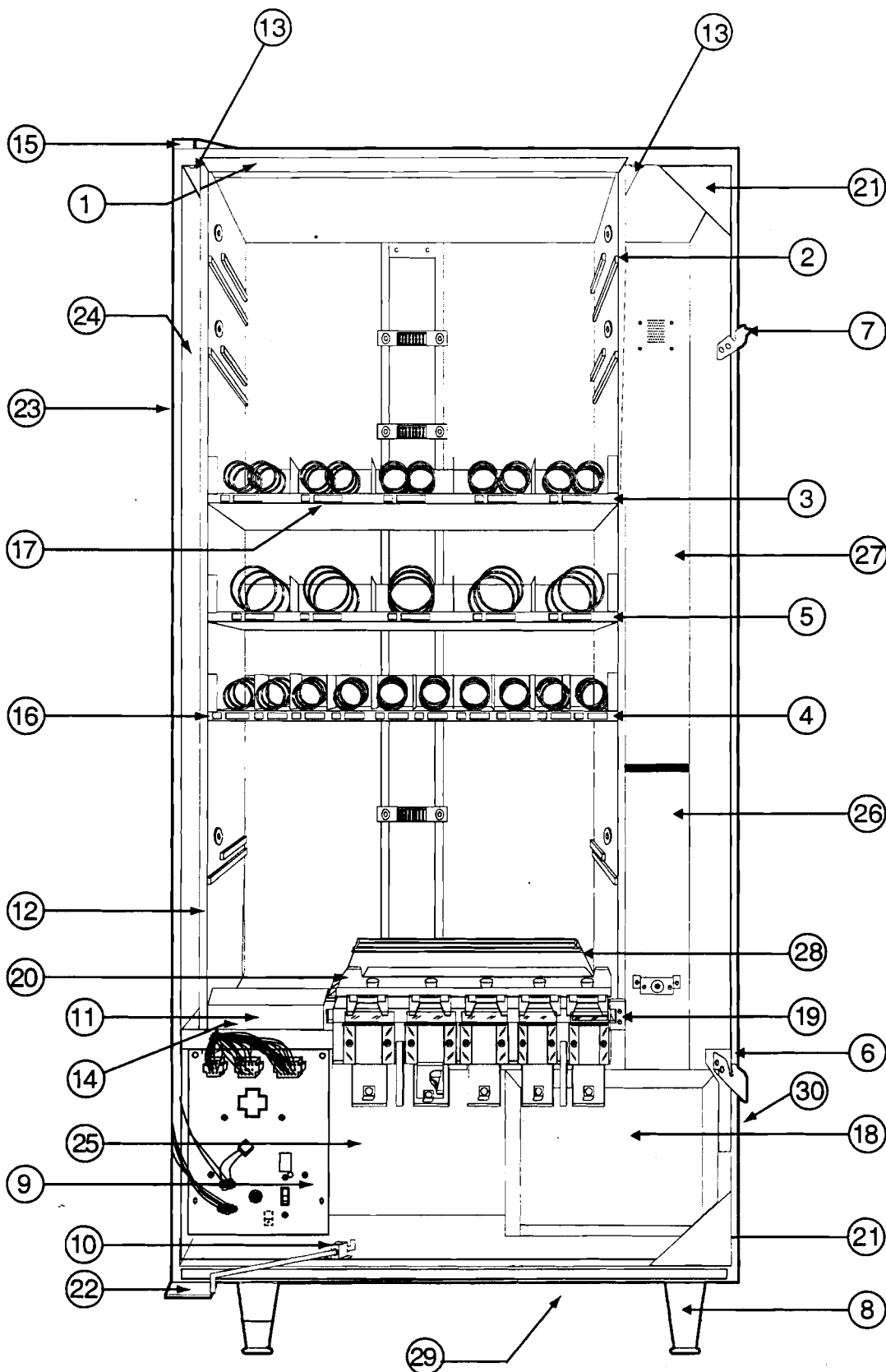


Right Side

Delivery Box Assembly

Index No.	7800 Part Number	7800JR Part Number	7800C Part Number	Description	Quantity Per Assembly
	67301404	67401402	67101402	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	67301405	67401405	67101403	Door Assembly - Back	1
6	67500417	Same	Same	Link - Delivery Door	2
7	67300418	"	"	Link - Inner Door	2
8	91600088	"	"	Plug Type 13 For .531 D. Hole	4
9	67300416	"	"	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	67301407	67401407	67101405	Front Door Assembly	1
14	93400485	Same	Same	Screw S/T #8 X 3/8	21
15	25181701	"	"	Spring - Tension (67101402 takes 1)	2
16	49300426	"	"	Plug - Recessed	1
17	67300419	"	"	Link - Middle	2
18	58300435	"	"	Pin - Linkage	4
19	70143004	"	"	Ring - External Retaining	4

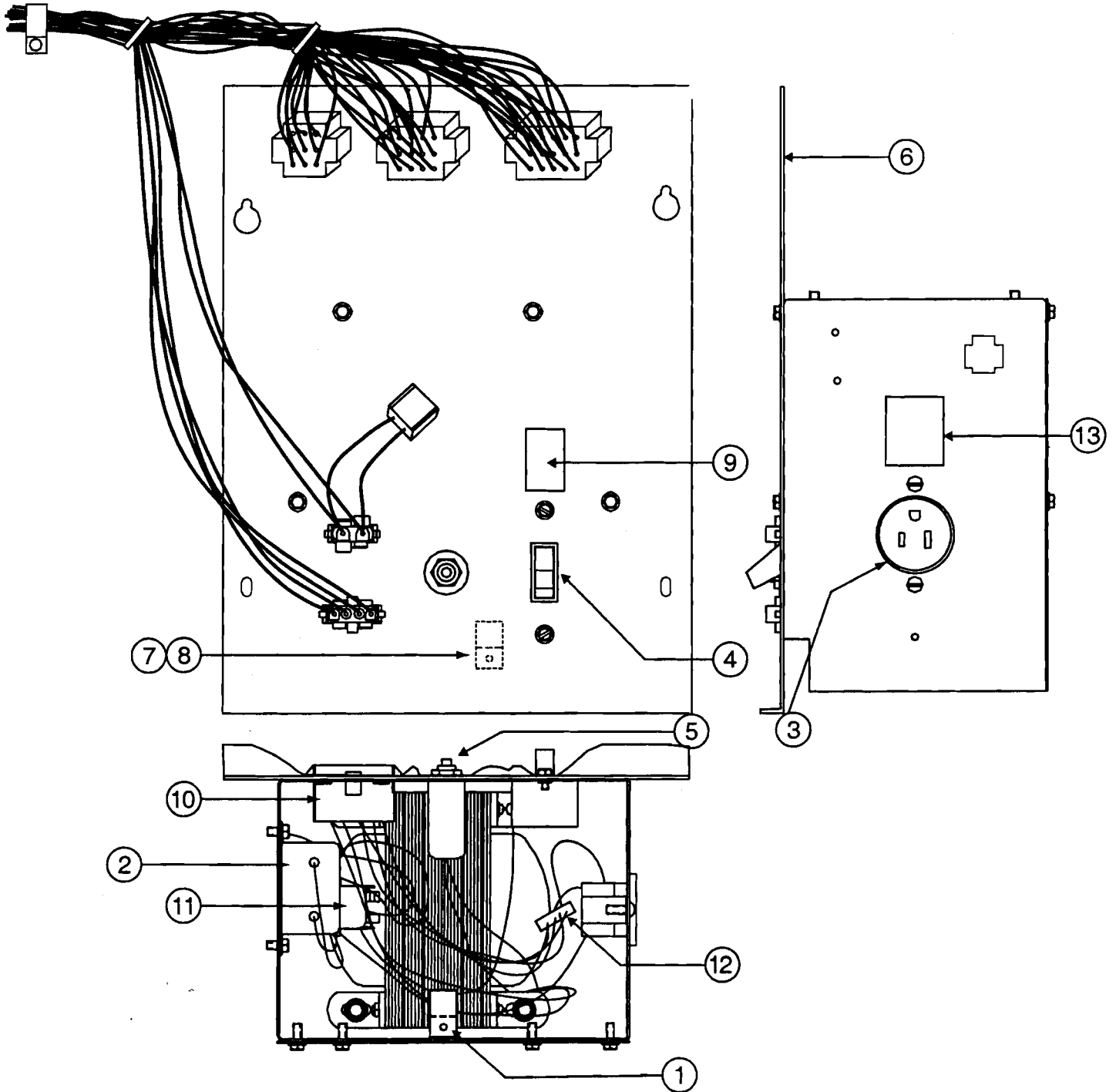
Cabinet Assembly Components



Cabinet Assembly Components

Index No.	7800 Part Number	7800JR Part Number	7800C Part Number	Description	Quantity Per Assembly
	67301900	67401900	67101900	Cabinet Assembly	1
	67301300	67401300	67101300	Cabinet W/A - Standard	1
	67301301	67401301	67101301	Cabinet W/A - Air Cooled (A/C)	1
1	49300911	49400901	59100902	Shield, Light & Security	1
	93400284	Same	Same	SCR-S/T, 8-32x3/8, TY-23, Truss	3
2	67300345	"	"	Panel RH-Changer (Standard)	1
	67300346	"	"	Panel RH Air Cooled (A/C)	1
3	59301600	59401600	59101600	Shelf Assembly - Dual Helix - See Fig. 9	Ref
4	59301610	59401610	59101603	Shelf Assembly - 10/8/6 Selection - See Fig. 10	Ref
5	59301605	59401605	59101603	Shelf Assembly - 5/4/3 Selection - See Fig. 8	Ref
6	70225103	Same	Same	Extrusion - Foam Rubber in Inches	145
7	49300325	"	"	Hook - Door Locking	2
	93400394	"	"	SCR-S/T, #10x1/2, TY-ZHXWSH	4
8	40801316-309	"	"	Leg W/A (Includes Leveler)	4
	40800352	"	"	Leveler Cabinet	4
9	67301803	"	"	Power Supply F/A 120V 60HZ - See Fig. 6	Ref
	67301804	"	"	Power Supply F/A 220V 50/60HZ - See Fig. 6	Ref
	67301805	"	"	Power Supply F/A 240V 50/60HZ - See Fig. 6	Ref
10	59500912	"	"	Mounting Bracket - Friction Pad	1
	49000389	"	"	Pad - Friction	2
	49000391	"	"	Washer - Curved	2
	93400394	"	"	SCR-S/T, #10X 1/2, TY-Z, HXWSH	4
	59500911	"	"	Stop - Rod/Main Door	1
11	67300332	67300333	67300331	Baffle w/Gum and Mint	1
	67300335	67300336	67300334	Baffle w/o Gum and Mint	1
	93400174	Same	Same	SCR-S/T, 8X3/8, TY-A, HZWSH	2
12	67300317	"	"	Channel-Shelf Mtg LH	2
13	67300343	"	"	Bracket - Top Channel Mtg	2
14	67300344	"	"	Bracket - Bottom Channel Mtg	1
15	44801309-309	"	"	Pivot Plate, Top	1
16	59301908	"	"	Assortment - Number Block	1
17	59301913	"	"	Price Card Assortment	1
18	58301200	"	"	Refrigeration Assembly (DOM) - See Fig. 12	1
	58322500	"	"	Refrigeration Assy (EXP) - See Fig. 12	1
19	59300742	"	"	Support - Front (Nylon)	2
	93400172	"	"	SCR-S/T, 8X5/8, TY-A, HXWSH	4
20	59301712-239	"	"	Bracket & Gusset W/A	1
21	59300322-239	"	"	Gusset-Cabinet	2
22	44801306-309	"	"	Pivot Bracket W/A	1
23	58101425-309	"	"	Bracket - Security Black	1
24	58100456	"	"	Baffle - Product 6700	1
25	67300313	67400306	67100306	Panel - Access Refridge (A/C)	1
26	68300315	Same	Same	Panel - Access Refridge (A/C)	1
27	67300316	"	"	Panel - Air Chamber (A/C)	1
	67300338	"	"	Rivet - Plastic .240D	3
28	67300330	"	"	Bracket - Refridge Retainer (A/C)	1
29	58301302	"	"	Screen - W/A Air Intake (A/C)	1
	29022502	"	"	Spacer	2
30	49321556	"	"	Screen Rear W/A (Not Shown) (A/C)	1

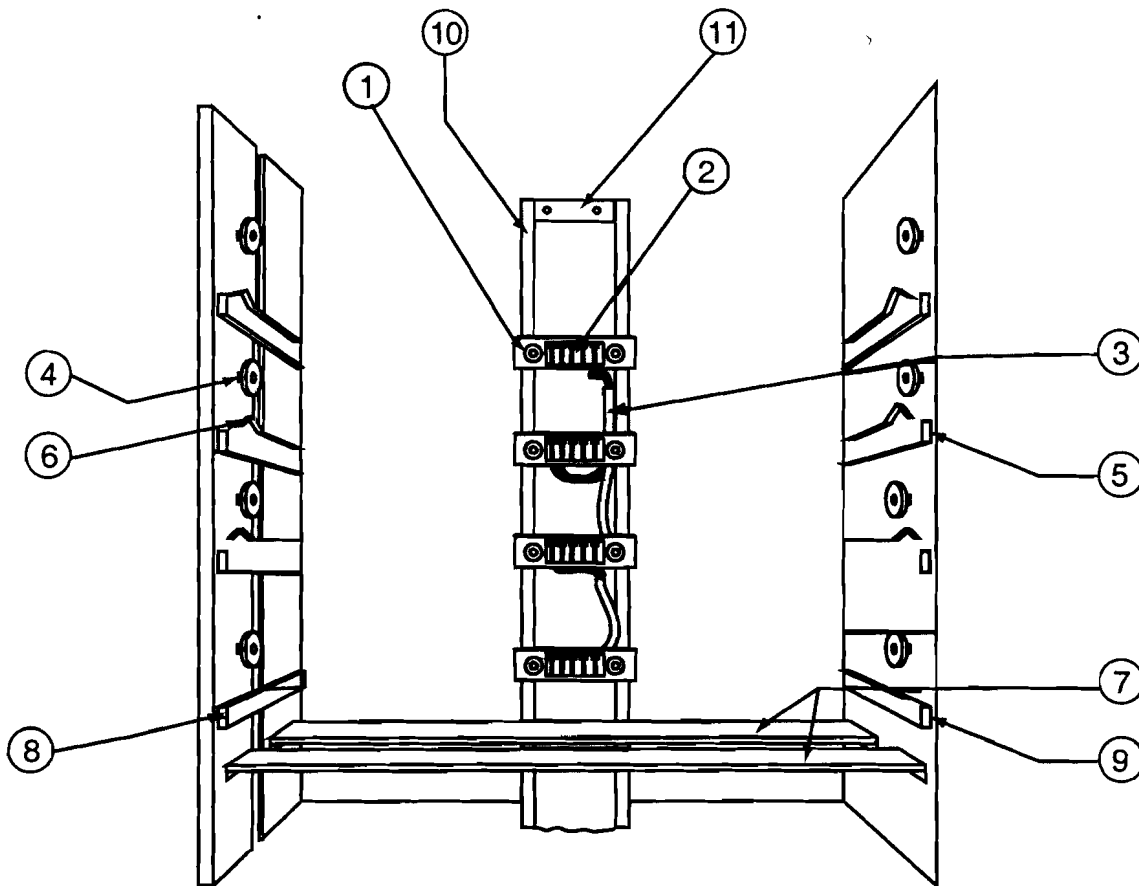
Power Panel Components



Power Panel Components

Index Number	Rowe Part Number	Description	Quantity Per Assembly
	67301803	Power Supply F/A 120V 60Hz	REF
	67301804	Power Supply F/A 220V 50Hz	REF
	67301805	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	67300312	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

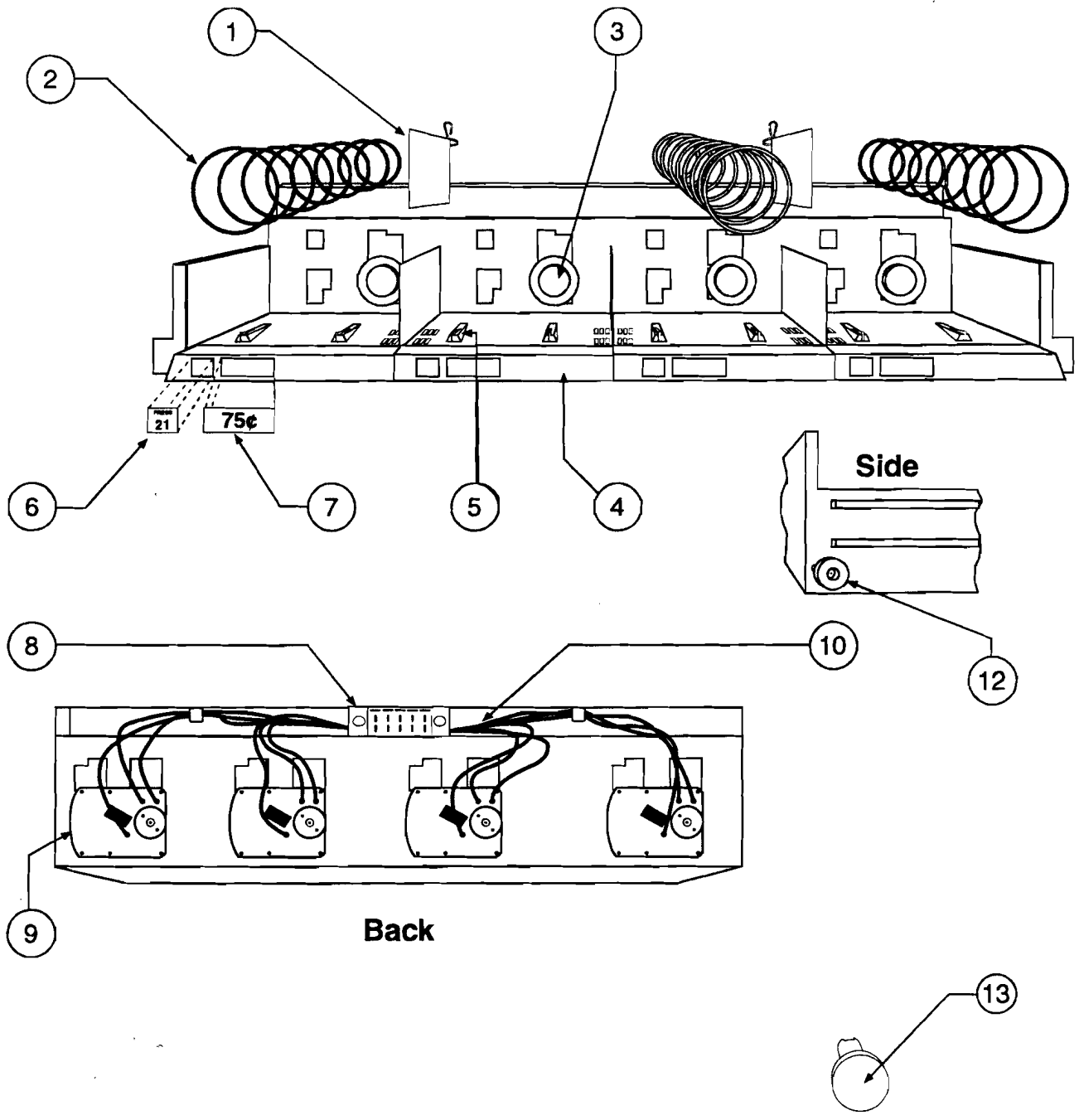
Shelf Support and Plug Assemblies



Shelf Support and Plug Assemblies

Index No.	7800 Part Number	7800JR Part Number	7800C Part Number	Description	Quantity Per Assembly
1	59301824	Same	Same	Plug Bracket W/A	6
	59300805	"	"	Plug Bracket	1
	44802480	"	"	Step Washer	2
2	97901253	"	"	Socket, 15 Pin Female	6
3	58301800	"	"	Harness Asm., Main Cabinet (Behind Cover)	1
	30749005	"	"	Socket - 9 Pin	1
	30749006	"	"	Socket - 12 Pin	1
	30749007	"	"	Socket - 15 Pin	1
4	49000005	"	"	Roller, Shelf	12
	49000006	"	"	Bushing, Shelf Roller	12
	93400484	"	"	Screw, Self Tapping	10
5	49301322-239	"	"	Upper Shelf Support W/A - R/H Side	3
6	49301321-239	"	"	Upper Shelf Support W/A - L/H Side	3
7	59300314	59400314	59100314	Tie Bar L/H & R/H Partition	1
	93400307	Same	Same	Screw, Self Tapping	4
8	49301308-239	"	"	Shelf Support L/H	3
9	49301309-239	"	"	Shelf Support R/H	3
	93400151	"	"	Screw - Self Tapping	18
10	67300341	"	"	Channel - Center	1
11	67300342	"	"	Bracket Center - Channel	1

3, 4, or 5 Selection Shelf Assembly

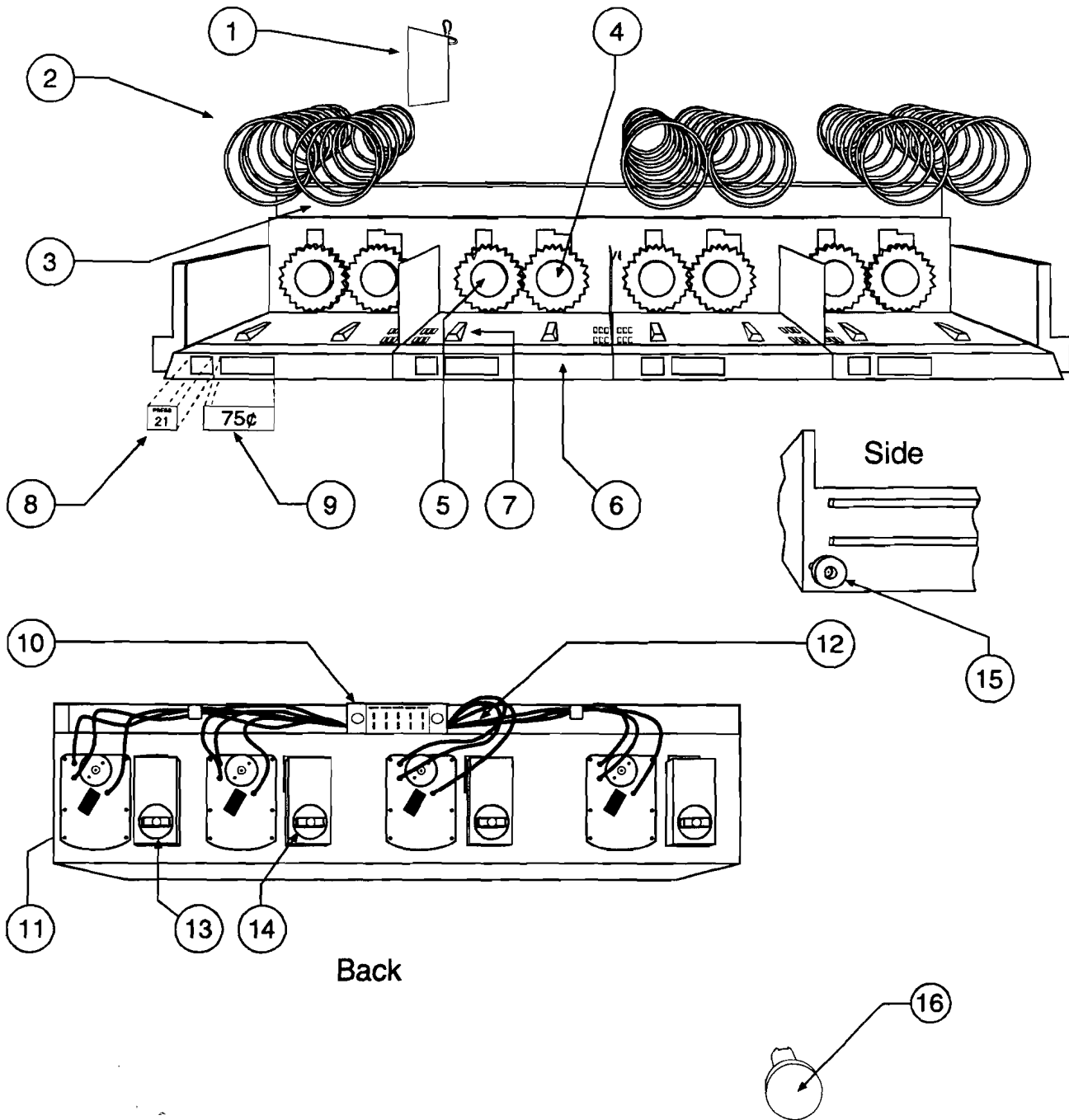


3, 4, or 5 Selection Shelf Assembly

Index No.	7800 Part Number	7800JR Part Number	7800C 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	5900613239	"	"	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.

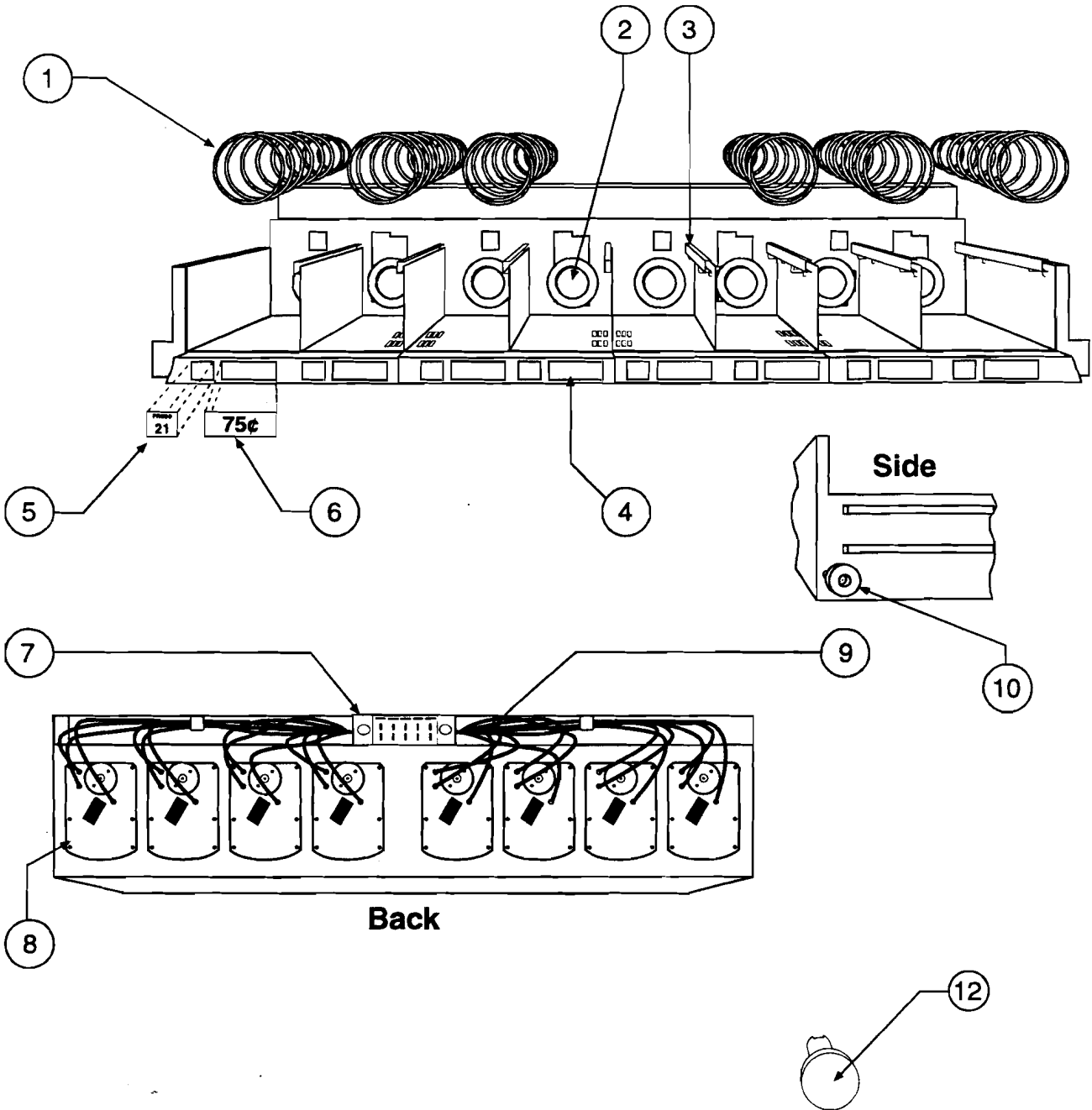
Dual Helix Shelf



Dual Helix Shelf

Index No.	7800 Part Number	7800JR Part Number	7800C 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	59300613239	"	"	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	5/4/3
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

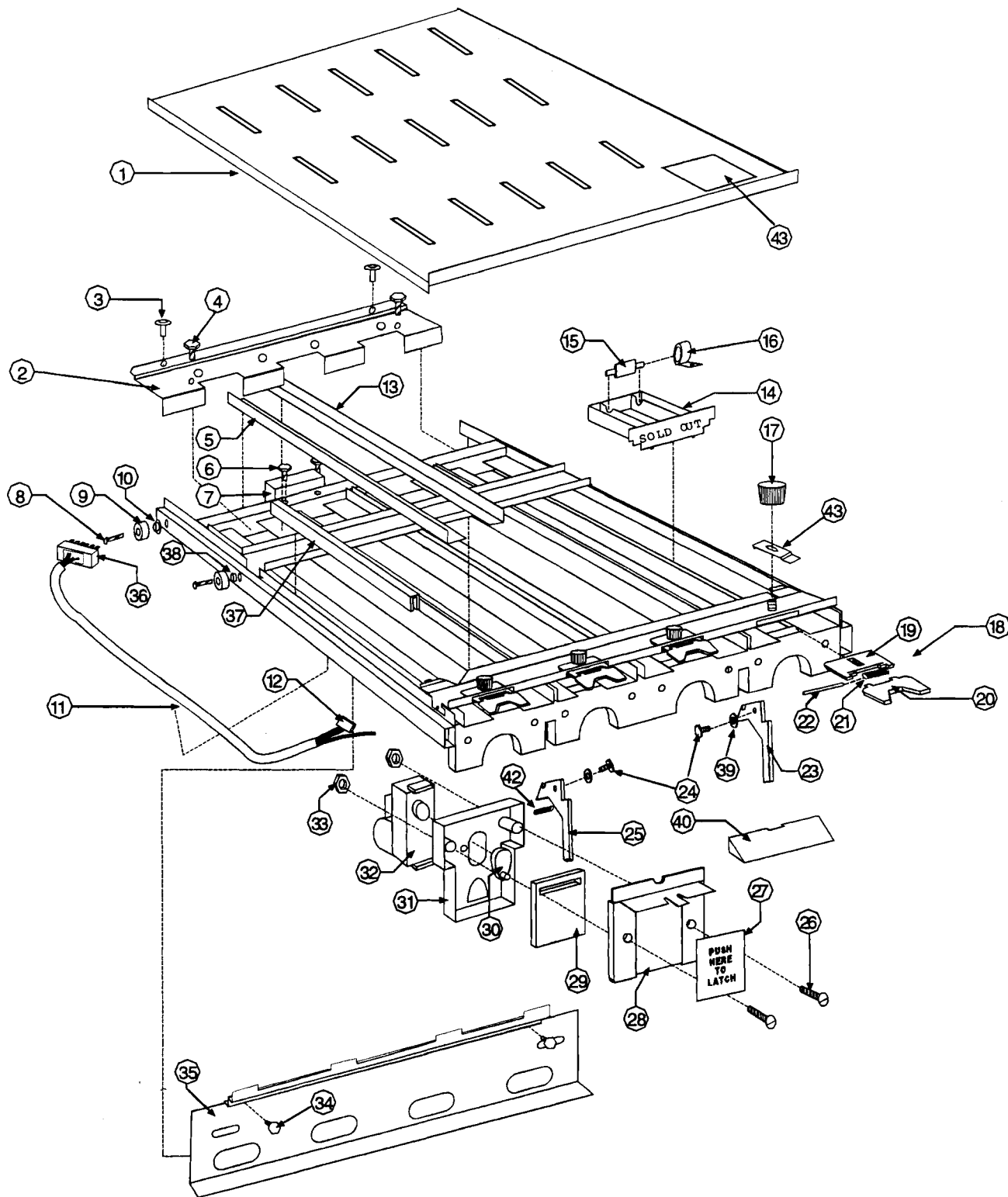
Candy Shelf



Candy Shelf

Index No.	7800 Part Number	7800JR Part Number	7800C 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	59300614239	"	"	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

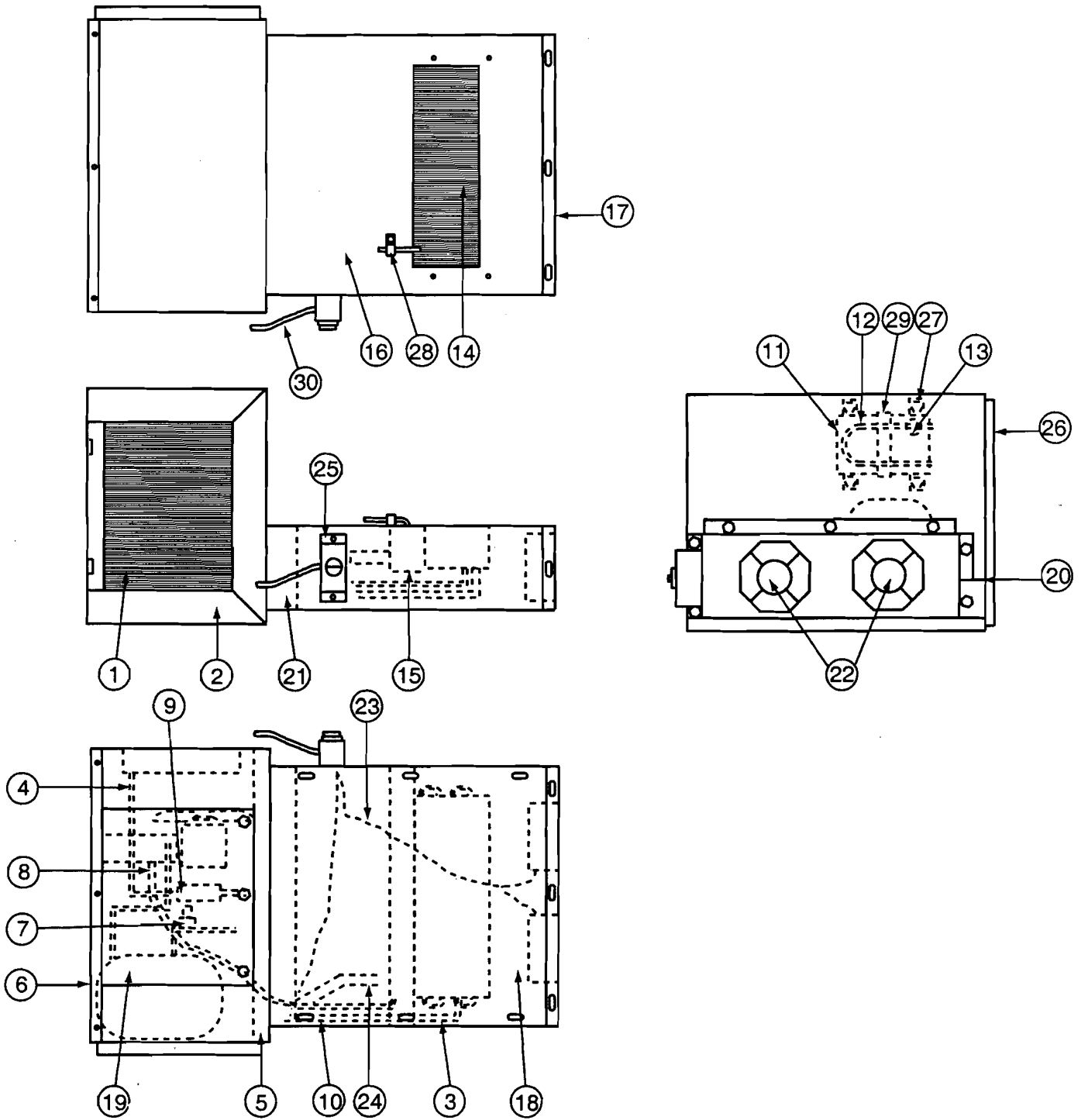
Gum and Mint Unit



Gum and Mint Unit

Index No.	7800 Part Number	7800JR Part Number	7800C 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	59300726-239	59400726-239	59100700-239	Cover Gum and Mint Unit	1
2	59300725-239	59400725-239	59100706-239	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	93400307	"	"	Screw	2
35	67300701	67400701	67100701	Bracket - Spring Retainer	1
36	97900253	Same	Same	Plug	1
37	92803051	"	"	Rubber Gasket	2
38	49000042	"	"	Bushing	2
39	49900466	"	"	Washer - Step	2
40	59300741	"	"	Cover - Price Bezel	5/4/3
41	90702228	"	"	Label - Gum and Mint Cover	1
42	44800514	"	"	Latch Spring	10/8/6
43	59100420	"	"	Support - Flipper	5/4/3

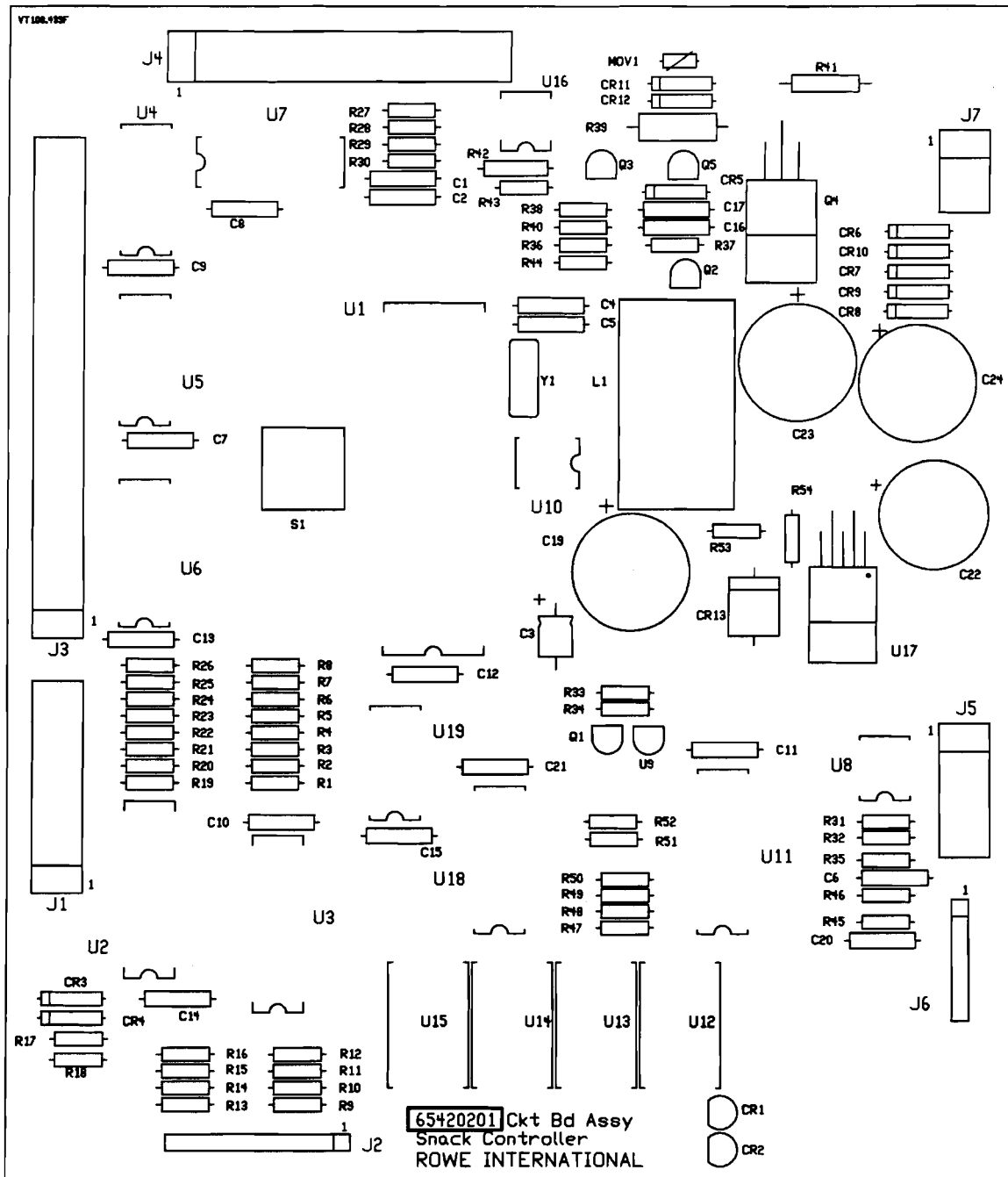
Refrigeration Unit (Optional)



Refrigeration Unit (Optional)

Index No.	7800 Part Number	7800JR Part Number	7800C Part Number	Description	Quantity Per Assembly
	58301200	58322500			Ref.
1	58301201	58322501		Condensing Unit	1
2	58322502	Same		Cover-Condensing Unit	1
3	58322504	"	"	Tubing Suction	1
4	58322505	"	"	Tubing Condenser Out	1
5	58322516	"	"	Insulation Condenser Top	1
6	58322518	"	"	Base - Refrigeration Unit	1
7	58322520	"	"	Service Valve (Suction)	1
8	58322528	"	"	Tube - Capillary	1
9	59521543	"	"	Filter Dryer 134A	1
10	93902198	"	"	Tubing - Poly 1/2 D .38 Wall	1
11	58322503	"	"	Drain Pan - Condenser	1
12	58301202	58322525		Heater - Drain Pan 115 Vac	1
13	58322526	"	"	Thermostat - Bimetal	1
14	58322506	"	"	Evaporator	1
15	58322537	"	"	Pan Assembly - Drain (Evaporator)	1
16	58322508	"	"	Front - Evaporator Housing	1
17	58322509	"	"	Top - Evaporator Housing	1
18	58322510	"	"	Back - Evaporator Housing	1
19	58322527	"	"	Plate - Condenser Access	1
20	58322521	"	"	Cover - Slot	1
21	58322529	"	"	Insulation - Evaporator Bottom	1
22	58322533	58322534		Evaporator Fan	2
23	58301836	"	"	Harness - Refridge	1
24	93900021	"	"	Tubing - Clear Vinyl .25 ID .38OD. (in inches)	21
25	59521507	"	"	Thermostat and Bracket Assembly	1
26	92801411	"	"	Gasket - Sponge Rubber	1
27	92400015	"	"	Nut 5/16-18 Type 1	4
28	70093101	"	"	Clamp - Cable (1/8)	1
29	58322532	"	"	Heater - Holder	1
30	54801899	"	"	Power Cord - Compressor	1

Main Controller Circuit Board Assembly – for Logic and Executive Type Coin Mechs P/N 65420201 and 65420202



Main Controller Circuit Board Assembly

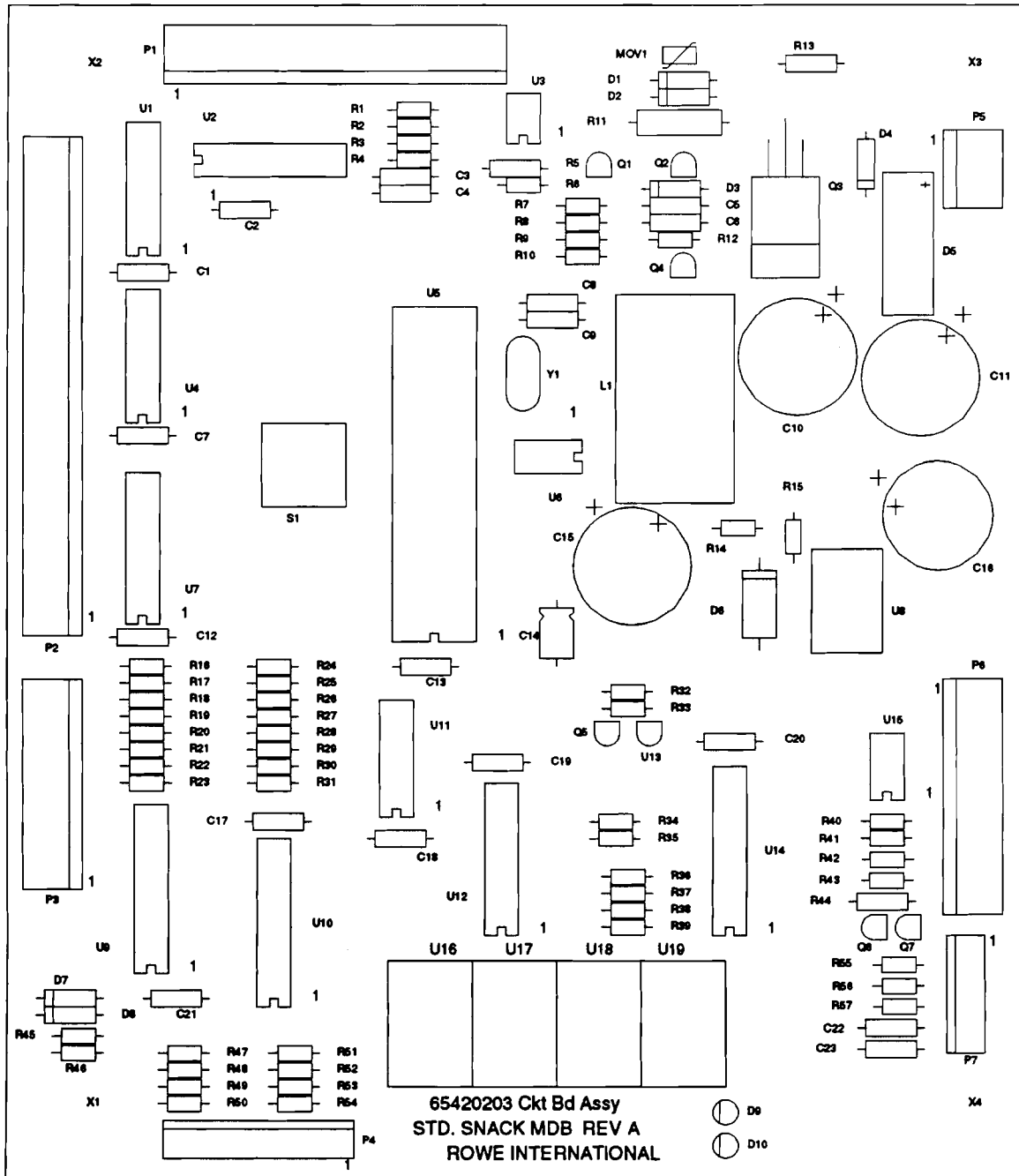
Reference	Part Type	Value	Part Num.
C1, C2	CAPACITOR - MONO CERAMIC 50V	.01uF	70028636
C3	CAPACITOR - TANTALUM 35V	1uF	70025301
C4, C5	CAPACITOR - MONO CERAMIC 50V	22pF	70028705
C6, C17	CAPACITOR - MONO CERAMIC 50V	.001uF	70028618
C7 - C16	CAPACITOR - MONO CERAMIC 50V	.1uF	70028649
C18	NOT USED		
C19	CAPACITOR - ELECTROLYTIC 50V	470uF	70028118
C20, C21	CAPACITOR - MONO CERAMIC 50V	.1uF	70028649
C22	CAPACITOR - ELECTROLYTIC 50V	220uF	70028305
C23, C24	CAPACITOR - ELECTROLYTIC 50V	470uF	70028118
CR1, CR2	DIODE - LIGHT EMITTING (RED)		70035305
CR3, CR4	DIODE - SILICON	1N4148	70035012
CR5	DIODE - ZENER 27V	1N4750	70035504
CR6 - CR12	DIODE - SILICON	1N4004	70035005
CR13	DIODE - SILICON	MR820	70035017
L1	INDUCTOR	200uH	21513502
MOV1	VARISTOR - METAL OXIDE		70037510
J1	HEADER - .156 LOCKING	8 CKT	70080508
J2	HEADER - .1	11 CKT	70076411
J3	HEADER - .156 LOCKING	19 CKT	70180519
J4	HEADER - .156 LOCKING	13 CKT	70080513
J5	HEADER - .156 LOCKING	5 CKT	70080505
J6	HEADER - .1	7 CKT	70076407
J7	HEADER - .156 LOCKING	3 CKT	70080503
Q1, Q3	TRANSISTOR - PNP	MPSA56	70030104
Q2, Q5	TRANSISTOR - NPN	MPSA06	70030008
Q4	TRANSISTOR - NPN DARLINGTON		70030809
XCR1, XCR2	SPACER - LED		21623319
R1 - R8	RESISTOR - CARBON FILM 1/8W, 5%	10K	79905103
R9 - R18	RESISTOR - CARBON FILM 1/8W, 5%	1K	79905102
R19 - R26	RESISTOR - CARBON FILM 1/8W, 5%	47K	79905473
R27, R28	RESISTOR - CARBON FILM 1/8W, 5%	100 Ohm	79905101
R29, R30	RESISTOR - CARBON FILM 1/8W, 5%	1K	79905102
R31, R32	RESISTOR - CARBON FILM 1/8W, 5%	220 Ohm	79905221
R33, R34, R35	RESISTOR - CARBON FILM 1/8W, 5%	1K	79905102
R36, R40	RESISTOR - CARBON FILM 1/8W, 5%	3.3K	79905332
R37, R38	RESISTOR - CARBON FILM 1/8W, 5%	10K	79905103
R39	RESISTOR - WIRE WOUND 1W, 5%	1.2 Ohm	70010826
R41	RESISTOR - CARBON FILM 1/2W, 5%	5.1K	79908512
R42	RESISTOR - CARBON FILM 1/4W, 5%	18 Ohm	79901180
R43	RESISTOR - CARBON FILM 1/8W, 5%	1K	79905102
R44	RESISTOR - CARBON FILM 1/8W, 5%	4.7K	79905472
R45	RESISTOR - CARBON FILM 1/8W, 5%	100 Ohm	79905101
R46	RESISTOR - CARBON FILM 1/8W, 5%	1K	79905102
R47 - R52	RESISTOR - CARBON FILM 1/8W, 5%	4.7K	79905472
R53	RESISTOR - CARBON FILM 1/4W, 2%	6.2K	79902622
R54	RESISTOR - CARBON FILM 1/4W, 2%	2K	79902202

Main Controller Circuit Board Assembly

Reference	Part Type	Value	Part Num.
S1	SWITCH-PUSHBUTTON		21773304
U1	IC-MICROCOMPUTER		See Below
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 128 X 16 SERIAL	93C56	30800263
U11	IC-LED DISPLAY DRIVER		30800264
U12-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 PINDIP (U1)		70074240
UX2	SOCKET - 40 PINDIP (U12 THRU U15)		70074240
Y1	CRYSTAL 11.059 MHz	HC-49	25167339

U1 Microcomputer	For:	U1 P/N
65420201	Logic Coin Mech	28098706
65420202	Executive Coin Mech	28098705

Main Controller Circuit Board Assembly – for MDB, Exec, and Logic Coin Mechs P/N 65420203, 65420204, and 65420205



Main Controller Circuit Board Assembly

Reference	Part Type	Value	Part Num.
C1	CAPACITOR - MONO CERAMIC 50V	.1UF	70028649
C2	CAPACITOR - MONO CERAMIC 50V	.1UF	70028649
C3	CAPACITOR - MONO CERAMIC 50V	.01UF	70028636
C4	CAPACITOR - MONO CERAMIC 50V	.01UF	70028636
C5	CAPACITOR - MONO CERAMIC 50V	.001UF	70028618
C6	CAPACITOR - MONO CERAMIC 50V	.1UF	70028649
C7	CAPACITOR - MONO CERAMIC 50V	.1UF	70028649
C8	CAPACITOR - MONO CERAMIC 50V	22 PF	70028705
C9	CAPACITOR - MONO CERAMIC 50V	22 PF	70028705
C10	CAPACITOR - ELECTROLYTIC 50V	470 UF	70028118
C11	CAPACITOR - ELECTROLYTIC 50V	470 UF	70028118
C12	CAPACITOR - MONO CERAMIC 50V	.1UF	70028649
C13	CAPACITOR - MONO CERAMIC 50V	.1UF	70028649
C14	CAPACITOR - TANTALUM 35V	1UF	70025301
C15	CAPACITOR - ELECTROLYTIC 50V	470 UF	70028118
C16	CAPACITOR - ELECTROLYTIC 50V	220 UF	70028305
C17	CAPACITOR - MONO CERAMIC 50V	.1UF	70028649
C18	CAPACITOR - MONO CERAMIC 50V	.1UF	70028649
C19	CAPACITOR - MONO CERAMIC 50V	.1UF	70028649
C20	CAPACITOR - MONO CERAMIC 50V	.1UF	70028649
C21	CAPACITOR - MONO CERAMIC 50V	.1UF	70028649
C22	CAPACITOR - MONO CERAMIC 50V	.001UF	70028618
C23	CAPACITOR - MONO CERAMIC 50V	.1UF	70028649
D1	DIODE - SILICON 400V 1A	1N4004	70035005
D2	DIODE - SILICON 400V 1A	1N4004	70035005
D3	DIODE - ZENER 27V 1W	1N4750	70035504
D4	DIODE - SILICON 400V 1A	1N4004	70035005
D5	DIODE - BRIDGE RECTIFIER		21822503
D6	DIODE - SILICON 50V 5A	MR820	70035017
D7	DIODE - SILICON 75V .075A	1N4148	70035012
D8	DIODE - SILICON 75V .075A	1N4148	70035012
D9	DIODE - LED	RED	70035305
D10	DIODE - LED	RED	70035305
L1	INDUCTOR	200 uH	21513502
MOV1	VARIATOR - METAL OXIDE		70037510
P1	HEADER - FRICTION LOCK .156 CTR	13 POS.	70080513
P2	HEADER - FRICTION LOCK .156 CTR	19 POS.	70180519
P3	HEADER - FRICTION LOCK .156 CTR	8 POS.	70080508
P4	HEADER - FRICTION LOCK .100 CTR	11 POS.	70076411
P5	HEADER - FRICTION LOCK .156 CTR	3 POS.	70080503
P6	HEADER - FRICTION LOCK .156 CTR	9 POS.	70080509
P7	HEADER - FRICTION LOCK .100 CTR	7 POS.	70076407
Q1	TRANSISTOR - SILICON PNP	MPSA56	70030104
Q2	TRANSISTOR - SILICON NPN	MPSA06	70030008
Q3	TRANSISTOR - DARLINGTON NPN	TIP-120	70030809
Q4	TRANSISTOR - SILICON NPN	MPSA06	70030008
Q5	TRANSISTOR - SILICON PNP	MPSA56	70030104
Q6	TRANSISTOR - SILICON PNP	MPSA56	70030104
Q7	TRANSISTOR - SILICON PNP	MPSA56	70030104

Main Controller Circuit Board Assembly

Reference	Part Type	Value	Part Num.
R1	RESISTOR-CARBONFILM 1/8W 5%	100 OHM	79905101
R2	RESISTOR-CARBONFILM 1/8W 5%	100 OHM	79905101
R3	RESISTOR-CARBONFILM 1/8W 5%	1K	79905102
R4	RESISTOR-CARBONFILM 1/8W 5%	1K	79905102
R5	RESISTOR-CARBONFILM 1/8W 5%	18 OHM	79901180
R6	RESISTOR-CARBONFILM 1/8W 5%	1K	79905102
R7	RESISTOR-CARBONFILM 1/8W 5%	10K	79905103
R8	RESISTOR-CARBONFILM 1/8W 5%	3.3K	79905332
R9	RESISTOR-CARBONFILM 1/8W 5%	3.3K	79905332
R10	RESISTOR-CARBONFILM 1/8W 5%	4.7K	79905472
R11	RESISTOR-WIRE WOUND 1W 5%	1.2 OHM	70010826
R12	RESISTOR-CARBONFILM 1/8W 5%	10K	79905103
R13	RESISTOR-CARBONFILM 1/2W 5%	5.1K	79908512
R14	RESISTOR-CARBONFILM 1/4W 2%	6.2K	79902622
R15	RESISTOR-CARBONFILM 1/4W 2%	2K	79902202
R16	RESISTOR-CARBONFILM 1/8W 5%	47K	79905473
R17	RESISTOR-CARBONFILM 1/8W 5%	47K	79905473
R18	RESISTOR-CARBONFILM 1/8W 5%	47K	79905473
R19	RESISTOR-CARBONFILM 1/8W 5%	47K	79905473
R20	RESISTOR-CARBONFILM 1/8W 5%	47K	79905473
R21	RESISTOR-CARBONFILM 1/8W 5%	47K	79905473
R22	RESISTOR-CARBONFILM 1/8W 5%	47K	79905473
R23	RESISTOR-CARBONFILM 1/8W 5%	47K	79905473
R24	RESISTOR-CARBONFILM 1/8W 5%	10K	79905103
R25	RESISTOR-CARBONFILM 1/8W 5%	10K	79905103
R26	RESISTOR-CARBONFILM 1/8W 5%	10K	79905103
R27	RESISTOR-CARBONFILM 1/8W 5%	10K	79905103
R28	RESISTOR-CARBONFILM 1/8W 5%	10K	79905103
R29	RESISTOR-CARBONFILM 1/8W 5%	10K	79905103
R30	RESISTOR-CARBONFILM 1/8W 5%	10K	79905103
R31	RESISTOR-CARBONFILM 1/8W 5%	10K	79905103
R32	RESISTOR-CARBONFILM 1/8W 5%	1K	79905102
R33	RESISTOR-CARBONFILM 1/8W 5%	1K	79905102
R34	RESISTOR-CARBONFILM 1/8W 5%	4.7K	79905472
R35	RESISTOR-CARBONFILM 1/8W 5%	4.7K	79905472
R36	RESISTOR-CARBONFILM 1/8W 5%	4.7K	79905472
R37	RESISTOR-CARBONFILM 1/8W 5%	4.7K	79905472
R38	RESISTOR-CARBONFILM 1/8W 5%	4.7K	79905472
R39	RESISTOR-CARBONFILM 1/8W 5%	4.7K	79905472
R40	RESISTOR-CARBONFILM 1/8W 5%	220 OHM	79905221
R41	RESISTOR-CARBONFILM 1/8W 5%	220 OHM	79905221
R42	RESISTOR-CARBONFILM 1/8W 5%	10K	79905103
R43	RESISTOR-CARBONFILM 1/8W 5%	1K	79905102
R44	RESISTOR-CARBONFILM 1/4W 5%	4.7 OHM	79901479
R45	RESISTOR-CARBONFILM 1/8W 5%	1K	79905102
R46	RESISTOR-CARBONFILM 1/8W 5%	1K	79905102
R47	RESISTOR-CARBONFILM 1/8W 5%	1K	79905102
R48	RESISTOR-CARBONFILM 1/8W 5%	1K	79905102
R49	RESISTOR-CARBONFILM 1/8W 5%	1K	79905102
R50	RESISTOR-CARBONFILM 1/8W 5%	1K	79905102
R51	RESISTOR-CARBONFILM 1/8W 5%	1K	79905102
R52	RESISTOR-CARBONFILM 1/8W 5%	1K	79905102

Main Controller Circuit Board Assembly

Reference	Part Type	Value	Part Num.
R53	RESISTOR-CARBONFILM 1/8W 5%	1K	79905102
R54	RESISTOR-CARBONFILM 1/8W 5%	1K	79905102
R55	RESISTOR-CARBONFILM 1/8W 5%	1K	79905102
R56	RESISTOR-CARBONFILM 1/8W 5%	1K	79905102
R57	RESISTOR-CARBONFILM 1/8W 5%	100 OHM	79905101
S1	SWITCH-PUSHBUTTON	KS11-R2-2-C	21773304
U1	IC-8BIT SERIAL LATCHED DRIVER	UCN5890A	230A000005890A
U2	IC-8BIT SERIAL LATCHED DRIVER	UCN5841A	230A000005841A
U3	IC-PHOTO COUPLER OPTO-ISOLATOR	4N37	70033710
U4	IC-8BIT SERIAL LATCHED DRIVER	UCN5890A	230A000005890A
U5	IC-MICROCOMPUTER	See Chart Below	
U6	IC-EEPROM 128 X 16 SERIAL	93C56	30800263
U7	IC-8BIT SERIAL LATCHED DRIVER	5842	70036912
U8	IC-VOLTAGE REGULATOR SWITCHING	LM-2576T-ADJ	70036520
U9	IC-OCTAL D-TYPE LATCH	74HC573	79940573
U10	IC-OCTAL D-TYPE LATCH	74HC573	79940573
U11	IC-CMOS HEX INVERTER	74HC04	79940004
U12	IC-HIGH CURRENT SOURCE DRIVER	UDN2981A	70036906
U13	IC-UNDERVOLTAGE SENSOR	34064	30800243
U14	IC-LED DISPLAY DRIVER	MM5481	30800264
U15	IC-PHOTO COUPLER OPTO-ISOLATOR	ILD2	70033713
U16	IC-LED DISPLAY 7 SEGMENT	LTS-6760P	21766708
U17	IC-LED DISPLAY 7 SEGMENT	LTS-6760P	21766708
U18	IC-LED DISPLAY 7 SEGMENT	LTS-6760P	21766708
U19	IC-LED DISPLAY 7 SEGMENT	LTS-6760P	21766708
UX1	IC-SOCKET DIP (U5)	40 PIN	70074240
UX2	IC-SOCKET DIP (U16-U19)	40 PIN	70074240
XD1	LED SPACER (D9)		21623319
XD2	LED SPACER (D10)		21623319
Y1	CRYSTAL-QUARTZ HC-49	11.059MHz	25167339

U5 Microcomputer	For:	U5 P/N
65420203	MDB Systems	28098707
65420204	Executive Coin Mechs	28098705
65420205	Logic Coin Mechs	28098706

Harness List

58301800	Harness, Main Cabinet
58301801	Harness, Main Door
58301802	Harness, Keypad
58301803	Harness, Coin Mech-Domestic
58301804	Harness, CBA/UBA Data
67301806	Harness, Exec Mech Data/MDB
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