Your new merchandiser has been engineered to our own rigid safety and performance standards. It has been designed to comply with sanitation and health guidelines recommended by the Automatic Merchandising Health-Industry Council (AMHIC) and it conforms to all NAMA safety recommendations.

This machine has been manufactured in accordance with the safety standards of both Underwriter’s Laboratories and the Canadian Standards Association. To maintain this degree of safety and to continue to achieve the level of performance built into this machine, it is important that installation and maintenance be performed so as to not alter the original construction or wiring and that replacement parts are as specified in the Parts Manual. Your investment in this equipment will be protected by using this Operators’ Guide and the Parts Manual in your operation, service and maintenance work. By following prescribed procedures, machine performance and safety will be preserved.

**Models 180, 181, 448 & 449**

Parts and Support

Call

National Vendors

Parts: 1-800-621-7278

Service: 1-800-628-8363

www.cranems.com

For faster service, please have your account number ready before calling

**Models 980 & 981**

Parts and Support

Call

Automatic Products

Parts: 1-800-784-6438

Service: 1-800-523-5932

www.automaticproducts.com
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FRONT EXTERIOR VIEWS
MODEL 181 - EXTERIOR VIEW

(Models 180, 980, 981, 448 and 449 have similar appearance)
ALL MODELS - MONETARY
INTERIOR VIEW
Preliminary

Power Requirements

The merchandiser is supplied with a service cord for the country of use and is terminated in a grounding type plug. The wall receptacle used for this merchandiser must be properly polarized, grounded, and of the correct voltage. Operating the merchandiser from a source of low voltage will **VOID YOUR WARRANTY**. Each merchandiser should have its own 15 Amp electrical circuit and that circuit should be protected with a circuit breaker or fuse conforming to local regulations.

1. **Voltage Check** - Place the leads of a voltmeter across the LINE (LIVE) and NEUTRAL terminals of the wall receptacle. The voltmeter should indicate 110-130 volts ac for 120 volt, 60 Hz locations, or 220-240 volts ac for 230 volt, 50 Hz locations.

2. **Polarity Check** - Place the leads of a voltmeter across the LINE (LIVE) and GROUND terminals of the wall receptacle. The voltmeter should indicate 110-130 volts ac for 120 volt, 60 Hz locations, or 220-240 volts ac for 230 volt, 50 Hz locations.

3. **Noise Potential Check** - Place the test leads of a voltmeter across the NEUTRAL and GROUND terminals of the wall receptacle. The meter should indicate 0 volts ac. A measurement greater than 1.5 - 2.0 volts ac could result in problems for the merchandiser's electronic circuitry caused by electrical noise.

**NOTE**

Any deviation from these requirements could result in unreliable performance from your merchandiser.

Unpacking the Merchandiser

Remove all packing materials from the interior of the merchandiser. Keep all documents; warranty cards, etc. Set aside the base plate kit (if present).
Controls and Indicators

INTERLOCK SWITCH
When the monetary slide is open, this switch turns off the optional fan (if so equipped.)

MESSAGE DISPLAY
This is how the merchandiser communicates with the outside world. Customers can see messages about how much money they have put into the merchandiser. The message display also tells customers when a selection is sold out and when vending is free, inhibited, or discounted. The message display shows you what you are doing when you program the merchandiser, and can show you what is wrong if there is a failure.

SELECTION KEYPAD
The customer uses these switches to make selections.

COIN RETURN KEY
Pressing this button returns any coins that have been paid into the merchandiser prior to a vend.

CANCEL KEY
Pressing this button clears any selection keys.

BILL ACCEPTOR (OPTIONAL)
Accepts bills in various denominations, depending upon the type of bill validator, and how the merchandiser is configured.

SERVICE KEYPAD
The service keypad is located on the inside of the monetary section. It gives service personnel the means to program, retrieve data from, and view diagnostic information about, the merchandiser.
Controls and Indicators (continued)

This display consists of two light emitting diodes (LED) mounted on the controller PCB.

**POWER ON**
(L.E.D. 1)

When lit, this red LED indicates electrical power is applied to the controller PCB.

**HEARTBEAT**
(L.E.D. 2)

When flashing, this red LED indicates that the controller PCB is active, and the software is operating.

**WARNING**

Risk of explosion if battery is replaced with an incorrect type. Battery type is CR2032 / 3V
Dispose of used batteries according to the manufacturer's instructions.

**NORMAL CONDITIONS:**

When the merchandiser is operating normally, you should see a steady red **POWER ON** indicator and a flashing red **HEARTBEAT** indicator.
Contact a service representative if any other condition exists.
Turning the Merchandiser ON and OFF

- Power to the merchandiser is controlled by the main power switch, located on the power panel.
- The power panel is on the right side of the merchandiser, behind the monetary door.

**WARNING**

Lethal voltages are present. Unplug the merchandiser whenever you do one of the following tasks:
- Change the fluorescent lamp.
- Change the ballast.
- Connect or disconnect a harness (except a motor harness when the tray has been removed.)

Failure to do so may result in personal injury.
Moving the Merchandiser Through a Narrow Doorway

NOTE
If necessary, this merchandiser can be moved through an opening as narrow as 30 inches by removing panels at the top and bottom of the cabinet.

REMOVING THE TOP PANEL
(Refer to Figure 1 at right.)
1. Remove the two screws that secure each end of the panel to the cabinet.
2. Pull the panel forward to remove it from the merchandiser.

REMOVING THE LOWER PANEL AND DELIVERY BIN
(Refer to Figures 2 and 3 at right.)
1. Open the slide-out monetary and the glass door. Locate the silver tab of the delivery bin latch on the lower delivery bin side of the monetary wall.
2. Lift the latch up to allow the delivery bin assembly to hinge down.
3. Lift up the delivery bin slightly and lift up on the drop rods to allow the rods to clear the stop brackets.
4. Slide the delivery bin assembly to the right to clear the hinges. The delivery bin assembly will not be attached to the machine.
5. Unhook the SureVend™ harness at the SureVend™ board, noting the wire routing.
6. Remove the screws that secure the bottom panel to the cabinet.
7. Pull the panel forward to remove it from the cabinet.

NOTE
To fit the merchandiser through some of the most narrow doorways, you may have to remove the trays. If you do, follow the procedure as outlined on the following page.
Moving the Merchandiser Through a Narrow Doorway (continued)

CAUTION
Be careful to not damage the tray harnesses when removing trays from the merchandiser.

REMOVING THE TRAYS
1. Unplug the tray harnesses from the PCB mounted inside the slide-out monetary.
2. Pull the harnesses through the cabinet.
3. Lift up the front of the tray, so that the stop built into the tray clears the roller, then pull the tray forward and let it return to horizontal position.
   Pull the tray forward in the horizontal position until the back stop on the tray hits the roller, then lift the tray straight up to clear the roller and remove the tray from the merchandiser.

MOVING THE MERCHANDISER THROUGH THE OPENING
1. Open the cabinet door and place it square with the left side of the cabinet.
2. Carefully walk the merchandiser through the opening.

REASSEMBLING THE MERCHANDISER
Replace the upper and lower panels and delivery bin.
If you are not sure that you can fit your merchandiser through the doorway, use the dimensioned drawing to make a cut out in cardboard. The drawing shown has the following removed:

• Delivery bin assembly
• Upper knockout and the anti-theft bar
• Lower knockout
• Main Glass Door
• Trays removed if needed
Positioning the Merchandiser

WARNING
This merchandiser is only rated for installation in an INDOOR location.

Move the merchandiser to its **approximate position**. (There are some procedures you need to do before it is in its permanent location.) Plug in your merchandiser and turn the power switch to **ON**.

- You can position this merchandiser anywhere in a bank of machines. It can even be placed on an end flush against a side wall.
- The merchandiser should be located at least one inch away from the back wall.
- There should be enough room in front of the merchandiser for the door to move freely.

*Now that you have placed your merchandiser near its permanent location, you need to set up some of the special options you may have........Go on to the next page and continue with the snack section set up.*

Snack Section Set-Up

Placing Trays in the Loading Position

**WARNING**
The bottom tray will rest on the delivery pan assembly. Take care to avoid striking your fingers against the delivery pan assembly.

1. Lift up the front of the tray, so that the stop built into the tray clears the roller, then pull the tray forward and let it return to horizontal position.
2. Continue pulling the tray forward, then when you are able, tilt the tray downward into the loading position as shown below.

![LIFT TRAY, THEN PULL OUT](image1)

ON BOTTOM TRAY, USE THUMB HOLES ON EITHER SIDE TO LIFT TRAY BEFORE PULLING OUT

![LIFT TRAY, THEN PULL OUT](image2)
Setting Up Trays to Vend Products

These instructions will guide you through setting up your trays for vending. You will be asked to determine if your tray can physically hold the products you intend to vend. If not, you will be directed to other procedures which will help you get them set up. Follow these nine steps for each tray in your merchandiser:

1. Make sure the tray is in the loading position.
2. Is the column wide enough for the intended product? If so, proceed to the next step. Otherwise, set up your tray to vend wider products (see below, this page). When you're done, return to step 3 in this procedure.
3. Will the products fit between the spiral turns? If so, proceed to the next step. Otherwise, change the spiral.
4. Will the product pass under the tray immediately above? If so, proceed to the next step. Otherwise, reposition the tray and guides.
5. Will the product touch products on either side? If not, proceed to the next step. Otherwise, install a product spacer.
7. Return the tray to the vending position.
8. Install the price rolls.
9. Install the selection ID numbers.

Setting Up Trays to Vend Wide Products

The following steps will help you configure your trays to vend wide products. When you have completed the procedures called out in each step, return to the next step in the procedure. When you are done with the entire wide product steps, return to the set-up procedures above.

1. Remove the tray from the merchandiser, unplug harness and place on a flat surface.
2. Based on the size of the product you want to vend, decide how many spiral positions it will occupy. Please remember that the leftmost spiral in the group must have an ODD ID number (1, 3, 5, etc.) For example, if a product is three spirals wide, the left spiral will be ID number 1, and the right spiral will be ID number 3. Be careful how wide you set up for, because really wide products could get hung up in the delivery door.
3. Remove the column dividers inside the group. In the example of three spiral positions, you would be removing the dividers between spiral ID numbers 1 and 2, and 2 and 3.
4. If your group only consists of 2 spirals, replace the rightmost motor with a spiral bearing and gear, and install a gear on the leftmost motor. Skip to step 8.
5. Remove all spirals in the group except the leftmost spiral.
6. Do one of the following:
   a. If your group has an ODD number of spirals (3, 5, etc.) remove the harnesses from all motors in the group except the leftmost one. To the rightmost motor, connect the harness from the motor immediately to its left.
   b. If your group has an EVEN number of spirals (4, 6, etc.) remove the harnesses from all motors inside the group (leave the harnesses connected to the leftmost and rightmost motors).
7. Install a spiral at the rightmost position in your group. Make sure it has the same product capacity and is opposite to the one in the leftmost position.
8. Return the tray to the merchandiser. See “Installing Standard Trays in the Merchandiser” on page 14
9. Electronically couple the motors as needed. Return to step 3 in the section “Setting Up Trays to Vend Products” on page 12, above.
Removing Standard Trays

CAUTION
Be careful to not damage the tray harnesses when removing trays from the merchandiser.

NOTE
Study this procedure before you remove a tray for the first time; while you are holding the tray you will not be able to see this area.

1. Unplug the tray harnesses from the PCB mounted inside the slide-out monetary.
2. Pull the harnesses through the cabinet.
3. Lift up the front of the tray, so that the stop built into the tray clears the roller, then pull the tray forward and let it return to horizontal position.
4. Pull the tray forward in the horizontal position until the back stop on the tray hits the roller, then lift the tray straight up to clear the roller and remove the tray from the merchandiser.

LIFT TRAY, THEN PULL OUT
ON BOTTOM TRAY, USE THUMB HOLES ON EITHER SIDE TO LIFT TRAY BEFORE PULLING OUT
Installing Standard Trays

Study this procedure before you install a tray for the first time; while you are holding the tray you will not be able to see this area.

Proceed as follows:

1. Place the back of the tray in the machine so the back tabs on the tray are behind the tray rail rollers.
2. Slide the tray straight back into the machine, insuring that the tray axle stop is engaged in the tray rail. Keep pushing the tray back until it hits the front stop.
3. Lift the front of the tray, so the stop built into the tray clears the roller. Push the tray forward and let it return to horizontal. It will “lock in” to place.
4. Load the tray harnesses into the cabinet, over the tray rail and into the cabinet behind the slide out monetary. Reach through the hole provided in the monetary section and grab the tray harness. Plug the Tray harness into the correct PCB tray harness header.
5. Slide the harnesses up into the round hole provided and secure them with the plastic grommet. Pull the slack of the harnesses back into the cabinet.
Removing a Bottle Tray

CAUTION
Be careful to not damage the tray harnesses when removing trays from the merchandiser.

1. Remove all product from the tray.
2. Push down on the left and right front tray latches with your thumbs and slide out the tray as far as it will go.
3. Unplug the tray harnesses from the PCB mounted inside the slide-out monetary.
4. Pull the harnesses through the cabinet.
5. Locate a small lever on each side of the tray, where it attaches to the slide. The left lever will be up, the right will be down. Press down on the left lever and up on the right lever.
6. Pull the tray towards you, off of the slides.

Installing a Bottle Tray

1. Push the slides back into the cabinet until they stop.
2. With the tray held at a 45° angle (with the back higher than the front), align the lower edge of the rail on the tray with the lower edge of the rail in the cabinet on both sides.
3. Slowly raise the shelf to a horizontal position, and push the shelf all the way back into the cabinet.
4. Push down on the left and right hand front tray latches with your thumbs and slide the tray forward against the intermediate stop to test that the tray is correctly engaged.
5. Re-route the harnesses through the cabinet.
6. Plug the tray harnesses into the PCB mounted inside the slide-out monetary.

NOTE
It is much easier to replace a bottle tray if you have assistance lining up the tray rails and slides.
Removing and Installing Column Dividers

1. Push the column divider toward the back of the tray - ①.
2. Lift the column divider clear of the tray - ②.
3. Install the column divider in the reverse order of removal.

Operating Trays Outside the Merchandiser

The tray harnesses are long enough to remove the trays and set the middle and bottom trays on the floor in front of the merchandiser and the top trays on the top of the merchandiser without unplugging the tray harnesses.

Replacing a Motor With a Spiral Bearing

REMOVING A MOTOR

1. Disconnect the harness from the motor. (See “Connecting and Disconnecting a Motor Harness” on page 17).
2. Remove the spiral. (See “Removing and Installing Spirals” on page 18).
3. Remove the spiral coupler. (See “Removing a Spiral Coupler” on page 20).
4. Remove the motor. (See “Removing and Installing a Spiral Motor” on page 20).

INSTALLING A SPIRAL BEARING

1. Put the gear into position if required in this set-up as shown. (See “Installing a Gear” on page 21).
2. Install the spiral coupler. (See “Installing a Spiral Coupler” on page 22).
   A coupled spiral does not use a motor.
CAUTION
To avoid breaking the motor circuit board, hold the header on the circuit board whenever connecting or disconnecting a motor harness.

DISCONNECTING A MOTOR HARNESS
1. Pull the harness connector away from the circuit board as shown.
2. Tuck the unused part of the harness out of the way in the trough at the back of the tray.

CONNECTING A MOTOR HARNESS
3. Locate the harness connector for the appropriate tray position.
4. Push the harness connector over the header pins on the motor circuit board as shown.
Removing and Installing Spirals

- All spirals are the same diameter:

- There are two types of spirals:

  **COUNTER-CLOCKWISE** (left hand)  
  **CLOCKWISE** (right hand)

- Spirals are available in the capacities shown below.

<table>
<thead>
<tr>
<th>MODELS 180, 181, 980, 981</th>
<th>PART NUMBER</th>
<th>CLIP COLOR</th>
<th>Dimension Between Coils</th>
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<td>ITEM CAPACITY OF SPIRAL</td>
<td>COUNTER</td>
<td>CLOCKWISE (LH)</td>
<td>COUNTER</td>
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<tr>
<td>5 (Optional)</td>
<td>1477178</td>
<td>Orange</td>
<td>4.57&quot;</td>
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<td>6 (Optional)</td>
<td>1477102</td>
<td>Purple</td>
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<tr>
<td>9 (Optional)</td>
<td>1477153</td>
<td>Gray</td>
<td>2.46&quot;</td>
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<tr>
<td>11 (Standard)</td>
<td>1477024</td>
<td>Blue</td>
<td>1.98&quot;</td>
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<td>13 (Standard)</td>
<td>1477030</td>
<td>Yellow</td>
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<td>1477036</td>
<td>Red</td>
<td>1.41&quot;</td>
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<td>Brown</td>
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<tr>
<td>20 (Standard)</td>
<td>1477042</td>
<td>White</td>
<td>1.02&quot;</td>
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<td>1477048</td>
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<td>.75&quot;</td>
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<td>30 (Optional)</td>
<td>1477054</td>
<td>Black</td>
<td>.60&quot;</td>
</tr>
<tr>
<td>38 (Optional)</td>
<td>1477060</td>
<td>Orange</td>
<td>.44&quot;</td>
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<table>
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<th>CLIP COLOR</th>
<th>Dimension Between Coils</th>
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<td>1.81&quot;</td>
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<tr>
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<td>1.44&quot;</td>
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<td>12</td>
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<td>Yellow</td>
<td>1.18&quot;</td>
</tr>
<tr>
<td>14</td>
<td>1707013</td>
<td>Red</td>
<td>1.00&quot;</td>
</tr>
<tr>
<td>18</td>
<td>1707021</td>
<td>White</td>
<td>.75&quot;</td>
</tr>
</tbody>
</table>
Removing and Installing Spirals (continued)

REMOVING A SPIRAL

1. Pull forward on the retaining clip and remove the end of the spiral from the spiral coupler as shown.
2. Remove the spiral from the tray.

INSTALLING A SPIRAL

1. Pull the bottom of the retaining clip toward the front of the spiral.
2. Lower the spiral into the tray column and insert the end of the spiral into the spiral coupler as shown.
3. Release the retaining clip.

SHOULD I USE A CLOCKWISE OR A COUNTERCLOCKWISE SPIRAL?

1. The type of spiral used is determined by the column position it will occupy in the tray.
2. Refer to the figure below to find the correct spiral type.
Removing a Spiral Coupler

1. Pinch together the prongs on the end of the spiral coupler as shown.
2. Pull the coupler forward in the direction of the arrow as shown.

Removing and Installing a Spiral Motor

REMOVING A SPIRAL MOTOR

NOTE
Some steps may already be completed.

1. Remove the tray. (See “Removing Standard Trays” on page 13).
2. Disconnect the motor harness. (See “Connecting and Disconnecting a Motor Harness” on page 17).
3. Remove the spiral. (See “Removing and Installing Spirals” on page 18).
4. Remove the spiral coupler. (See “Removing a Spiral Coupler” on page 20).
5. Lift the motor clear of the tray.
6. Return the tray to the merchandiser.

INSTALLING A SPIRAL MOTOR

1. Remove the tray. (See “Removing Standard Trays” on page 13).
2. Place the motor in the correct position at the rear of the tray as shown.
3. Place a gear in position if required by this set-up. (See “Installing a Gear” on page 21).
4. Install a spiral coupler in the proper orientation. (See “Installing a Spiral Coupler” on page 22).
5. Connect the motor harness. (See “Connecting and Disconnecting a Motor Harness” on page 17).
Installing a Gear

WHEN ARE GEARS USED?
• Gears are used to mechanically couple the spirals together.
• This happens whenever you have two spirals and only one motor for vending a selection.

WHERE ARE THE GEARS PLACED?
• The gear is placed between the back of the tray and the spiral coupler.

HOW IS THE GEAR ORIENTED?
• There are two possible orientations for the gear:

   • There are two rules to follow when orienting gears:

     RULE 1 – The gears for single spiral selections next to each other cannot use the same gear orientation.
     RULE 2 – All gears for a single coupled or double spiral selection must use the same orientation.
Installing a Spiral Coupler

Place the gear in position if one is required for this set-up. (See “Installing a Gear” on page 21.)

WHEN USED WITH A MOTOR

Hold the motor in place and push the spiral coupler through the motor gear box until it clicks into position. Be sure the spiral couplers are oriented as shown below:

The motor output shaft opening contains eight facets to allow the spiral coupler to be installed in any one of eight positions.

NOTE

Spiral Coupler Orientation

One position counterclockwise from vertical

One position clockwise from vertical

Left Spiral Coupler

Right Spiral Coupler

As viewed from front of tray
Installing a Spiral Coupler (continued)

WHEN USED WITH A COUPLER BEARING

Hold the coupler bearing in place and push the spiral coupler through the bearing until the coupler clicks into position. Be sure the coupler is in the proper orientation as shown.

Moving Trays Up or Down

This merchandiser can be adjusted to vend taller products. Some guidelines must be followed:

- Keep in mind that when you increase the product height available to a tray by lowering it, you will be decreasing the product height available to the tray below.
- If a tray is in the lowest position, the tray below it should not be in the highest position.
- If a tray is in the highest position, the tray above it should not be in the lowest position.
- You will need to experiment with various tray positions to get the best results for your products.

Proceed as follows:

1. Remove the tray from the merchandiser. (See “Removing Standard Trays” on page 13).
2. Remove the screw that secures the right tray guide rail to the front guide mounting channel as shown.
3. Tap up on the guide rail and unseat the guide rail tabs from the channel slots.
4. Pull the guide rail away from the front and rear guide mounting channels.
5. Move the guide rail to the desired position.
6. Insert the guide rail tabs into the mounting channel slots as shown.
7. Tap down on the guide rail to seat the tabs in the channel slots.
8. Replace the screw that secures the guide rail to the front guide mounting channel.
9. Repeat steps 2 through 8 for the left guide rail.
10. Return the tray to the merchandiser. See “Installing Standard Trays in the Merchandiser” on page 14
Moving Trays Up or Down (continued)

11. Load products into the trays, and perform test vends. Make sure the trays don't interfere with the products you are vending, and that all products vend properly.
Installing and Removing Product Spacers

INSTALLING A PRODUCT SPACER

- The product spacer will keep a tall, narrow product upright.
- Shown below are spacers and column dividers on both deep and shallow trays.
- Insert the product spacer onto the column divider as shown.

REMOVING A PRODUCT SPACER

- Pull the product spacer mounting pins from the column divider.
Loading Trays with Product

The color of the spiral coupler (the little plastic tab attached to the rear of the spiral) will tell you how many products will fit in the spiral (see the tables at right).

NOTE
Another way to determine spiral capacity is to count the spaces in the spiral.

<table>
<thead>
<tr>
<th>SPIRAL CAPACITY</th>
<th>SPIRAL COUPLER COLOR</th>
<th>SPIRAL CAPACITY</th>
<th>SPIRAL COUPLER COLOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Purple</td>
<td>20</td>
<td>White</td>
</tr>
<tr>
<td>11</td>
<td>Blue</td>
<td>25</td>
<td>Green</td>
</tr>
<tr>
<td>13</td>
<td>Yellow</td>
<td>30</td>
<td>Black</td>
</tr>
<tr>
<td>15</td>
<td>Red</td>
<td>38</td>
<td>Orange</td>
</tr>
</tbody>
</table>

LOADING TRAYS WITH PRODUCTS IN GENERAL

- See “PRODUCT PUSHER USAGE” on page 28 for spirals with capacity of 11, 13, or 15.
- See “SPIRAL WALL RETAINER USAGE” on page 27 for spirals with capacity of 20, 25, 30, or 38.
- Begin loading products at the front of the tray and work toward the back. Position the product so the package rests on the tray. DO NOT force a product into a spiral.
- If the fit is too tight or too loose, change the spiral size. (See “Removing and Installing Spirals” on page 18).
- Be sure there are no empty positions between products in each spiral.

SPECIAL CONSIDERATIONS

Bagged Products  Position package upright, then push the tops slightly toward the rear of the tray. Also, (see “PRODUCT PUSHER USAGE” on page 28).

Thin Packages  Position the package upright. Also, (see “SPIRAL WALL RETAINER USAGE” on page 27).

Kit Kat  The two right-most columns of the candy tray are designed to accept the Kit Kat candy bar.

WARNING

When set to “Ambient” or “Chilled Snack” this merchandiser does not have a health control circuit. It is not approved for the vending of perishable food items in these modes.
Loading Trays with Product (continued)

Spiral Wall Retainer Usage

A spiral wall retainer serves to compress the spiral and make it act like a spring to more forcefully eject a product. Do some test vends and use a spiral wall retainer when a product does not readily leave the spiral.

- Use a spiral wall retainer in the following cases:
  - The spiral has a capacity of 20, 25, 30, or 38.
  - The product is thin.
  - The product is on a candy tray.
- The spiral wall retainer can also be used with other spirals and types of products.
- The spiral wall retainer is installed near the front of the column divider.

There are two ways to install the spiral wall retainer.

<table>
<thead>
<tr>
<th>Retainer Orientation</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Column Divider</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between These</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 and 1</td>
<td>1 and 2</td>
<td></td>
</tr>
<tr>
<td>2 and 3</td>
<td>3 and 4</td>
<td></td>
</tr>
<tr>
<td>4 and 5</td>
<td>5 and 6</td>
<td></td>
</tr>
<tr>
<td>6 and 7</td>
<td>7 and 8</td>
<td></td>
</tr>
<tr>
<td>8 and 9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- To install a spiral wall retainer, insert the retainer in the square slot near the front of the column divider.
- The spiral wall retainer must be removed in two cases:
  - A Kit Kat bar loaded into either of the two right hand positions of a tray will not clear the retainer on the column divider between the two positions.
  - A product pusher will catch on a retainer in ORIENTATION A.
Loading Trays with Product (continued)

PRODUCT PUSHER USAGE
The product pusher will give the top of a product an extra tilt to help it fall into the delivery pan.

Use a product pusher in the following cases:
- The spiral has a capacity of 15, 13, or 11.
- The package is non-rigid like bagged peanuts.

The product pusher can also be used with other spiral and types of products.

A bag of product pushers has been shipped with the merchandiser. Additional product pushers are available from the National Vendors part department. To use a product pusher, snap it on the spiral as shown. You can adjust the product pusher by moving it around on the spiral to achieve the best vending results.

PREPARING THE MERCHANDISER FOR VENDING "LUNCH BUCKET"
Because of the weight and shape of the package, National Vendors recommends that this product be vended only from the bottom tray.

To vend this product, two adjacent positions must be coupled together.

(See “Installing a Gear” on page 21 for mechanical coupling directions and see “Couple Motors” on page 108 for electrical coupling directions).

The left spiral coupler should be installed one position counterclockwise from the vertical position.

The right spiral coupler should be installed one position clockwise from the vertical position.

Replace the current spirals with six-count spirals. These are available from the National Vendors parts department. (See “Removing and Installing Spirals” on page 18).

A pad can be installed in the bottom of the delivery pan to quiet and cushion product delivery. This part is available from the National Vendors parts department.

Load "Lunch Bucket" products as shown below:

Proper Loading of "Lunch Bucket"
Loading Trays With Product (continued)

PREPARING THE MERCHANDISER FOR VENDING "TOP SHELF"

National Vendors recommends that this product be vended from a candy tray. Move the tray so the package can be loaded standing on its left or right edge. (See “Hold the coupler bearing in place and push the spiral coupler through the bearing until the coupler clicks into position. Be sure the coupler is in the proper orientation as shown.” on page 23). The following steps must be completed for three adjacent positions on the tray:

**NOTE**

The left-most position in the group of three must be an even numbered position.

1. REMOVE COLUMN DIVIDERS
2. REMOVE SPIRALS
3. LEAVE THIS MOTOR CONNECTOR ALONE
4. DISCONNECT THIS MOTOR CONNECTOR
5. MOVE CONNECTOR FROM THIS MOTOR TO THIS MOTOR
6. TO THIS MOTOR
7. INSTALL AN 11-COUNT LEFT HAND SPIRAL IN THIS POSITION
8. INSTALL AN 11-COUNT RIGHT-HAND SPIRAL IN THIS POSITION

**NOTE**

If the motor harness you disconnected in step 5 does not reach, use the motor skip harness, P/N 1599024, available from the National Vendors Parts Department.

Couple the left motor to the right motor. (See “Couple Motors” on page 108.)
Load the "Top Shelf" products as shown below:

Motor Skip Harness

This document is available free of charge to our customers.
Crane Merchandising Systems
Returning the Trays to the Vending Position

1. Lift the tray until it is parallel to the floor as shown.

2. Push the tray toward the back of the cabinet.
Installing and Setting Price Labels

- Price rolls are printed on coiled-up strips as shown in this example. If you use another type of currency, you will find the appropriate price rolls in the plastic bag that contained this manual.
- The price roll installed indicates 0.30 to 2.35 in 0.05 increments.
- Remove the price rolls as required, and install the appropriate one(s) for your currency.

If the product to be vended is to cost more than $2.35, install per this example:
1. Insert the dollar roll in the left-most pair of slots as shown if the price is $1.00 or more.
2. Insert the cents roll in the center pair of slots as shown.
3. The low-number end of the roll goes in the top slot and the high-number end of the roll goes in the bottom slot.
Installing and Setting Price Labels (continued)

ADJUSTING THE PRICE ROLL

You can set selection prices within the following range:

- Minimum price: $.00
- Maximum price: $12.95
- Increment: $.05

Use your thumb as shown to move each price roll up or down as needed to set the desired price.

**NOTE**

You will see the word **STOP** near either end of the roll.
Installing Selection ID Labels

Selection ID numbers are printed on clear plastic sheets. You will find these in the plastic bag that contained this manual. You will need to separate them along the scored lines between the selections.

CAUTION

BE CAREFUL when doing this, because it is easy to split the labels.

TO INSTALL SELECTION ID NUMBERS

1. Press together the two long edges of the selection ID label.
2. Snap the selection ID label into position on the front of the tray as shown.
Installing Selection ID Labels (continued)

WHICH ID LABEL GOES WITH WHICH SELECTION?

See the figures below for snack and candy tray positions.

Table 1: Motor Position

<table>
<thead>
<tr>
<th>TOP TRAY</th>
<th>TRAY 100</th>
<th>101</th>
<th>102</th>
<th>103</th>
<th>104</th>
<th>105</th>
<th>106</th>
<th>107</th>
<th>108</th>
<th>109</th>
<th>110</th>
<th>111</th>
<th>112</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TRAY 200</td>
<td>201</td>
<td>202</td>
<td>203</td>
<td>204</td>
<td>205</td>
<td>206</td>
<td>207</td>
<td>208</td>
<td>209</td>
<td>210</td>
<td>211</td>
<td>212</td>
</tr>
<tr>
<td>BOTTOM</td>
<td>TRAY 300</td>
<td>301</td>
<td>302</td>
<td>303</td>
<td>304</td>
<td>305</td>
<td>306</td>
<td>307</td>
<td>308</td>
<td>309</td>
<td>310</td>
<td>311</td>
<td>312</td>
</tr>
<tr>
<td>SQUAT</td>
<td>TRAY 700</td>
<td>702</td>
<td>703</td>
<td>704</td>
<td>705</td>
<td>706</td>
<td>707</td>
<td>708</td>
<td>709</td>
<td>710</td>
<td>711</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE

The example above shows a 4-tray merchandiser. Some merchandisers can have up to 7 trays.

EXAMPLE OF A BASIC SNACK TRAY ID LABEL TO USE

EXAMPLE OF A BASIC CANDY TRAY ID LABEL TO USE

EXAMPLE OF A BASIC SQUAT TRAY ID LABEL TO USE
Final Installation

Move the merchandiser to its final position

- You can position this merchandiser anywhere in a bank of machines. It can even be placed on an end flush against a side wall.
- There should be enough room in front of the merchandiser for the door to move freely.

**WARNING**

This merchandiser is only rated for installation in an indoor location.

**Leveling the Merchandiser**

Using a spirit level, adjust the legs until the cabinet is level from side to side and front to back.

**NOTE**

A slight slope from front to back will improve the draining of condensate from merchandisers with refrigerating units. When the merchandiser is part of a bank of machines, level it in reference to the other machines. After leveling is complete, check that the door operates easily.
Installing the Base Plate

Refer to the figure below while completing the following procedures:

1. Insert the long arms of the slides into the holes in the legs.
2. Insert and secure a cotter pin through the hole in the back of each of the slides.
3. Push the base plate toward the merchandiser cabinet. The front tabs of the base plate brackets should seat in the notches in the long arms of the slides.

**WARNING!**

Do not use this base plate on Models 448 or 449! Doing so could result in damage to the refrigeration unit.
Setting Up and Loading the Coin Mechanism

Once you arrive at the steps that tell you how to setup your coin mechanism, please perform the following steps:

CAUTION
The main power switch must be turned OFF before you go any further!

1. If not already plugged in, plug the power cord into the electric outlet and turn ON the main power switch.
2. Perform the steps outlined in the procedure to “Select the Coin Mechanism” on page 139

TriTeq Lock Information

If your machine has a TriTeq lock installed in it, please call 1-410-223-2140 for all service issues.
Final Checkout

Now, you have connected your merchandiser to the utilities, placed it in its final location, loaded it with products, and set the prices. Before you lock the door and move on, you should check to see if your merchandiser will vend products. In case of problems, perform the operational readiness checks beginning on this page.

Operational Readiness Check

1. Perform test vends on all selections. (See “Test Vend a Selection” on page 82.)

2. Do any of the snack or candy products catch on the tray and fail to vend? If not, skip to step 3. If so, perform the following procedures on the affected areas until all products vend properly:
   a. Install and/or adjust a product spacer. (See “Installing and Removing Product Spacers” on page 25.)
   b. Install a product pusher. (See “PRODUCT PUSHER USAGE” on page 28.)
   c. Install and/or remove spiral wall retainers. (See “SPIRAL WALL RETAINER USAGE” on page 27.)
   d. Perform the appropriate spiral anti-hang-up procedure(s) (See the “Spiral Indexing Procedures” on the next page.)

3. Test the operation of the coin mechanism (See “Setting Up and Loading the Coin Mechanism” on page 38 for the proper procedure.)

4. Test the operation of the bill validator. (See “Testing the Bill Validator” on page 41.)

5. Return all test vended products to the trays.
Spiral Indexing Procedure (One Spiral, One Motor)

The spiral indexing procedures involve rotating spirals one position at a time until the product vends properly.

1. Home all the motors (see “Homing the Motors - Motor Status Detail” on page 86.)
2. Remove the affected spiral.
3. Is the coupler in the proper position?
   - **NO** - Move the coupler to the position as shown in “Installing a Spiral Coupler” on page 22. Go to step 4.
   - **YES** - Move the coupler to the next clockwise position (if it's on a right-hand motor), or the next counterclockwise position (if it's on a left-hand motor). Go to step 4.
4. Replace the spiral.
5. Perform a test vend (see the previous page).
6. Did the product hang up?
   - **NO** - You're finished. Continue to test vend the remaining selections until everything works properly.
   - **YES** - Go to step 7.
7. Did you previously move the coupler to the next clockwise or counterclockwise position?
   - **NO** - Move the coupler to the next clockwise position (if it's on a right-hand motor), or the next counterclockwise position (if it's on a left-hand motor). Return to step 6.
   - **YES** - Return to step 2 in the operational readiness check and try another procedure. Do not move the coupler again.

Spiral Indexing Procedure (Two Spirals, One Or Two Motors)

The spiral indexing procedures involve rotating spirals one position at a time until the product vends properly.

1. Home all the motors (see “Homing the Motors - Motor Status Detail” on page 86.)
2. Remove the left hand spiral of the affected pair.
3. Is the coupler in the proper position?
   - **NO** - Move the coupler to the position as shown in “Installing a Spiral Coupler” on page 22. Go to step 4.
   - **YES** - Move the left coupler to the next counterclockwise position. Go to step 4.
4. Replace the left hand spiral.
5. Remove the right hand spiral, spiral coupler, and gear (if used) of the affected pair as a unit.
6. Rotate this unit until the right hand spiral mirrors the position of the left hand spiral.
7. Replace the right hand spiral, spiral coupler, and gear (if used).
8. Perform a test vend (see “Test Vend a Selection” on page 82.)
9. Did the product hang up?
   - **NO** - You're finished. Continue to test vend the remaining selections until everything works properly.
   - **YES** - Go to step 10.
10. Did you previously move the left hand coupler to the next counterclockwise position?
    - **NO** - Remove the left hand spiral of the affected pair. Turn the left spiral coupler to the next counterclockwise position. Return to step 4.
    - **YES** - Return to step 2 in the operational readiness check and try another procedure. Do not move the coupler again.
Testing the Bill Validator

1. Insert a $1 bill into the validator.

2. Push the coin return button.
   - If Change without Purchase (See “Set Change Without Purchase” on page 141.) is set less than $1.00 and the bill is stacked - no money is returned - you must make a selection in order to receive any change. Proceed to step 3.
   - If Change without Purchase (See “Set Change Without Purchase” on page 141.) is set less than $1.00 and the bill is NOT stacked - the $1.00 bill will be returned.
   - If Change without Purchase (See “Set Change Without Purchase” on page 141.) is set to $1.00 or more - you will receive four quarters in change.

3. Make a selection. The correct selection should be vended and correct change should be returned.

NOW WHAT?

There are many things you can do with your merchandiser to make it more flexible. Refer to the following Programming Section beginning with “Programming: Introduction” on page 42 for this and other procedures.
Programming: Introduction

The Display
The Merchant™ features our new interactive menu display. The LCD display makes navigating the programming menu structure easy and intuitive.

- The top line of the screen is the menu title.
- Selected items are highlighted in white.
- Press \( \uparrow \) or \( \downarrow \) to highlight an item.
- Press \( \text{EDIT} \) to select it. In the example at right, pressing \( \text{EDIT} \) will display the Screen Contrast menu.
- Pay attention to the bottom line of the display as it often shows important information. In certain configuration menus, it will display the current value for the selected item. In the example above, we can see that the setting for Screen Contrast is reading \( = 9 \). This is a valuable way to quickly check the settings of the merchandiser, and to confirm that a value you changed is correct.
- To return to the Idle mode from any screen, simply press \( \text{EXIT} \) until the display shows an idle message.

The Keypads
This merchandiser has two keypads:

a. Service Keypad  This 16 button keypad is located on the upper left hand side of the monetary assembly and is only available with the merchandiser’s door open. This is the principal keypad operators use to program the merchandiser.

b. Customer Keypad  This is the 13 button keypad on the front of the merchandiser. Customers use it to make selections, and operators can use it to enter numbers when programming the merchandiser.
Service Keypad Shortcut Keys

From the idle mode, these service keys will take you directly to specific programs without having to go through the Main Menu.

1. Press this button to put your machine into the Price Setting menu. You can see maximum and minimum machine prices, and change prices for entire machine, entire tray, or individual selections.

2. Press this button to select the Free Vend modes.

3. Press this button to view the temperature of a cold unit, or software version numbers.

4. Press this button to enter the System Settings menu to:
   - Select display language.
   - Select coin mechanism bill validator, card reader, and options.
   - Set Display Options.
   - Set Data Transfer Options.
   - Set Temperature and more.

5. Press this button to view total sales and vends by whole machine or selection.
   Clear resetable data.

6. Press this button to enter the Data Transfer menu (found in System Settings menu):

7. Press this button to enter the Product Configuration menu to:
   - Set machine configuration
   - Set which selections are active
   - Set FIFO
   - Couple/uncouple tray motors
   - Set up SureVend™ options

8. Press this button to set time of day and date.

9. Press this button to fill the coin mech to pay one or more coins from the coin mechanism and to see the tube status.

0. Allows you to see any fault in the machine.

* Press this button to:
  - Perform test vends
  - Test various machine functions
  - Test displays

# Press this button to enter the Supervisor mode.
Other Keys

The MOVEMENT keys on the service keypad move you around a menu, and back and forth between menus. Along with the number keys on the Customer Keypad, every function for the Merchant™ can be programmed with these keys.

Use the up and down arrow keys to scroll through any menu list and highlight the desired option. An option is not selected until it is highlighted and pressed.

This key performs these functions: First, from the idle mode, it enters the Main Menu. Second, in a menu screen, it selects the highlighted option and moves to that screen. Third, in a screen that requires a value to be entered, it "locks in" the entered value and moves up to the parent menu.

This is your "end" key. Pressing it one or more times will move you up the menu hierarchy, ending back at the idle mode.

Important Note: When in a screen that requires a selection, use rather than to lock in the entered value and move up to the previous menu. will move to the previous menu without locking in the entered value, except on those menu screens using the "X" boxes.
Programming: Data Recall

View Non Resettable Sales and Vend Data

1. Press until you reach the Main Menu, then use or to select Data Recall and press EDIT.

2. In the Data Recall menu, use or to select Non Resettable Sales Data and press EDIT.

3. To view Overall Totals for the merchandiser, select Overall Totals and press EDIT.
View Non Resettable Sales and Vend Data (continued)

4. The **Overall Totals** menu displays both the
    total dollar amount and total vend amounts
    for the following data:
    - Sales
    - Discount
    - Test Vend
    - Surcharge
    - Free Vend

<table>
<thead>
<tr>
<th>Overall Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sales-$</strong></td>
</tr>
<tr>
<td><strong>Sales-#</strong></td>
</tr>
<tr>
<td><strong>Discounts-$</strong></td>
</tr>
<tr>
<td><strong>Discounts-#</strong></td>
</tr>
<tr>
<td><strong>Test Vend-$</strong></td>
</tr>
<tr>
<td><strong>Test Vend-#</strong></td>
</tr>
</tbody>
</table>

5. For example,

**Sales-$** Displays the total merchandiser sales in dollars.

**Sales-#** Displays the total number of merchandiser vends (Sales totals includes Discount and Surcharge totals.)

**Discount-$** Displays the total dollar value of all discounts in dollars (ex. 5 discount vends of 10% on $1.00 selection will total $.50.)

**Discount-#** Displays the total number of discounted vends.

**Test Vend-$** Displays the total dollar value of all test vends.

**Test Vend-#** Displays the total number of test vends.

**Surcharge-$** Displays the total dollar value of all surcharges.

**Surcharge-#** Displays the total number of surcharge vends.

**Free Vend-$** Displays the total dollar value of free vends.

**Free Vend-#** Displays the total number of free vends.

* - Surcharge refers to the amount of money charged above the cost to accommodate a coin mech and bill validator function when separate prices are set for card reader.

6. Press `↑` and `↓` to scroll through the entire list.

7. Press `EXIT` once to return to the **Non Resettable Sales Data** menu or continue to press

    `EXIT` to return to the **Main Menu**.
View Non Resettable Sales and Vend Data By Product

1. Press EDIT until you reach the Main Menu, then use or to select Data Recall and press EDIT.

2. In the Data Recall menu, use or to select Non Resettable Sales Data and press EDIT.

3. In the Non Resettable Sales Data menu, use or to select By Product and press EDIT.

   NOTE
   The By Product menu lists all currently programmed selections.

4. Press or to scroll through the entire list.

5. Highlight a selection and press EDIT to view its sales totals.
6. The Product Total (“XXX”) menu screen displays the price of the selection, and both the total dollar amount and total vend amount for the following data:
   - Sales
   - Discount
   - Surcharge
   - Test Vend
   - Free Vend

   For example,

<table>
<thead>
<tr>
<th>101</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price-$</td>
</tr>
<tr>
<td>Sales-$</td>
</tr>
<tr>
<td>Sales-#</td>
</tr>
<tr>
<td>Discounts-$</td>
</tr>
<tr>
<td>Discounts-#</td>
</tr>
<tr>
<td>Surcharge-$</td>
</tr>
</tbody>
</table>

   Sales-$ Displays the total merchandiser sales in dollars.
   Sales-# Displays the total number of merchandiser vends (Sales totals includes Discount and Surcharge totals.)
   Discount-$ Displays the total dollar value of all discounts in dollars (ex. 5 discount vends of 10% on $1.00 selection will total $.50.)
   Discount-# Displays the total number of discounted vends.
   Test Vend-$ Displays the total dollar value of all test vends.
   Test Vend-# Displays the total number of test vends.
   *Surcharge-$ Displays the total dollar value of all surcharges.
   *Surcharge-# Displays the total number of surcharge vends.
   Free Vend-$ Displays the total dollar value of free vends.
   Free Vend-# Displays the total number of free vends.

   * - Surcharge refers to the amount of money charged above the cost to accommodate a coin mech and bill validator function when separate prices are set for card reader.

7. Press once to return to the By Product menu, twice to return to the Resettable Sales Data menu, or continue to press until you reach the Main Menu.
View Non Resettable Sales and Vend Data - Cash

1. Press \[EDIT\] until you reach the Main Menu, then use \[↑\] or \[↓\] to select Data Recall and press \[EDIT\].

2. In the Data Recall menu, use \[↑\] or \[↓\] to select Non Resettable Sales Data and press \[EDIT\].

3. In the Non Resettable Sales Data menu, use \[↑\] or \[↓\] to select Cash and press \[EDIT\].

4. The Cash menu displays both the total dollar amount and total vend amounts for the following data:
   - Cash In
   - To Cashbox
   - To Tubes
   - Bills In
   - Dispensed
   - Man. Dispense
   - Sales
   - Discounts
   - Surcharge
   - Overpay
   - Filled
   - Credited

<table>
<thead>
<tr>
<th>Cash</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash In-$</td>
<td>153.00</td>
</tr>
<tr>
<td>To Cashbox-$</td>
<td>65.00</td>
</tr>
<tr>
<td>To Tubes-$</td>
<td>88.00</td>
</tr>
<tr>
<td>Bills In-$</td>
<td>115.00</td>
</tr>
<tr>
<td>Dispensed</td>
<td>93.00</td>
</tr>
<tr>
<td>Man. Dispense</td>
<td>6.00</td>
</tr>
</tbody>
</table>
Programming: Data Recall

Merchant™ Operators’ Guide

View Non Resettable Sales and Vend Data - Cash (continued)

5. For example,

**Cash In-$** Displays the total cash value in (including manual feed).

**To Cashbox-$** Displays the total coin value to the cash box.

**To Tubes-$** Displays the total coin value to coin tubes (including manual feed).

**Bills In-$** Displays the total bill value in both the recycler and manual dispense.

**Dispensed-$** Displays the total cash value dispensed in both the recycler and manual dispense.

**Man. Dispense-$** Displays the total cash value dispensed manually and by the recycler.

**Sales-$** Displays the total merchandiser sales in dollars.

**Sales-#** Displays the total number of merchandiser vends (Sales totals includes Discount and Surcharge totals.)

**Discount-$** Displays the total dollar value of all discounts in dollars (ex. 5 discount vends of 10% on $1.00 selection will total $.50.)

**Discount-#** Displays the total number of discounted vends.

**Surcharge-$** Displays the total dollar value of all surcharges.

**Surcharge-#** Displays the total number of surcharge vends.

**Overpay-$** Displays the total cash value of overpays.

**Overpay-#** Displays the total number of overpays.

**Filled-$** Displays the total cash value of overfills.

**Filled-#** Displays the total number of overfills.

* - Surcharge refers to the amount of money charged above the cost to accommodate a coin mech and bill validator function when separate prices are set for card reader.

** - Overpay allows the customer to make purchases even if there is no change. The merchandiser screen will display “USE EXACT AMOUNT”.

6. Press ** and ** to scroll through the entire list.

7. Press ** once to return to the Non Resettable Sales Data menu or continue to press ** to return to the Main Menu.
View Non Resettable Sales and Vend Data - Cashless

1. Press \( EDIT \) until you reach the Main Menu, then use \( + \) or \( - \) to select Data Recall and press \( EDIT \).

2. In the Data Recall menu, use \( + \) or \( - \) to select Non Resettable Sales Data and press \( EDIT \).

3. In the Non Resettable Sales Data menu, use \( + \) or \( - \) to select Cashless and press \( EDIT \).

4. The Cashless menu displays both the total dollar amount and total vend amounts for the following data:
   - Sales
   - Debited
   - Credited
   - Discounts
   - Surcharge
   - Revalue

### Cashless

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales-$</td>
<td>153.00</td>
</tr>
<tr>
<td>Sales-#</td>
<td>65.00</td>
</tr>
<tr>
<td>Debited-$</td>
<td>88.00</td>
</tr>
<tr>
<td>Debited-#</td>
<td>115.00</td>
</tr>
<tr>
<td>Credited-$</td>
<td>93.00</td>
</tr>
<tr>
<td>Credited-#</td>
<td>6.00</td>
</tr>
</tbody>
</table>
View Non Resettable Sales and Vend Data - Cashless (continued)

5. For example,
   - **Sales-$** Displays the total value of cashless sales.
   - **Sales-#** Displays the total number of cashless sales.
   - **Debited-$** Displays the total value of debited sales.
   - **Debited-#** Displays the total number of debited sales.
   - **Credited-$** Displays the total value of credited sales.
   - **Credited-#** Displays the total number of credited sales.
   - **Discounts-$** Displays the total value of cashless discounts
   - **Discounts-#** Displays the total number of cashless discounts.
   - **Surcharge-$** Displays the total value of cashless surcharges.
   - **Surcharge-#** Displays the total number of cashless surcharges.
   - **Revalue-$** Displays the total value of revalues.
   - **Revalue-#** Displays the total number of revalues.

* - Surcharge refers to the amount of money charged above the cost to accommodate a coin mech and bill validator function when separate prices are set for card reader.

** - Credits cash that has been deposited into the merchandiser onto a card which is then used for that specific merchandiser. (Only certain card readers offer this option.)

6. Press and to scroll through the entire list.

7. Press once to return to the Non Resettable Sales Data menu or continue to press to return to the Main Menu.
View Non Resettable Sales and Vend Data - Token

1. Press \textit{EDIT} until you reach the \textit{Main Menu}, then use \textit{+} or \textit{-} to select \textit{Data Recall} and press \textit{EDIT}.

2. In the \textit{Data Recall} menu, use \textit{+} or \textit{-} to select \textit{Non Resettable Sales Data} and press \textit{EDIT}.

3. In the \textit{Non Resettable Sales Data} menu, use \textit{+} or \textit{-} to select \textit{Token} and press \textit{EDIT}.

4. The \textit{Token} menu displays both the total dollar amount and total vend amounts for the following data:
   - Vend Token
   - Value Token
   - Overpay

<table>
<thead>
<tr>
<th>Token</th>
<th>Vend Token-$</th>
<th>153.00</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vend Token-#</td>
<td>65.00</td>
</tr>
<tr>
<td></td>
<td>Value Token-$</td>
<td>88.00</td>
</tr>
<tr>
<td></td>
<td>Value Token-#</td>
<td>115.00</td>
</tr>
<tr>
<td></td>
<td>Overpay-$</td>
<td>93.00</td>
</tr>
<tr>
<td></td>
<td>Overpay-#</td>
<td>6.00</td>
</tr>
</tbody>
</table>
5. For example,

- **Vend Token-$** Displays the total values of token vends.
- **Vend Token-#** Displays the total number of token vends.
- **Value Token-$** *(see below)*
- **Value Token-#** *(see below)*
- **Overpay-$** *(see below)*
- **Overpay-#** *(see below)*

**NOTE**

The above functions marked with an * are not currently available, even though they may appear on the menu screen. These functions will be supported in a future release of merchandiser software.

6. Press and to scroll through the entire list.

7. Press **EXIT** once to return to the **Non Resettable Sales Data** menu or continue to press **EXIT** to return to the **Main Menu**.
View Resettable Sales and Vend Data

1. Press \boxed{\text{EDIT}} until you reach the \textbf{Main Menu}, then use \boxed{\text{+}} or \boxed{-} to select \textbf{Data Recall} and press \boxed{\text{EDIT}}.

2. In the \textbf{Data Recall} menu, use \boxed{\text{+}} or \boxed{-} to select \textbf{Resettable Sales Data} and press \boxed{\text{EDIT}}.

3. To view Resettable Sales Data \textbf{Overall Totals} for the merchandiser, select \textbf{Overall Totals} and press \boxed{\text{EDIT}}.
View Resettable Sales and Vend Data (continued)

4. The Overall Totals menu displays both the total dollar amount and total vend amount for the following data:
   • Sales
   • Discount
   • Test Vend
   • Surcharge
   • Free Vend

<table>
<thead>
<tr>
<th>Overall Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales-$ 688.75</td>
</tr>
<tr>
<td>Sales-# 551</td>
</tr>
<tr>
<td>Discounts-$ 0.50</td>
</tr>
<tr>
<td>Discounts-# 5</td>
</tr>
<tr>
<td>Test Vend-$ 8.75</td>
</tr>
<tr>
<td>Test Vend-# 7</td>
</tr>
</tbody>
</table>

5. For example,
   **Sales-$** Displays the total merchandiser sales in dollars.
   **Sales-#** Displays the total number of merchandiser vends (Sales totals includes Discount and Surcharge totals.)
   **Discount-$** Displays the total dollar value of all discounts in dollars (ex. 5 discount vends of 10% on $1.00 selection will total $.50.)
   **Discount-#** Displays the total number of discounted vends.
   **Test Vend-$** Displays the total dollar value of all test vends.
   **Test Vend-#** Displays the total number of test vends.
   **Surcharge-$** Displays the total dollar value of all surcharges.
   **Surcharge-#** Displays the total number of surcharge vends.
   **Free Vend-$** Displays the total dollar value of free vends.
   **Free Vend-#** Displays the total number of free vends.

   *Surcharge refers to the amount of money charged above the cost to accommodate a coin mech and bill validator function when separate prices are set for card reader.

6. Press  and  to scroll through the entire list.

7. Press  once to return to the Resettable Sales Data menu or continue to press  to return to the Main Menu.
View Resettable Sales and Vend Data By Product

1. Press \[EDIT\] until you reach the Main Menu, then use \[+\] or \[-\] to select Data Recall and press \[EDIT\].

2. In the Data Recall menu, use \[+\] or \[-\] to select Resettable Sales Data and press \[EDIT\].

3. In the Resettable Sales Data menu, use \[+\] or \[-\] to select By Product and press \[EDIT\].

   **NOTE**
   The By Product menu lists all currently programmed selections.

4. Press \[+\] or \[-\] to scroll through the entire list.

5. Highlight a selection and press \[EDIT\] to view its sales totals.
6. The Product Total ("XXX") menu screen displays the price of the selection, and both the total dollar amount and total vend amount for the following data:
   - Sales
   - Discount
   - Surcharge
   - Test Vend
   - Free Vend

   For example,

<table>
<thead>
<tr>
<th>Price-$</th>
<th>1.25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales-$</td>
<td>388.75</td>
</tr>
<tr>
<td>Sales-#</td>
<td>311</td>
</tr>
<tr>
<td>Discounts-$</td>
<td>0.45</td>
</tr>
<tr>
<td>Discounts-#</td>
<td>3</td>
</tr>
<tr>
<td>Surcharge-$</td>
<td>0.85</td>
</tr>
</tbody>
</table>

   For example, Sales-$ Displays the total merchandiser sales in dollars.
   Sales-# Displays the total number of merchandiser vends (Sales totals includes Discount and Surcharge totals.)
   Discount-$ Displays the total dollar value of all discounts in dollars (ex. 5 discount vends of 10% on $1.00 selection will total $.50.)
   Discount-# Displays the total number of discounted vends.
   Test Vend-$ Displays the total dollar value of all test vends.
   Test Vend-# Displays the total number of test vends.
   *Surcharge-$ Displays the total dollar value of all surcharges.
   *Surcharge-# Displays the total number of surcharge vends.
   Free Vend-$ Displays the total dollar value of free vends.
   Free Vend-# Displays the total number of free vends.

   * - Surcharge refers to the amount of money charged above the cost to accommodate a coin mech and bill validator function when separate prices are set for card reader.

7. Press once to return to the By Product menu, twice to return to the Resettable Sales Data menu, or continue to press until you reach the Main Menu.
View Resettable Sales and Vend Data - Cash

1. Press \[ EDIT \] until you reach the Main Menu, then use \[ \uparrow \] or \[ \downarrow \] to select Data Recall and press \[ EDIT \].

2. In the Data Recall menu, use \[ \uparrow \] or \[ \downarrow \] to select Resettable Sales Data and press \[ EDIT \].

3. In the Non Resettable Sales Data menu, use \[ \uparrow \] or \[ \downarrow \] to select Cash and press \[ EDIT \].

4. The Cash menu displays both the total dollar amount and total vend amounts for the following data:
   - Cash In
   - To Cashbox
   - To Tubes
   - Bills In
   - Dispensed
   - Man. Dispense
   - Sales
   - Discounts
   - Surcharge
   - Overpay
   - Filled
   - Credited
5. For example, 
**Cash In-$** Displays the total cash value in (including manual feed).
**To Cashbox-$** Displays the total coin value to the cash box.
**To Tubes-$** Displays the total coin value to coin tubes (including manual feed).
**Bills In-$** Displays the total bill value in both the recycler and manual dispense.
**Dispensed-$** Displays the total cash value dispensed in both the recycler and manual dispense).
**Man. Dispense-$** Displays the total cash value dispensed manually and by the recycler.
**Sales-$** Displays the total merchandiser sales in dollars.
**Sales-#** Displays the total number of merchandiser vends (Sales totals includes Discount and Surcharge totals.)
**Discount-$** Displays the total dollar value of all discounts in dollars (ex. 5 discount vends of 10% on $1.00 selection will total $.50.)
**Discount-#** Displays the total number of discounted vends.
**Surcharge-$** Displays the total dollar value of all surcharges.
**Surcharge-#** Displays the total number of surcharge vends.
**Overpay-$** Displays the total cash value of overpays.
**Overpay-#** Displays the total number of overpays.
**Filled-$** Displays the total cash value of overfills.
**Filled-#** Displays the total number of overfills.

* - Surcharge refers to the amount of money charged above the cost to accommodate a coin mech and bill validator function when separate prices are set for card reader.

** - Overpay allows the customer to make purchases even if there is no change. The merchandiser screen will display “USE EXACT AMOUNT”.

6. Press  and  to scroll through the entire list.

7. Press  once to return to the **Resettable Sales Data** menu or continue to press  to return to the **Main Menu**.
View Resettable Sales and Vend Data - Cashless

1. Press EDIT until you reach the Main Menu, then use ↑ or ↓ to select Data Recall and press EDIT.

2. In the Data Recall menu, use ↑ or ↓ to select Resettable Sales Data and press EDIT.

3. In the Resettable Sales Data menu, use ↑ or ↓ to select Cashless and press EDIT.

4. The Cashless menu displays both the total dollar amount and total vend amounts for the following data:
   - Sales
   - Debited
   - Credited
   - Discounts
   - Surcharge
   - Revalue
5. For example,

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales-$</td>
<td>Displays the total value of cashless sales.</td>
</tr>
<tr>
<td>Sales-#</td>
<td>Displays the total number of cashless sales.</td>
</tr>
<tr>
<td>Debited-$</td>
<td>Displays the total value of debited sales.</td>
</tr>
<tr>
<td>Debited-#</td>
<td>Displays the total number of debited sales.</td>
</tr>
<tr>
<td>Credited-$</td>
<td>Displays the total value of credited sales.</td>
</tr>
<tr>
<td>Credited-#</td>
<td>Displays the total number of credited sales.</td>
</tr>
<tr>
<td>Discounts-$</td>
<td>Displays the total value of cashless discounts</td>
</tr>
<tr>
<td>Discounts-#</td>
<td>Displays the total number of cashless discounts.</td>
</tr>
<tr>
<td>*Surcharge-$</td>
<td>Displays the total value of cashless surcharges.</td>
</tr>
<tr>
<td>*Surcharge-#</td>
<td>Displays the total number of cashless surcharges.</td>
</tr>
<tr>
<td>**Revalue-$</td>
<td>Displays the total value of revalues.</td>
</tr>
<tr>
<td>**Revalue-#</td>
<td>Displays the total number of revalues.</td>
</tr>
</tbody>
</table>

* - Surcharge refers to the amount of money charged above the cost to accommodate a coin mech and bill validator function when separate prices are set for card reader.

** - Credits cash that has been deposited into the merchandiser onto a card which is then used for that specific merchandiser. (Only certain card readers offer this option.)

6. Press ↑ and ↓ to scroll through the entire list.

7. Press EXIT once to return to the Non Resettable Sales Data menu or continue to press to return to the Main Menu.
View Resettable Sales and Vend Data - Token

1. Press \text{EDIT} until you reach the \text{Main Menu}, then use \text{+} or \text{-} to select \text{Data Recall} and press \text{EDIT}.

2. In the \text{Data Recall} menu, use \text{+} or \text{-} to select \text{Resettable Sales Data} and press \text{EDIT}.

3. In the \text{Non Resettable Sales Data} menu, use \text{+} or \text{-} to select \text{Token} and press \text{EDIT}.

4. The \text{Token} menu displays both the total dollar amount and total vend amounts for the following data:
   - Vend Token
   - Value Token
   - Overpay

\begin{itemize}
\item \textbf{Vend Token-$} 153.00
\item \textbf{Vend Token-$} 65.00
\item \textbf{Value Token-$} 88.00
\item \textbf{Value Token-$} 115.00
\item \textbf{Overpay-$} 93.00
\item \textbf{Overpay-$} 6.00
\end{itemize}
5. For example, 

- **Vend Token-$** Displays the total values of token vends.
- **Vend Token-#** Displays the total number of token vends.
- **Value Token-$** *(see below)*
- **Value Token-#** *(see below)*
- **Overpay-$** *(see below)*
- **Overpay-#** *(see below)*

6. Press **↑** and **↓** to scroll through the entire list.

7. Press **EXIT** once to return to the **Resettable Sales Data** menu or continue to press **EXIT** to return to the **Main Menu**.

**NOTE**

The above functions marked with a * are not currently available, even though they may appear on the menu screen. These functions will be supported in a future release of merchandiser software.
Clear Resettable Sales and Vend Data

1. Press \( \text{EDIT} \) until you reach the Main Menu, then use \( \text{Up} \) or \( \text{Down} \) to select Data Recall and press \( \text{EDIT} \).

2. In the Data Recall menu, use \( \text{Up} \) or \( \text{Down} \) to select Resettable Sales Data and press \( \text{EDIT} \).

3. In the Resettable Data screen, select Clear Data and press \( \text{EDIT} \).

4. The Clear Data screen confirms that you want to clear resettable data.
   a. Press \( \text{EDIT} \) to clear the data.
   b. Press \( \text{EDIT} \) to exit without clearing the data.

5. After clearing data, you will automatically return to the Resettable Sales Data menu screen. Press \( \text{EXIT} \) once to return to the Data Recall menu screen or twice to return to the Main Menu.

NOTE
To access the Clear Data menu screen, you must first have entered the Supervisor's PIN code. For instructions on entering this code, refer to “Enter Security Code” on page 193.
View Timed Events - Main Door Openings

1. Press \( \text{EDIT} \) until you reach the **Main Menu**, then use \( \text{or} \) \( \text{to select Data Recall, and press \( \text{EDIT} \).} \)

2. In the **Data Recall** menu, use \( \text{or} \) \( \text{to select Timed Events} \) and press \( \text{EDIT} \).

3. In the **Timed Events** menu, use \( \text{or} \) \( \text{to select Main Door Openings} \) and press \( \text{EDIT} \).

4. The **Main Door Openings** screen displays a list of dates, times and durations of main door openings.

5. Press \( \text{once to return to the Timed Events menu, twice to return to the Data Recall menu, or three times to return to the Main Menu.} \)

**NOTE**
Each option in the **Timed Events** menu has a maximum of 16 events that can be viewed and/or set.
View Timed Events - Power Losses

1. Press \[\text{EDIT}\] until you reach the \textbf{Main Menu}, then use \[\text{or } \text{ to select \textit{Data Recall}, and press } \text{EDIT}.\]

2. In the \textit{Data Recall} menu, use \[\text{or } \text{ to select \textit{Timed Events}}\] and press \[\text{EDIT}.\]

3. In the \textit{Timed Events} menu, use \[\text{or } \text{ to select \textit{Power Losses}}\] and press \[\text{EDIT}.\]

4. The \textbf{Power Losses} screen displays a list of dates, times and durations of power losses.

5. Press \[\text{EXIT}\] once to return to the \textit{Timed Events} menu, twice to return to the \textit{Data Recall} menu, or three times to return to the \textbf{Main Menu}.

\textbf{NOTE}
Each option in the \textit{Timed Events} menu has a maximum of 16 events that can be viewed and/or set.
View Timed Events - Last Data Clear

1. Press EDIT until you reach the Main Menu, then use ↑ or ↓ to select Data Recall and press EDIT.

2. In the Data Recall menu, use ↑ or ↓ to select Timed Events and press EDIT.

3. In the Timed Events menu, use ↑ or ↓ to select Last Data Clear and press EDIT.

4. The Last Data Clear screen displays the date and time of the last data clear.

5. Press EXIT once to return to the Timed Events menu, twice to return to the Data Recall menu, or three times to return to the Main Menu.

**NOTE**
Each option in the Timed Events menu has a maximum of 16 events that can be viewed and/or set.
View Timed Events - Last Price Setting

1. Press \[ \text{EDIT} \] until you reach the **Main Menu**, then use \[ \uparrow \] or \[ \downarrow \] to select **Data Recall** and press \[ \text{EDIT} \].

2. In the **Data Recall** menu, use \[ \uparrow \] or \[ \downarrow \] to select **Timed Events** and press \[ \text{EDIT} \].

3. In the **Timed Events** menu, use \[ \uparrow \] or \[ \downarrow \] to select **Last Price Setting** and press \[ \text{EDIT} \].

4. The **Last Price Setting** screen displays the date and time of the last price setting.

5. Press \[ \text{EXIT} \] once to return to the **Timed Events** menu, twice to return to the **Data Recall** menu, or three times to return to the **Main Menu**.

**NOTE**
Each option in the **Timed Events** menu has a maximum of 16 events that can be viewed and/or set.
View Timed Events - Last Vend

1. Press \[ \text{EDIT} \] until you reach the **Main Menu**, then use \[ \text{Up} \] or \[ \text{Down} \] to select **Data Recall** and press \[ \text{EDIT} \].

2. In the **Data Recall** menu, use \[ \text{Up} \] or \[ \text{Down} \] to select **Timed Events** and press \[ \text{EDIT} \].

3. In the **Timed Events** menu, use \[ \text{Up} \] or \[ \text{Down} \] to select **Last Vend** and press \[ \text{EDIT} \].

4. The **Last Vend** screen displays the date and time of the last vend.

5. Press \[ \text{EDIT} \] once to return to the **Timed Events** menu, twice to return to the **Data Recall** menu, or three times to return to the **Main Menu** screen.

---

**NOTE**

Each option in the **Timed Events** menu has a maximum of 16 events that can be viewed and/or set.
View Timed Events - Last Clock Set

1. Press \[ \text{EDIT} \] until you reach the \textbf{Main Menu}, then use \[ \uparrow \] or \[ \downarrow \] to select \textbf{Data Recall} and press \[ \text{EDIT} \].

2. In the \textbf{Data Recall} menu, use \[ \uparrow \] or \[ \downarrow \] to select \textbf{Timed Events} and press \[ \text{EDIT} \].

3. In the \textbf{Timed Events} menu, use \[ \uparrow \] or \[ \downarrow \] to select \textbf{Last Clock Set} and press \[ \text{EDIT} \].

4. The \textbf{Last Clock Set} screen displays the last date and time the clock was set.

5. Press \[ \text{EDIT} \] once to return to the \textbf{Timed Events} menu, twice to return to the \textbf{Data Recall} menu, or three times to return to the \textbf{Main Menu} screen.

\textbf{NOTE}
Each option in the \textbf{Timed Events} menu has a maximum of 16 events that can be viewed and/or set.
1. Press **EDIT** until you reach the **Main Menu**, then use **↑** or **↓** to select **Data Recall** and press **EDIT**.

2. In the **Data Recall** menu, use **↑** or **↓** to select **Timed Events** and press **EDIT**.

3. In the **Timed Events** menu, use **↑** or **↓** to select **Last Timed Backup** and press **EDIT**.

4. The **Last Timed Backup** screen displays the last date and time a timed backup was performed.

5. Press **EXIT** once to return to the **Timed Events** menu, twice to return to the **Data Recall** menu, or three times to return to the **Main Menu** screen.

**NOTE**
Each option in the **Timed Events** menu has a maximum of 16 events that can be viewed and/or set.
View Identification Numbers - Main PCB

1. Press \( \text{EDIT} \) until you reach the Main Menu, then use \( \uparrow \) or \( \downarrow \) to select Data Recall and press \( \text{EDIT} \).

2. In the Data Recall menu, use \( \uparrow \) or \( \downarrow \) to select Identification Numbers and press \( \text{EDIT} \).

4. In the Identification Numbers menu, use \( \uparrow \) or \( \downarrow \) to select Main PCB and press \( \text{EDIT} \).

5. In the Main PCB menu, you can view:
   - S/N - Serial number of board
   - Model - Model number of board
   - Version - Version of board software

6. Press \( \text{EXIT} \) once to return to the Main PCB menu, twice to return to the Identification Numbers menu or continue to press \( \text{EXIT} \) until you reach the Main Menu.
View Identification Numbers - Coin Mechanism

1. Press \( \text{EDIT} \) until you reach the **Main Menu**, then use \( \uparrow \) or \( \downarrow \) to select **Data Recall** and press \( \text{EDIT} \).

2. In the **Data Recall** menu, use \( \uparrow \) or \( \downarrow \) to select **Identification Numbers** and press \( \text{EDIT} \).

   **NOTE**
   The **Coin Mechanism** selection will only be available if an MDB level 3 or higher coin mechanism is installed in your merchandiser.

3. In the **Identification Numbers** menu, use \( \uparrow \) or \( \downarrow \) to select **Coin Mechanism** and press \( \text{EDIT} \).

4. The **Coin Mechanism** screen will display the serial number, manufacturer information, the model and the version of the installed coin mechanism.

5. Press \( \text{EXIT} \) once to return to the **Identification Numbers** menu, twice to return to the data Recall menu, or three times to return to the **Main Menu**.
View Identification Numbers - Bill Validator

1. Press \[\text{EDIT}\] until you reach the \textbf{Main Menu}, then use \[\text{or }\text{ to select Data Recall}\] and press \[\text{EDIT}\].

2. In the \textbf{Data Recall} menu, use \[\text{or }\text{ to select Identification Numbers}\] and press \[\text{EDIT}\].

3. In the \textbf{Identification Numbers} menu, use \[\text{or }\text{ to select Bill Validator}\] and press \[\text{EDIT}\].

4. The \textbf{Bill Validator} screen will display the serial number, manufacturer information, the model and the version of the installed bill validator.

5. Press \[\text{EDIT}\] once to return to the \textbf{Identification Numbers} menu, twice to return to the data Recall menu, or three times to return to the \textbf{Main Menu}. 
View Identification Numbers - Card Reader

1. Press ⌃ until you reach the Main Menu, then use ↑ or ↓ to select Data Recall and press ⌃.

2. In the Data Recall menu, use ↑ or ↓ to select Identification Numbers and press ⌃.

   **NOTE**
   The Card Reader selection will only be available if a card reader is installed in your merchandiser.

3. In the Identification Numbers menu, use ↑ or ↓ to select Card Reader and press ⌃.

4. The Card Reader screen will display the serial number, manufacturer information, the model and the version of the installed card reader.

5. Press ⌃ once to return to the Identification Numbers menu, twice to return to the data Recall menu, or three times to return to the Main Menu.
Print Data

1. Press **EDIT** until you reach the **Main Menu**, then use **+** or **-** to select **Data Recall** and press **EDIT**.

2. In the **Data Recall** menu, use **+** or **-** to select **Print Data** and press **EDIT**.

4. To print data using an external printer, press:
   1 to print **All Data**
   2 to print **Overall Totals**
   3 to print **By Product**
   4 to print **Cash**

5. Press **EXIT** once to return to the **Data Recall** menu or twice to return to the **Main Menu** screen.

<table>
<thead>
<tr>
<th>Press</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>All Data</td>
</tr>
<tr>
<td>2</td>
<td>Overall Totals</td>
</tr>
<tr>
<td>3</td>
<td>By Product</td>
</tr>
<tr>
<td>4</td>
<td>Cash</td>
</tr>
</tbody>
</table>
Programming: Diagnostic

Check for Errors

1. Press until you reach the Main Menu, then use or to select Diagnostic and press .

2. In the Diagnostic screen, if there are no errors, the screen will display “No Errors”. If an error code does display, see the table of “Diagnostic Error Messages” on page 79 to learn about the error code(s) displayed.

3. Press once to return to the Main Menu.
### DIAGNOSTIC ERROR MESSAGES

<table>
<thead>
<tr>
<th>ERROR MESSAGE</th>
<th>ERROR DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Bills Disabled</td>
<td>The bill validator has been disabled.</td>
</tr>
<tr>
<td>All Coins Disabled</td>
<td>The coin mech is reporting that all the coin tubes are disabled and are out of service.</td>
</tr>
<tr>
<td>All Selections Disabled</td>
<td>All of the machine selections have been disabled by the user.</td>
</tr>
<tr>
<td>Bill Validator Accept Jam</td>
<td>A bill is jammed in the acceptance path of the bill validator.</td>
</tr>
<tr>
<td>Bill Validator Comm</td>
<td>Communication has been lost between the main controller and the bill validator. Check wiring harnesses and bill validator.</td>
</tr>
<tr>
<td>Bill Validator Motor</td>
<td>The bill validator is reporting a defective motor.</td>
</tr>
<tr>
<td>Bill Validator ROM</td>
<td>The bill validator is reporting a ROM checksum error.</td>
</tr>
<tr>
<td>Bill Validator Sensor</td>
<td>The bill validator is reporting a sensor problem.</td>
</tr>
<tr>
<td>Bill Validator Stacker is Full</td>
<td>The bill stacker in the bill validator is full.</td>
</tr>
<tr>
<td>Bill Validator Stacker is open</td>
<td>The bill validator stacker is open or removed.</td>
</tr>
<tr>
<td>Cabinet Temperature Sensor Error</td>
<td>An error has been reported from the cabinet temperature sensor or the sensor is not plugged in properly to the IO Board</td>
</tr>
<tr>
<td>Card Jammed in Card Reader</td>
<td>Card reader has failed because a card is jammed in the unit.</td>
</tr>
<tr>
<td>Card Reader Comm</td>
<td>Communication has been lost between the main controller and the card reader. Check wiring harnesses and card reader.</td>
</tr>
<tr>
<td>Card Reader Error</td>
<td>The card reader is reporting a repeating error.</td>
</tr>
<tr>
<td>Card Reader Failed OOS Err</td>
<td>The card reader is reporting a failure and is out of service.</td>
</tr>
<tr>
<td>Card Reader Failure</td>
<td>The card reader has reported a failure and is out of service.</td>
</tr>
<tr>
<td>Card Reader Reports a Comm Error &amp; is OOS</td>
<td>Card reader is reporting a communication problem and is out of service.</td>
</tr>
<tr>
<td>Card Reader Reports a Comm Error</td>
<td>The card reader is reporting a repeating communication error but is operational.</td>
</tr>
<tr>
<td>Card Reader Requests Servicing</td>
<td>Card reader indicates that it requires service, reader is still operational.</td>
</tr>
<tr>
<td>Check Prices</td>
<td>An Invalid price has been set.</td>
</tr>
<tr>
<td>Check Winner Prize</td>
<td>The selection chosen for the winner prize is not valid.</td>
</tr>
<tr>
<td>Coin Mech Accept Jam</td>
<td>The coin mech is reporting that a coin is jammed in the acceptor section.</td>
</tr>
<tr>
<td>Coin Mech Accept Unplugged</td>
<td>The coin mech is reporting that the coin acceptor is unplugged from the main body of the coin mech and is out of service.</td>
</tr>
</tbody>
</table>
## DIAGNOSTIC ERROR MESSAGES

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coin Mech All Tubes Err</td>
<td>The coin mech is reporting errors in all the coin tubes and is out of service.</td>
</tr>
<tr>
<td>Coin Mech Comm</td>
<td>Communication has been lost between the main controller and the coin mechanism. Check wiring harnesses and coin mech.</td>
</tr>
<tr>
<td>Coin Mech Payout Jam</td>
<td>The coin mech is reporting that a tube payout attempt has resulted in a jammed condition, it is still operational.</td>
</tr>
<tr>
<td>Coin Mech ROM</td>
<td>The coin mech is reporting a ROM failure and is out of service.</td>
</tr>
<tr>
<td>Coin Mech Tube Err</td>
<td>The coin mech is reporting a tube error, it is still operational.</td>
</tr>
<tr>
<td>Coin Mech Tube Sensor</td>
<td>The coin mech is reporting a tube sensor error, it is still operational.</td>
</tr>
<tr>
<td>Coin Return Motor Not Present</td>
<td>The coin return motor is not connected.</td>
</tr>
<tr>
<td>Coin Return Motor Run Time</td>
<td>The coin return motor is jammed.</td>
</tr>
<tr>
<td>Condenser Coil Sensor Error</td>
<td>An error has been reported from the condenser coil temperature sensor or the sensor is not plugged in properly to the IO Board.</td>
</tr>
<tr>
<td>Condenser High Side Service</td>
<td>The condenser is running at too high of a temperature for an extended amount of time. Clean the condenser, check the fan motor and clean the screen.</td>
</tr>
<tr>
<td>Evaporator Coil Sensor Error</td>
<td>An error has been reported from the evaporator coil temperature sensor or the sensor is not plugged in properly to the IO Board.</td>
</tr>
<tr>
<td>Exec Mech Price Error</td>
<td>The exec coin mechanism is reporting a price error.</td>
</tr>
<tr>
<td>Factory Init Occurred</td>
<td>A factory initialization has occurred while the door was closed. The door must be closed while the power is on to clear this diagnostic.</td>
</tr>
<tr>
<td>Health Control Error</td>
<td>On a refrigerated Merchant the cabinet temperature has exceeded 41ºF for an extended amount of time.</td>
</tr>
<tr>
<td>Init Failed</td>
<td>The snack motor interface has failed to initialize.</td>
</tr>
<tr>
<td>IO Board Voltage</td>
<td>The IO board voltage is out of the normal range.</td>
</tr>
<tr>
<td>Low Change</td>
<td>The machine is currently low on change. The low change threshold is user defined.</td>
</tr>
<tr>
<td>No Errors</td>
<td>Indicates there are no errors in the system.</td>
</tr>
<tr>
<td>No I/O Comm</td>
<td>Communication between the main controller and the IO board has been lost. Check wiring harnesses.</td>
</tr>
<tr>
<td>Diagnostic Error Message</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>No Monetary Device</td>
<td>There are no monetary devices present. The machine is still operational.</td>
</tr>
<tr>
<td>No Monetary Device - Fatal</td>
<td>There are no monetary devices present. The machine will be out of service.</td>
</tr>
<tr>
<td>Refrigeration Low Side Service Required: Warning</td>
<td>The IO board has reported that the machine has re-entered defrost too quickly. Cleared on a door close.</td>
</tr>
<tr>
<td>Refrigeration Low Side Service Required: Fatal</td>
<td>The IO board has reported that the machine has re-entered defrost too quickly. Service is required. Power cycle required to clear.</td>
</tr>
<tr>
<td>Single Card Reader Error</td>
<td>The card reader has reported a single error.</td>
</tr>
<tr>
<td>Snack Motor Error</td>
<td>The indicated selection is reporting a snack motor error. View the individual motor detail of this selection for more information.</td>
</tr>
<tr>
<td>Sold Out Selection</td>
<td>The indicated selection is sold out.</td>
</tr>
<tr>
<td>Stuck Key</td>
<td>The main controller has detected a single stuck key.</td>
</tr>
<tr>
<td>Stuck Keys - Fatal</td>
<td>The main controller has detected two or more stuck keys and the machine is out of service.</td>
</tr>
<tr>
<td>SureVend Anti Jackpot Error</td>
<td>SureVend has detected multiple sold out selections since the last door closure. The Anti-Jackpot trigger is user defined.</td>
</tr>
<tr>
<td>SureVend Calibration Error</td>
<td>SureVend is reporting a short circuit.</td>
</tr>
<tr>
<td>SureVend Comm Error</td>
<td>The IO board has lost communication with SureVend. Check wiring harnesses.</td>
</tr>
<tr>
<td>SureVend Is Blocked</td>
<td>SureVend is reporting a blocked sensor.</td>
</tr>
</tbody>
</table>
Programming: Test

Test Vend a Selection

1. Press EDIT until you reach the **Main Menu**, then use ↑ or ↓ to select **Test** and press EDIT.

2. In the Test menu, use ↑ or ↓ to select **Test Vend** and press EDIT.

3. Make a selection (Example: 1-0-3), then press the OK button.

4. The merchandiser will dispense the selection and return to the original Test Vend menu.

5. Test vend another selection, or press EXIT once to return to the Test menu or twice to return to the Main Menu.

**NOTE**

If Merchant™ door is shut while the menu is on the Test Vend or the Test Vend w/o SureVend screens, the screen will be displayed until one Test Vend or Test Vend w/o SureVend is completed.

---

**Main Menu**

- Data Recall
- Diagnostic
- Test
- Price
- Product Configuration

**Test Vend**

- Test Vend w/o SureVend
- SureVend Detectors
- Motor Test Summary
- Motor Status Detail

**Test Vend**

- Insert Money or Make a Selection

**Test Vend**

- Price: $1.25

---

**Credit 0.00**

**12:56**

---

**Credit 0.00**

**12:56**
Test Vend Without SureVend™

1. Press until you reach the Main Menu, then use or to select Test and press .

2. In the Test menu, use or to select Test Vend w/o SureVend and press .

3. Make a selection (Ex. 1-0-3), then press the OK button.

4. The merchandiser will dispense the selection and return to the original Test Vend w/o SureVend menu.

5. Test vend another selection, or press once to return to the Test menu or twice to return to the Main Menu.

NOTE
If Merchant™ door is shut while the menu is on the Test Vend or the Test Vend w/o SureVend screens, the screen will be displayed until one Test Vend or Test Vend w/o SureVend is completed.
Test SureVend™ Calibration

1. Press ⏎ until you reach the **Main Menu**, then use ↑ or ↓ to select **Test**, and press ⏎.

2. In the **Test** menu, use ↑ or ↓ to select **SureVend Calibration** and press ⏎.

3. The **SureVend Calibration** screen will display the **Calibration Values** as the machine cycles through the SureVend Calibration test.

   **NOTE**
   
   The first sensor calibration value shown in the top line of the calibration values is for the sensor which is located in the back of the merchandiser, farthest from the front door. The last sensor calibration value shown in the bottom line of the calibration values is for the sensor which is located in the front, closest to the front door.

   The calibration values indicate “gain”. The lower calibration (gain) values are desirable. *(Optimal range is 4)*. High calibration (gain) values indicate a problem with the sensor.
Testing the Motors - Motor Test Summary

1. Press \( \text{EDIT} \) until you reach the Main Menu, then use \( \text{or} \) to select Test and press \( \text{EDIT} \).

2. In the Test menu, use \( \text{or} \) to select Motor Test Summary and press \( \text{EDIT} \).

3. The Motor Test Summary screen will appear, and will cycle through one screen while motors are being pinged.

4. The Motor Test Summary status screen will then appear, indicating information on homed and present motors and indicating errors. If any motors are unhomed or have any other error status, they will be indicated as Errors. If this is the case, you will need to home the motor(s.) See “Homing the Motors - Motor Status Detail” on page 86.

5. Press \( \text{EXIT} \) once to return to the Test menu, or twice to return to the Main Menu.
Homing the Motors - Motor Status Detail

1. Press \( \text{EDIT} \) until you reach the **Main Menu**, then use \( \uparrow \) or \( \downarrow \) to select **Test**, and press \( \text{EDIT} \).

2. In the **Test** menu, use \( \uparrow \) or \( \downarrow \) to select **Motor Status Detail** and press \( \text{EDIT} \).

3. In the **Motor Status Detail** menu, select the tray where the product spiral with the motor needing homing is located.

   **NOTE**

   In the **Tray X** menu, the product spirals with homed motors will be indicated with an “H” in the line adjacent to the spiral number(s.)

4. In the **Tray X** menu, select the product spiral number where the motor needing homing is located.

   **NOTE**

   The **Tray X** menu indicates not only the homed motor status, but also:
   - If spiral is a FIFO group member
   - If spiral is coupled with another spiral
   - If there is an error present for the spiral
   - If spiral is part of a winner combo
   - If spiral is a token member
   - If spiral is a time of day member

   **NOTE**

   Refer to the figure of “Motor Status Detail Menu Screen” on page 88 and the “Table: Motor Status Detail Menu Screen” on page 88 (at the end of this procedure) for location of above information and for more information.
Homing the Motors - Motor Status Detail (continued)

5. In the XXX menu, choose Press START To Home. and press once.

6. While motor is being homed, the screen will change to “HOMING PLEASE WAIT.”

7. After motor is homed, the screen will cycle to the XXX menu, and will indicate that the motor is homed by displaying “H=Homed.”

8. Press once to return to the Tray X menu. The line for the product spiral number you originally selected to be homed should indicate “- H - - - - -.”

9. You may then select a different product spiral for motor homing, or press to return to the Motor Status Detail.

10. From the Motor Status Detail menu, you may select a different tray where another product spiral with a motor needing homing is located, or you may press once to return to the Test menu or twice to return to the Main Menu.
Homing the Motors - Motor Status Detail (continued)

Table: Motor Status Detail Menu Screen

<table>
<thead>
<tr>
<th>Tray number</th>
<th>First Field</th>
<th>Second Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>- H</td>
<td>FC</td>
</tr>
<tr>
<td>102</td>
<td>- H</td>
<td>-- C</td>
</tr>
<tr>
<td>103</td>
<td>- H</td>
<td>F</td>
</tr>
<tr>
<td>104</td>
<td>XH</td>
<td>-- --</td>
</tr>
<tr>
<td>105</td>
<td>- H</td>
<td>-- --</td>
</tr>
<tr>
<td>106</td>
<td>- H</td>
<td>-- --</td>
</tr>
</tbody>
</table>

- **Tray number**
  - Indicates tray number.
- **Column 1**
  - Indicates spiral number.
- **Column 2**
  - “X” indicates the spiral motor is present, but not configured.
  - “H” indicates that spiral motor is homed. An absence of an “H” indicates that the spiral motor is NOT homed.
- **Column 3**
  - “F” indicates spiral is a FIFO member (see page 104).
  - “C” indicates spiral is coupled (see page 108).
- **Column 4**
  - “ERR” indicates error is present for the spiral.
- **Column 5**
  - “W” indicates spiral is a Winner member (see page 122), Token member (see page 128) or a Combo member (see page 125).
  - “T” indicates spiral is a Time of Day event member (see page 109).
Test the Coin Return Motor

1. Press \[EDIT\] until you reach the **Main Menu**, then use \[or \] to select **Test** and press \[EDIT\].

2. In the **Test** menu, use \[or \] to select **Coin Return Motor**, then press \[EDIT\].

3. Press \[\] to begin the test. The **Coin Return Motor** status screen will cycle from "**Idle**" to "**Return Change**" for the duration of the test.

   **NOTE**

   If the **Coin Return Motor** status screen cycles to **Error** instead of **Return Change**, exit this procedure by pressing \[\] until you reach the **Main Menu**, then follow the procedure to “Check for Errors” on page 78 to further investigate the error.

4. When the test is completed, the **Coin Return Motor** status screen will change back to **Idle**.

5. After the test, press \[EXIT\] once to return to the **Test** menu, or twice to return to the **Main Menu**.
Test the Light Relay

1. Press \[ \text{EDIT} \] until you reach the **Main Menu**, then use \[ \text{Up} \] or \[ \text{Down} \] to select **Test** and press \[ \text{EDIT} \].

2. In the **Test** menu, use \[ \text{Up} \] or \[ \text{Down} \] to select **Lighting Relay**, then press \[ \text{EDIT} \].

3. Press \[ \text{START} \] to begin the test. The **Lighting Relay** status screen will change from “On” to “Off” and the lights should turn off.

4. Press \[ \text{START} \] again. The **Lighting Relay** status screen will change from “Off” to “On” and the lights should turn back on.

5. After the test, press \[ \text{EXIT} \] once to return to the **Test** menu, or twice to return to the **Main Menu**.
Check the Temperature

1. Press EDIT until you reach the Main Menu, then use ▲ or ▼ to select Test and press EDIT.

2. In the Test menu, use ▲ or ▼ to select Temperature Sensors, then press EDIT.

3. In the Temperature Sensors screen you can view and test:
   - **Cabinet** - This is the temperature inside the cabinet.
   - **Evap** - This is the temperature of the evaporator.
   - **Cond** - This is the temperature of the condenser.

   These temperatures are only good for testing the sensors.

4. Press EXIT once to return to the Test menu, or twice to return to the Main Menu.

   **NOTE**
   The actual running temperatures of the Cabinet, Evaporator, Condenser and the current state of the Compressor can be rotated through by pressing the “OK” key while the door is closed. These temperatures will be displayed in the lower right hand corner of the display.
Test the Display

1. Press \( \text{EDIT} \) until you reach the \textbf{Main Menu}, then use \( \text{ or } \) to select \textbf{Test}, and press \( \text{EDIT} \).

2. In the \textbf{Test} menu, use \( \text{ or } \) to select \textbf{Display} and press \( \text{EDIT} \).

3. Press \( \text{EDIT} \) repeatedly to cycle through different display test patterns. The display test patterns will reveal any flaw in the display.

\textbf{NOTE}

If a flaw is detected in the display by performing this test, the display may have to serviced or replaced.

4. When you have cycled through all of the different display test patterns, the test is complete. Press \( \text{EXIT} \) once to return to the \textbf{Test} menu screen or twice to return to the \textbf{Main Menu}. 

---

<table>
<thead>
<tr>
<th><strong>Main Menu</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Recall</td>
</tr>
<tr>
<td>Diagnostic</td>
</tr>
<tr>
<td><strong>Test</strong></td>
</tr>
<tr>
<td>Price</td>
</tr>
<tr>
<td>Product Configuration</td>
</tr>
<tr>
<td>Press EDIT to Select</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Test</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>SureVend Detectors</td>
</tr>
<tr>
<td>Motor Test Summary</td>
</tr>
<tr>
<td>Motor Status Detail</td>
</tr>
<tr>
<td>Change Return Motor</td>
</tr>
<tr>
<td><strong>Display</strong></td>
</tr>
<tr>
<td>Press EDIT to Select</td>
</tr>
</tbody>
</table>

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Test the Keypads - Keypad Entry

1. Press ✎ until you reach the Main Menu, then use ↑ or ↓ to select Test and press ✎.

2. In the Test menu, use ↑ or ↓ to select Keypad Entry and press ✎.

3. In the Keypad Entry screen, press any key on the main or service keypads. The key you pressed should display (or if pressing a special button, refer to the list below).

On the Main Keypad:

- If you press ✖, you should see “C”.
- If you press the Coin Return button, you should see “R”.
- If you press the OK button, you should see “S”.

On the Service Keypad:

- If you press +, you should see .
- If you press -, you should see .

NOTE
If the key you have pressed does not display, the keypad may have to be serviced or replaced.

4. When you have finished testing the keypad(s), press ✎ once to return to the Test menu or three times to return to the Main Menu.
Programming: Prices

Set Prices for Individual Selections

1. Press ✪EDIT on until you reach the **Main Menu**, then use ✪ or ✪ on to select **Price** and press ✪EDIT.

2. In the **Price** menu, use ✪ or ✪ on to select **Individual Prices** and press ✪EDIT.

   **NOTE**
   The **Individual Prices** menu lists all selections programmed for the merchandiser. Notice how the status (bottom) line displays the current price of the highlighted selection.

3. Use ✪ or ✪ on to highlight a selection and press ✪EDIT to set its price.

4. Using the number keys on either keypad, enter a price for the selection. If the price is less than 10,000.00, use leading zeros. The arrow keys will reposition the cursor.

5. Press ✪EDIT ✪ on to return to the **Individual Prices** menu. Verify that the new price displays in the status (bottom) line when the selection is highlighted.

6. Press ✪EXIT ✪ once more to return to the **Price** menu or twice to return to the **Main Menu**.
Set One Price for the Entire Machine

1. Press \[EDIT\] until you reach the \Main Menu, then use \[↑\] or \[↓\] to select \Price\ and press \[EDIT\].

2. In the \Price\ menu, use \[↑\] or \[↓\] to select \Entire Machine\ and press \[EDIT\].

**TIP:** If most selections will have the same price, use this feature to quickly set the entire machine to that price, then go to “Set Prices for Individual Selections” on page 94 to adjust the prices for individual selections.

3. Using the number keys on either keypad, enter a price for the entire machine. If the price is less than 10,000.00, use leading zeros. The arrow keys will reposition the cursor.

4. Press \[EDIT\] to set the new price and return to the \Price\ menu. Verify that the new price displays in the status (bottom) line.

5. Press \[EXIT\] once more to return to the \Main Menu\.
Set Prices by Trays

1. Press until you reach the
   
   **Main Menu**, then use or to select **Price** and press .

2. In the **Price** menu, use or to select the tray number you wish to set
   the price for and press .

   **TIP**: If most selections on the same tray will have the same price, use this feature to quickly set the entire tray to that price, then go to “Set Prices for Individual Selections” on page 94 to adjust the prices for individual selections.

3. Using the number keys on either keypad, enter a price for the selected tray. If the price is less than 100.00, use leading zeros. The arrow keys will reposition the cursor.

4. Press to set new price and return to the **Price** menu. Verify that the new price displays in the status (bottom) line.

5. Press once more to return to the **Main Menu**.
Programming: Product Configuration

View Configuration Version

1. Press \[\text{EDIT}\] until you reach the \textbf{Main Menu}, then use \[\uparrow\] or \[\downarrow\] to select \textbf{Product Configuration} and press \[\text{EDIT}\].

2. In the \textbf{Product Configuration} menu, use \[\uparrow\] or \[\downarrow\] to select \textbf{Configuration Version}. The configuration of the merchandiser will be displayed on the status (bottom) line of the \textbf{Product Configuration} menu.

3. Press \[\text{EDIT}\] to access the \textbf{Configuration Version} screen. This screen will also display the current configuration version indicated by the filled in circle and shown at the bottom of the screen.

4. In the \textbf{Configuration Version} menu, use \[\uparrow\] or \[\downarrow\] to select the desired configuration.

5. Press \[\text{EXIT}\] once to return to the \textbf{Product Configuration} menu, or twice to return to the \textbf{Main Menu}.

<table>
<thead>
<tr>
<th>DEFINITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ambient Merchant</strong> - No temperature control. This setting must not be used when selling perishable items.</td>
</tr>
<tr>
<td><strong>Refrigerated Merchant</strong> - The target temperature is fixed at +36°F (2°C). Should be used when selling perishable items that require Health Control. See page 172 for Health Control information.</td>
</tr>
<tr>
<td><strong>Merchant Chilled Snack</strong> - The target temperature is settable from +49°F to +69°F (9°C to 20°C). This setting must not be used when selling perishable items.</td>
</tr>
</tbody>
</table>
Turn SureVend™ On and Off

1. Press ⌘ until you reach the Main Menu, then use ↑ or ↓ to select Product Configuration and press ⌘ .

2. In the Product Configuration menu, use ↑ or ↓ to select SureVend.

3. In the SureVend menu, use ↑ or ↓ to select SureVend.

4. A second SureVend menu will appear. Use ↑ or ↓ to select the status (Off or On.) The selection is the one with the filled-in circle. Press ⌘ to lock in the selection.

5. The screen will cycle back to the first SureVend menu. Verify that the status of SureVend™ (Off or On) is displayed in the status (bottom) line of this SureVend menu.

6. Press EXIT once to return to the Product Configuration menu or twice to return to the Main Menu.
Set SureVend™ Options

1. Press \[EDIT\] until you reach the Main Menu, then use \[\uparrow\] or \[\downarrow\] to select Product Configuration and press \[EDIT\].

2. In the Product Configuration menu, use \[\uparrow\] or \[\downarrow\] to select SureVend.

**NOTE**
The status (Off or On) of SureVend™ must be On for the SureVend Options selection to show up on the menu screen and be accessed. For instructions on setting SureVend™ status (Off or On), see “Turn SureVend™ On and Off” on page 98.

3. In the SureVend menu, use \[\uparrow\] or \[\downarrow\] to select SureVend Options. The status of SureVend Options (Option SureVend or Must SureVend) will display in the status (bottom) line of the SureVend menu. Press \[EDIT\] to access the SureVend Options menu to change status, if desired.

4. In the SureVend menu, use \[\uparrow\] or \[\downarrow\] to select Option SureVend or Must SureVend. The selection is the one with the filled-in circle. Press \[EDIT\] to lock in your selection and return to the SureVend menu.
Set SureVend Options (continued)

5. Verify that the selection you made is now displayed in the status (bottom) line of the SureVend menu when SureVend Options is selected.

6. Press once to return to the Product Configuration menu or twice to return to the Main Menu.

<table>
<thead>
<tr>
<th>SureVend</th>
</tr>
</thead>
<tbody>
<tr>
<td>SureVend</td>
</tr>
<tr>
<td>SureVend Options</td>
</tr>
<tr>
<td>Anti-Jackpot Timer</td>
</tr>
<tr>
<td>Anti-Jackpot Trigger</td>
</tr>
</tbody>
</table>

Option SureVend
Set SureVend™ Anti-Jackpot Timer

1. Press \[\text{EDIT}\] until you reach the \textbf{Main Menu}, then use \[\text{up}\] or \[\text{down}\] to select \textbf{Product Configuration} and press \[\text{EDIT}\].

2. In the \textbf{Product Configuration} menu, use \[\text{up}\] or \[\text{down}\] to select \textbf{SureVend} and press \[\text{EDIT}\].

   \textbf{NOTE}

   The status (\textit{Off} or \textit{On}) of SureVend™ must be \textit{On} for the \textbf{Anti-Jackpot Timer} selection to show up on the menu screen and be accessed. For instructions on setting SureVend™ status (\textit{Off} or \textit{On}), see “Turn SureVend™ On and Off” on page 98.

3. In the \textbf{SureVend} menu, use \[\text{up}\] or \[\text{down}\] to select \textbf{Anti-Jackpot Timer}. The setting of \textbf{Anti-Jackpot Timer} will display on the status (bottom) of the \textbf{SureVend} menu.

   Press \[\text{EDIT}\] to access the \textbf{Anti-Jackpot Timer} menu to change status, if desired.

4. Using the number keys on either keypad, enter a setting for \textbf{Anti-Jackpot Timer}. If the setting is less than 10, use leading zeros:

   Example: press 0-5 to set the setting for 5. If you enter more than two numbers, the display will scroll back to the first digit.

5. Press \[\text{EDIT}\] to save setting and return to the \textbf{SureVend} menu. Verify that the new setting is now displayed in the status (bottom) line of the \textbf{SureVend} menu.

6. Press \[\text{EXIT}\] once to return to the \textbf{Product Configuration} menu or twice to return to the \textbf{Main Menu}.
Set SureVend™ Anti-Jackpot Trigger

1. Press \[EDIT\] until you reach the **Main Menu**, then use \[↑\] or \[↓\] to select **Product Configuration** and press \[EDIT\].

2. In the **Product Configuration** menu, use \[↑\] or \[↓\] to select **SureVend**.

**NOTE**

The status (Off or On) of SureVend™ must be On for the Anti-Jackpot Trigger selection to show up on the menu screen and be accessed. For instructions on setting SureVend™ status (Off or On), see “Turn SureVend™ On and Off” on page 98.

3. In the **SureVend** menu, use \[↑\] or \[↓\] to select **Anti-Jackpot Trigger**. The setting of Anti-Jackpot Trigger will display in the status (bottom) line of the **SureVend** menu.

   Press \[EDIT\] to access the Anti-Jackpot Trigger screen to change status, if desired.

4. Using the number keys on either keypad, enter a setting for Anti-Jackpot Trigger. If the setting is less than 10, use leading zeros: Example: press 0-5 to set the setting for 5. If you enter more than two numbers, the display will scroll back to the first digit.

5. Press \[EDIT\] to save setting and return to the **SureVend** menu. Verify that the new setting is now displayed in the status (bottom) line of the **SureVend** menu.

6. Press \[EXIT\] once to return to the **Product Configuration** menu or twice to return to the **Main Menu**.
Selection Configuration

1. Press \( \text{EDIT} \) until you reach the Main Menu, then use \( \uparrow \) or \( \downarrow \) to select Product Configuration and press \( \text{EDIT} \).

2. In the Product Configuration menu, use \( \uparrow \) or \( \downarrow \) to select Selection Configuration and press \( \text{EDIT} \).

   \[ \text{NOTE} \]
   A screen that indicates “pinging” will appear momentarily.

3. In the Selection Configuration menu, use \( \uparrow \) or \( \downarrow \) to select the product(s) you wish to configure or unconfigure.

4. Press \( \text{EDIT} \) to remove or add the “X”(s) from the box(es) preceding the product number(s).

   \[ \text{NOTE:} \]
   By pressing \( \text{EDIT} \), you will auto configure (ie. all selections that have spirals physically connected will configure).

5. Press \( \text{EDIT} \) once to return to the Product Configuration menu, or twice to return to the Main Menu.
FIFO (First In, First Out)

FIFO (First In, First Out) allows you to program your Merchant™ to run selections as a single selection. No matter which selection ID of the group is entered, the Merchant™ will vend round-robin from the group of spirals, skipping selections that are out-of-service. This feature can provide a First-In-First-Out for perishable foods. It also helps to prevent one spiral of duplicate selections to go empty before the others of the same selection.

*Note:* Ensure that all selections chosen for each FIFO group are the same price.

**FIFO Setup - Adding Groups**

1. Press **EDIT** until you reach the **Main Menu**, then use **up** or **down** to select **Product Configuration** and press **EDIT**.

2. In the **Product Configuration** menu, use **up** or **down** to select **FIFO Setup** and press **EDIT**.

3. In the **FIFO Setup** menu, use **up** or **down** to select **Add Group 1** and press **EDIT**.

4. In the **Add Group 1** menu, use **up** or **down** to select the product(s) you wish to add or delete from the group by pressing **EDIT** to remove or add the “X”(s) next to the products.

**NOTE**

By pressing **EDIT**, you are able to quickly remove or add the “X”(s) from all listed products for the group.
FIFO Setup - Adding Groups (continued)

5. Press \( \text{EXIT} \) once to return to the FIFO Setup menu.

**NOTE**

Once you have set up the first group for FIFO Setup, you will now have additional choices on the FIFO Setup menu.

For adding additional groups, follow steps 3 thru 5 on the preceding page.

FIFO Setup - Deleting Groups

1. From the FIFO Setup menu, use \( \text{UP} \) or \( \text{DOWN} \) to select Delete Group and press \( \text{EDIT} \).

2. Select which group you wish to delete and press \( \text{EDIT} \).

3. You will see a warning screen reminding you that once accomplished, the deletion cannot be undone.

4. Press \( \text{EXIT} \) to delete the selected group.

\(-\text{OR}-\)

Press \( \text{EXIT} \) to cancel this action.

**NOTE**

Pressing \( \text{EXIT} \) to cancel will return you directly back to the FIFO Setup menu if all groups have been deleted. If there are more groups remaining, you will return to the Delete Group menu screen.

5. If you are at the Delete Group menu, press \( \text{EXIT} \) to return to the FIFO Setup menu.
FIFO Setup - Editing Groups

1. From the FIFO Setup menu, use the up or down arrows to select Edit Group and press EDIT.

2. Using the up or down arrows, select the group you wish to edit and press EDIT.

3. In the Edit Group (#) menu, select the product(s) you wish to add or delete from the group by using the up or down arrows to select a product and then pressing EDIT to remove or add the “X”(s) next to the products.

   **NOTE**
   
   By pressing EDIT, you are able to quickly remove or add the “X”(s) from all listed products for the group.

4. Press EXIT once to return to the Edit Group menu.

5. You may now choose another group to edit from this menu, or press EXIT again to return to the FIFO Setup menu.

   **NOTE**
   
   When adding or editing groups, if only one product selection number is selected, no group will be added, or the group being edited will be deleted.
FIFO Setup - View FIFO Mappings

1. From the **FIFO Setup** menu, use 
   ![Up Arrow] or ![Down Arrow] to select **FIFO Mappings** and press ![EDIT].

2. In the **FIFO Mappings** menu, use 
   ![Up Arrow] or ![Down Arrow] to select the tray you wish to view FIFO mappings for and press ![EDIT].

3. The **Tray X FIFO Selections** screen will appear for the tray which you selected, indicating which products are mapped into which groups.

   **NOTE**
   FIFO mappings are unable to be changed in this screen. To change FIFO mappings for products, you must use the steps outlined in “FIFO Setup - Adding Groups” on page 104, “FIFO Setup - Deleting Groups” on page 105 and/or “FIFO Setup - Editing Groups” on page 106.

4. After viewing and making note of a particular product tray’s FIFO mappings, press ![EXIT] once to return to the **FIFO Mappings** menu, twice to return to the **FIFO Setup** menu, or continue to press ![EXIT] until you reach the **Main Menu**.
Couple Motors

The Merchant™ can be set to couple adjacent product tray motors to vend together. There are times when you will need to set adjacent motors on a tray to vend together, as in the case of vending wide products. Follow this procedure to electronically couple adjacent motors.

NOTE
Once coupled, motors will never run separately. This includes when testing from the Motor Test Summary (page 85) and/or the Motor Status Detail (page 86) menus.

1. Press \[ \text{EDIT} \] until you reach the Main Menu, then use \[ \text{Up} \] or \[ \text{Down} \] to select Product Configuration and press \[ \text{EDIT} \].

2. In the Product Configuration menu, use \[ \text{Up} \] or \[ \text{Down} \] to select Couple Motors and press \[ \text{EDIT} \].

3. In the Couple Motors menu, you will see a list of all Motor Pairs that are able to be coupled to vend together. Select the Motor Pair(s) you wish to couple by using the \[ \text{Up} \] or \[ \text{Down} \] to select a Motor Pair and then pressing \[ \text{EDIT} \] to remove or add the “X”(s) next to the Motor Pair(s).

   NOTE
By pressing \[ \text{Star} \] (\[ \text{X} \]), you are able to quickly remove or add the “X”(s) from all listed Motor Pairs.

4. Press \[ \text{Exit} \] once to return to the Product Configuration menu or twice to return to the Main Menu.
Special Vend Modes

Timed Events-Time of Day Events

The Merchant™ can be programmed for up to 16 discrete time of day events, which can be programmed to include Inhibit, Free Vend, Discount and Combo Vend.

1. Press EDIT until you reach the Main Menu, then use ▲ or ▼ to select Special Vend Modes and press EDIT.

2. From the Special Vend Modes menu, use ▲ or ▼ to select Timed Events and press EDIT.

3. From the Timed Events menu, use ▲ or ▼ to select Time of Day Events and press EDIT.

4. In the Time of Day Events menu, use ▲ or ▼ to select Inhibit and press EDIT.
5. If the event is set to Off, use \( \uparrow \) or \( \downarrow \) to select State and press EDIT.

6. In the State menu screen, use \( \uparrow \) or \( \downarrow \) to select On. The selected option is the one with the filled-in circle. Press EDIT to lock in the selection and return to the Event (#) menu. Verify that the status (bottom) line displays On when State is selected.

7. In the Event (#) menu, select Event Type and press EDIT.

8. In the Event Type menu, the selected option is the one with the filled-in circle. Press \( \uparrow \) or \( \downarrow \) to change the selected option.

9. Press EDIT to lock in the selection and return to the Event (#) menu. Verify that the status (bottom) line displays the choice made in step 8 above when Event Type is selected.
Timed Events—Time of Day Events (continued)

10. In the Event (#) menu, use ↑ or ↓ to select Start Time and press EDIT.

11. In the Start Time menu, using the number keys on either keypad, enter the time you wish the event to start. After you have entered four digits, 24 will be selected.

   Press ↑ or ↓ to toggle between AM, PM, and 24 hour modes. If you enter more than four numbers, the display will scroll back to the first digit.

12. Press EDIT to lock in the time and return to the Event (#) menu. Verify that the status (bottom) line displays the correct start time when Start Time is selected.

13. In the Event (#) menu, press ↑ or ↓ to select Stop Time and press EDIT.

14. In the Stop Time menu, using the number keys on either keypad, enter the time you wish the event to stop. After you have entered four digits, the hour mode (AM or PM) will be selected. Press ↑ or ↓ to toggle between AM, PM, and 24 hour modes. If you enter more than four numbers, the display will scroll back to the first digit.

15. Press EDIT to lock in the time and return to the Event (#) menu. Verify that the status (bottom) line displays the correct stop time when Stop Time is selected.
Timed Events-Time of Day Events (continued)

16. In the **Event (#)** menu, press

   ![Up or Down Arrow] or ![Up or Down Arrow] to select *Days of Week*

   and press ![Edit].

17. Press ![Up or Down Arrow] or ![Up or Down Arrow] to highlight a day of

   the week, then press ![Edit] to select it.

   Selected day(s) will have “X”(s) to the left.

   **NOTE**

   By pressing ![Delete], you are able to quickly remove or add the

   “X”(s) from all days of the week.

18. Press ![Exit] to lock in the selected days

   and return to the **Event (#)** menu. Verify that the status (bottom) line displays the

   correct day(s) of the week that were set.

   **NOTE**

   Days of the week appear in the status line as dashes, in the order of Sunday

   through Saturday, if they are not selected.

19. In the **Event (#)** menu, press

   ![Up or Down Arrow] or ![Up or Down Arrow] to choose *Selections*

   and press ![Edit].
20. In the **Selections** menu, press \[\uparrow\] or \[\downarrow\] to choose a **Selection** (XXX) and press \[\text{EXIT}\] to select it. Chosen **Selections** (XXX) will have an “X”(s) to the left.

**NOTE**

By pressing \[\ast\], you are able to quickly remove or add the “X”(s) from all **Selections**.

21. Press \[\text{EXIT}\] to lock in your **Selections** and return to the **Event (#)** menu.

22. In the **Event (#)** menu, press \[\uparrow\] or \[\downarrow\] to select **Messages** and press \[\text{EXIT}\].

23. In the **Message** menu, the selected option is the one with the filled-in circle. Press \[\uparrow\] or \[\downarrow\] to change the selected option.

24. Press \[\text{EXIT}\] to lock in the selection and return to the **Event (#)** menu. Verify that the status (bottom) line displays the choice made in step 24 above when **Message** is selected.

25. Press \[\text{EXIT}\] once to return to the **Time of Day Events** menu to set more Events, or continue to press \[\text{EXIT}\] to return to the **Main Menu**.
Timed Events-Powersave

Use the Powersave feature to set up time intervals when the machine can turn off the lights and go into a low power mode.

1. Press until you reach the Main Menu, then use or to select Special Vend Modes and press .

2. From the Special Vend Modes menu, use or to select Timed Events and press .

3. From the Timed Events menu, use or to select Time of Day Events and press .

4. In the Time of Day Events menu, use or to select the Time of Day event you want to modify and press .

Note:
In this example we are using event number 1 but any event 1 -16 may be used.

Note:
The names assigned to each timed event 1 - 16 will change as the Time of Day Events are modified. In our example the description next to event 1 will say “Lighting” instead of “Inhibit” the next time we view the Time of Day Events screen.
Timed Events-Powersave (continued)

5. If the event is set to Off, use \( \uparrow \) or \( \downarrow \) to select State and press EDIT.

6. In the State menu screen, use \( \uparrow \) or \( \downarrow \) to select On. The selected option is the one with the filled-in circle.

Press EDIT to lock in the selection and return to the Event (#) menu. Verify that the status (bottom) line displays On when State is selected.

7. In the Event (#) menu, select Event Type and press EDIT.

8. In the Event Type menu, the selected option is the one with the filled-in circle.

Press \( \uparrow \) or \( \downarrow \) to select Lighting.

9. Press EDIT to lock in the selection and return to the Event (#) menu. Verify that the status (bottom) line displays the choice made in step 8 above when Event Type is selected.
Timed Events-Powersave (continued)

10. In the Event (#) menu, use
   \[\uparrow\text{ or } \downarrow\] to select Start Time and press \[\text{EDIT}\].

11. In the Start Time menu, using the number keys on either keypad, enter the time you wish the event to start. After you have entered four digits, 24 will be selected.

Press \[\uparrow\text{ or } \downarrow\] to toggle between AM, PM, and 24 hour modes. If you enter more than four numbers, the display will scroll back to the first digit.

12. Press \[\text{EDIT}\] to lock in the time and return to the Event (#) menu. Verify that the status (bottom) line displays the correct start time when Start Time is selected.

13. In the Event (#) menu, press \[\uparrow\text{ or } \downarrow\] to select Stop Time and press \[\text{EDIT}\].

14. In the Stop Time menu, using the number keys on either keypad, enter the time you wish the event to stop. After you have entered four digits, the hour mode (AM or PM) will be selected. Press \[\uparrow\text{ or } \downarrow\] to toggle between AM, PM, and 24 hour modes. If you enter more than four numbers, the display will scroll back to the first digit.

15. Press \[\text{EDIT}\] to lock in the time and return to the Event (#) menu. Verify that the status (bottom) line displays the correct stop time when Stop Time is selected.
Timed Events-Powersave (continued)

16. In the Event (#) menu, press 

↑ or ↓ to select Days of Week

and press EDIT.

17. Press ↑ or ↓ to highlight a day of the week, then press EDIT to select it. Selected day(s) will have “X”(s) to the left.

NOTE

By pressing EDIT, you are able to quickly remove or add the “X”(s) from all days of the week.

18. Press EXIT to lock in the selected days and return to the Event (#) menu. Verify that the status (bottom) line displays the correct day(s) of the week that were set.

NOTE

Days of the week appear in the status line as dashes, in the order of Sunday through Saturday, if they are not selected.

19. In the Event (#) menu, press 

↑ or ↓ to choose Lighting Timeout and press EDIT.
Timed Events-Powersave (continued)

20. Using the number keys on either keypad, enter the setting for the **Lighting Timeout** from 1 to 999 minutes. If the setting is less than 10, use leading zeros:
   - For example, if you wish to set the Lighting Timeout to 9 minutes, press 0-0-9
   - If you enter more than three numbers, the display will scroll back to the first digit.

   **NOTE**
   The Lighting Timeout setting is the length of time of inactivity that will pass before the lights go off if a customer has turned the lights on **during this timed event**.

21. Press **EDIT** to lock in the setting and return to the **Event (#)** menu.

22. In the **Event (#)** menu, verify that the value you entered matches the status (bottom) line when **Lighting Timeout** is selected.

23. Press **EXIT** once to return to the **Time of Day Events** menu, or continue to press **EXIT** to return to the **Main Menu**.
Timed Events - Backup Events

1. Press EDIT until you reach the Main Menu, then use ↑ or ↓ to select Special Vend Modes and press EDIT.

2. From the Special Vend Modes menu, use ↑ or ↓ to select Timed Events and press EDIT.

3. From the Timed Events menu, use ↑ or ↓ to select Backup Events and press EXIT.

4. In the Backup Events menu, use ↑ or ↓ to select Backup Data and press EXIT.
Timed Events - Backup Events (continued)

5. If Backup Data is set to Off, use \(\uparrow\) or \(\downarrow\) to select State and press EDIT.

6. In the State menu screen, use \(\uparrow\) or \(\downarrow\) to select On. The selected option is the one with the filled-in circle.

Press EDIT to lock in the selection and return to the Event (#) menu. Verify that the status (bottom) line displays On when State is selected.

10. In the Event (#) menu, use \(\uparrow\) or \(\downarrow\) to select Start Time and press EDIT.

11. In the Start Time menu, using the number keys on either keypad, enter the time you wish the event to start. After you have entered four digits, AM will be selected.

Press \(\uparrow\) or \(\downarrow\) to toggle between AM, PM, and 24 hour modes. If you enter more than four numbers, the display will scroll back to the first digit.

12. Press EDIT to lock in the time and return to the Event (#) menu. Verify that the status (bottom) line displays the correct start time when Start Time is selected.
Timed Events - Backup Events (continued)

13. In the Event (#) menu, press 
   or 
   to select Days of Week

   and press .

14. Press 
   or 
   to highlight a day of

   the week, then press 
   to select it.

   Selected day(s) will have "X"(s) to the left.

   NOTE

   By pressing , you are able

   to quickly remove or add the

   “X”(s) from all days of the week.

15. Press 
   to lock in the selected days and

   return to the Event (#) menu. Verify that the

   status (bottom) line displays the correct

   day(s) of the week that were set.

   NOTE

   Days of the week appear in the status

   line as dashes, in the order of Sunday

   through Saturday, if they are not selected.

16. Press 
   twice to reach the Timed

   Events menu, three times to reach the

   Special Vend Modes menu, or four times

   to reach the Main Menu.
Winner Mode

The Winner Mode provides a method to reward the frequent user of the Merchant™ by occasionally giving away a free product or a special prize from a designated spiral. To set up the Winner Mode, perform the following steps:

1. Press \( \text{EDIT} \) until you reach the Main Menu, then use the \( \uparrow \) or \( \downarrow \) to select Special Vend Modes and press \( \text{EDIT} \).

2. From the Special Vend Modes menu, use \( \uparrow \) or \( \downarrow \) to select Winner Mode and press \( \text{EDIT} \).

3. From the Winner Mode menu, use \( \uparrow \) or \( \downarrow \) to select Winner State. The status (bottom) line will then indicate if the Winner Mode is currently turned On or Off.

4. To change the Winner Mode state, press \( \text{EDIT} \) with Winner State selected.

5. In the Winner State menu, use \( \uparrow \) or \( \downarrow \) to select On or Off. The selected option is the one with the filled-in circle.

6. Press \( \text{EDIT} \) to lock in the selection and return to the Winner Mode menu. Verify that the status (bottom) line displays On or Off when Winner State is selected.
Winner Mode (continued)

7. From the Winner Mode menu, use 
   \[ \uparrow, \downarrow \] to select Winner Frequency. The status (bottom) line of the
   menu will display how often the merchandiser is set to vend a winner.

8. To change the winner frequency, press 
   \[ \text{EDIT} \] with Winner Frequency selected.

9. Using the number keys on either keypad, enter an interval for the Winner Frequency.
   If the frequency of a winning vend is less than 1,000, use leading zeros:
   For example, if you wish to set the merchandiser to vend a winner every 500 vends, press 0-5-0-0.
   If you enter more than four numbers, the display will scroll back to the first digit.

10. Press \[ \text{EDIT} \] to lock in the selection and return to the Winner Mode menu. Verify that
    the status (bottom) line displays the number of vends that the Winner Frequency has been set for.

11. From the Winner Mode menu, use 
    \[ \uparrow, \downarrow \] to select Winner Prize.
    The status (bottom) line of the Winner Mode menu will then indicate which spiral the
    winner will vend from. If the status line of the menu states Prize Mode OFF, then a Winner Prize spiral has not yet been chosen.

   **NOTE**
   The status (bottom) line will display INVALID if the selection is not valid or if the selection is part of a FIFO group or is the coupled spiral of a coupled selection.

12. To set or change the Winner Prize spiral, press \[ \text{EDIT} \] with Winner Prize selected.
Winner Mode (continued)

13. Using the number keys on either keypad, enter a spiral for the winner to vend from. For example, to set the merchandiser to vend the winners from spiral 103, enter 1-0-3. If you enter more than three numbers, the display will scroll back to the first digit.

14. Press \( \text{EDIT} \) to lock in the selection and return to the Winner Mode menu. Verify that the status (bottom) line displays the spiral that the Winner Prize is set to vend from.

15. From the Winner Mode menu, use \( \text{UP} \) or \( \text{DOWN} \) to select Winner Selection.

NOTE

Winner Selections are the Selections that will trigger a Winner Prize vend.

16. In the Winner Selections menu, press \( \text{UP} \) or \( \text{DOWN} \) to highlight a Selection (XXX), and press \( \text{EDIT} \) to select it. Chosen Winner Selection(s) (XXX) will have “X”(s) to the left.

NOTE

By pressing \( \text{EDIT} \), you are able to quickly remove or add the “X”(s) from all Winner Selections.

17. Press \( \text{EXIT} \) to lock in your Winner Selection(s) and return to the Winner Mode menu.

18. Press \( \text{EDIT} \) once to return to the Special Vend Modes menu or twice to return to the Main Menu.
Combo Vends

The Merchant™ can be programmed to support up to four combination groups of products to be vended together at a discounted price. **Combo Vends require a Time-Of-Day Event to vend.** Combo Groups are associated with Combo Event Time-Of-Day events. Products selected in the Time-Of-Day event (see Timed Events, step 20 on page 113) are “Combo Items” with those products in the assigned Combo Group. To program your Merchant™ to vend combination vends, perform the following procedure.

1. Press **EDIT** until you reach the **Main Menu**, then use **+** or **-** to select **Special Vend Modes** and press **EDIT**.

2. From the **Special Vend Modes** menu, use **+** or **-** to select **Combo Vends** and press **EDIT**.

3. From the **Combo Vends** menu, use **+** or **-** to select which Combo Group you want to program, and then press **EDIT**.

4. From the **Combo Group X** menu, use **+** or **-** to choose **Selections** and press **EDIT**.
Combo Vends (continued)

5. In the Selections menu, use 
   or  to highlight a selection,
   and press  to select it. Chosen
   selection(s) will have “X” (s) to the left.

   NOTE
   By pressing , you are able
   to quickly remove or add the
   “X” (s) from all of the selection(s).

6. Press  to lock in the selection and
   return to the Combo Group X menu.

7. From the Combo Group X menu, use
   or  to choose Discount and
   press .

8. Using the number keys on either keypad,
   enter a percentage of discount for Combo
   Group X. If the percentage of
discount is less than 10%, use leading
   zeros:
   For example, if you wish to set the
   merchandiser to discount a Combo Vend
   Group 5%, press 0-5.
   If you enter more than two numbers, the
   display will scroll back to the first digit.

9. Press  to lock in the selection and return to the Combo Group X menu. Verify that the
   status (bottom) line displays the percentage of discount for Combo Group X.
Combo Vends (continued)

10. From the Combo Group X menu, use 
   or 
   to select Message and press 

11. From the Message menu, use 
   or 
   to select which message you would like your merchandiser to display regarding Combo Group X.

   NOTE
   For an explanation of Custom Messages that can be chosen or programmed to display for the Combo Group you are setting up, please refer to “Set Custom Messages” on page 188.

12. Press 
   to lock in the selection and return to the Combo Group X menu. Verify that the status (bottom) line displays the percentage of discount for Combo Group X.

13. Press 
   once to return to the Combo Vends menu, twice to return to the Special Vend Modes menu or three times to return to the Main Menu.
Token Enable

The Merchant™ allows you to program token vending for certain products. To program the Merchant™ for token vending, perform the following procedure.

1. Press \( \text{EDIT} \) until you reach the **Main Menu**, then use \( \uparrow \) or \( \downarrow \), to select **Special Vend Modes** and press \( \text{EDIT} \).

2. From the **Special Vend Modes** menu, use \( \uparrow \) or \( \downarrow \) to select **Token Enable** and press \( \text{EDIT} \).

3. In the **Token Enable** menu, press \( \uparrow \) or \( \downarrow \) to highlight a selection, and press \( \text{EDIT} \) to select it. Chosen selections will have “X”(s) to the left.

   **NOTE**

   By pressing \( \text{EDIT} \), you are able to quickly remove or add the “X”(s) from all of the selections.

4. Press \( \text{EDIT} \) once to return to the **Special Vend Modes** menu or twice to return to the **Main Menu**.

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<td>Enable OK Button</td>
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<td>Press EDIT to Select</td>
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</tbody>
</table>

**customers, Token Enable**

- Product 101
- Product 102
- Product 103
- Product 104
- Product 105

* = Set or Clear All

**NOTE**

Token acceptance must be enabled in the **Monetary** menu for token and coupon acceptance to function properly. See ““Set Token/Coupon Acceptance” on page 147.
### Enable OK Button

1. Press `EDIT` until you reach the **Main Menu**, then use `↑` or `↓`, to select **Special Vend Modes** and press `EDIT`.

2. From the **Special Vend Modes** menu, use `↑` or `↓` to select **Enable OK Button** and press `EDIT`.

3. In the **Enable OK Button** menu, use `↑` or `↓` to select **Press OK to Vend** or **Don't Press OK to Vend**. The selected option is the one with the filled-in circle.

4. Press `EDIT` to lock in your selection and return to the **Special Vend Modes** menu. Verify that the selected option appears in the status (bottom) line of the menu.

5. Press `EDIT` to return to the **Main Menu**.
Programming: Free Vend

Turn Free Vend On/Off

1. Press EDIT until you reach the Main Menu, then use ↑ or ↓ to select Free Vend and press EDIT.

2. In the Free Vend menu, press ↑ or ↓ to select Off or On. The selected option is the one with the filled-in circle.

3. Press EDIT to lock in your selection (Off or On) and return to the Main Menu. Verify that the status (bottom) line displays the correct option when Free Vend is selected.

NOTE

When Free Vend is On, the standby message will display “No Money Required”, alternating with “Make a Selection”.

Programming: System Settings

Machine Information - ID Number

1. Press \[\text{EDIT}\] until you reach the \textbf{Main Menu}, then use \[\uparrow\] or \[\downarrow\] to select \textbf{System Settings} and press \[\text{EDIT}\].

2. In the \textbf{System Settings} menu, use \[\uparrow\] or \[\downarrow\] to select \textbf{Machine Information} and press \[\text{EDIT}\].

3. In the \textbf{Machine Information} menu, use the \[\uparrow\] or \[\downarrow\] to select \textbf{Machine ID} (in this example, it is “ID106-Asset Number”) and press \[\text{EDIT}\].

4. The \textbf{Machine ID} screen will allow you to use the keypad to enter an alternate Machine ID. Using the \[\uparrow\] and \[\downarrow\] will move the cursor to the left and right. Press \[\#\] to remove the letters and numbers. Press \[\star\] to move to uppercase letters and lowercase. Press 0-9 to add a letter or number. Press the number once to bring up the character screen (lower bottom). Press the number again to scroll to the character. Refer to the “NUMERIC/CHARACTER TABLE” on page 191. In this case, we have entered “Merchandiser 407.”
5. Press \[ \text{EDIT} \] to lock in your entered information and return to the **Machine Information** menu. Verify that the new information you have entered appears in the status (bottom) line.

6. Press \[ \text{EXIT} \] once to return to the **System Settings** menu or twice to return to the **Main Menu**.

<table>
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<td>ID104-Location</td>
</tr>
<tr>
<td>Merchandiser 407</td>
</tr>
</tbody>
</table>
Machine Information - Location

1. Press † until you reach the Main Menu, then use ↑ or ↓ to select System Settings and press EDIT.

2. In the System Settings menu, use ↑ or ↓ to select Machine Information and press EDIT.

3. In the Machine Information menu, use ↑ or ↓ to select Machine Location (in this example it is “ID106-Asset Number”) and press EDIT.

4. The Machine ID screen will allow you to use the keypad to enter an alternate Machine ID. Using the ↑ and ↓ will move the cursor to the left and right.

   Press # to remove the letters and numbers.

   Press * to move to uppercase letters and lowercase. Press 0-9 to add a letter or number. Press the number once to bring up the character screen (lower bottom). Press the number again to scroll to the character. Refer to the “NUMERIC/CHARACTER TABLE” on page 191. In this case, we have entered “St. Louis - 27.”
Machine Information - Location (continued)

5. Press EDIT to lock in your entered information and return to the Machine Information menu. Verify that the new information you have entered appears in the status (bottom) line.

6. Press EXIT once to return to the System Settings menu or twice to return to the Main Menu.
Set the Date

1. Press the EDIT button until you reach the Main Menu, then use the + or - buttons to select System Settings and press the EDIT button.

2. In the System Settings menu, use the + or - buttons to select Clock and press the EDIT button.

3. In the Clock menu, use the + or - buttons to select Date and press the EDIT button.

4. Using the number keys on either keypad, enter the correct date. Press the EDIT button to toggle between MM/DD/YY and DD-MM-YY formats.

   **NOTE**
   After you enter the last digit of the year, the cursor will return to the first digit. This is helpful if you enter the wrong date. Using the + or - buttons will allow you to move the cursor to the position you desire.

5. Press the EDIT button to lock in the date and return to the Clock menu. With Date selected, verify that the status (bottom) line displays the date you entered, in the format you selected.

6. Press the EXIT button once to return to the System Settings menu or twice to return to the Main Menu.
Set the Time

1. Press \( \textbf{EDIT} \) until you reach the **Main Menu**, then use \( \uparrow \) or \( \downarrow \) to select **System Settings** and press \( \textbf{EDIT} \).

2. In the **System Settings** menu, use \( \uparrow \) or \( \downarrow \) to select **Clock** and press \( \textbf{EDIT} \).

3. In the **Clock** menu, use \( \uparrow \) or \( \downarrow \) to select **Time** and press \( \textbf{EDIT} \).

4. Using the number keys on either keypad, enter the correct time. Press \( \textbf{EDIT} \) to toggle between AM, PM and 24-hr. formats.

   **NOTE**
   After you enter the last digit of the time, the cursor will return to the first digit. This is helpful if you enter the wrong time.
   Using \( \uparrow \) or \( \downarrow \) will allow you to move the cursor to the position you desire, and change the hour modes.

5. Press \( \textbf{EDIT} \) to lock in the time and return to the **Clock** menu. With **Time** selected, verify that the status (bottom) line displays the date you entered, in the format you selected.

6. Press \( \textbf{EXIT} \) once to return to the **System Settings** menu or twice to return to the **Main Menu**.
Set Daylight Saving Time

1. Press \[ \text{EDIT} \] until you reach the \textbf{Main Menu}, then use \[ \uparrow \] or \[ \downarrow \] to select \textbf{System Settings} and press \[ \text{EDIT} \].

2. In the \textbf{System Settings} menu, use \[ \uparrow \] or \[ \downarrow \] to select \textbf{Clock} and press \[ \text{EDIT} \].

3. In the \textbf{Clock} menu, use \[ \uparrow \] or \[ \downarrow \] to select \textbf{Daylight Saving Time} and press \[ \text{EDIT} \].

4. In the \textbf{Daylight Saving Time} menu, press \[ \uparrow \] or \[ \downarrow \] to select which daylight saving time option you desire. The selected option is the one with the filled-in circle.

5. Press \[ \text{EDIT} \] to lock in the selection and return to the \textbf{Clock} menu. With \textbf{Daylight Saving Time} selected, verify that the status (bottom) line displays the daylight saving time option you selected.

6. Press \[ \text{EXIT} \] once to return to the \textbf{System Settings} menu or twice to return to the \textbf{Main Menu}. 
Select a Language

1. Press \( \text{EDIT} \) until you reach the Main Menu, then use \( \uparrow \) or \( \downarrow \) to select System Settings and press \( \text{EDIT} \).

2. In the System Settings menu, use \( \uparrow \) or \( \downarrow \) to select Language and press \( \text{EDIT} \).

3. In the Language menu, press \( \uparrow \) or \( \downarrow \) to select the desired language option. The selected option is the one with the filled-in circle.

4. Press \( \text{EDIT} \) to lock in the selection and return to the System Settings menu. Verify that the status (bottom) line of the menu displays the selected option.

5. Press \( \text{EXIT} \) once to return to the Main Menu.
Select the Coin Mechanism

1. Press \( \text{EDIT} \) until you reach the **Main Menu**, then use \( \text{or } \) to select **System Settings** and press \( \text{EDIT} \).

2. In the **System Settings** menu, use \( \text{or } \) to select **Monetary** and press \( \text{EDIT} \).

   **NOTE**
   The selections in the **Monetary** menu may vary, depending upon how the selections for **Coin Mechanism**, **Bill Validator** and **Card Reader** are set. You will always be able to access **Coin Mechanism**.

3. In the **Monetary** menu, use \( \text{or } \) to select **Coin Mechanism** and press \( \text{EDIT} \).

4. In the **Coin Mechanism** menu, press \( \text{or } \) to select the desired Coin Mechanism option. The selected option is the one with the filled-in circle.

5. Press \( \text{EDIT} \) to lock in the selection and return to the **Monetary** menu. With **Coin Mechanism** selected, verify that the status (bottom) line of the **Monetary** menu displays your Coin Mechanism option selection.

6. Press \( \text{EXIT} \) once to return to the **System Settings** menu, or twice to return to the **Main Menu**.
View Coins In/Out

NOTE
The Coins In/Out menu selection is accessed from the Main Menu, and is only available when a Coin Mechanism is activated. See “Select the Coin Mechanism” on page 139.

1. Press EDIT until you reach the Main Menu, then use or to select Coins In/Out.

The Coins In/Out menu displays the following information:
- The value of the coins that your merchandiser is set to accept.
- The count of each value of coin currently in the merchandiser.
- The total dollar amount of each type of coin that is currently inside your merchandiser.

You can also dispense excess or desired coins.

2. Press the number that corresponds with the coin value you wish to dispense. For example, pressing “3” would dispense one quarter. Each time you press the number, the merchandiser will dispense one of the corresponding value coin.

3. When you are finished viewing the information and/or dispensing excess or desired coins, press once to return to the Main Menu.

NOTE
If your merchandiser has a recycler installed, the recycler contents will be reported as part of the count and value totals.
Set Change Without Purchase

1. Press \[ \text{EDIT} \] until you reach the \textbf{Main Menu}, then use \[ \uparrow \text{ or } \downarrow \] to select \textbf{System Settings}.

2. In the \textbf{System Settings} menu, use \[ \uparrow \text{ or } \downarrow \] to select \textbf{Monetary} and press \[ \text{EDIT} \].

\textbf{NOTE}

The \textbf{Change Without Purchase} menu selection is only available when a \textbf{Coin Mechanism} is activated. See “Select the Coin Mechanism” on page 139.

3. In the \textbf{Monetary} menu, use \[ \uparrow \text{ or } \downarrow \] to select \textbf{Change Without Purchase} and press \[ \text{EDIT} \].

4. Using the number keys on either keypad, enter the highest denomination of coin or bill that can be changed without purchase. The arrow keys will reposition the cursor.

For example, if 0.00 is set, no change will be returned without purchase. If 00.25 is set, change will be returned is nickels, dimes and/or quarters are inserted. If 01.00 is set, $1.00 bills and coins will be changed without purchase. Nickels, dimes and quarters are also returned.

5. Press \[ \text{EDIT} \] to lock in the selection and return to the \textbf{Monetary} menu. Verify that the status (bottom) line displays the amount of change that \textbf{Change Without Purchase} is set for.

6. Press \[ \text{EXIT} \] once to return to the \textbf{System Settings} menu or twice to return to the \textbf{Main Menu}.
Set Low Change Message

1. Press until you reach the **Main Menu**, then use or to select **System Settings**.

2. In the **System Settings** menu, use or to select **Monetary** and press .

   **NOTE**

   The **Low Change Message** menu selection is only available when a **Coin Mechanism** is activated. See “Select the Coin Mechanism” on page 139.

3. In the **Monetary** menu, use or to select **Low Change Message** and press .

4. Using the number keys on either keypad, enter the amount of change that will be remaining when you wish the merchandiser to start displaying a “Low Change” message. If the amount of change is less than $10.00, use leading zeros. The arrow keys will reposition the cursor.

5. Press to lock in the selection and return to the **Monetary** menu. Verify that the status (bottom) line displays the remaining change in the merchandiser when the **Low Change Message** is set to display.

6. Press once to return to the **System Settings** menu or twice to return to the **Main Menu**.
### Select the Bill Validator

1. Press the **EDIT** button until you reach the **Main Menu**, then use the **+** or **-** button to select **System Settings** and press **EDIT**.

2. In the **System Settings** menu, use the **+** or **-** button to select **Monetary** and press **EDIT**.

**NOTE**

The selections in the **Monetary** menu may vary, depending upon how the selections for **Coin Mechanism**, **Bill Validator**, and **Card Reader** are set. You will always be able to access **Bill Validator**.

3. In the **Monetary** menu, use the **+** or **-** button to select **Bill Validator** and press **EDIT**.

4. In the **Bill Validator** menu, press the **+** or **-** button to select the desired Bill Validator option. The selected option is the one with the filled-in circle.

5. Press the **EDIT** button to lock in the selection and return to the **Monetary** menu. With **Bill Validator** selected, verify that the status (bottom) line displays your Bill Validator option selection.

6. Press the **EXIT** button until you reach the **Main Menu**. You must do this to initialize the Bill Validator and activate the **Bill Acceptance** menu.

---

### Program: System Settings

#### Main Menu

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<th>*</th>
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<th>Free Vend</th>
<th>*</th>
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<td></td>
<td></td>
<td><strong>Press EDIT to Select</strong></td>
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#### System Settings

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<td>Language</td>
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#### Monetary

<table>
<thead>
<tr>
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<td>Bill Validator</td>
<td>*</td>
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<tr>
<td>Card Reader</td>
<td>*</td>
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</tbody>
</table>

**No Bill Validator**

**Bill Validator**

- No Bill Validator
  - MDB Bill Validator

**EDIT = Accept** **EXIT = Cancel**

#### Monetary

<table>
<thead>
<tr>
<th>Coin Mechanism</th>
<th>*</th>
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</thead>
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<tr>
<td>Bill Validator</td>
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</tr>
<tr>
<td>Card Reader</td>
<td>*</td>
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</table>

**MDB Bill Validator**
Set Accept on Low Change

1. Press \[ \text{EDIT} \] until you reach the \textbf{Main Menu}, then use \[ \text{or} \] to select \textbf{System Settings}.

2. In the \textbf{System Settings} menu, use \[ \text{or} \] to select \textbf{Monetary} and press \[ \text{EDIT} \].

\textbf{NOTE}

The \textbf{Accept on Low Change} menu selection is only available when a \textbf{Coin Mechanism} and/or a \textbf{Bill Validator} are activated. See “Select the Coin Mechanism” on page 139 and/or “Select the Bill Validator” on page 143.

3. In the Monetary menu, use \[ \text{or} \] to select \textbf{Accept on Low Change} and press \[ \text{EDIT} \].

4. Using the number keys on either keypad, enter the \textbf{Accept on Low Change} value. The arrow keys will reposition the cursor. This value has two purposes:

A. This value tells the merchandiser how large a bill or coin to accept even though there is not enough change in the coin mech to cover all possible paybacks. For example: enter 01.00. In this case, the merchandiser will take a dollar bill or coin, even though there is less than $1.00 worth of change in the coin mech.

Entering 05.00 tells the merchandiser to take a five dollar bill even though there is less than $5.00 worth of change in the coin mech.

\textbf{NOTE}

This could cause a customer to be short-changed. Entering 00.00 means that bills or coins will only be accepted if there is enough change in the coin mech to cover the payback.
Set Accept on Low Change (continued)

B. This value also tell the merchandiser how much the customer is allowed to overbuy a product. The customer will be short-changed when an overbuy occurs. For example: for a value of 00.25, if there is no change in the coin mech, and the customer inserts a $1.00 bill, a $0.75 product can be purchased even though change cannot be paid back. The customer will be short-changed. Normally, a purchase will not be approved unless all change can be paid. Entering 00.00 means that the vend will only be approved when the correct change can be returned (overbuy disabled).

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<tr>
<td>Low Change Message</td>
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<tr>
<td>Accept on Low Change</td>
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</tbody>
</table>

5. Press \( \text{EDIT} \) to lock in the selection and return to the Monetary menu. Verify that the status (bottom) line displays the bill value that Accept on Low Change is set for.

6. Press \( \text{EXIT} \) once to return to the System Settings menu or twice to return to the Main Menu.
Set Bill Acceptance

1. Press EDIT until you reach the Main Menu, then use the ↑ or ↓ to select System Settings and press EDIT.

2. In the System Settings menu, use ↑ or ↓ to select Monetary and press EDIT.

NOTE
The Bill Acceptance menu selection is only available when a Bill Validator is activated. See “Select the Bill Validator” on page 143.

3. In the Monetary menu, use ↑ or ↓ to select Bill Acceptance and press EDIT.

4. In the Bill Acceptance menu, select the value of the bill you wish to set acceptance (Off or On) for and press EDIT.

5. In the “X” menu, press ↑ or ↓ to select Off or On. The selected option is the one with the filled-in circle.

6. Press EDIT to lock in your selection (Off or On) and return to the Bill Acceptance menu. Verify that the status displayed next to the bill values are correct.

7. Press EXIT once to return to the System Settings menu, or twice to return to the Main Menu.
Set Token/Coupon Acceptance

1. Press \( \text{EDIT} \) until you reach the **Main Menu**, then use the \( \uparrow \) or \( \downarrow \) to select **System Settings** and press \( \text{EDIT} \).

2. In the **System Settings** menu, use \( \uparrow \) or \( \downarrow \) to select **Monetary** and press \( \text{EDIT} \).

**NOTE**
The **Bill Acceptance** menu selection is only available when a **Bill Validator** is activated. See “Select the Bill Validator” on page 143.

3. In the **Monetary** menu, use \( \uparrow \) or \( \downarrow \) to select **Bill Acceptance** and press \( \text{EDIT} \).

4. In the **Bill Acceptance** menu, select **Token 1** and press \( \text{EDIT} \).

5. In the “6” menu, press \( \uparrow \) or \( \downarrow \) to select **Off** or **On**. The selected option is the one with the filled-in circle.

**NOTE**
Selections must be enabled in the **Special Vend Modes** menu for token and coupon acceptance to function properly. See “Token Enable” on page 128.

6. Press \( \text{EDIT} \) to lock in your selection (**Off** or **On**) and return to the **Bill Acceptance** menu. Verify that the status displayed next to Token 1 is correct.

7. Press \( \text{EXIT} \) once to return to the **System Settings** menu, or twice to return to the **Main Menu**.
Select the Card Reader

1. Press \( \text{EDIT} \) until you reach the Main Menu, then use \( \uparrow \) or \( \downarrow \) to select System Settings and press \( \text{EDIT} \).

2. In the System Settings menu, use \( \uparrow \) or \( \downarrow \) to select Monetary and press \( \text{EDIT} \).

**NOTE**

The selections in the Monetary menu may vary, depending upon how the selections for Coin Mechanism, Bill Validator and Card Reader are set. You will always be able to access Card Reader.

3. In the Monetary menu, use \( \uparrow \) or \( \downarrow \) to select Card Reader and press \( \text{EDIT} \).

4. In the Card Reader menu, press \( \uparrow \) or \( \downarrow \) to select the desired Card Reader option. The selected option is the one with the filled-in circle.

5. Press \( \text{EDIT} \) to lock in the selection and return to the Monetary menu. With Card Reader selected, verify that the status (bottom) line displays your Card Reader option selection.

6. Press \( \text{EXIT} \) once to return to the System Settings menu or twice to return to the Main Menu.
Set Card Revalue

**Card Revalue** set to **On** will allow customers to insert a card, then insert money and have credit applied to their card.

1. Press **EDIT** until you reach the **Main Menu**, then use **or** **to select** **System Settings** and press **EDIT**.

2. In the **System Settings** menu, use **or** **to select** **Monetary** and press **EDIT**.

**NOTE**

The **Card Revalue** selection will not be available unless a **Card Reader** is selected. See “Select the Card Reader” on page 148.

3. In the **Monetary** menu, press **or** **to select** **Card Revalue** and press **EDIT**.

4. In the **Card Revalue** menu, press **or** **to select** **On** or **Off**. The selected option is the one with the filled-in circle.

5. Press **EDIT** to lock in the selection and return to the **Monetary** menu.
Set Card Revalue (continued)

6. Verify that the status (bottom) line of the Monetary menu displays the selected option (On or Off) when Card Revalue is highlighted.

7. Press once to return to the System Settings menu or twice to return to the Main Menu.
Set Multiple Vend Mode

The Multiple Vend Mode option specifies how the merchandiser will dispense change once a purchase is made. There are two Multiple Vend Mode options:

a. Single Vend - change is dispensed as soon as a valid selection is made.
b. Multi Vend - also called Declining Balance. The customer can make multiple vends as long as there is sufficient credit. In order to get change, the customer must press the coin return.

1. Press \textcolor{blue}{EDIT} until you reach the \textcolor{blue}{Main Menu}, then use \textcolor{blue}{\uparrow} or \textcolor{blue}{\downarrow} to select \textcolor{blue}{System Settings} and press \textcolor{blue}{EDIT}.

2. In the \textcolor{blue}{System Settings} menu, use \textcolor{blue}{\uparrow} or \textcolor{blue}{\downarrow} to select \textcolor{blue}{Monetary} and press \textcolor{blue}{EDIT}.

\textbf{NOTE}

The Multiple Vend Mode menu selection is only available when one or any combination of Coin Mechanism, Bill Validator or Card Reader are activated. See “Select the Coin Mechanism” on page 139, “Select the Bill Validator” on page 143 and/or “Select the Card Reader” on page 148.

3. In the \textcolor{blue}{Monetary} menu, select \textcolor{blue}{Multiple Vend Mode} and press \textcolor{blue}{EDIT}.

4. In the \textcolor{blue}{Multiple Vend Mode} menu, press \textcolor{blue}{\uparrow} or \textcolor{blue}{\downarrow} to select the desired option. The selected option is the one with the filled-in circle.
Set Multiple Vend Mode (continued)

5. Press EDIT to lock in the selection and return to the Monetary menu.

6. Verify that the status (bottom) line displays the selected option when **Multiple Vend Mode** is highlighted.

7. Press EXIT once to return to the System Settings menu or twice to return to the Main Menu.
Set Credit for Failed Vend

If a failed vend occurs, the customer’s money may be returned, or the customer’s credit could be restored to the merchandiser for another selection. There are two Credit for Failed Vend options:

a. **Hold Credit** - this allows the customer’s credit to be restored to the merchandiser for another selection.

b. **Return Change** - this allows for the customer’s money to be returned.

1. Press `EDIT` until you reach the **Main Menu**, then use `↑` or `↓` to select **System Settings** and press `EDIT`.

2. In the **System Settings** menu, use `↑` or `↓` to select **Monetary** and press `EDIT`.

   **NOTE**

   The Credit for Failed Vend menu selection is only available when one or any combination of Coin Mechanism, Bill Validator or Card Reader are activated. See “Select the Coin Mechanism” on page 139, “Select the Bill Validator” on page 143 and/or “Select the Card Reader” on page 148.

3. In the **Monetary** menu, select **Credit for Failed Vend** and press `EDIT`.

4. In the **Credit for Failed Vend** menu, press `↑` or `↓` to select the desired option. The selected option is the one with the filled-in circle.
Set Credit for Failed Vend (continued)

5. Press \( \text{ENT} \) to lock in the selection and return to the Monetary Menu.

6. In the Monetary menu, verify that the option you selected matches the status (bottom) line when Credit for Failed Vend is selected.

7. Press \( \text{EXIT} \) once to return to the System Settings menu or twice to return to the Main Menu.
Set Data Transfer

Set Communication Mode

1. Press \[ \text{EDIT} \] until you reach the **Main Menu**, then use \[ \uparrow \] or \[ \downarrow \] to select **System Settings** and press \[ \text{EDIT} \].

2. In the **System Settings** menu, use \[ \uparrow \] or \[ \downarrow \] to select **Data Transfer** and press \[ \text{EDIT} \].

3. In the **Data Transfer** menu, use \[ \uparrow \] or \[ \downarrow \] to select **Communication Mode** and press \[ \text{EDIT} \].

4. In the **Communication Mode** menu, use \[ \uparrow \] or \[ \downarrow \] to select the desired option. (This sets the desired data collection mode. DEX is most commonly used in the US.) The selected option is the one with the filled-in circle.

5. Press \[ \text{EDIT} \] to lock in the selection and return to the **Data Transfer** menu.

6. In the **Data Transfer** menu, verify that the option you selected matches the status (bottom) line of the display when **Communication Mode** is selected.

7. Continue on to the next procedure to “Set Data List” on page 156.
Set Data List

1. In the **Data Transfer** menu, use 
   ![arrows](up_arrow.png) or ![arrows](down_arrow.png) to select **Data List** and 
   press ![edit](edit.png).

2. In the **Data List** menu, use ![arrows](up_arrow.png) or ![arrows](down_arrow.png) 
   to highlight a selection and press ![edit](edit.png) to 
   enable or disable it. Enabled selections will 
   have an “X”(s) to the left.

   **NOTE**
   By pressing ![edit](edit.png), you are able 
   to quickly remove or add the 
   “X”(s) from all of the selections.

3. Press ![exit](exit.png) once to return to the 
   **Data Transfer** menu.

4. Continue on to the next procedure to “Set 
   CA304 Data Type” on page 157.
Set CA304 Data Type

1. In the Data Transfer menu, use 
   
   or  to select CA304 Data Type and press  .

2. In the CA304 Data Type menu, use 
   
   or  to select the desired option. The selected option is the one with the filled-in circle.

   **NOTE**

   **Currency** - the value of bills in the stacker will be transmitted in a cash format. For example, 200 for two dollars. (Currency is the default setting.)

   **Numeric** - the value of the bills in the stacker will be transmitted in a dollar-count format. For example, 2 for two dollars.

3. Press  to lock in the selection and return to the Data Transfer menu. Verify that the selected option is displayed in the status (bottom) line when CA304 Data Type is selected.

   **NOTE**

   If your bill count is incorrect, the CA304 setting may be wrong. Try using the opposite CA304 setting.

4. Continue on to the next procedure to “Set Data Reset Mode” on page 158.
Set Data Reset Mode

1. In the Data Transfer menu, use `↑` or `↓` to select Data Reset Mode and press `EDIT`.

2. In the Data Reset Mode menu, use `↑` or `↓` to select the desired (Reset On Transfer or No Reset On Transfer) option. The selected option is the one with the filled-in circle.

3. Press `EDIT` to lock in the selection and return to the Data Transfer menu. Verify that the selected option is displayed in the status (bottom) line of the menu when Data Reset Mode is selected.

4. Continue on to the next procedure to “Set Event Reset Mode” on page 159.
Set Event Reset Mode

1. In the **Data Transfer** menu, use 
   
   ![Up Arrow] or ![Down Arrow] to select **Event Reset Mode** and press ![Edit].

2. In the **Event Reset Mode** menu, use 
   
   ![Up Arrow] or ![Down Arrow] to select the desired (**Reset On Transfer** or **No Reset On Transfer**) option. The selected option is the one with the filled-in circle.

3. Press ![Edit] to lock in the selection and return to the **Data Transfer** menu. Verify that the selected option is displayed in the status (bottom) line of the menu when **Event Reset Mode** is selected.

4. Continue on to the next procedure to “Set Printer Baud Rate” on page 160.
Set Printer Baud Rate

1. In the Data Transfer menu, use ▲ or ▼ to select Printer Baud Rate and press EDIT.

2. In the Printer Baud Rate menu, use ▲ or ▼ to select the desired option. The selected option is the one with the filled-in circle.

   **NOTE**
   The Printer Baud Rate is the rate that information is passed from the main controller to the buffer so that data can be printed. Failure to set the proper Printer Baud Rate will cause the printer to not print all the data in a legible format.

3. Press EDIT to lock in the selection and return to the Data Transfer menu. Verify that the selected option is displayed in the status (bottom) line of the menu when Printer Baud Rate is selected.

4. Press EXIT once to return to the System Settings menu or twice to return to the Main Menu.
Connect and Disconnect the Data Key

1. Turn off power to the machine.
2. Open monetary door and remove circuit board cover.
3. Install the Data Key onto the main controller at J9A, as shown in figure below. Note the proper orientation of the Data Key onto the PCB header.

**WARNING**
*Use care when powering up the machine, due to high voltage components and parts.*

4. Turn on power to the machine.
5. Access the service keypad and display.
6. Perform the procedure(s) that you wish to perform while Data Key is installed.
7. Turn off power to the machine.
8. Carefully remove the Data Key from the PCB header of the main controller at J9A.
9. Re-install the circuit board cover.
10. Turn on power to the machine.
Firmware Selection (Serial Flash Menu)

The Firmware selection line in the Serial Flash menu will not always appear. This is because it may not be loaded up on the currently inserted Data Key.

If the Firmware selection line does appear, it is IMPERATIVE that you DO NOT attempt to perform this procedure.

**WARNING**

Loading or copying Firmware to the Data Key will result in the system software that operates the machine being transferred to the Data Key and will cause your machine to be inoperable.

DO NOT CHOOSE or try to perform this function!
Save Configuration Data to Data Key

This procedure allows you to copy data such as Custom Marketing Messages and Timed Events settings to the Data Key for back up and/or transfer to other machines.

1. Follow the instructions in “Connect and Disconnect the Data Key” on page 161 to install the Data Key.

2. After installing the Data Key, access the System Settings menu by pressing until you reach the Main Menu, then press to scroll down to System Settings and press .

3. In the System Settings menu, press to select Serial Flash and press .

4. In the Serial Flash menu, press to select Configuration Data and press .

   **NOTE**
   If the Data Key has no configuration data stored, the only item displayed in the Configuration Data menu will be “Save Data.”

5. In the Configuration Data menu, press to select Save Data and press .

6. In the Save Data menu, press to select a blank description line and press .
7. A second **Save Data** menu will appear. Press **EDIT** to select **Edit Description** and press **EDIT**.

8. Enter a description of the data you are saving by using the keypad. Refer to the “NUMERIC/CHARACTER TABLE” on page 191. Confirm by pressing **EDIT**.

9. The screen will then return to the second **Save Data** menu. Press **EDIT** to select **Save Data** and press **EDIT** to confirm.

10. A third **Save Data** screen will appear, asking you if you are sure you want to save that particular Data Description from the Data Key. Confirm by pressing **EDIT**. The menu screen will then cycle to the **Ready** screen.

11. To confirm that the Data Description you entered was saved, follow the steps in “View Image Info (Data Description) on Data Key” on page 167.

12. Remove the Data Key (refer to “Connect and Disconnect the Data Key” on page 161.)
Save Configuration and Sales Data to Data Key

This procedure allows you to copy data such as Vend Totals or Sales Totals from the machine to the Data Key for back up.

1. Follow the instructions in “Connect and Disconnect the Data Key” on page 161 to install the Data Key.

2. After installing the Data Key, access the System Settings menu by pressing \[EDIT\] until you reach the Main Menu, then press \[\] to scroll down to System Settings and press \[EDIT\].

3. In the System Settings menu, press \[\] to select Serial Flash and press \[EDIT\].

4. In the Serial Flash menu, press \[\] to select Config & Sales Data and press \[EDIT\].

   **NOTE**
   
   If the Data Key has no configuration data stored, the only item displayed in the Config & Sales Data menu will be “Save Data.”

5. In the Config & Sales Data menu, press \[\] to select Save Data and press \[EDIT\].

6. In the Save Data menu, press \[\] to select a blank description line and press \[EDIT\].
7. A second **Save Data** menu will appear.
   Press **EDIT** to select **Edit Description**
   and press **Edit Desc**.

8. Enter a description of the data you are saving by using the keypad. Refer to the “NUMERIC/CHARACTER TABLE” on page 191.
   Confirm by pressing **Save Data**.

6. The screen will then return to the second **Save Data** menu. Press **Save Data** to select
   **Save Data** and press **Save Data** to confirm.

7. A third **Save Data** screen will appear, asking you if you are sure you want to save that particular Data Description from the Data Key. Confirm by pressing **Save Data**.
   The menu screen will then cycle to the **Ready** screen.

8. To confirm that the Data Description you entered was saved, follow the steps in “View Image Info (Data Description) on Data Key” on page 167.

9. Remove the Data Key (refer to “Connect and Disconnect the Data Key” on page 161.)
NOTE
In performing this procedure, follow the instructions in “Connect and Disconnect the Data Key” on page 161 to install and remove the Data Key.

1. After installing the Data Key, access the System Settings menu by pressing until you reach the Main Menu, then press to scroll down to System Settings and press EDIT.

2. In the System Settings menu, press to select Serial Flash and press EDIT.

NOTE
This procedure is performed in exactly the same manner whether using the Configuration Data or the Config & Sales Data functions.

3. In the Serial Flash menu, press to select Configuration Data OR Config & Sales Data and press EDIT.

NOTE
If the Data Key has no data stored, the only item in the Configuration Data OR Config & Sales Data menu will be “Save Data,” In that case, there will be no Image Info to view.

4. In the Configuration Data OR Config & Sales Data menu, press to select Image Info and press EDIT.
NOTE

Image Info will initially be displayed as the original software version number (for example, in screen at right, it is 181.01.00.H) followed by the date the Image Info (Data Description) was saved. You will have to choose Image Info by selecting the date that it was originally saved.

5. In the Image Info menu, press  to select the Image Info you wish to display and press EDIT.

6. A second Image Info screen will appear, displaying the software version, the Data Description that was originally entered, the date the data was saved, and the time the data was saved. In the example at right, the Data Description is displayed as ABC123.

7. Press EXIT once to return to the Image Info menu to choose another Data Description, twice to return to the Configuration Data OR Config & Sales Data menu to perform a different Data function, or several times to reach the Main Menu.

8. If you have finished performing all Data Key functions, remove the Data Key (refer to “Connect and Disconnect the Data Key” on page 161.)
Load Configuration Data from Data Key to Machine

NOTE

In performing this procedure, follow the instructions in “Connect and Disconnect the Data Key” on page 161 to install and remove the Data Key.

1. Access the **System Settings** menu by pressing $\text{EDIT}$ until you reach the **Main Menu**, then press $\downarrow$ to scroll down to **System Settings** and press $\text{EDIT}$.

2. In the **System Settings** menu, press $\text{EDIT}$ to select **Serial Flash** and press $\text{EDIT}$.

3. In the **System Settings** menu, press $\text{EDIT}$ to select **Serial Flash** and press $\text{EDIT}$.

4. In the **Serial Flash** menu, press $\text{EDIT}$ to select **Configuration Data** and press $\text{EDIT}$.

5. In the **Configuration Data** menu, press $\text{EDIT}$ to select **Load Data** and press $\text{EDIT}$.
Load Configuration Data from Data Key to Machine (continued)

6. In the **Load Data** menu, press to select the Data Description you wish to copy and press .

7. A second **Load Data** screen will appear, asking you if you are sure you want to load that particular Data Description from the Data Key. Confirm by pressing .

8. The menu screen will then cycle to the **Ready** screen.

**NOTE**

You may wish to store Data Key Configuration Data to the machine’s memory. To do so, follow the steps in “Backup Data” on page 174.

9. If you have finished performing all Data Key functions, remove the Data Key (refer to “Connect and Disconnect the Data Key” on page 161.)
Delete Configuration Data or Configuration and Sales Data from Data Key

NOTE
In performing this procedure, follow the instructions in “Connect and Disconnect the Data Key” on page 161 to install and remove the Data Key.

1. Access the System Settings menu by pressing \(\text{EDIT}\) until you reach the Main Menu, then press \(\downarrow\) to scroll down to System Settings and press \(\text{EDIT}\).

2. In the System Settings menu, press to select Serial Flash and press \(\text{EDIT}\).

3. In the System Settings menu, press to select Serial Flash and press \(\text{EDIT}\).

4. In the Serial Flash menu, press to select Configuration Data OR Config & Sales Data and press \(\text{EDIT}\).

NOTE
In the Configuration Data and Config & Sales Data menus, Delete Data will not appear unless there is data saved to the Data Key. If Delete Data does not appear, there is no data to delete.

5. In the Configuration Data OR Config & Sales Data menu, press to select Delete Data and press \(\text{EDIT}\).
Delete Configuration Data or Configuration and Sales Data from Data Key (continued)

6. In the Delete Data menu, press to select the Data Description you wish to delete and press EDIT.

7. A second Delete Data screen will appear, asking you if you are sure you want to delete that particular Data Description from the Data Key. Confirm by pressing.

8. The menu screen will then cycle to the Ready screen.

9. If you have finished performing all Data Key functions, remove the Data Key (refer to “Connect and Disconnect the Data Key” on page 161.)
View Last Backup

The backup features are used to backup up all settings and data in the event that there is a failure to the battery backup or the battery is changed out. It is recommended to backup the memory occasionally in the event of a failure.

1. Press until you reach the Main Menu, then use or to select System Settings and press .

2. In the System Settings menu, use or to select Backup/Restore Data and press .

**NOTE**
The Last Backup and Restore Data selections will not appear in the Backup/Restore Data menu unless data has previously been backed up.

3. In the Backup/Restore Data menu, use or to select Last Backup and press .

4. In the Last Backup screen, you can view the last time the data was backed up.

5. Press once to return to the Backup/Restore Data menu, twice to return to the System Settings menu or three times to return to the Main Menu.
Backup Data

The backup features are used to backup up all settings and data in the event that there is a failure to the battery backup or the battery is changed out. It is recommended to backup the memory occasionally in the event of a failure.

1. Press \[\text{EDIT}\] until you reach the Main Menu, then use \[\uparrow\] or \[\downarrow\] to select System Settings and press \[\text{EDIT}\].

2. In the System Settings menu, use \[\uparrow\] or \[\downarrow\] to select Backup/Restore Data and press \[\text{EDIT}\].

3. In the Backup/Restore Data menu, use \[\uparrow\] or \[\downarrow\] to select Backup Data and press \[\text{EDIT}\].

   **NOTE**
   
   When \[\text{EDIT}\] is pressed to save data, the system will reset.

4. In the Backup Data menu, press \[\text{EDIT}\] to save all data. Press \[\text{EXIT}\] to cancel. You will be automatically returned to the Backup/Restore Data menu.

5. Press \[\text{EXIT}\] once to return to the System Settings menu or twice to return to the Main Menu.

---

**Main Menu**

- Price
- Product Configuration
- Special Vend Mode
- Free Vend
- System Settings

Press EDIT to Select

**System Settings**

- Clock
- Language
- Monetary
- Data Transfer
- Backup/Restore Data

Press EDIT to Select

**Backup/Restore Data**

- Last Backup
- Backup Data
- Restore Data

Press EDIT to Select

**Backup Data**

Warning! The actions of this function cannot be reversed.

CANCEL-EXIT CONTINUE=*
Restore Data

Restoring data will restore all saved data that was backed up in memory.

1. Press \( \text{EDIT} \) until you reach the **Main Menu**, then use \( \text{+} \) or \( \text{−} \) to select **System Settings** and press \( \text{EDIT} \).

2. In the **System Settings** menu, use \( \text{+} \) or \( \text{−} \) to select **Backup/Restore Data** and press \( \text{EDIT} \).

   **NOTE**
   
   The **Last Backup** and **Restore Data** selections will not appear in the **Backup/Restore Data** menu unless data has previously been backed up.

3. In the **Backup/Restore Data** menu, use \( \text{+} \) or \( \text{−} \) to select **Restore Data** and press \( \text{EDIT} \).

   **NOTE**
   
   When \( \text{EXIT} \) is pressed to save data, the system will reset.

4. In the **Restore Data** menu, press \( \text{EXIT} \) to save all data. Press \( \text{EXIT} \) to cancel. You will be automatically returned to the **Backup/Restore Data** menu.

5. Press \( \text{EXIT} \) once to return to the **System Settings** menu or twice to return to the **Main Menu**.
Set Screen Contrast

For most installations, the factory default screen contrast setting should be adequate. For installations with special considerations (very low or high ambient light), adjust the screen contrast to improve menu readability.

1. Press **EDIT** until you reach the **Main Menu**, then use **↑** or **↓** to select **System Settings** and press **EDIT**.

2. In the **System Settings** menu, use **↑** or **↓** to select **Screen Contrast** and press **EDIT**.

3. Using the number keys on either keypad, enter the setting for the screen contrast. If the setting is less than 10, use leading zeros:
   - For example, if you wish to set the screen contrast at 9, press 0-9
   - If you enter more than two numbers, the display will scroll back to the first digit.

4. Press **EDIT** to lock in the setting and return to the **System Settings** menu.

5. In the **Systems Settings** menu, verify that the value you entered matches the status (bottom) line when **Screen Contrast** is selected.

6. Press **EXIT** once to return to the **Main Menu**.
View Software Version

1. Press \(\text{EDIT}\) until you reach the Main Menu, then use \(\text{+}\) or \(\text{-}\) to select System Settings and press \(\text{EDIT}\).

2. In the System Settings menu, use \(\text{+}\) or \(\text{-}\) to select Software Version and press \(\text{EDIT}\).

3. The Software Version screen displays the software version, date and time of software and checksum of software.

4. Press \(\text{EXIT}\) once to return to the System Settings menu or twice to return to the Main Menu.
View SureVend™ Version

1. Press \[ \text{EDIT} \] until you reach the **Main Menu**, then use \[ \text{UP} \] or \[ \text{DOWN} \] to select **System Settings** and press \[ \text{EDIT} \].

2. In the **System Settings** menu, use \[ \text{UP} \] or \[ \text{DOWN} \] to select **SureVend Version** and press \[ \text{EDIT} \].

3. The **Software Version** screen displays the identifying number of the current SureVend™ software version.

4. Press \[ \text{EXIT} \] once to return to the **System Settings** menu or twice to return to the **Main Menu**.
View IO Board Software

1. Press EDIT until you reach the Main Menu, then use ↑ or ↓ to select System Settings and press EDIT.

2. In the System Settings menu, use ↑ or ↓ to select IO Board Software and press EDIT.

3. The IO Board Software screen displays the software version of the IO Board Software.

4. Press EXIT once to return to the System Settings menu or twice to return to the Main Menu.
Set Temperature
A settable temperature is available only when the machine is configured to Merchant Chilled Snack

**WARNING**
The “Merchant Chilled Snack” setting does not have a health control circuit. It is not approved for the vending of perishable food items

1. Press `EDIT` until you reach the **Main Menu**, then use `↑` or `↓` to select **System Settings** and press `EDIT`.

2. In the **System Settings** menu, use `↑` or `↓` to select **Refrigeration Settings** and press `EDIT`.

3. In the **Refrigeration Settings** menu, use `↑` or `↓` to select **Adjust Temperatures** and press `EDIT`.

4. In the **Adjust Temperature** screen, use the numeric keypad to enter the desired temperature between +49º and +69ºF (9º to 20ºC).

   Press `EDIT` to lock in your selection and return to the **Refrigeration Settings** menu. Verify that the selected **Temperature** is displayed on the status (bottom) line.

5. Press `EXIT` once to return to the **System Settings** menu or twice to return to the **Main Menu**.
Select Tray and Selections to be Controlled by Health Control

1. Press \[ \text{EDIT} \] until you reach the \textbf{Main Menu}, then use \[ \text{Up} \] or \[ \text{Down} \] to select \textbf{System Settings} and press \[ \text{EDIT} \].

2. In the \textbf{System Settings} menu, use \[ \text{Up} \] or \[ \text{Down} \] to select \textbf{Refrigeration Settings} and press \[ \text{EDIT} \].

3. In the \textbf{Refrigeration Settings} menu, use \[ \text{Up} \] or \[ \text{Down} \] to select \textbf{Health Control menu} and press \[ \text{EDIT} \].

4. In the \textbf{Health Control menu}, use \[ \text{Up} \] or \[ \text{Down} \] to select the \textbf{Tray} you would like to view/modify for Health Control and press \[ \text{EDIT} \].

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<td>Press EDIT to Select</td>
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</table>
Health Control (continued)

5. In the Tray menu, use 
\[\text{ or }\] to select the Selection you would like to modify for Health Control and press \[\text{EDIT}\] to turn on/off the Health Control for that selection.

NOTE
An X to the left of the selection number means that the selection is currently being monitored by Health Control. In the example to the right selections 101, 102 and 104 are currently being monitored while selections 103 and 105 are not.

6. Press \[\text{EXIT}\] once to return to the Health Control menu or press \[\text{EXIT}\] or continue pressing \[\text{EXIT}\] until you reach the main menu.

NOTE
By pressing \[\text{* EXIT}\], you are able to quickly remove or add the “X”(s) from all selections on the selected tray.

Additional Information
- When the entire machine is set to “Health Control” and there is a “Health Control” error the display will read “Temporarily Out of Order” and no vending will be allowed.

- If only several selections or rows are set to “Health Control” and there is a Health Control error, no message is posted until a selection is made. Once the selection is made the display will say “Health Control Inhibited”.

Tray 1

<table>
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<tr>
<th></th>
<th>101</th>
<th>102</th>
<th>103</th>
<th>104</th>
<th>105</th>
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<td>X</td>
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<td>X</td>
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* = Set or Clear All
Merchant™ Operators’ Guide

Program: System Settings

Set Temperature Units

1. Press \[\text{EDIT}\] until you reach the \text{Main Menu}, then use \[\text{Up}\] or \[\text{Down}\] to select \text{System Settings} and press \[\text{EDIT}\].

2. In the \text{System Settings} menu, use \[\text{Up}\] or \[\text{Down}\] to select \text{Temperature Units} and press \[\text{EDIT}\].

3. In the \text{Temperature Units} menu, use \[\text{Up}\] or \[\text{Down}\] to select \text{Celsius} or \text{Fahrenheit}. The selected option is the one with the filled-in circle.

4. Press \[\text{EDIT}\] to lock in your selection and return to the \text{System Settings} menu. Verify that the selected \text{Temperature Unit} is displayed on the status (bottom) line.

5. Press \[\text{EXIT}\] once to return to the \text{System Settings} menu or twice to return to the \text{Main Menu}.
Set Idle Screen Time/Temp Options

One of these 3 options can be set to appear on the display:

**None** - “Make a Selection” appears with an alternating “Ready” message.

**Time** - The time will appear on the lower left hand corner of the display in addition to the alternating “Make a Selection” and “Ready” message.

**Time and Temp** - The time will appear in the lower left hand corner and the water tank temperature will appear in the lower right hand corner of the display in addition to the alternating “Make a Selection” and “Ready” message.

1. Press \[ EDIT \] until you reach the **Main Menu**, then use \[ + \] or \[ - \] to select **System Settings** and press \[ EDIT \].

2. In the **System Settings** menu, use \[ + \] or \[ - \] to select **Idle Screen Options** and press \[ EDIT \].

3. In the **Idle Screen Options** menu use \[ + \] or \[ - \] to select **Time/Temp Options** and press \[ EDIT \].

4. In the **Time and Temp Options** menu, use \[ + \] or \[ - \] to select **None**, **Time** or **Time and Temp**. The selected option is the one with the filled-in circle.
Set Idle Screen Time/Temp Options (continued)

5. Press \textbf{EDIT} to lock in your selection and return to the \textit{Idle Screen Options} menu. Verify that the selected \textit{Time/Temp Option} is displayed on the status (bottom) line.

6. Press \textbf{EXIT} once to return to the \textit{Main Menu}. 

---

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Crane Merchandising Systems
Set Idle Screen Message

1. Press **EDIT** until you reach the **Main Menu**, then use **↑** or **↓** to select **System Settings** and press **EDIT**.

2. In the **System Settings** menu, use **↑** or **↓** to select **Idle Screen Options** and press **EDIT**.

3. In the **Idle Screen Options** menu use **↑** or **↓** to select **Idle Screen Message** and press **EDIT**.

4. In the **Idle Screen Message** menu, use **↑** or **↓** to select **Make a Selection**, **Press Selection** or **Use Custom Message**. The selected option is the one with the filled-in circle.
5. If your selection was **Make a Selection**
   or **Press Selection**, press \[EDIT\] to lock your selection to return to the **Idle Screen Options** menu. Verify that the selected option is displayed on the status (bottom) line.  
   **-OR-**  
   If your selection was **Use Custom** **Message**, press \[EDIT\] to lock in your selection and the screen will cycle to the **Idle Screen Options** menu, with the only option being **Select Custom Message**.

   **NOTE**
   If your selection is **Use Custom Message**, follow steps 6-8. If not, skip to step 8.

6. Press \[EDIT\] to access the **Select Custom Message** menu.

   **NOTE**
   To program custom messages, see “Set Custom Messages” on page 188.

7. Use \[UP\] or \[DOWN\] to select the option you desire and press \[EDIT\]. Verify that **Use Custom Message** appears in the status (bottom) line of the **Idle Screen Options** menu.

8. Press \[EXIT\] once to return to the **System Settings** menu, or twice to return to the **Main Menu**.
Set Custom Messages

1. Press EDIT until you reach the Main Menu, then use ↑ or ↓ to select System Settings and press EDIT.

2. In the System Settings menu, use ↑ or ↓ to select Custom Messages and press EDIT.

3. In the Custom Messages menu, use ↑ or ↓ to select Custom Messages and press EDIT.

4. In the second Custom Messages menu, use ↑ or ↓ to select the custom message you wish to edit and press EDIT.
Set Custom Messages (continued)

5. In the Custom Messages X screen, use the + and - to move the cursor to the left and right. Press * to remove the letters and numbers. Press # to move to uppercase and lowercase letters. Press 0-9 to add a letter or number. Press the number once to bring up the character screen (lower bottom). Press the number again to scroll to the character. Refer to the “NUMERIC/CHARACTER TABLE” on page 191.

6. Press EDIT to lock in your new custom message and return to the previous Custom Messages menu. Verify that the new custom message that you just entered appears in the status (bottom) line when the corresponding Custom Messages X is selected.

7. Press EXIT once to return to the first Custom Messages menu, twice to return to the System Settings menu, or three times to return to the Main Menu.
Reset Custom Messages

This procedure allows you to erase all custom set messages and restore the merchandiser’s message data to factory default.

1. Press until you reach the Main Menu, then use or to select System Settings and press .

2. In the System Settings menu, use or to select Custom Messages and press .

3. In the Custom Messages menu, use or to select Reset Custom Messages and press .

4. In the Reset Custom Messages menu, press to restore Custom Messages to factory default. Press to cancel. You will be automatically returned to the Custom Messages menu.

5. Press once to return to the System Settings menu, or twice to return to the Main Menu.
### NUMERIC/CHARACTER TABLE

<table>
<thead>
<tr>
<th>Key</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>« (backspace) », » (space), (paragraph) (new line), - / $ @ % # &amp; 0</td>
<td>Moves the cursor backwards.</td>
</tr>
<tr>
<td>, . ? ! ‘ ; : “ * 1</td>
<td>Moves the cursor forward.</td>
</tr>
<tr>
<td>a b c 2</td>
<td>Saves the message.</td>
</tr>
<tr>
<td>d e f 3</td>
<td>Backs out of the menu, does not save message.</td>
</tr>
<tr>
<td>g h i 4</td>
<td>Removes characters and numbers.</td>
</tr>
<tr>
<td>j k l 5</td>
<td>Switches the lower case letters to uppercase letters.</td>
</tr>
<tr>
<td>m n o 6</td>
<td></td>
</tr>
<tr>
<td>p q r s 7</td>
<td></td>
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<td>t u v 8</td>
<td></td>
</tr>
<tr>
<td>w x y z 9</td>
<td></td>
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</tbody>
</table>
Talker Setup

1. Press \( \text{EDIT} \) until you reach the **Main Menu**, then use \( \text{UP} \) or \( \text{DOWN} \) to select **System Settings** and press \( \text{EDIT} \).

2. In the **System Settings** menu, use \( \text{UP} \) or \( \text{DOWN} \) to select **Talker Setup** and press \( \text{EDIT} \).

3. In the **Talker Setup** menu, press \( \text{UP} \) or \( \text{DOWN} \) to select **On** or **Off**. The selected option is the one with the filled-in circle.

4. Press \( \text{EDIT} \) to lock in the selection and return to the **System Settings** menu.

5. Verify that the status (bottom) line of the **System Settings** menu displays the selected option (**On** or **Off**) when **Talker Setup** is highlighted.

6. Press \( \text{EXIT} \) once to return to the **System Settings** menu or twice to return to the **Main Menu**.
## Programming: Security Codes

### Enter Security Code

1. Press \[\text{EDIT}\] until you reach the **Main Menu**, then use \[\text{Up} \quad \text{or} \quad \text{Down}\] to select **Security Codes** and press \[\text{EDIT}\].

2. In the **Security Codes** menu, use \[\text{Up} \quad \text{or} \quad \text{Down}\] to select **Enter PIN** and press \[\text{EDIT}\].

**NOTE**

The factory default setting for the **Supervisor PIN** code is **0000**. The Supervisor Mode grants access to **Main Menu** selections that can be programmed to not appear in the **Main Menu** unless the Supervisor Mode is activated. To change the Supervisor PIN code, see “Edit the Supervisor PIN” on page 194.

3. Enter the **Supervisor PIN** code. The code should be four digits. Be careful when entering the PIN code – if you enter more than four numbers, the display will scroll back to the first digit.

4. Press \[\text{EDIT}\] to lock in the setting.

5. When a correct PIN code is entered, the screen will display **Supervisor Approved** then cycle back to the **Security Codes** menu. The respective menu(s) will be accessible from the **Main Menu**. Proceed to:
   a. The **Main Menu** by pressing \[\text{EXIT}\].
   -or-
   b. “Edit the Supervisor PIN” on page 194.
Edit the Supervisor PIN

The Supervisor PIN code on the Merchant™ can be changed.

First, follow the procedure in “Enter Security Code” on page 193 to unlock the Edit Supervisor PIN menu.

1. Once the current Supervisor PIN is entered, access the Security Codes menu by pressing \ EDIT \ until you reach the Main Menu, then use \ or \ to select Security Codes and press \ EDIT \.

2. In the Security Codes menu, use \ or \ to select Edit Supervisor PIN and press \ EDIT \.

   NOTE
   
   If Edit Supervisor PIN does not display in the Security Codes menu, follow the procedure in “Enter Security Code” on page 193 to unlock the Edit Supervisor PIN menu.

3. In the Edit Pin screen, enter a new PIN number and press \ EDIT \. The code should be four digits. Be careful when entering the PIN code – if you enter more than four numbers, the display will scroll back to the first digit.

4. Write the new Supervisor PIN code number down and keep it in a secure place.

5. Press \ EDIT \ to lock in the setting and return to the Security Codes menu.

6. Press \ EXIT \ once to return to the Main Menu.
Lock/Unlock Menu Items

The following menu selections can be locked or unlocked in this Lock/Unlock Menu Items procedure:

- Clear Data
- Data Recall
- Test
- Price
- Product Configuration
- Free Vend
- Special Vend Modes
- System Settings

First, follow the procedure in “Enter Security Code” on page 193 to unlock the Lock Menu Items menu.

1. Once the Supervisor PIN is entered, access the Security Codes menu by pressing EDIT until you reach the Main Menu, then use or to select Security Codes and press EDIT.

2. In the Security Codes menu, use or to select Lock Menu Items and press EDIT.

**NOTE**

If Lock Menu Items does not display in the Security Codes menu, follow the procedure in “Enter Security Code” on page 193 to unlock the Lock Menu Items menu.
Lock/Unlock Menu Items (continued)

3. Select the Menu Item(s) you wish to make available/unavailable by using the 
   ![Up Arrow] or ![Down Arrow] to select a Menu Item and 
   then pressing ![Edit] to remove or add the 
   “X”(s) next to the Menu Item(s).

   **NOTE**

   By pressing ![Edit], you are able to 
   quickly remove or add the “X”(s) 
   from all listed Menu Items.

4. Press ![Exit] to lock in your selection(s) 
   and return to the Security Codes menu.

5. Press ![Exit] to return to the Main Menu.
448/449 Merchant Refrigeration Removal

1. Open the door and turn the power off.
2. Lower the delivery bin and remove the stop rod.
3. Unplug the harness to the Surevend boards and remove it from where it runs along the front of the machine floor. Set the harness to the right out of the way.
4. Remove the delivery bin. (taking care not to damage the insulation).
5. Remove the bottom tray from the machine to gain access to the horizontal barrier.
6. Unplug the harnesses to the refrigeration unit and temperature sensors on the left side of the refrigeration unit. Take the harnesses off where they run along the top of the horizontal barrier.
7. Remove the screws along the back of the horizontal barrier and the screws holding the front left and right side angle brackets.
8. To remove the horizontal barrier you must lift the barrier up before pulling it forward and out of the machine.
9. Remove the condenser inlet screen on the floor of the machine.
10. Remove the bolt holding the refrigeration lock plate on the left side. The plate can be removed by using a large screwdriver as a lever to pry it up and out.
11. Slide the refrigeration unit forward and to the left and out of the front of the machine.

448/449 Merchant Refrigeration Installation

1. Reverse procedures above to install the refrigeration unit.
2. Be sure to push the unit to the back and to the right. The bolt hole in the refrigeration lock plate will line up with the bolt hole in the floor of the machine when the unit is position correctly.
3. Tap the lock plate down and into position.
4. After completing the installation, test the machine for proper operation.
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