AP Product Manual

AUTOMATIC PRODUCTS
A Crane Co. Company

PREMIER®
937 SATELLITE

SET-UP and INSTALLATION

OPERATING SYSTEM

TROUBLESHOOTING

PARTS

PLEASE

DO NOT REMOVE MANUAL FROM MACHINE

Automatic Products ♦ 165 Bridgepoint Drive. ♦ South St. Paul MN 55075

Part # 9370003

TABLE OF CONTENTS

To achieve the most trouble-free operation from your 937 Series Merchandiser, it is highly recommended that this service manual be thoroughly read and the instructions followed pertaining to installation, servicing and maintaining of the unit.

Should you have questions pertaining to this manual or the vendor, please contact your AP distributor or write directly to:

> Product Support Group
> Automatic Products
> 165 Bridgepoint Drive
> South St. Paul, MN 55075 USA
> 651-288-2975
> 651-288-2971 (fax)
> © *2007 Automatic Products*

LIMITED EXPRESS WARRANTY

Automatic Products (AP) warrants these automatic merchandisers (the "Unit"), manufactured by it, to be free under normal use and service from defects in material or workmanship for a period of two (2) years from the date of delivery of this Unit to the original purchaser who purchased the Unit either directly from AP or from an authorized AP dealer or distributor ("AP Dealer/Distributor"). This warranty extends only to the original purchaser of the Unit, but only if purchased either directly from AP or from an authorized AP Dealer/Distributor ("Original Purchaser"), and is limited to the repair or replacement, at AP's sole option, of any part or parts of the Unit that are returned to AP or to the authorized AP Dealer/Distributor from whom the Unit was originally purchased, with all transportation charges prepaid by Original Purchaser, and which, on AP's examination, such returned part or parts shall conclusively appear to have been defective. This warranty does not extend to:

1. Any Unit, or part thereof, that was subjected to misuse, neglect, or accident by anyone other than AP after its delivery to the Original Purchaser;

2. Any Unit, or part thereof, that was modified, altered, incorrectly wired or improperly installed by anyone other than AP or used in violation of the instructions provided by AP;

3. A Unit, or part thereof, which has been repaired or altered by anyone other than AP or an authorized AP Dealer/Distributor;

4. A Unit, or part thereof, which has had the serial number removed, defaced, or otherwise altered;

5. Any plastic or glass windows, lamps, fluorescent tubes, and water contact parts;

6. Any Unit used outdoors;

7. Any accessories used with the Unit that were manufactured by some person or entity other than AP; or

8. Any Unit repaired within the warranty period with parts other than genuine AP built or endorsed parts.

AP DISCLAIMS ALL OTHER WARRANTIES OF ANY KIND AS TO THE UNIT AND ALL WARRANTIES OF ANY KIND AS TO ANY ACCESSORIES. THIS DISCLAIMER OF WARRANTIES INCLUDES (1) ANY EXPRESS WARRANTIES OTHER THAN THE LIMITED WARRANTY PROVIDED ABOVE AS TO THE UNIT AND (2) ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AS TO THE UNIT AND ANY ACCESSORIES. UNDER NO CIRCUMSTANCES SHALL AP BE RESPONSIBLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES, LOSSES OR EXPENSES (INCLUDING BUT NOT LIMITED TO LOST PROFITS, LOST SALES, INJURY TO PERSON OR PROPERTY) ARISING FROM OR IN CONNECTION WITH THE USE OF, OR THE INABILITY TO USE, THE UNIT FOR ANY PURPOSE WHATSOEVER REGARDLESS OF THE LEGAL THEORY (CONTRACT, TORT OR OTHER). IN NO EVENT WILL AP BE OBLIGATED TO PAY DAMAGES FOR ANY AMOUNT EXCEEDING THE PRICE PAID FOR THE UNIT. No representative of AP or any other person is authorized to assume for AP, or agree to on the behalf of AP, any other liability or warranty in connection with the sale of this Unit.

AP reserves the right to make any changes or improvements in its products without notice and without obligation, and without being required to make corresponding changes or improvements in Units theretofore manufactured or sold.

AUTOMATIC PRODUCTS
A Crane Co. Company
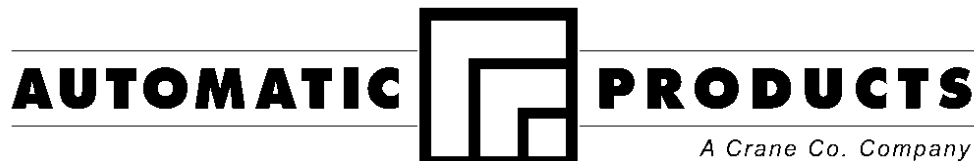
165 Bridgepoint Drive
South St. Paul, MN 55075 USA
651-288-2975
651-288-2971 (fax)

INTRODUCTION
The 937 Series features simple operation and built in flexibility, as well as extensive diagnostics and error reporting facilities to provide ease of maintenance.

HOW TO USE THIS MANUAL
This manual is divided into seven basic parts:
1.   Unpacking and Installation.
2.   Optional Equipment.
3.   Components.
4.   Operating System.
5.   Programming.
6.   Parts.
7.   Troubleshooting.

CAUTION: Certain procedures in both the operating section and the service section require that voltage be on in the machine. Only trained personnel should perform this function. Exercise extreme caution while performing these procedures. These procedures will be marked with the lightening bolt symbol as it appears at left.

CAUTION: Certain procedures in both the operating section and the service section require a qualified trained technician to perform the particular task at hand. These procedures will be marked with the exclamation symbol as it appears at left.

Features

FEATURES OF THE 937 MERCHANDISER

STANDARD FEATURES
- 28 selections.
- Flexible spiral spacing for large products.
- Eight-point star drive motor.

OPTIONS
- Delivery bin cushion.
- Base kit.
- Lexan window.

NOISE LEVEL
Operates at less than 70 db (A).

**ACCEPTABLE AMBIENT OPERATING
TEMPERATURE RANGE.**
All equipment manufactured by Automatic
Products is designed to work properly in a
temperature range of 10°C to 38°C (50°F to
100°F) in still air (75% R.H. non-condensing).
The machine is being stored in a temperature
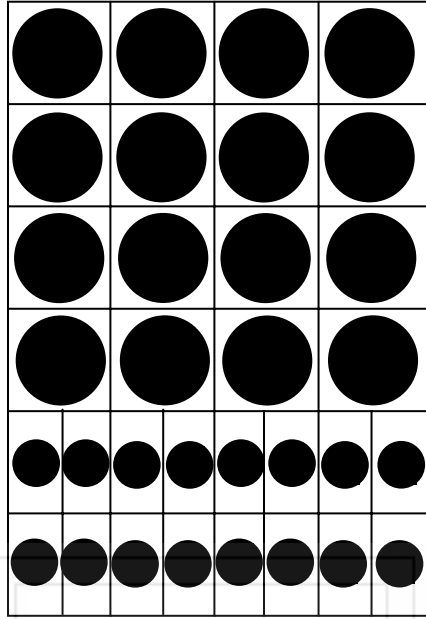range of -18°C to 68°C (0°F to 155°F).
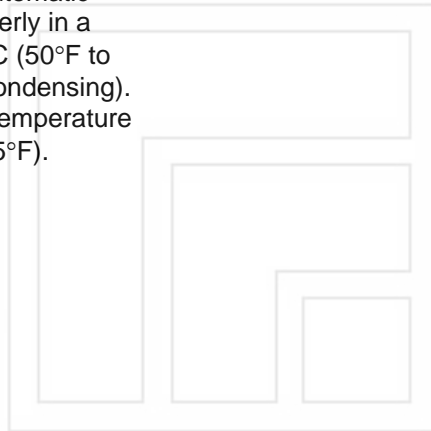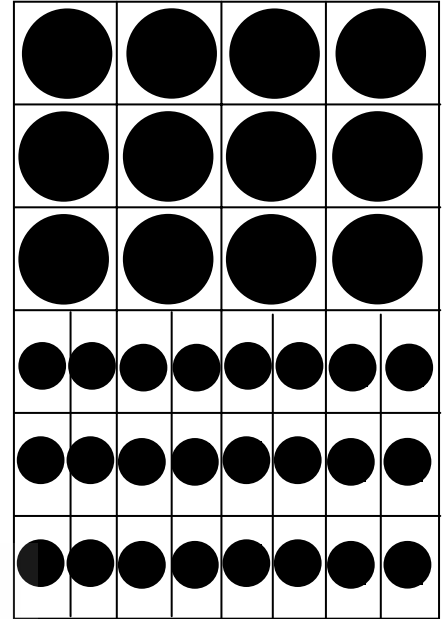
Shelf Configurations

The 937 Satellite is available in the follow shelf configurations.
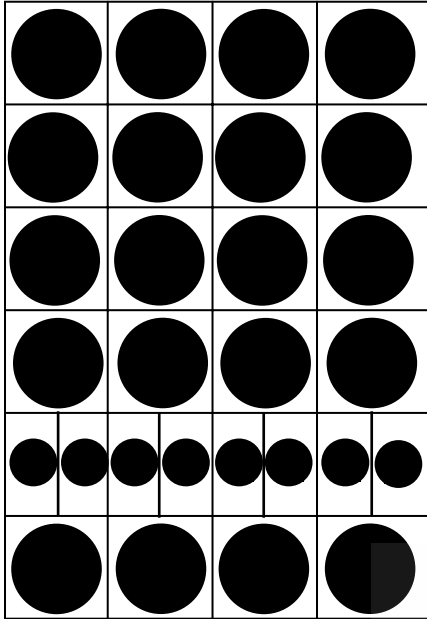
5 – Single Snack
1 - Candy

4 – Single Snack
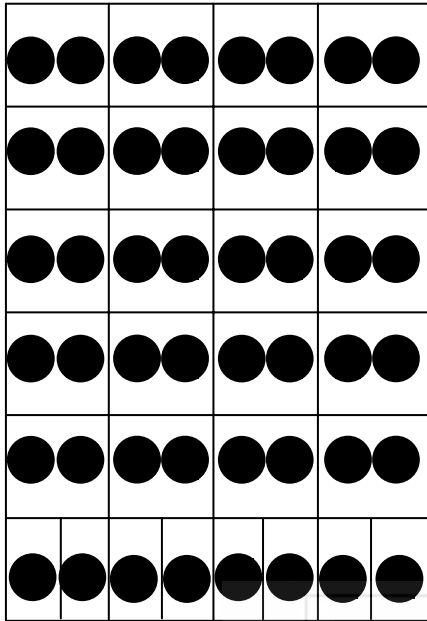**2 - Candy**

3 – Single Snack
3 - Candy
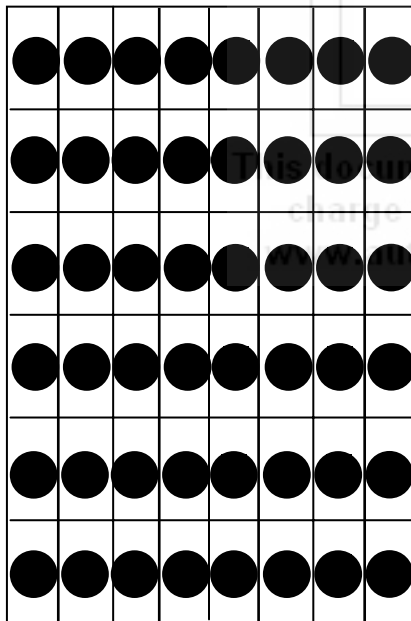
6 - Candy
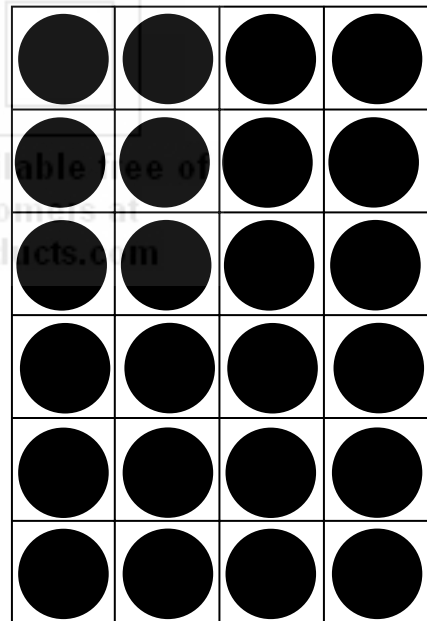
6 - Single Snack

Shelf Configurations

5 - Dual Snack
1 - Candy
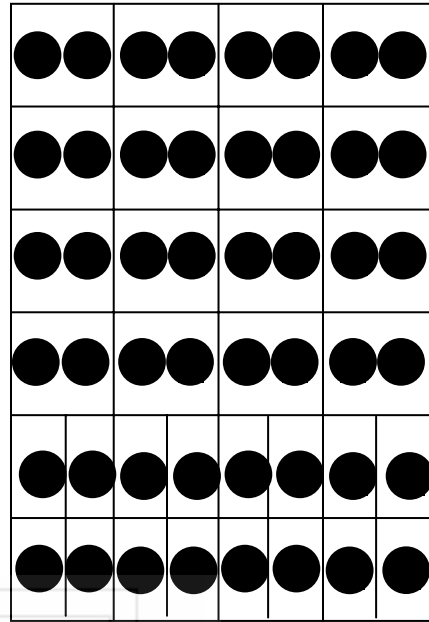
4 - Dual Snack
2 - Candy
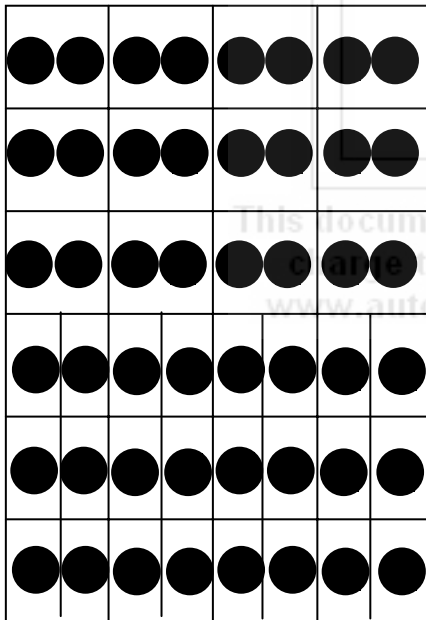
3 - Dual Snack
3 - Candy
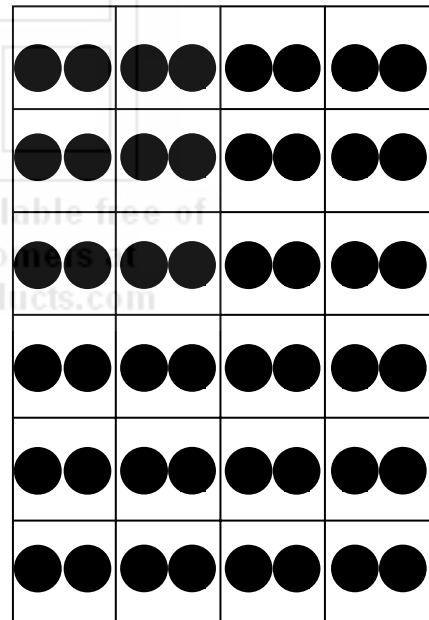
6 - Dual Snack

Specifications

Specifications	937 Domestic		937 Export	
Height	72" 183 cm			
Width	33.5" 88 cm			
Depth	35" 89cm			
Floor Space	8.1 Sq. Ft. .75 Sq Meter			
Container Size	58.1 Cu Ft 1.65 Cu Meter			
Voltage (AC)	120V		230V	
Hertz	60Hz		50Hz	
Standby Amperes	0.7A		.35A	
Running Amperes	3A		1.5A	
Watts	360W		345W	
Shipping Weight	495 lbs 225 kg		495 lbs 225 kg	

937 SNACK SPIRALS	937 CANDY SPIRALS
10 – Item Spiral 1-7/8"	**15 – Item Spiral 1-1/8"**
12 – Item Spiral 1-9/16"	**18 – Item Spiral 15/16"**
15 – Item Spiral 1-7/32"	**24 – Item Spiral 11/16"**
5 - Item Spiral 4-1/8"	5 – Item Spiral 4-1/8"
6 – Item Spiral 3-3/32"	6 – Item Spiral 2-7/8"
7 – Item Spiral 2-21/32"	7 – Item Spiral 2-1/2"
18 – Item Spiral 1"	9 – Item Spiral 1-15/16"
30 – Item Spiral 1/2"	10 – Item Spiral 1-3/4"
40 – Item Spiral 5/16"	12 – Item Spiral 1-1/2"
	40 – Item Spiral 3/16"

SPIRAL DEPTH CHART
Spirals highlighted in bold are standard production spirals.
All other spirals are available through aftermarket parts only.

Installation

Cautions
The following cautionary information should be reviewed before the machine is installed. Following these requirements and warnings are required.

CAUTION: **This machine is designed for indoor usage only. Any other usage will void the Manufacturers Warranty.**

Voltage and Polarity Check
It is important that this machine is hooked up to the proper voltage and polarity for your country. Use a voltmeter to verify voltage and polarity before connecting the machine to a wall outlet. For machines located in North America, use the diagram below to verify correct voltages. Should the reading be any different than a normal reading or if you are unsure of what the reading should be contact an electrician.

CAUTION: **Any procedure marked with the symbol at left requires that the Machine have the power applied and a shock hazard exists.**

CAUTION: **Different countries may have unique plug arrangements. Ensure that the machine is properly grounded before operating.**

CAUTION: **The power cord for all machines manufactured for use outside of North America are of a type Y attachment. If the power cord is damaged, it must be replaced by the manufacturer, its service agent, or a similarly qualified person in order to avoid a hazard.**

CAUTION: **The machine is a heavy item. Ensure that sufficient personnel are available for lifting and transporting the machine. Use proper lifting procedures and equipment.**

CAUTION: **The system components in this machine utilize static sensitive components. Precautions for handling sensitive devices should be observed when handling these items.**

ESD SENSITIVE

Voltage and Polarity Check (for Machines located in North America Only)
It is important that this machine is hooked up to proper voltage and polarity. Using a voltmeter, perform the following checks from the illustration below.

1 Volt AC Maximum Between Neutral & Ground

115 VAC (+15/-10) Between Hot to Neutral or Ground
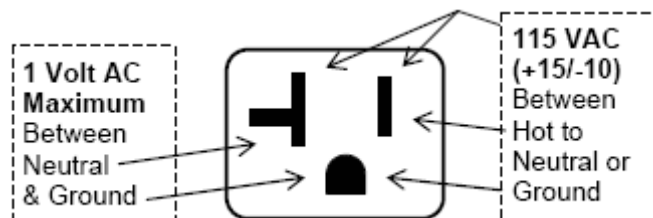
Installation

The 937 Line is assembled and packed so that a minimum amount of time is necessary for preparation to install it on location. The following steps are recommended to insure correct unpacking.

1. **Shipping Damage**: Thoroughly inspect the exterior of the carton for damage which may have occurred during shipment. Report any damage to delivering carrier and follow their instructions.

2. Remove the remainder of the packing material. On machines shipped with the lock in place, the keys are taped inside the delivery bin.

   NOTE: On the machine, the weight concentration is toward the back of the cabinet. Trucking and lifting should be done from the back. CAUTION should be taken when trucking from side.

3. On machines with lock in place, first unlock and turn handle to open door. When no lock is furnished, remove clip and turn handle. Swing door to its full open position.

4. Remove all additional packing material from the machine.

5. **Warranty:** The warranty card is attached to the cover of this manual. It must be filled out in full and mailed at once to insure coverage.

Leveling the Machine on location is important for the proper function of the machine. There are four leveling screws in the legs of the machine to make any necessary adjustments. After positioning the machine, level it from front to rear and right to left directions. After leveling, turn front right (lock side) leveling screw in about one-half turn to drop this corner slightly to make the door easier to close and lock.

Locating the Machine the 937 is designed to be used with a Bev-Max 2. It should be placed 1 ½" to the right of the Bev-Max (see figure A). A set of spacers (part # 9371008) is included with the Satellite and should be installed on the Satellite cabinet. These spacers will give you the proper clearance between the BevMax and Satellite.

Place level in position A, and adjust the bottom leg levelers, and repeat in positions B & C
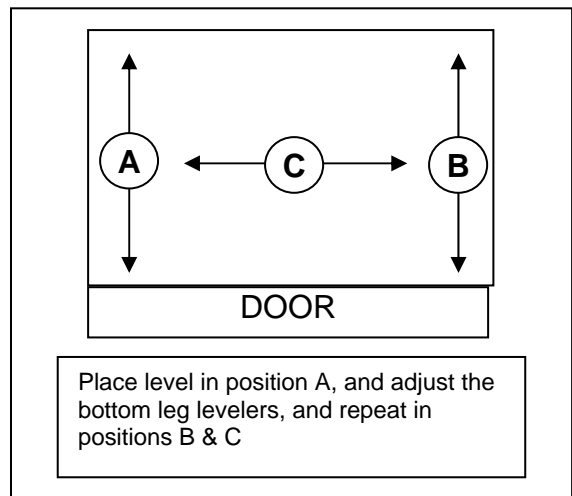
◆**IMPORTANT**: A set of anchoring brackets is included with each machine. This kit is located in the bottom of the machine with complete instructions. It is recommended that this kit be installed during set-up to prevent shifting of the machine.

1 ½ Inches

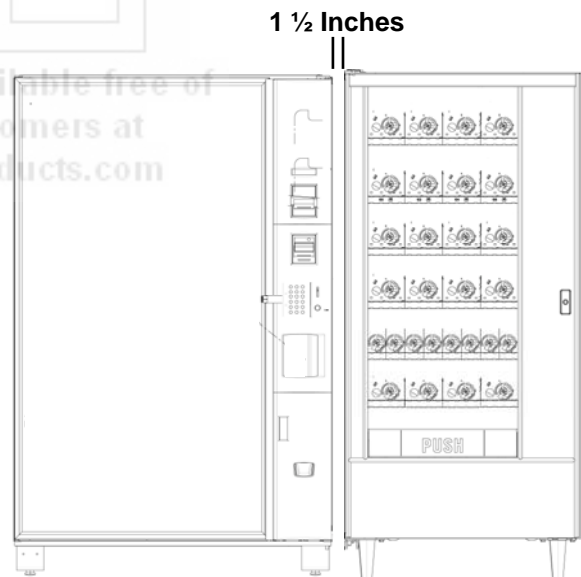**Figure A: 1 ½ inches separation between the 2 machines is required.**

Installation

Connecting the Machine on location is required. To do this, locate the interconnect harness coming out of the back side of the Satellite cabinet and route it into the back of the Bev-Max up to the control board and plug into the J16 plug. Only 1 Satellite can be operated off of a Bev-Max 2.
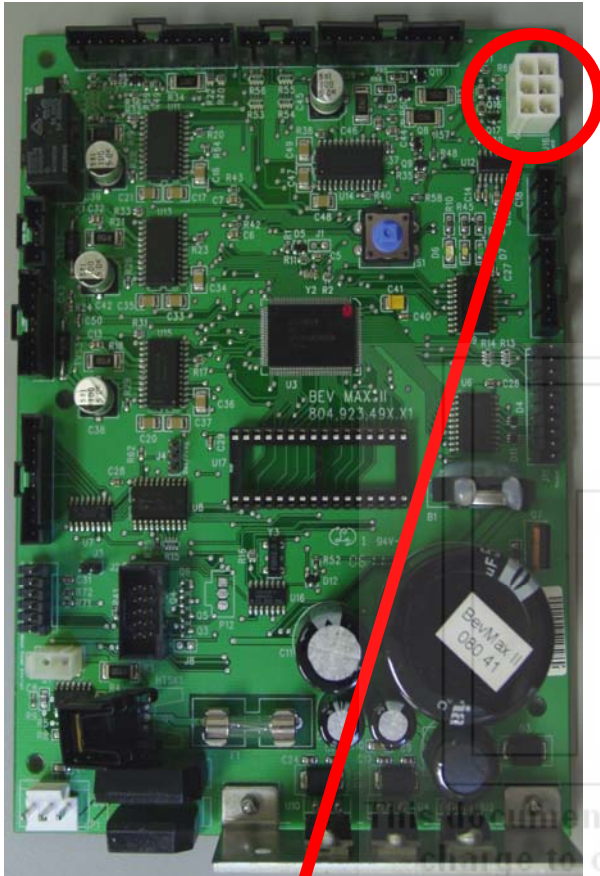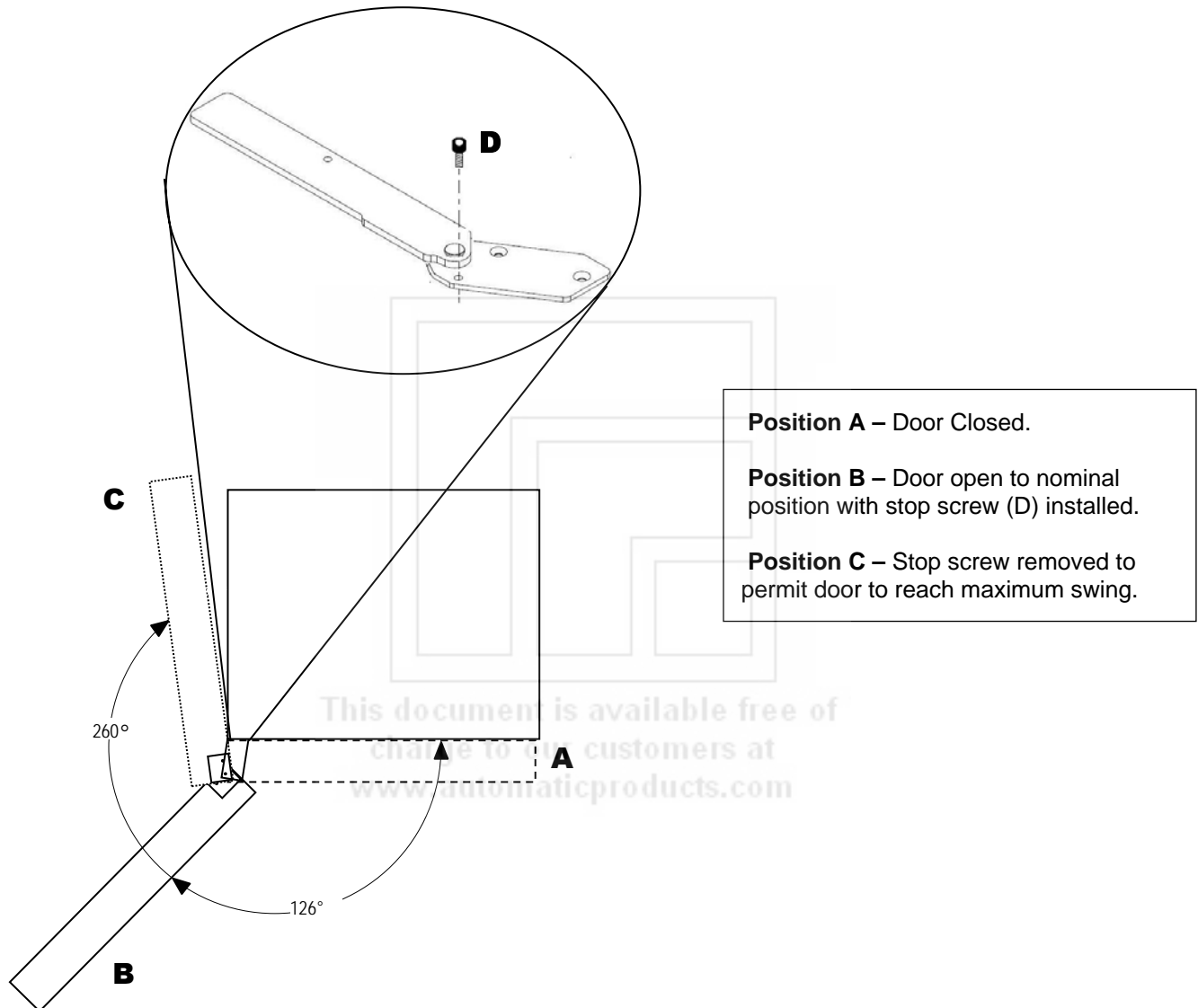

Figure B: Location of J16

Installation

Door Hinge Swing

This machine contains a newly designed door hinge. The design of the door hinge controls the maximum distance the door can swing open. The maximum opening position is reached when the screw is forced against the hinge body. This screw can be removed during installation to permit the door to swing completely open and can help maneuver the machine through a narrow doorway.

The screw should be replaced **immediately** upon reaching the machine's final location. Failure to replace this screw may result in damage to an adjacent machine or to the harnesses in the machine.

Position A – Door Closed.

Position B – Door open to nominal position with stop screw (D) installed.

Position C – Stop screw removed to permit door to reach maximum swing.

260°

126°

C

A

B

D

CAUTION: The screw should be replaced immediately upon reaching the machines final location. Failure to replace this stop may result in damage to an adjacent machine or the harnesses in the machine.

Installation

Basic Set Up Steps
1. Remove all packing materials.
2. Set prices and options on control board.
3. Load machine adjust spacers or spirals as needed.
4. Install price tabs on the shelves.
5. Install product pushers as needed.
6. Coin test.
7. Bill test if applicable.
8. Install lock cylinder if needed.

Loading Snack Shelves

Open the main door to its full open position. While pushing down on the plastic lock lever located on the right side of the shelf, grasp the shelf under both front corners (see Figure 1). Lift the front of the shelf slightly and pull forward until the shelf reaches its stop. On shelves 1 through 4 the shelves tilt down (do not drop) to make loading easier. A new feature in the 937 Series, the bottom 2 shelves do not tilt for easier loading. Only one product shelf should be in the loading position at any time. When returning a shelf, be sure the shelf is in its full home or vend position. Begin loading with the top shelf. Move it into the loading position. The height spacing for items is greatest in this shelf and the tallest bagged items should be placed there. Soft items, such as pastry, pies, etc., should be placed in the lowest snack shelf, making the drop distance as short as possible.

IMPORTANT: Product must not be forced into the spiral spaces it should fit freely. If a product fits tightly, use a larger pitch spiral. The bottom of the product should be placed on top of the spiral wire that rests on the shelf surface (see Figure 2). The width of the product must be greater than the diameter of the snack spiral. If it is smaller, the product may fall through when it is in the front, ready to vend position.
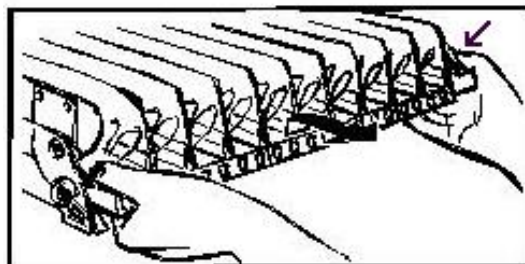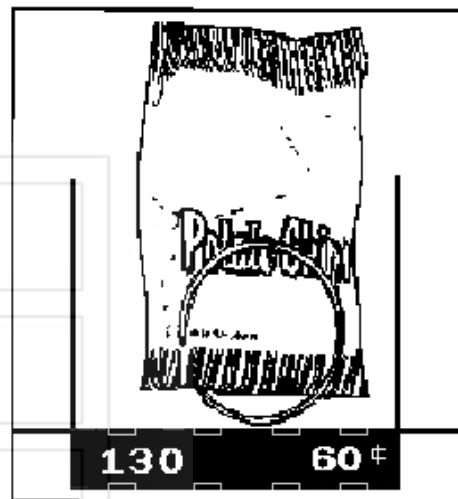

Figure 1: Moving shelf into the loading position

Figure 2: Placement of product on main product snack shelves and front end position of spiral.

Installation

Adjusting the Stopping Position of the Spiral

One primary difference that distinguishes the 937 motor from previous motors is an eight sided star at the drive hub of the motor. This permits the stopping position of the spiral to be customized by the operator to ensure the best possible delivery of each product. To change the stopping position of the spiral, remove the spiral lock from the motor by pinching the shaft of the spiral lock from the back side of the motor and pulling forward on the front side of the spiral lock.

The spiral lock can be reinstalled in any of eight different positions by turning the spiral lock to the position desired and pushing the shaft of the spiral lock through the eight sided star at the drive hub of the motor.

Removal/Replacement of Spiral

Grasp the front of the spiral and turn it clockwise. Lift the spiral up and off of the spiral lock. When replacing a spiral attach it around the tab on the spiral lock and turn the spiral counterclockwise to lock it in place. Be sure the front end of the spiral is positioned properly (with the front end of the spiral pointing downward on the left side) (see figure 3). Pull lightly on the front of the spiral to ensure it is locked in place.

Product Spacers - 4 Selection Shelf

A product spacer is used to reduce the width of the product area. This feature should be used on any 4-selection single spiral snack shelf where the product width is 4" or less. Spacers should fit within 1/8" of the product but should not fit tight against the product. There are three positions in each snack space where these spacers can be placed. To install the spacer, align the lock ears (on the lower edge of the spacer) with one of the three sets of slots (one front and one rear). (see Figure 4.) Push the spacer to the rear to allow the ears to enter the slots, then allow the spacer to move forward. Be sure the ears are in the same set of slots; front and rear (see Figure 4). Continue loading all spirals; adjust spacers where needed in the top shelf. Return the top shelf to the vend position and follow this procedure to load the remainder of the large spiral shelves.
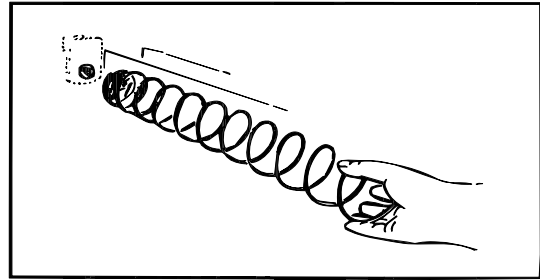

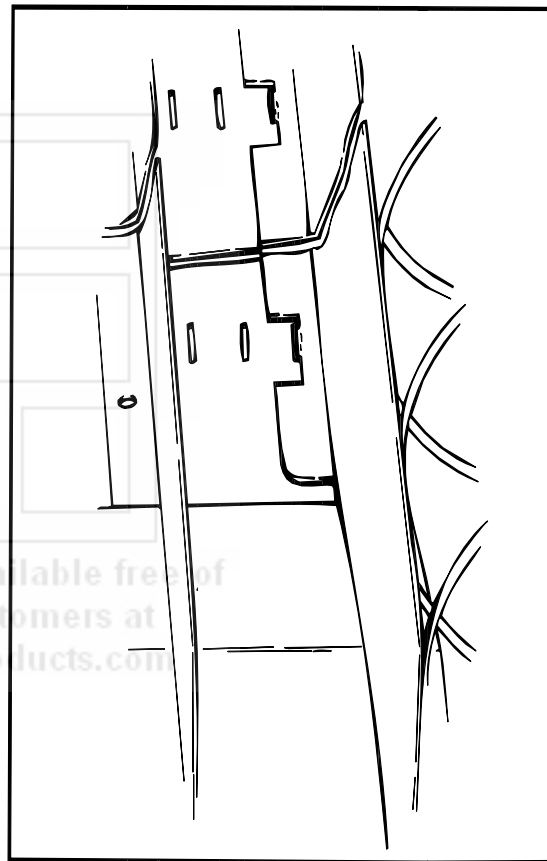**Figure 3: Removing and installing spiral.**

Figure 4: Alignment of movable product spacers.

Installation

Loading Main Product Candy Shelves
The 8 selection (candy type) shelves are loaded similarly to the 4-selection shelves except that the bottom of the product sits on the shelf in front of the spiral wire (see Figure 5). These products must also fit properly, and the product should fit freely: do not force product into spiral.

Product Spacers - 8 Selection Shelf
The 8 selection shelves are equipped with a product spacer (see Figure 6) that can be pivoted from the right side of every other product space. These spacers should be pivoted out to hold the product upright, but not tight against the product. Leave about 1/8" clearance between the spacer and the product.
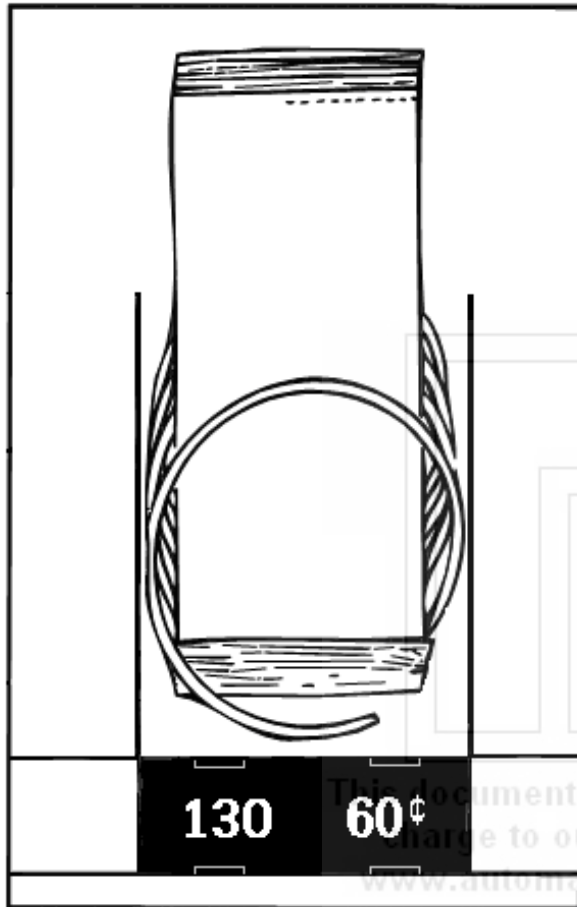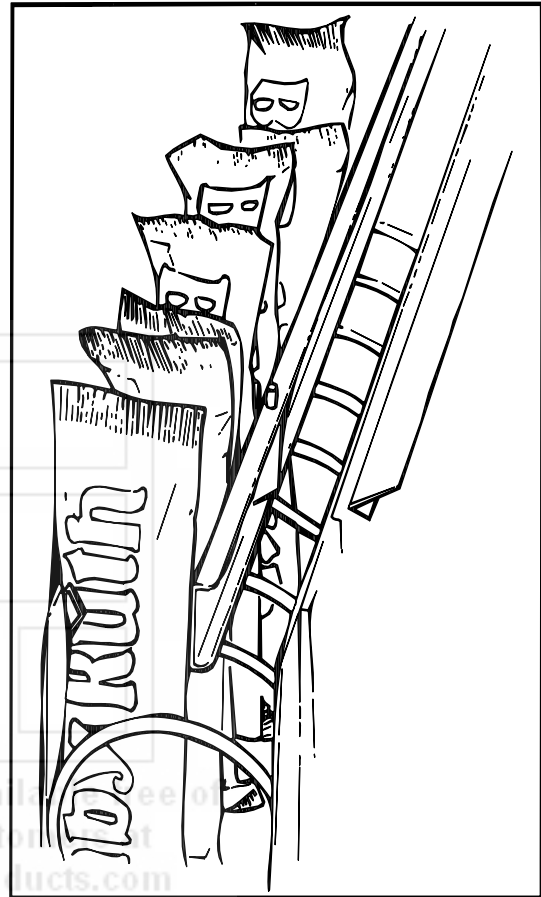
Figure 5: Placement of product on candy shelves and front end position of spiral.

Figure 6: Candy shelf product spacer positioned to hold candy upright.

Installation

Product Pushers

Included with the machine are enough pushers for you to install a pusher on each candy spiral. This plastic part is designed to push the top of the product forward while it is vending, helping it fall from the shelf. It can also be used with products that have the wrapper end flap on the outside of the package. In this case, the pusher prevents these products from hanging on the spiral by spreading the flap. The pusher should be installed at approximately the 1 o'clock position on the spiral with the tab extending forward (see Figure 7). Locate the pusher in its proper position, hold it against the spiral wire and push the semi-circular part around the spiral wire. Black pushers (part #440215) are used on left hand spirals and white pushers (part #440141-1) are used on right hand spirals. Note: Not every selection spiral will need a product pusher. (Example - Box Items.)
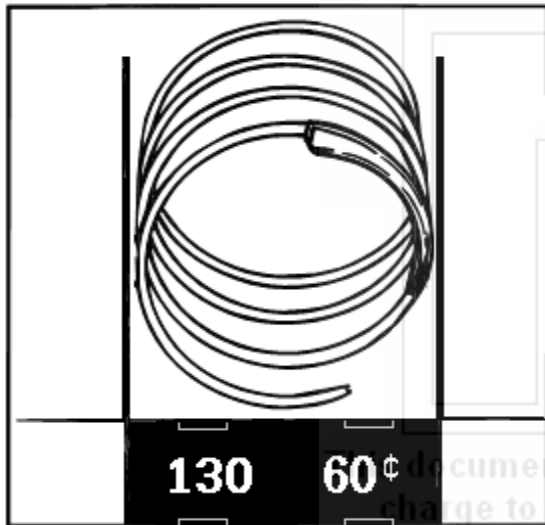

Figure 8: Fold bagged items bottom edge forward and up.

Cigarette Vending from the 937 Series

Cigarettes can be vended from the candy shelves using a (15 capacity) spiral for the soft pack regular, king, 100 MM or 120 MM packs. A (12 capacity) spiral should be used for (box) packs.

Lock Product Shelves

When all of the product has been loaded be sure all shelves are returned to their vend position behind the front roller guide.

Cleaning

The 937 series will do the best merchandising job for you if it is kept clean. The display window can be cleaned with any good glass cleaner. The exterior and interior surfaces should be cleaned with warm water and mild detergent. Rinse thoroughly and dry all surfaces.

CAUTION: Do not use any cleaners containing silicon as this could cause electrical failures.

The main product shelves can be best cleaned with the spirals and product spacers removed. Refer to page 1.04 for removal of spirals and removal of the product spacers.

Figure 7: Location of product pusher on spiral.

Bagged or Boxed Items

Vending small bagged items in the 8-selection shelves if not loaded properly could be a problem. The sealed edge of the bag may get under the spiral wire causing the product to hang up after it has been vended. It is recommended that the lower edge of these types of product be folded forward and up (see Figure 8) next to the product before inserting into the spiral space. It is also recommended to use a slightly larger count spiral for bagged items because of the product settling to the bottom of the package.
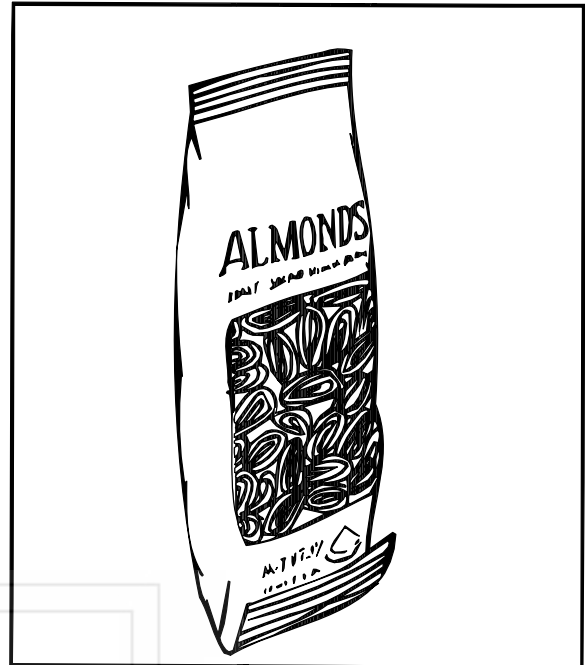
Optional Features

Ventilating Fan (Part #750102-4 =120 Volts) (Part #750102-5 = 240 Volts) Export
This ventilating fan keeps a steady flow of air moving through the vendor cabinet. Installation of the fan takes only a few minutes. All vendors are wired with a fan plug on the junction box for easy installation.

Base Kits
Base kits are available to make the vendor compatible with other manufacturers.

Dual Spiral Motors (Part # 360240)
Snack shelves can be set up to have dual spiral selections. The dual spirals will help vend specialty items better. **These motors are available through aftermarket parts only**.

Half Cycle Motors (Part #360241)
The half cycle motors are used to vend thin items. This motor is used with a product divider that is positioned down the center of the coil. The product is placed on both the left and right hand side of the coil. When the motor turns, it turns only 180 degrees (half revolution) rather than 360 degrees (full revolution). **These motors are available through aftermarket parts only**.

Delivery Bin Cushion
A delivery bin cushion is available for use when vending heavy or fragile items.

Lexan Window
A Lexan window is available as a direct replacement for tempered glass.

Components

High Efficiency Lighting System
Energy Star ballast & T5 bulb provide increased lighting, exceptional light distribution, and present products in their true, vibrant colors.

Main Product Shelves
There are either five or six main product shelves per machine. Each selection has its own motor mounted to the back of the shelf. Every shelf has its own harness and plug for connecting to the remainder of the circuit through the cabinet receptacle, located in the rear right of the cabinet. The motors are the same on either shelf. It is possible to exchange a five selection shelf with a ten selection shelf or visa versa. You also have the capability to gain one inch either up or down on any shelf. To do this the shelf should be removed and the cabinet back harness receptacle lowered or raised along with the right & left shelf tracks.

Note
♦ When exchanging the shelves, you will not need any parts but you will have to reprogram the machines prices.
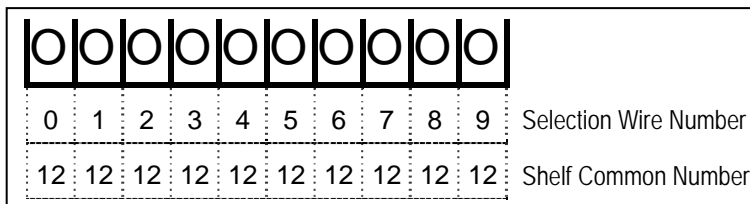
Delivery Bin
This is located below the display window on the door and is mechanically operated. Should the door become difficult to operate, place a small amount of grease on the arm tracks.

Vend Motors
The vend motors used in the 937 Series machines have been specifically developed to operate with the AP Control System. One primary difference that distinguishes the new motors from previous motors is the presence of an eight sided star at the drive hub of the motor. This permits the stopping position of the spiral to be customized by the operator to ensure the best possible delivery of product. Motors are of the fast trac style, with all electronics required to correctly operate the motor contained inside the gear case or the motor housing and no external control board. Each of the motors used with the 937 Control System will have two terminals. The two terminals continue to be used to identify the shelf and column (selection) to be vended.

Each motor requires two wires to operate correctly. These wires are: shelf common, and selection.

Each selection on a shelf will have the same common shelf wire - all shelf harness use wire #12 as a shelf common. This corresponds to the selected shelf wire in the cabinet harness. The terminal for the shelf common in the harness is the smaller of the two.

Selection numbers are assigned from left to right, starting with selection 0. Each selections number corresponds to the number of the wire for that selection.

Selection numbers in the 937 Series Machines support a three digit selection system. The first digit indicates the cabinet number, the second digit is the shelf number and the third digit is the selection number on that shelf.

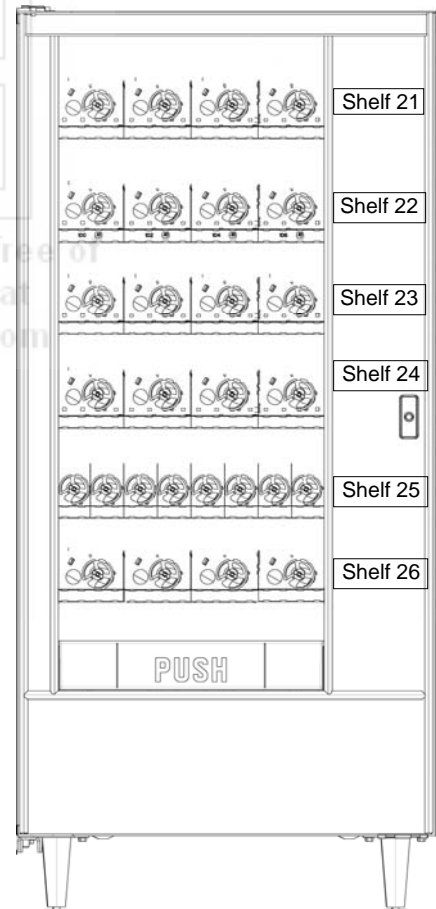| Part #	Case Color code	Description
360275	1/2 blue, 1/2 white, 8 point star drive	CW food/Snack motor
360276	1/2 blue, 1/2 grey, 8 point star drive	CCW Food/Snack motor

937 Motor Part Number Chart

Figure 14: Shelf numbering guide.

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Selection Wire Number |
| 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | Shelf Common Number |

937 SHELF WIRING DIAGRAM

Programming

Service Modes

To access the service modes for the Satellite, open the door on the Bev-Max and press the Service Switch located on the right top of the control board 5 times (see Figure 9). The display will show "Satellite Mode" (Figure 10).
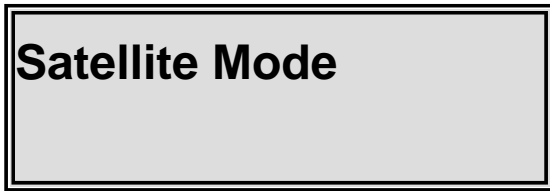

Satellite Mode

Figure 10: Initial Service Mode Screen

Entering one of the Service Mode letters shown on the following page allows you access to that Service Mode.

◆ **IMPORTANT**:   The Bev-Max 2 requires revision 566 or higher software to operate a 937 Satellite.

Figure 9: Location of the Service Switch

Satellite Service Modes

To access these modes press the Service Switch on the BevMax 5 times then press the corresponding letter or number.

B - Test Vend
C - Set Price
D – Enable Combo Discount
E – Set Combo Discount
F – Set Cup Model
1 – Set Golden Eye Policy
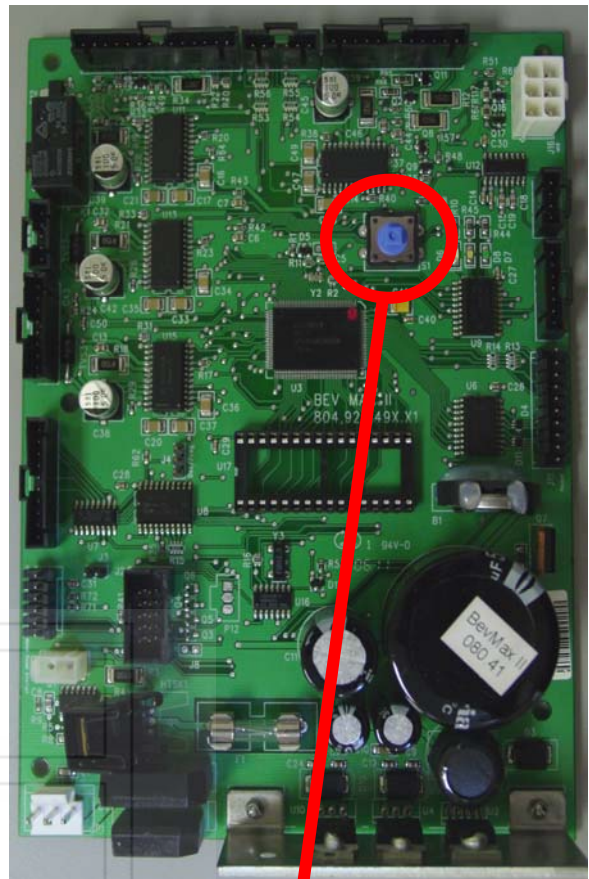2 – Set Golden Eye Selections
3 – Check Motor Scan

Figure 11: Bev-Max Selection Pad

Programming

Mode 5-B – Test Vend

Mode 5-B is used to test vend the selections in the Satellite machine. To access this mode, press the Service Switch 5 times, then press **B** on the selection keypad the display will show "Sat Test Vend".

Press the ***** key the display will show "enter selection". Enter the selection number on the keypad then press the ***** key to run the motor. Upon completion the display will show "Continue? *=Y CLR=N". Press the ***** key to continue testing or press the **CLR** key to end the test and return to the "Sat Test Vend" screen.

Mode 5-C – Price Assignment

Mode 5-C is used to assign the regular and secondary prices for all selections in the Satellite machine. Secondary prices are only active when the vender is in the Happy Hour mode. To access this mode, press the Service Switch 5 times, then press **C** on the selection keypad the display will show "Set Sat Price". Press the ***** key the display will show "1 = Regular Pricing" in the top line and "2 = Secondary Pricing" in the second line. Use the selection keypad to enter which set of prices you want to change.

Note:
The following steps are the same for both "Regular Pricing" and "Secondary Pricing." The following steps assume you are setting the "Regular Pricing."

Then follow one of the procedures below to set prices.

All Selections
Upon pressing the **1** key the display will show "Regular $XX.XX". Enter the desired price using the selection keypad the display will change to "PR $ XX.XX" with XX.XX being the price you just entered. Press the ***** key a > will appear under PR $ on the display. Press the ***** key the display will ask "ALL Prices Set Ok?" Press the ***** key to accept or press the **CLR** key to go back one step without saving the price.

By Shelf
Upon pressing the **1** key the display will show "Regular $ XX.XX". Enter the desired price using the selection keypad the display will change to "PR $ XX.XX" with XX.XX being the price you just entered. Press the ***** key a > will appear under PR $ on the display. Enter the first 2 digits of any selection on the shelf that you are changing (example enter 21 if you want to price the entire top shelf). Press the ***** key the display will ask "SET SHELF X OK?" Press the ***** key to accept or press the **CLR** key to go back one step without saving the price.
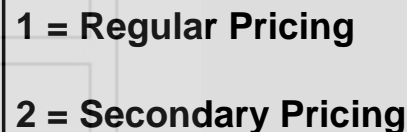

Sat Test Vend

Mode 5-B – Test Vend Initial Screen

Set Sat Price
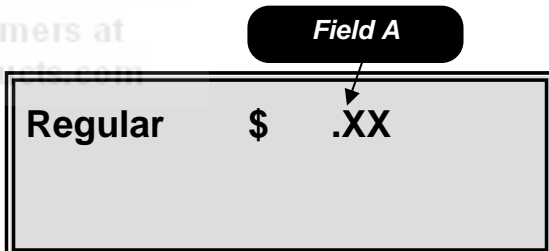
Mode 5-C Price Assignment Initial Screen

---

1 = Regular Pricing

2 = Secondary Pricing

Mode 5-C Price Assignment Second Screen
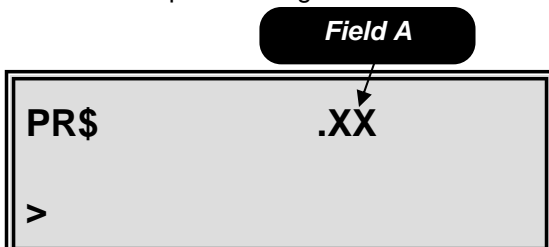
Field A

Regular $ .XX

Mode 5-C Price Assignment Third Screen
Field A is the price setting field.

Field A

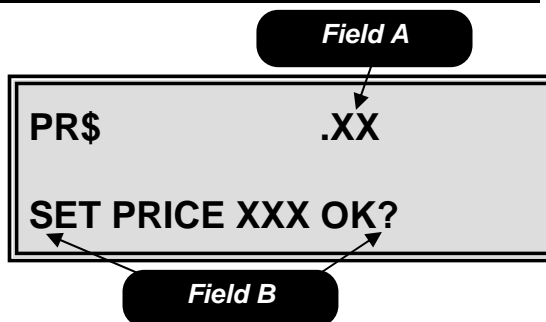**PR$ .XX**

>

Mode 5-C Price Assignment Fourth Screen
Field A is the price you set in the third screen.

Programming

By Selection

Upon pressing the **1** key the display will show "Regular $ XX.XX". Enter the desired price using the selection keypad the display will change to "PR $ XX.XX" with XX.XX being the price you just entered. Press the ***** key a > will appear under PR $ on the display. Enter the selection number on the keypad. Press the ***** key the display will ask "Price XXX ok? Press the * key to accept and continue entering selections at that price or press the **CLR** key to go back one step without saving.

Field A

```
PR$              .XX

SET PRICE XXX OK?
```

Field B

Mode 5-C Price Assignment FITH Screen
**Field A** is the price you set in the third screen.
Field B is the change price verification
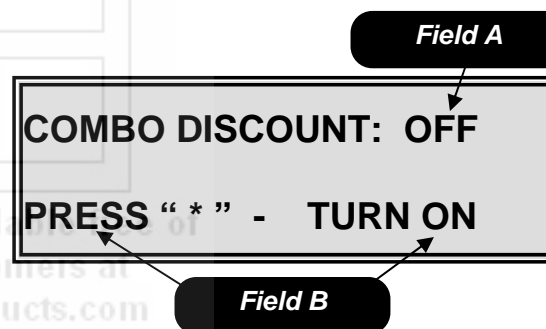
Mode 5-D – Enable Combo Discount

Mode 5-D is used to enable/disable the Combo Discount. To access this mode, press the Service Switch 5 times, then press **D** on the selection keypad the display will show "Sat En Combo Discount".

Press the ***** key the display will show the current Combo Discount setting. Press the ***** key to turn the Combo Discount on or off. Press the **CLR** key to return to the menu heading.

◆ **IMPORTANT**: The multivend option on the BevMax must be enabled for the Combo Discount to function.

```
SAT  EN  COMBO  DISCOUNT
```
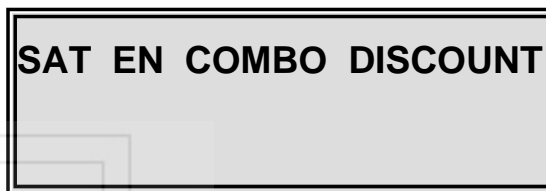
Mode 5-D – Enable Combo Discount Initial Screen

Field A

```
COMBO DISCOUNT:  OFF

PRESS " * "  -   TURN ON
```

Field B

Mode 5-D – Screen 2 Enable Combo Discount
Field A is discount on/off setting field.

Mode 5-E – Set Combo Discount

Mode 5-E is used to set up the Combo Discount. To access this mode, press the Service Switch 5 times, then press **E** on the selection keypad the display will show "Sat Set Cmbo Discnt".

Press the ***** key the display will show Combo PR .00, use the selection keypad to enter the discount amount. Press the ***** key, the display will change to PR$ .XX where .XX is the dollar amount you just entered. Press the ***** key to accept the discount amount or press the **CLR** key to go back one step.

```
SAT  SET  CMBO  DISCNT
```
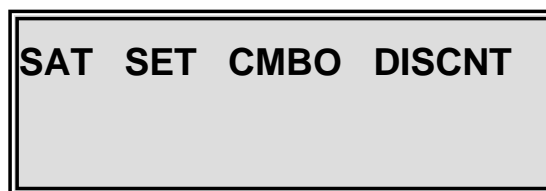
Mode 5-E – Set Combo Discount Initial

Programming

Mode 5-E – Continued

Note

♦ The discount amount applies to **ALL** selections in both the Satellite and BevMax.

♦ Selections can be made in either order – beverage first, then snack or vice versa.

Field A

```
COMBO PR            .00
```

Mode 5-E – Screen 2 Combo Discount Amount

Field A

```
COMBO PR            .XX

SET DISCOUNT.       OK?
```
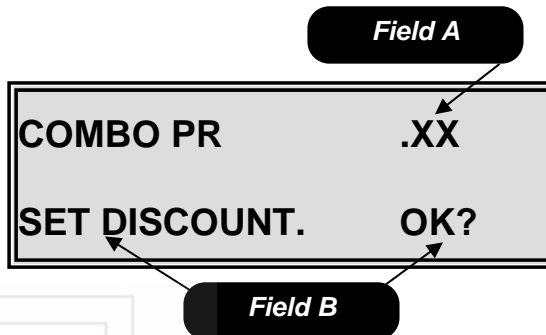
Field B

Mode 5-E – Screen 3 Combo Discount Amount
Field A is the discount amount field. Where .XX is the amount you set in step 2.
Field A is the set up verification field.

Mode 5-F – Set Cup Model
Mode 5-F is used to set the Cup Model being used in the BevMax. For more information please see the BevMax Technical Manual.
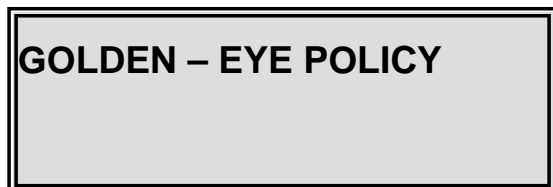
Mode 5-1 – Set Golden Eye Policy
Mode 5-1 is used to set the Golden Eye Policy. To access this mode, press the Service Switch 5 times, then press **1** on the selection keypad the display will show "Golden - Eye Policy".
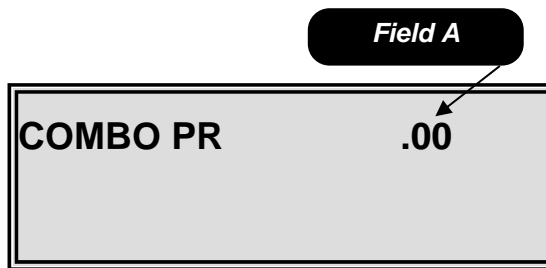
Press the ***** key the display will show the current Golden Eye setting on the top line and '*' = XXX, where XXX is the alternate setting either Drop or Home. Press the ***** key to change to the alternate setting.

Notes:

♦ This mode only sets the operating condition of Golden Eye.

♦ Selections are enabled/disabled in Mode 5-2.

Field A

```
MODE:   ON DROP

'*' = HOME
```

Field B

Mode 5-1 – Screen 2 Golden Eye Policy on Drop
Field A is the current Golden Eye Setting when set to drop.
Field B is the instructions to change to home.

```
GOLDEN – EYE POLICY
```

Mode 5-1 – Golden Eye Policy Initial Screen

Field A

```
MODE:   ON HOME

'*' = DROP
```
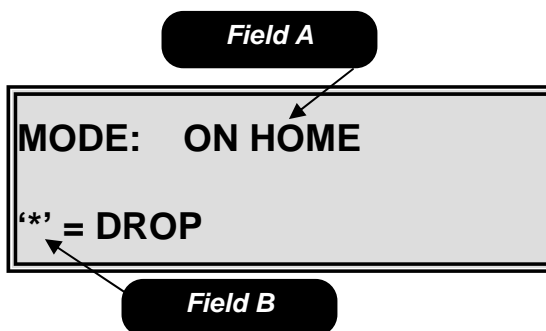
Field B

Mode 5-1 – Screen 2 Golden Eye Policy on Home
Field A is the current Golden Eye Setting when set to home.
Field B is the instructions to change to drop.

Programming

Mode 5-2 – Set Golden Eye Selections

Mode 5-2 is used to set up the Golden Eye Selections. To access this mode, press the Service Switch 5 times, then press **2** on the selection keypad the display will show "Set Golden Eye Sel".

Press the * key the display will show the selections currently active for Golden Eye in the top line, if necessary press the * key to see any subsequent screens. If no selections are currently enabled, the display will show "None Assigned". The factory default for Golden Eye is all selections enabled. Press the * key the display will show "Enter Start Location" use the selection keypad to enter the selection number. Press the * key and the display will show "Enter End Location", use the selection keypad to enter the ending location. See notes below for further explanation.

Notes:

♦ **To Set Single Selections:** Enter the same starting and ending locations.

♦ **To Set Entire Shelves:** In the **Start Location** enter 2X* where X represents the shelf number. The display will change to the ending location screen with the last selection of that shelf already displayed. Press * to set.

♦ **To Set Entire Machine:** In the **Start Location** enter 2* the display will change to show the selection range of the machine in the top line and "Continue? *=Y" in the bottom line. Press * to set.

♦ **To Set a Range of Selections:** Enter the starting selection number into the **Start Location** then enter the last selection number into the **End Location**. Press * to set.

Rules: Single Selection, Range, Shelf or Entire Machine

♦ When enabling or disabling single selections the opposite state of the current setting will be used. For example: if you currently have selection 210 enabled and you go into change it, it will change to disabled.

♦ When enabling or disabling a range, shelf or the entire machine. The setting will change to the opposite of the lowest selection number in the range, shelf or machine being set. For example if you are changing the top shelf, and selection 210 is set to enable while 212 -216 are set to disable, then you would be disabling the top shelf from Golden Eye because the lowest selection number on the shelf was set to enable.

SET GOLDEN-EYE SEL

**Mode 5-2 – Set Golden Eye Selections
Initial Screen**

Field A

XXX-XXX

PRESS * TO CONTINUE
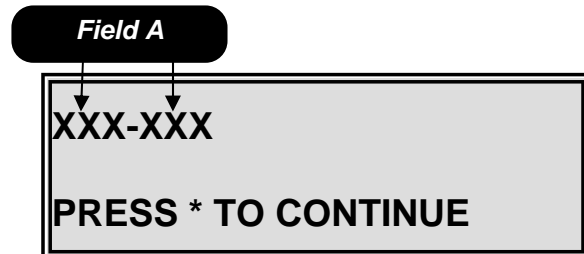
Mode 5-2 – Screen 2 Set Golden Eye Selections
Field A is the currently enabled Golden Eye selections.

ENTER START LOCATION

XXX

Field A

Mode 5-2 – Screen 3 Set Golden Eye Selections
Field A is the starting selection number entry field.

ENTER END LOCATION

XXX

Field A

Mode 5-2 – Screen 4 Set Golden Eye Selections
Field A is the ending selection number entry field.

Field A *Field B*

XXX – XXX   YYYYY

CONTINUE? * Y
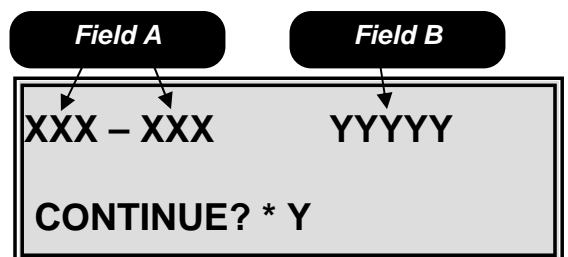
Mode 5-2 – Screen 5 Set Golden Eye Selections
Field A is the starting and ending selection number entry field.
Field B is the action field; either enabled or disabled.

Programming

Mode 5-3 – Check Motor Scan

Mode 5-3 is used to verify the state of the selection motors in the Satellite. To access this mode, press the Service Switch 5 times, then press **3** on the selection keypad the display will show the results of the last Motor Scan Test. Press the ***** key to scroll through the results.

To initiate a new scan of the motors Press the **1** key. The display will say Scanning Motors when completed the display will say Scanning motors done press ***** to continue. Press the ***** key to scroll through the results.

```
CHECK MOTOR SCAN
```

Mode 5-3 – Check Motor Scan
Initial Screen

```
MOTOR SCAN RESULTS

GOOD MOTORS: XX
```

Field A

Mode 5-3 – Check Motor Scan
Field A is the number of motors reporting as good.

```
MOTOR SCAN RESULTS

BAD MOTORS: XX
```

Field A

Mode 5-3 – Check Motor Scan
Field A is the number of motors reporting as

```
MOTOR SCAN RESULTS

MISSING MOTORS: XX
```

Field A

Mode 5-3 – Check Motor Scan
Field A is the number of motors reported as missing.

Programming

Mode 3-3 – Set Not Available Time
This mode works in conjunction with Mode 2-3 "Not Available Mode."
Mode 3-3 is used to set timed machine shutdown periods. To access this mode, press the Service Switch 3 times, then press **3** on the selection keypad the display will show "Set Not Avail Time". Press the ***** key and the display will show "Select Block (1-4)". There are 4 different shutdown time blocks available. Choose the number of the block you want to edit by pressing the corresponding number (1-4) on the selection keypad.

Upon entering the block number, the display will show the current shutdown setting with the starting hour highlighted. Using the numeric key pad set the starting hour (using 24 hour military clock) in Field A. Field B will now be highlighted, use the numeric key pad to enter the starting minute. The days of the week shown in Field C will now be highlighted. To change the setting to **no** press key **2**, to **yes** press key **1**. The highlighting will move one day at a time until all days are set, then the stop time hour Field D will be highlighted. Use the numeric key pad to enter the ending hour (using 24 hour military clock). Field E will now be highlighted, use the numeric key pad to enter the ending minutes. The display will now show "OK? * = Y CLR = N". Press the ***** key to continue, the display will show the currently assigned selections. Press the ***** key to continue, the display will show "Enter Selections". Use the selection keypad to enter the selections. See notes below for further explanation.

Notes:
♦ **To Set Single Selections:** Enter the selection number then press the ***** key, the display will show you whether you are Enabling or Disabling the selection. Press the ***** key to continue entering selections or the **CLR** key to return to "Set Not Avail Time".
♦ **To Set Entire Shelves:** Enter **2X*** where **X** equals the shelf number, the display will show you whether you are Enabling or Disabling the selection. Press the ***** key to continue entering shelves or the **CLR** key to return to "Set Not Avail Time".
♦ **To Set Entire Machine:** Enter 2* the display will show you whether you are Enabling or Disabling the selection. Press the ***** key to continue entering selections or the **CLR** key to return to "Set Not Avail Time".
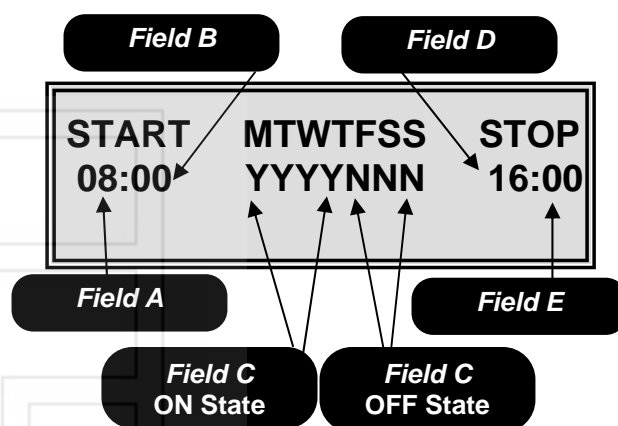
Additional Notes:
♦ **Enabled = selection use will NOT be allowed during the shutdown.**
♦ **Disabled = selection use will be allowed during the shutdown.**

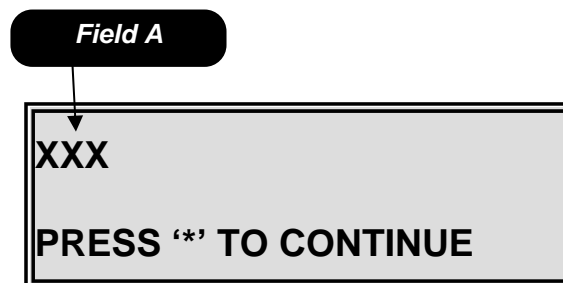**Mode 3-3 – Set Not Available Time Initial Screen**
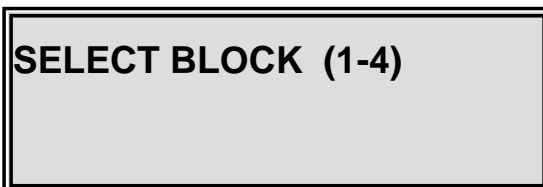
Mode 3-3 – Screen 2 Set Not Available Time

Mode 3-3- Screen 3 Set Not Available Time
Field A is the shutdown starting hour set field.
Field B is the shutdown starting minute set field.
Field C is the day of the week selection field. In this example Monday, Tuesday, Wednesday and Thursday are ON and Friday, Saturday and Sunday are OFF.
Field D is the shutdown ending hour set field.
Field E is the shutdown ending minute set field.

Mode 3-3 – Screen 4 Set Not Available Time
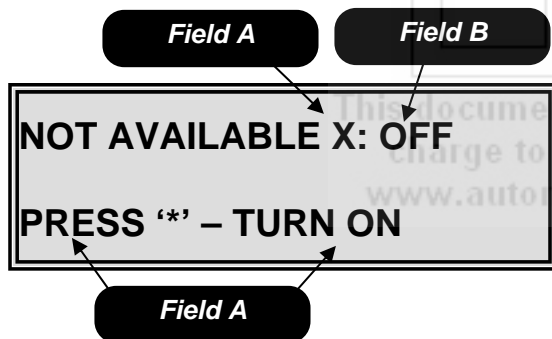**Field A** shows the currently set selections.

Programming

♦ **This mode is password protected. Before entering or changing this setting you must enter the password if one has been assigned.**

♦ **You must enable the shutdown block in mode 2-3 in order for the shutdown to become active.**

♦ **Shut down blocks are allowed to cross over midnight.**

Field A

```
ENABLED

CONTINUE? * = Y  CLR = N
```

Mode 3-3 – Screen 5 Set Not Available Time
Field A is the current action field.
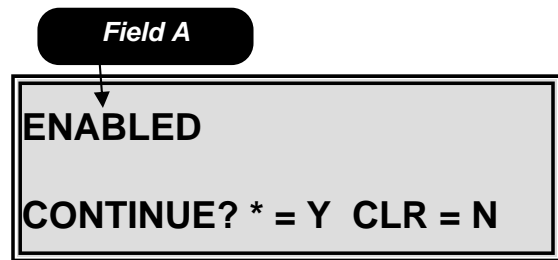
Mode 2-3 – Not Available Mode

Mode 2-3 is used to turn on/off the shut downs set in Mode 3-3. To access this mode, press the Service Switch 2 times, then press **3** on the selection keypad the display will show "Not Available Mode". Press the * key and the display will show "Select Block (1-4)". Press the number of the block you want to edit by pressing the corresponding number (1-4) on the selection keypad.

Upon entering the block number, the display will show the current state of the shutdown either on or off. Press the * key to change the shutdown setting to the alternate state either on or off.

```
NOT AVAILABLE MODE
```

Mode 2-3 – Set Not Available Time Initial Screen

```
SELECT BLOCK  (1-4)
```

Mode 2-3 – Screen 2 Set Not Available Time

Field A   *Field B*

```
NOT AVAILABLE X: OFF

PRESS '*' – TURN ON
```

Field A

Mode 2-3 – Screen 3 Set Not Available Time Shown in the Off State
Field A – is the shutdown block number 1 – 4.
Field B – is the shutdown block current state. In this example the shutdown is turned off.
Field C – is the instructions to change the state of the shutdown.

Field A   *Field B*

```
NOT AVAILABLE X: ON

PRESS '*' – TURN OFF
```

Field A

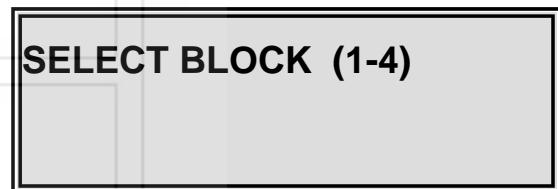**Mode 2-3 – Screen 3 Set Not Available Time Shown in the On State**
Field A – is the shutdown block number 1 – 4.
Field B – is the shutdown block current state. In this example the shutdown is turned on.
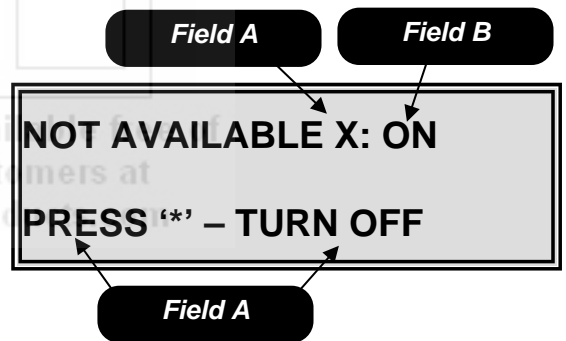*Field C* – is the instructions to change the state of the shutdown.

This Page Intentionally Left Blank

Parts

Door – Inside Front 6.02 	**Cabinet** 6.04 	**Cabinet** 6.06 	**Driver Board Asm** 6.08
Shelf Accessories 6.09 	**Snack Shelf** 6.10 	**Candy/Paired Shelf** 6.12 	**Delivery Bin** 6.14
937 Trim 6.16 			
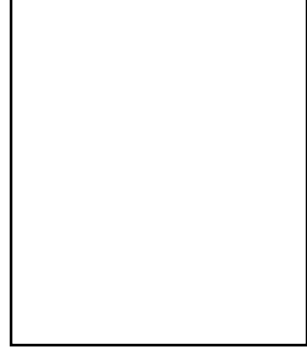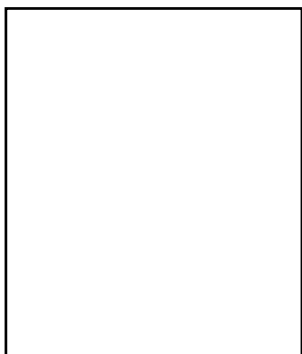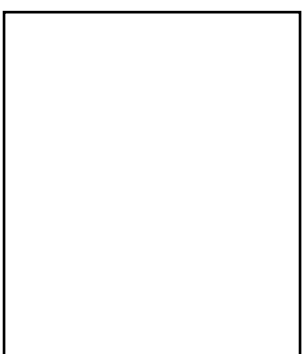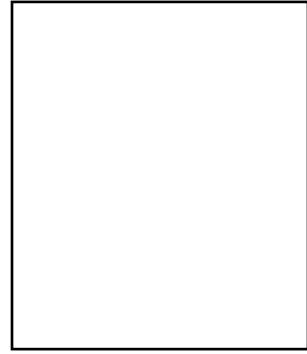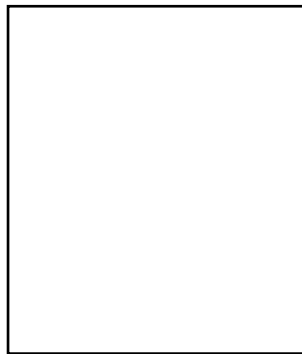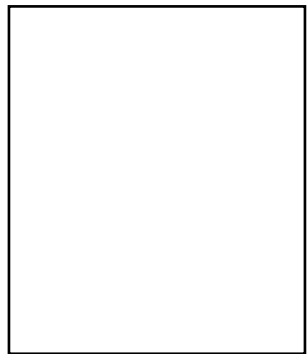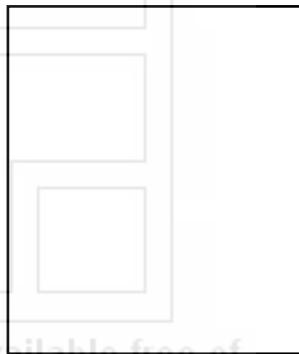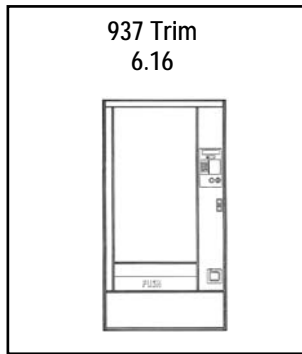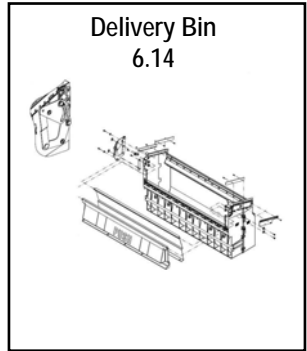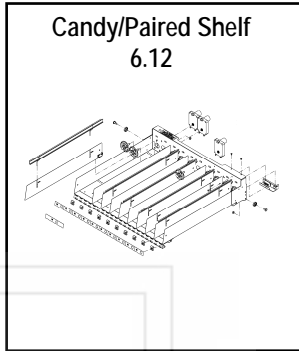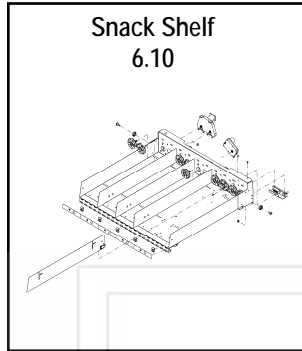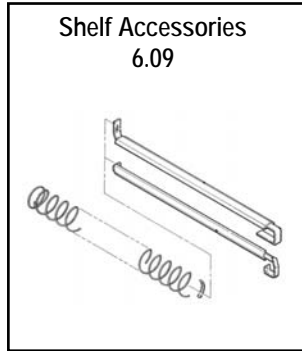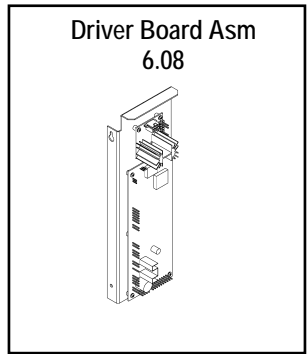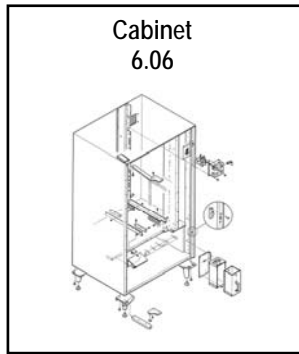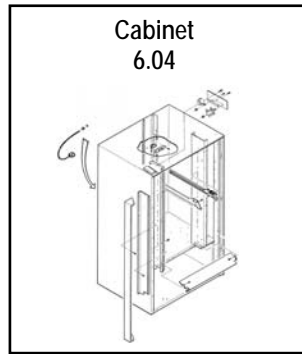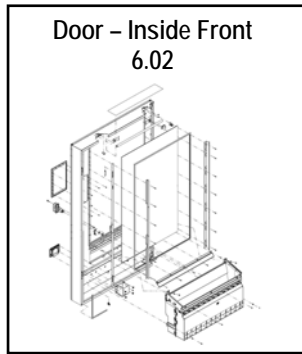
Square – Inside Front
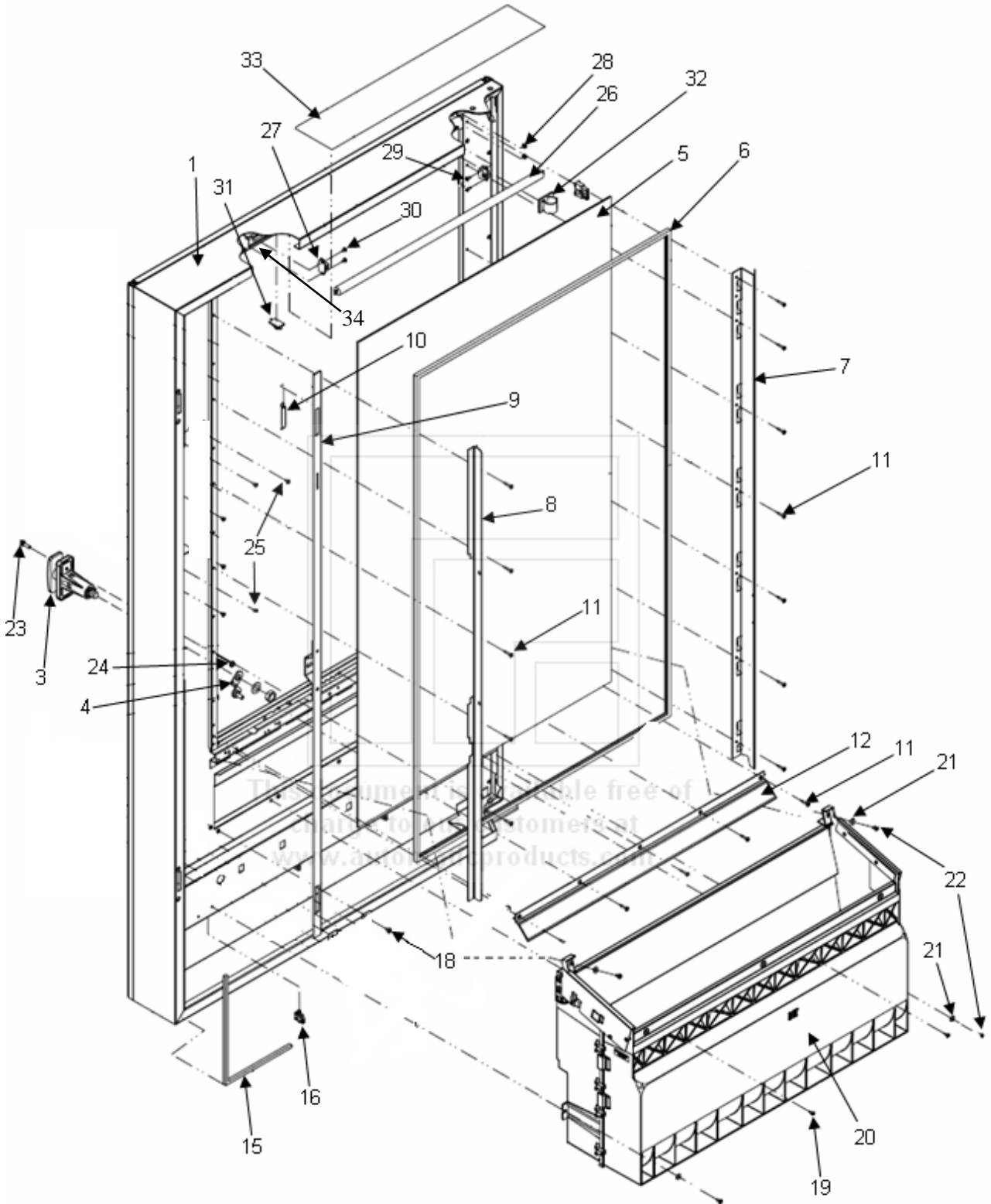
Square – Inside Front

Key	Description	937
1	Door Weldment, Euro, Black	9372008
3	T-Handle Asm, Black	17200002-02
4	Lock Arm Asm	640131
5	Window, Front Ambient 44-5/8 x 21-9/16 x 1/8	750141-1
	Note: Replacement Glass Must be Hard Tempered Locally Obtained Lexan only.	
6	Edging, Window Ambient Glass, 134 Inches	460436
7	Clamp, Window Hinge Side	12000718
8	Clamp, Window Lock Side	202118
9	Locking Bar Asm	16000101
10	Spring, Locking Bar	400112
11	Screw Self Tap, .850 Long	13100054-01
12	Clamp, Window, Bottom	12000844
NS	Tape, Reflective, Bottom Window Clamp	17400178-01
15	Foam, Adhesive Backed	460041
16	Wire Saddle, Locking Top	13100044
18	Screw, 8-32 x 5/16 PH/NIBS	276-8R5
19	Screw, Self Tap, .480 Long	13100054
20	Delivery Bin Asm, w/Golden Eye, See Page 6.14	
21	Washer, #8	600-8
22	Screw, 8-32 x 3/8 PN/NIBS	276-8R6
23	Bolt, 10-24 x 3/4 Carriage	118-10-12
24	Nut, 10-24 Keps	438-10
25	Screw, 6-32 x1 /4 Phillips Pan Head	116-6R4
26	Fluorescent Lamp, F24T5/841/HO	26900004
27	Harness Asm, High Output Light	16800149
	Harness Asm, Lamp to Cabinet (Not Shown)	680456-1
	Harness Asm, Adapter to Power Cord (Not Shown)	9371003
28	Nut, 6-32 Keps ZN	438-6
29	Screw, 6-32 x 3/8 Phillips Pan Head	276-6R6
30	Screw, 6-32 x 1/4 Phillips Pan Head	276-6R4
31	Cord Clip, Adhesive Back	420097
32	Cable Clamp, Adhesive Back, 1/2 inch	420096-1
33	Tape, Reflective, 4 x 22 3/4	17400177
34	Bracket, Top Window	12000741
NS	Graphics Coin Return Decal	9371013
NS	Graphics Val Decal	9371014
NS	Graphics MIAC Price Stickers	9371015
NS	Graphics MIAC Save Circ LG	9371016
NS	Graphics MIAC Upper	9371017
NS	Graphics MIAC Right Wing	9371018
NS	Graphics MIAC Left Wing	9371019
NS	Graphics MIAC Save Cir SM	9371020

Cabinet
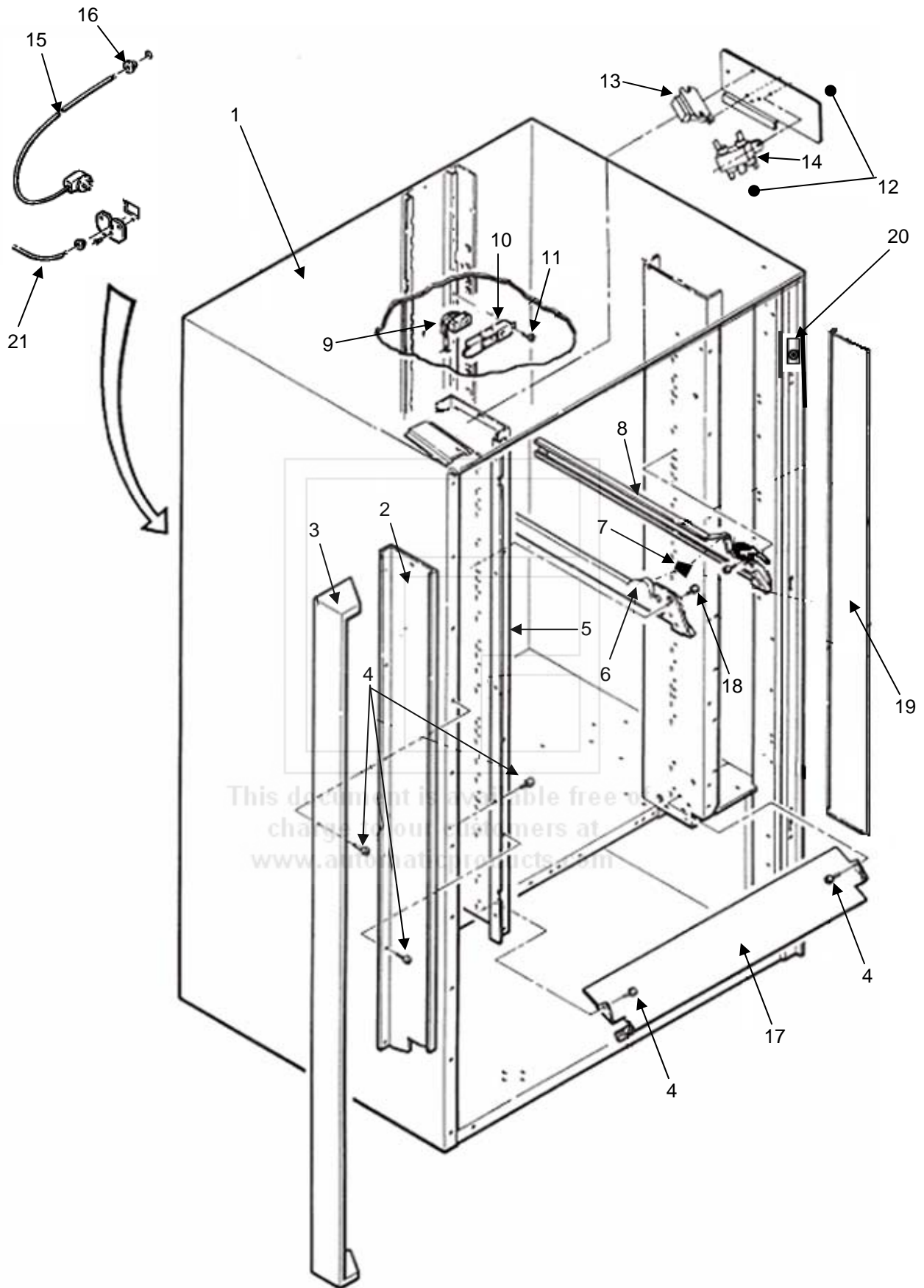
Cabinet

Key	Description	937
1	Cabinet Asm, Complete w/legs. See Page 6.06	
2	Filler Plate, Left Front	12000825
3	Door Filler, Specify Color	600310
4	Screw, 8-32 x 3/8 Pan Head	276-8R6
5	Shelf Support, Left Front	12000819
6	Assembly, Shelf Cabinet Track, Left	16400077
7	Rail Insert, Left or Right, Used on Bottom 2 Shelves Only	14400128
7A	Screw, Undercut Flat Head for Rail Insert	13100060
8	Assembly, Shelf Cabinet Track, Right	16400075
9	Harness, Cabinet Back, Asm Complete	9371003
10	Mounting Bracket Only, Cab Back Harness	12000863
11	Screw, Shoulder 8-32 x 3/8	13100064
12	Assembly Complete, High Efficiency Light Ballast & Filter T5 120V	16600442
13	Ballast w/Harness, F24T5HO	16800146
14	Line Filter	380303
15	Line Cord, GFCI, 14/3, 15Amp	16800153
16	Bushing, Strain Relief	380052-2
17	Filler Panel, Gum & Mint, for use with no Gum & Mint	12000798
18	Screw, Undercut Flat Head for Shelf Rail	13100060
19	Panel, Filler	9371000
20	Switch, Door	23800003
21	Cable, Communications Asm	16600324
NS	Harness, Com Cable Ch 35″ FDB to Power Board	680659-1
NS	Cabinet Spacer Assy	9371008
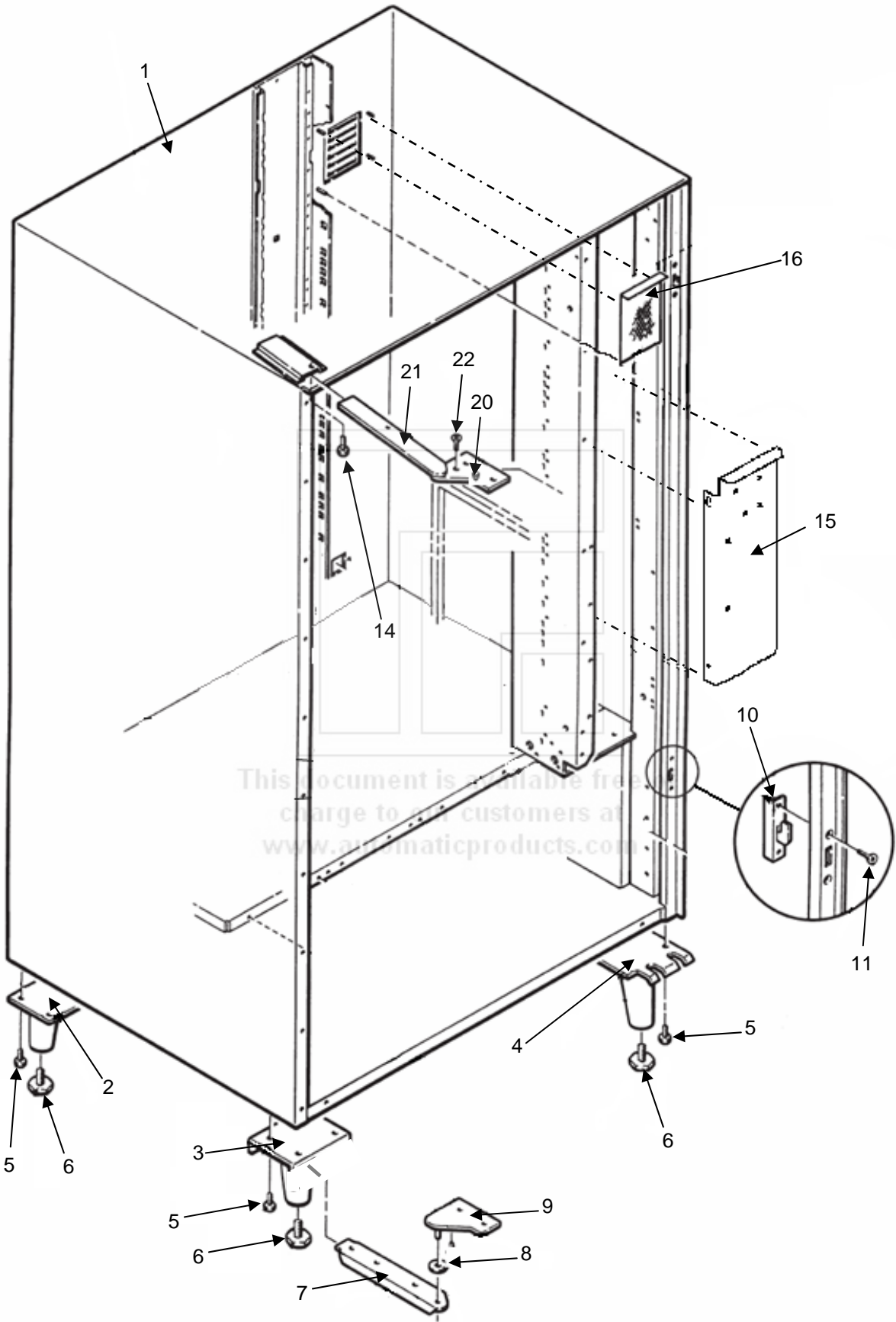
Cabinet

Cabinet

Key	Description	937
1	Cabinet Asm, Complete w/legs, Specify Color	
2	Rear & Front Pivot Side Leg Weldment, Specify Color	600195
3	Front Leg Weldment, Pivot Side, Specify Color	600195
4	Front Leg Weldment, Lock Side, Specify Color	600197
5	Screw, Hex Head 5/16 -18 x 3/4	420187
6	Leg Leveler	300103
7	Lower Hinge Support, Specify Color	202088
8	Washer	420010-24
9	Lower Hinge, Pivot Asm	640154
10	Door Catch Asm	12000290
11	Screw, Pan Head, 8-32 x 3/8	276-8R6
14	Screw, Hex head, 5/16-18 x 7/16	164-51-7
14A	Nut, Keps ¼-20	438-41
15	Bracket, PCB Mounting, See Page 6.08	
16	Cover Plate Asm	9330634
20	Screw, Hinge Stop	13100057
21	Upper Hinge Asm	16400079
22	Screw, Torx Tap, 1/4-20 x 1/2	13100035

Driver Board Assembly

This document is available free of
charge to all customers at
www.automaticproducts.com
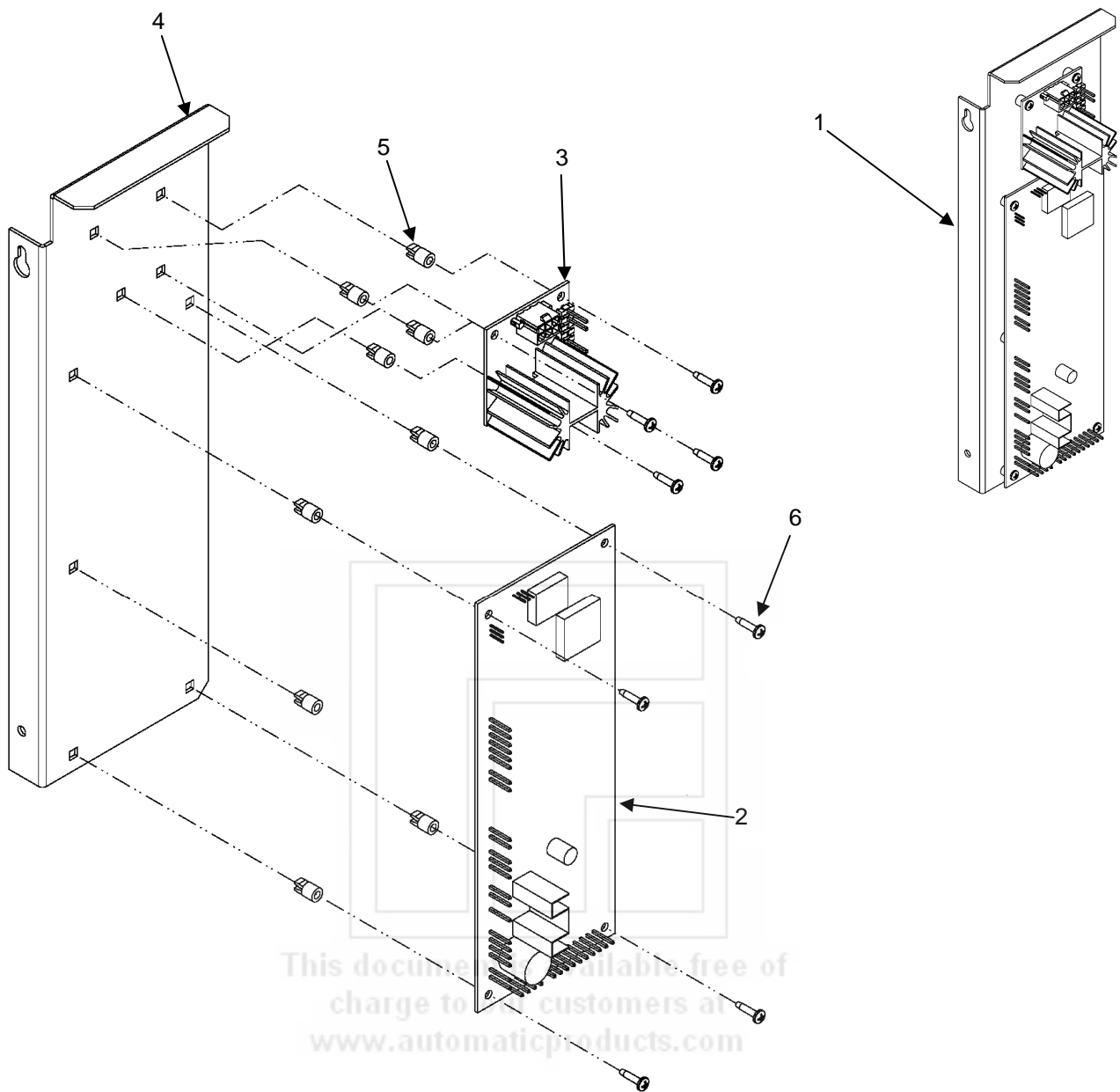
Key	Description	Part No.
1	Assembly, Complete, Driver Board	9371002
2	Driver Board	9376000
	Software, Flash Chip (Not Shown)	9376001
3	PCB, Power Supply	1816005
4	Bracket, PCB Mounting	9371001
5	Standoff, Circuit Board, ¼"	17100003
6	Screw, Phil Pan HD #6 x 1/2	218-6R8
	Harness, Door Switch (Not Shown)	9379002
	Harness, Communication Cable (Not Shown)	16600324
	Harness, Com Cable FDB to Power Board 35"(not Shown)	680659-1

Shelf Accessories

Shelf Spiral Charts

Single Snack Spirals		
	5 ct	14000002-01
	6 ct	400162-1
	7 ct	400153-1
	8 ct	
	10 ct	400127-1
	12 ct	400128-1
	15 ct	400129-1
	18 ct	400163-1
	30 ct	400136-1
	40 ct	400137-1

Candy Spirals		
Left Hand		Right Hand
	5 ct	14000004-01
14000003-01	6 ct	400167-1
400178-1	7 ct	400164-1
400179-1	8 ct	
400169-1	9 ct	400166-1
400170-1	10 ct	400168-1
400171-1	12 ct	400120-1
14000015	15 ct	400121-1
14000016	16 ct	
	18 ct	400122-1
	20 ct	
	24 ct	400123-1
	30 ct	400135-1
	40 ct	400138-1

Key	Description	Part No.
NS	Product Pusher, Right Hand	440141-1
NS	Product Pusher, Left Hand	440215

Product Rail Chart

Can Rail - Low

937	12000822

Half Cycle Rail

937	12000823

Can Rail - High

937	12000824

Candy Rail

937	16600449

Pastry Rail

937	16600451

Small Product Rail

937	16600452
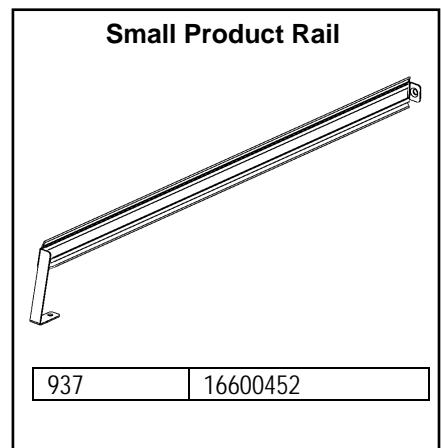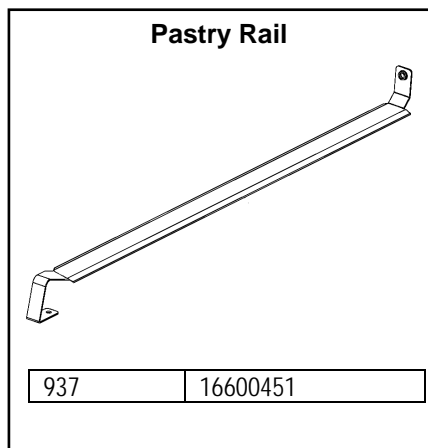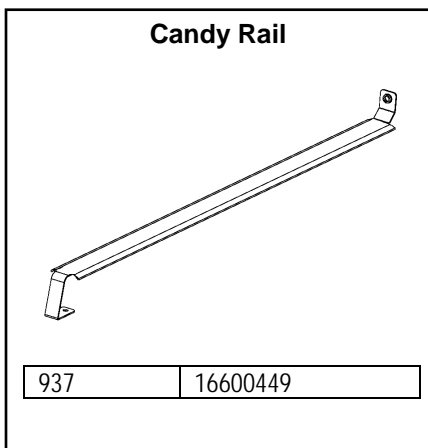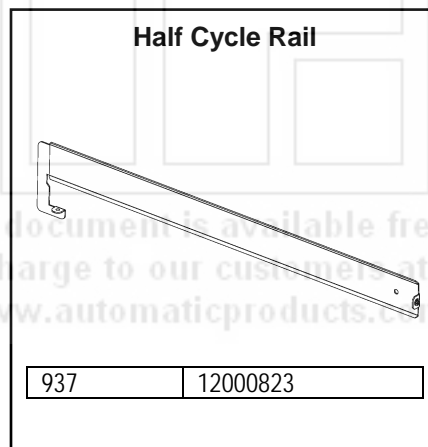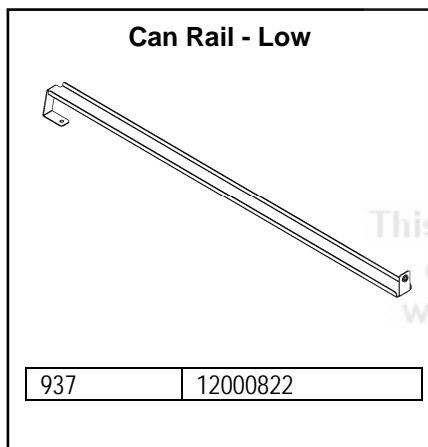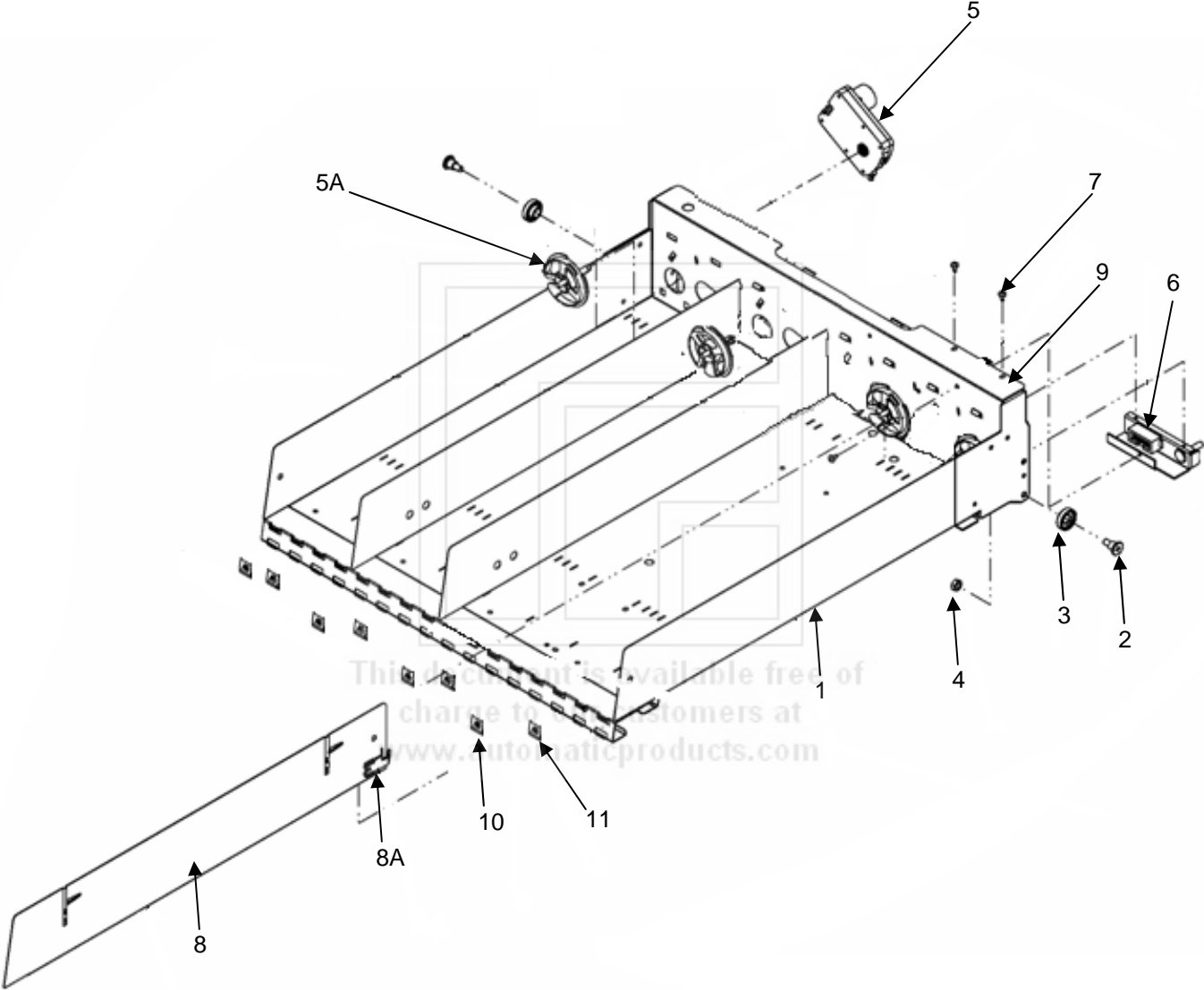
Snack Shelf

Snack Shelf

Key	Description	937
1	Assembly, complete, Pastry shelf w/single blue/white motors (cw)	16600417-01
	Pastry shelf, Weldment, only.	16000336
2	Screw, shelf roller.	300203
3	Shelf roller	440362
4	Nut, keps (1/4 x 28)	437-41
5	Shelf motor, CW, (Blue/white)	360275
5A	Spiral retainer. white, right hand (RH)	460405
6	Assembly, complete. Harness with bracket. 4 selections.	660435-9
	Harness, only. 4 selection shelf.	16800073
7	Screw, Ph. T-23 (8-32 x 5/16)	276-8r5
8	Assembly, Shelf Spacer	16600416
8A	Spring Only, Shelf Spacer	14400116
	Extension, Shelf Spacer (not shown)	202770
9	Decal, use with convertible shelf.	460494
10	Selection tabs, Numbers 210's, Snack	9370009
	Selection tabs, Numbers 220's, Snack	9370010
	Selection tabs, Numbers 230's, Snack	9370011
	Selection tabs, Numbers 240's, Snack	9370012
	Selection tabs, Numbers 250's, Snack	9370013
	Selection tabs, Numbers 260's, Snack	9370014
11	Price Label, Self Scrolling, $.40 - $2.40	17400153
	Price Label, Self Scrolling, $2.40 - $4.35	80388674001
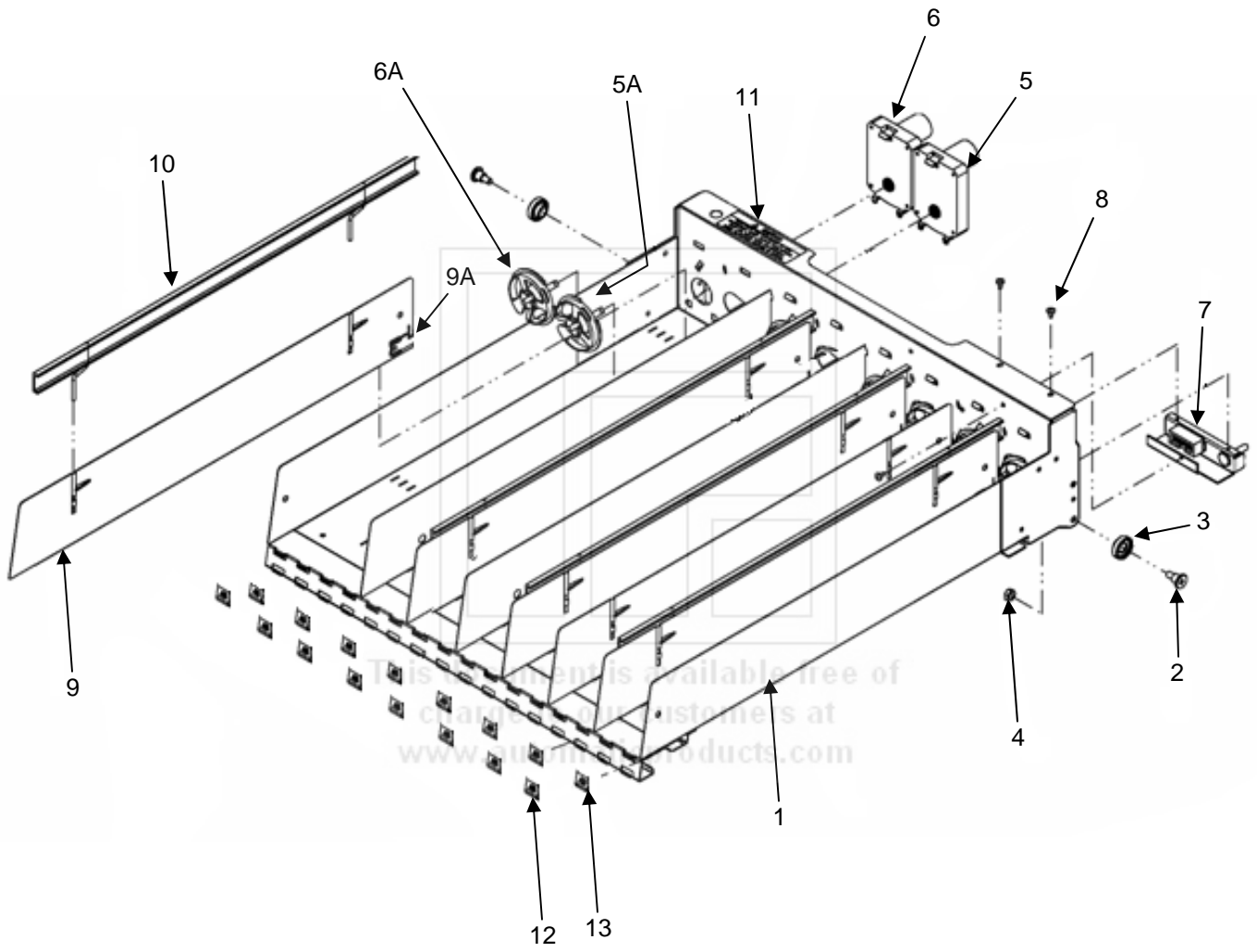
Candy / Paired Shelf

Candy / Paired Shelf

Key	Description	937
1	Assembly,complete.Paired motor candy shelf. Used with a combination of clockwise motors cw (blue/white) and counter clockwise motors ccw (blue/gray)	16600417-04
	Candy shelf, Weldment only.	16000336
2	Screw, shelf roller	300203
3	Shelf roller	440362
4	Nut, keps (1/4x28)	437-41
5	Vend motor complete. Clockwise CW (blue/white)	360275
5A	Spiral retainer. White, right hand (RH)	440405
6	Vend motor complete. Counter clockwise CCW (blue/gray)	360276
6A	Spiral retainer. Gray, left hand (LH)	440406
7	Assembly, complete. Harness with bracket. 8 selections	660435-10
	Harness only. 8 selections	16800074
8	Screw, PH.T-23 (8-32x5/16)	276-8r5
9	Assembly, shelf spacer	16600416
9A	Spring Only, Shelf Spacer	14400116
10	Assembly, candy shelf slide	16600389
11	Decal, use with candy convertible shelves	460494
12	Selection tabs, Numbers 210's, Candy	9370018
	Selection tabs, Numbers 220's, Candy	9370019
	Selection tabs, Numbers 230's, Candy	9370020
	Selection tabs, Numbers 240's, Candy	9370015
	Selection tabs, Numbers 250's, Candy	9370016
	Selection tabs, Numbers 260's, Candy	9370021
13	Price Label, Self Scrolling, $.40 - $2.40	17400153
	Price Label, Self Scrolling, $2.40 - $4.35	80388674001
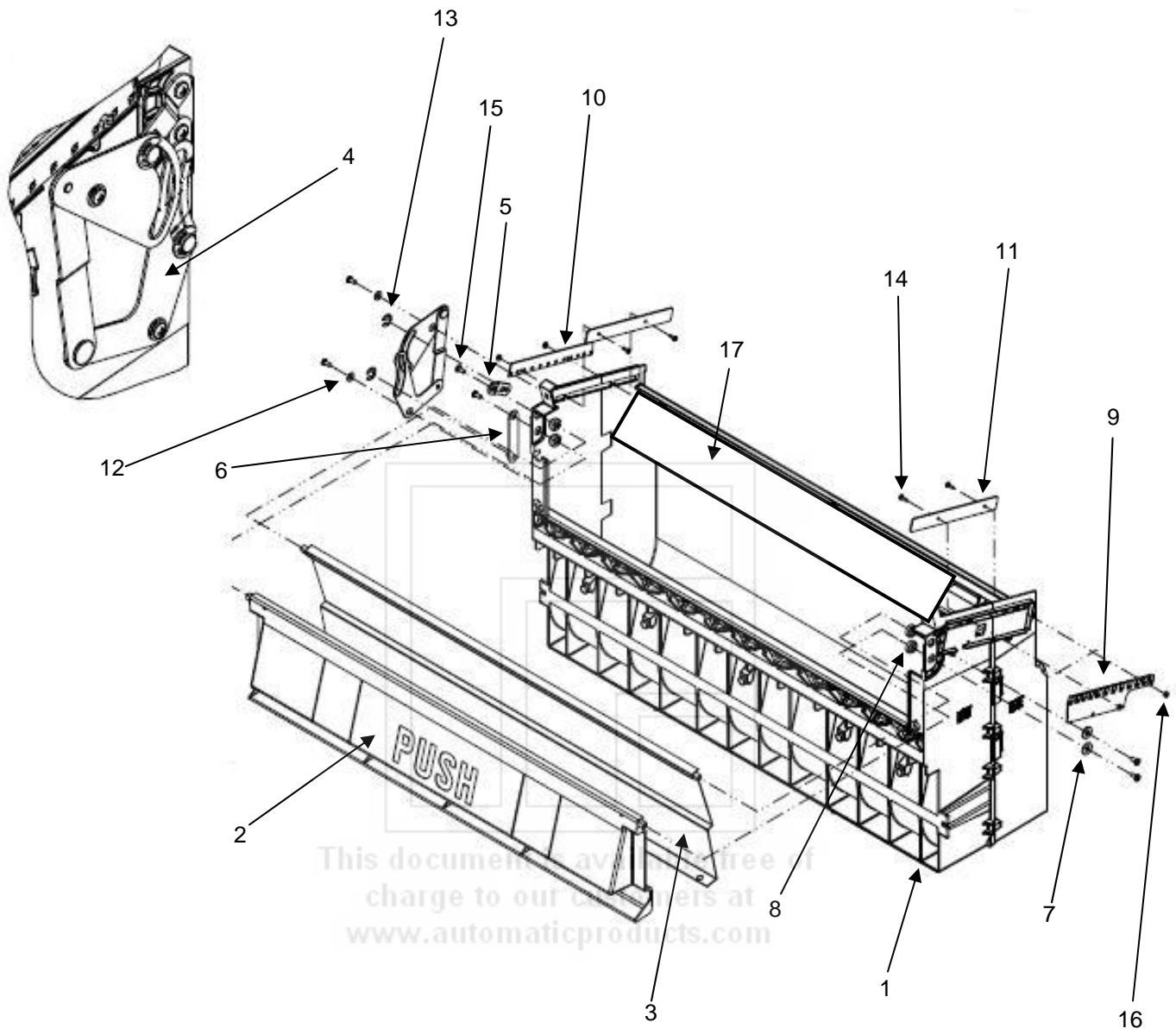
Delivery Bin

Delivery Bin

Key	Description	937
1	Bin Asm Complete, Black Door, w / Golden Eye	9370601
	Plastic Bin only	16400072
2	Delivery Bin Door - Black	440373-1
3	Inner Door - Standard	12000784
	Inner Door - Steel	12000784-02
4	Bin Door Drive - Pivot	16400076
5	Inner Bin Door Arm	16400070
6	Bin Door Drive Arm	640097
7	Bin Door Washer	420282
8	Door Bearing	440129
9	Golden Eye II Receiver Board	13600020-01
9A	Cover, Golden Eye, Lock Side	12000835
10	Golden Eye II Transmitter Board	13600022-01
10A	Cover, Golden Eye, Hinge Side	12000836
	Harness Gold Eye Interconnect (Not Shown)	16800101
	Harness Gold Eye, GE to Control Board (Not Shown)	9379003
11	Lens, Golden Eye, Lock & Hinge Side	14400101
12	Washer-# 8	600-8
13	Retaining Ring 3/8	751-37
14	Screw, Pan Hd Mach 4-40 X 3/8	116-4R6
15	8-32x3/8 Ph Pan Hd M/S Zn	116-8R6
16	#4-40 Hex M/S Nut Nylon	13100028
17	Barrier Guard, Stiffener Asm	16400093-01
	Nut, 8-32 Keps, used with item 17 (Not Shown)	438-8
NS	Delivery Bin Pad (Not Shown)	12200124

937 Trim & Panels

Top Panel   **Top Trim**   **Top Graphic**   **Top Vinyl Door Edging**

Vertical Window Trim

Vertical Window Trim

Outside Vertical Trim

Outside Vertical Trim

Left Side Graphic

Horizontal Window Trim

Right Side Graphic

PUSH

Bottom Vinyl Door Edging

Delivery Door Trim

Lower Graphic

C

D
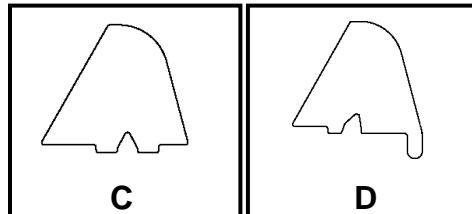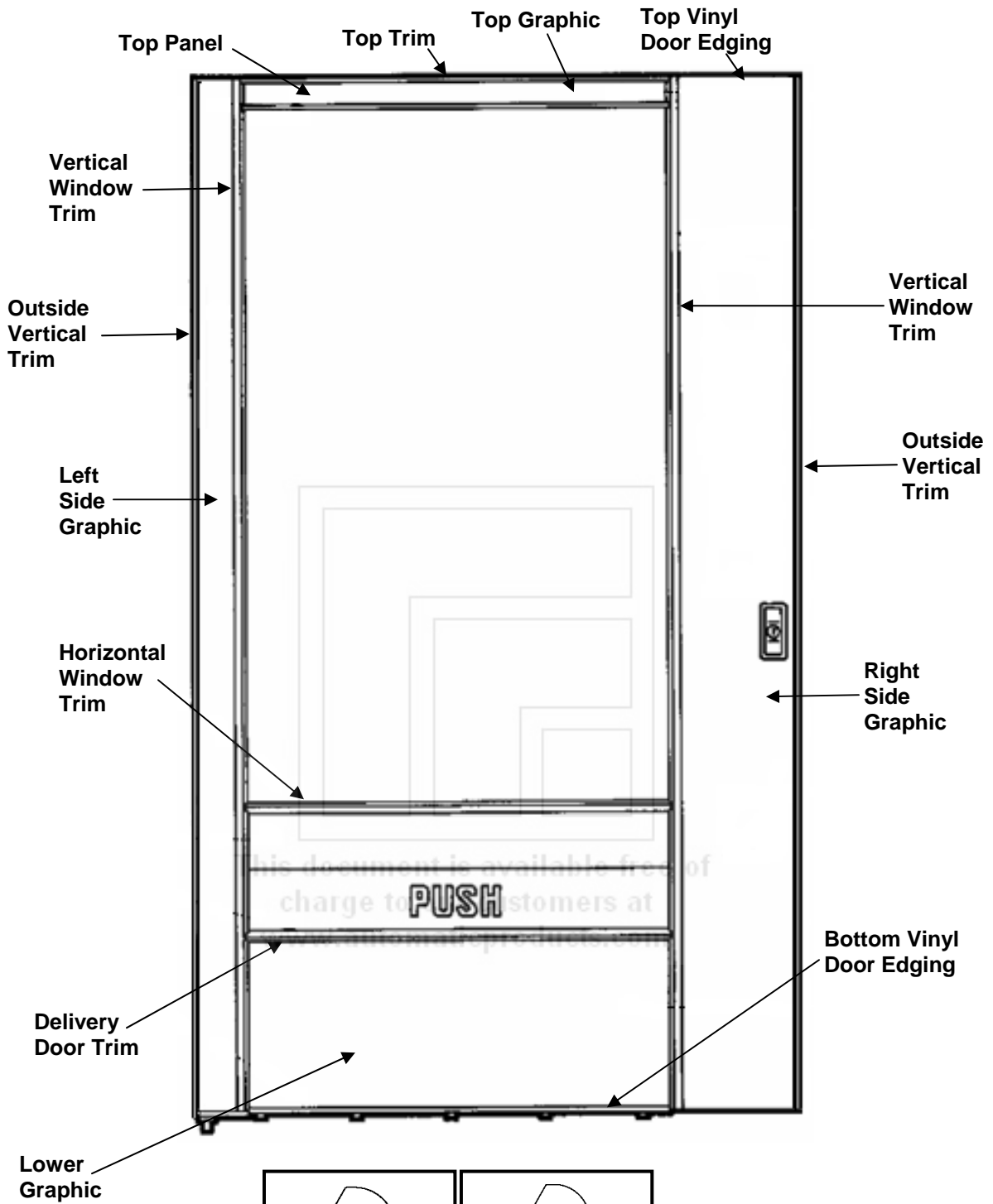
937 Series Trim Profile Chart

937 Trim & Panels

937 Trim & Panels

Top Trim	Profile	Part #	Qty	Dimensions
AP Style - Silver		13400021-05	1	1.872 x 21.657 in
AP Style – Black		13400021-06	1	1.872 x 21.657 in
Outside Vertical Trim				
Silver	D	9372011	2	65.609 Inches
Black	D	13400030	2	65.609 Inches
Window Horizontal Trim				
Silver	C	13400013-04	1	21.656 Inches
Black	C	13400013-05	1	21.656 Inches
Window Vertical Trim				
Silver	C	13400013	2	65.406 Inches
Black	C	13400013-01	2	65.406 Inches
Delivery Door Trim				
Silver	C	13400013-04	1	21.656 Inches
Black	C	13400013-05	1	21.656 Inches
Bottom Vinyl Door Edging				
Edging		201678-2		29.938 Inches
Top Vinyl Door Edging				
Edging		201678-7	1	7.484 Inches
Trim Screws				
Self Tap x .480 Long		13100054	40	
Top Panel				
Top Trim Insert - Black		14400146-06	1	1.70 x 21.602 in
Graphic - Splash Decals				
Top		9372003	1	
Right Side		9372004	1	
Left Side		9372005	1	
Lower		9372007	1	

Service

937 Paired Motor Shelf Conversion Instructions

These instructions provide the steps to convert two candy selections on a paired motor candy shelf to a single dual spiral snack selection, or visa versa.
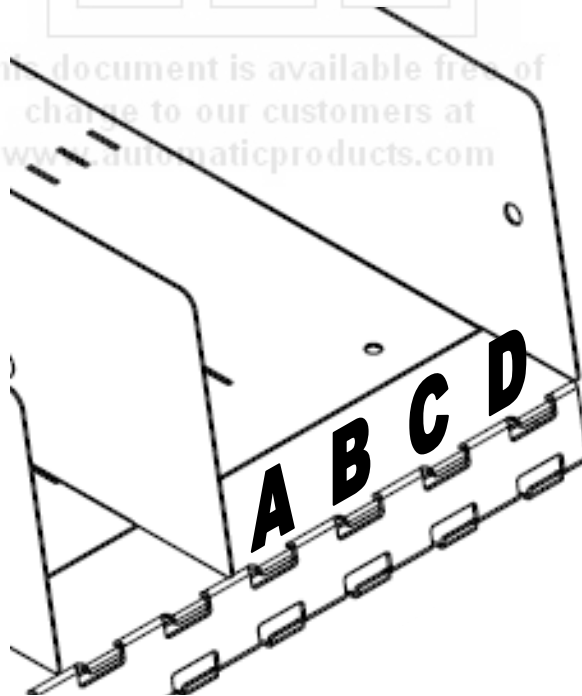
Convert Two Candy Selections to One Snack
1) Remove product from 2 adjacent spirals – Left hand motor must be an even number.
2) Remove divider from between the 2 spirals, and store under machine for future use.
3) Remove the selection number tabs from both selections
4) Remove one of the 2 scrolling price tabs rolls
5) Move the remaining scrolling price tab to position C on drawing below.
6) Store removed tabs and scrolling price roll in the service envelope, and retrieve the correctly numbered selection tab from the extras provided in the service envelope.
7) Install the new selection tab on the front of the shelf.
8) Count the number of spaces in each spiral to verify that they are the same. Change spiral if required.
9) Load product in selection.
10) Access Mode 23, and pair the motors
11) Access Mode 20, and set the new price, and adjust the scrolling price tab as required.
12) Test vend with money to ensure correct operation

Convert One Snack to Two Candy Selections
1) Remove product from spirals.
2) Install divider between the 2 spirals, between positions B & C.
3) Remove the selection number tab from the selection.
4) Remove the scrolling price roll.
5) Locate the extra selection tabs and scrolling price rolls in the service envelope, and retrieve the correctly numbered selection tabs and a scrolling price roll from the service envelope.
6) Install the scrolling price rolls in positions B and D.
7) Install the two selection tabs on the front of the shelf in positions A, B and C, D
8) Load product in selections.
9) Access Mode 23, and disable the paired motors.
10) Access Mode 20, and set the new price for both selections, and adjust the scrolling price tabs as required.
11) Test vend with money to ensure correct operation.

Service

Removal of Delivery Bin

1   Turn the power to the machine off.
1) Disconnect the ribbon cables from either side of the delivery bin, and remove the ribbon cable from the clips on the sides of the bin. The ribbon cable should remain attached to the door weldment.
2) Disconnect the control harness from machine harness to the Golden Eye board.
3) Remove the 2 screws and washers securing the bin on either side of the glass, reference Photo 1.
4) Remove the 2 screws and washers attaching the bin to the lower door stiffener, reference Photo 2.
5) Remove the bin from the inside of the door by lifting up from the inside of the door.
6) Assembly is reverse of disassembly.

Photo # 1

Photo # 2
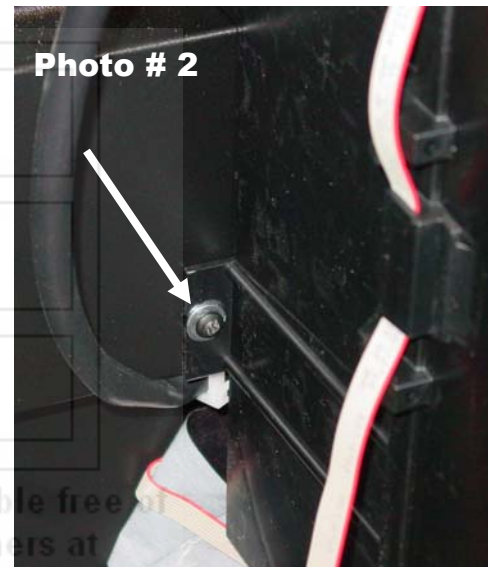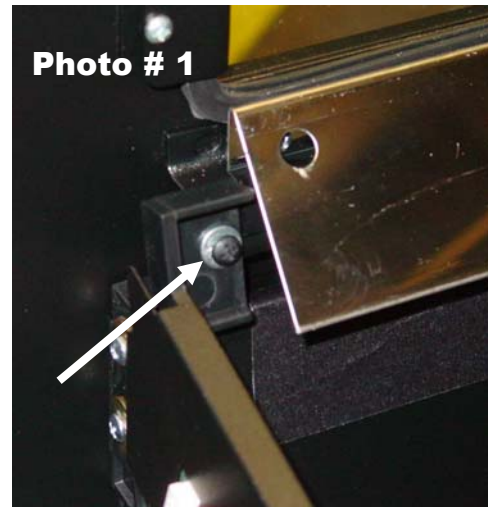
This document is available free of charge to our customers at www.automaticproducts.com

Bev-Max Software Update Instructions

>
> *CAUTION:* **The system components in this machine utilize static sensitive components. Precautions for handling sensitive devices should be observed when handling these items.**

1. Note any required meter readings or options set.
2. Press the Service Mode button three times.
3. Press Key "8"
   Note: If a password has been programmed in SETUP MODE 1, you will be prompted to enter it before proceeding to the next step.
4. EPROM Removal:
   a. Power down the vender. Ground yourself on the vender cabinet before removing the EPROM from the ESD tube or control board.
   b. If an EPROM is present in the control board, remove the existing EPROM.
      Note: An EPROM does not need to be in the control board after the control board has been programmed. The EPROM can be used to program other boards.
   c. Verify the pins of the new EPROM are not bent before installing in the EPROM Socket.
   d. Install the new EPROM in the EPROM socket. Ensure the EPROM is oriented correctly with its reference marker in the same direction as the reference marker of the EPROM socket. Do not rely on the EPROM label for orientating the EPROM.
5. Automatic Reprogramming:
   a. Turn power on to the vender. When auto-updating the display will show old version for a few seconds while the red LED on the control board blinks.
   b. Display will change to "EPROM UPGRADE…" for approximately 10 seconds with the green LED rapidly blinking.
   c. Display will change to new version software with red LED blinking at a steady heart beat rate.
6. Manual Reprogramming (only used if EPROM does not automatically reprogram):
   a. At power up, the current software version will be displayed. To manually program the control board with the new software, press the service switch on the control board to enter service menus. Advance to "UPDATE SOFTWARE". Press the * key. Display will show "Reprogramming Vendor" while the yellow LED blinks.
   b. Display will show new software revision, then return to stand by. This confirms that the new software has been successfully updated.

Note: to remove the EPROM after programming, remove power to the vender, ground yourself on the vender cabinet before removing the EPROM, remove the EPROM, while still grounded install a label on the microprocessor showing the revision of software that is installed in the controller, power the vender back on and test for proper operation.

Bev-Max Board
Shown as installed in machine.

Location of EPROM socket

TO BEV MAX

16800106

THERE IS A UNUSED 4 PIN CONNECTOR FROM THIS HARNESS

P1

POWER BOARD 1816005

P2

680659-1

P1 POWER / MDB

P5 MOTOR DRIVE

P3 BAFFLE

9379003

GOLDEN EYE EMITTER BOARD 13600022

GOLDEN EYE SENSOR BOARD 13600020

16800101

9379002

P4 SERVICE

FDB BOARD 360250

26900004

LIGHT

DOOR GROUND

16800149

DOOR SWITCH 23800003

CABINET GROUND

BALLAST ASSEMBLY 16600442

680456-1

9379001

LINE CORD

CABINET GROUND

SHELF 1
SELECTIONS 210 - 217

SHELF 2
SELECTIONS 220 - 227

4 MOTOR SHELF HARNESS 16800073

SHELF 3
SELECTIONS 230 - 237

8 MOTOR SHELF HARNESS 16800074

SHELF 4
SELECTIONS 240 - 247

STANDARD SNACK MOTORS

SHELF 5
SELECTIONS 250 - 257

SHELF 6
SELECTIONS 260 - 267

9379000

REV	REVISION DESCRIPTION		BY	DATE	E.C.O.

TITLE: SATELLITE WIRING DIAGRAM

TOLERANCES (EXCEPT AS NOTED)
X   +/- 0.500
X.X   +/- 0.250   HOLE DEC. +/- ---
X.XX   +/- 0.125
X.XXX +/- 0.062   ANGLES +/- ---

DO NOT SCALE DRAWING

CRANE MERCHANDISING SYSTEMS
A CRANE CO. COMPANY
ST. LOUIS, MO
63044 - 1200

DATE	DRAWN BY	CHECKED BY
3/27/07	DOCKTER	HUDIS

SHEET		SIZE	PART NUMBER	REV
1 OF 1		B	9379004	01