



Refreshment Station Manual



Model Number: RS-800/850

March 2010

Revision B

The information contained in this publication was correct to the best of the company's knowledge when it was produced. In the interest of development, the right is reserved to change specifications, design or equipment at any time without notice and without incurring any obligations.

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Please record both “Serial Numbers” for the top & bottom part of your Refreshment Stations in the spaces below. The serial numbers are located on the back of the machines on the identification plate and can also be programmed into the machine electronically. These serial numbers are necessary to provide quick service and detailed part information for your Refreshment Stations.

Serial number for RS-800: _____

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1 – INTRODUCTION

Congratulations on investing in your new Refreshment Stations! In this manual you will find information on how to set up, install, operate, and maintain your new vending equipment.

Specifications:

RS-800: (Top Portion – Snack and Electronic Control Unit)

- ☐ Weight: 187 lbs
- ☐ Electronics: 110 – 120V – 60Hz – 1A
- ☐ Dimensions: 32.2"H × 30.7"W × 29"D
- ☐ Snack Capacity: Up to 200 items
- ☐ Selections: 20 snack selection rows

RS-850: (Bottom Portion – Beverage Dispenser Unit)

- ☐ Weight: 312 lbs
- ☐ Electronics: 110 – 120V – 60Hz – 2.5A
- ☐ Dimensions: 43.6"H × 30.7"W × 29"D
- ☐ Drink Capacity: Up to 177 cans/bottles
- ☐ Selections: 6 beverage selections
- ☐ Refrigeration: R134A CFC-Free
- ☐ Operation Temperature in Degrees: 32F to 90F (**indoor use only**)
- ☐ Manufactured With UL Certified Components

The Refreshment Station Package Includes:

RS-800:

1. RS-800 snack vending machine
 2. Refreshment Station Manual (*March 2010, Revision B*)
 3. Machine keys:
 - a. The first key is used for the “front doors”; 4 keys are provided (*chrome barrel keys*)
 - b. The second key is used for the “Electronic Control Unit”; 2 keys are provided (*black barrel keys*)
 - c. The third key is used for the “back door”; 2 keys are provided (*standard keys*) (*The back door allows easy access to the motors for the snack machine*)
- ☐ *The Electronic Control Unit door and the back door will all be keyed the same for all of your machines.*
- ☐ *The front doors for the snack unit and drink unit will be keyed the same for each matched pair of units but not necessarily for all of your machines.*
- ☐ *It would be wise to separate your keys and put at least one complete extra set of keys in a safe place where you will not lose them. You will also want a system to let you know which key goes to which machine.*

IMPORTANT: *If you put the wrong key in a lock and try to turn it, you could jam the lock and damage it.*

4. Price tag set for display
5. Combination screw M5x12 (*4 screws*)
6. #5 large washer (*4 pieces*)
7. Packing list

RS-850:

1. RS-850 drink dispensing machine
2. Front door key (*black barrel type, interchangeable with SNACK UNIT front door*)
3. Price tag set for display
4. Small spacers for B04 (*2 spacers*)
5. Large spacers for B05 / B06 (*4 spacers*)
6. Metal box cable guard (*one*)
7. Packing list

RS-800/850 Quick Start Setup Guide

NOTE: Your machine has been configured and pre-tested by factory technicians prior to shipment.

1. Follow sections 2.2 – 2.5 in the Refreshment Station Manual for directions on unloading and physically setting up your machine.
2. Plug the machines into wall power (surge protection recommended)
3. Wait until the machine cycles through startup and your LCD screen reads “Enjoy a Snack and a Beverage”. This is the message on the LCD screen when the machine is in “vending” mode.
4. Locate, press and hold down the small red “service mode” button on the inside of the Electronic Control Unit (on the top, right corner of the Main Circuit Board) until the LCD reads “SALES”. You are now in “service” mode.
5. Press the DOWN button on the keypad until the LCD reads “MANAGE”. Press ENTER
6. LCD reads “COIN MECH”. Press ENTER. LCD reads “Money \$0.00 A=25C B=10C C=5C”. Begin loading the coin mech with coins now. Roll the coins in through the coin slot on the front of the Electronic Control Unit. If being done properly you will see the money amount on the LCD screen increasing with every coin deposited. **Load a minimum of \$5.00 worth of coins (we recommend one roll of each coin to get started)**. When \$5.00 worth of coins is entered, the bill acceptor’s three front LED lights will flash GREEN. When through loading coins, press the CANCEL button 3 times until the LCD reads “Enjoy a Snack and a Beverage”
7. Load snacks and candy in the coils in all three bin rows. Press down on the white lever on the right side of the snack bin and pull it towards you. Make sure you load the items properly from back coil to front coil. The snack item should be IN FRONT of the bottom of the coils, not lying across them. (Push the left corner of the snack forward). Put your price labels for each bin in the space provided.
8. Load the 12 oz canned drinks in the drink columns B01, B02 & B03. These drinks vend from the bottom ramp, then the back, then from the top ramp down. **Load the FIRST 6 Cans from the very BOTTOM ramp. Load the next 11 cans from the very TOP ramp.** Look in the back to see that all the “GATES” are down and properly “shut” against the ramps by cans. Load the rest of the ramps to capacity from the top down. Place corresponding drink cans and bottles in the proper column indicator in the cold drink door display area. Put price tags next to the bin location label under each can and bottle.
9. Load the 16 and 20 oz bottle drinks. Push up and then pull out and down the outer drink doors. Look into the interior of the bottle drink beverage section and pull forward the internal divider (look for round finger hole at the top of the divider and pull forward). 16.9 oz plastic bottles (typical water bottle) go in bin D4. **Load the back area first**, with the bottle cap forward, towards you. When full, push the internal divider shut and load the front area, bottle cap **AWAY** from you. If the bottles are too short, they will not push the sold out sensor closed properly. If a spacer is required, find the narrow spacer inside the white styrofoam box and insert it properly into the cutouts provided on the sides and bottom of the beverage column. Repeat for Bin D5 and D6 using 20 oz bottles. See the Manual for more details and pictures.

10. Once all price labels have been placed in all the spaces provided, **bin pricing needs to be entered into the computer system**. All snack/candy bin and drink columns prices are factory preset at various prices. Open the Electronic Control Unit and press and hold the service mode button until the LCD reads “SALES”. Press the DOWN button until the LCD screen reads: “MANAGE”. Press ENTER. LCD reads “COIN MECH”. Press the DOWN button until the LCD screen reads: REVIEW PRICE”. Press ENTER. LCD screen reads “Review Price Bin A01 \$0.75”. Press ENTER. A flashing black square will appear to the right of the 0.75 price. Press the numbers on the keypad to correspond to the price you wish to charge on bin A01, and then press ENTER. Press the DOWN Button and the LCD screen will read “Review Price Bin A2 \$0.75”. Press ENTER. Repeat as above through each A, B, C and D bin location. When complete, press the CANCEL button until you return to “ENJOY a SNACK and a Beverage”.

Note the following bin assignments:

A Bins – Snacks

B Bins – Drinks

C Bins – MealTime Satellite Vendor

D Bins – Coffee Shoppe Satellite Vendor

11. Vend an item. With blinking lights on the front of the bill acceptor, put a \$1.00 bill in the bill acceptor. It should take the bill and the LCD will read “CREDIT \$1.00 SELECT: ____”. On the keypad press any bin location in the snack or candy area that is \$1.00 or less. Item should vend. If change is due, press the Coin Release Button and change will be dispensed. Place item back in its bin. Open the Electronic Control Unit and press the service mode button until the LCD reads “SALES”. Press ENTER. LCD reads “Show Total Cash”. Press the DOWN button until LCD reads CLEAR SALES DATA? Press YES. LCD reads “Clearing Data” Press CANCEL until your LCD reads “ENJOY a SNACK and a BEVERAGE”. Your machine is now ready to vend. Close and lock the electronic control panel, close and lock the inner drink and outer main doors, push your machine into its location, and you are done.
12. For more detailed information about any of these setup procedures, refer to this or call the Tech Department at 1-562-941-6368 (Ext. 311 – Ext. 314)

RS-800/850 Features & Facts Sheet:

Your RS-800/850 Refreshment Stations have the following features:

1. **“Fill It & Go”**

“Fill it & Go” operation allows the operator to refill the machine without having to open the Electronic Control Unit /cash box area. This is great for owners who employ people to refill their machines but don’t want them to have access to the cash.

2. **Change Back**

The Refreshment Station does **not** automatically give a customer change after an item vends. It displays to the customer their credit after a purchase has been made and will require them to press the Coin Release button before their change is dispensed.

3. **Coin Release**

The Refreshment Station will allow a customer to put money in the machine, decide not to vend something, and then get their money back. They will have to push the Coin Release button before the change will be dispensed.

4. **Bill Acceptor**

The Refreshment Station has been set up to de-activate the bill acceptor if the coin mechanism (coin mech) does not have a minimum of \$5.00 worth of coins stored in it. Customers can still purchase product, but only using coins. When the minimum threshold of \$5.00 is reached by customers imputing coins to purchase product, then the bill acceptor will turn back on automatically. The minimum amount may be changed to a higher number but should not be set below \$5 if your bill acceptor is set to accept \$5 Bills. NOTE: We recommend starting your machine out with at least \$20 worth of coins in the coin changer.

5. **Easy Empty**

Your machine features an “easy empty” feature on the coin mechanism. When in service mode for the coin mech, entered by pressing the service mode button (small red button on the top right corner of the circuit board inside the Electronic Control Unit) – in order to empty a quarter one at a time, press B. To empty one dime at a time, press C. To empty one nickel at a time, press D. Pressing the “Yes” button will dispense one of each coin.

6. **Product “Sold Out” Sensors**

Product “Sold Out” sensors are used only on the drink portion of your machine. The reason you do not have “Sold Out” sensors on the snack portion is you are able to see the status of your product inventory easily. The settings on the machine are:

- DRK = S Means sensors for the drinks are enabled
- Prod = Vis Means product is “Visible”

There are other options available to manage your BIN quantities. Please call tech at (562) 941-6368 (Ext. 311 – Ext. 314) to understand what is available and how these options work.

7. **Keep Track of Sales & Profits**

You have easy access to your machine’s sales activity. When entering “Service Mode”, the first sub- menu is SALES. Press Enter and navigate through the SHOW TOTAL CASH, SHOW TOTAL SALES, SHOW TOTAL E VENDS and SHOW TOTAL VENDS. Keep track of your sales and profits! After you have written down your sales numbers, scroll down to CLEAR SALES DATA and press “Enter” to clear the history so you will get fresh numbers for your next vending period.

Tips For Smooth Operation Of Your Refreshment Stations

1. The snack bins have NO sold out sensors. The visible empty bin itself is the sold out signal to customers. If you need to empty a bin of merchandise, it is easy to get into the snack bins and simply remove the items from between the coils. If you wish to **empty a can or bottle drink bin**, you need to use the **EMPTY BIN** selection in service mode.

Open the Electronic Control Unit. Press the small red service mode button (on the top, right corner of the Main Circuit Board) until the LCD display reads "SALES". Press the DOWN button until the LCD display reads "MANAGE". Press ENTER. LCD display reads "COIN MECH". Press the DOWN button until the LCD display reads "EMPTY BIN". Press ENTER. LCD display reads "EMPTY BIN BIN TO EMPTY __" with a flashing black cursor. Press the bin location you wish to empty on the keypad (example B01) and press ENTER. Cans will eject from the B01 location, one at a time. When finished, press CANCEL to stop. Press Cancel again 3 times to get back to "ENJOY a SNACK and a BEVERAGE".

2. In order to load coins into the Coin Mech or take coins out of the Coin Mech (electronically) you must first enter the Coin Mech programming mode.

Open the Electronic Control Unit. Press the small red service mode button (on the top, right corner of the Main Circuit Board) until the LCD display reads "SALES". Press the DOWN button until the LCD display reads "MANAGE". Press ENTER. LCD display reads "COIN MECH". Press ENTER. LCD display reads "Money \$x.xx A=25C B=10C C=5C". At this point you may enter coins **ONE AT A TIME** by putting them in the coin slot on the front of the Electronic Control Unit. **If you wish to remove coins**, press the B button to remove one quarter, press the C button to remove one dime and press the D button to remove one nickel. For the bill validator to be turned on, this coin mech must have a minimum of \$5.00 worth of change registered in the coin mech, however, we recommend a minimum of one roll each on quarters, dimes and nickels. Press the CANCEL button 3 times to get back to "ENJOY a SNACK and a BEVERAGE".

3. You may test any snack bin or drink bin motor to ensure it is operating properly. You can choose to spin one bin motor, spin one bin motor continuously, spin all bin motors, and spin all bin motors continuously.

Open the Electronic Control Unit. Press the small red service mode button (on the top, right corner of the Main Circuit Board) until the LCD display reads "SALES". Press the DOWN button until the LCD display reads "TEST". Press ENTER. LCD display reads "KEYPAD". Press the DOWN button until the LCD display reads "MOTORS". Press ENTER. LCD display reads "ONE BIN". Press ENTER. LCD display reads "MOTOR TO RUN:" and has a blinking black cursor. Press the bin location you wish to test on the keypad (example: A01). The A01 coil will spin once if the motor is operating properly. Use the same procedure if selecting any of the other selections under the motor test selection - one bin continuous, all bins (spins every motor one at a time starting from A01), all bins continuous. Press the CANCEL button when complete to get back to "ENJOY a SNACK and a BEVERAGE".

2 – INSTALLATION

2.1 - Components of the RS-800 & RS-850 Machine:

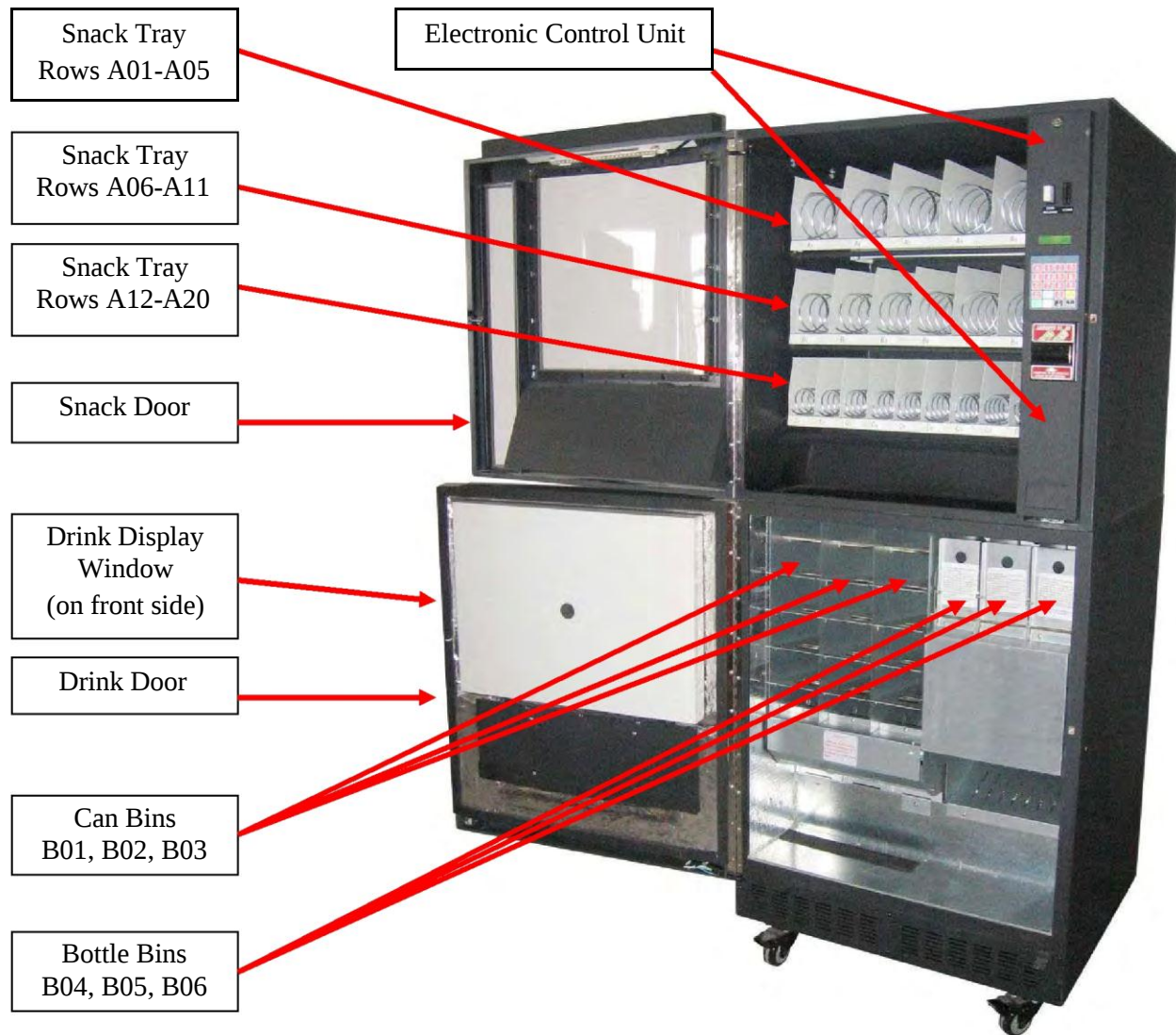


Figure 1 - Components of the RS-800 & RS-850 Machine

2.2 - Unloading the Refreshment Station from the pallets

NOTE: Machines are HEAVY and BULKY. Use EXTREME CAUTION

You must have at least two people to perform the unloading and installation process.

2.2.1 - For SNACK UNIT:

1. Remove the cardboard shipping box from the vending machine (*do not use razor*).
2. Reach into the snack section via the black door that says “Push” and remove the bag of keys.
3. Unlock the main door and remove all plastic sleeves wrapped on the snack coils.

2.2.2 - For DRINK UNIT:

1. Remove the cardboard shipping box from the vending machine (*do not use razor*).
2. Using a screwdriver or power tool, remove Phillips head screws securing the long metal plate on the side of the wooden skid (*Figure 2*) and the angled brackets (*Figure 3*).
3. With one person holding on the left side, the other person should tilt the machine upward from the right side. When the vending machine is tilted sufficiently upward, remove the right side wood skid by pulling firmly on the skid (*Figure 4*).
4. Gently lower the machine, it will sit on its own wheels. With one person holding the right side, the other person should tilt the machine upward from the left side. When the vending machine is tilted sufficiently upward, remove the left side wood skid by pulling firmly on the skid (*Figure 5a*).
5. Gently lower the machine onto its wheels (*Figure 5b*).
6. Reach into the beverage section via the black door that says “Push” and remove the bag of keys and the white plastic bags that contain the spacers for B04, B05 and B06.



Figure 2 – Remove long metal plate



Figure 3– Remove angled brackets



Figure 4 – Tilt right side upward and remove skid



Figure 5a –Tilt left side upward and remove skid



Figure 5b – Gently lower machine

2.3 – Installation

Tools Required:

- Medium Phillips Screwdriver
- Stubby (short) Phillips Screwdriver
- 7mm Nut Driver

1. Using **two or more people**, lift and carefully place the SNACK UNIT on top of the DRINK UNIT (see Figures 6a & 6b). There are four screw holes that you will line up.



Figure 6a – Place snack unit on top of drink unit



Figure 6b – Line up screw holes

2. Open the front and rear doors on the SNACK UNIT. There are two screw holes in the front of the SNACK UNIT in the area where snacks drop after being purchased. There are two screw holes in the back, inside the SNACK UNIT just under where the rear door opens. You may want to pull the bottom tray of coils in the SNACK UNIT to have better access to these screw holes. To do this, CAREFULLY cut the zip tie holding the tray in place, push the white lever down and pull the tray forward (Figure 18). Connect both units together with the 4 combination screws and large washers provided (Figures 7a-7d). Using a short, stubby Phillips head screwdriver will make this process easier on some of the corners.



Figure 7a



Figure 7b

Connect the two units with 4 combination screws & large washers

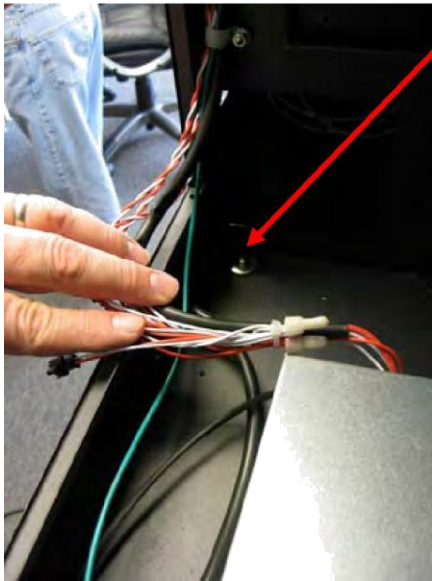


Figure 7c

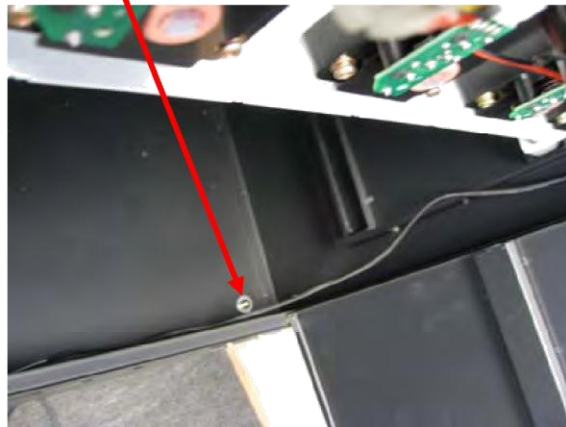


Figure 7d

3. Unlock the Electronic Control Unit with the black key provided and open it/pull it all the way forward (towards you) until it stops. Leave rear door of the RS-800 open.
4. Undo the tie wraps on the cable assembly that are hanging from the rear top left corner of the RS-850 (Figure 8a).
5. Undo the tie wraps on the power cable that is hanging from the bottom left corner of the RS-800 (Figure 8b). Using a Phillips screwdriver, remove the two screws holding the vinyl white cable ties and remove the rectangular metal plate (Figure 8c). Do not lose the screws or the white vinyl cable ties as they will be needed later.



Figure 8a –Undo tie wraps



Figure 8b – Undo tie wraps



Figure 8c-Rremove rectangular plate

6. Taking the cable that is hanging from the top left corner of the RS-850, feed the long black cable with the white connector and the attached black and red cable with the black connector through the hole that was covered by the rectangular metal plate on the bottom left corner of the RS-800 (*Figure 9a*). The white connector cable goes all the way forward into the Electronic Control Unit. The red and black cable with the black connector comes out the square hole on the left rear interior (as seen from the open RS-800 rear door) and comes out to the rear of the RS-800 where the power supply is located (*Figure 9b & 9c*).



Figure 9a – Feed cable with white connector

Figures 9b& 9c – Feed smaller cable with black connector

7. Plug the red and black cable into one of the 3 black connectors that are tie wrapped together in the rear of the RS-800 near the power supply (*Figure 9d*). Make sure that the black nub on the “female” connector fits under the corresponding latch on the “male” connector.

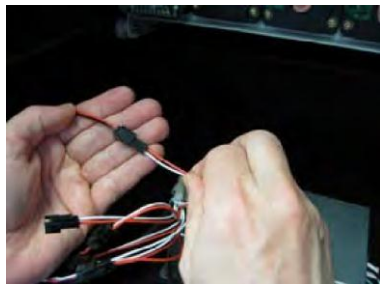


Figure 9d – Place red & black cable into black connector

8. Pull the long black cable with the white connector through the Electronic Control Unit until you have pulled all the slack out of the cable (*Figure 10a*). Take one of the white vinyl cable ties and screws that you removed from the rear rectangular metal plate on the back of the RS-800. Place the white cable tie around the long black cable (*Figure 10b*). On the interior of the Electronic Control Unit, you will see other cables and white vinyl cable ties in a vertical row to the right of the Coinco Coin Mechanism (*Figure 10c*).



Figure 10a – Pull long black cable through ECU

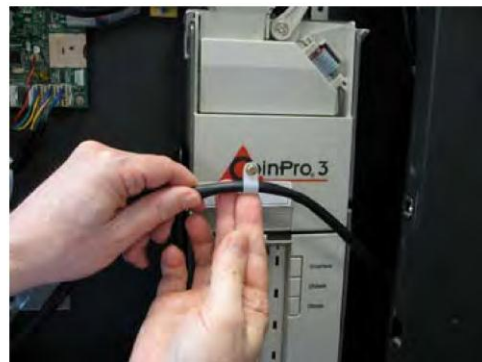


Figure 10b – Place white cable tie around long black cable

9. Take the white vinyl cable tie you put on the long black cable and secure it with the screw, placing it in the open location (4th from the top) and hand tighten (*Figure 10d*). You will need to use a short stubby Phillips head screwdriver to tighten this screw.



Figure 10c



Figure 10d –Secure white vinyl cable tie with screw

10. You will see other cable assemblies that run along the top of the Electronic Control Unit. Take this long cable with the white connector and run it along the same route as the other cables, over the top and down the front of the unit until you reach the Main Circuit Board. You will see three other cables and connectors like the one you have, connected to the Main Circuit Board, on the bottom right side of the board (*Figure 11a*). In the 4th from the right connector position, plug your white connector into that socket (*Figure 11b*). Make sure the “ears” of the white connector are situated properly so it mates up / fits on the Main Circuit Board connector the correct way.



Figure 11a

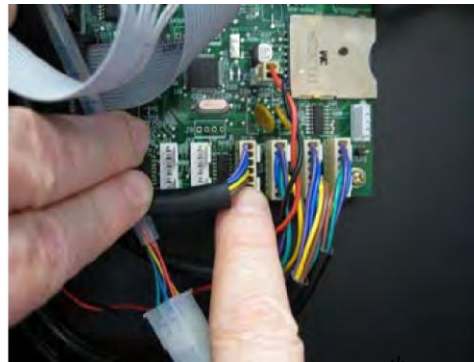


Figure 11b – Plug white connector into 4th socket from right

11. Use the large existing plastic cable wrap at the top of the Electronic Control Unit to secure the cable in with the rest of the cable assemblies (*Figure 11c*). Unscrew the nut (using a 7 mm nut driver will greatly simplify the process), place your cable in with the others, and then reinstall the nut.



Figure 11c- Secure cable with the others

12. Secure the control wire harness of DRINK UNIT to the SNACK UNIT with the screw clip and cover the assembly with the cable guard (*Figure 12 & 13*).
13. Plug the two power cables, at the rear of the unit, into a Surge Protector. The LCD screen will light up and cycle through power up and will read “Enjoy a Snack and a Beverage”. The unit is now in “Sales” mode.
14. Press down on the small red button located on the top right corner of the circuit board (this is the Service Mode Button). The LCD now reads “Sales”. You are now in “Service Mode”. See the Service Mode Menu for the selections and descriptions of those selections. You may now begin to load and prepare your machine for vending.



Figure 12



Figure 13

2.4 – Location

CAUTION:

If the machine is tilted more than 45 degrees during installation, you must keep the machine unplugged from the power outlet for 12 hours before plugging the machine back into the power outlet. Not doing this could damage the refrigeration unit and void the warranty.

1. The Refreshment Station is **intended for indoor use only**.
2. Select an area to place the machine that is near a power outlet.
3. Leave a minimum of at least one inch of space from the wall. The refrigeration unit must have good air circulation.

2.5 - Power

It is recommended that a surge protection device be utilized. Single outlet surge protectors (*Figure 14*) or multiple outlet surge protectors (*Figure 15*) are generally available at hardware stores, Radio Shack, electronics retailers, or manufacturers like Prime Wire and Cable (www.primewirecable.com).

1. Plug the machine into a 110 VAC outlet with surge protection.
2. It is NOT recommended to use an extension cord. If an extension cord is needed, it must be a 16-gauge three-wire type.
3. Depending on the local climate, it will take about 24 hours for the RS-850 (bottom part of the machine) to reach an operating temperature of 38-45 degrees F.



Figure 14



Figure 15

3 - ELECTRONIC CONTROL UNIT (ECU)

There is a small red “service mode” button in the Electronic Control Unit on the top right corner of the circuit board (*Figure 16a*). When it is pressed down briefly, the system will switch from “sales mode” to “service mode”. While in service mode, just press the “Cancel” button a few times on the front keypad (*Figure 17*) to come back to “sales mode”.

Explanation to some of the keys:

- “Enter”----- Enter submenu or confirm
- “Cancel”----- Return to upper menu option or sales mode
- “Up”----- Scroll up
- “Down”----- Scroll down

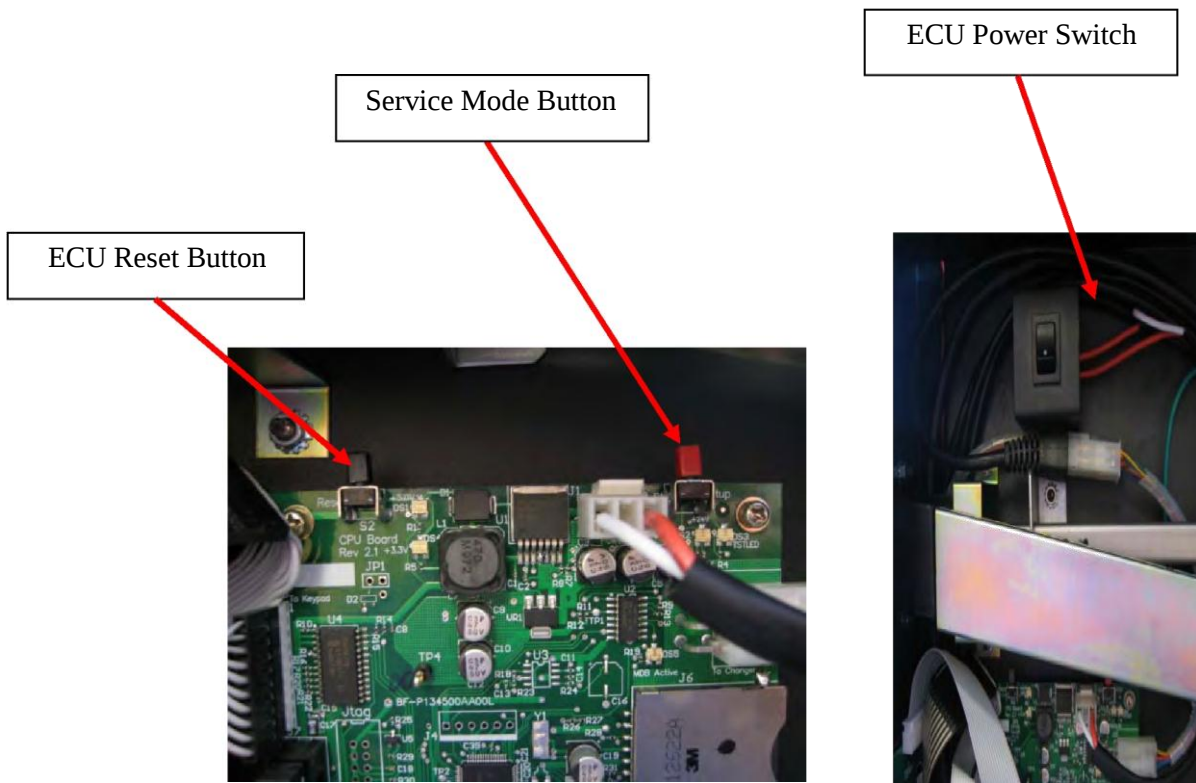


Figure 16a – ECU reset & service mode buttons Figure 16b – ECU power switch

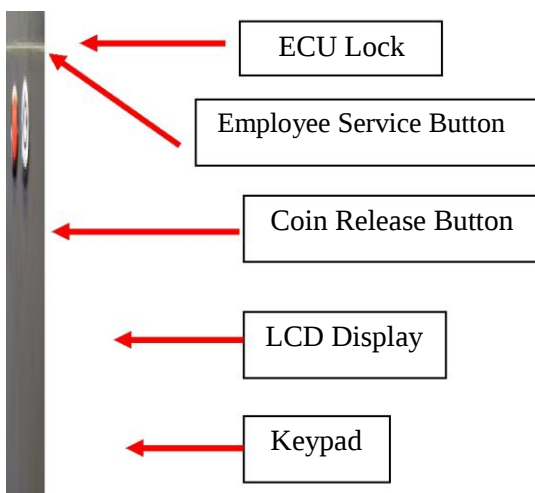


Figure 17 – Front of ECU

Two other buttons you will find in the Electronic Control Unit (ECU) are:

ECU Reset Button: This is the black button on the top left corner of the main circuit board. Pressing this button performs a master reset of the vending machine controller. It is similar to restarting or rebooting a computer.

ECU Power Switch (Figure 16b): This toggle switch at the top of the ECU is used to turn off power to the ECU. Power should be turned off when removing the bill validator or coin changer or working on any other components in the ECU. This button only turns off power to the ECU itself. It does not affect power going to the snack section, drink section, refrigeration unit, etc.

WARNING: You should unplug the power cords for both the snack and drink units when working on any electrical component outside the ECU.

You will also find one other button on the front of the ECU: the Employee Service Button (Figure 17). This is the red button on the front of the ECU next to the lock (front door on snack unit must be open to see this button). This button is used by employees to switch the ECU to the service mode. It allows employees to enter the service mode to retrieve information without giving them access to the cash inside the ECU. This button is covered by the snack door and therefore not visible or accessible by customers.

Service Mode Menu List

Menu	Sub-Menu	Description of what this sub-menu does
SALES		
	Total Cash	Shows total cash put into the machine
	Total Sales	Shows total dollars of vending sales made
	Total eSales	Shows sales made through ePort (optional credit card unit)
	Total Vends	Shows total number of vends made
	Clear Sales Data	Clears all the above data to zero
	Reset Bin Qty	Resets all bin qtys to factory presets
MANAGE		
	Coin Mech	All Coin Mech functions done here. Add/remove, change/see value of change
	Review Price	Review and change bin pricing settings
	Review Bin Qty	Review and change bin quantity settings
	Empty Bin	Empty a bin location of products
	Sold Out	Manually turn off drink “sold out” sensors. For use when “sold out” sensor fails.
	Set Sys Ser #	Enter serial numbers on the back of the machines here
SETUP		
	Set ABCD Qty	Turn on or off Snack/Drink Bin Quantity Settings /Sold out message
	Set Bill Enable	Bill Acceptor is preset at \$5.00 worth of coins to turn on. Change that value here
	Set ePort Fee	Set ePort transaction fee (optional credit card unit)
	Set Drink Size	Select 8.5 oz can or 16 oz bottle. Choice changes factory bin quantity presets
	Set Defaults	Resets ALL computer settings to factory presets.
TEST		
Motors	One Bin	Test one bin motor with one spin
	One Bin Cont.	Test one bin motor with continuous spinning. Press CANCEL to stop
	All Bins	Test all bin motors with one spin, one after another, from A1 to D6
	All Bins Cont.	Test all bin motors with continuous spinning. Press CANCEL to stop
	Key Pad	Key pad test
	Test Interface	Used at the factory. Check with Tech Support before using

4 - CONFIGURING THE VENDING MACHINE FOR SALES

In order to get the machine ready for sales, the following **must** be done.

1. Set up / Choose the drink size to be vended in Bin B04.
2. Load snack and beverage products.
3. Display drinks in display door behind window.
4. Load coins into coin changer.
5. Set snack bin and beverage bin prices into the computer and apply price tags to bins.
6. Clear System Sales Memory after product stocking/refilling.

4.1 – Set up / Choose drink size for bin B04

Bin B04 allows the operator the option of vending an 8.3-8.5 oz energy drink can or a 16 oz can or a 16.0-16.9 oz plastic bottle beverage. As part of the system setup, the operator needs to decide which beverage type they will vend from bin B04 and set that choice in the computer system. NOTE: 12 oz. cans do **not** work in this bin.

- ☐ Ensure the SNACK UNIT is properly attached to the DRINK UNIT and all electrical connections are firmly and properly in place.
- ☐ Ensure the vending machine is plugged into power.
- ☐ Open the Electronic Control Unit by using the proper key to unlock it and pull the panel toward you/out until it stops.
- ☐ Press the service mode button in the Electronic Control Unit and the LCD will read “SALES”
- ☐ Press the down button twice. LCD reads “SETUP”. Press the ENTER button.
- ☐ LCD reads “Set ABCD Qty”. Press the DOWN button **Three** times.
- ☐ LCD reads “Set Bin B04”. Press the ENTER button.
- ☐ LCD reads “Type: 16oz Drink”. If selecting, press ENTER button. If choosing an 8.5 oz drink, press the DOWN button. LCD reads “Type: 8.5oz Drink”. If selecting, press ENTER button.
- ☐ Once selected, LCD will read “Saving drink size” or “same” depending on whether it is changing from its previous setting. Press CANCEL button three times until the LCD display reads: “Enjoy a Snack and a Beverage”.

4.2 – Loading Chips, Snacks, Candy, and Beverages

To begin loading items into the snack and candy bins:

- ☐ Make sure the SNACK UNIT main front door is fully opened.
- ☐ CAREFULLY cut the zip ties that secure the wheels of the three product trays (*Figure 18*).
- ☐ Hold the white lever down (*Figure 18*) and pull the product tray towards you.
- ☐ When fully extended the product tray will tilt downward for easy product loading (*Figure 19*).
- ☐ Load the products correctly in between the coils in the product tray. NOTE: bottom left corner of product must be loaded in front of the coil to vend properly. (*Figure 20*).
- ☐ After products are correctly loaded, tilt the product tray upwards and push it back into the original position.
- ☐ Put price labels on each bin location on the snack tray (*figure 18*).

Please note the following snack capacities for each row of bins:

- ☐ Row A01-A05 can hold up to 7 snacks per row ($5 \text{ rows} \times 7 \text{ snacks} = 35 \text{ snacks}$ / $W=4 \frac{1}{2}''$ $D=2''$)
- ☐ Rows A06-A11 can hold up to 8 snacks per row ($6 \text{ rows} \times 8 \text{ snacks} = 48 \text{ snacks}$ / $W=3 \frac{1}{2}''$ $D=1 \frac{1}{2}''$)
- ☐ Rows A12-A20 can hold up to 13 snacks per row ($9 \text{ rows} \times 13 \text{ snacks} = 117 \text{ snacks}$ / $W=2 \frac{1}{2}''$ $D=5/8''$)

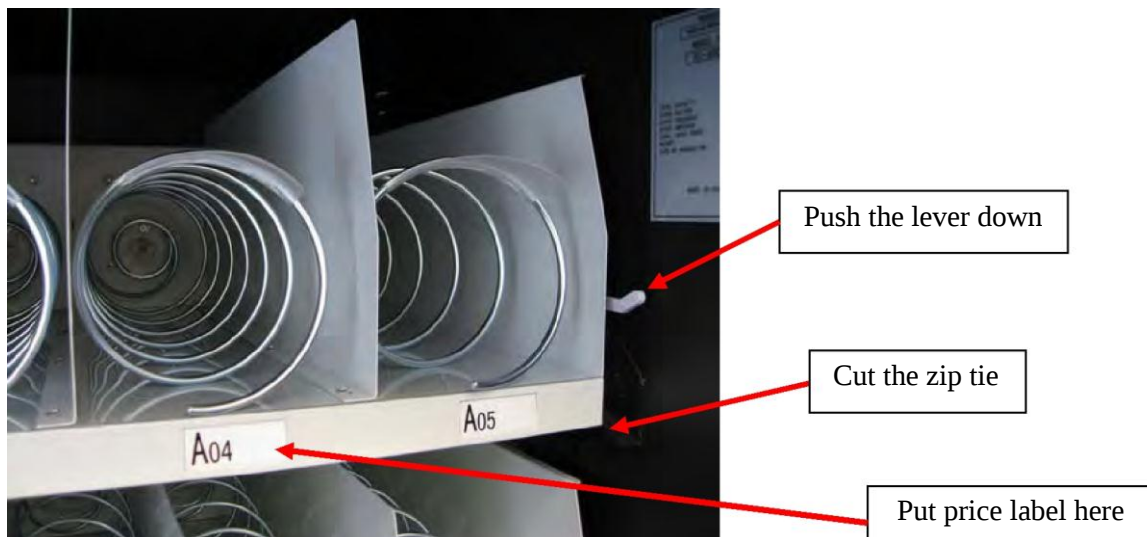


Figure 18 – Zip tie and lever

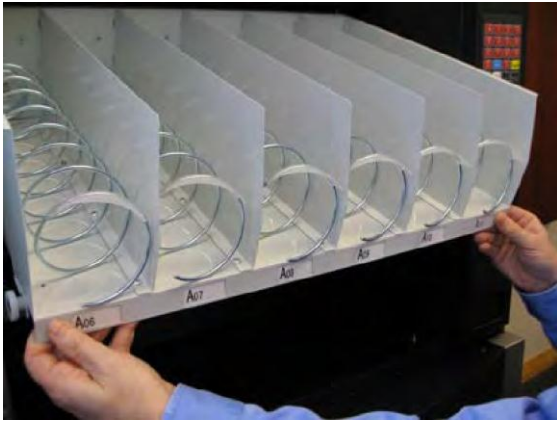


Figure 19 – Pull the tray towards you

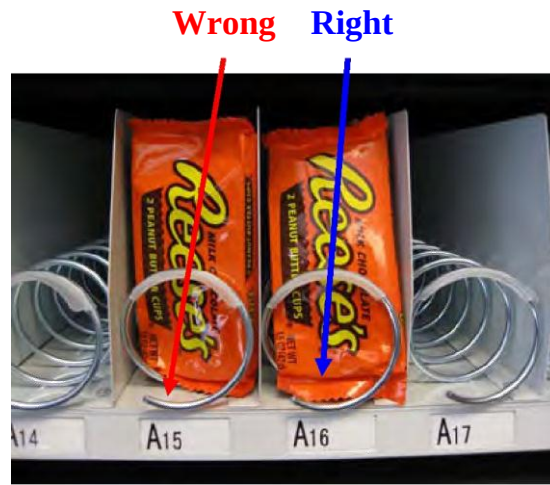


Figure 20 – Proper way to load product

DRINK UNIT Beverage Bin Capacities:

- ❑ There are three bins for 12oz. cans (*B01, B02, and B03*), one bin for 16oz. plastic bottles or 8.3oz. energy drink type cans (*B04*) and two bins for 16 or 20oz. plastic bottles or 12oz to 16oz cans (*B05 and B06*).
- ❑ Locations B01-B03 will hold up to 46 cans (12oz.).
- ❑ Location B04 will hold up to 13 plastic bottles (16-16.9oz.) or 15 energy drink cans (8.3-8.5oz.).
- ❑ Location B05 and B06 will each hold 11 plastic bottles (20oz.) or 12 (16.9 oz) plastic bottles each or 11 (12oz or 16 oz) cans each.

Beverage loading instructions:

NOTE: IMPORTANT

Loading instructions for the beverage bins must be followed for the machine to vend properly.

For Bins B01, B02, and B03:

1. The 12oz cans may be loaded in either direction side to side (*Figure 21*).

The beverages dispense from the bottom ramp, the back bin, the top ramp, and then the top ramps down. Loading the cans properly will allow proper dispensing and not cause cans to jam.

- a. Load the first **6** cans in the “**bottom**” (1st) ramp of B01, B02, and B03 (*Figure 21*).
- b. Then load **11** cans in the “**TOP**” (5th) ramp of B01, B02, and B03 (*Figure 21*). Note how the cans close all the rear “gates” as they fill up the back and block them from opening.
- c. Then load cans in the remaining ramps until full (*Figure 21*). The order really doesn’t matter after steps a & b have been accomplished.

When re-stocking the machine on subsequent service calls, it is important to make sure that all the gates are in the closed (vertical) position, before any additional cans are loaded in. This means any ramp that is not totally full will need to be emptied out so the gate will close. Then cans are added to the top row to make sure all the gates are blocked closed. You may then fill in the rest of the ramps.

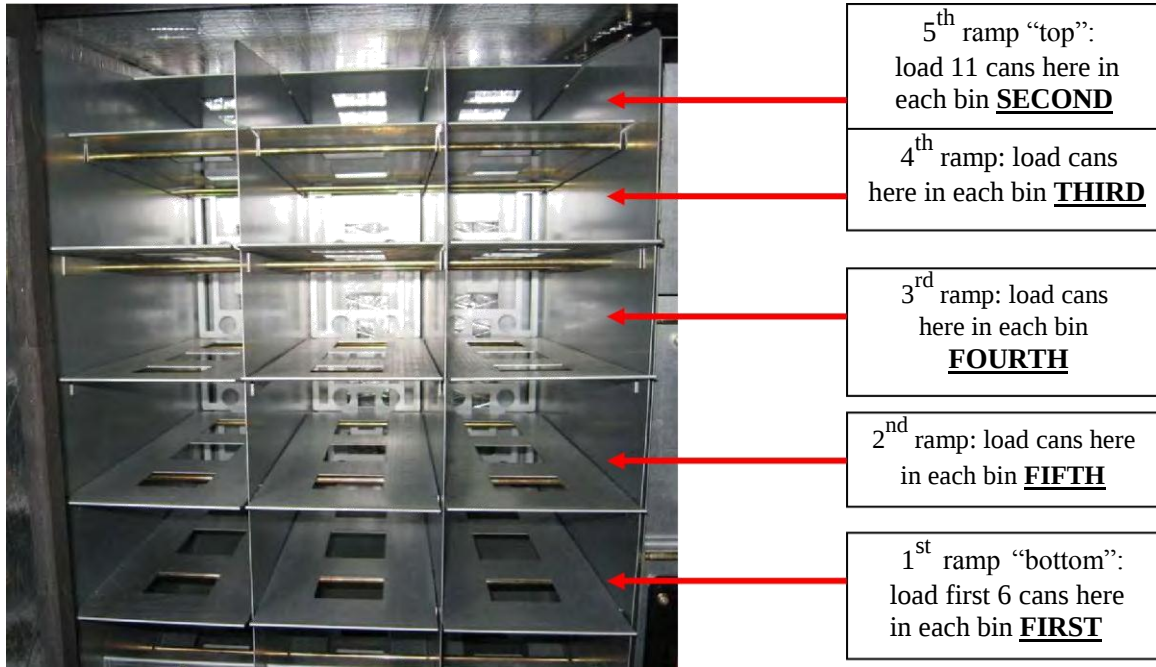


Figure 21 – Locations Bins B01 –B03 of Drink section

For Bins B04-B06:

1. The plastic bottle drink bins have two sections (*front and back*).
 - a. Open the B04, B05, B06 access doors by pulling “up” then “out” (*Figure 22*).
 - b. Pull the internal divider towards you to access the “back” section (*Figure 23*).
 - c. Fill the “back” section first to full capacity (*Figure 24*).
 - d. Push the divider closed and load the “front” section to full capacity (*Figure 25*).
 - e. Close the access doors by pulling up, pushing in place, and then pushing down.

Note: The bottle section will dispense once from the front and then once from the back, and continue back and forth until the bottles are gone. You cannot load just the front or just the back sections for the bins to operate properly.

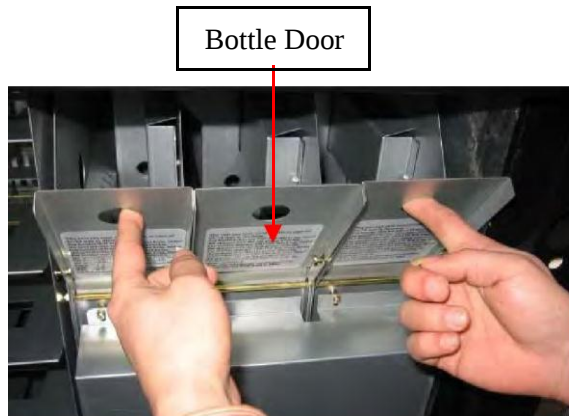


Figure 22 – Pull bottle door “up” then “out”



Figure 23 – Pull divider toward you



Figure 24– Fill “back” section first with cans or bottles in any direction



Figure 25– Fill the “front” section last

2. For locations B04-B06, different sizes of plastic bottles and cans may be loaded.
 - a. For B04, see list of examples of acceptable energy drink cans and 16 oz water /beverage bottles on next page.
 - b. For B05 and B06, see list of examples of acceptable energy drink cans and 16/20 oz soda/ beverage bottles, on the next page.
 - c. To load short cans or bottles, spacers must be inserted in the front and back sections. B04 uses a thin spacer; B05 /B06 uses a wider spacer (*Figures 26, 27 and 28*).

Refer to the spacer insertion and product-loading section.

B04

8.3 oz Beverages	16 oz Beverages
Red Bull can 8.3 fl oz (<i>needs spacer</i>)	Lipton Tea 16.9 fl oz
Dole Juice can 8.4 fl oz (<i>needs spacer</i>)	Propel Fitness Water 16.9 fl oz
	Poland Spring Water 16.9 fl oz
	Kirkland Spring Water 16.9 fl oz
	Aquafina 16.9 fl. oz
	Arrowhead Water 16.9 oz
Any similar brand 8.3 oz, 8.4 oz can (needs spacer)	Monster Energy Cans 16. oz Any similar brand 16. oz cans

B05 –B06

16 oz / 20 oz Beverages
Gatorade 20 fl oz (<i>needs spacer</i>)
Vitamin Water 20 fl oz (<i>needs spacer</i>)
Coca Cola brand soda 20 oz
Coca Cola brand soda 16 oz
Lipton Brisk 16.9 fl oz
Dole Juice 15.2 fl oz (<i>needs spacer</i>)
Tropical Juice 15.2 fl oz (<i>needs spacer</i>)
Minute Maid 15.2 fl oz (<i>needs spacer</i>)
Nestea 16 fl oz (<i>needs spacer</i>)
Nestea Nesquick 16 fl oz (<i>needs spacer</i>)
Energy drink cans 16 fl oz (<i>needs spacer</i>)
Standard 12 fl oz can (<i>needs spacer</i>)

3. Spacer insertion and product loading:

Note: a flashlight is recommended to assist in locating the proper spacer slots.

- a. Select a can or bottle sample with which you wish to fill the bin. Place/hold it against the front of the bin. Make note of the first spacer slot closest to the top of your can or bottle sample (*Figure 29*).
- b. Pull the bin divider towards you to open the back section (*Figure 23, page 19*).
- c. Observe the corresponding spacer in the rear bin. Now, guide it into the rear bin slot using the finger slot hole as an aid (*Figure 30*).
- d. The spacer should slip into the three (3) slots (*left side, right side, and bottom*). Again, the rear spacer position will correspond to the position you observed in Step a. (*Figure 31*).
- e. Load your cans or bottles in front of the spacer until the rear bin is full. Then push the section divider back into place (*Figures 32, 33 and 34*).
- f. Slip the second spacer into the proper front bin three slots (*left side, right side, and bottom*) (*Figure 35*).
- g. Load your cans or bottles in front of the spacer. You will feel some resistance from the sensor flap as you push the cans/ bottles down into place (*Figure 36*).
- h. Close outer door (*Figure 37*).
- i. Cans or bottles that do not easily slide past the rectangular loading guides will not vend and can cause machine malfunctions. Always ensure your chosen can or bottle fits the bin properly.

Note: Once again, standard 12 oz. soda cans are too wide to work properly in B04. But they can vend properly in B05 & B06; however, be sure you use a spacer, in both the front and back half.

Large Spacer

Small Spacer

Install Spacer here

Install Spacer here

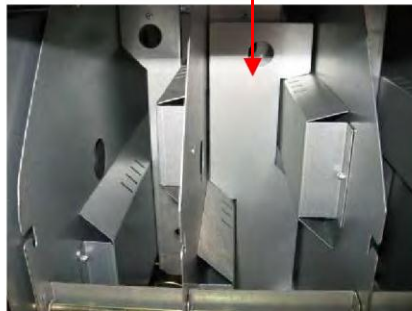
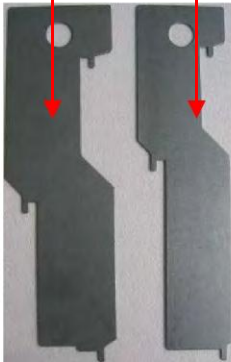


Figure 26 – Spacer

Figure 27 – Install inner spacer

Figure 28 – Install outer spacer



Spacer guide



Inserting the spacer

Figure 29

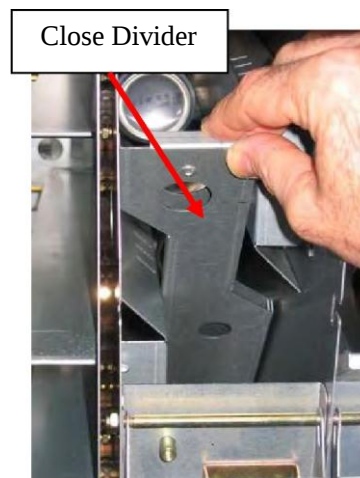
Figure 30



Figure 31



Figure 32



Close Divider

Figure 33



Figure 34

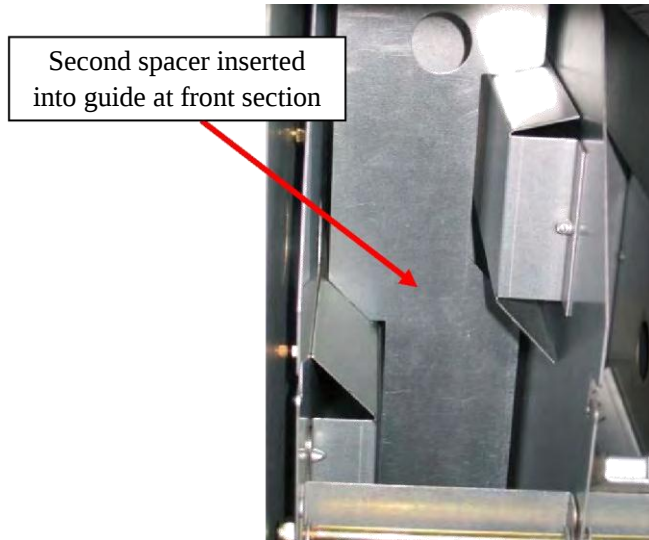


Figure 35



Figure 36



Figure 37

4.3 - Displaying beverages behind the window

- ☐ Open the cold drink door, and then open the drink display window door of the DRINK UNIT.
- ☐ Place the price tag for each sample beverage next to its beverage bin location number (*B01 – B06*) on the vinyl sign on the front of the foam insert facing the window.
- ☐ Place sample cans/bottles on corresponding locations B01-B06, and then close the door of the display window.

4.4- Loading the Coin Changer

- ☐ Press down on the small red service mode button on the circuit board in the Electronic Control Unit and the LCD screen will read “SALES”.
 - ☐ Press the DOWN button once, LCD reads “MANAGE”. Press ENTER button.
 - ☐ LCD reads “Coin Mech”. Press ENTER.
 - ☐ LCD reads “Money \$: / B=25C C=10C D=5C”.
- ☐ Load coins one at a time by inserting them through the coin slot on the front panel.
 - ☐ **NOTE: NEVER input coins into the 3 side slots of the coin changer (Figure 38).**

- ❑ Load **at least \$5.00** worth of coins into the Coinco coin changer, or the electronic dollar bill acceptor will not work. We recommend starting off with at least \$20 worth of coins in the coin changer.
- ❑ Each tube can hold the following quantities:
 - a. 78 Quarters \$0.25 (\$19.50)
 - b. 115 Dimes \$0.10 (\$11.50) (Total Capacity - \$34.95)
 - c. 79 Nickels \$0.05 (\$3.95)
- ❑ Press the cancel button 3 times to return the LCD to read “Enjoy a Snack and a Beverage”. The two blue LED’s on the front of the dollar bill acceptor should flash. You are now in vending mode and the machine is ready to be put into service.
- ❑ Remove the screws that secure the coin box, so that the coin box can be taken out of the Electronic Control Unit (*Figure 39*).

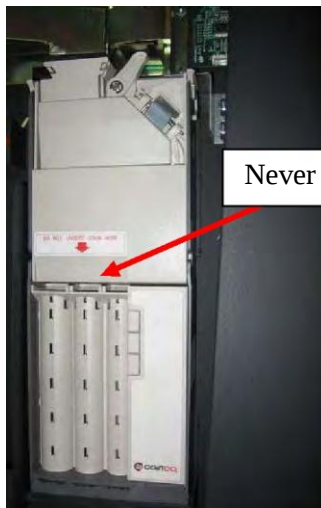


Figure38

4.5 - Setting Prices



Figure 39

NOTE: Factory pre-set prices have been entered on all drink and snack bins.

- ❑ Ensure the SNACK UNIT is properly attached to the DRINK UNIT and all electrical connections are firmly and properly in place.
- ❑ Open the Electronic Control Unit by using the proper key to unlock it and pull the panel toward you/out until it stops.
- ❑ Press down on the small red service mode button in the Electronic Control Unit until the LCD reads “SALES”.
- ❑ Press the DOWN button once. LCD reads “MANAGE” Press ENTER button, LCD reads “Coin Mech”.
- ❑ Press DOWN button once, LCD reads “Review Price”.
- ❑ Press ENTER button. LCD reads “Review Prices / Bin: A1 \$0.75”.
- ❑ Press ENTER button. A flashing black square appears to the right of the 0.75 price.
- ❑ Press the numbers on the keypad that you wish to use for the price you wish to set for this bin location. Example: If you wish for location A01 to be set at \$1.00, press 1, then 0, then 0, **then ENTER**, the LCD now reads “Review Prices / Bin: A01 \$1.00”.
- ❑ Press the DOWN button, LCD reads “Review Prices / Bin: A02 \$0.75”.
- ❑ Repeat steps above after setting the price on each bin, press the DOWN button to continue through bins A01- A20 and B01- B06.

- If you wish to go back and change a bin or review a bin price, press the UP or DOWN buttons until you find the required bin number, or press the letter for the row you wish to change. You may then press the UP or DOWN buttons until you get to the required bin location.
- When all bin pricing is set and complete, press the CANCEL button three times or until the LCD reads “Enjoy a Snack and a Beverage”.

4.7 – Clearing machine cash, sales, and vend memory

Below are directions on clearing the machine memory in preparation to vend snacks and beverages. This is to be done after the initial loading of coins – as well as after restocking or servicing the machine.

- Ensure the SNACK UNIT is properly attached to the DRINK UNIT and all electrical connections are firmly and properly in place.
- Open the Electronic Control Unit by using the proper key to unlock it and pull the panel toward you/out until it stops.
- Press down on the small red service mode button in the Electronic Control Unit until the LCD reads “SALES”. Press Enter. LCD reads “Show Total Cash”
- Press ENTER button, LCD reads “Total Cash / Cash: \$.xx”.
- Press DOWN button, LCD reads “Total Sales / Sales: \$.xx”
- Press DOWN button, LCD reads “Total E-Vends / E-Vends: \$.xx.
- Press DOWN button, LCD reads “Total Vends / Vends:X”.
- Press DOWN button, LCD reads “Clear Sales Data?”.
- Press YES button, LCD flashes “Clearing Data!” Then reads “SALES”.
- Press DOWN button until LCD reads “Reset Bin Quantity” – this resets “Bin Quantity” to factory presets.
- Press CANCEL button twice until the LCD reads “Enjoy a Snack And a Beverage”.
- Machine memory is now cleared and the machine is ready to vend.

5 – SERVICE AND MAINTENANCE

5.1 – General Maintenance

5.1.1 – Cleaning

Clean the internal and exterior cabinet with a damp cloth. Do not use ammonia based window cleaners to clean the product display windows.

To lower the electricity costs and minimize service, it is very important to clean the condenser regularly. The condenser is located at the front of the machine at the bottom. Remove the filter in front of the condenser (*Figure 40*). You can use compressed air or a vacuum to clean the condenser. A stiff brush can also be used, but brush lightly to prevent condenser fin damage (*Figure 41*).

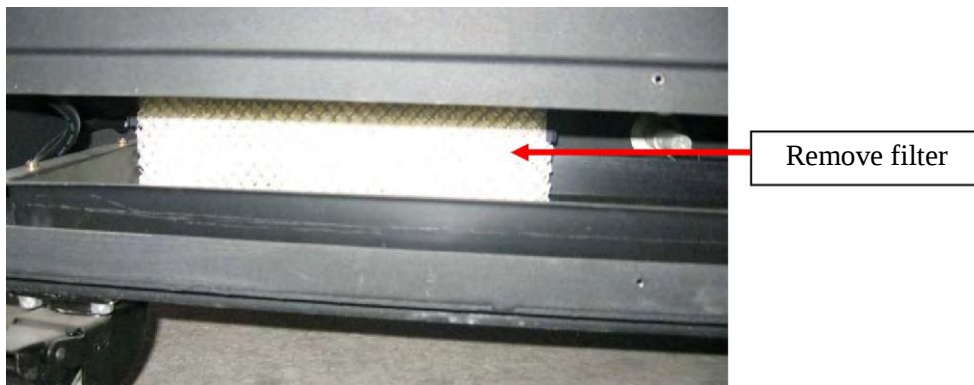


Figure 40 – Filter

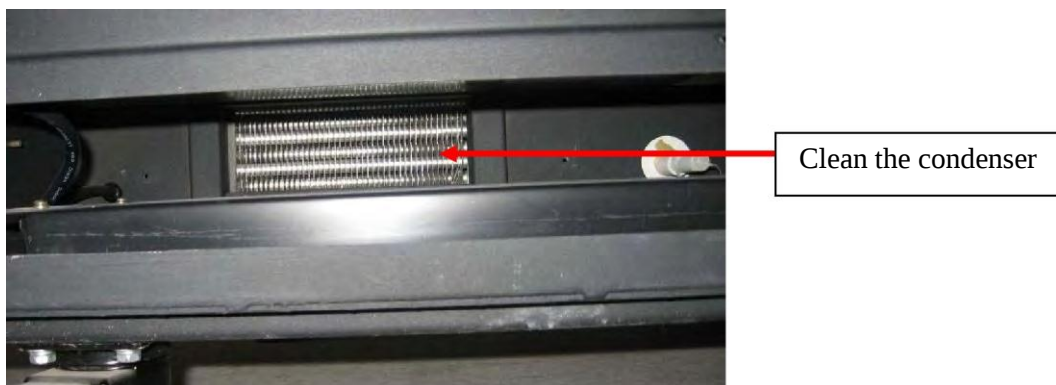


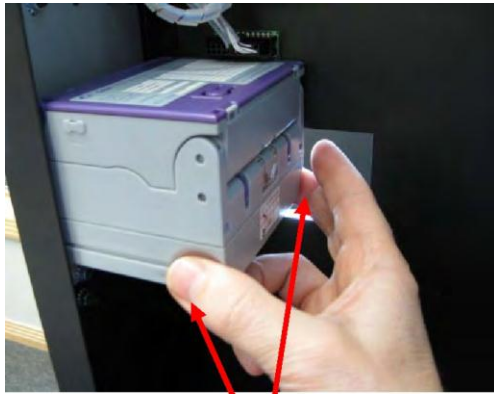
Figure 41 – Clean the condenser

5.1.2 – Clearing coin and bill validator jams

1. To clear jams on the bill validator, first turn off the ECU power switch. Then, push the two purple buttons on the bottom of the bill validator and pull the validator out. Then, press the two purple buttons on the front of the validator (arrows on Figure 42b instruct you to “Squeeze to Release”). Open the validator by pulling the front up like you were opening the hood of a car. Pull the top of the validator off. Remove the jammed bill and clean lenses and belts with a clean cotton cloth and WATER only.

2. Put the top back on the bill validator by lining up the hinge pieces in the back so the “hood is open”. Then close the validator until it clicks into place and the blue entry light comes on. Reinstall the bill validator by lining up holes in the validator with the guide pins on the machine and pressing the validator forward until it locks back into place.

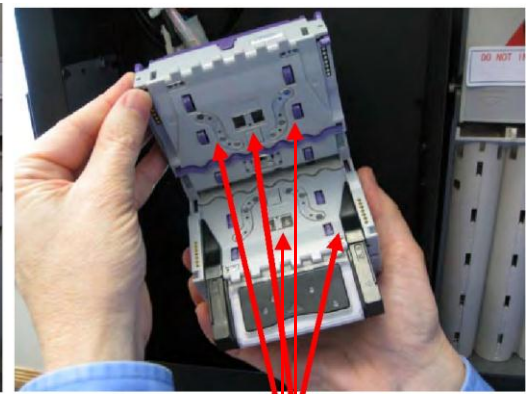
DO NOT use substances such as alcohol, gasoline, paint thinner, etc. to clean bill validator (Figure 43).



Push buttons to remove



Squeeze buttons to open



Clean lenses & rollers with a clean cloth and water

Figure 42a – Push buttons to remove. Figure 42b – Squeeze buttons to open. Figure 43 – Clean lenses & rollers with a clean cloth

3. To clear coin jams press the Coin Release Button. NOTE: This is **NOT** a coin “return” button.

5.2 Service and technical information

Your Refreshment Station is comprised of 3 subsystems. Each subsystem is dedicated to perform its own function. These subsystems are:

1. Electronic Control Unit
2. Vending Motors
3. Refrigeration unit

The following information will describe each subsystem and how to maintain and service it.

5.2.1 Electronic Control Unit

Electronic Control Unit components are mounted on the service tray and mounting plate at the side and back of the snack trays (Figures 44 and 45). To access the Electronic Control Unit, unlock the lock at the top, and pull on the bottom or sides to slide it out away from the vending cabinet. This gives you access to the service tray. To access the mounting plate containing the power supply, open the back door.

The Electronic Control Unit consists of the following components:

- ☐ LCD display
- ☐ Keypad
- ☐ Keypad terminal board
- ☐ Bill validator
- ☐ Coin changer
- ☐ Master (main) circuit board
- ☐ Service button
- ☐ Power supply

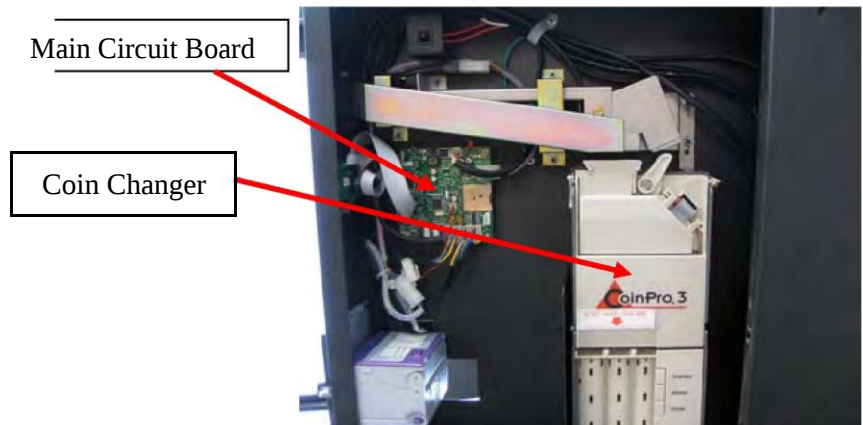


Figure 44 – Components in the Electronic Control Unit

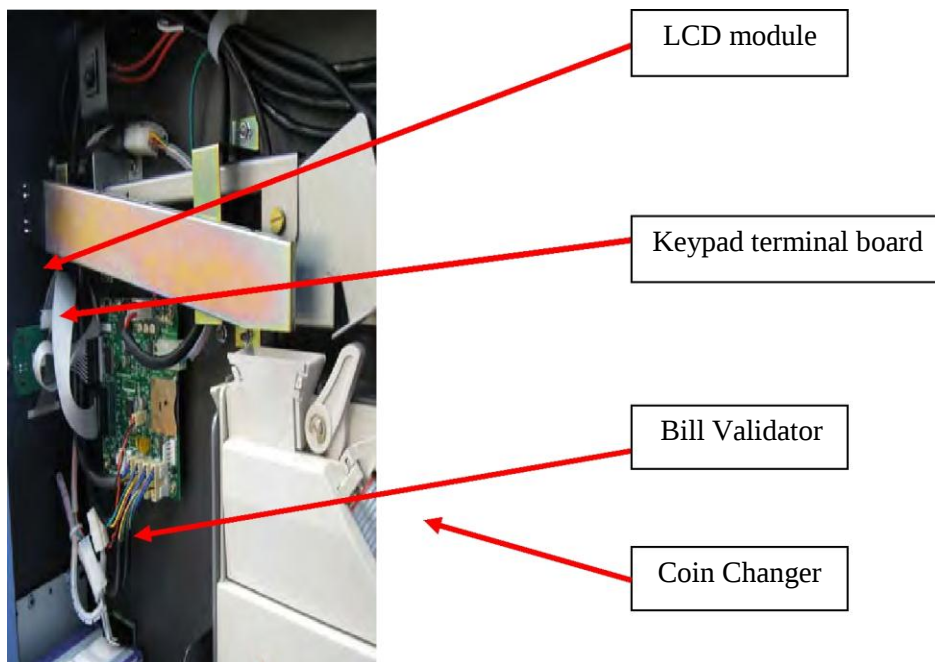


Figure 45 - Components in the Electronic Control Unit

All the components may be removed independently. To remove any components, follow the instructions below:

1. Turn off the ECU Power Switch or unplug the power cord first
2. Disconnect all connectors from that component
3. Remove the mounting screws
4. Remove the component for service or replacement

5.2.2 – Vending motor

The machine vends products by using a gear motor connected to a spiral.

How to remove a snack or candy motor:

- a. Open the back door on the vending machine (*Figure 47*)
- b. Select the defective motor that requires replacement
- c. Remove the harness connector and the 4 mounting screws (*Figure 48*)

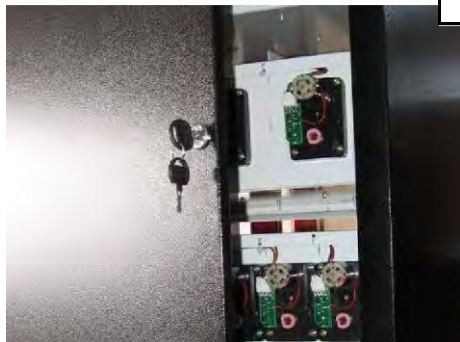


Figure 47- Open the back door

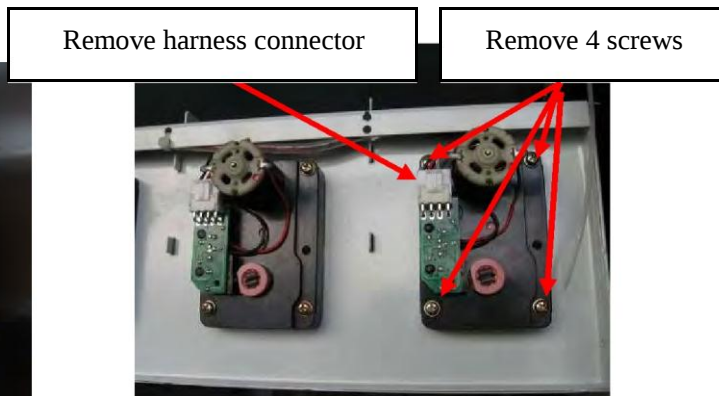


Figure 48 – Removing the motor

How to remove a beverage motor:

In the beverage compartment, the motors are mounted behind the protective covers

- a. Remove the protective cover (*Figure 49*)
- b. Select the defective motor that requires replacement
- c. Remove the harness connector and the 4 mounting screws (*Figure 50*)

Notes:

While installing replacement motors for B01-B03, make sure to have the copper sheath aligned as shown in the picture. The copper sheath must be held in the recess of the vend plate (Figure 51). The bottle holders for B04-B06 must face down at one end and face up at the other end (Figure 52).



Figure 49 – Remove protective cover

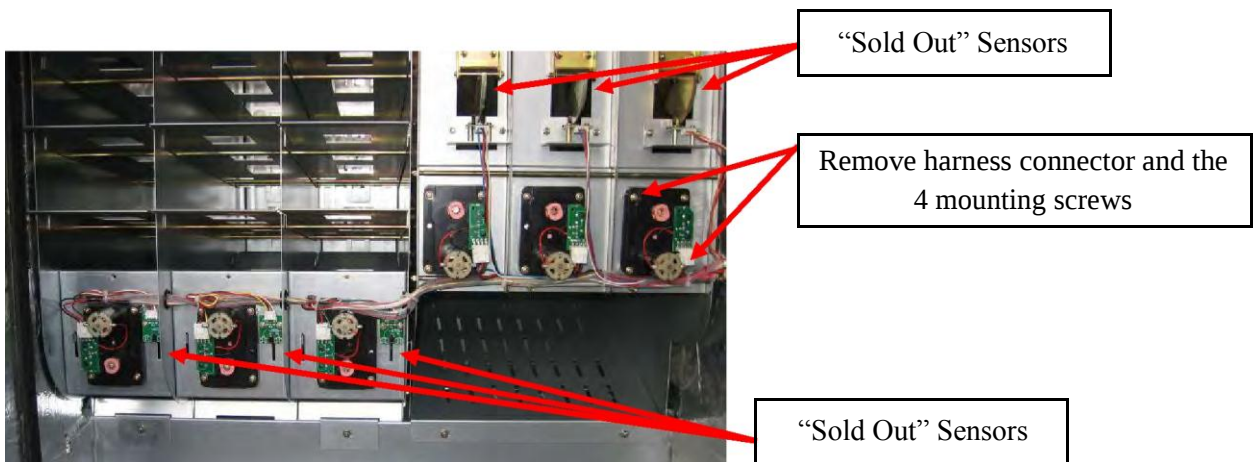


Figure 50 – Removing the beverage motor

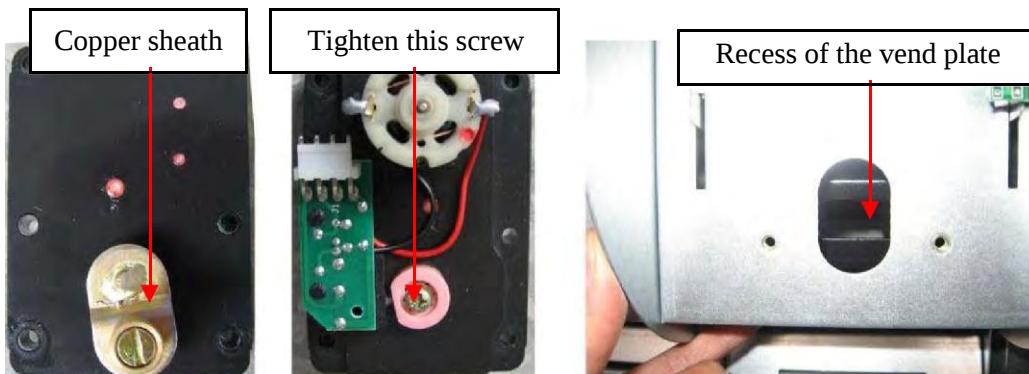
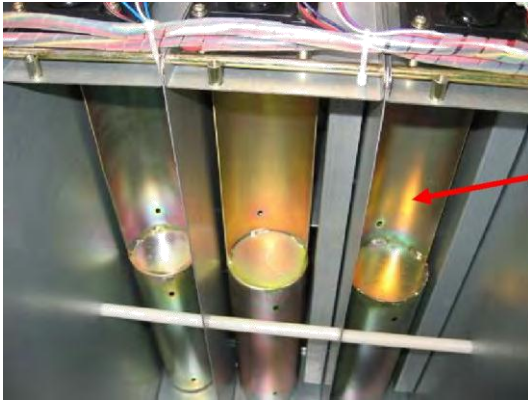


Figure 51



Bottle holder at dispense position face down

Figure 52

5.2.3 - Refrigeration unit

The refrigeration unit is located at the lower back of the machine. It is completely self-contained. You can adjust the RC-850 (beverage machine) temperature by turning the temperature control screw clockwise (1/8" at a time) for a colder setting (Figure 53).



Temperature control

Figure 53 – Temperature control

If there is a service problem: (Figure 54)

1. Unplug the power cord
2. Remove the protection grid plate
3. Disconnect the power plug
4. Remove the mounting screws
5. Pull the refrigeration unit out by pulling the handles toward you.

Note:

If after extended use, the refrigeration unit needs to be serviced, we recommend sliding a “dull” thin blade over the cooler chamber. That will break the seal between the rubber gasket and the metal surface and allow the unit to slide out easier.

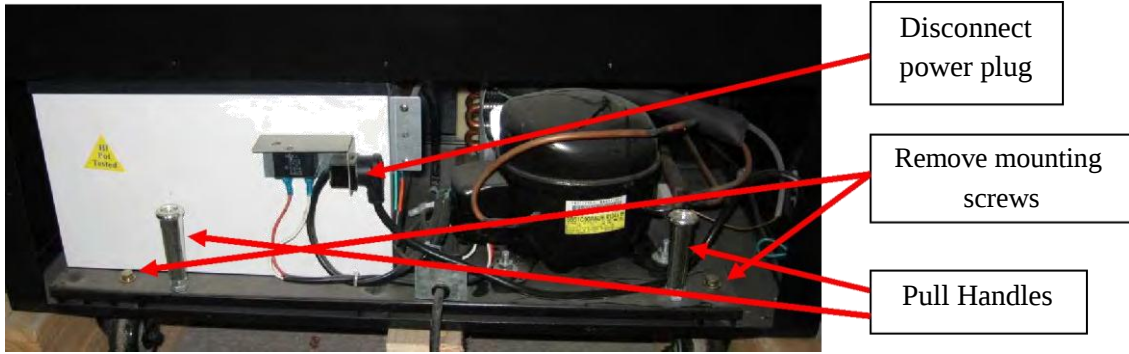


Figure 54 – Removing the compressor