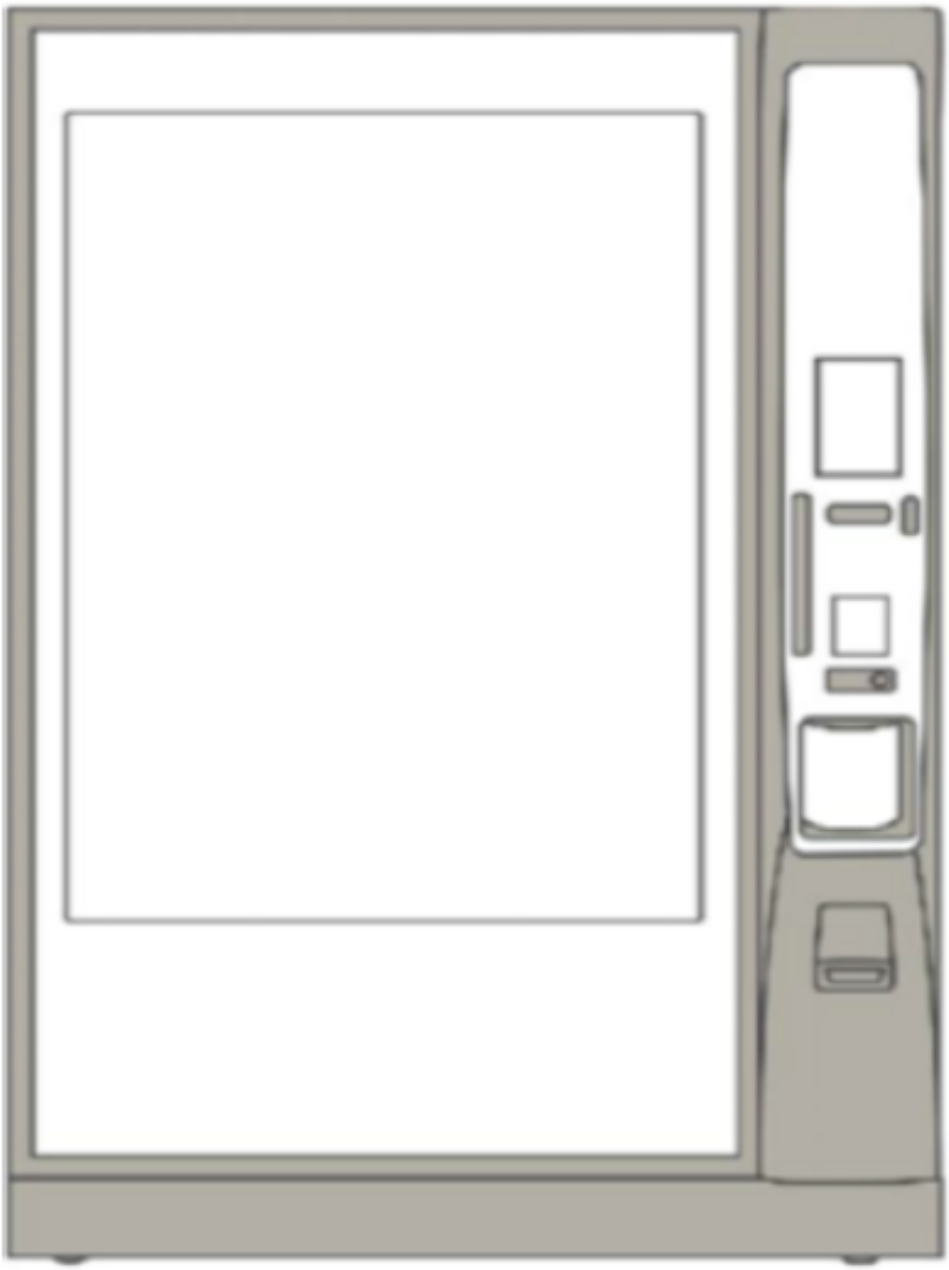
CRANE MERCHANDISING SYSTEMS

BevMAX Refresh 6 Media

Operations Guide

Models 5800-6 / 3800-6 - 5800-6HC / 3800-6HC



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CRANE

Table of Contents

Cautions & Warnings

High Voltage Warning / Electrical Warning Danger electricity, electric shock.

A Generic Warning.

Hazard Warning: Beware of moving machinery – Entanglement hazard. Keep hands, loose clothing, and long hair away from moving parts.

If the vender is equipped with a refrigeration unit containing R290 refrigerant, the following warnings and procedures apply:

DANGER: Propane gas (R290) is flammable, odorless gas. While working on a machine, no smoking and no open flames should be permitted.

The charge amount in this machine is 114 grams of R290 refrigerant. The lower flammability limit (LFL) of R290 is 38 grams. At three times the LFL (3 x 38g = 114g), this machine meets all applicable UL and ASHRAE placement conditions

Use caution when handling, moving, and use of the vender to avoid either damaging the refrigerant tubing, or increasing the risk of a leak. Do Not Puncture Refrigerant Tubing or use any tools in the vicinity of the exposed tubing.

CAUTION: Propane gas (R290) is heavier than air and odorless. It may displace oxygen and cause rapid suffocation. In the event of an accidental release, evacuate, then ventilate the area. Do not permit any ignition sources to approach until the area has been safely ventilated.

Servicing shall be done by factory authorized service personnel who have been properly trained so as to minimize the risk of possible ignition due to incorrect parts or improper service, including the use of proper parts.

GENERAL INFORMATION

VENDER SAFETY PRECAUTIONS

Please read this manual in its entirety. This service information is intended for use by a qualified service technician who is familiar with proper and safe procedures to be followed when repairing, replacing or adjusting any Crane Merchandising Systems vendor components. All repairs should be performed by a qualified service technician who is equipped with the proper tools and replacement components, using genuine Crane Merchandising Systems factory parts. This Vendor should only be used by those individuals that have a clear understanding of how to operate a vending machine in a safe manner.

Warning

REPAIRS AND/OR SERVICING ATTEMPTED BY UNQUALIFIED PERSONS CAN RESULT IN HAZARDS DEVELOPING DUE TO IMPROPER ASSEMBLY OR ADJUSTMENTS WHILE PERFORMING SUCH REPAIRS. PERSONS NOT HAVING A PROPER BACKGROUND MAY SUBJECT THEMSELVES TO THE RISK OF INJURY OR ELECTRICAL SHOCK WHICH CAN BE SERIOUS OR EVEN FATAL.

PRODUCT IDENTIFICATION

First production of BevMAX Refresh Media 5800-6/3800-6 Domestic and BevMAX Refresh Media 5800-E6/3800-E6 Export Venders with new electronics platform was May 2020. The production date of Crane Merchandising Systems products is now determined by the date code incorporated in the serial number.
The Machine serial number incorporates the build date, in the format:

11yymmddxxxx

11 indicates the BevMAX model, yymmdd is the year, month, & date of production, and xxxx is a sequential build number.

CE Mark & IIA DECLARATION

An updated CE Mark or IIA Declaration document can be provided upon request: If needed please contact Technical Support Manager in Williston, SC. Phone: 1- 803-266-5001 or email service@cranems.com.

PHYSICAL CHARACTERISTICS

BEVMAX REFRESH 6 MEDIA	5800-6 5800-E6 5800-6HC	3800-6 3800-E6 3800-6HC
HEIGHT	72” (182.88 cm)	72” (182.88 cm)
WIDTH	47” (119.38 cm)	39” (99.06 cm)
DEPTH CABINET	32” (81.28 cm)	32” (81.28 cm)
DEPTH WITH SERVICE DOOR	33.5” (85.09 cm)	33.5” (85.09 cm)
BASE	3.5” (8.89 cm)	3.5” (8.89 cm)
SHIPPING WEIGHT	720 lbs. (326.59 kg)	TBD lbs. (TBD kg)
Noise Level	Operates at 65db.	
Glass door width is 37.5” (95.25 cm) 5800’s, 28.1” (71.37 cm) 3800’s, height is 68” (172.72 cm) both.		

INSTALLATION & SETUP

RECEIVING INSPECTION

DO NOT STORE THE VENDER OUTSIDE.

Upon receipt, inspect the Vender for any shipping damage. If there is any damage, have the delivery driver note the damage on the bill of lading and notify Crane Merchandising Systems Customer Service. Although the terms of sale are FOB shipping point, which requires the consignee to originate shipping damage claims, Crane Merchandising Systems will gladly help if you must file a claim.

UNPACKING THE VENDER

Remove the stretch wrap, fiberboard edge protectors and corrugated front protector from the outside of Vender.

Do not store the Vender with stretch wrap on. Stretch wrap could bond to the Vender’s surface, which could damage the finish.

Remove the shipping boards from the bottom of the Vender. The shipping boards are attached by the leveling legs. To avoid unnecessary damage to the leveling legs or base, remove the shipping boards by using a 1-1/2 inch or 38 mm socket type wrench to unscrew the leveling legs. Be sure to replace the legs after removing the shipping boards. Once the skid boards are removed there is 3” (7.62 cm) from base flange to the floor with the leveling legs screwed all the way in.

Once the Vender is unpacked, check the “200” Tray area for any additional parts, labels, or other information concerning factory-equipped accessories such as Coin Mechanism, Bill Acceptor and Cashless Devices.

It is recommended the Vender be vend tested before shipping to the location. See INITIAL PROGRAMMING section of this guide.

WARNING: TO AVOID THE POSSIBILITY OF A FIRE HAZARD, DO NOT STORE ANYTHING OR ALLOW DEBRIS OF ANY KIND TO ACCUMULATE IN THE BOTTOM OF THE SERVICE AREA, IN AND AROUND THE REFRIGERATION COMPARTMENT OF THE CABINET, OR IN FRONT OF THE EVAPORATOR AND CONDENSER COILS.

WARNING: ENSURE THAT POWER IS DISCONNECTED FROM THE VENDER BEFORE INSPECTING OR REPLACING LAMPS, OTHER ELECTRICAL COMPONENTS, OR WORKING WITH OR ADJUSTING THE VENDING MECHANISM. FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY SUBJECT THE USER TO THE RISK OF ELECTRICAL SHOCK OR MECHANICAL INJURY, WHICH CAN BE SERIOUS OR FATAL.

ELECTRICAL POWER NEEDED

Refer to the Machine serial number plate to determine the correct voltage and frequency. In the US and Canada this is 120Vac, 60Hz, 1P. In Europe, Australia, and other export countries, this is 220/230/240Vac, 50Hz, 1P depending upon your country voltage. The serial plate also specifies the ampere rating of the Machine. This Machine must be plugged into a properly rated receptacle with its own circuit protection (fuse or circuit breaker).

Equipment Nominal Power Requirements -
120V / 10.2 A = *1224W (1.224kw)
220V / 5.8 A = *1276W (1.276kw)
240V / 5.8 A = *1392W (1.392kw)
*Note: Watts = V x A

POWER SUPPLY CORD and GROUNDING REQUIREMENTS

In accordance with the National Electrical Code and Underwriters Laboratories Inc., Domestic Vending Machines are equipped with a three-wire Power Supply Cord and Ground Fault Circuit Interrupter (GFCI). The GFCI device is provided as part of the Power Supply Cord and is either incorporated directly into the plug or mounted on the cord adjacent to the plug.

WARNING

- The **GFCI** protects against current leakage caused by ground faults. The GFCI is not designed to protect against over current or short circuits.

- **DO NOT** use the TEST and RESET buttons on the GFCI as an ON/OFF switch.
- The Vending Machine supply cord **MUST** be plugged directly into a properly grounded, 3 wire receptacle that is properly protected by a fuse or circuit breaker. If the receptacle will not accept the power cord plug, it must be replaced with a properly grounded, 3 wire receptacle in accordance with the National Electrical Code and Local Codes and Ordinances. The work should be done by a qualified electrician.
- **DO NOT USE A 3 WIRE TO 2 WIRE ADAPTOR.**

DO NOT REMOVE THE GROUND PIN ON THE PLUG OR IN ANY WAY BYPASS, MODIFY, DEFEAT, OR DESTROY THE GROUNDING SYSTEM OF THE VENDING MACHINE.

DO NOT USE WITH AN EXTENSION CORD!

DO NOT REMOVE THE WARNING TAG ATTACHED TO THE POWER SUPPLY CORD.

The GFCI must be tested frequently and before each use in accordance with the instructions provided on the GFCI device. **IF THE GFCI DOES NOT PASS THE TEST, DO NOT USE THE MACHINE**. Unplug the supply cord from the receptacle and call the Crane Merchandising Systems Technical Support Group for assistance at 1-803-266-5001. It is recommended that the Machine be located so that the GFCI device will be accessible after the Machine is installed. After installation, visually inspect the GFCI and power supply cord to be sure it is not crushed, pinched, or stretched. Protect the power supply cord during transportation and use. Periodically inspect the power supply cord for damage. If the cord or plug is worn or damaged, it must be replaced with a power supply cord of the same type, size and specification as originally provided with the Machine.

DO NOT USE THE VENDING MACHINE UNTIL THE WORN OR DAMAGED CORD IS REPLACED.

FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY SUBJECT THE USER TO THE RISK OF INJURY OR ELECTRICAL SHOCK WHICH CAN BE SERIOUS OR FATAL. PERIODICALLY INSPECT THE POWER SUPPLY CORD FOR DAMAGE. IF THE CORD BECOMES DAMAGED IT MUST BE REPLACED WITH THE SAME SIZE AND TYPE CORD. CONTACT CRANE MERCHANDISING SYSTEMS FOR ASSISTANCE.

PRIOR TO INITIAL POWER UP

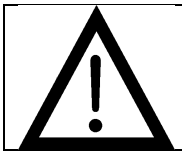
Open the Service Door on the right side using the Key provided in the coin return cup, or if shipped with a locking clip, remove the clip and install the lock. Ensure there is no power to the AC Distribution Box. On Venders with a main power switch on the AC Distribution Box the switch needs to be in the OFF position. On Venders with a main power quick disconnect plug on the AC Distribution Box the quick disconnect plug needs to be unplugged. Check that all connectors are firmly seated on the Media Atlas H Board and at the various Peripheral Boards:

- Environmental Board
  - Refrigeration control
  - Lighting control
- Port Board
  - Port Motor
  - Port Product Sensor
- Cup Motor Board
  - Cup Motor
  - Cup Product Sensor
- X Motor Board
  - X Motor
- Y Motor Board
  - Y Motor

Retrieve the main power plug from the hole in the rear of the Vender and plug the cord in a properly grounded 120VAC, 15 Amp receptacle (U.S. and Canada). Open the Service Door and apply power to the AC Distribution Box (if equipped with a Bill Acceptor, the Acceptor should cycle twice). The LED Light Assemblies should illuminate and the cooling unit should start. If the Display shows "OUT OF SERVICE", or the cooling unit fails to start, refer to the TROUBLESHOOTING SECTION of this guide.

PLACING THE VENDER ON LOCATION

!! CAUTION !!



DO NOT TRANSPORT THE VENDER TO OR FROM THE LOCATION LOADED WITH PRODUCT OR DAMAGE TO THE VENDER MAY RESULT.

The Vender is intended for **INDOOR USE ONLY.** It should be kept out of direct sunlight and away from any heat source. This Machine is not suitable for installation in an area where a water jet or hose and nozzle may be used.

The Vender must be on a solid, flat and level surface. Ensure the flooring can bear the weight load of a fully loaded Vender (approximately 1109 lbs. or 503 kg). The Vender must be positioned close enough to an electrical outlet so that an extension cord is not required. If the Machine will be subject to user misuse or vandalism, it is recommended that the Vender be secured to the floor or wall as described in Crane Merchandising Systems Technical Bulletin 344. Due to the large size and weight of the Vender, never attempt to move the Vender with a Hand Truck or Stair Climber. Use a pallet jack or Vender/Cooler Dollies at all times when moving the Vender. The Vender should never be slid or pushed in place. Never side load the leveling legs; doing so will cause damage to the legs. Do not transport the Vender to or from customer locations loaded with product, as damage may result due to excessive weight. Be sure to test Vender for proper operation before putting in to service on location. Call the Crane Merchandising Systems Technical Service Department or your Crane Merchandising Systems Representative for assistance.

ACCEPTABLE AMBIENT OPERATING TEMPERATURE RANGE

BevMAX Refresh 6 Media Models 5800-6/3800-6 equipment manufactured by Crane Merchandising Systems is designed to work properly in a temperature range of 75°F to 90°F (23°C to 32°C) 65% R.H.

LEVEL THE VENDER

Adjust the front leveling legs, ensuring that an even gap exists between the glass door and the top security angle and receiver box, and then level the Machine front to rear. A carpenter's level will help verify that the Vender is

level. Leveling legs are adjusted using a wrench or socket 1 ½" or 38 mm in size. If the Vender is to be used in a bank of equipment, check the top and sides for proper alignment. If you are unable to properly level the Vender, select an alternate location. NEVER PLACE OBJECTS UNDER THE LEVELING LEGS OF THE VENDER.

DANGER

THE VENDER MUST BE PROPERLY LOCATED AND LEVELED. IF THE MACHINE WILL BE SUBJECT TO USER MISUSE OR VANDALISM IT IS RECOMMENDED THAT THE VENDER BE SECURED TO THE FLOOR OR WALL AS DESCRIBED IN CRANE MERCHANDISING SYSTEMS TECHNICAL BULLETIN 344 TO MINIMIZE THE RISK OF INJURY OR DEATH FROM TIPPING. CALL THE CRANE MERCHANDISING SYSTEMS TECHNICAL SERVICE DEPARTMENT OR YOUR CRANE MERCHANDISING SYSTEMS REPRESENTATIVE FOR ASSISTANCE.

LOCATE THE VENDER

Do not block the rear of the Vender. Maintain a minimum of 4 inches (10 cm) from the wall to ensure adequate airflow through the condenser and compressor. At the rear of the Vender, make sure nothing obstructs the air exhaust at the back of the Machine.

WARNING

TO AVOID THE POSSIBILITY OF A FIRE HAZARD, DO NOT STORE ANYTHING OR ALLOW DEBRIS OF ANY KIND TO ACCUMULATE IN THE BOTTOM OF THE MACHINE, IN THE BOTTOM OF THE SERVICE AREA, IN AND AROUND THE REFRIGERATION COMPARTMENT OF THE CABINET, OR IN FRONT OF THE EVAPORATOR AND CONDENSER COILS.

INSTALLING PRICE LABELS

Pricing labels when ordered will be included with additional parts, labels, and information placed in Tray "200s" during shipment. Remove the pricing label sheets from the Tray and gently remove the label corresponding to the vend price of each selection by tearing at the perforation. The label is installed at the top of the front knuckle. Once installed, push the label firmly against the front of the knuckle. This will ensure the label is locked in place.

INSTALLING PRODUCT ID CARDS

To assist with consistent loading, product ID cards can be installed in the product pusher to designate to the route driver which product the column is set for. To install the flavor card, simply detach it from the sheet at the perforation and slide it into the slots in the product pusher. Contact your graphics supplier to purchase as needed.

COIN CHANGERS & OTHER ACCESSORIES

The Vender can have an MDB Coin Changer installed and can have an MDB Bill Acceptor installed as well. Note: BevMAX Refresh 6 Media Models 5800-6/3800-6 will work with an MDB Bill Acceptor only. If the MDB Coin Changer and other MDB accessories are not factory installed, refer to the instructions received from the manufacturer of the MDB Coin Changer and other MDB accessories for proper set-up and installation.

The Vender will support the following Domestic MDB Coin Changers:

All available CPI/MEI MDB
All available Conlux MDB
All available NRI MDB
All available Coinco MDB

The Vender will support the following Domestic MDB Bill Acceptors:

All available CPI/MEI/Mars MDB
All available Conlux MDB
All available Cashcode MDB
All available Coinco MDB

The Vender will support MDB Card Readers.

The Vender supports Swipe/Tap for Cashless Vending.

"Select then Pay" workflow for purchasing product is also implemented for both Cash and Cashless operations.

SETTING THE TEMPERATURE CONTROL

This Vender is equipped with an electronic Encapsulated Temperature Sensor. Defrost is controlled both electronically based on run time of the compressor and with a manual Defrost Thermostat. The Temp Sensor is factory pre-set to maintain a cabinet temperature of 37º Fahrenheit (2.7ºC). It is also a good practice to ensure the proper operating temperature prior to installing the Vender on location. To set the temperature, go to System Settings > Refrigeration Settings > Refrigeration Set Point, and adjust the Refrigeration Set Point as necessary. Press Accept to lock in any changes or Cancel to exit without making changes.
The manual Defrost Thermostat is located in the bottom left of the service area. The Defrost Thermostat is preset and is not adjustable.

LOADING THE VENDER

CAN/BOTTLE DRINK TRAYS
The BevMAX Refresh 6 Media 5800-6/3800-6 Vender does not require spacers or shims to vend most packages. Load product in each column one package at a time insuring that the package being loaded is in front of the product pusher. Ensure that the package is stable within the column (doesn't move excessively from side to side). After loading the Vender, test vend each column to ensure proper operation. Please contact a Service Representative or refer to the proper Technical Publication for any special settings you may need.

LOADING COIN CHANGER TUBES

Prior to placing the Machine in service, you must add an initial amount of change to the Coin Mechanism to prevent a "Use Correct Change" condition. Initial loading of coins should be done with the steps below to ensure the Coin Mech accurately counts all change available for payback to the customer. *Recommended minimum amount is $17.00 (1 roll each of 5¢, 10¢, 25¢ coins).* This minimum amount of change should remain in the Machine at all times.

To initially load the Coin Mech:

1. Enter the required PIN: 3333.
2. Touch the Monetary Menu Bar on the Screen.
3. Touch the Coins In/Out Menu Bar.
4. Increase the amount of Change Available by inserting coins thru the chute on the top of the Coin Mech. Totals (count and value) for each coin should increase as coins are added.
5. Press the left arrow to exit and return to the Monetary Menu.

For additional information about the Coin Mechanism, refer to the manufacturer's instructions.

R290 SERVICE NOTES

• The serial tag on an R290 machine will identify it as containing R290 refrigerant.
• Multiple warning labels describing **Cautions** and **Warnings** have been placed on various locations on and within the machine.
• The process tubes on the refrigeration deck are **red** indicating it contains R290.
• The drain pan on R290 refrigeration decks are **green** identifying it as using a Green refrigerant.
• All motors within the refrigerated space are brushless motors and are **not** interchangeable with motors from BevMax machines using alternate refrigerants.

TECHNICIAN WORK PROCESS IN THE EVENT OF A REFRIGERANT LEAK IN AN R290 UNIT

If a complaint is received that a refrigerated unit containing R290 (Propane) is not chilling (drinks aren't cold, drinks don't get cold within x hours, etc.), any service work requires the proper precautionary steps in advance of approaching or servicing the machine.
Servicing shall be done by factory authorized service personnel who have been properly trained so as to minimize the risk of possible ignition due to incorrect parts or improper service, including the use of proper parts.

These steps should be followed in the order in which they are provided here. No steps should be skipped.
1) Advise the location owner/operator that you will be on site performing service on the machine.
2) Scan the area for any potential sources of ignition and disable or eliminate them.
3) A plainly visible placard advising "No Smoking or Open Flame" should be positioned to be readily seen and obeyed by any local foot or vehicle traffic, including forklifts.
4) A properly rated fire extinguisher should be present, and available.
5) Turn on an appropriate leak detection unit for use w/ flammable gases. The detection device should remain functional for entire duration of the service event. If the service event requires removal of the refrigeration unit, the leak detector should remain operational until the refrigeration unit has been removed from the building.
6) As you approach the machine, sweep the lowest level of the floor, as propane is heavier than air, and will sink. Be aware of depressed pockets or spaces that might have collected residual gas after it has escaped.
7) If no gas is detected, the leak detector must remain operational, while the machine and/or unit is subjected to the troubleshooting process.
8) If minimal refrigerant gas is detected, a properly rated, ignition proof fan to circulate the air should be placed to provide ventilation or exchange of the air in the area around the machine, or bank of machines.
9) Using extreme caution, open the doors on the machine, one at a time, while continuing to hold the leak detector close to the floor. If a leak has occurred in the evaporator portion of the refrigeration units, any gas that has escaped, would be circulating in the chilled compartment. Exercise caution when opening the glass door as any gas will rapidly drop to the level of the floor.

THE REFRIGERATION UNIT IN THIS MACHINE DOES NOT CONTAIN ANY USER SERVICEABLE PARTS.

In the event of any failure the entire unit must be returned complete to Crane Merchandising Systems. Due to the presence of flammable refrigerant, ground shipment must be used for transportation only.

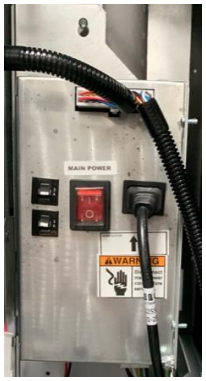
Onsite repair of the sealed system, including evacuation of the unit, recharging, brazing, soldering or any other heat producing method, is strictly prohibited. These tasks must only occur in a facility specifically equipped to handle flammable refrigerants.

COMPONENTS

OMRON POWER SUPPLY 24V 150W

The New OMRON 24V 150W Power Supply is located inside the service area, mounted to the back wall below the AC Distribution Box. It has 3 outputs with each one being capable of 150W. Two of the outputs are wired into the AC Distribution Box. Each of the outputs are fused at 75W by the circuit breakers in the AC Distribution Box Assembly. It contains a Board with Green Status Light that illuminates when power is present. This OMRON 24V 150W Power Supply is common across all New Electronics Platform BevMAX Refresh Domestic, Export, Classic (BevMAX 4), and Media (BevMAX 6) models. The OMRON Power Supply receives AC voltage via the AC Distribution Box. The OMRON Power Supply converts the AC voltage to the main operating DC voltages of the Vender (24VDC).

POWER AC DISTRIBUTION BOX



The AC Distribution Box is located inside the service area, mounted to the back wall above the OMRON Power Supply. It is where the 120VAC or 220VAC input voltage is sent to the Refrigeration Unit & Condenser Fan, Evaporator Fan, and OMRON Power Supply which converts the AC voltage to the main operating voltages of the Vender (24VDC).
The main operating voltages are sent to the AC Distribution Box. It contains an independent Environmental Board for improved troubleshooting and to distribute AC power to the Compressor, Evaporator/Condenser Fans, and DC power to the Media Atlas H Board, LED Lighting and Encapsulated Temperature Sensor. The Compressor, two vertical side LED Light Strips, and the Encapsulated Temperature Sensor are not powered up when the Machine turns on. The Compressor turns on 2 minutes after the Machine is powered on. The two side LED Light Strips, Evaporator Fan, and Encapsulated Temperature Sensor turn on when the Environmental Board begins to communicate to the Media Atlas H Board. Two 3 Amp circuit breakers protect the 24VDC supply. One is for the Cabinet and the other is for the Door electronics. This AC Distribution Box is common across all New BevMAX Refresh Domestic, Export, Classic (BevMAX 4), and Media (BevMAX 6) models.

MEDIA ATLAS H BOARD & 5 PERIPHERAL CABINET CONTROLLERS

Media Atlas H Board is the heart of the Vender and is located on the inside top of the Service Door. It is USB flash programmable and updates all Peripheral Boards which control all aspects of the Vender (includes AC Distribution Box Environmental Board, Cabinet X Motor Control Board, Y Motor Board, Port Board, & Cup Motor Board). All voltage in the Media Atlas H Board and Peripheral Boards are 24VDC, 5VDC, or 3.3VDC.

Environmental Board – controls the Refrigeration Unit & Condenser Fan, Evaporator Fan, LED Lighting, Encapsulated Temp Sensor, and 24VDC & 5VDC power distribution.

X Motor Board– controls X Motor movement and reads the X Home Switch.
Y Motor Board– controls Y Motor movement and senses the Y Home Switch signal.
Note: The X & Y Motor Board are the same Board but with their own specific software.

Port Board – controls the Port Vend Sensor, Port Open & Close Sensors, & the Port Motor.

Cup Motor Board – controls the Delivery Cup Sensor, Picker/Plunger Home & Out Switches, and the Cup Motor. The Y Home Switch plugs into the Cup Motor Board and sends the switch signal on to the Y Motor Board.

Each of the 5 Peripheral Boards have a Green Status Light. Various lighting patters are used to indicate the status of the individual Peripheral Boards. They include:

Power on / Reset – a slow brightening and then slow diming of the Green Status Light that takes 3 to 5 seconds to complete. This happens once each time the Peripheral Board is powered on and/or reset. If the Green Status Light slowly brightens and dims continuously indicates the software was not loaded properly.

Heartbeat – a heartbeat of the Green Status LED starts right after the "power on / reset" indication and continues until the peripheral first receives a message from the Media Atlas H Board. Once a message is received from the Media Atlas H Board the heartbeat will not be shown again. *Note: on a BevMAX Refresh 6 Media Machine, the heartbeat is almost never actually seen because the Media Atlas H Board starts talking to the Boards within a few seconds of powering on.*

Fast blinking – a fast blinking Green Status Light (on and off 7 times per second) indicates that the Peripheral Board is receiving communication from the Media Atlas H Board and sending a response. Note: Just because a response is being sent to the Media Atlas H Board doesn't necessarily mean the Media Atlas H Board is receiving it. There could be some defect that prevents the Peripheral Board response from reaching the Media Atlas H Board.

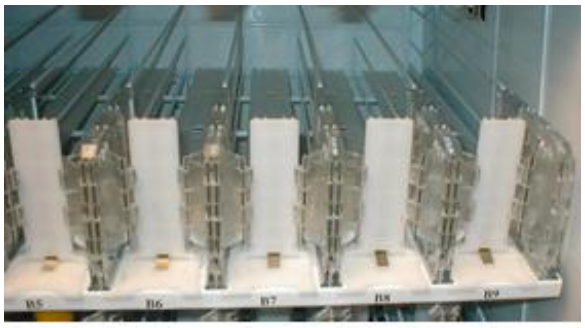
TOUCH SCREEN

The BevMAX Refresh 6 Media offers the latest capacitive Touch Screen technology providing scratch resistance, high durability and a rich consumer experience. It is an industrial Screen that can withstand medium/hard hits with a hammer similar to Gorilla Glass used in Mobile Phones. The Screen has full motion Video Capability, and is Self Calibrating. It provides instructions and information required by the customer to make a purchase, and is utilized in the Service Mode to set up the Machine.

DELIVERY PORT ASSEMBLY

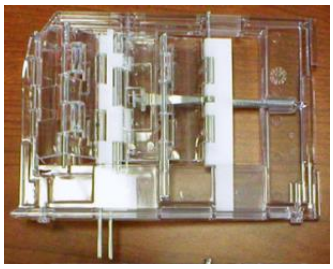
The Delivery Port Assembly is located on the Service Door. Its purpose is to position the product in the Assembly for the consumer to retrieve and to cancel vend. The Port Open and Closed Hall Effect Sensors located on the top of the Delivery Port have been implemented to eliminate moving parts that exist on mechanical switches to improve performance. The Brushed Port Motor, Hall Effect Open/Close Sensors, and Product Detection Sensor are driven by the independent Port Board.

SHELF / TRAY ASSEMBLY



Typically, there are 5 Shelf assemblies in every Vender; however, this may vary depending upon the configuration specified at the time of ordering. Each Can/Bottle Shelf consists of 9 or 7 columns. Each Shelf is capable of holding a variety of packages. The Shelf Assembly consists of the Tray, where all of the following parts are mounted: Double Gate Assembly and the Slide/Pusher Assembly. These items are discussed in detail below.

DOUBLE GATE ASSEMBLY (Can/Bottle Trays)



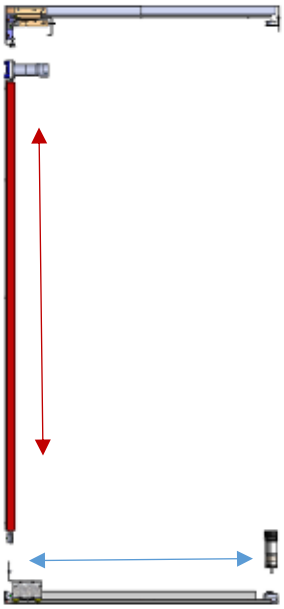
The Double Gate Assembly is mounted on the front portion of the Tray Assembly and contains the Vending Mechanism. Incorporated in the Gate Assembly are the Front and Rear Knuckle Assemblies as well as the Product Kicker. In standby operation, the Front Knuckle is in the blocking position, which holds the front displayed product in position to be vended. The Rear Knuckle Assembly is in a flat position, which allows product to enter the Gate area, and the Product Kicker is flush to the Rear Knuckle Assembly. A stainless steel pin is inserted through the rear most portion of the Front Knuckle Assembly and connects the Gear Box Assembly below the Tray. When a selection is made, the Plunger pushes the Target toward the back of the Tray. At the same time the Front Knuckle is opened into a flat position, the Rear Knuckle is closed to a blocking position, holding the remaining product out of the Gate area, and the Product Kicker is extended to firmly push the front displayed product off of the Tray. The Plunger is energized for approximately 1-½ seconds to allow ample time for the displayed product to be ejected from the Shelf. The Plunger is then released and the Front Knuckle returns to the blocking position, the Rear Knuckle and Product Kicker return to their standby position and the next product slides into the vend display position.

SLIDE/PUSHER ASSEMBLY *(Can/Bottle Trays)*

The Slide/Pusher Assembly is located on the bottom of each product column. Its purpose is to provide a slick, friction resistant surface for the product to rest on. A tall Product Pusher is mounted on the top of the Slide and incorporates a coil spring in the body that attaches to the bottom of the Slide through a slit. This spring adds needed tension to ensure that all products in the column remain tight against each other and are allowed to progress into the Gate area. Periodic cleaning and lubrication of the slides is recommended. **DO NOT USE SOLVENTS OR ABRASIVE MATERIALS TO CLEAN ANY PORTION OF THE TRAY.**

DELIVERY (PICKER) CUP ASSEMBLY

The Delivery (Picker) Cup assembly is located on the XY Vend Mechanism. Its purpose is to pick the product from the column and deliver the product to the Delivery Port Assembly. The Delivery (Picker) Cup Assembly is mounted on the Y Axis Assembly of the XY Assembly and bolts in position. The New Y Home Magnetic Switch located on the bottom of the Delivery Cup Assembly has been implemented to eliminate moving parts that existed on the previous mechanical switch to improve performance by eliminating Home Switch Errors caused by syrup and/or dirt build up in/on the mechanical Switch and Switch Arm. The Delivery Cup Brushless Motor, Y Home, Picker/Plunger Home & Out Switches, and product detection Sensor are driven by the independent Cup Motor Board.

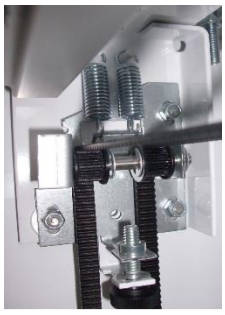


X AXIS ⟷

The X Axis runs horizontally or left to right. The X Axis Assembly is Cabinet mounted to prevent any Cabinet torque and has one belt to synchronize the top and bottom when the XY Assembly moves left or right. A top channel is used to contain and hide the X/Y E-Chain and wiring. The X Brushless Motor has an encoder for positioning and is driven by an independent Cabinet X Motor Control Board.

Y AXIS ↕

The Y Axis runs vertically or up and down and has the Delivery (Picker) Cup Assembly attached. A Y Belt Cover is used to contain and hide the Y E-Chain and wiring. The Y Brushless Motor has an encoder for positioning and is driven by independent Y Motor Board.



BELT TENSION ADJUSTMENT COMPONENTS

The Belt Tensioning Adjustment components have been revised to ease adjusting belts when needed. The X Belt Idler Tensioning Assembly in the upper left hand corner of Cabinet now includes a thumb screw. Adjustments should only be needed if a belt is replaced. The Bottom X Drive Tensioner Assembly in the lower right hand corner of cabinet has a plastic spring loaded tensioning wheel to keep the belt against the pulley when moving and does not require any adjustments.

REFRIGERATION SYSTEM

The Refrigeration System is a single piece unit and is hermetically sealed. The Model BevMAX Refresh Media 5800-6/3800-6 Refrigeration Units consist of a Super 1/3 Horsepower Compressor, with a single fin and tube style condensing unit with one Condenser Fan, Condensation overflow Pan with Soakers, Evaporator, and Evaporator Fan. . **The Model BevMax Refresh 6 5800-6HC/3800-6HC are charged with R290 refrigerant**. Both units will be clearly labeled to assist in identifying the refrigerant used The Refrigeration Unit is located behind the Refrigeration Unit cover panels, mounted in the bottom of the Machine. This unit is designed for easy removal and replacement from the front of the Vender as a complete assembly. An electronic Encapsulated Temperature Sensor regulates the Machine temperature. The probe of the Temperature Sensor is attached to the Evaporator Coils and reads the temperature of air being pulled to the Evaporator Coil.

REFRIGERATION DECK CLAMP ASSEMBLY

The Refrigeration Deck Clamp Assembly is located on the left side of the Cabinet base plate. Its purpose is to secure the Refrigeration System tight against the vertical base plate for refrigerated air flow in to the Cabinet. A 7/16" wrench or socket is needed to adjust the bolt. The Refrigeration Unit also has a locating pin on the bottom of the Refrigeration Unit base plate to ensure alignment for Refrigeration gasket seal to the vertical base plate.

WIRING notes:

The Vender wire harnessing has been reduced and is less complex. This improves wire routingthin the Service Door and the Service and Refrigerated Compartments of the Machine.

Simplified Harnessing to all 5 Peripheral Boards with easily identified color coding.

- RS 485 Communication Harness A common signal line – white wire
- RS 485 Communication Harness B common signal line – blue wire
- 24VDC Harness – red/green wire
- 5VDC Harness – yellow wire
- Ground Harness – black wire

PROGRAMMING

GENERAL INFORMATION

In order to fully utilize the many features of your Vender it is important that you first understand the options available and procedures for programming the Media Atlas H Board.
All programming, testing, and service functions are accomplished by using the Touch Screen in an easy to follow, Display prompted format. Closing the Service Door or activating the Service Door Switch (on the right side of Door Switch Bracket Assembly) will exit the function you are currently in and place the Vender back in service.
This guide explains the initial programming of the vender. For detailed information of the service menus refer to the BevMAX Refresh 6 Media Programming Guide.

NORMAL OPERATION MESSAGES

At initial power-up, the program will start and the Touch Screen will display Crane Merchandising Systems. It will then show Initializing, and approximately 60 seconds later the Sales Messages and Cabinet Temperature will appear. If you do not see a Cabinet Temperature or "--.-C" or "--.-F", check the Encapsulated Temperature Sensor. "Out of Service" is a communication issue with one or more of the Peripheral Boards; X Motor Board, Y Control Board, Cup Motor Board, and/or Port Board.

INITIAL PROGRAMMING

1. The software version is shown on the bottom of the Touch Screen anytime you are in the Service Mode. The software version can also be displayed by pressing the Firmware Information Menu Bar in the Service Mode.
2. Later versions of software may not contain all the same Menus and/or Options. Some Menu Items may also be in different places within the Menus and may program differently.
3. This Programming Guide is specific about what Icons or Menu Bars to touch within the Modes. When certain Menu Items are enabled and disabled additional Menu Items may appear or disappear. Most of the time this Guide will be correct but rely on the Display for the correct Icons or Menu Bars to touch.

MENUS THAT MUST BE SET UP BEFORE OPERATING THE MACHINE:

1. When opening the Service Door on the Machine you will be prompted for a PIN, entering 3333 on the Touch Screen keypad will place you in the Operator/Technician Main Menu.
2. To Set the Prices touch the Price Menu Bar in the Operator/Technician Main Menu.
3. Make sure the Shopping Cart Size (max 3) and Shopping Cart Max Value is set to 3 times the highest price, from Operator/Technician Main Menu touch Product Configuration > Shopping Cart Setup.
4. Verify your Coin Mechanism, Bill Validator and Card Reader are enabled, from Operator/Technician Main Menu touch Monetary Menu.
5. Enable the bills you want to accept in the Monetary Menu > Bill (Note) Acceptance.
6. To set the Time and Date, from Operator/Technician Main Menu touch System Settings > Set Time and Date.
7. To set Refrigeration Set Point, from Operator/Technician Main Menu touch System Settings > Refrigeration Settings > Refrigeration Set Point and adjust the Refrigeration Set
   Point as necessary. Press Accept to lock in any changes or Cancel to exit without making changes.
8. Prior to placing the Machine in service, you must add an initial amount of change to the Coin Mechanism to prevent a "Use Correct Change" condition. Initial loading of coins should be done with the steps below to ensure the Coin Mech accurately counts all change available for payback to the customer. *Recommended minimum amount is $17.00 (1 roll each of 5¢; 10¢; 25¢ coins).* This minimum amount of change should remain in the Machine at all times.

Adding Initial Change Load

1. Enter the required PIN: 3333.
2. From the Operator/Technician Main Menu touch the Monetary Menu Bar on the Screen.
3. Touch the Coins In/Out Menu Bar.
4. Increase the amount of change available by inserting coins in the chute on the top of the Coin Mech. Total count for each coin and value of the coin accepted should increase as coins are added.
5. Press the left arrow to exit and return to the Monetary Menu.
6. For additional information about the Coin Mechanism, refer to the manufacturer's instructions.

SET INHIBIT TIMES

Allows the service technician to set times when sales will be inhibited. From the Operator/Technician Main Menu touch Timed Events > Time of Day Events > Inhibit. Touch Create Event, then Enable State, Start Time, Stop Time, Days of Week, Selections to be inhibited and then touch Save this Event.

TEST VEND

Allows the service technician to perform a complete test on a Single Product or All Products when a product is present in each selection in the vender. The Service Door must be opened all the way so the Discharge Door does not hit the Delivery Port while Test Vending. Go to Test > Test Vend > Test > Single Product or All Products and the machine will test your selection. You will need to catch the product if you test with the Service Door open.

IMPORTANT: The Motor Power Interrupt Switch (Left switch in the Door Switch Bracket Assembly) must be activated for this test to work when the service door is open.

Major Component Description

AC DISTRIBUTION BOX

BevMAX Refresh Media 5800-6/3800-6 & 5800-6HC/3800-6HC
120 VAC and 230VAC Machines

Main Power Switch or Power Supply Cord (A)

- Interrupts hot and neutral side of incoming AC Power to all components in Machine from the electrical outlet.

8 Pin JST Connector (B)

- Provides AC power in to the OMRON Power Supply, Evaporator Fan, and Refrigeration Unit (includes Condenser Fan and Defrost Control) from the AC Distribution Box.

4 Pin Molex Connector (C)

- Provides 24VDC in to AC Distribution Box to the Environmental Board from the OMRON Power Supply.

24 Pin Molex Connector (D)

- Provides 24VDC out to the Media Atlas H Board, it distributes 24VDC to the Port Board, 24VDC and 5VDC to the Cup Motor Board, Cabinet X Motor Control Board, Y Motor Board, and 3.3VDC to the Encapsulated Temp Sensor.

3 Amp 24VDC Circuit Breakers (2) (E)

- Protect the 24VDC from the OMRON Power Supply. One is for the Cabinet electronics and the other is for the Door electronics.

OMRON Power Supply 24V 150W

BevMAX Refresh Media 5800-6/3800-6 & 5800-6HC/3800-6HC
120 VAC and 230VAC Machines

5 Pin JST Connector (F)

- Provides AC power in to the OMRON Power Supply from the AC Distribution Box.

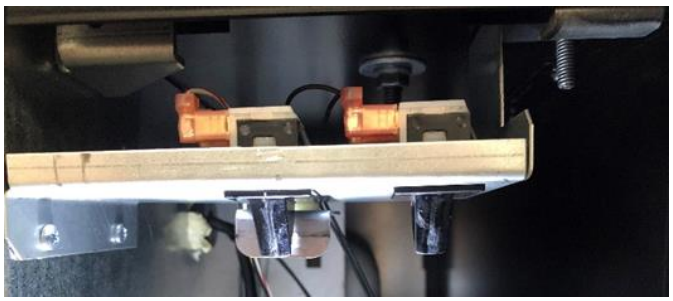
6 Pin JST Connector (G)

- Provides 24VDC out to AC Distribution Box Environmental Board from the OMRON Power Supply.

Door Switch Bracket Assembly Switches

BevMAX Refresh Media 5800-6/3800-6 & 5800-6HC/3800-6HC
120 VAC and 230VAC Machines

Motor Power Interrupt Switch - Left Door Switch
3 Amp/24VDC – for XY Motor Circuits, Port Door Motor Circuit, and Picker Motor Circuit.
Service Door Switch - Right Door Switch
3 Amp/5VDC – for the Media Atlas H Board Service Switch input Circuit.



View of Motor Power Interrupt Switch (left switch in bracket) Service Door Switch (right switch in bracket)

General Maintenance

The most important facets of proper care and maintenance of your Machine are the electrical power supplied, leveling, and cleanliness of the Machine.

POWER

Domestically the Machine must be connected to a dedicated 120 VAC, 15 Amp circuit (U.S. and Canada). Refer to the Cabinet Serial Plate to determine the correct voltage and frequency for the Machine.

CAUTION:
REMOVE POWER TO THE AC DISTRIBUTION BOX BEFORE CLEANING OR WHEN ANY ELECTRICAL COMPONENTS ARE CONNECTED / DISCONNECTED FOR TESTING OR REPLACEMENT.

Periodically inspect the Power Supply Cord for damage. If the Cord or Cord Plug is worn or damaged, it must be replaced with a Power Supply Cord of the same type, size and specification as originally provided with the Machine. DO NOT USE THE VENDING MACHINE UNTIL THE WORN OR DAMAGED POWER SUPPLY CORD IS REPLACED.

The Ground Fault Circuit Interrupter (GFCI) for Domestic Venders must be tested frequently and before each use in accordance with the instructions provided on the GFCI device. **IF THE GFCI DOES NOT PASS THE TEST, DO NOT USE THE MACHINE.** Unplug the Power Supply Cord from the receptacle and call the Crane Merchandising Systems Technical Support Group for assistance at 1-803-266-5001.

CAUTION:
REMOVE POWER TO THE AC DISTRIBUTION BOX BEFORE CLEANING OR WHEN ANY ELECTRICAL COMPONENTS ARE CONNECTED / DISCONNECTED FOR TESTING OR REPLACEMENT.

CLEANING

DO NOT USE A WATER JET OR NOZZLE TO CLEAN THE VENDER.

GLASS DOOR

The Display glass should be cleaned inside and out with paper towels and glass or non-abrasive all-purpose cleaner. The gasket around the product door should be wiped down using warm water, any mild general purpose, non-abrasive cleaner and a soft towel. Never lubricate the gasket and always check for cracking or deformities which may cause leaks. Replace if necessary.

TRAYS / TRAY INSERTS

The Trays and Tray inserts should be cleaned periodically using warm water and a mild general purpose, non-abrasive cleaner. Care should be taken to ensure debris does not enter the Gear Box Assemblies. **DO NOT USE SOLVENTS OR ABRASIVE MATERIALS TO CLEAN ANY PORTION OF THE TRAY.**

DOOR LIGHTING

The Machine is designed with an energy efficient LED Lighting System. To ensure continued reliable operation, replace only with factory OEM replacement LED light assemblies.

SLIDE/PUSHER ASSEMBLY

The Slide/Pusher Assembly should be cleaned periodically using warm water and any mild general-purpose non-abrasive cleaner. After drying, the Slide Assembly needs to have a coat of approved Food Grade Silicone based Release Agent from ECO-Lab/Kay Chemicals applied. Care should be taken to ensure debris does not enter the Gear Box Assemblies. **DO NOT USE SOLVENTS OR ABRASIVE MATERIALS TO CLEAN ANY PORTION OF THE TRAY.**

CABINET

Wash the Cabinet with a good detergent or soap mixed in warm water. Wax the Vender often with a good grade of automobile wax. Any corrosion inside the Vender should be removed with fine steel wool and the area should be painted with matching paint. Repair any scratches on painted surfaces to prevent corrosion.

DRAIN PAN, DRAIN TUBE, AND DRAIN PAN SOAKERS

To prevent mold and mildew growth, and to avoid personal injury or property damage, the Drain Pan and Drain Tube must be properly aligned and clear of debris. Ensure nothing obstructs the Drain Tube to prevent the flow of condensate to the Drain Pan and Drain Pan Soakers. Periodically inspect the Drain Pan, Drain Tube, and Drain Pan Soakers for alignment and the presence of dirt, debris, mold, and mildew. Clean as needed. Replace Drain Pan Soakers as needed.

WARNING

THE COMPRESSOR ELECTRICAL CIRCUIT IS ALWAYS LIVE WHEN THE PLUG IS CONNECTED TO AN ELECTRICAL OUTLET.

REFRIGERATION CONDENSER

Clean the Condenser periodically of dirt or lint build-up. Remove the Condenser Clean-Out Cap by turning counter-clockwise, this provides access to the Condenser surface. Remove build up with a brush or vacuum, or blow the dirt out of the Condenser with compressed air and approved safety nozzle. Replace the Condenser cover by turning clockwise until it stops. Confirm the sealing gasket on the cover is properly seated to prevent air infiltration. Ensure nothing obstructs air intake at the bottom of the main door and nothing obstructs air exhaust at the rear of the Cabinet.

COIN ACCEPTOR, BILL ACCEPTOR AND CASHLESS DEVICES

Follow the Coin Acceptor, Bill Acceptor and Cashless Device Manufacturer's instructions.

LUBRICATING THE VENDER

The Vender Refrigeration System does not require any field lubrication. The hermetic Refrigeration System and Fan Motors are manufactured with lifetime lubrication.

NEW MEDIA ATLAS H BOARD INSTALLATION

Disconnect power to the Vender when replacing the Media Atlas H Board. Once all connectors are positioned on the new Media Atlas H Board, apply power to the Vender.

MEDIA ATLAS H BOARD SOFTWARE UPDATE PROCEDURE

The Media Atlas H Board is flash programmable. Note: Updating the Media Atlas H Board is done with a USB flash drive. All new software revisions to the Peripheral Boards (AC Distribution Box Environmental Board, Cabinet X Motor Control Board, Y Motor Board, Port Board, & Cup Motor Board) will automatically update via the Media Atlas H Board. **Important**: USB's containing software are sensitive to Electrostatic Discharge (ESD). Failure to handle the USB carefully could cause damage, which may result in a Vender being put Out of Service. **ALWAYS GROUND YOURSELF ON THE VENDER CABINET BEFORE INSTALLING OR REMOVING THE USB FROM THE MEDIA ATLAS H BOARD. A USB CAN BE USED TO PROGRAM MANY VENDERS. ALWAYS TURN POWER OFF BEFORE INSTALLING USB IN THE MEDIA ATLAS H BOARD.**

The following information describes how to update the Media Atlas H Board software.

1. USB Software Installation:
    a. Power down the Vender.
    b. Ground yourself on the Vender Cabinet.
    c. Install the USB flash drive in USB3 Port of the Atlas H Board.
    d. Power up the Vender and let the machine fully boot up.
    e. Remove the USB stick.

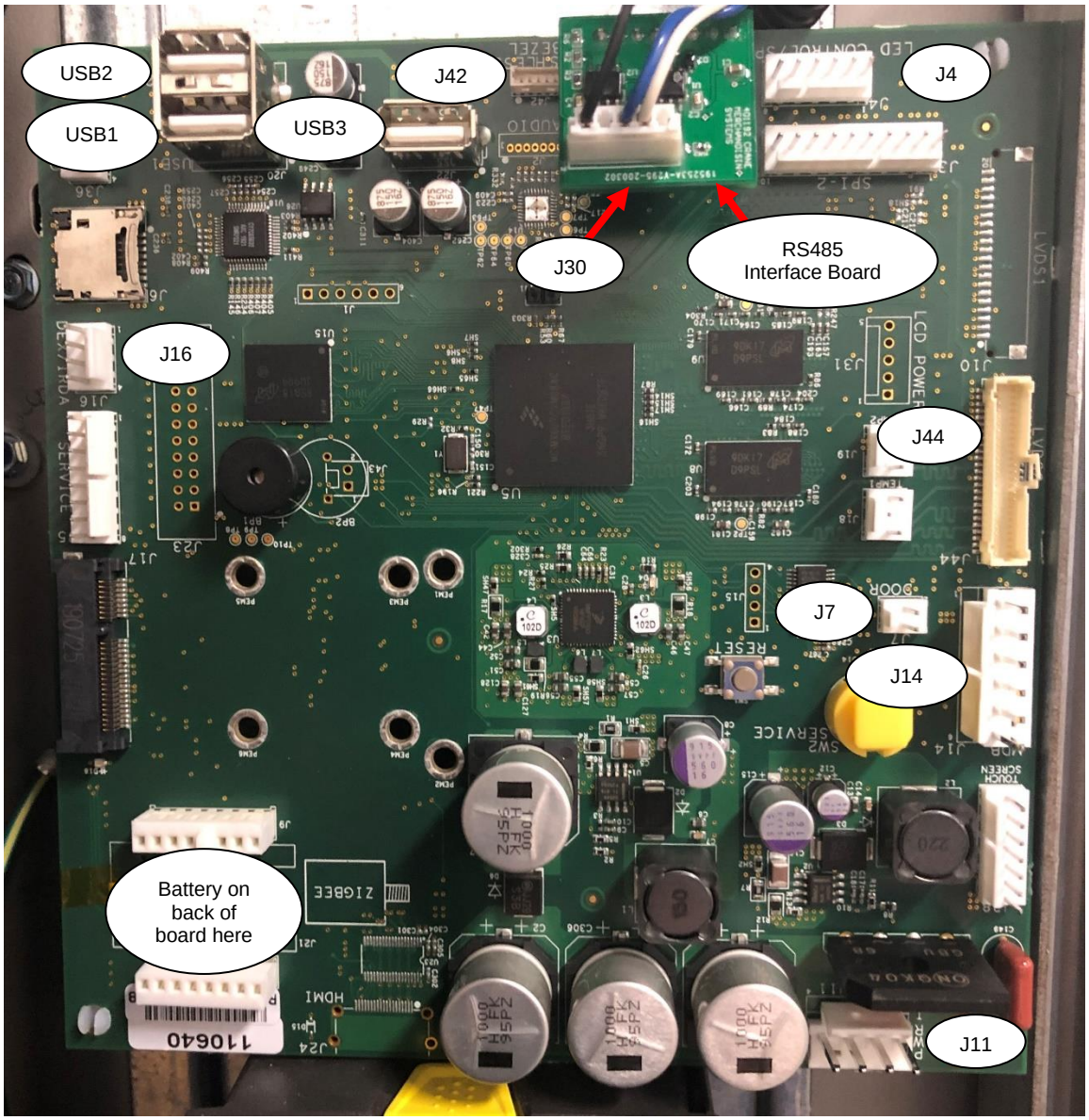
Important Note: If needed, use the Programming Guide to program the Vender.

2020 BevMAX Refresh 6 Media Atlas H Board

BevMAX Refresh Media 5800-6/3800-6 **& 5800-6HC/3800-6HC**

BevMAX Refresh Media 5800-E6/3800-E6 **& 5800-6HC/3800-6HC**

Part # 402769



2020 BevMAX Refresh Media 2 Atlas H Board (402769) Connections

CONNECTION BevMAX Refresh 6	# of Pins	DESCRIPTION	CONNECTION BevMAX Refresh 6	# of Pins	DESCRIPTION
USB1	-	USB Port1	J14	6	MDB
USB2	-	USB Port 2	J16	4	DEX
USB3	-	USB Port 3	J30	8	RS485 Interface Board
J4	6	LED Driver Board	J42	4	Cashless Bezel
J7	2	Door Switch	J44 (IS NOT J38)	50	Touch Screen
J11	4	Power from Environmental Board	J25	-	Battery on the back of the Atlas Board behind J8 & J9

BEVMAX REFRESH 6 MEDIA TROUBLESHOOTING

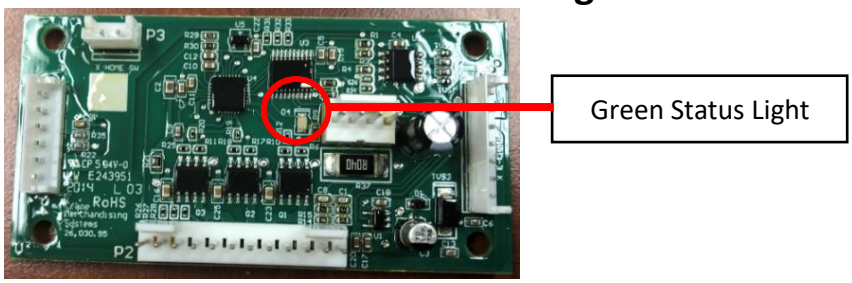
TROUBLESHOOTING DIAGNOSTIC LIGHTS

With the New BevMAX Refresh 6 Media, troubleshooting is simpler, but it is important to know how to follow the clues the Vending Machine is presenting. Utilizing error codes while focusing on the Peripheral Boards controlling each motor or main component will lead you to a conclusion quickly.

The inner workings of the New BevMAX Refresh 6 Media are greatly simplified. The AC Distribution Box sends AC Voltage through an Environmental Board contained within the AC Distribution Box to the Refrigeration Unit, Evaporator Fan Motor, and the OMRON Power Supply.
In turn, the OMRON Power Supply returns 24VDC to the Environmental Board within the AC Distribution Box, which sends 24DCV to the Media Atlas H Board and 24VDC to the Y Motor Board, X Motor Board and Port Board. The Media Atlas H Board then sends 5VDC to the Environmental board and it distributes the 5VDC to the Cabinet X, Y, and the Cup Board. The Atlas H also sends 5VDC to the Port Control Board. These Peripheral Boards convert the run 5VDC to 3,3VDC. The 24VDC is used by the peripheral boards to operate the 24VDC brushless motors. The motor power is converted by the peripheral board to operate the motors and is not measureable with a standard volt-meter. The Brushed Port Motor is operated with 24DCV and can be read by a volt meter.

RS 485 Communication Harness A – White wire
RS 485 Communication Harness B – Blue wire
24VDC Harness – Red/Green wire
5VDC Harness – Yellow wire
Ground Harness – Black wire

Peripheral Board's Green Status Light
Example - X or Y Motor Board Status Light



Each of the 5 Peripheral Boards has a Green Status Light. A fast blinking Green Status Light indicates that the Peripheral Board has power and is communicating with the Media Atlas H Board, acknowledging the Peripheral Board is good. A Green Status Light slowly blinking indicates the Peripheral Board has power but is not receiving communication from the Media Atlas H Board, indicating there is a Peripheral Board, Media Atlas H Board, or harness connection problem. No status light indicates the Peripheral Board is not receiving 5VDC or Communication. Refer to TROUBLESHOOTING SECTION for steps to determine possible cause.

Peripheral Boards Green Status Light provide additional various lighting patters used to indicate the status of the individual Peripheral Boards. They include:
Power on / Reset – a slow brightening and then slow diming of the Green Status Light that takes 3 to 5 seconds to complete. This happens once each time the Board is powered on and/or reset. If the Green Status Light slowly brightens and dims continuously indicates the software was not loaded properly.
Heartbeat – a heartbeat of the Green Status Light starts right after the "Power on / reset" indication and continues until the peripheral first receives a message from the Media Atlas H Board. Once a message is received from the Media Atlas H Board the heartbeat will not be shown again. *Note: on a New BevMAX Refresh*

6 Media Machine, the heartbeat is almost never actually seen because the Media Atlas H Board starts talking to the Peripheral Boards within a few seconds of powering on.

Double beat then pause – a double beat (or 2 beat) then pause after fully powering signifies that the RS485 Interface Board Circuit is open. None of the Peripheral Boards will be communicating and none of the motors will turn.

Fast blinking – a fast blinking Green Status Light (on and off approximately 7 times per second) indicates that the Peripheral Board is receiving communication from the Media Atlas H Board and sending a response. Note: Just because a response is being sent to the Media Atlas H Board doesn't necessarily mean the Media Atlas H Board is receiving it. There could be some defect that prevents one of the Peripheral Boards response from reaching the Media Atlas H Board.

The following are some failure modes you may experience with the New BevMAX Refresh 6 Media Machine and the troubleshooting steps to identify and resolve the issue.

No Power to the Vender

1. **If the Vending Machine does not have power, check the following:**
   a. The Vender Power Supply Cord is plugged into the electrical outlet.
   b. The electrical outlet is providing the appropriate AC Voltage.
   c. The Power Supply Cord GFCI is not tripped (Domestic Venders).
   d. The Power Supply Cord is plugged into the AC Distribution Box.
   e. The AC Distribution Box Lighted On/Off Switch is in the On position.
   f. The AC Distribution Box Lighted On/Off switch is illuminated green.
2. Upon completing A through D, if the AC Distribution Box Lighted On/Off Switch is not illuminated green, check the outlet voltage for required AC voltage.
   a. If outlet voltage is good, change the AC Distribution Box.

Electrical Outlet

GFCI
(Domestic Machines)

AC Distribution Box

No Vertical (Y) ***and*** No Horizontal (X) Movement

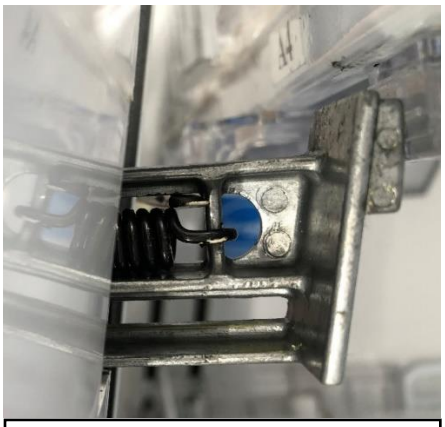
There are only a few reasons the Peripheral Boards will not send power to both the X and Y Motors at the same time.

1. Check for Cabinet Control Board Errors "C Comms" when first entering programming with 3333.
2. A Motor Power Interrupt Switch (left switch in bracket) issue:
    a. Check Top Circuit Breaker that it hasn't disengaged, reset if necessary.
    b. Check the wiring from the Motor Power Interrupt Switch to the Red/Blue Wire in Pin 4 of the AC Distribution Box 24 pin connector & the Red/Green Wire in Pin 5 of 24 pin connector of the Environmental Board. With the Motor Power Interrupt Switch engaged, Ohm the wires, there should be continuity. If not:
        1) Check the Red/Blue Wire.
        2) Check the Red/Green Wire.
        3) Replace the Motor Power Interrupt Switch.
    c. If the Motor Power Interrupt Switch passes, check the Red/Blue Wire in Pin 4 of P1 Connection of the Environmental Board to ground for 24VDC to the Motor Power Interrupt Switch from the Environmental Board.
    d. If 24VAC is not present, check for continuity of the Red/Yellow Wire from the OMRON Power Supply to the Red/Blue Wire in Pin 4 of P1 Connection of the Environmental Board. If there is not continuity check:
        1) Top 3A Circuit Breaker of AC Box Assembly
        2) Replace Environmental Board
        3) Replace OMRON Power Supply

3. A Picker error:
    a. Before replacing any Control Boards, remove the Cup Cover:
        1) Ohm the RS485 Communication Wiring from the Cup Motor Board to the Y Motor Board.
            a) Check the Blue Wire in Pin 3 of P2 Connection of the Cup Motor Board has Continuity to Pin 5 of P4 Connection of the Y Motor Board.
            b) Check the White Wire in Pin 4 of P2 Connection of the Cup Motor Board has Continuity to Pin 3 of P4 Connection of the Y Motor Board.
        2) If there is not continuity at 1a) and 1b) check:
            a) Check for continuity of the Yellow, Blue and White in the Cup Harness (400505), replace as necessary.
            b) Check for continuity of the Yellow, Blue and White in the in the Y E-Chain Harness (400504), replace as necessary.
        3) Check the Yellow Wire in Pin 1 of P2 Connection of the Cup Motor Board to ground. There should be 5VDC.
    b. Ensure the Cup Motor Board Green Status Light is flashing rapidly. If there is a 2 flash and pause the RS485 Circuit is open:
        a. Check the P1 Connection on the RS485 Interface Board is plugged in.
        b. Check the J30 Cab Comm of the RS485 Interface Board Connection on the Atlas H Board.
        c. Check the Blue Wire connection from the Pin 3 of the P1 Connection of the RS485 Interface Board to the double Blue Wire in Pin 23 of P1 Connection of the Environmental Board.

d. Check the White Wire Connection in Pin 2 of the P1 Connection of the RS485 Interface Board to the double White Wire in Pin 12 of P1 Connection of the Environmental Board.
e. Check continuity the Black Wire (Ground) Connection in Pin 5 of the RS485 Interface Board to Pin 20 of P1 Connection of the Environmental Board.
f. Replace RS485 Interface Board.
g. Replace Cup Motor Board.
h. Replace BevMAX Refresh 6 Media Atlas H Board

c. Ensure Cup Plunger Assembly is not stuck in the out position.
   1) If the Cup Plunger Assembly is stuck in the out position, go to Test > Port and Cup Sensors > Cycle Cup Plunger, to retract it back in the Delivery Cup Assembly.
   2) Check Plunger Spring is present in the Plunger Assembly cavity.



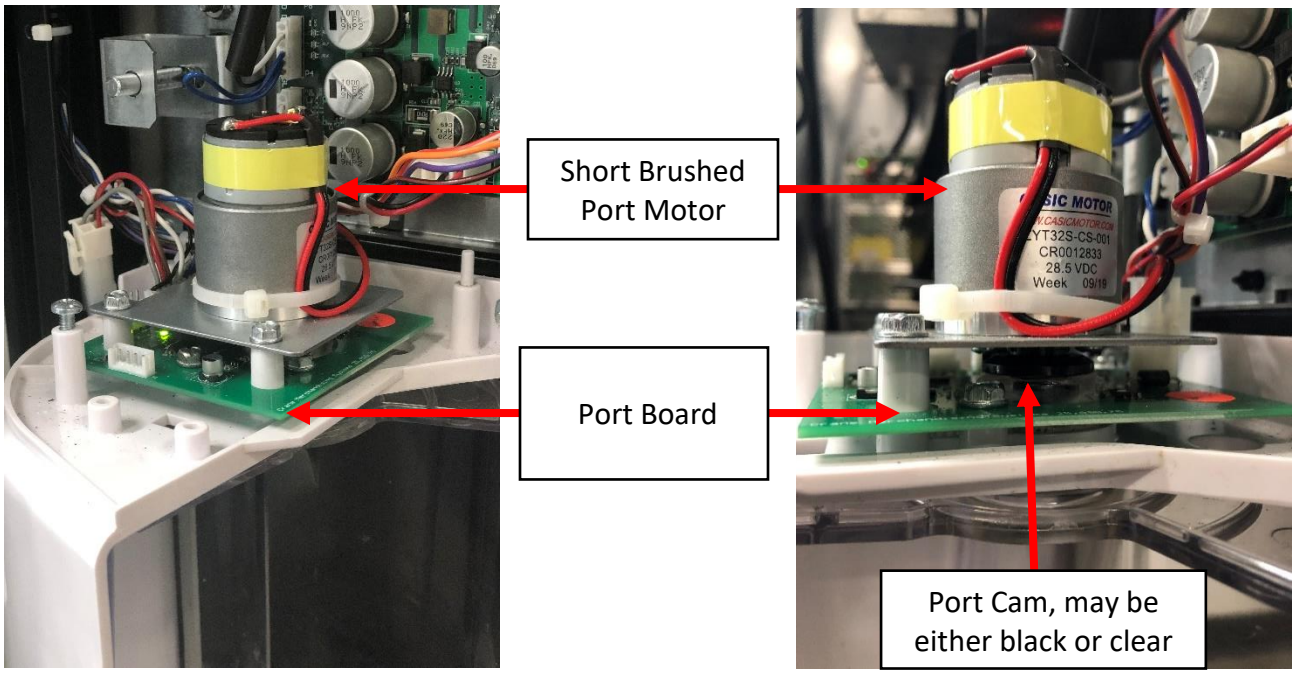
Cup Picker/Plunger

Cup Motor Board, Brushless Cup Motor, Cup Sensor

d. If the Cup Picker does not retract, remove the Delivery Cup Assembly and inspect for obvious internal damage.
e. If a component is damaged, change that component or replace the Delivery Cup Assembly.

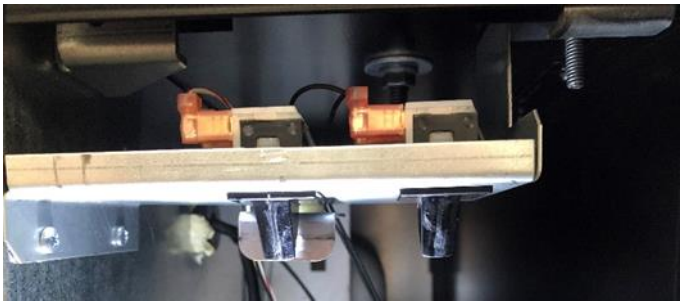
4. A Port Error:
   a. Check for Port Errors “P Comms” Error in the Diagnostics Menu.
   b. If no “P Comms” error are present, remove the top Port Motor cover and ensure the Port Board Green Status Light is flashing rapidly. If not, replace the Port Board.
   c. Before replacing any Control Boards:
      1) Check that the Red/Yellow Wire in Pin 4 of the P1 Connection of the Port Board is getting 5VDC from Pin 1 in P1 Connection of the Environmental Board.
      2) Ohm the RS485 Communication Wiring from the Port Board to the Environmental Board.
         a) Check continuity of the Blue Wire in Pin 2 of the P1 Connection of the Port Board to the double Blue Wire in Pin 23 of P1 Connection of the Environmental Board.
         b) Check continuity of the White Wire in Pin 3 of the P1 Connection of the Port Board to the double White Wire in Pin 12 of P1 Connection of the Environmental Board.
         c) Replace the Port Board.
         d) Replace the Environmental Board.

d. If the Port Board Green Status Light is flashing rapidly, Go to Test > Port and Cup Sensors > Open Port. If the Port Door Opens, press Close Port to ensure the clear Port Door can fully close. The Port Door should open and close quickly with no bounce back.
e. If there is bounce back, slow response, or just the sound of the Port Motor turning, check the Port Cam on the Port Motor shaft for breakage. Replace as necessary.



No Vertical (Y) Movement

1. Try to raise the Delivery Cup with your hands to the top then back down to the bottom. If you feel an obstruction, remove the Y Belt Cover and check for an impediment or damaged Pulleys or Rollers.
2. Check for Cabinet Control Errors "Y Comms" Error when first entering programming with 3333.



View of Motor Power Interrupt Switch (left switch in bracket) Service Door Switch (right switch in bracket)

3. A Motor Power Interrupt Switch (left switch in bracket) issue:
    a. Check Top Circuit Breaker that it hasn't disengaged, reset if necessary.
    b. Check the wiring from the Motor Power Interrupt Switch to the Red/Blue Wire in Pin 4 & the Red/Green Wire in Pin 5 of P1 Connection Environmental Board. With the Motor Power Interrupt Switch engaged, Ohm the wires, there should be continuity. If not:
        1) Check the Red/Blue Wire.
        2) Check the Red/Green Wire.
        3) Replace the Motor Power Interrupt Switch.

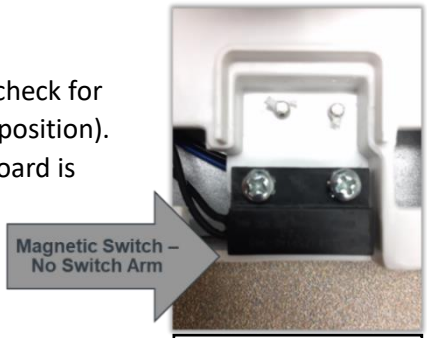
c. If the Motor Power Interrupt Switch passes, check the Red/Blue Wire in Pin 4 of P1 Connection of the Environmental Board to ground for 24VDC to the Motor Power Interrupt Switch from the Environmental Board.
d. If 24VAC is not present, check for continuity of the Red/Yellow Wire from the OMRON Power Supply to the Red/Blue Wire in Pin 4 of P1 Connection of the Environmental Board. If there is not continuity check:
    1) Top 3A Circuit Breaker of AC Box Assembly
    2) Replace Environmental Board
    3) Replace OMRON Power Supply

4. Before replacing any Peripheral Boards:
    a. Check that the Yellow Wire in Pin 1 of P1 of the Y Motor Board is getting 5VDC from the Yellow Wire in Pin 2 of P1 Connection of the Environmental Board.
    b. Remove the Y Motor Board Cover and see if the Y Motor Board Green Status Light is rapidly flashing.
        1) If Green Status Light is rapidly flashing, the Y Motor Board is good.
        2) If the Green Status Light is slowly flashing, check the other Peripheral Boards, if their Green Status Light is also On check Media Atlas H Board. If the other Peripheral Board Green Status Lights are rapidly flashing, check the harness to the Cabinet Control Y Motor Board. If the harness is OK and the Cabinet Control Cup Motor Board Green Status Light is flashing rapidly replace the Cabinet Control Y Motor Board.
        3) If there is no Green Status Light, check another Peripheral Board, if it's Green Status Light is rapidly flashing, check the harness to the Cabinet Control Y Motor Board. If the harness is OK change the Cabinet Control Y Motor Board.
    c. Ensure the Y Motor Board Green Status Light is flashing rapidly. If there is a 2 flash and pause the RS485 Circuit is open:
        1) Check the P1 Connection on the RS485 Interface Board is plugged in.
        2) Check the J30 Cab Comm of the RS485 Interface Board Connection on the Atlas H Board.
        3) Check the Blue Wire connection from the Pin 3 of the P1 Connection of the RS485 Interface Board to the double Blue Wire in Pin 23 of P1 Connection of the Environmental Board.
        4) Check the White Wire Connection in Pin 2 of the P1 Connection of the RS485 Interface Board to the double White Wire in Pin 12 of P1 Connection of the Environmental Board.
        5) Check continuity the Black Wire (Ground) Connection in Pin 5 of the RS485 Interface Board to Pin 20 of P1 Connection of the Environmental Board.
        6) Replace RS485 Interface Board.
        7) Replace Y Motor Board.
        8) Replace BevMAX Refresh 6 Media Atlas H Board

d. Ohm the RS485 Communication Wiring from the Y Motor Board to the Environmental Board.
    1) Check continuity of the Blue Wire in Pin 2 of the P1 Connection of the Y Motor Board to the double Blue Wire in Pin 23 of P1 Connection of the Environmental Board.
    2) Check continuity of the White Wire in Pin 3 of the P1 Connection of the Y Board to the double White Wire in Pin 12 of P1 Connection of the Environmental Board.
    3) Replace the Cabinet Control Y Motor Board.
    4) Replace the Environmental Board.

Y Board

5. Still no Y movement? Enter the Operator/Technician Main Menu, then press Test, then Platform Movement:
    a. Y Home Off
        1) Ensure the Delivery Cup Assembly is on the floor (check for an impediment preventing it from reaching home position).
        2) Check that the P2 Connection on the Cup Motor Board is fully engaged.
        3) Check for continuity across the 2 Black wires in P2 Connector of the Cup Motor Board.
        4) Check for the Magnet on the Lower X-Carriage
    b. Y Home On
        1) Check that the P2 Connection on the Y Motor Board is fully engaged.
        2) Replace the Y Motor. *Note: The Y Motor is 3-phase, the voltage cannot be measured with a volt meter.*
        3) Replace the Y Motor Board
        4) Replace the Y Motor

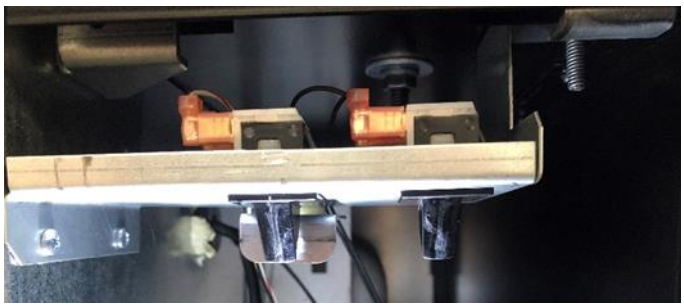


Y Home Switch


Y or X Brushless Motor

No Horizontal (X) Movement

1. Try to move the Vend Mechanism with your hands to the right wall then back to the left wall. If you feel an obstruction, remove the bottom plate and check for an impediment (i.e. syrup, screw, debris, etc.) or damaged Pulleys or Rollers.
2. Check for Cabinet Control Errors "X Comms" Error when first entering programming with 3333.



View of Motor Power Interrupt Switch (left switch in bracket) Service Door Switch (right switch in bracket)

3. A Motor Power Interrupt Switch (left switch in bracket) issue:
    a. Check Top Circuit Breaker that it hasn't disengaged, reset if necessary.
    b. Check the wiring from the Motor Power Interrupt Switch to the Red/Blue Wire in Pin 4 & the Red/Green Wire in Pin 5 of P1 Connection Environmental Board. With the Motor Power Interrupt Switch engaged, Ohm the wires, there should be continuity. If not:
        1) Check the Red/Blue Wire.
        2) Check the Red/Green Wire.
        3) Replace the Motor Power Interrupt Switch.
    c. If the Motor Power Interrupt Switch passes, check the Red/Blue Wire in Pin 4 of P1 Connection of the Environmental Board to ground for 24VDC to the Motor Power Interrupt Switch from the Environmental Board.
    d. If 24VAC is not present, check for continuity of the Red/Yellow Wire from the OMRON Power Supply to the Red/Blue Wire in Pin 4 of P1 Connection of the Environmental Board. If there is not continuity check:
        1) Top 3A Circuit Breaker of AC Box Assembly
        2) Replace Environmental Board
        3) Replace OMRON Power Supply
4. Remove the X Motor Board Cover and see if the Green Status Light is rapidly flashing.
    a. If light is rapidly flashing, the X Motor Board is good.
    b. If the Green Status Light is slowly flashing, check the other Peripheral Boards, if their Green Status Light is also slowly flashing replace the Media Atlas H Board. If the other Peripheral Board Green Status Lights are rapidly flashing, replace the Cabinet X Motor Control Board.
    c. If there is no Green Status Light, check another Peripheral Boards, if their Green Status Light is rapidly flashing, change the Cabinet X Motor Control Board.

Cabinet X Motor Control Board

5. Ensure the X Motor Board Green Status Light is flashing rapidly. If there is a 2 flash and pause the RS485 Circuit is open:
    1) Check the P1 Connection on the RS485 Interface Board is plugged in.
    2) Check the J30 Cab Comm of the RS485 Interface Board Connection on the Atlas H Board.
    3) Check the Blue Wire connection from the Pin 3 of the P1 Connection of the RS485 Interface Board to the double Blue Wire in Pin 23 of P1 Connection of the Environmental Board.
    4) Check the White Wire Connection in Pin 2 of the P1 Connection of the RS485 Interface Board to the double White Wire in Pin 12 of P1 Connection of the Environmental Board.
    5) Check continuity the Black Wire (Ground) Connection in Pin 5 of the RS485 Interface Board to Pin 20 of P1 Connection of the Environmental Board.
    6) Replace RS485 Interface Board.
    7) Replace Cabinet X Motor Control Board.
    8) Replace BevMAX Refresh 6 Media Atlas H Board
6. Before replacing any Control Boards:
    a. Check for 5VDC to ground from the Yellow Wire in Pin 1 of P1 Connection of the X Motor Board is getting 5VDC from the Pin 2 of the P1 Connection of the Environmental Board.
    b. If there is no Green Status Light, check another Peripheral Board, if it's Green Status Light is rapidly flashing, check the harness to the X Motor Board. If the harness is OK change the X Motor Board.
    c. Ohm the RS485 Communication Wiring from the X Motor Board to the Environmental Board.
        1) Check continuity of the Blue Wire in Pin 2 of the P1 Connection of the X Motor Board to the double Blue Wire in Pin 23 of P1 Connection of the Environmental Board.
        2) Check continuity of the White Wire in Pin 3 of the P1 Connection of the X Motor Board to the double White Wire in Pin 12 of P1 Connection of the Environmental Board.
        3) Replace the X Motor Board.
        4) Replace the Environmental Board.
7. Still no X Motor movement?
    a. Remove the Y Motor Board Cover. Check the Blue and Black Wires in the P3 Connection of the Y Motor Board, make sure they are fully engaged in the connection.
    b. Ensure the X Home Switch Arm at the top left of XY Assembly behind the Y Motor is activated against the XY Belt Idler Tensioning Assembly.
    c. Check continuity across the Blue and Black Wires in the P3 Connection of the Y Motor Board, if open replace X Home Switch.
    d. Check continuity of the Orange Wire in Pin 7 of the P1 Connection of the Y Motor Board to the Orange Wire in Pin 3 of the P4 Connection of the X Motor Board. If open check the X/Y E-Chain Harness and the Cabinet Harness.
    e. If Green Status Light is rapidly flashing, the Y Motor Board is good.
    f. Ensure the Cup Motor Board Green Status Light is flashing rapidly. If there is a 2 flash and pause the RS485 Circuit is open:
        1) Check the P1 Connection on the RS485 Interface Board is plugged in.
        2) Check the J30 Cab Comm of the RS485 Interface Board Connection on the Atlas H Board.
        3) Check the Blue Wire connection from the Pin 3 of the P1 Connection of the RS485 Interface Board to the double Blue Wire in Pin 23 of P1 Connection of the Environmental Board.

4) Check the White Wire Connection in Pin 2 of the P1 Connection of the RS485 Interface Board to the double White Wire in Pin 12 of P1 Connection of the Environmental Board.
5) Check continuity the Black Wire (Ground) Connection in Pin 5 of the RS485 Interface Board to Pin 20 of P1 Connection of the Environmental Board.
6) Replace RS485 Interface Board.
7) Replace Cup Motor Board.
8) Replace BevMAX Refresh 6 Media Atlas H Board.

g. Ohm the RS485 Communication Wiring from the Y Motor Board (where the X Home Switch plugs in) to the Environmental Board.
1) Check continuity of the Blue Wire in Pin 2 of the P1 Connection of the Y Motor Board to the double Blue Wire in Pin 23 of P1 Connection of the Environmental Board.
2) Check continuity of the White Wire in Pin 3 of the P1 Connection of the Y Motor Board to the double White Wire in Pin 12 of P1 Connection of the Environmental Board.
3) Replace the Cabinet Control Y Motor Board.
4) Replace the Environmental Board.

h. If there is no Green Status Light on the Cabinet X Motor Control Board, check another Peripheral Boards, if it's Green Status Light is rapidly flashing, check the harness to that Cabinet Control Motor Board. If the harness is OK change the Cabinet Control Motor Board.

i. Still no X Motor movement? Replace the X Motor.

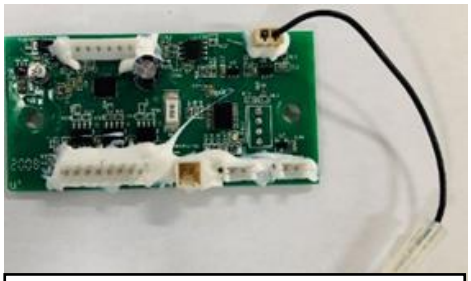
X or Y Brushless Motor

The Cup Picker/Plunger will not Cycle to Eject an Item from the Gate

1. Check for Cabinet Control Board Errors "C Comms" Error when first entering programming with 3333.
2. A Motor Power Interrupt Switch (left switch in bracket) issue:
    a. Check Top Circuit Breaker that it hasn't disengaged, reset if necessary.
    b. Check the wiring from the Motor Power Interrupt Switch to the Red/Blue Wire in Pin 4 & the Red/Green Wire in Pin 5 of P1 Connection Environmental Board. With the Motor Power Interrupt Switch engaged, Ohm the wires, there should be continuity. If not:
        1) Check the Red/Blue Wire.
        2) Check the Red/Green Wire.
        3) Replace the Motor Power Interrupt Switch.
    c. If the Motor Power Interrupt Switch passes, check the Red/Blue Wire in Pin 4 of P1 Connection of the Environmental Board to ground for 24VDC to the Motor Power Interrupt Switch from the Environmental Board.

d. If 24VAC is not present, check for continuity of the Red/Yellow Wire from the OMRON Power Supply to the Red/Blue Wire in Pin 4 of P1 Connection of the Environmental Board. If there is not continuity check:
    1) Top 3A Circuit Breaker of AC Box Assembly
    2) Replace Environmental Board
    3) Replace OMRON Power Supply

3. Remove Cup Base Cover and ensure the Cup Motor Board Green Status Light is flashing rapidly.
    a. If light is rapidly flashing, the Cup Motor Board is good.
    b. If the Green Status Light is slowly flashing, check the other Peripheral Boards, if their Green Status Light is slowly flashing check the Y E-Chain harness, look for pinched or damaged wire. Check the Yellow Wire and verify it has 5VDC in respect to Ground. If the other Peripheral Boards Green Status Lights are rapidly flashing, replace the Cup Motor Board.

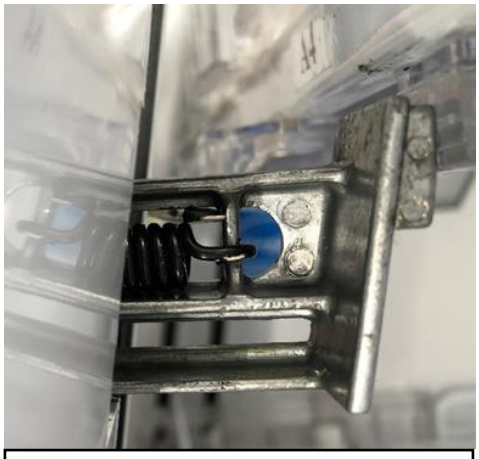


Cup Motor Board

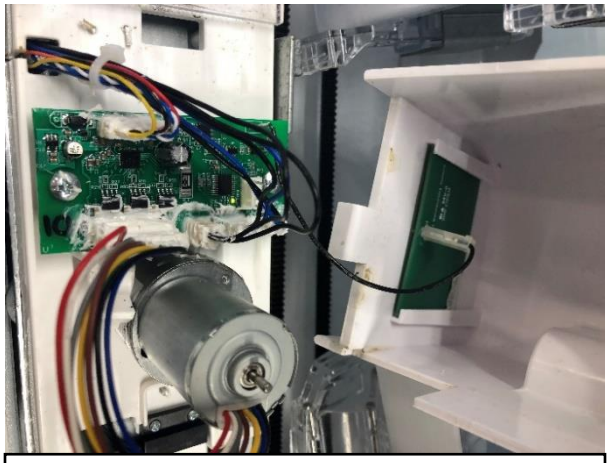
4. If there is no Green Status Light, check another Peripheral Board, if their Green Status Light is rapidly flashing, change the Delivery Cup Assembly.
5. Before replacing any Control Boards:
    a. Check the Yellow Wire in Pin 1 of P1 Connection of the Cup Motor Board is getting 5VDC from the Environmental Board through the Y Motor Board.
    b. Check for continuity of the Black Wire in Pin 2 of P1 Connection of the Cup Motor Board to Pin 2 in P4 of the Y Motor Board.
    c. If there is no Green Status Light, check another Peripheral Board, if it's Green Status Light is rapidly flashing, check the harness to the X Motor Board. If the harness is OK change the X Motor Board.
    d. Ensure the Cup Motor Board Green Status Light is flashing rapidly. If there is a 2 flash and pause the RS485 Circuit is open:
        1) Check the P1 Connection on the RS485 Interface Board is plugged in.
        2) Check the J30 Cab Comm of the RS485 Interface Board Connection on the Atlas H Board.
        3) Check the Blue Wire connection from the Pin 3 of the P1 Connection of the RS485 Interface Board to the double Blue Wire in Pin 23 of P1 Connection of the Environmental Board.
        4) Check the White Wire Connection in Pin 2 of the P1 Connection of the RS485 Interface Board to the double White Wire in Pin 12 of P1 Connection of the Environmental Board.
        5) Check continuity the Black Wire (Ground) Connection in Pin 5 of the RS485 Interface Board to Pin 20 of P1 Connection of the Environmental Board.
        6) Replace RS485 Interface Board.
        7) Replace Cup Motor Board.
        8) Replace BevMAX Refresh 6 Media Atlas H Board
    e. Ohm the RS485 Communication Wiring from the Cup Motor Board to the Y Motor Board.
        1) Check continuity of the Blue Wire in Pin 3 of the P2 Connection of the Cup Motor Board to the Blue Wire in Pin 5 of P4 Connection of the Y Motor Board.
        2) Check continuity of the White Wire in Pin 4 of the P2 Connection of the Cup Motor Board to the White Wire in Pin 4 of P4 Connection of the Y Motor Board.
        3) Replace the Cabinet Control Y Motor Board.
        4) Replace the Environmental Board.

f. Check the Cup Harness (400505) connection between the Y E-Chain (400504) and P2 Connection of the Cup Motor Board. Also check the harness connection between the Y E-Chain (400504) and P4 Connection of the Y Motor Board.
g. Replace the Delivery Cup Assembly.

6. If the Cup Motor still will not cycle, remove the Cup Base Cover and check the Cup Switches:
    a. Ensure that the Blue and Black Wires and P4 Connection of the Cup Motor Board are fully engaged.
    b. With the actuator engaged of the Picker Home Switch (Cup Plunger Assembly will be in home position), check for continuity across the Blue and Black Wires in P4 Connection of the Cup Motor Board are fully engaged.
    c. Check for *no continuity* across the Blue and Black Wires in P5 Connection of the Cup Motor Board.
    d. If the Cup Switches are OK and plugged in correctly replace the Delivery Cup Assembly.
7. With the Motor Power Interrupt Switch (left switch in bracket) activated and the Cup Plunger Assembly at home position inside the Delivery Cup Assembly, go to the Operator/Technician Main Menu, Test > Port and Cup Sensors > Cycle Cup Plunger, to see if the Cup Motor will fire and retract:
    a. If the 3-Phase Cup Motor will not cycle check P1 Connection of the Cup Motor Board is fully engaged.
    b. Check for 5VDC to Ground coming from the Red Wire in Pin 1 of the P1 Connection of the Cup Motor Board.
    c. Check for Motor power to the Cup Motor Board. The Red/Green Wire in Pin 6 of the P2 Connection of the Cup Motor Board should have 24VDC to ground. If present, replace the Delivery Cup Assembly.
8. If the Picker does cycle, test the Cup Sensor to see if it can detect an item by going to the Operator/Technician Main Menu, Test > Port and Cup Sensors > Turn Cup Sensor On. Place an item in the Cup and ensure the Sensor State changes to Enabled. If the Cup Sensor cannot detect an item in this test:
    a. With the Cup Base Cover removed, ensure the Black Wire is connected to the FR4 Electrode.
    b. Turn the Cup Sensor Off in Product Configuration > Picker Sensor on/off.
    c. Replace Delivery Cup Assembly.



Cup Picker/Plunger



Cup Motor Board, Brushless Cup Motor, Cup Sensor

The Port Door will not Open/Close

1. Check for Cabinet Control Board Errors “P Comms” Error when first entering programming with 3333.
2. A Motor Power Interrupt Switch (left switch in bracket) issue:
    a. Check Top Circuit Breaker that it hasn’t disengaged, reset if necessary.
    b. Check the wiring from the Motor Power Interrupt Switch (left switch in bracket) to the Red/Blue Wire in Pin 4 & the Red/Green Wire in Pin 5 of P1 Connection Environmental Board. With the Motor Power Interrupt Switch engaged, Ohm the wires, there should be continuity. If not:
        1) Check the Red/Blue Wire.
        2) Check the Red/Green Wire.
        3) Replace the Motor Power Interrupt Switch.
    c. If the Motor Power Interrupt Switch passes, check the Red/Blue Wire in Pin 4 of P1 Connection of the Environmental Board to ground for 24VDC to the Motor Power Interrupt Switch from the Environmental Board.
    d. If 24VAC is not present, check for continuity of the Red/Yellow Wire from the OMRON Power Supply to the Red/Blue Wire in Pin 4 of P1 Connection of the Environmental Board. If there is not continuity check:
        1) Top 3A Circuit Breaker of AC Box Assembly
        2) Replace Environmental Board
        3) Replace OMRON Power Supply
3. Remove Port Motor Cover and ensure the Port Board Green Status Light is flashing rapidly.
    a. If light is rapidly flashing, the Port Board is good.
    b. If the Green Status Light is slowly flashing, check the other Peripheral Boards, if their Green Status Light is also slowly flashing replace the Media Atlas H Board. If the other Peripheral Boards Green Status Lights are rapidly flashing, replace the Port Board.
    c. If there is no Green Status Light, check another Peripheral Board if their Green Status Light is rapidly flashing.
    d. Ensure the Port Board Green Status Light is flashing rapidly. If there is a 2 flash and pause the RS485 Circuit is open:
        1) Check the P1 Connection on the RS485 Interface Board is plugged in.
        2) Check the J30 Cab Comm of the RS485 Interface Board Connection on the Atlas H Board.
        3) Check the Blue Wire connection from the Pin 3 of the P1 Connection of the RS485 Interface Board to the double Blue Wire in Pin 23 of P1 Connection of the Environmental Board.
        4) Check the White Wire Connection in Pin 2 of the P1 Connection of the RS485 Interface Board to the double White Wire in Pin 12 of P1 Connection of the Environmental Board.
        5) Check continuity the Black Wire (Ground) Connection in Pin 5 of the RS485 Interface Board to Pin 20 of P1 Connection of the Environmental Board.
        6) Replace RS485 Interface Board.
        7) Replace Port Board.
        8) Replace BevMAX Refresh 6 Media Atlas H Board.
4. Before replacing any Control Boards:
    a. Check that the Port Board is getting 5VDC from the Red/Yellow Wire in Pin 4 of P1 Connection of the Port Board to Red/Yellow Wire in Pin 1 of P1 Connection of the Environmental Board.
    b. Ohm the RS485 Communication Wiring from the Environmental Board to the Port Board.
        1) Check continuity of the Blue Wire in Pin 2 of the P1 Connection of the Port Board to the double Blue Wire in Pin 23 of P1 Connection of the Environmental Board.

2) Check continuity of the White Wire in Pin 3 of the P1 Connection of the Port Board to the double White Wire in Pin 12 of P1 Connection of the Environmental Board.
3) Replace the Port Board.

5. Still no Port Door movement?
    a. If the Port Board Green Status Light is flashing rapidly, Go to Operator/Technician Main Menu, then press Test > Port and Cup Sensors > Open Port.
        1) If the Port Door Opens, press Close Port to ensure the Port Door can fully close. The Port Door should open and close quickly with no bounce back.
        2) If there is bounce back, slow response, or just the sound of the Port Motor turning, check the Port Cam on the Port Motor shaft for breakage. Replace as necessary.

        3) If there is still no Port Door movement, Check the port cam magnet is in place. It is located on the bottom of the cam at its tip. If the magnet is missing replace the cam. If the magnet is present then change the Port Assembly.

Port Board

Brushed Short Port Motor

Port Cam, may be either Black or Clear

Port Board

The Port Door Stays Open, Display says “Please Remove Product”

1. Check for Cabinet Control Board Errors “P Comms” Error when first entering programming with 3333.
2. Remove Port Motor Cover and ensure the Port Board Green Status Light is flashing rapidly.
    a. If light is rapidly flashing, the Port Board is good.
    b. If the Green Status Light is On solid, check the other Peripheral Boards, if their Green Status Light is On solid replace the Media Atlas H Board. If the other Peripheral Board Green Status Lights are rapidly flashing, replace the Port Board.
    c. If there is no Green Status Light, check another Peripheral Boards, if their Green Status Light is rapidly flashing, change the Port Board.
3. Ensure the Port Board Green Status Light is flashing rapidly. If there is a 2 flash and pause the RS485 Circuit is open:
    a. Check the P1 Connection on the RS485 Interface Board is plugged in.
    b. Check the J30 Cab Comm of the RS485 Interface Board Connection on the Atlas H Board.
    c. Check the Blue Wire connection from the Pin 3 of the P1 Connection of the RS485 Interface Board to the double Blue Wire in Pin 23 of P1 Connection of the Environmental Board.
    d. Check the White Wire Connection in Pin 2 of the P1 Connection of the RS485 Interface Board to the double White Wire in Pin 12 of P1 Connection of the Environmental Board.
    e. Check continuity the Black Wire (Ground) Connection in Pin 5 of the RS485 Interface Board to Pin 20 of P1 Connection of the Environmental Board.

f. Replace RS485 Interface Board.
g. Replace Port Board.
h. Replace BevMAX Refresh 6 Media Atlas H Board.

4. Before replacing any Control Boards:
    a. Check that the Port Board is getting 5VDC from the Red/Yellow Wire in Pin 4 of P1 Connection of the Port Board to Red/Yellow Wire in Pin 1 of P1 Connection of the Environmental Board.
    b. Ohm the RS485 Communication Wiring from the Port Board to the Environmental Board.
        1) Check continuity of the Blue Wire in Pin 2 of the P1 Connection of the Port Board to the double Blue Wire in Pin 23 of P1 Connection of the Environmental Board.
        2) Check continuity of the White Wire in Pin 3 of the P1 Connection of the Port Board to the double White Wire in Pin 12 of P1 Connection of the Environmental Board.
        3) Replace the Port Board.
        4) Replace the BevMAX Refresh 6 Media Atlas H Board.
5. If Port Door is still open and Display still reads “Please Remove Product”, ensure the Port Product Detection Sensor Wire (Black Wire connected at bottom of Port Assembly) is connected and tight to the FR4 Port Sensor Electrode.
6. Go to Test > Port and Cup Sensors > Turn Port Sensor On and test the Port Sensor by placing an item in the Port.
    a. Initially, the Vend Detect should read State OFF with <u>nothing</u> in the Port. If the Vend Detect reads State ON with nothing in the Port, change the FR4 Port Sensor.
    b. The Vend Detect should read State ON when <u>something</u> is placed in the Port, if the Vend Detect reads State OFF with something in the Port, change the FR4 Port Sensor.

Port Board

FR4 Port Sensor

TROUBLESHOOTING TABLES

COIN ACCEPTANCE ISSUES

PROBLEM	CAUSE	FIX
Coins Returned to Customer With No Credit Issued	• Coin Jam in Mech. • Flight Deck dirty. • No Power to Mech. • Coin Return Lever activated. • Vender in Test Mode. • Inhibit Time Set. • Defective Coin Mech.	• Clear Jam and Test. • Clean Flight Deck. • Check Harness from Mech to Media Atlas H Board. • Adjust Coin Return Lever. • Close Service Door. • Disable Inhibit Time. • Replace Mech.
Will Not Payback Coins	• No Power to Mech. • No Coins in Tubes. • Tubes Programmed incorrectly. • Defective Coin Mech.	• Check Harness from Mech to Media Atlas H Board. • Fill Coin Tubes with Coins. • Reprogram per Manufacturer recommendation. • Replace Coin Mech.

BILL ACCEPTANCE ISSUES

PROBLEM	CAUSE	FIX
Bill Acceptor will not cycle.	• Prices / tube cash conditions. • No Power to Bill Acceptor. • Vender in Test Mode. • Inhibit Time Set. • Defective Bill Acceptor.	• Check Mech Tubes. • Check Harness from Acceptor to MDB Harness to Media Atlas H Board. • Close Service Door and test bill acceptance. • Disable Inhibit Time. • Replace Bill Acceptor.
Takes Bill in then rejects it.	• Acceptor Stacker full. • Defective Acceptor.	• Remove bills from Stacker. • Check Bill Acceptor. Replace Bill Acceptor.
Stacks Bill while in Escrow Mode.	• Max Price Not Yet Reached. • Bill Acceptor not capable of escrowing bills.	• Working as designed. • Replace Bill Acceptor with one that allows escrow of bills.
Bill Error listed in Diagnostics.	• Communication Error with Bill Acceptor. • Bill Acceptor Reported Error.	• Check Harness from Bill Acceptor to MDB Harness to Media Atlas H Board. Replace Bill Acceptor.
Takes Bill, gives No Credit	• Harness • Acceptor • Media Atlas H Board	• Check Harness from Bill Acceptor to MDB Harness to Media Atlas H Board, replace as needed. • Replace Media Atlas H Board.

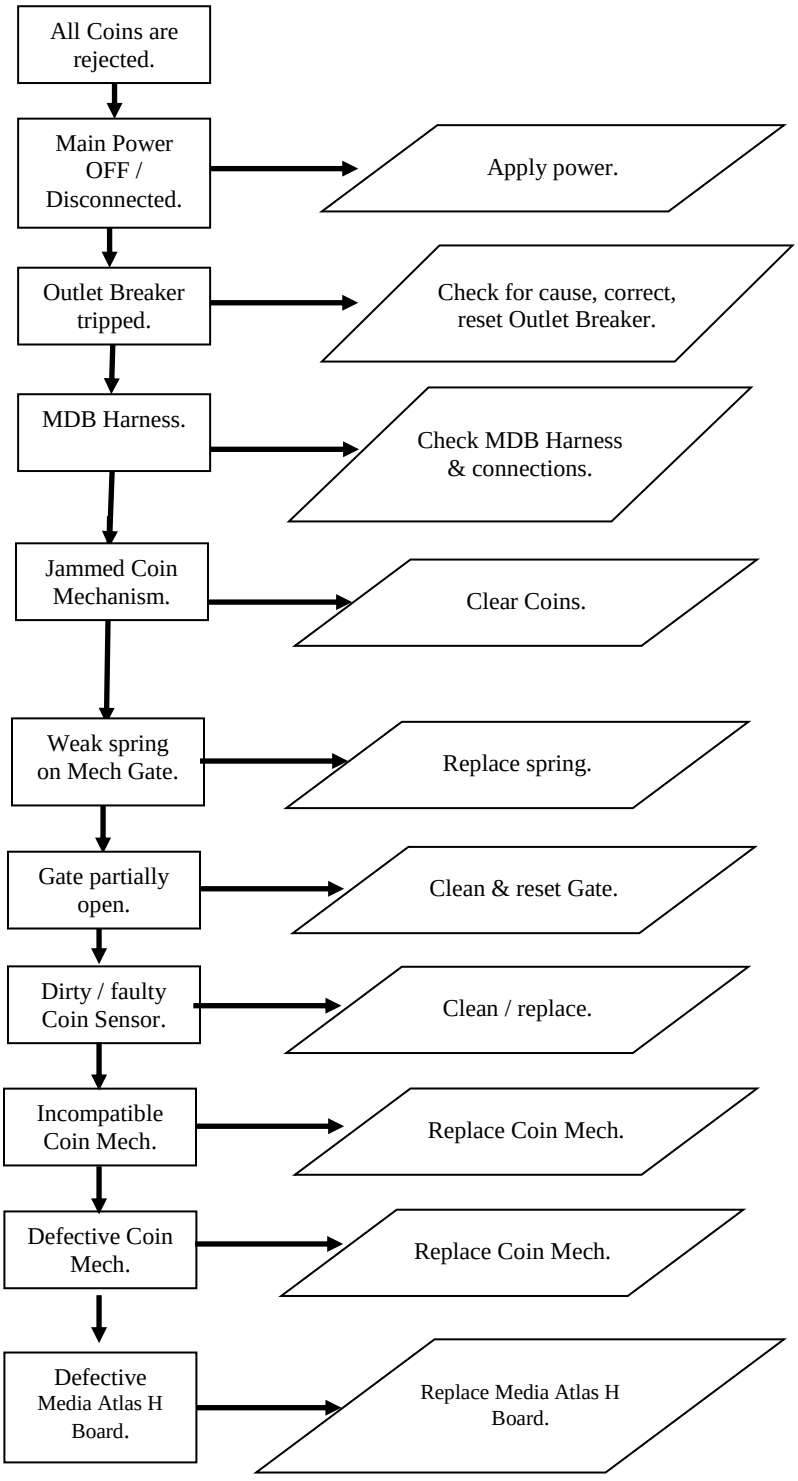
BEVMAX REFRESH 6 MEDIA ATLAS H BOARD ISSUES

PROBLEM	CAUSE	FIX
No Power to Media Atlas H Board.	• Wall electrical outlet. • Power Supply Cord. • AC Distribution Lighted On/Off Rocker Switch is Off. • AC Distribution Box. • OMRON Power Supply	• Check AC Voltage at the wall outlet. • If Power Supply Cord has a GFCI, check it is not tripped. Check AC Voltage going in to the AC Distribution Box. Replace Power Supply Cord as necessary. • Turn Lighted Rocker Switch On. • Check all of the above steps, replace the AC Distribution Box. • Check OMRON Power Supply Green Status Light is On solid. Check AC Voltage going from AC Distribution Box 8 Pin connector to the OMRON Power Supply 5 pin connector. Check 24VDC from OMRON Power Supply 6 pin connector to the AC Distribution Box 4 pin connector. Check AC Distribution Box Environmental Board Green Status Light is rapidly flashing. If Off replace the Environmental Board.
Out of Order or other Error Codes showing on Display.	• RAM Error.	• Refer to Programming Section, Diagnostics, for specific Error Codes and troubleshoot issues listed.
Temporarily Out of Service.	• No Vendible Selections.	• Add product, clear Errors, test for proper operation. • Check Inhibit time is Off/Disabled.
Product disabled	• No Vendible Selections.	• Check Inhibit time is Off/Disabled.

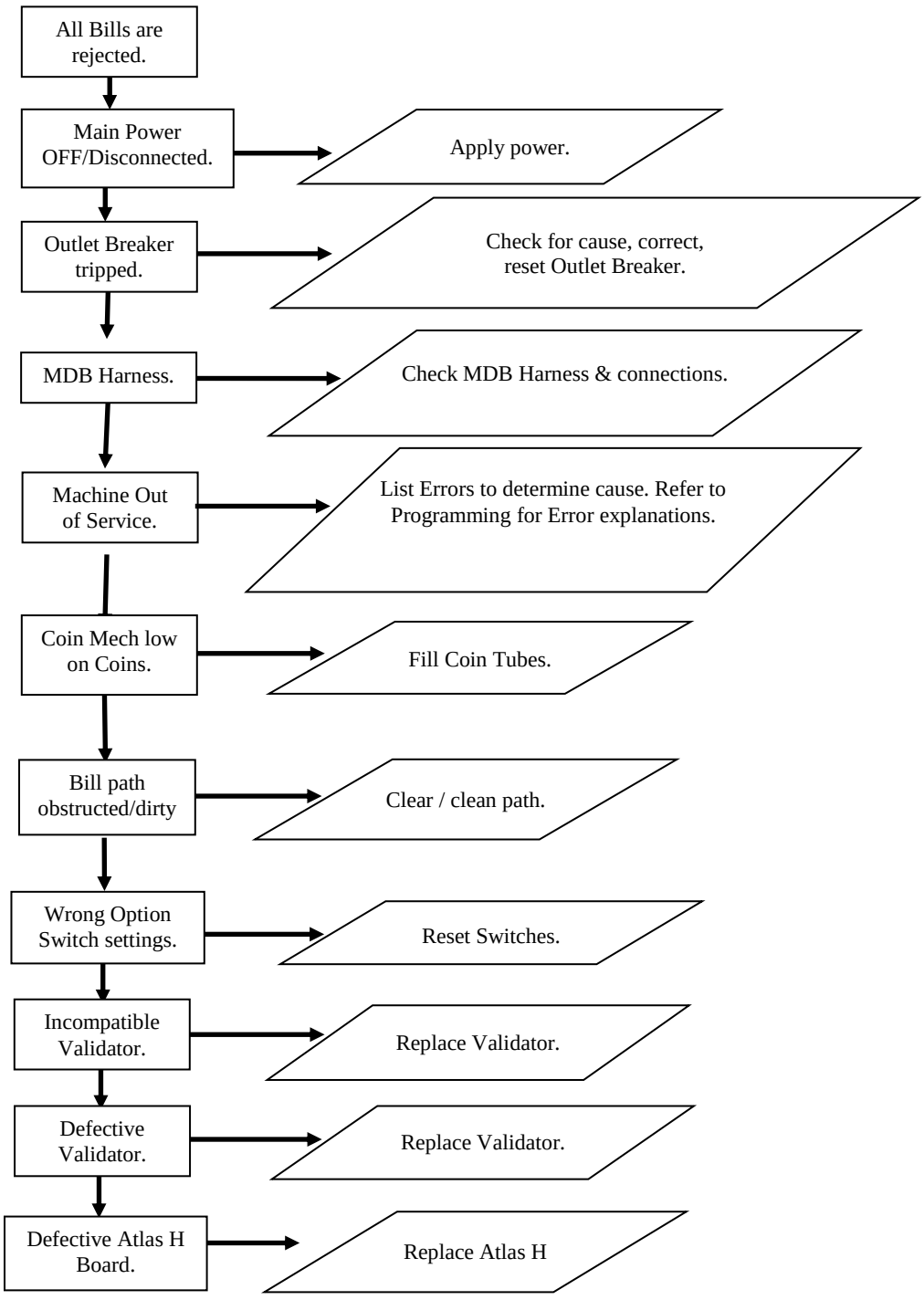
TROUBLESHOOTING FLOW CHARTS

These charts are intended as a guide to help isolate and correct problems you may encounter. Should your Machine show 'OUT OF SERVICE", check Active Errors in Diagnostics when first entering programming with 3333.

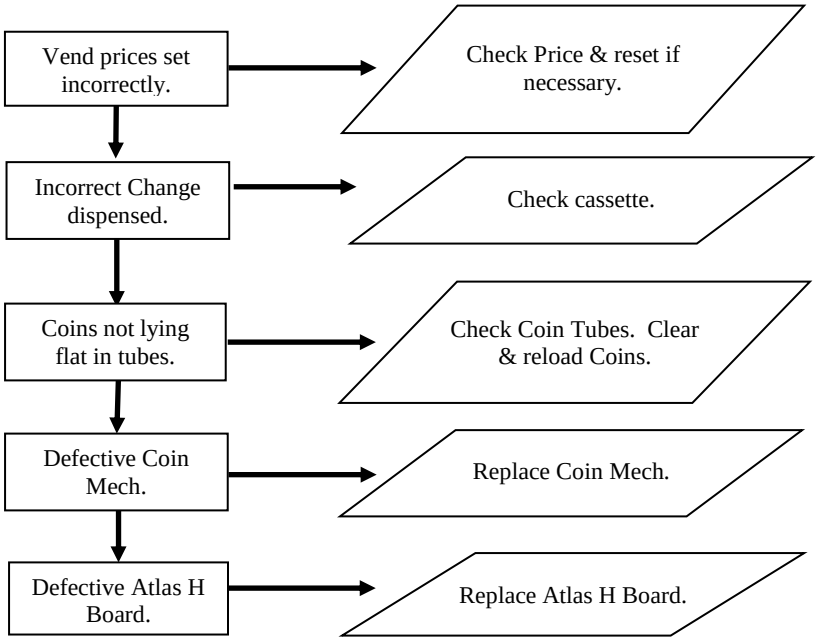
ALL COINS ARE REJECTED



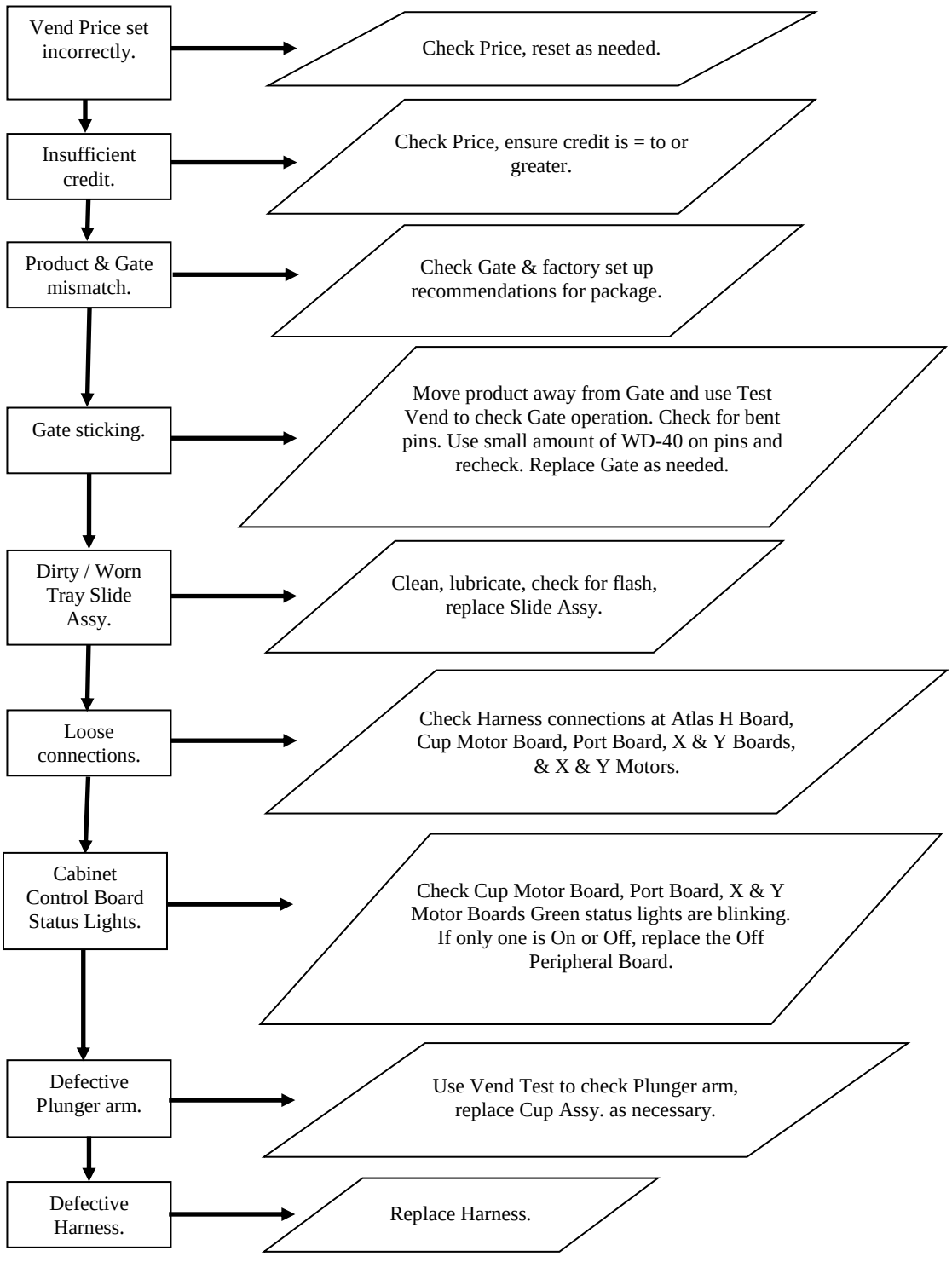
ALL BILLS ARE REJECTED



INCORRECT CHANGE DISPENSED

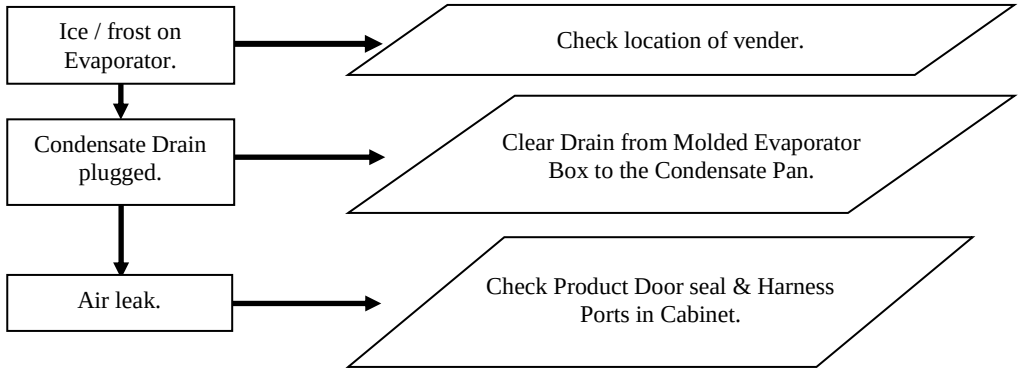


SELECTION WILL NOT VEND

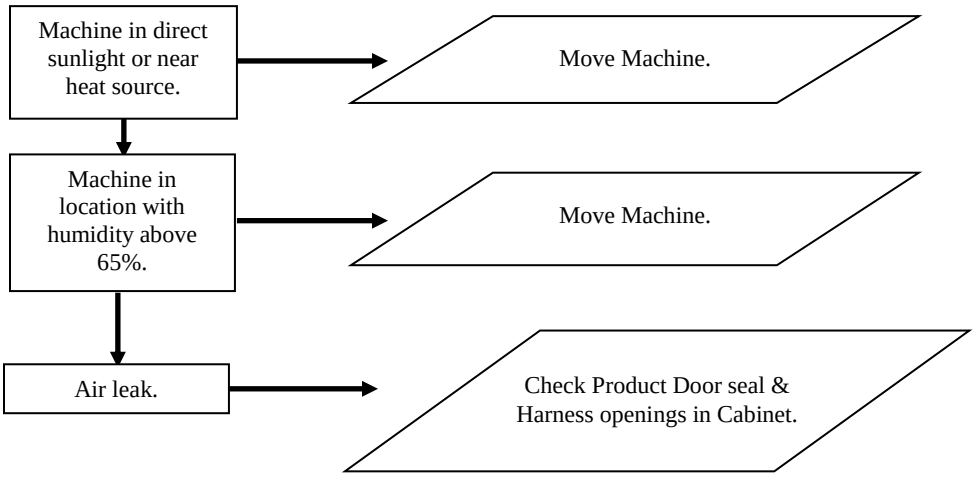


REFRIGERATION SYSTEM TROUBLESHOOTING FLOW CHARTS

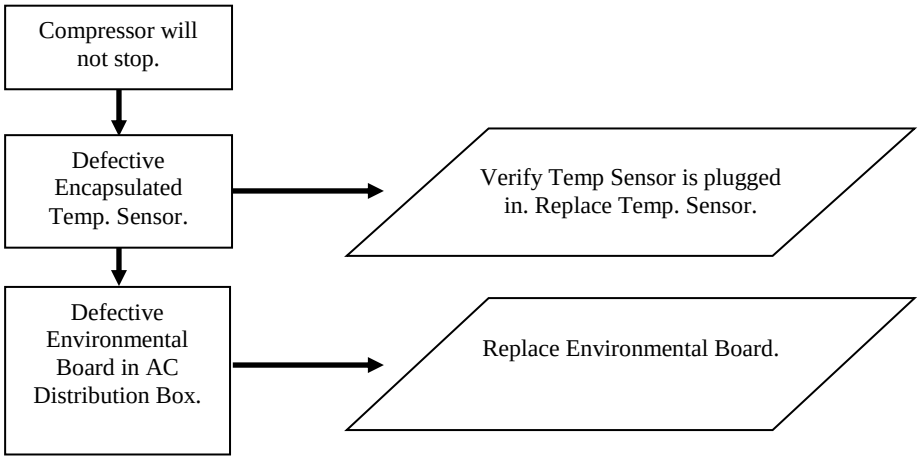
ICE / FROST ON EVAPORATOR



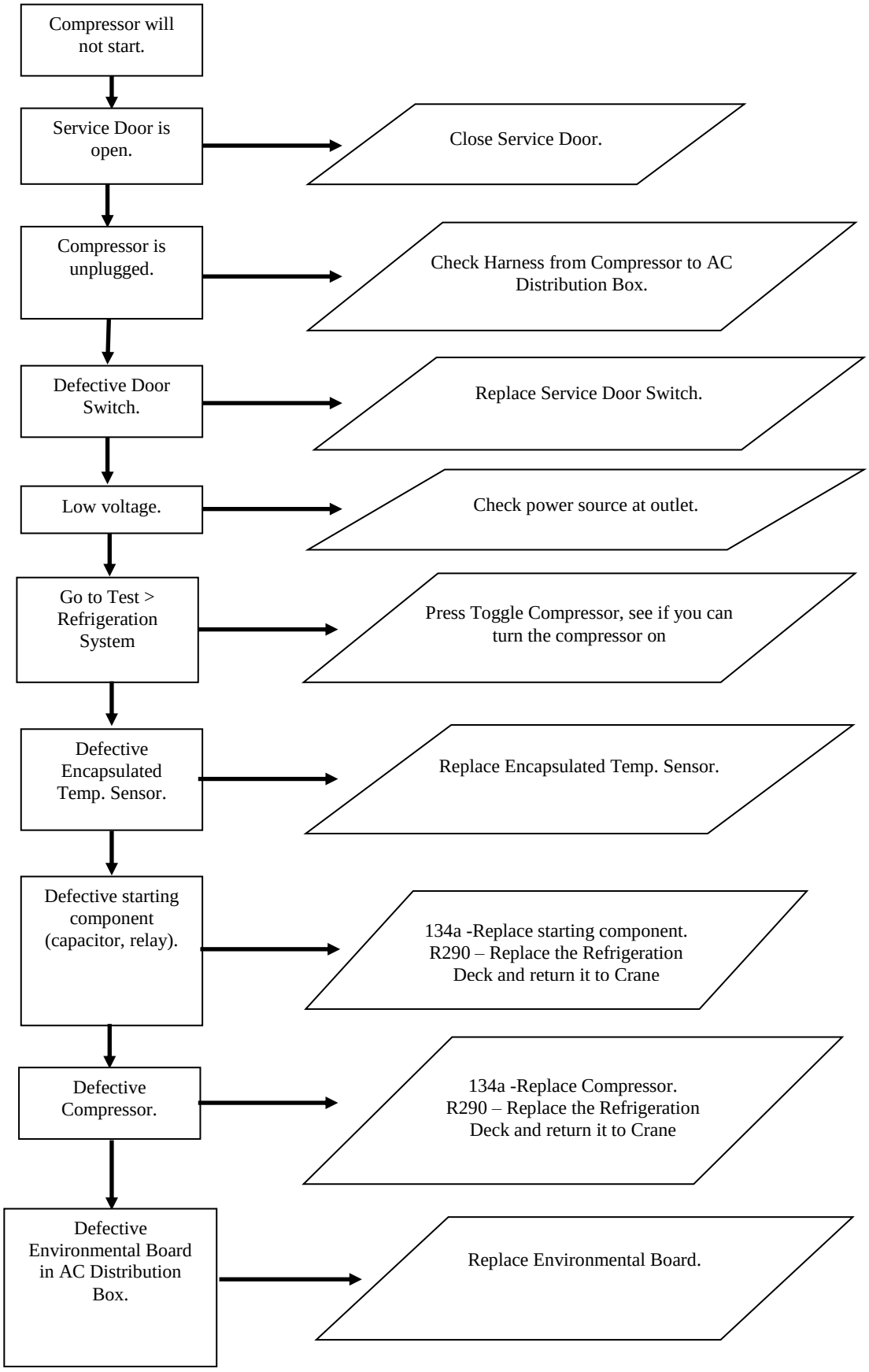
CONDENSATE ON OUTSIDE OF PRODUCT DOOR



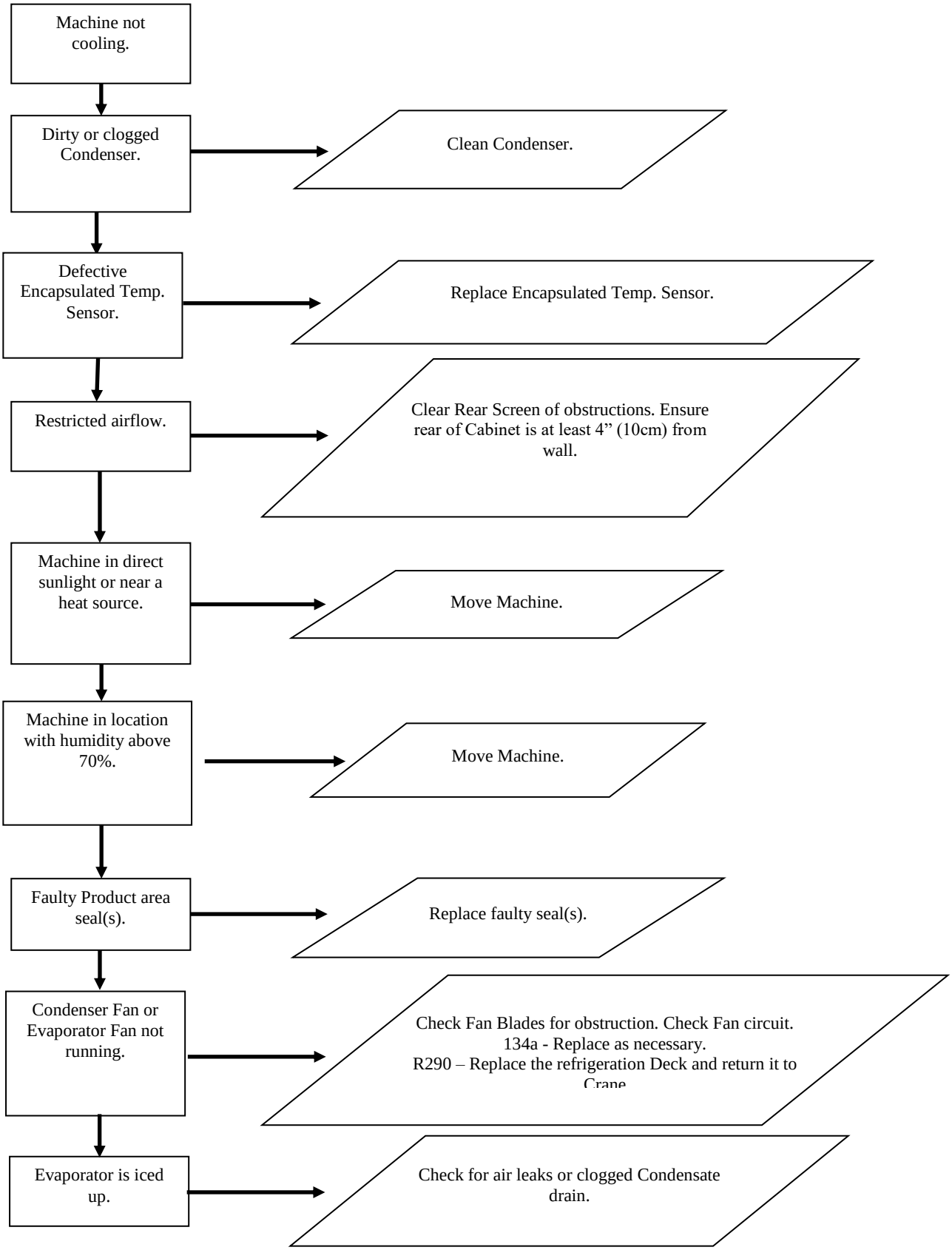
COMPRESSOR WILL NOT STOP



COMPRESSOR WILL NOT START



MACHINE NOT COOLING



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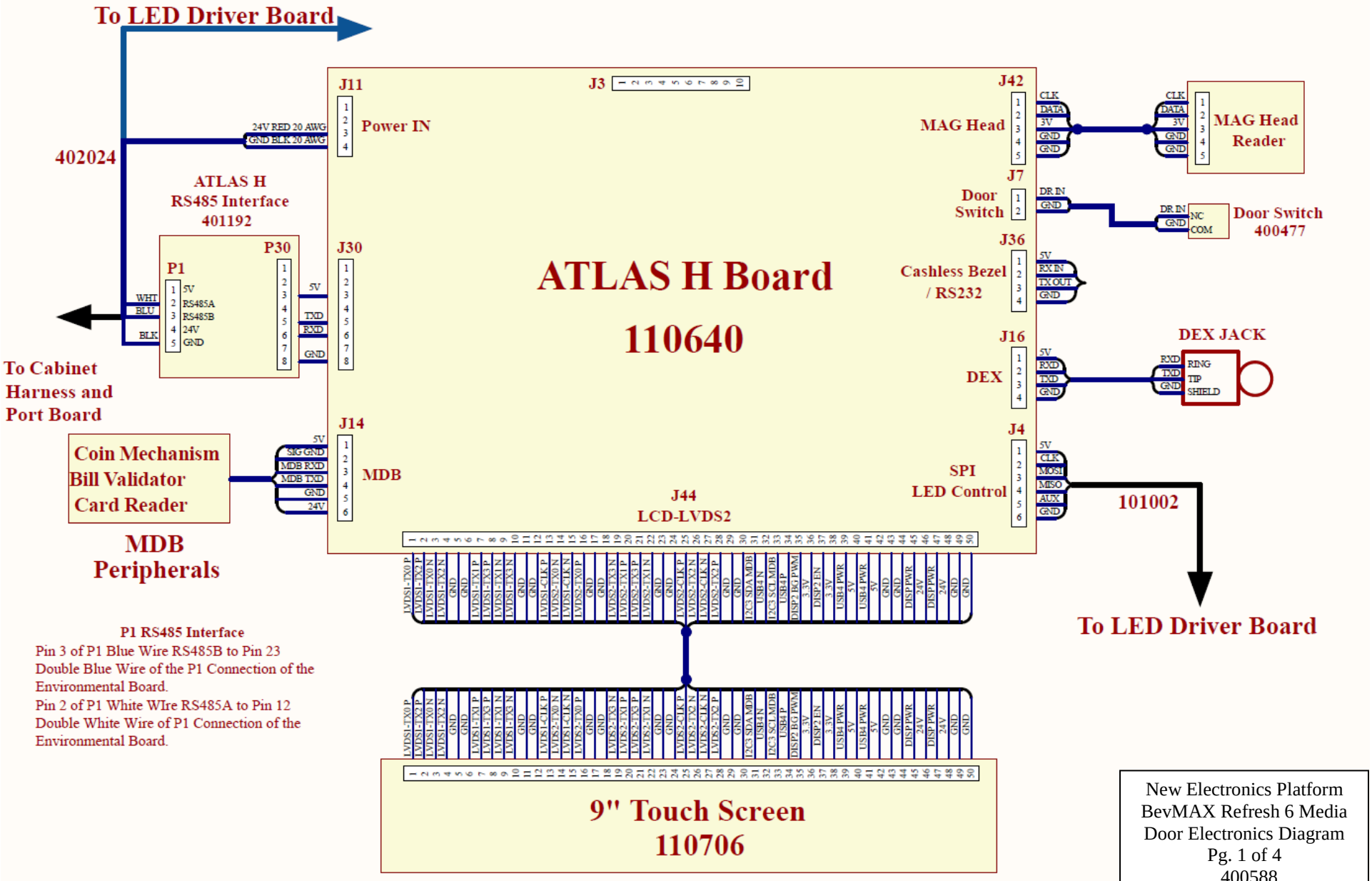
BevMAX Refresh Media 5800-6 & 3800-6 Door Electronics Diagram (Domestic & Export)



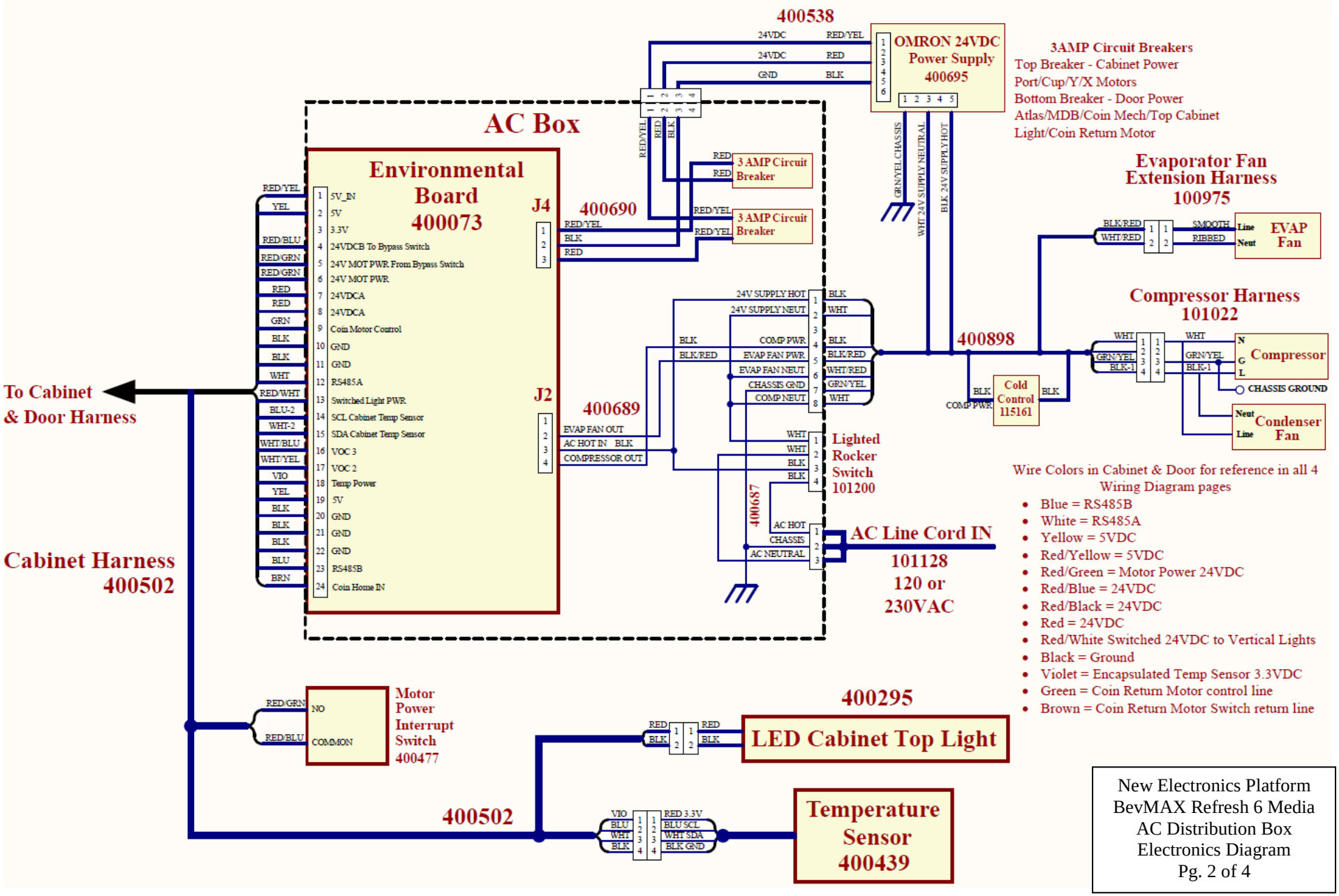
P1 RS485 Interface

Pin 3 of P1 Blue Wire RS485B to Pin 23 Double Blue Wire of the P1 Connection of the Environmental Board.

Pin 2 of P1 White WIre RS485A to Pin 12 Double White Wire of P1 Connection of the Environmental Board.

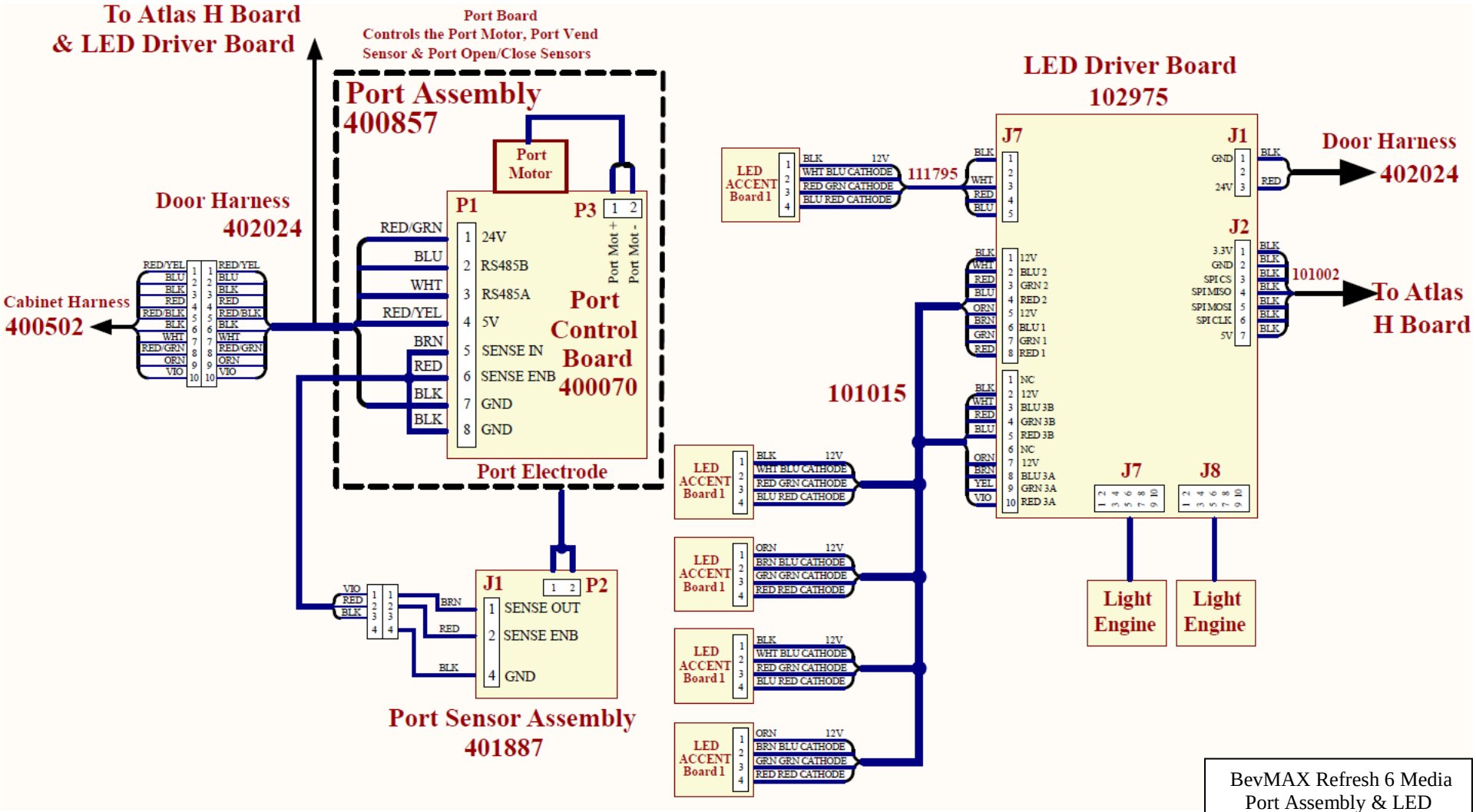
New Electronics Platform
BevMAX Refresh 6 Media
Door Electronics Diagram
Pg. 1 of 4
400588

BevMAX Refresh Media 5800-6 & 3800-6 AC Distribution Box Electronics Diagram (Domestic & Export)



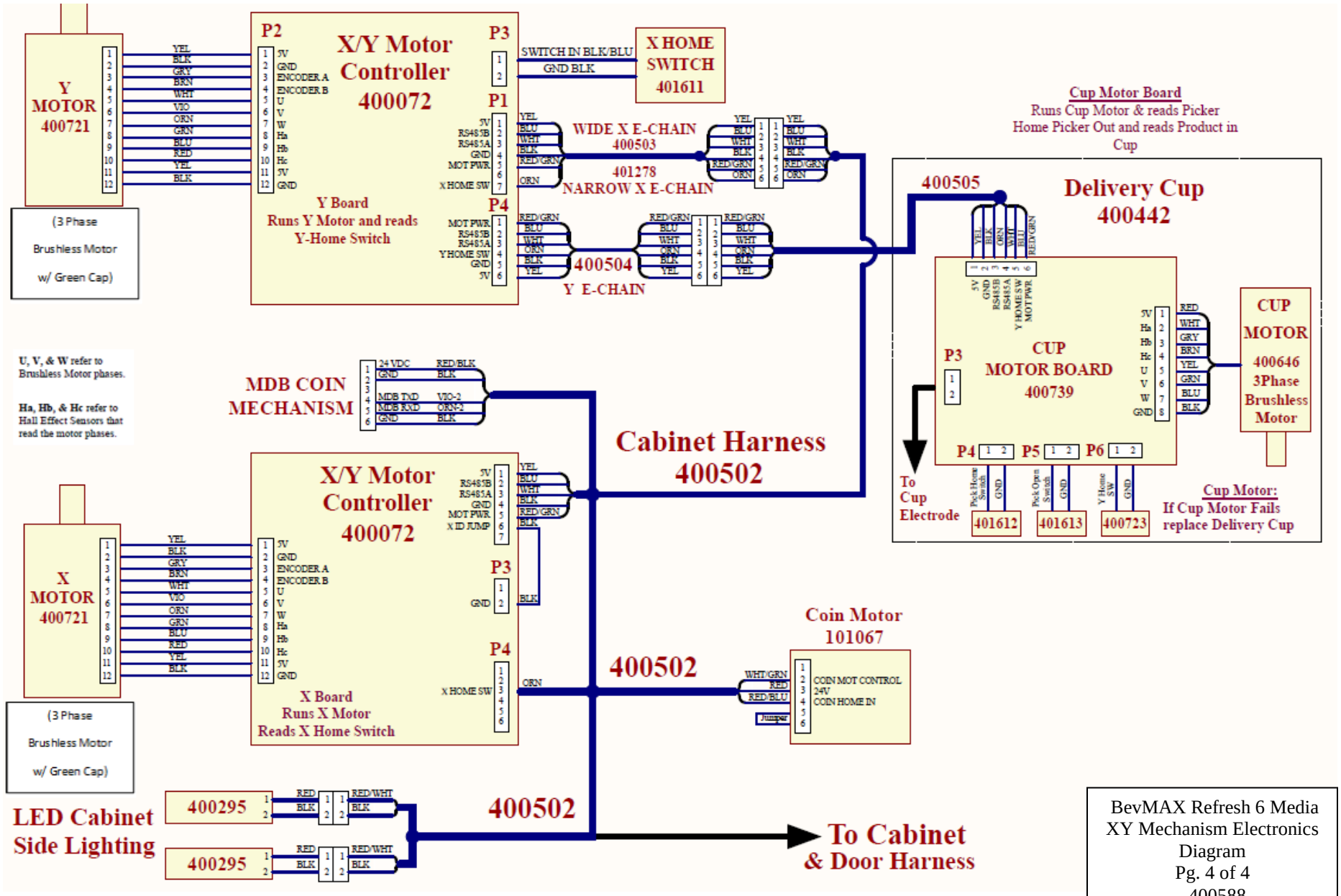
New Electronics Platform
BevMAX Refresh 6 Media
AC Distribution Box
Electronics Diagram
Pg. 2 of 4

BevMAX Refresh Media 5800-6 & 3800-6 LED Driver Board & Port Assembly Electronics Diagram (Domestic & Export)



BevMAX Refresh 6 Media
Port Assembly & LED
Driver Board
Electronics Diagram
Pg. 3 of 4

BevMAX Refresh Media 5800-6 & 3800-6 XY Mechanism Electronics Diagram (Domestic & Export)



BevMAX Refresh 6 Media
XY Mechanism Electronics Diagram
Pg. 4 of 4
400588

BEVMAX REFRESH 6 SEQUENCE OF OPERATION

- Machine is sitting powered up and in an idle state (waiting on a consumer)
- A credit is established by the consumer via coins, bill, or cashless device
- As the Atlas H Board recognizes the currency, it will instruct the display to show that amount and wait for activity on the Touch Screen
- When a selection is made by the consumer, the Atlas H Board will check the amount of credit available against the selection requested to decide if it can vend that product
- If the Atlas H Board determines the credit is adequate for that selection, it will then instruct the Touch Screen to show the word *"VENDING* and *ITEMS AND CHANGE BELOW"*
- The Atlas H Board will then communicate with the Y Motor Board via the RS485 to get its status, i.e., is its home switch closed, and it will communicate with the Cup Motor Board to ensure the picker home switch is closed. ***If the Picker is extended it will not turn on the X or Y motors***
- It will also communicate to the Port Board to determine if the Port Door is opened or closed
- Once the Atlas H Board is certain that the all home switches are closed, the Atlas H Board will instruct the X and Y Motor Boards to run the motors to the position that corresponds with the selection requested
- Once the Delivery Cup arrives at the selection, the Delivery Cup stops and both X and Y Motor Boards report to the Atlas H Board that they have arrived at the location, and their home switches are open. X and Y controllers will wait for the next command
- The Atlas H Board communicates with the Cup Motor Board and instructs it to activate (turn on) its Cup Sensor
- The Atlas H Board will instruct the Cup Motor Board to run its motor
- Once the Cup Motor runs, the Cup Motor Board will communicate to the Atlas H Board that it ran its motor and that it does or doesn't have product in the Delivery Cup
- If there is product in the Delivery Cup at this time, the Atlas H Board will instruct the Y Motor Board to decrease its position so many counts to ensure the product drops into the Delivery Cup
- The Atlas H Board will then instruct the X and Y Motor Boards to run their motors to take the Delivery Cup to the Hook Swipe position
- When the Delivery Cup arrives to the Hook Swipe position, the Atlas H Board will inquire if the product is still in the Delivery Cup
- If the Delivery Cup reports back that product is present, the Atlas H Board instructs the X and Y Motor Boards to swipe

- After the swipe motion the X will back off 1” and hold in place
- The Atlas H Board will ask the Cup Motor Board if the product is no longer in the Delivery Cup
- After all three boards report to the Atlas H Board that they have completed their tasks and that there is no product in the Delivery Cup, the Atlas H Board will instruct the X and Y Motor Boards to return the Delivery Cup to the home position
- Once the Delivery Cup arrives home, the X and Y Motor Boards will report back to the Atlas H Board that the Delivery Cup is home and advises the Atlas that there is or is not product in the cup.
- The Atlas H Board will tell the Port Board to open the Port Door and ask if it has product present
- The Port Board will open the Port
- The consumer removes the product, the Atlas H Board instructs the Port Board to close the Port
- The Atlas H Board will instruct the display to show “*THANK YOU FOR YOUR PURCHASE* and *ITEMS AND CHANGE BELOW”*
- The Atlas H Board will ask the Port Board if there is any product in the Port and leaves the Port sensor on for ~ 1 minute
- The Vender will go back to idle and wait for the next vend.

Notes:_____