ACSD
Installation Manual

Marmon Marmon Foodservice Technologies
A Berkshire Hathaway Company

Visit the Cornelius web site at www.cornelius.com for all your Literature needs.

The products, technical information, and instructions contained in this manual are subject to change without notice. These instructions are not intended to cover all details or variations of the equipment, nor to provide for every possible contingency in the installation, operation or maintenance of this equipment. This manual assumes that the person(s) working on the equipment have been trained and are skilled in working with electrical, plumbing, pneumatic, and mechanical equipment. It is assumed that appropriate safety precautions are taken and that all local safety and construction requirements are being met, in addition to the information contained in this manual.

This Product is warranted only as provided in Cornelius' Commercial Warranty applicable to this Product and is subject to all of the restrictions and limitations contained in the Commercial Warranty.

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Contact Information:

To inquire about current revisions of this and other documentation or for assistance with any Cornelius product contact:

<div align="center">

www.marmonfoodservice.com
www.cornelius.com
800-238-3600

</div>

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This document contains the original instructions for the unit described.

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Printed in the U.S.A.

Recycle

Correct Disposal of this Product:

This marking indicates that this product should not be disposed with other household wastes throughout the EU. To pre- vent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to pro- mote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling

EQUIPMENT REGISTRATION

MARMON Foodservice Technologies
A BERKSHIRE HATHAWAY COMPANY

Cornelius   PRINCECASTLE   SILVERKING   ANGELO PO AMERICA

Thank you for purchasing your equipment from the Marmon Foodservice Technologies family of brands. From technical support to warranty dispatch to replacement parts sales, Marmon Link provides your entire after-sales support for Cornelius, Prince Castle, Silver King, and Angelo Po America equipment.

Registering your equipment will help us keep you up to date on equipment information, preventative maintenance resources, and other topics. Your equipment's warranty will not be affected if you choose to not fill out this form.

To expedite the process, we ask that you have the following:

- The serial numbers of the equipment you purchased.
- The name and email address for a designed store contact.
- The general store information, including address location number.

REGISTER YOUR EQUIPMENT

To Maximize Your Benefits
- Comprehensive after-sales service
- Over the phone technicians
- Quick-ship parts

Complete with:
- Serial Number
- Equipment location details

SCAN ME TO REGISTER

Your equipment serial number will be validated against our database of existing serial numbers. If you are having difficulties entering a valid number, please contact Marmon Link at **1-866-275-6392**.

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SAFETY INSTRUCTIONS
READ AND FOLLOW ALL SAFETY INSTRUCTIONS

SAFETY OVERVIEW

• Read and follow **ALL SAFETY INSTRUCTIONS** in this manual and any warning/caution labels on the unit (decals, labels, or laminated cards).

• Read and understand ALL applicable OSHA (Occupational Safety and Health Administration) safety regulations before operating this unit.

RECOGNITION

Recognize Safety Alerts
This is the safety alert symbol. When you see it in this manual or on the unit, be alert to the potential of personal injury or damage to the unit.   ⚠

DIFFERENT TYPES OF ALERTS

⚠ **DANGER:** Indicates an immediate hazardous situation which if not avoided **WILL** result in serious injury, death or equipment damage.

⚠ **WARNING:** Indicates a potentially hazardous situation which, if not avoided, **COULD** result in serious injury, death, or equipment damage.

⚠ **CAUTION:** Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury or equipment damage.

SAFETY TIPS

- Carefully read and follow all safety messages in this manual and safety signs on the unit
- Keep safety signs in good condition and replace missing or damaged items.
- Learn how to operate the unit and how to use the controls properly.
- **Do not** let anyone operate the unit without proper training. This appliance is **not** intended for use by very young children or infirm persons without supervision. Young children should be supervised to ensure that they do not play with the appliance.
- Keep your unit in proper working condition and do not allow unauthorized modifications to the unit.

QUALIFIED SERVICE PERSONNEL

⚠ **WARNING:** Only trained and certified electrical, plumbing and refrigeration technicians should service this unit. **ALL WIRING AND PLUMBING MUST CONFORM TO NATIONAL AND LOCAL CODES. FAILURE TO COMPLY COULD RESULT IN SERIOUS INJURY, DEATH OR EQUIPMENT DAMAGE.**

SAFETY PRECAUTIONS

This unit has been specifically designed to provide protection against personal injury. To ensure continued protection observe the following:

⚠ **WARNING:**
Disconnect power to the unit before servicing following all lock out/tag out procedures established by the user. Verify all of the power is off to the unit before any work is performed.

⚠ **CAUTION:**
Always be sure to keep the area around the unit clean and free of clutter. Failure to keep this area clean may result in injury or equipment damage.

SHIPPING AND STORAGE

⚠ **CAUTION:**
Before shipping, storing, or relocating the unit, the unit must be sanitized, and all sanitizing solution must be drained from the system. A freezing ambient environment will cause residual sanitizing solution or water remaining inside the unit to freeze resulting in damage to internal components.

CO$_2$ (CARBON DIOXIDE) WARNING

⚠ **DANGER:**
CO$_2$ displaces oxygen. Strict attention **MUST** be observed in the prevention of CO$_2$ gas leaks in the entire CO$_2$ and soft drink system. If a CO$_2$ gas leak is suspected, particularly in a small area, **IMMEDIATELY** ventilate the contaminated area before attempting to repair the leak. Personnel exposed to high concentrations of CO$_2$ gas experience tremors which are followed rapidly by loss of consciousness and **DEATH.**

MOUNTING IN OR ON A COUNTER

⚠ **DANGER:**
When installing the unit in or on a countertop, the counter must be able to support a weight of 400 lbs. to ensure adequate support for this unit and supporting equipment.
FAILURE TO COMPLY COULD RESULT IN SERIOUS INJURY, DEATH, OR EQUIPMENT DAMAGE. NOTE: Many units incorporate the use of additional equipment such as icemakers. When any additional equipment is used you must check with the equipment manufacturer to determine the additional weight the counter will need to support to ensure a safe installation.

UNIT LOCATION

⚠ **CAUTION:** Appliance is not suitable for installation in an area where a water jet could be used.

⚠ **CAUTION:** The appliance must be placed in a horizontal position.

⚠ **CAUTION**: This unit is not designed for use in outdoor locations.

⚠ **CAUTION:** This appliance is only to be installed in locations where its use and maintenance is restricted to trained personnel.

CHECKLIST

This check list is intended to permit the installer to be sure all aspects of the installation have been completed.

- [ ] INSPECT FOR SHIPPING DAMAGE
- [ ] PLACING DISPENSER IN OPERATING POSITION
- [ ] INSTALLING LEGS (OPTIONAL IF REQUIRED}
- [ ] POWER AND COMMUNICATION CONNECTION
- [ ] DRAIN LINE INSTALLATION
- [ ] SYRUP BACKROOM TO COLDPLATE CONNECTIONS
- [ ] WATER INPUT CARBONATION DECK TO COLDPLATE INSTALLATION
- [ ] INLET AIR OR CO2 CONNECTION
- [ ] CLEAN AND SANITIZE THE ICE HOPPER AND ICE CHUTE
- [ ] INSTALL ICE MAKER AND START MAKING ICE
- [ ] IP & POS-ADDRESS SET UP IN UI
- [ ] SET UP ICE TYPE IN UI
- [ ] MAP BRANDS IN UI
- [ ] MAP CUPS IN UI AND FILL CUPS IN CUP DISPENSER
- [ ] FILLING PRODUCT TUBES (PRIMING)
- [ ] SET WATER FLOW RATE USING UI and VALVE FLOW CONTROLS
- [ ] ADJUST SYRUP RATIO USING UI and VALVE FLOW CONTROLS
- [ ] ADJUST ICE PORTION USING UI AND PHYSICAL DISPENSE
- [ ] ADJUST FILL CALIBRATION OF ICE IN CUP VS BEVERAGE
- [ ] CHECK/ADJUST TOP-OFF/FLUSH
- [ ] FILL OUT BRAND LINE UP FORM FOR POS PROGRAMMING

INSTALLATION KIT

The following installation kit contains the components required to install the ACSD. This description is designed to assist you in identifying the components and checking inventory.

ITEM	PART NUMBER	DESCRIPTION	QTY
1	70750	CLAMP - HOSE SCREW	**2**
2	629097874	KIT PUMP/MTR COLD CARB 115V BLK REG	**1**
2*	740002836	KIT PUMP/MTR INTELLI CARB 230V	**1**
3	629098017	KIT 30" UNVRSL ICE MAKER ADAPT SUPPORT BARS	**1**
4	740002507	TUBE 6' DRAIN INSULATION ASY	**1**
5	620054693-001	REG WATER 65 PSIG W 3/8 FITTINGS	**1**
6	620062568-005	CORD POWER, 115V RA IEC60320-C13 TO NEMA 5-15	**1**
6*	620049959-018	CORD POWER 230V JAPAN C13 TO L6-209	**1**
7	621058798INS	INS MANL INSTL ACSD	**1**
8	621058798OPR	OPR MANL OPERATOR ACSD	**1**
9	620074749	LABEL - EXIT TUBE CUP SIZES, 7 LABELS	**1**
*		Replaces 115V specific part for 230V region	

SYSTEM OVERVIEW

The ACSD is designed for drive-through area installation or locations accessible only by employees. When a beverage is ordered from the P.O.S. register, the ACSD automatically drops a cup, fills it with ice and dispenses the correct amount and type of any syrup based beverage. The finished drink is then moved by the carrousel to the pick up location and the drink description is displayed on the User Interface Screen.

Operation of the ACSD is restricted to employees and service personnel that have been trained and certified in proper operation, service and maintenance of equipment.

SPECIFICATION

Unit Dimensions	Length	40.96 inch (1040.50 mm)
	Width	29.96 inch (760.80 mm)
	Height	39.16 inch (994.69 mm)
Unit Weight	Dry Weight	480 lbs. (218 kg)
	Operational Weight (With ice, water, etc.)	800 lbs. (363 kg)
Cooling Method	Cold Plate	Ice
Ice Storage Capacity	Hopper ice capacity	200 lbs. (91kg)
Electrical	Line Voltage and current	115VAC, 60 HZ 1PH, 3A 230VAC 50/60HZ 1PH, 3A
	Connection method	IEC-NEMA C13
Supply Pressure	Water	90±15 psi (0.55±10 MPa)
	Syrup	65±15 psi (0.48±10 MPa)
	CO_2/Air	90±10 psi (.55 ±.07 MPa)
Temperature	Water & Syrup	Max 35°F (1.7°C) Water & 38°F (3.3°C) Syrup
	Operating Ambient	65°F (18°C) to 95°F (35°C)
Clearence Requirement	Top	No ice Maker:1905mm [75 inch] + 304.8 mm [12 inch] refill area = 2209.8 mm [87 inch] With ice Maker: 2501.9 mm [98.5 inch

FEATURES

Mounting type	Optional 4 legs or Cart with casters/Leg
UI interface type and size	Two 177.8 mm [7 inch] Touch screen display
Number of Brands	12
Number of Flavors	4 (Optional Ambient)
Cup storage	4 cup dispenser
Lid Storage	4 Lid compartments on optional cart
Ice dispensing	1 portion-controlled ice dispenser
Product dispensing	Cornelius Multi Flavor Valve
No of stage drinks	4

Unit Footprint Drawing
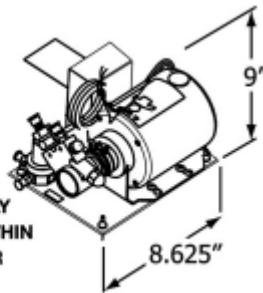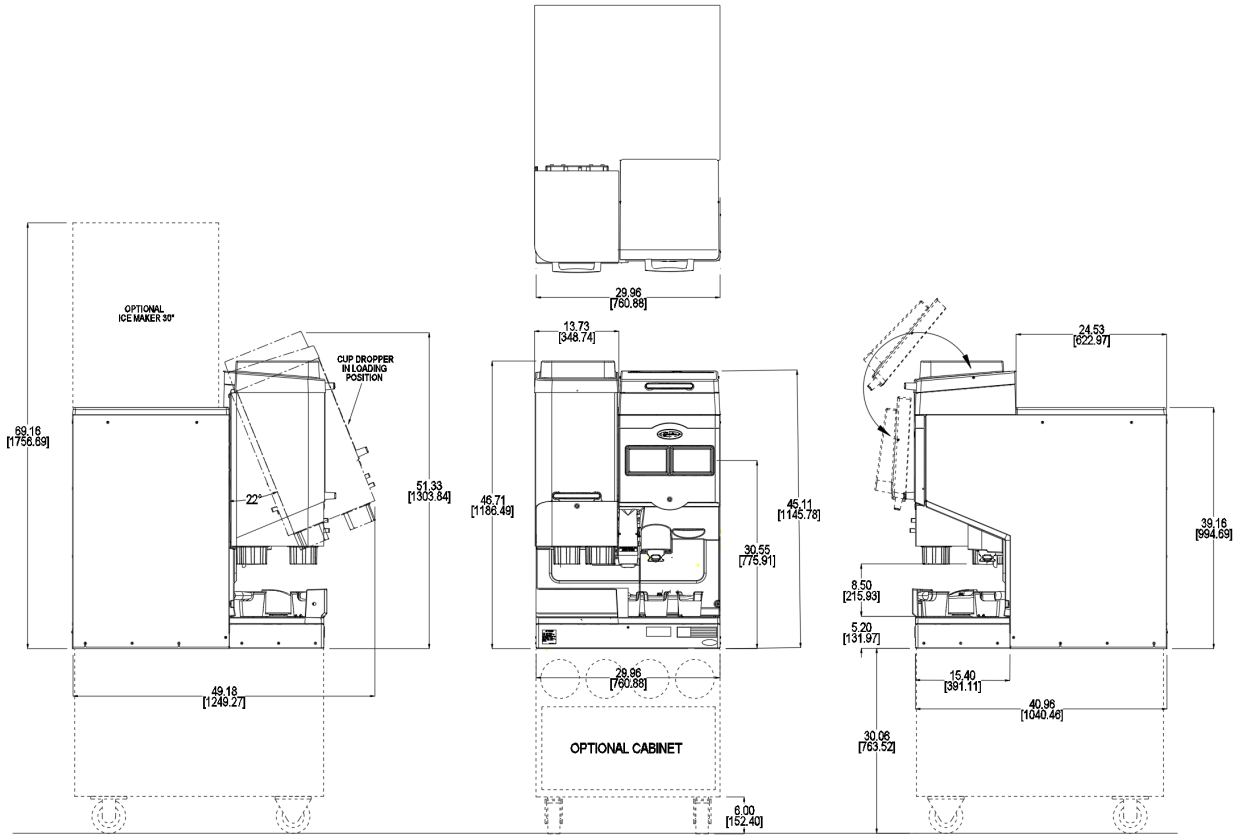
NOTE: PUMP & MOTOR ASSEMBLY
MUST BE POSITIONED WITHIN
8 FEET OF THE DISPENSER

UNPACKING AND INSPECTION

⚠️ **CAUTION:**

Do not lay the unit on its FRONT or SIDES without packaging. This may cause DAMAGE to the display or cladding, consequently voiding the warranty.

The unit was thoroughly inspected before leaving the factory and the carrier has accepted and signed for it. Any damage or irregularities should be noted at the time of delivery and immediately reported to the delivery carrier. Request a written inspection report from Claims Inspector to substantiate any necessary claim. NOTE: Marmon Foodservice Technologies is not responsible for damaged freight. If damage is found, you must save all packaging material and contact the freight carrier. Failure to contact the carrier within 48 hours of receipt may void your claim.

- Inspect the carton and note any damage, regardless of if it appears minor. If the carton is damaged, note on the consignee copy of the freight invoice "exterior carton damage – concealed damage possible" and contact the freight company immediately.

- Open the carton sleeve, internal fillers and plastic bag around the unit. Carefully inspect the unit for damage.

- Remove the packing fillers from the top of the unit.

- Inspect the dispenser tower and make sure it has no scratches, cracks or any other cosmetic defects.

- Make sure that the glass touch screen is not scratched or cracked.

- Open the packages of loose parts and inspect all of the parts for damage or missing parts. Check the parts received against the packing list to insure receipt of all parts.

NOTE: Date of manufacture of unit included in the unit serial no. as follows:

CS A 2203 AVT 0001

| Manufacturing Site | Revision Code | Date Code (Third week in 2022) | Product Group | Unit Number |

1. After inspecting for damage, remove all packaging materials.

2. Carefully remove the carb pump kit and any other accessories inside the hopper and set aside.

3. When the unit is mounted directly on the countertop, the beverage tubes, drain tube and power cord are routed through the large opening in the bottom of the unit between the base legs.

    NOTE: Recommended counter opening size 9X12 for utilities and beverage tubing.

4. If the unit is directly mounted on the counter without the legs, liberally apply a sealant, such as Dow Corning RTV 731 or equivalent, all around the mounting surface of the unit which sits on the counter.

    Note: To comply with the National Sanitation Foundation (NSF) requirements, the unit must be sealed to the countertop.

5. Lower the unit into position to complete the seal to the countertop. Apply additional sealant around the to ensure a complete seal.

6. Remove any excess sealant immediately, the result is intended to prevent liquid spillage on adjacent surfaces of the countertop from passing under inaccessible portions of the equipment.

7. Do not move the unit after positioning or the seal will be broken.

INSTALLATION

⚠️ **The dispenser is heavy thus will require a second person or lifting device capable of lifting 500lbs!**

COUNTERTOP INSTALLATION

The stainless-steel counter will need to be able to support 900lbs and be a minimum 25" deep.

OPTIONAL LOWER CABINET (621058802)

Legs included with the Cart.
Optional casters available for purchase.
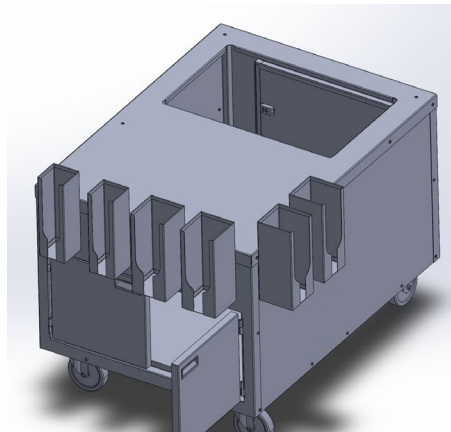
OPTIONAL Unit LEGS

The legs will lift the dispenser 4"- 6".
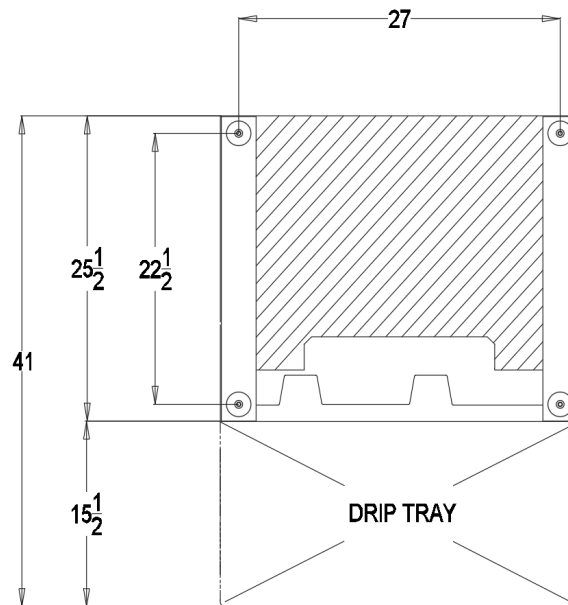
Dispenser Leg & Mounting Location

SELECTING A LOCATION

The dispenser must be located near a permanent drain to route and connect the unit ice bin and drip tray drain hoses. All drains and connections to such drains must meet local plumbing codes.

The unit must be located near a properly grounded electrical outlet. Circuits should be fused and no other electrical appliance should be connected to the circuit. **ALL ELECTRICAL WIRING MUST CONFORM TO NATIONAL AND LOCAL ELECTRICAL CODES.**

INSTALLING THE DISPENSER

⚠️ **WARNING:**

It is the responsibility of the installer to ensure that the water supply to the dispensing equipment is provided with protection back flow by an air gap as defined in ANSI A 112.1.2-1979; or an approved vacuum breaker or other such method as proved effective by test and must comply with all federal, state and local codes.

Failure to comply could result in serious injury, death or damage to the equipment.

Water pipe connections and fixtures directly connected to a potable water supply shall be sized, installed and maintained according to Federal, State and Local laws.

⚠️ **CAUTION** — Only trained and certified electrical, plumbing and refrigeration technicians should service this unit. **ALL WIRING AND PLUMBING MUST CONFORM TO NATIONAL AND LOCAL CODES.**

INSTALLATION REQUIREMENTS

Requirements Summary
Weight: Front and rear counter must be level and able to support 1200 lbs.
Temperature: 40 to 110° F ambient temperature
Clearance: Zero clearance on sides and rear, additional clearance may be needed for wind guard accessory.
Water: See nameplate on unit.
Electrical: See nameplate on unit.
CO2 Supply: See nameplate on unit.

ELECTRICAL REQUIREMENTS

Before connecting electrical power to the unit refer to a nameplate to verify power requirements.

Region	Plug Type	Voltage-Frequency-Phase
North America's	IEC-NEMA 5-15P	120 VAC – 60 Hz – 1Ph
European CENELEC	CEE7/7	220-240 V, 50-60 Hz – 1Ph
Great Britain/Ireland	BS1363A	220-240 V, 50-60 Hz – 1Ph
Australia	AS3112	220-240 V, 50-60 Hz – 1Ph
Japan	L6-20P	220-240 V, 50-60 Hz – 1Ph

INLET WATER & SYRUP CONNECTIONS

TOOLS & MATERIALS RECOMMENDED

- Tubing 3/8"
- Tubing ¼"
- Oetiker Clamps 3/8" & ¼"
- Crimping tool
- CO2 Supply
- Lifting Device
- RTV

DISPENSER VALVE OPERATING PRESSURE

The Recommended operating pressure for the brand is 65-75 PSI (4.5-5.2 bar) and water is 50-60psi (3.4-4.2bar).

CONNECTING PRODUCT TO THE DISPENSER

Valve must have a supply connected to each inlet. Refer to the plumbing diagram for details of the hook-up.

NOTE: All inlet connections are clearly marked with a label adjacent to the inlet connections. Always leak check all connections.

WATER & SYRUP LINE CONNECTIONS (Refer Plumbing diagram in Appendix)

- (2) Water Valves / (4) water valves for Mid carb option.
- (12) Syrup Valves
- (4) Ambient Syrup/ Flavor Valves (OPTIONAL)

SYRUP LINES CONNECTIONS
(Refer Plumbing diagram in Appendix)

1. To install the syrup and water lines and brix the valves the splash panels will need to be removed. Remove the carousel cover, cup carousel and Nozzle. Open the E-Box door and remove the two screws and one on the right wall. The lower panel can now be removed.
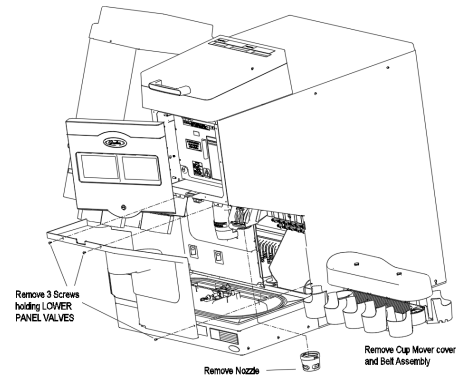
2. To access the left splash panel mounting screws lift the cup dispenser into the load position. Removing the two panels on the left side (Figure 2B) will give access to the carb tank and water and syrup line input connections.
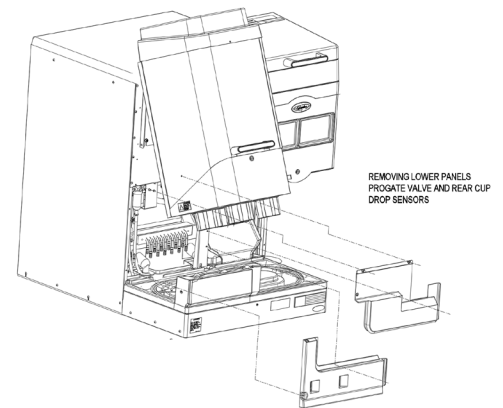
3. Locate the water, syrup, and flavor lines (optional) under the counter.
4. The lines will be marked S1 through S12 for syrups and F1 through F4 for flavor lines
5. Connect syrup lines 1-12 from the Coldplate to the appropriate product lines.

CARBONATOR DECK INSTALLATION AND OPERATION
 (See Appendix for INSTALLATION).

 The **ACSD** is unique from other dispensers in that there is only one water line that inputs the cold plate for carbonation and still water. This requires a bypass with check valve to be installed around the Carbonation Deck. This is required to allow water to flow into the cold plate when the carbonation pump is not running for plain water dispense.

NOTE: Refer to Plumbing diagram.
NOTE: Carbonator pump must be positioned within 8ft of the unit.

CO$_2$ Gas Installation

Connect the gas on the Carbonation Deck regulator to the Carbonator gas inlet line. The gas feeding the Carbonation Deck will need a line split off to also connect to the regulator that feeds the **PROGATE** pneumatic circuit.

INSTALLING POWER AND COMMUNICATION CABLES

- Plug in power cord into appliance inlet.
- Plug in the communications cable.
- Cable tie to the snap mounts and the route all cables under dispenser.

Communication Plug

Appliance inlet
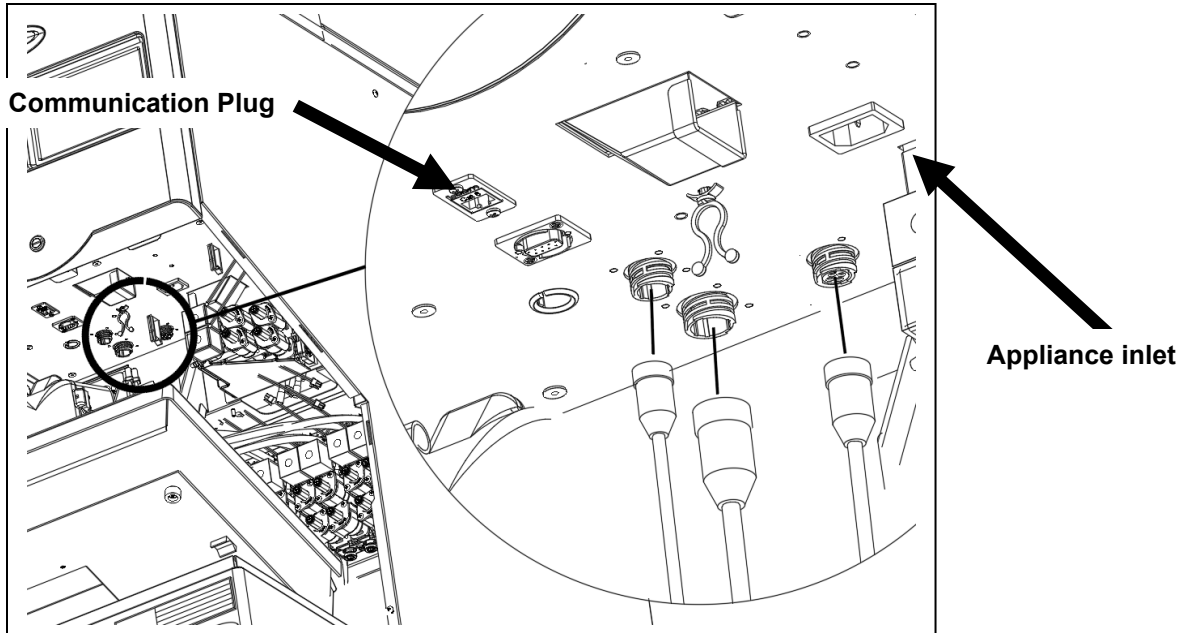
PREPARING FOR OPERATION

To Power Up

1. To open the door and access PWR on switch, position hands at the bottom of door and pull forward.
2. Swing door until it locks in open position.
3. With the door open, turn on PWR switch.
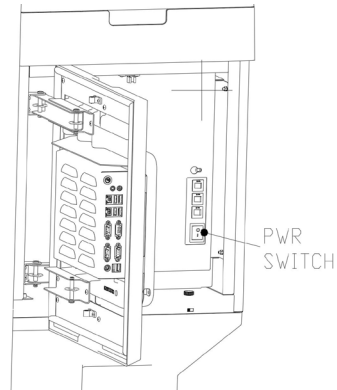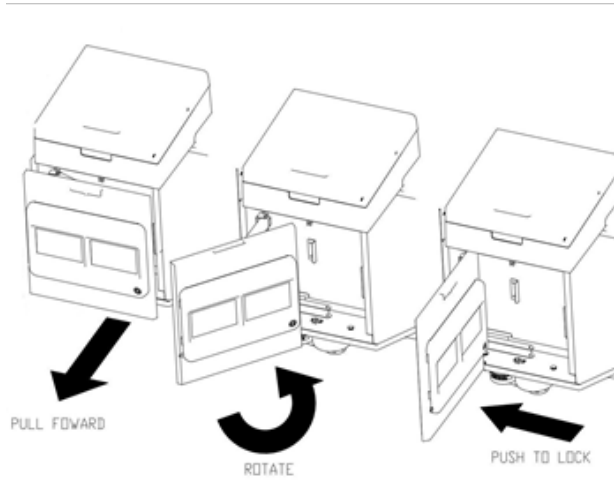
MANUALLY LOADING ICE
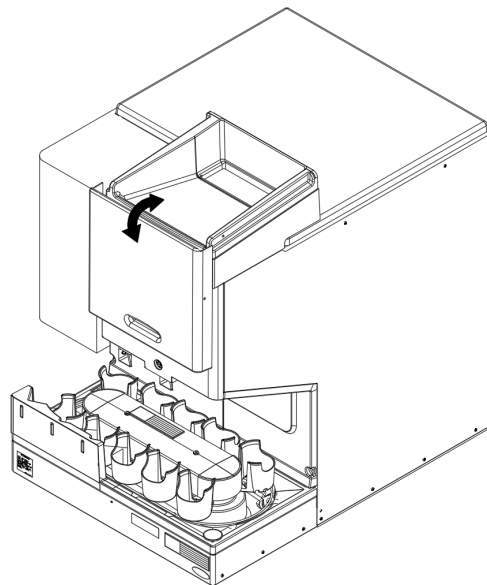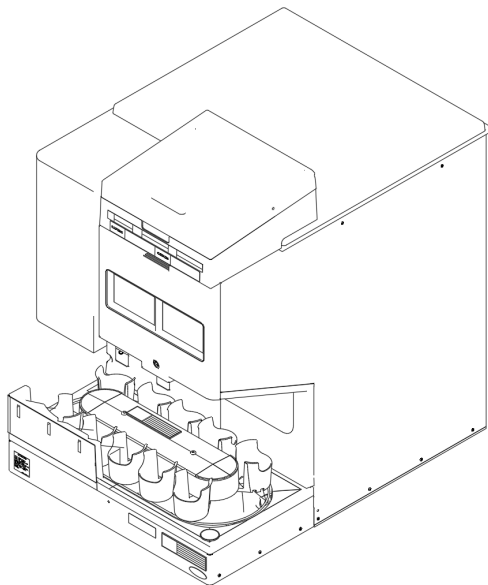
USER INTERFACE SETUP & PROGRAMMING

UI PANEL AND EXPLANATION

Under normal usage the dispenser will receive orders from the **P**oint **Of S**ale (**POS)** system in the restaurant. When the POS is being used the UI will display the orders and location of the order of staging on conveyor. If the POS is not available, or if orders need to be corrected, orders can be manually entered via the right screen.

The UI layout contains the following options.

1. **Service Menu:** This button is used to enter the setup and diagnostic menu of the dispenser.
2. **Order Queue:** This button allows the operator to monitor the next beverage loaded in the que.
3. **Conveyor status:** This section will show the cup and its contents in the staging location of the carousel.
4. **Cup Size:** Used to select the desired cup size for non-POS orders.
5. **Ice Volume:** Used to select the desired ice portion size for non-POS orders.
6. **Mapped Brand Selection:** Used to select the desired brand for non-POS orders.
7. **Flavor Shots:** If installed, this section allows this operator to select the desired flavor for non-POS orders.
8. **Water Selection:** Used to select the between Soda water and plain water for non-POS orders.
9. **ENTER Button:** Selecting the cup, ice and brand press enter to execute non-POS orders order.
10. **Error alert:** Display's error alerts that requires attention.
11. **Automatic / Manual Mode:** Allows the operator to switch to Manual Mode operation if any parts of the cup dispense or conveyor systems are inoperable. The conveyor should be removed during Manual Mode for easy access to the ice chute and beverage nozzle. Manual Mode allows operation like a traditional beverage dispenser with push and hold pouring and tap for ice dispense.

SETUP FOR OPERATION

It is recommended to go in this order when setting up the dispenser.
To get to the diagnostic screen push the "Service mode" button.

The illustration below shows the menu screens that are available through the **"SERVICE MENU"** icon. These options will be used during installation setup and diagnostics if required.

The UI will prompt the technician to type in the service password to enter the menus for Setup and Diagnostic screens.

The unit setup wizard contains the Menus most used and required to initially set up the dispense. Diagnostics, System settings and other menus can be accessed through the dashboard icon. It should be noted that the setup wizard screens can also be found in the Dashboard screen.
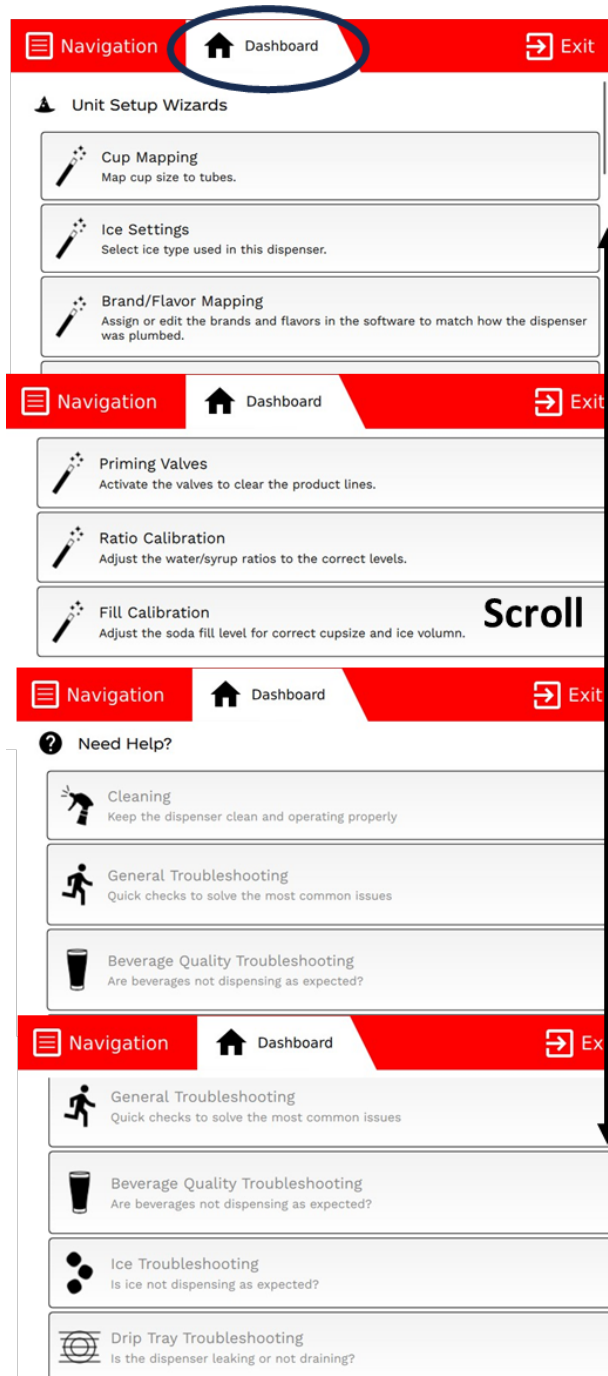
ICE CALIBRATION

The "Ice Level Calibration" menu allows the technician to set the four different volumes of ice for each cup size. This should be done before calibrating the cup fill heights. The dispenser will require setup to know type ice and calibrate volume. Before starting this procedure make sure ice is in the hopper and the ice chute is always filled between cycles.

1. In the pull down select "Ice Type Setting."
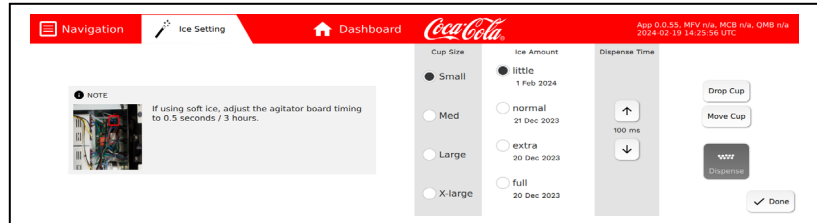
2. Select the type of ice that the dispenser will be using.
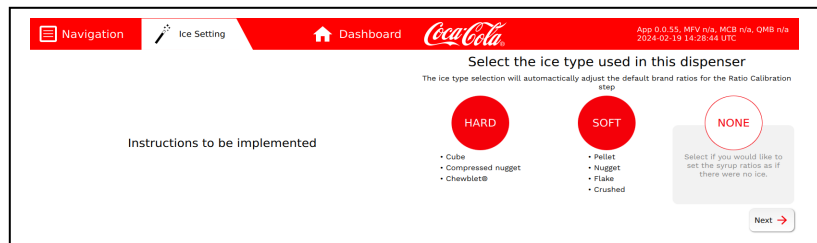
3. The "ICE VOLUME SETTING" selection allows the technician to set & customize the ice sizes ICON. (Recommended to use defaults if present). Entering a number will change the Ice Icon that will be displayed in the UI.
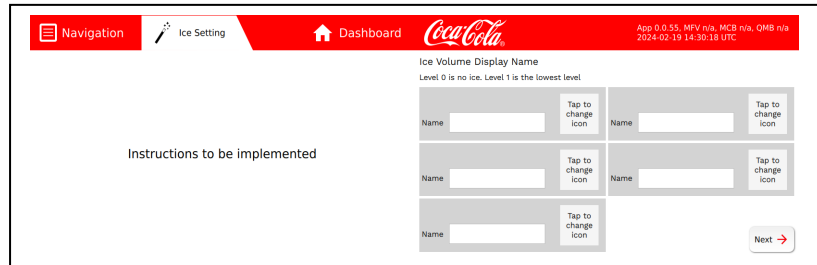
4. The **"ICE LEVEL CALIBRATION"** is used to calibrate the **PROGATE ICE DISPENSE CHUTE** to the amount of ice in the different size cups. Each ice condition needs to be checked and adjusted as to more time if ice is low and less time if ice is higher than the proper height. **Note:** Different ice types and quality will change the volume in a cup and occasionally should be validated.
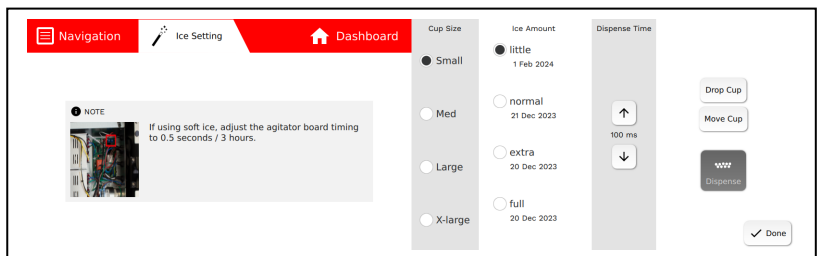
Mapping Brands

Syrup Valves will require telling the computer what Brand will run through the valve. If there is no Brand selected the valve will not operate or be usable.

"Brand Editor" Screen

"BRAND EDITOR" assigns the brand icons available to what the dispenser will use. It can be found in the **"DASHBOARD"** pull down menu. Select an icon from the left and importing will make that ICON available for current and future setups. If the brands are already there proceeded to the next step.
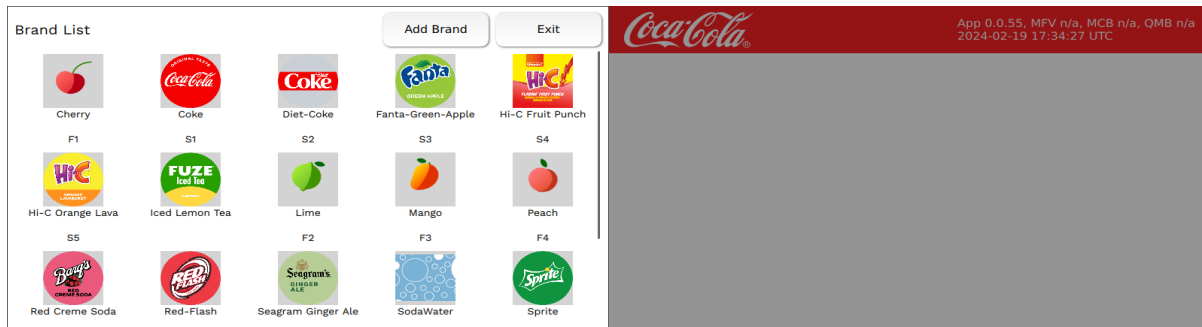
The selected icon will show up on the RIGHT screen and now be available to assign to a valve.
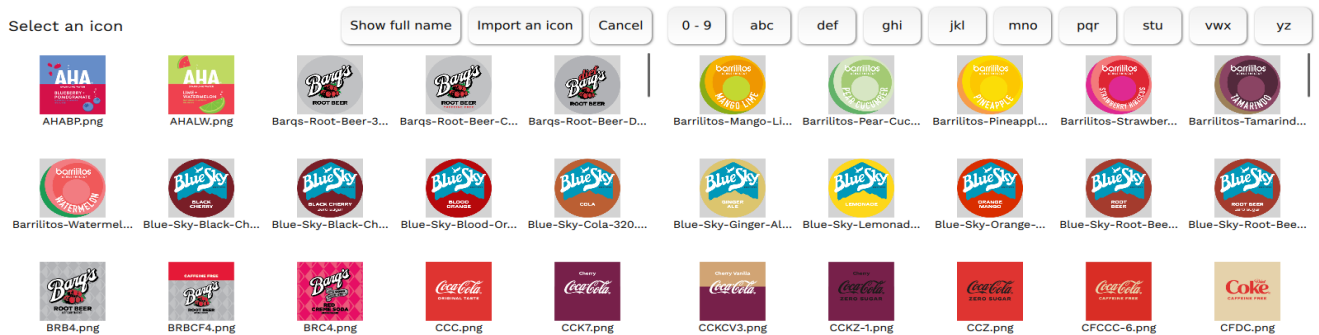
"Mapping Brands/Flavors"

Each valve is connected to a dedicated line in the cold plate. The brand or flavor that was previously plumbed from the BIB to the cold plate must now be assigned a valve number, so the computer knows what valve to turn on when and order is placed. Select the Brand/Flavor mapping wizard option.
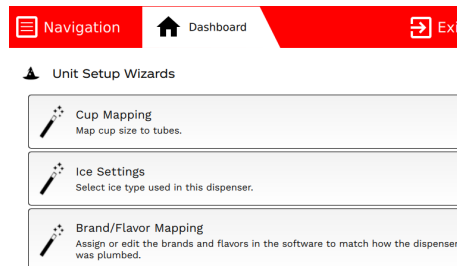
The "BRAND/FLAVOR Mapping" Screen is required to assign a BRAND to a VALVE. A syrup valve will not function if a brand is not mapped to it. It is also used to change a brand later if required. The main screen prompts the technician to the next screens that guide through the Brand /Flavor setup. If brands needed are not present, check that the valves were mapped in the "BRAND EDITOR" selection.
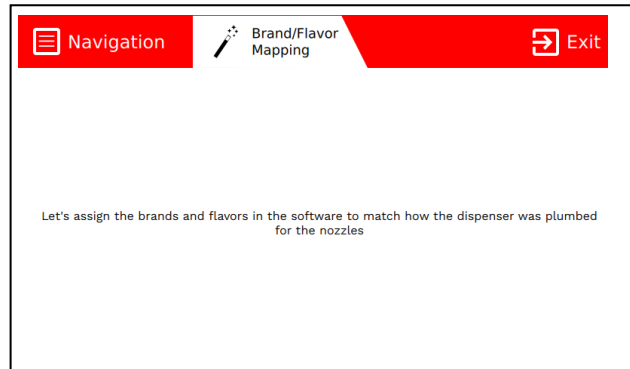
The next screen is used to select the valve that the brand selected will be applied to. It is important the unit is plumbed properly in that the proper syrup is connected to the input to the valve selected.

Select the BRAND ICON and use the "POUR" button validate. When completed press next and proceed to assign all the valves active on this dispenser. The ACSD allows for 12 brands and 4 flavors.
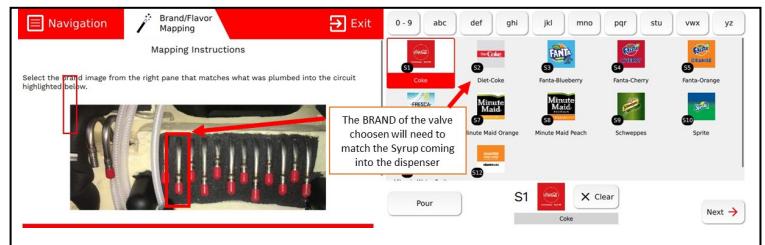
Priming Water & Syrup Valves

Priming water and syrup valves remove all the air in the lines. The valves are grouped to allow 4 valves at a time to be activated. All valves need to be connected to water and syrup supplies (Backroom Package Setup) before starting. Scroll in the menu bar, select priming valves, and follow the UI instructions.
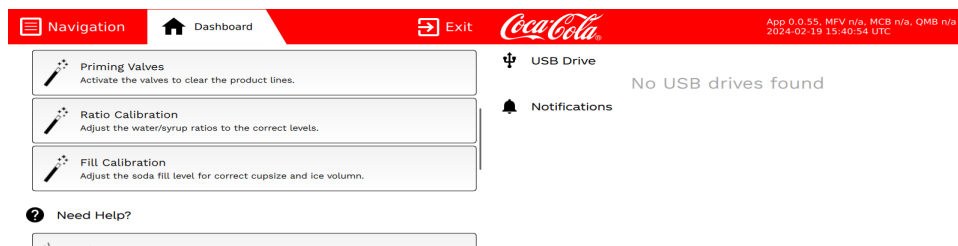
Ratio Calibration

The "RATIO CALIBRATION" is used to adjust the WATER/ SYRUP ratios to a flowrate. Before starting make sure the hopper is filled with ice as soon as possible. This will allow the ice to fill the coldplate and chill the coldplate. The temperature of the syrup changes the viscosity higher as the temperature drops and is critical to proper adjusting of the flowrate.
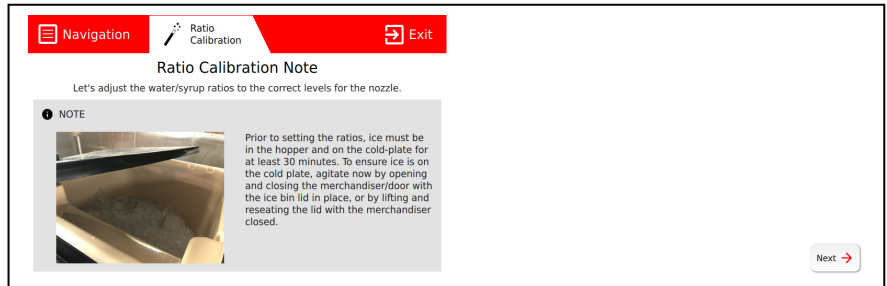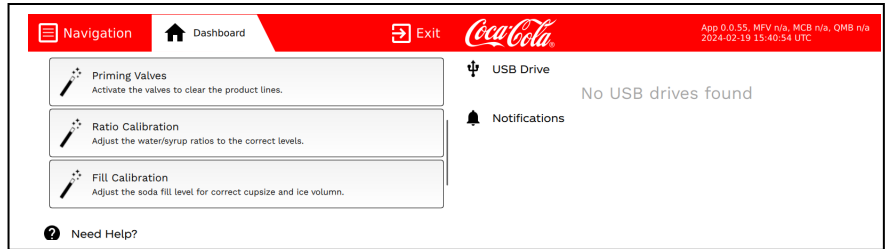
Selectin Navigation opens the next screen prompt used to select the valve to be calibrated. Each water and syrup valve has a setup wizard associated to assist setup.
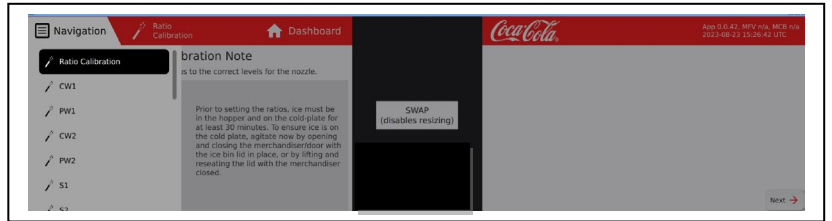
WATER

The flowrate of the Carbonated and Plain Water needs to be set up. Choose the CW1 or PW1 wizard. Using the brix cup dispense water and adjust valve flow controls until desired amount is achieve. The flow rate of the 2 water valves will be used for all the syrups.
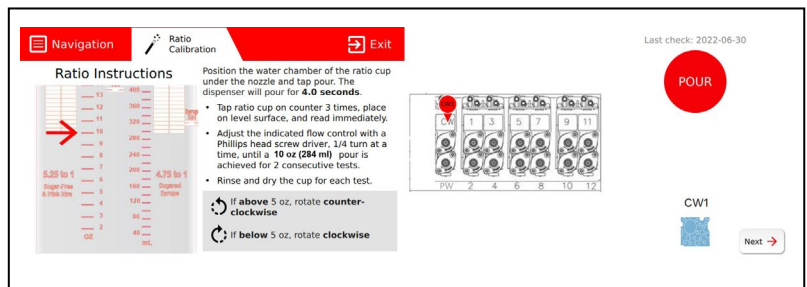
SYRUP

The flowrate of each syrup S1 through S12 needs to be calibrated. Using the brix cup dispense syrup and adjust the valve flow control until desired amount is achieve.
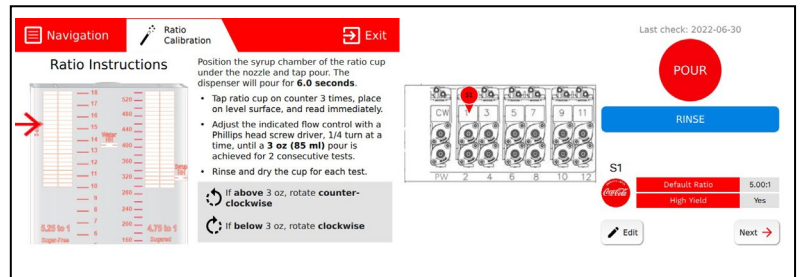
By pressing **EDIT** on the previous screen, it will take you to the next that will allow the ratio to be changed. This will only be necessary if a custom brand change is required.
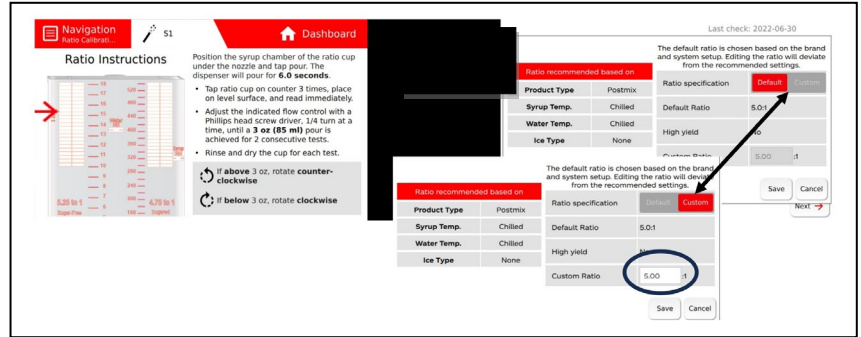
Fill Calibration

This screen is used to set the beverage fill heights for each drink type. Select the brand, cup size, and ice type to record the pour time that the unit will use during automated operation. For carbonated beverages that require a pause and top off for foam, check the Top off box. Record the pour time by pressing and holding the top red button until foam reaches the rim of the cup. The system will record how long you pause to wait for the foam to subside. Then press and hold the lower red button until the proper fill height is reached to record the final top off time. To confirm that the settings recorded as intended, remove the cup or advance it in the conveyor by tapping Move Cup. Then place a fresh cup or tap Drop to dispense from the machine and tap Test Pour. If any adjustments are required, the initial pour, wait time, and final pour times can be adjusted with the arrow buttons, or the record process can be repeated to overwrite the previous values.
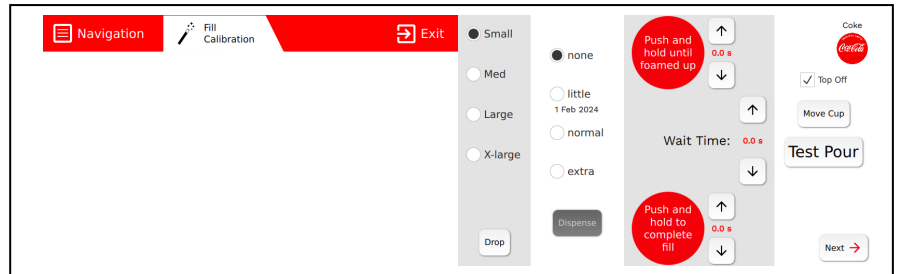
Network

The "Network" screen is used to allow the technician to see the status of the Ethernet cable connection. If the dispenser is having issues with the POS this screen will validate that the main communication cable is connected and allow the technician to test the connection.
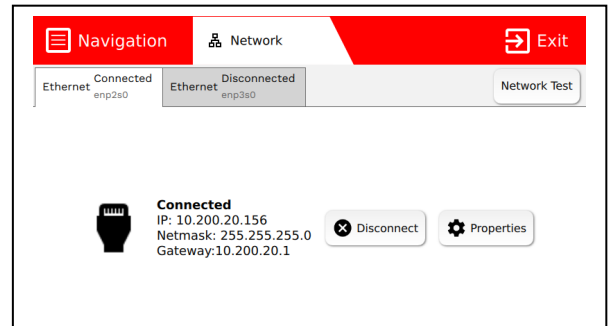
System Settings

The system settings allow the technician to set the TIME, DATE on the computer. This is also where the dispenser language can be set, and Ratio and cleaning prompts can be turned on and off.
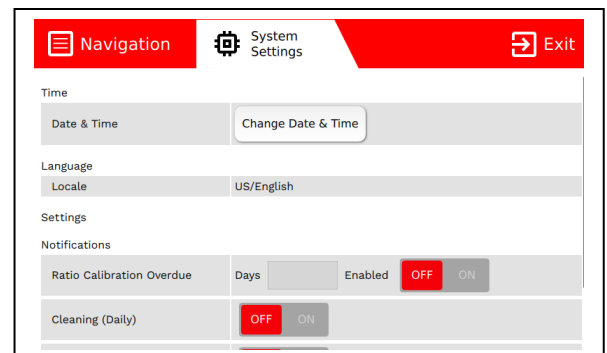
Cup Dispenser Mapping

The cup mapping screen is used to assign a cup dropper to a cup size. The screen allows 1 to 4 ups to be mapped. It is important that the cup dropper mechanism is configured to drop the cup assigned to that spot. If there is a problem with cups dropping validation that the cup is mapped and that t is mapped to the right cup dispenser.


LOADING CUPS

1. Pull on handle to swing open Cup Dispenser.

2. Locate the size to be loaded and push cups in tubes till there is no resistance.

3. Push the handle to close and lock cup dropper.

⚠ **CAUTION: Use only approved cups in dispenser. Cups not approved could jam cup dispenser mechanism.**

⚠ **CAUTION: Do not load damaged cups into the dispenser. If the cup lip is damaged such that a lid would not fit, the unit will not properly dispense the cup.**

⚠ **CAUTION: Do not load previously used cups into the dispenser. Moisture can cause the cups to stick together and will not dispense properly from the unit.**
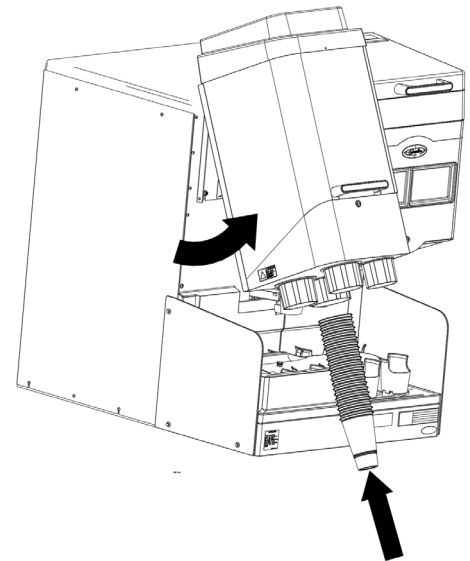
CLEANING AND MAINTENANCE INSTRUCTIONS

Failure to comply could result in serious injury, death, or damage to the equipment.

⚠️ **WARNING:** Disconnect power to the unit before servicing. Follow all lock out/tag out procedures established by the user. Verify all power is off to the unit before performing any work.

Failure to comply could result in serious injury, death, or damage to the equipment.

⚠️ **CAUTION:** Do not use metal scrapers, sharp objects or abrasives on the ice storage hopper, top cover or exterior surfaces as damage to the unit may result. Do not use solvents or other cleaning agents as they may attack the material resulting in damage to the unit.

Soap solution – Use a mixture of mild detergent and warm [100° F(37.8°C)] potable water.

Sanitizing Solution – Dissolve a chlorine based cleaner/sanitizer in warm [80 – 100° F(26.7-37.8°C)] potable water as per the manufacturer's direction to ensure 100 ppm of chlorine. The type and concentration of sanitizing agent must comply with 40CFR 180.940.

EQUIPMENT REQUIRED

- 5Gal Containers
- Mild Detergent
- Spray Bottle
- Microfiber Towels
- Nylon Bristle Brush
- Sanitizer

DAILY CLEANING AND MAINTENANCE

For proper operation of the unit, it must be inspected and cleaned daily.

DAILY INSPECTION

1. Check the CO_2 and water supply valves.
2. Visually check the beverage/syrup lines for leaks. If leaks are noted, call a service technician.
3. Check the temperature, smell, and taste of the product.
4. Check the carbonation of the drinks.
5. Check the level of the CO_2 supply in the backroom.
6. Check the dates on all the BIBs for expiration.
7. Remove foreign material from vending area drip tray to prevent drain blockage.
8. Clean vending area, Check for proper water drainage from the drip tray.

Checking the CO_2 Supply

Make sure the bulk CO2 cylinder regulator gage indicator is not in the shaded ("change CO2 cylinder") portion of the dial. If the gage indicator is in the shaded area, the cylinder is almost empty and must be replaced.
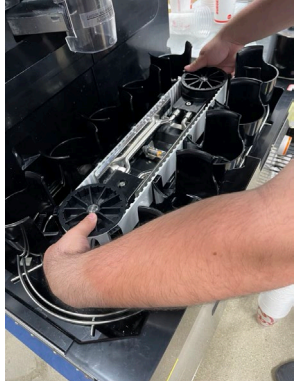
Checking for CO2 and Water Leaks

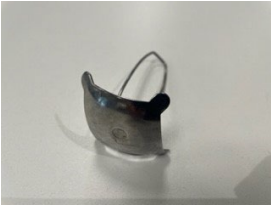Check the unit for co2 and water leaks. If any are found, call a qualified service technician to repair them, as needed.

DAILY CLEANING PREPARATION
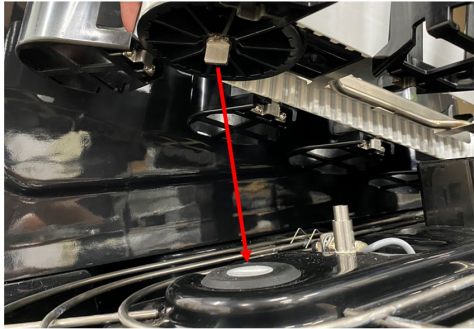
Step	Action	Figure
1.	Prepare soap solution in a clean container.	
2.	Prepare sanitizer solution in a clean container minimum 2Gal and fill up a clean spray bottle.	

DAILY CLEANING PROCEDURE

Perform the Splash Zone cleaning and Nozzle cleaning procedures in the following sections.

Step	Action	Figure
1.	Loosen the two thumbscrews on the conveyor cover and carefully raise it off the drip tray.	
2.	Remove the carousel assembly by lifting it upwards. **Note: Avoid carrying the carousel by cup holder.**	

3.	Remove drain guard and grill from the drip tray.	
4.	Clean the carousel assembly using soap solution. **Note: Do not place in dishwasher**	
5.	Wipe stains of the grill and the drain guard using soap solution	
6.	Wipe conveyor cover with soap solution using a clean cloth.	
7.	Clean the carousel assembly, grill and drain guard with plain water and wipe down any soap residue using a cloth	
8.	Spray sanitizer solution onto the carousel assembly and let air dry.	
9.	Ensure the water deflector is installed; this will help prevent motor failures. **Note: Order replacement if deflector is missing.**	

10.	Pour ½ gallon of soap solution into the drip tray drain.
11.	Using the soap solution and clean cloth wipe the drip-tray, and splash panel.
12.	Pour 1 gallon of warm water into the drip-tray drain.
13.	Wipe down the drip tray and splash panel with a clean cloth to remove any soapy residue
14.	Spray the sanitizing solution all around drip tray and splash panels. Let air dry.
15.	Perform the Nozzle cleaning and sanitizing in pg. 20.
16.	Reinstall the drain guard and grill. Align the notches in the drip-tray. **Note**: Cup positioning bracket must be on back side.
17.	Align the drive shaft to motor coupler on the left side and reinstall the carousel.
18.	Reinstall the carousel cover and tighten the two thumb screws to secure in place. Ensure the cover is properly oriented per the side indication marked inside.
19.	Daily cleaning procedure is now complete

NOZZLE CLEANING AND SANITIZING

1.	Prepare sanitizer solution in a clean container and fill up a clean spray bottle	
2.	Remove outer nozzle housing by rotating it in the clockwise position.	
3.	Remove the diffuser by pulling it vertically downward.	
4.	Immerse the nozzle and diffuser into the sanitizing solution, allow soak if needed.	
5.	Clean the nozzle and diffuser using valve brush in the sanitizer solution and soak them back again in the sanitizer solution for a minimum of 2 minutes. Allow them to Air dry for 5 minutes. **Note: Do not use a wire brush.**	

6.	Spray the sanitizing solution upwards into the underside nozzle housing ensuring that all surfaces are saturated, Clean the region using the valve brush. **Note: Do not use a wire brush**	
7.	Spray the sanitizer solution to the underside of the nozzle again. Allow valves to air dry for 5 minutes	
8.	Wash Hands or use new gloves and reinstall the diffuser by pushing it upward and aligning the diffuser tabs in place	
9.	Reinstall the outer housing of the unit by rotating it right. Tabs must be aligned and apply upward force while twisting to avoid cross-threading. Check if the nozzle is level after installation.	

WEEKLY CLEANING AND MAINTENANCE

Perform the weekly cleaning procedures in the following sections.

- Daily cleaning
- Exterior Cleaning

EXTERIOR CLEANING

Step	Actions	Figure
1.	Enter "SERVICE MODE" then type in Passcode. '9876". Enter dashboard and "Screen Cleaning Lockout"	
2.	**Cleaning Lockout:** The **"CLEANING LOCKOUT"** screen allows the technician to turn off the touch portion of the screen to avoid inputs when cleaning the screen. The lockout will automatically time out after 30 seconds and revert back to an active screen.	
3.	Clean and wipe the touch screen bezel. Gently wipe touch screens with a clean, moistened cloth if needed. **Caution**: Do not wipe displays with solvents or cleaning agents	
4.	Wipe dirt and dust from all exterior surfaces with All-purpose cleaner solution and wipe dry with a soft, sanitized cloth. wipe the cup dropper door, backsplash, side wall, and exterior panels. **Caution**: Do not wipe displays with solvents or cleaning agents	

MONTHLY CLEANING AND MAINTENANCE

Perform the monthly cleaning procedures in the following sections.

- Splash Zone cleaning.
- Exterior Cleaning
- Syrup Line Cleaning and Sanitizing
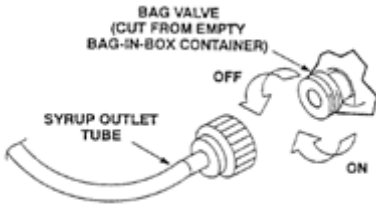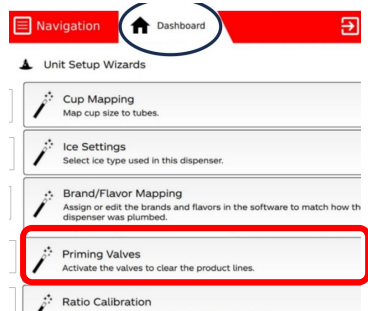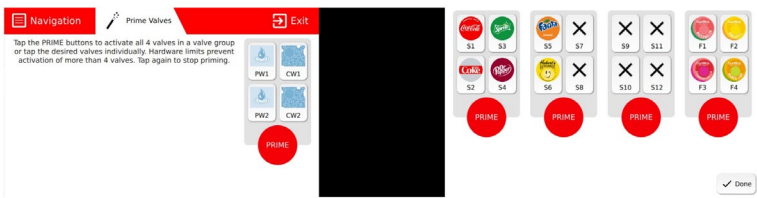- Ice chute and Hopper Cleaning and Sanitizing

SYRUP LINE CLEANING & SANITIZING

⚠ **CAUTION:**

Only trained and qualified persons should perform these cleaning and sanitizing procedures. To sanitize the tubing and BIB connectors, perform the procedure Below.

Step	Actions	Figure
1.	Prepare soap solution in a clean container.	
2.	Remove the BIB connectors from the BIB's (Bag-in-Box syrup).	BIB connectors
3.	Submerge all disconnects in the soap solution and then clean them using a nylon bristle brush. Rinse with potable water. **Note**: Do not use a wire brush.	

4.	Prepare soap solution in a clean bucket.	
5.	Attach sanitizing adapters to each BIB connector. If these adapters are not available, Cut the Valve fitting from empty BIB bags and attach to the BIB disconnects. These fittings open the BIB disconnects so the solution can be drawn through the disconnect.	
6.	Follow Valve purge procedure to get syrup valve purging menu.	
7.	Submerge all the BIB disconnects into the soap solution and Flush through every product line until syrup is no longer dispensed. (Dispense a minimum of 32Oz) Repeat the on all product lines by selecting each brand using toggle flow on/off in the selection screen, up to 4 at one time.	
8.	Prepare a clean tank with warm potable water.	

9.	Submerge all the BIB disconnects into the warm water and Flush through every product line until soap solution is no longer dispensed. (Dispense a minimum of 32Oz) Repeat this on all product line by selecting each brand using toggle flow on/off in the selection screen, up to 4 at one time.	
10.	Prepare sanitizer solution, fill up a clean container, Bucket, and a spray bottle.	
11.	Submerge all the BIB disconnects into the sanitizer solution for 1 minute.	
12.	Flush through every product line until clean water is no longer dispensed. (Dispense a minimum of 32Oz) Repeat the on all product line by selecting each brand using toggle flow on/off in the selection screen, up to 4 at one time.	
13.	Allow sanitizer solution to remain in product lines for ten (10) minutes.	
14.	Follow Nozzle cleaning and sanitizing instructions. See pg. 20	
15.	Remove the sanitizing adapters from the BIB connectors.	
16.	Reconnect the BIB connectors to Syrup BIB's	
17.	Operate the valves until all sanitizer solution has been flushed from the line.	

CLEANING AND SANITIZING THE ICE CHUTE AND HOPPER.

As part of the monthly cleaning procedures, clean the Ice chute and hopper by performing the procedure in Below

⚠️ **WARNING:**

When pouring liquid into the hopper, do not exceed the rate of 1/2 gallon per minute. Pouring liquid into the hopper faster than the recommended rate could result in an overflow situation which may result in personal injury or damage to the equipment.

Steps	Action	Figure
1.	Remove the ice chute cover from the unit. **NOTE**: Collect ice in a separate tray to avoid the ice from falling into the drip-tray.	
2.	Clean the inside of the ice chute and ice chute cover with a soap solution using nylon brush. **Note: Do not use a wire brush.**	
3.	Using a spray bottle filled with sanitizing solution, spray the inside of the ice chute. Allow it to air dry.	
4.	Carefully insert ice chute cover and slide down to fully engage. **NOTE**: Make sure cover side latches mate flush with ice chute base before sliding down.	

5.	Remove the agitator assembly by unscrewing the thumbscrew and lifting the agitator assembly out of the hopper as shown.	
6.	Using a nylon bristle brush or sponge, clean the interior of the hopper, top cover and agitator assembly with soap solution. Thoroughly rinse the hopper, cover and agitator surfaces with clean potable water.	
7.	Reassemble agitator assembly. Take special care to ensure that the thumbscrew is tight.	
8.	Using a spray bottle filled with sanitizing solution, spray the entire interior and the agitator assembly. Allow them to air dry.	

QUARTERLY CLEANING AND MAINTENANCE

Perform the daily, weekly, and monthly cleaning procedures in addition to the quarterly cleaning procedures in the following sections.

The quarterly procedures are:

- Splash Zone cleaning.
- Exterior Cleaning
- Syrup Line Cleaning and Sanitizing
- Ice chute and Hopper Cleaning and Sanitizing
- Cleaning and Sanitizing the Cold Plate
- Cleaning the Ice Loader.

CLEANING AND SANITIZING THE COLD PLATE

As part of the Quarterly cleaning procedures, clean the cold plate by performing the procedure in Below

Steps	Action	Figure
1.	Switch off and remove power to the unit.	
2.	Open the unit Display door.	
3.	Remove the splash panel and the cold plate covers to expose the bottom of the cold plate.	
4.	Locate and remove any debris from the drain trough. Check that the cold plate drain holes are not plugged.	
5.	Pour a small amount of warm soapy water through the upper cold plate openings in the hopper.	
6.	Using a clean, soft cloth, wash down the surfaces of the cold plate from the top and bottom with warm soapy water.	
7.	For manual ice units, wipe down the hopper cover with warm soapy water.	

8.	Rinse the cold plate with warm potable water. For manual ice units, also rinse the hopper cover with warm potable water.
9.	Using a spray bottle filled with sanitizing solution, spray the upper and lower cold plate access areas and let the unit air dry.
10.	Reinstall and position the access cover on the bottom of the cold plate.
11.	Reinstall the splash panel and close the Display Door.
12.	Rinse the cold plate surface by pouring any leftover sanitizing solution through the hopper opening.

CLEANING THE ICE LOADER

As part of the Quarterly cleaning procedures, clean the Ice Loader by performing the procedure below:

Step	Action	Figure
1.	Fill soap solution into a clean spray bottle.	
2.	Remove the Ice Loader from the unit by sliding it up from the attachment bracket and place it on a table, (no tools required). **Note: Do not use in the dishwasher.**	
3.	Fully open the Ice Loader Lid and Spray all inside surfaces with the soap solution.	

4.	Clean all inside surfaces using a nylon brush. **Note: Do not use a wire brush**	
5.	Close the lid and Spray all outside surfaces with the soap solution.	
6.	Rotate the Ice Loader and spray all bottom surfaces.	
7.	Clean all outside surfaces using a nylon brush. Make sure to clean inside all the grooves and ribs. **Note: Do not use a wire brush**	

8.	Rinse all surfaces with potable water and dry with a clean towel.	
9.	Using the spray bottle filled with sanitizer solution, spray all the inside and outside surfaces.	
10.	Install the ice loader back onto the unit and allow it to air dry.	

ANNUAL INSPECTION:

Inspect and clean the water pump and check valve. This must be done by a qualified service technician. Also, have the CO2 gas check valve inspected and cleaned by a qualified service technician. Remove the unit's splash and cold plate cover to clean and sanitize the cold plate surface. (See the cleaning of the cold plate section shown later in this manual).

WATER PUMP MAINTENANCE
The water pump water strainer screen and the liquid dual check valve must be inspected and cleaned at least once a year under normal circumstances and after any water system disruption (plumbing work, etc.). call a qualified service technician to inspect and clean the strainer screen and the liquid dual check valve.
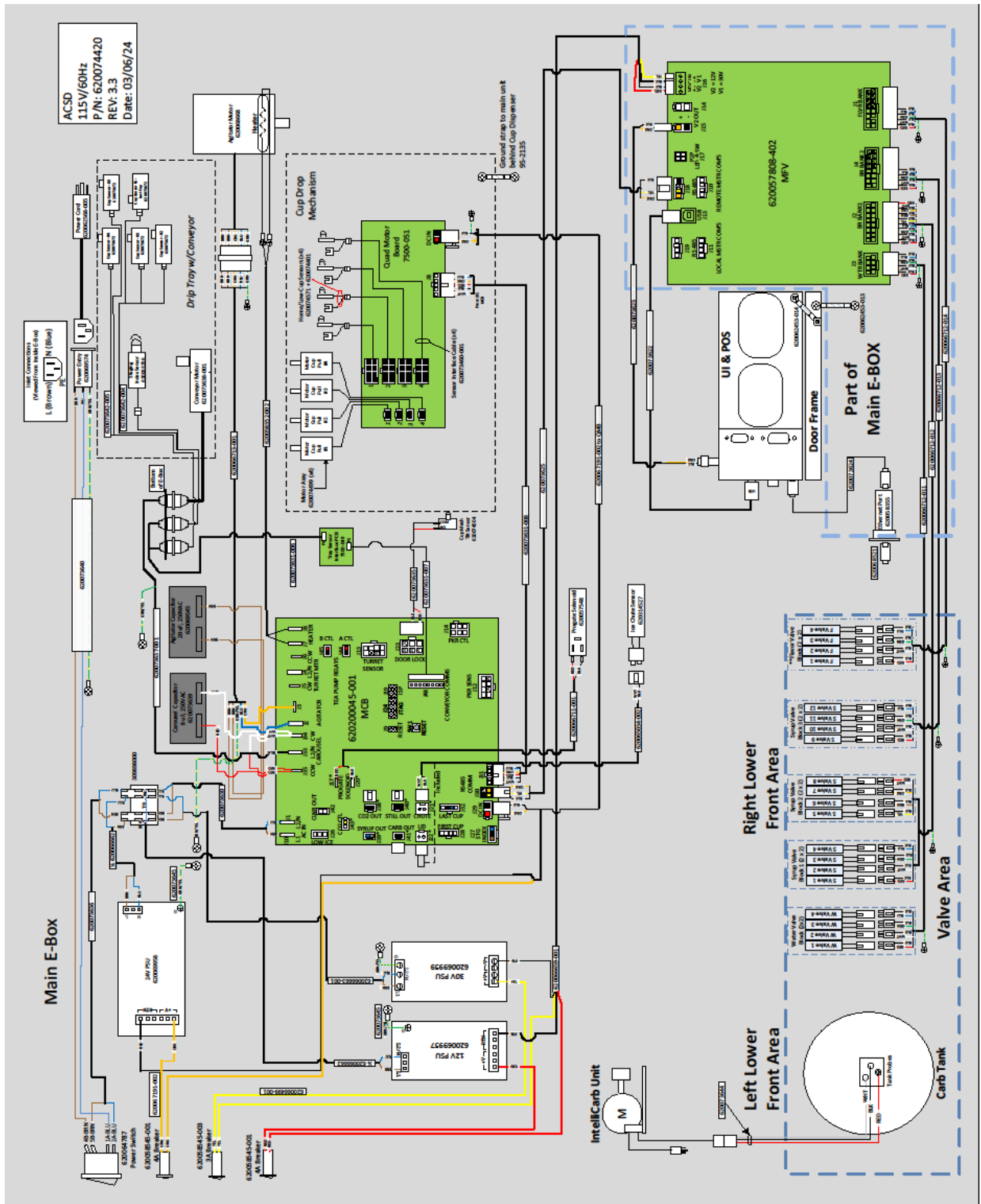
CLEANING THE CO_2 GAS CHECK VALVE
The CO2 gas check valve, located on the carbonated water tank, must be inspected and serviced at least once a year under normal conditions and after any CO2 system servicing disruption. Call a qualified service technician to inspect and clean the CO2 gas check valve.
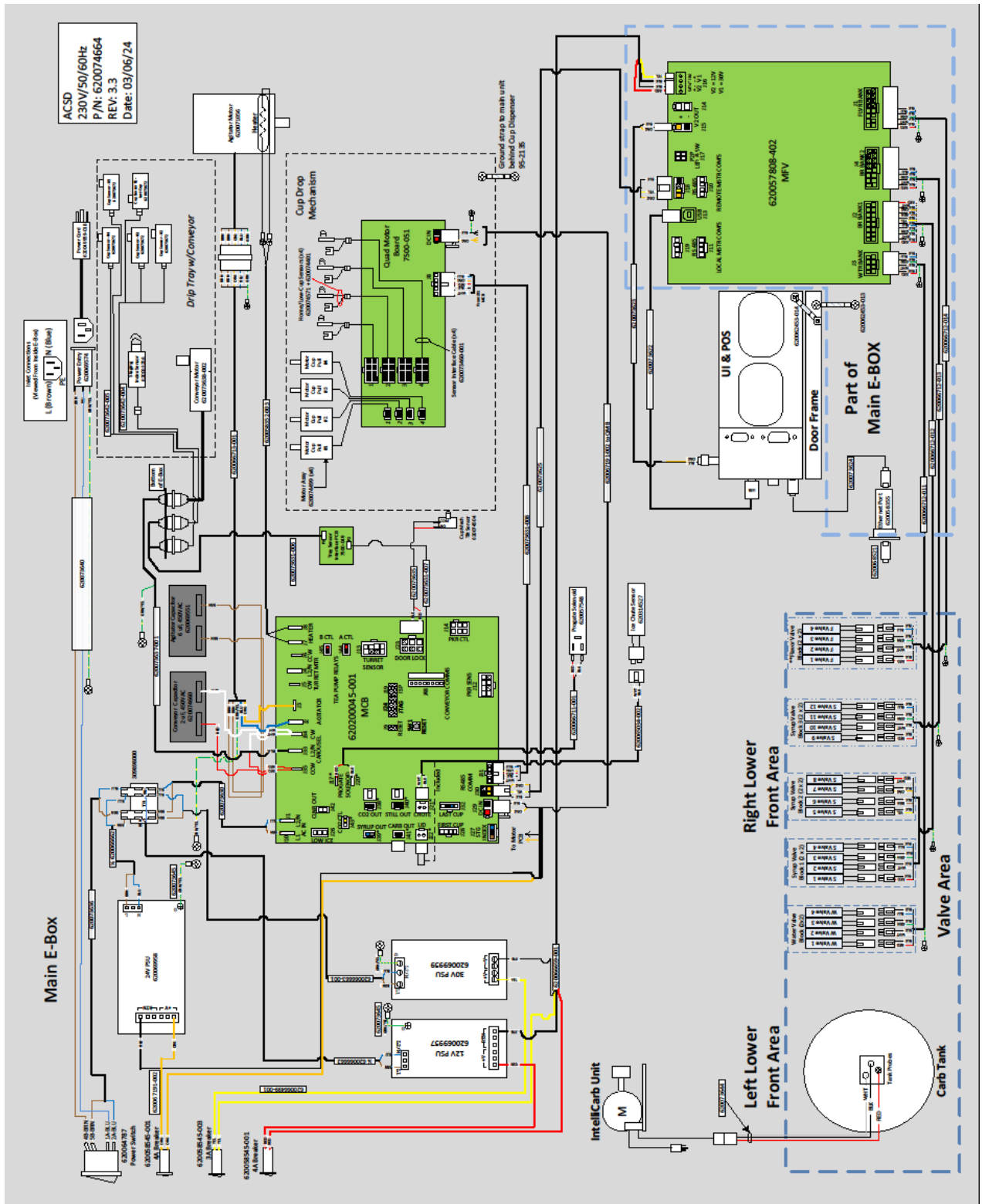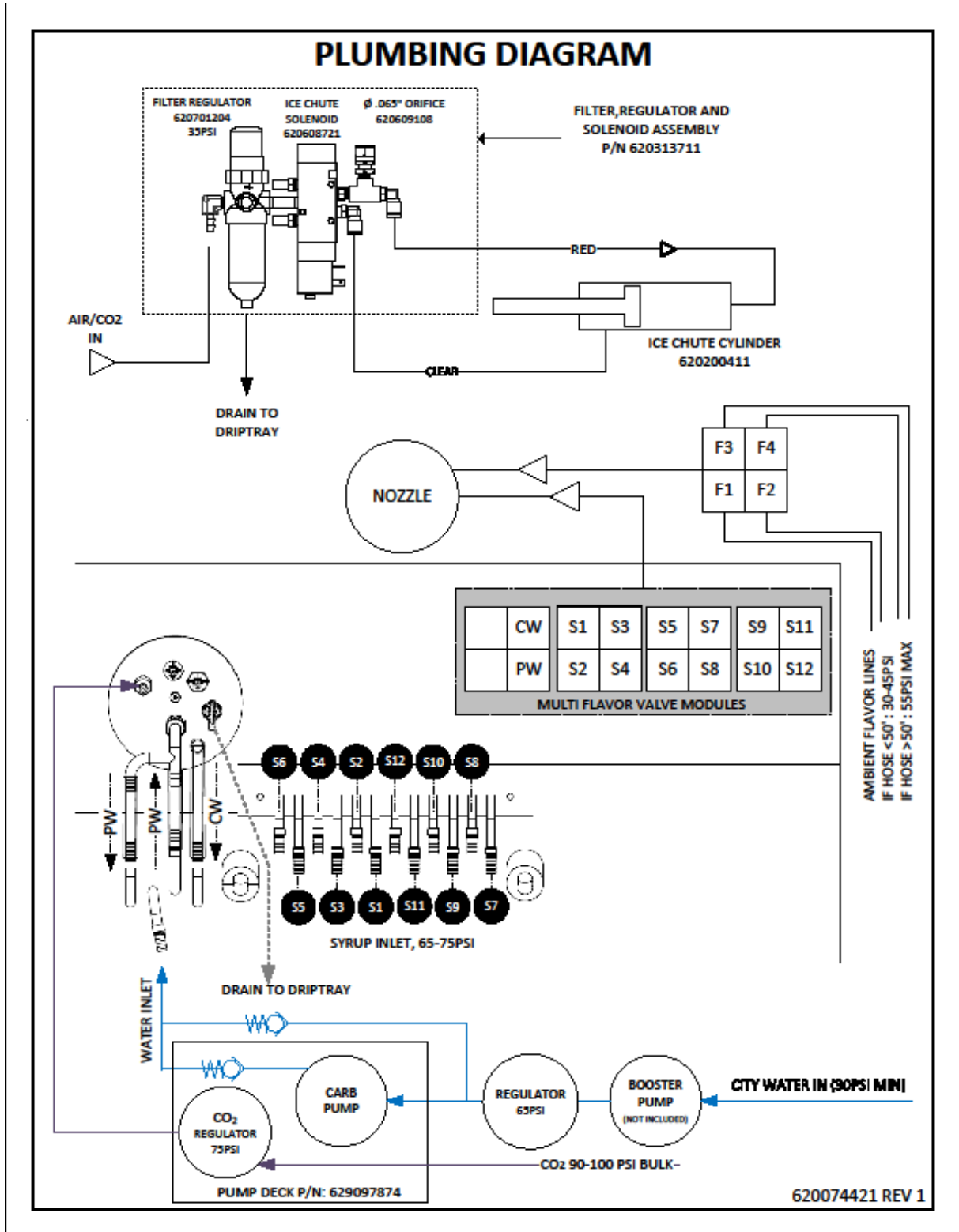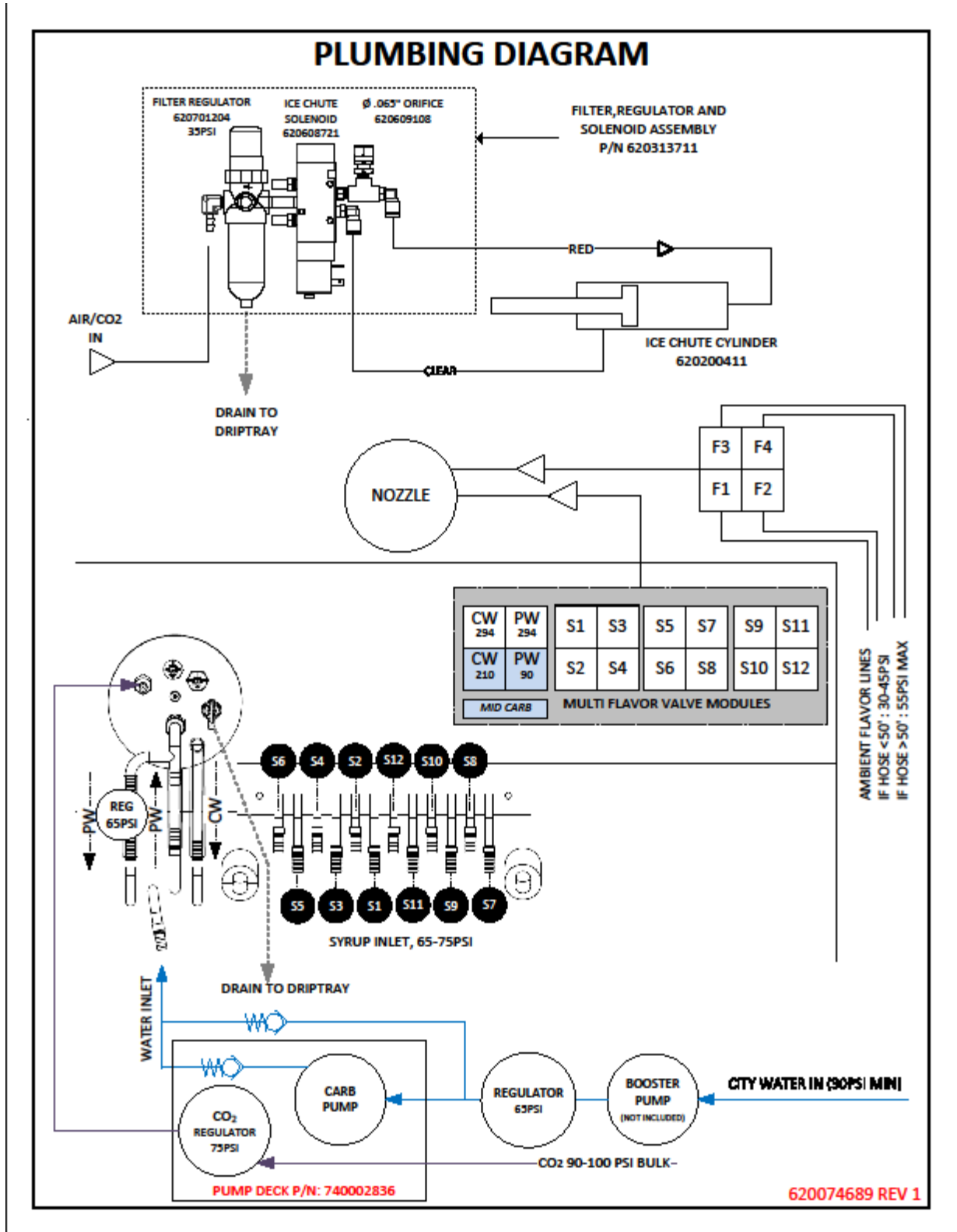
APPENDIX

SCHEMATIC WIRING DIAGRAM 115V

SCHEMATIC WIRING DIAGRAM 230V

PLUMBING DIAGRAM

PLUMBING DIAGRAM FOR MID CARB ONLY

Marmon Foodservice Technologies Inc.
www.marmonfoodservice.com
www.cornelius-usa.com