

KIT PART NUMBER 4302582

SECTION A: INSTRUCTIONS FOR REPLACING THE IC ASSEMBLY  
SECTION B: INSTRUCTIONS FOR REPLACING THE PRICE DISPLAY ASSEMBLIES AND FOR  
INSTALLING A DISPLAY JUMPER  
SECTION C: INSTRUCTIONS FOR REMOVING THE DATA ACCESS KEY-LOCK ASSEMBLY  
SPECIAL SUPPLEMENT TO 4300001, SHOPPERTRON SET-UP INSTRUCTIONS  
APPLICATION: NATIONAL VENDORS SHOPPERTRON 430 MERCHANDISER

**IMPORTANT**

Observe proper electro-static control procedures. Failure to do so may result in damage to the IC Assembly.

CHECK THE PARTS RECEIVED IN THE KIT WITH THE PARTS LIST IN THESE INSTRUCTIONS. IF ANY PARTS ARE MISSING, CONTACT NATIONAL VENDORS' PARTS DEPARTMENT IMMEDIATELY.

Read these instructions carefully and completely before installing the kit. Retain these instructions for part numbers and for future reference.

This kit contains the following:

Part Number	Description	Quantity
4302581	Instructions	1
-	Special Supplement to SHOPPERTRON Set-Up Instructions (4300001)	1
4302584	FOR USE WITH SECTION A OF THE INSTRUCTIONS IC Assembly-EPROM-Programmed	1
4302579	FOR USE WITH SECTION B OF THE INSTRUCTIONS PCB Assembly-Price Display	3
4302580	Jumper, Display	1
1452016	FOR USE WITH SECTION C OF THE INSTRUCTIONS Hole Plug	1

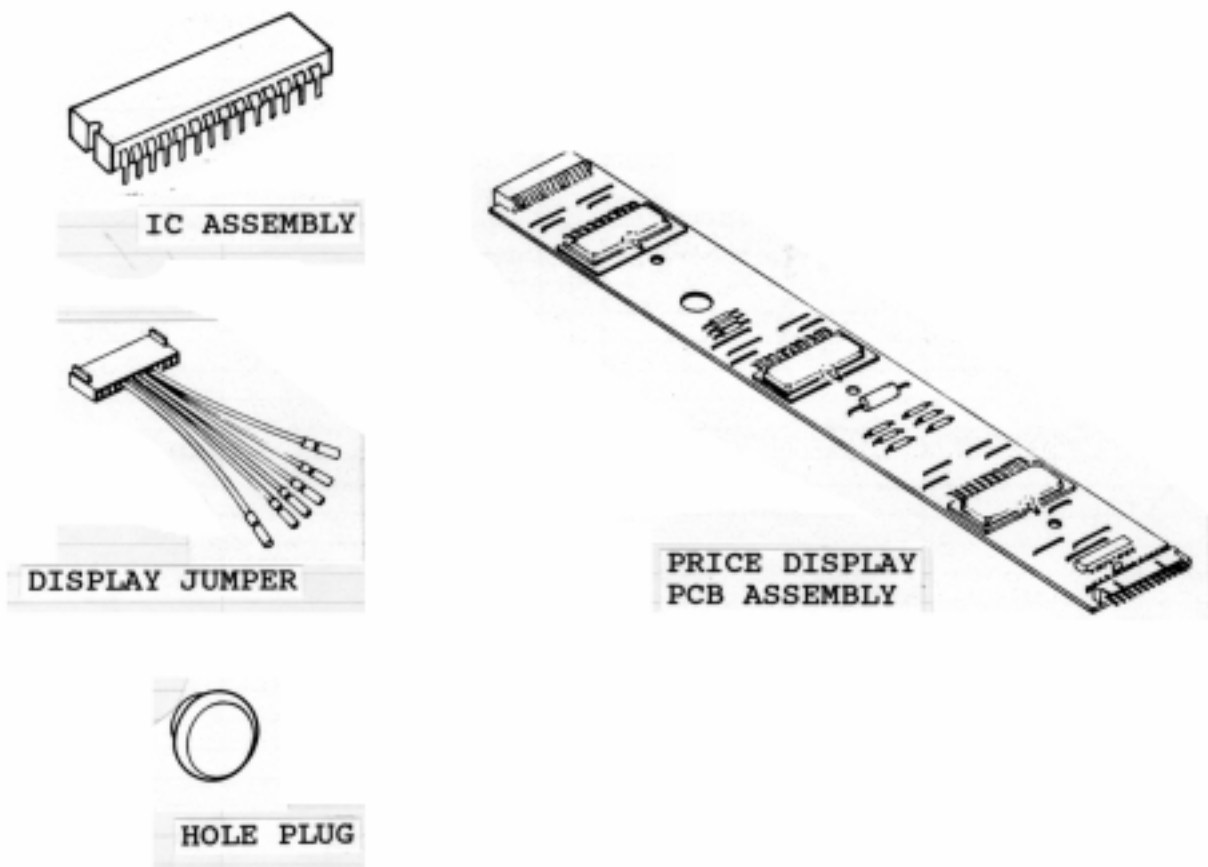


FIGURE 1

#### SECTION A: REPLACING THE IC ASSEMBLY

- . Open the Monetary Door.
  - . Open the Cabinet Door.
  - . Turn the Main Power Switch to the OFF position.
1. ACCESSING THE CONTROLLER CIRCUIT BOARD
- . Remove the screw that secures the Control Switch Panel to the Cover.
  - . Remove the two screws that secure the Control Panel Cover.
  - . Swing the Switch Panel to the right.
  - . Pull the Control Panel Cover to the right and forward to remove it from the merchandiser.

2. REMOVING AND REPLACING THE IC ASSEMBLY (See Figure 2)
  - . Use an IC extractor to remove U14 from the circuit board.
  - . Install the new IC in the U14 position.
  - . See Figure 2 for proper orientation of the IC.

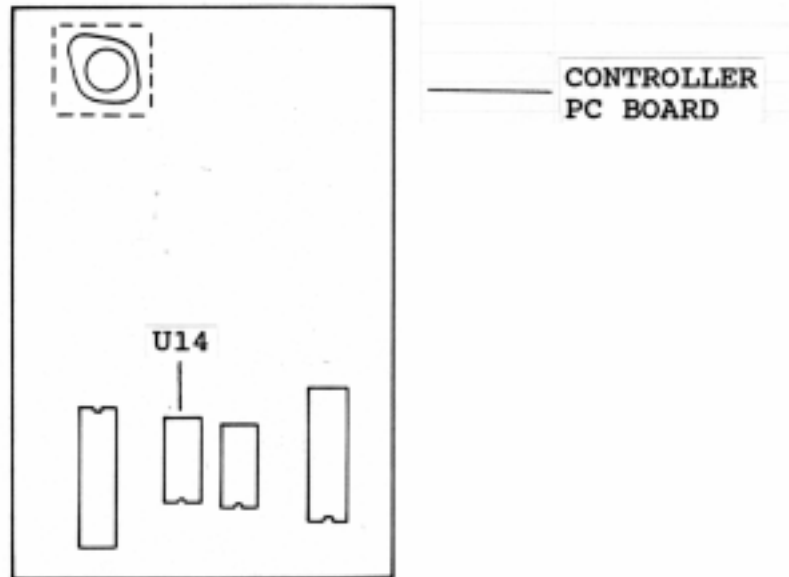


FIGURE 2

3. REPLACING THE CONTROLLER PANEL COVER
  - . Reverse the procedure for accessing the Controller Circuit Board.

**NOTE**

The software in the new IC Assembly contains some features that may not have been contained in the old IC Assembly. As a result, some of the displays may appear as either garbage or as all zeros. The Special Supplement contains instructions for correcting this condition.

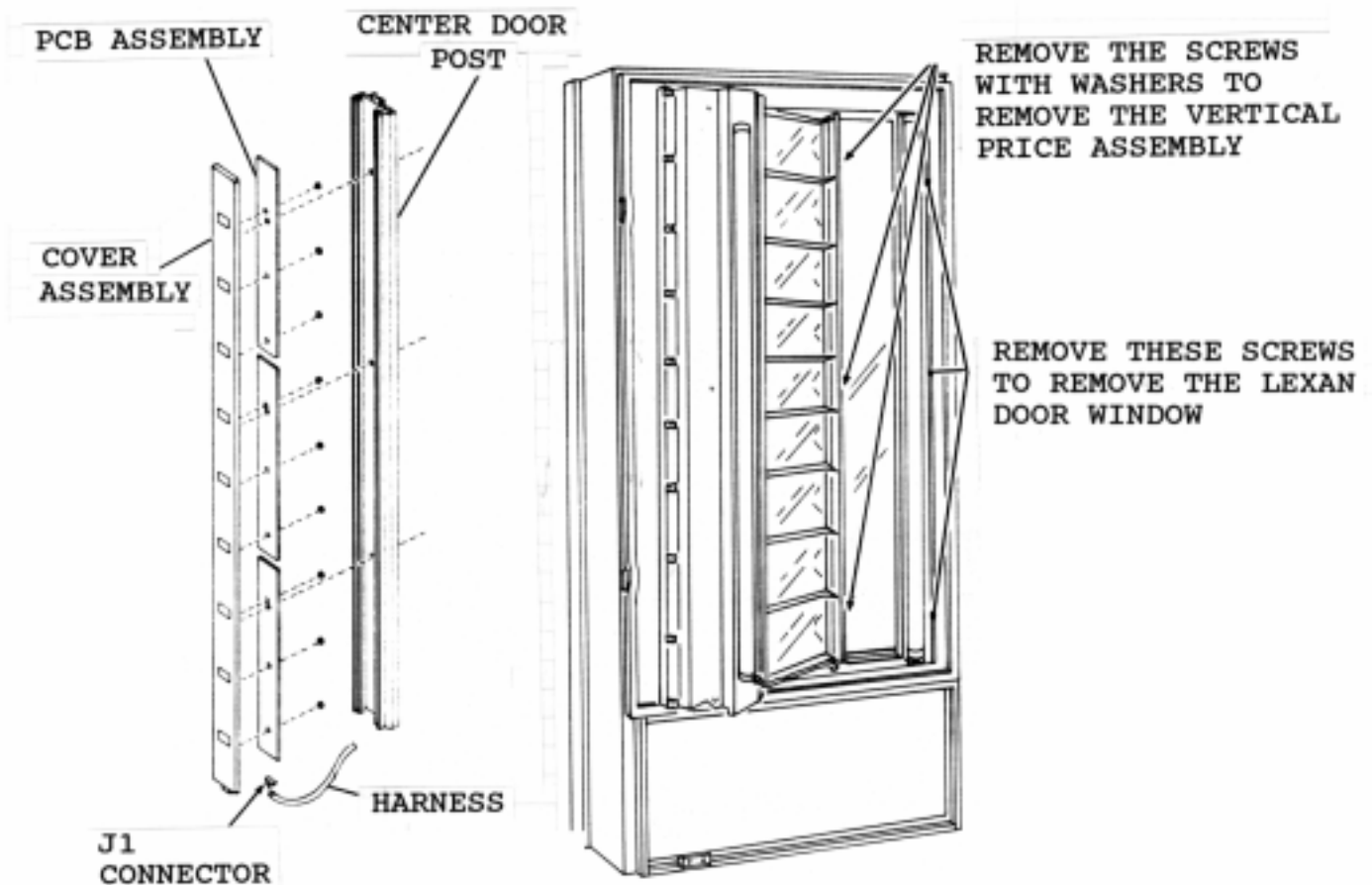
**SECTION B: REPLACING THE PRICE DISPLAY ASSEMBLIES AND  
INSTALLING THE DISPLAY JUMPER**

**1. REMOVING THE OLD VERTICAL PRICE ASSEMBLY**  
Refer to Figure 3.

- . Open the Monetary Door.
- . Open cabinet door.
- . Turn the Main Power Switch to the OFF position.
- . Remove the 3 screws that secure the Lexan Door Window to the right flange of the Light Bracket. Remove the Window.

**CAUTION**

Have someone hold the Vertical Price Assembly in place while you complete the removal and installation procedure.



**FIGURE 3**

- . Remove the three large round head screws with washers that secure the Price Assembly to the Center Door Post.
- . Carefully separate the Price Assembly from the Center Door Post.
- . Disconnect the harness from the bottom of the Price Assembly.
- . Carefully lay the assembly face down on a padded table.

2. REPLACING THE HARNESS CONNECTOR (J1)  
Refer to Figure 4.

**CAUTION**

Wire colors in some early machines are not consistent with those in later machines. For this reason it is necessary to cut, strip and reconnect the wires one at a time.

- . Cut the harness wire from terminal number 7. Make the cut no more than 1/2 inch from the connector.
- . Strip 1/4 inch of insulation from the wire.

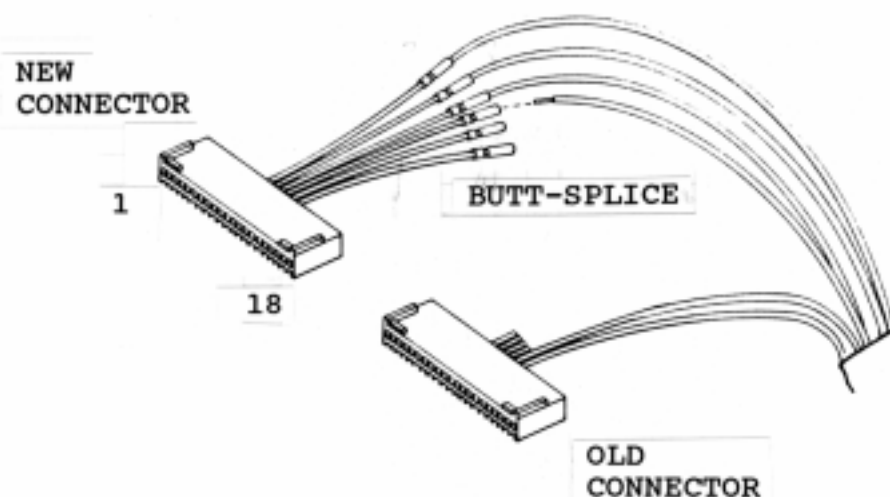


FIGURE 4

- . Crimp this wire to the Butt-Splice on the end of the wire from the connector.
- . Repeat the previous three steps for the wires from terminals 8-12. Complete all steps for each wire before proceeding to the next wire.
- . Carefully insert the harness and new connector leads back into the rectangular hole near the bottom of the Center Door Post.

### 3. REMOVING THE OLD PRICE DISPLAY PCB ASSEMBLIES

Refer to Figure 3.

- . Use an 11/32 nut driver to remove the nine nuts that secure the PCB assemblies to the Cover Assembly.

#### CAUTION

Be careful to not scratch the circuit board while removing these nuts.

- . The three PCB Assemblies are connected together. Remove them as a unit by carefully lifting the boards clear of the Cover Assembly.
- . The top of one board unplugs from the bottom of the next board. Separate and carefully set these boards aside.

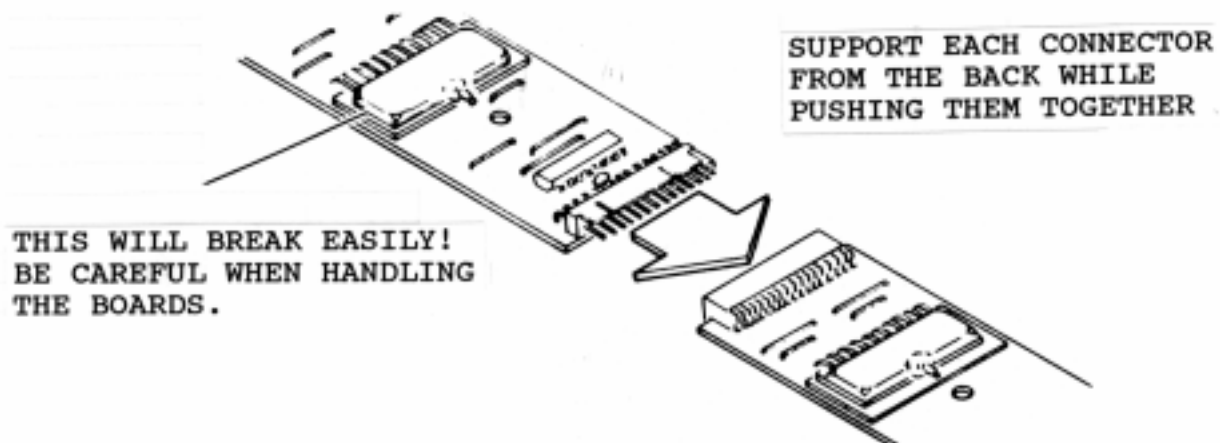


FIGURE 5

4. INSTALLING THE NEW PCB ASSEMBLIES

Refer to Figure 5.

- . Connect the three new PCB Assemblies together.
- . Lower the three boards into position on the Cover Assembly. Refer to Figure 3.
- . Replace the nine nuts that secure the PCB Assemblies in place. Use an 11/32 nut driver and do not over tighten.

5. INSTALLING THE NEW VERTICAL PRICE ASSEMBLY

Refer to Figure 3.

- . Connect the harness to the header on the bottom PCB Assembly.
- . Position the Price Display Assembly on the Center Door Post.
- . Use the three screws previously removed to secure the Price Display Assembly to the Center Door Post.
- . Use the three screws previously removed to secure the Lexan Door Window to the Light Bracket.
- . Turn the Main Power Switch to the ON position.
- . Close the Cabinet Door.
- . Close the Monetary Door.

## SECTION C: REMOVING THE DATA ACCESS KEYLOCK ASSEMBLY

- . Open the Monetary Door.
- . Open the Cabinet Door.
- . Turn the Main Power Switch to the OFF position.
- . Remove the two screws that secure the Data Access Cover to the Display Mounting Brackets. See Figure 6.



FIGURE 6

- . Pull the Cover away from the Mounting Brackets.
- . Unplug the Key Switch from the Display PCB.
- . Remove the nut that secures the Key Switch to the Data Access Cover. See Figure 7.

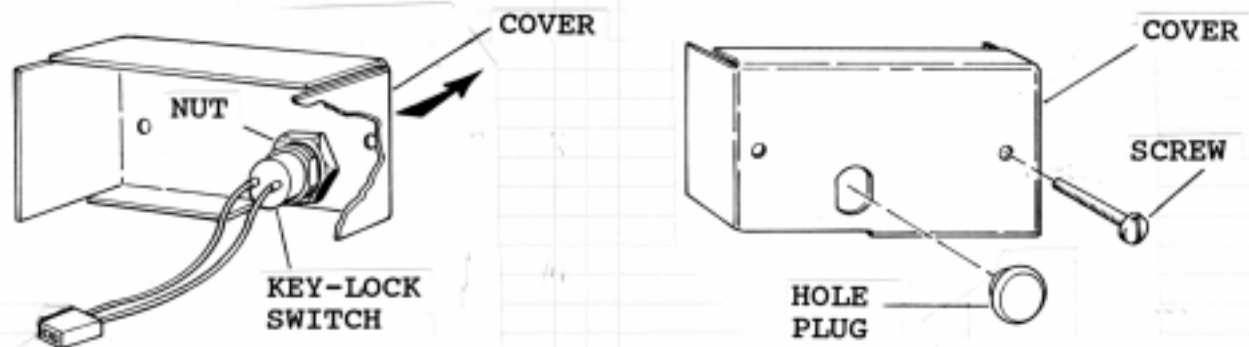


FIGURE 7

FIGURE 8

- . Insert the Hole Plug in the Key Switch hole. See Figure 8.
- . Use the two screws previously removed to secure the Data Access Cover to the Display Mounting Brackets.
- . Turn the Main Power Switch to the ON position.
- . Close the Cabinet Door.
- . Close the Monetary Door.



**SHOPPERTRON  
SPECIAL SUPPLEMENT TO 4300001  
FOR KIT 4302582**

IF YOU HAVE REV A or REV B:

1. Remove pages 7-16 from your Set-Up Instructions.
2. Insert pages 7, 8, 9a, 9b, 9c, 10a, 10b, 10c, 11, 12a, 12b, 12c, 12d, 12e, 13, 14, 15, 16, 17a, 17b, 17c and 18 in their place.
3. Remove pages iii and iv from your Set-Up Instructions.
4. Insert pages iii-a and iv-a in their place.
5. Make the following changes on the first group of pages that you inserted:

Change Page 15 to 15a  
Change Page 16 to 15b  
Change Page 17a to 15c  
Change Page 17b to 15d  
Change Page 17c to 15e  
Change Page 18 to 16

IF YOU HAVE REV D or REV E:

1. Remove pages 7-18 from your Set-up instructions.
2. Insert pages 7, 8, 9a, 9b, 9c, 10a, 10b, 10c, 11, 12a, 12b, 12c, 12d, 12e, 13, 14, 15, 16, 17a, 17b, 17c and 18 in their place.
3. Remove pages iii and iv from your Set-Up Instructions.
4. Insert pages iii-d and iv-d in their place.

**TABLE OF CONTENTS**

<b>SECTION I - GENERAL INFORMATION AND INSTALLATION</b>	
Unpacking and Inspecting .....	1
Electrical Supply at the Site .....	1
Installation of the Merchandiser .....	3
Installation of the Coin Mechanism .....	4
Installation of the Door Lock .....	4
Installation of the Money Box Lock .....	5
Health Control .....	5
Loading the Merchandiser .....	6
<b>SECTION II - PROGRAM OPERATIONS</b>	
Security Control System .....	7
Setting the Machine Configuration .....	8
Setting the Vend Price .....	12a
Setting the Discount 1 & 2 Prices .....	12b
Setting Section 3 Access .....	12c
Setting Tamper Check .....	12c
Setting Mach Load .....	12d
Setting the Free Vend .....	12d
Making a Test Vend .....	12d
Setting the Bill Validator .....	13
Testing the Payout Switches .....	13
Reading the Internal Temperature .....	13
Testing the Health Control .....	13
Retrieving Data From Machine Memory (RAM) ....	13
Clearing Data From Machine Memory (RAM) .....	15a
Checking the Diagnostics .....	15b
Checking the Controller PCB .....	15d
<b>SECTION III - ADJUSTMENT, REMOVAL AND REPLACEMENT PROCEDURES</b>	
Adjusting Product Dividers .....	16
Adjusting the Delivery Door Stops .....	17
Shelf Assembly Removal and Replacement .....	17
Drum Assembly Removal and Replacement .....	17
Door Side Trim Removal and Replacement .....	17
<b>SECTION IV - ROUTINE SERVICE AND SANITATION</b>	
General .....	20
Daily Service .....	21
Daily Sanitation .....	21
Weekly Service .....	21
Weekly Sanitation .....	22
Monthly Service .....	22
Monthly Sanitation .....	22
Semi-Annual Service .....	22
Semi-Annual Sanitation .....	22
Cleaning the Coin Validator and Coin Chute ...	22
Cleaning the Bill Validator .....	23
<b>SECTION V - CIRCUITRY</b>	
Wiring Diagram .....	25
Schematic .....	26

**SHOPPERTRON  
SPECIFICATIONS**

**SIZE:** 72" (182 cm) high, 38" (96 cm) wide, 31.5" (80 cm) deep, 6" legs comply with U.S. Public Health Service and AMHIC of NAMA requirements

**WEIGHT:** 760 LBS. (347 kg)

**POWER REQUIREMENTS:** 110-120 volts, 60 Hz, 12 amps

**CAPACITY:** 9 levels, each level adjustable to 6, 12, 18 or 24 items. Total capacity for 54-216 items

**REFRIGERATION SYSTEM:** 1/3 h.p compressor, 11.4 oz. (323 g) R-12 charge

**OPTIONAL EQUIPMENT**

**COIN MECHANISM:** COINTRON 3000  
MARS TRC 6000 (Drop shipped)

**BILL VALIDATOR:** MAKA NB11B 400 (Bill capacity of 400)

(FACTORY OR FIELD INSTALLED)

Door Locks (Flex-Ace or Van Lock)  
Cabinet Base Plate  
Money Box Lock

(Specifications subject to change without notice)

## TABLE OF CONTENTS

<b>SECTION I - GENERAL INFORMATION AND INSTALLATION</b>	
Unpacking and Inspecting .....	1
Electrical Supply at the Site .....	1
Installation of the Merchandiser .....	3
Installation of the Coin Mechanism .....	4
Installation of the Door Lock .....	4
Installation of the Money Box Lock .....	5
Health Control .....	5
Loading the Merchandiser .....	6
<b>SECTION II - PROGRAM OPERATIONS</b>	
Security Control System .....	7
Setting the Machine Configuration .....	8
Setting the Vend Price .....	12a
Setting the Discount 1 & 2 Prices .....	12b
Setting Section 3 Access .....	12c
Setting Tamper Check .....	12c
Setting Mach Load .....	12d
Setting the Free Vend .....	12d
Making a Test Vend .....	12d
Setting the Bill Validator .....	13
Testing the Payout Switches .....	13
Reading the Internal Temperature .....	13
Testing the Health Control .....	13
Retrieving Data From Machine Memory (RAM) ....	13
Clearing Data From Machine Memory (RAM) ....	15
Checking the Diagnostics .....	16
Checking the Controller PCB .....	17b
<b>SECTION III - ADJUSTMENT, REMOVAL AND REPLACEMENT PROCEDURES</b>	
Adjusting Product Dividers .....	18
Adjusting the Delivery Door Stops .....	19
Shelf Assembly Removal and Replacement .....	19
Drum Assembly Removal and Replacement .....	19
Door Side Trim Removal and Replacement .....	19
<b>SECTION IV - ROUTINE SERVICE AND SANITATION</b>	
General .....	22
Daily Service .....	23
Daily Sanitation .....	23
Weekly Service .....	23
Weekly Sanitation .....	24
Monthly Service .....	24
Monthly Sanitation .....	24
Semi-Annual Service .....	24
Semi-Annual Sanitation .....	24
Cleaning the Coin Validator and Coin Chute ...	24
Cleaning the Bill Validator .....	25
<b>SECTION V - CIRCUITRY</b>	
Wiring Diagram .....	26
Schematic .....	27

**SHOPPERTRON  
SPECIFICATIONS**

**SIZE:** 72" (182 cm) high, 38" (96 cm) wide, 31.5" (80 cm) deep, 6" legs comply with U.S. Public Health Service and AMHIC of NAMA requirements

**WEIGHT:** 760 LBS. (347 kg)

**POWER REQUIREMENTS:** 110-120 volts, 60 Hz, 12 amps

**CAPACITY:** 9 levels, each level adjustable to 6, 12, 18 or 24 items. Total capacity for 54-216 items

**REFRIGERATION SYSTEM:** 1/3 h.p compressor, 11.4 oz. (323 g) R-12 charge

**OPTIONAL EQUIPMENT**

**COIN MECHANISM:** COINTRON 3000  
MARS TRC 6000 (Drop shipped)

**BILL VALIDATOR:** MAKA NB11B 400 (Bill capacity of 400)

(FACTORY OR FIELD INSTALLED)

Door Locks (Flex-Ace or Van Lock)  
Cabinet Base Plate  
Money Box Lock

(Specifications subject to change without notice)