



ABS 2.0

Installation Manual



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Correct Disposal of this Product

This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote 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.

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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

<i>Recognize Safety Alerts</i>
 <i>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.</i>

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.**

IF THE SUPPLY CORD IS DAMAGED, IT MUST BE REPLACED BY THE MANUFACTURER, ITS SERVICE AGENT OR SIMILARLY QUALIFIED PERSONS IN ORDER TO AVOID A HAZARD.

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.

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

CAUTION:

Always be sure to keep 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.

CO₂ (CARBON DIOXIDE) WARNING

DANGER:

CO₂ displaces oxygen. Strict attention **MUST** be observed in the prevention of CO₂ gas leaks in the entire CO₂ and soft drink system. If a CO₂ 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 CO₂ gas experience tremors which are followed rapidly by loss of consciousness and **DEATH**.

SOUND LEVEL

CAUTION:

The A-weighted sound pressure level has been determined to be below 70dBA.

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.

CHECKLIST

CHECK OFF ALL ITEMS COMPLETED

This check list is intended to permit you to be sure that all aspects of the installation have been completed. Please use this check list -- Don't rely on memory.


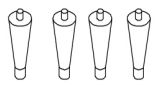
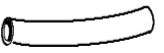
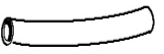
For experienced installers, this check list makes an easy guide and reminder of the steps to follow.

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<input type="checkbox"/> SELECTION OF LOCATION.....	11
<input type="checkbox"/> INSTALL NSF APPROVED LEGS	12
<input type="checkbox"/> ROUTE/CONNECT ABS COMMUNICATION CABLE	13
<input type="checkbox"/> CONNECTING SYRUP TUBING.....	14
<input type="checkbox"/> CONNECT WATER.....	14
<input type="checkbox"/> FILLING PRODUCT TUBING	14
<input type="checkbox"/> CONNECT CO ₂	15
<input type="checkbox"/> INSTALLING AND FILLING CUP TUBES.....	17
<input type="checkbox"/> SANITIZE & FILL ICE BIN.....	19
<input type="checkbox"/> POWER-UP ABS AND PRE COOLER (IF USED)	22
<input type="checkbox"/> FILL OUT brand LINE-UP FORM FOR POS PROGRAMMER.....	24
<input type="checkbox"/> ADJUST SYRUP MAP brandS TO AGREE WITH FORM ON PAGE 24	35
<input type="checkbox"/> ADJUST WATER FLOW RATE.....	41
<input type="checkbox"/> ADJUST OVER ALL FLOW / PORTION	42
<input type="checkbox"/> ADJUST THE SYRUP RATIO.....	43
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INSTALLATION KIT

The following installation kit contains the components required to install the ABS 2.0. This description is designed to assist you in identifying the components and checking the inventory.

Table 1. List of component in installation kit

Sl. No.	Picture	Part Number	Description	Qty
1		560000221	Oetiker Clamp #18.5	30
		309852000	Oetiker Clamp #17.0	2
2		70407	Leg Set 6"	4
3		620056954-002	Tubing Silicon REI 0.250" ID X 0.520" OD	10 Ft
4			Ice maker mounting bracket	1
5			Screws for Ice maker	5
6			Drain Tube	1
7			Drain tube fitting	1

GENERAL INTRODUCTION

SYSTEM OVERVIEW

The Automated Beverage System ABS 2.0 is an upgraded version of ABS. The ABS 2.0 is designed for drive-through area installation or other restricted area that is accessible to authorized personnel only. When a beverage is ordered from the P.O.S. register, the ABS 2.0 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 conveyor to the pick-up station and the drink description is displayed on the panel.

Operation of the ABS 2.0 is restricted to employees and service personnel that have been trained and certified in the proper operation, service and maintenance of the equipment.

SPECIFICATION

Table 2. Product specification

Unit Dimensions	Length	35.9 inch
	Width	35.5 inch
	Height	75.0 inch
Unit Weight	Dry weight	TBD
	Operational weight (With ice, water, etc.)	TBD
Cooling Method	Method of product cooling	Cold plate & on board chiller for condition "C"
Ice Storage Capacity	W/o bin extender	135 lbs
Electrical	Line voltage	120 ± 10% VAC, 60 Hz, 1 Phase
	Current	15 amps
	Connection method	115/60Hz (North America): TBD 230/50Hz (Rest of World): TBD
Water	Supply pressure	30 – 70 psig dynamic
	Supply method	1/2" ID tube (Python)
Syrup	Supply pressure	65 psig Static
	Supply method	3/8" ID tube (Python)
Air or/and CO2	Supply pressure	CO ₂ : 80 +/- 10% psi, Compressed Air: 65psi ±10psi
	Supply method	3/8" ID tube
Clearance Requirement	Top	No ice Maker: 75 inch + 12 inch refill area =78 inch With ice Maker: 98.5 inch
	Back	2 inch clearance to wall (min)

FEATURES

Table 3. Product features

Mounting type (leg/caster)	4 legs mounted
UI interface type and size	Two 7" touch screen display
Number of brands	8 brands
Cup storage	6 cup dispenser
Lid Storage	8 Lid compartments + lid accessory option (s)
Ice dispensing	1 portion controlled ice dispenser
Product dispensing	Cornelius Multi brand Valve
Automatic cleaning	Wand type cleaning nozzle
Others	<ul style="list-style-type: none"> • Protective door for Turret • Ice maker adapter panel (compatible with Ice makers as per Table 14. on Page 21)

UNIT DRAWING

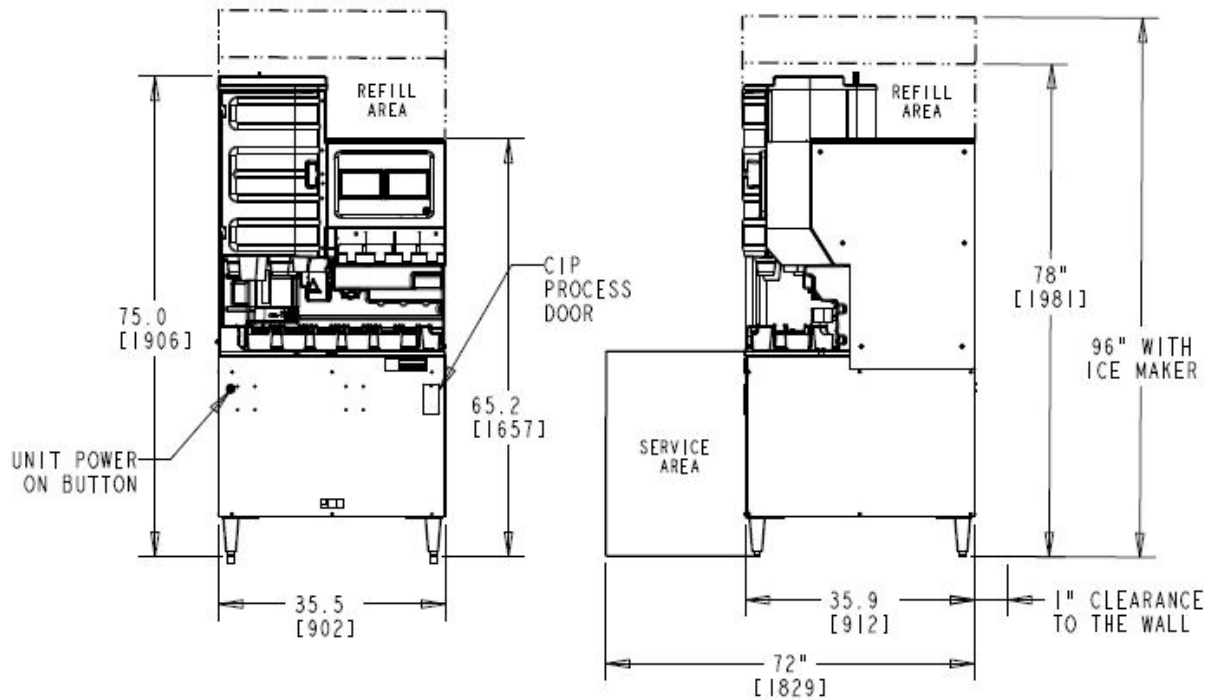
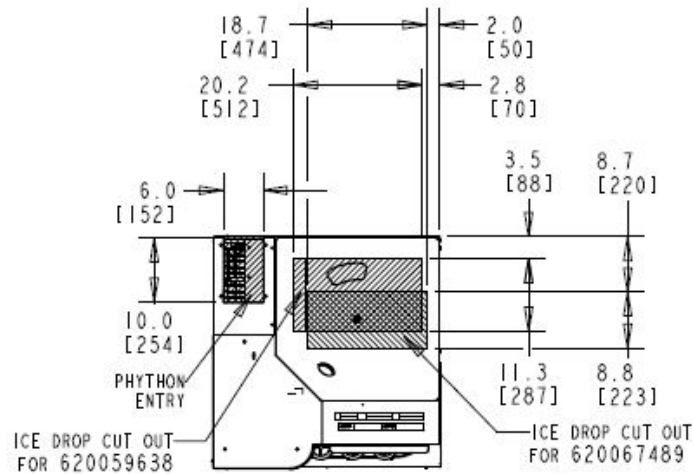


Figure 1.

INSTALLATION PREREQUISITES

DELIVERY INSPECTION and UNPACKING

INSPECTION

Inspect the unit for damage or irregularities upon delivery. If any damage is found Immediately report problems to the delivering carrier and file a claim with that carrier.

NOTE: Cornelius is not responsible for damaged freight. If damage is found, you must save all packaging material and contact the freight carrier.

UNPACKING

1. Inspect the carton and note any damage, regardless 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.
2. Remove any staples along the bottom edge of the carton and lift the carton off the pallet.
3. Remove the exterior carton sleeve, internal fillers and plastic bag around the unit. Carefully inspect the unit for damage.
4. Remove the bolts holding the dispenser to the pallet.
5. Remove the packing fillers from the top of the unit.
6. Inspect the dispenser cabinet and make sure it has no scratches, dents or any other cosmetic defects.
7. Make sure that the screen is not scratched or cracked.
8. 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:

NOTE: The date code follows the first letter of the serial number. The next four numbers reflect the date of manufacture. The first two represent the year, the next two the week. For example, 62A0815xxxxxx would be a unit produced during the 15th week of 2008.

INSTALLATION REQUIREMENTS

TOOLS REQUIRED

1. Phillips screwdriver.
2. Pliers.
3. Tube cutters.
4. Oetiker crimper.
5. Ratio Cups.

ELECTRICAL REQUIREMENTS

Refer to the nameplate to determine the power requirements before connecting electrical power to the unit. All of the power cords shall comply with national and local safety requirements

! DANGER:

To avoid possible serious injury or death the ELCB (earth leakage circuit breaker) must be installed in the electrical circuit of all units.

! WARNING:

To avoid possible electrical shock make sure the unit is properly grounded by connecting the earth ground cable, in the power cord, to any connection in the machine marked with a ground symbol.

! CAUTION:



The wiring must be properly grounded and connected through a disconnect switch (slo-blow fuse or equivalent HVAC/R circuit breaker. Refer to the local and national wiring codes for the 60Hz unit.

All wiring must conform to national and local codes. Failure to comply could result in serious injury, death or equipment damage.

Locate the Dispenser so the following requirements are satisfied:

1. The electrical circuits must be properly fused (slow-blow type fuses). The pre-cooler circuit should be protected by HACR circuit breakers. Do Not use HACR circuit breakers on the circuit for the ABS unit. HACR circuit breakers may not react to voltage surges or spikes that can damage the ABS electronics.
2. The electrical outlets must be accessible for ease of connecting and disconnecting the Dispenser or Pre-Cooler power cords. See the acceptable areas shown in Figure 1. No other electrical appliances should be connected to these electrical circuits. **ALL ELECTRICAL WIRING MUST CONFORM TO NATIONAL AND LOCAL ELECTRICAL CODES.**

Table 4.

ABS Unit	120 Volt, 60 HZ.	15 Amp. (No HACR Breaker)	
ABS Unit	230 Volt, 50 HZ.	AS3112	
Pre-Cooler	120 Volt, 60 HZ.	20 Amp. Dedicated Outlet	
Pre-Cooler	230 Volt, 50 HZ.		

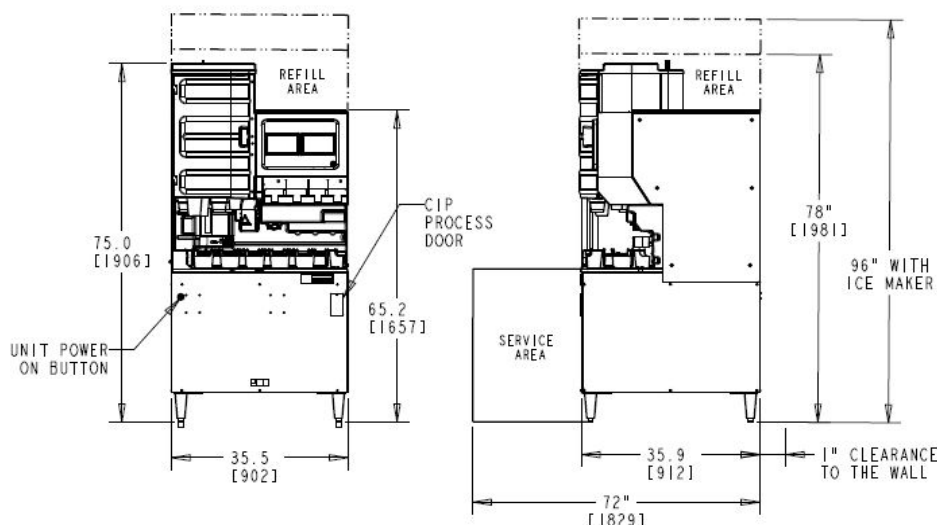


Figure 2. ABS Clearance Requirement

3. Clearance above top of the ABS 2.0 unit must be open above the unit and the front of the unit stand must be open to the room. These clearances? be provided to allow for proper air flow through the PRE-Cooler refrigeration system and to allow access to the ice bin for refilling. See Figure 2A
4. The ABS 2.0 unit and the Pre-Cooler unit must be located close to a permanent drain (preferably under the unit when in operating position) to route the ABS unit drip tray drain hose and the Pre-Cooler water tank drain hose and the water tank overflow hose.

ENVIRONMENTAL REQUIREMENTS

Ambient (room) temperature **MUST NOT EXCEED 90° F** and 65% relative humidity. Temperatures in excess of 90° F and Relative humidity in excess of 65% will void the factory warranty and may eventually result in cooling system failure.

CAUTION:

There must be proper clearance on all sides and on top of the unit to avoid overheating and damaging the unit and voiding the warranty.

CAUTION:

This unit is designed for indoor installation only (in a non-harsh environment). See the Requirements Summary for this information.

CAUTION:

The water in the unit will freeze and may damage the unit if the unit is exposed to freezing temperature.

LOCATION REQUIREMENTS

1. Unit is not to be installed in an area where a water jet (power washer) is used.
2. Unit must be located in an area with a level floor surface. The unit must be installed within 2° of level for the unit to operate properly.
3. The unit should only be installed in a location where its use and maintenance is restricted to trained personnel and the floor area is level.
4. Unit must be located in an area with nearest access to floor drain port, preferably under the foot print of unit.

INSTALLATION

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.

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.

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:

This Dispenser and the carbonated and plain water Pre-Cooler are intended for indoor installation only. Do not install Dispenser and Pre-Cooler in an outdoor environment which would expose them to the outside

PLACING DISPENSER IN OPERATING POSITION

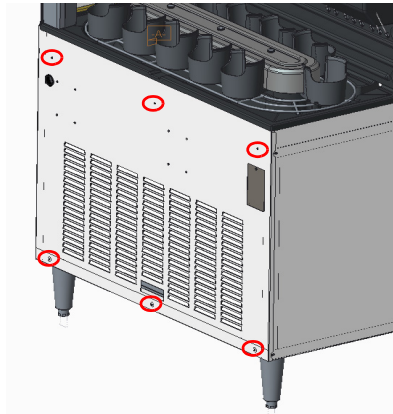
CAUTION:

The Dispenser is very top heavy. To prevent serious injury, Installer Personnel must exercise caution when moving or setting up the Dispenser.

Figure 2A



STEP 1 – INSTALLING LEGS

Table 5.

Step	Action	
1	Remove the front panel by unscrewing the six screw as shown in Figure 3.	 <p>Figure 3.</p>
2	Place the ABS 2.0 unit on blocks so that the leveling legs can be installed. The ABS 2.0 unit is very top heavy and extreme caution must be used in handling or moving this unit. Install the four leveling legs.	
3	Place ABS 2.0 unit in its final operating location allow clearance as specified previously.	
4	Once the ABS 2.0 unit is in place, use a 2i level to level it using the leveling legs. The unit must be level side to side and front to rear.	

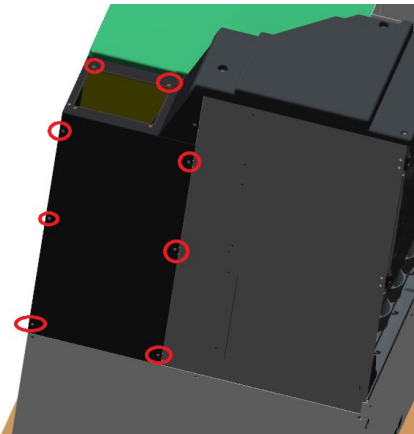
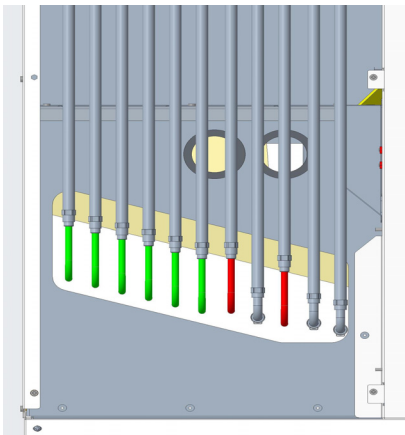
STEP 2 – POWER and COMMUNICATION CONNECTION

Table 6.

Step	Action	
1	Turn the ABS 2.0 power switch to the OFF position, then route the ABS 2.0 power cord to the appropriate electrical outlet and plug-in.	
2	Plug the Ethernet cable into the back of the unit at the same time the power cord is installed.	 <p>Figure 4.</p>
3	Verify the Ethernet cable is plugged into the back of the screen door prior to turning on power. NOTE: Place unit manual mode immediately	 <p>Figure 5.</p>
4	If the communications cable has not been previously routed from POS system to the ABS 2.0 location, do that now. The Ethernet cable must be routed with the ABS 2.0 unit. Then connect the cable to the ABS 2.0 unit. After plugging the cable into the socket, (if RS232) secure the plug to the socket with the two screws on the plug.	

STEP 3 – INLET WATER/SYRUP CONNECTION

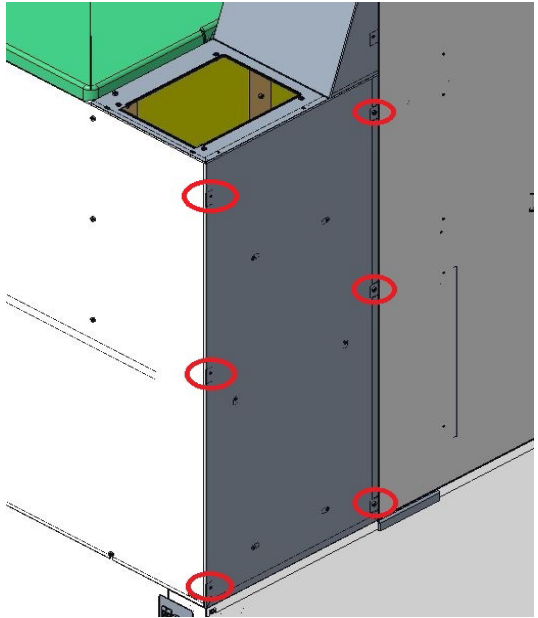
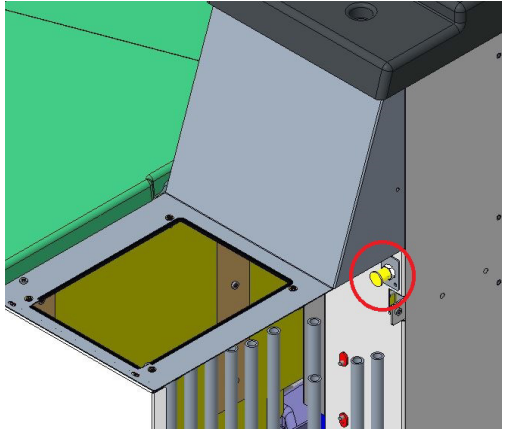
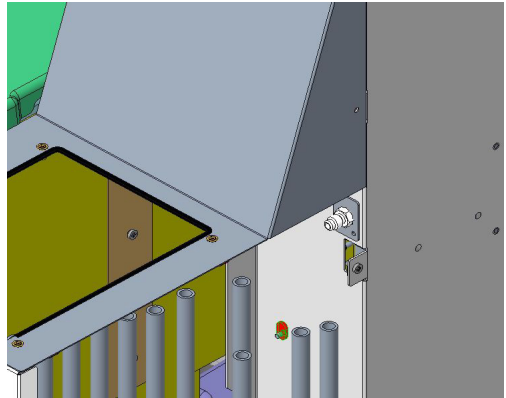
Table 7.

Step	Action	Figure 6.
1	<p>A. Remove the highlighted screws and take out the side panel.</p> <p>B. Route the Python tube from top of the unit.</p>	 <p>Figure 7.</p>
2	<p>A. Use 3/8" ID (.9525 cm) tubing and connect it to the inlet barb fitting of the carbonated water inlet tube and the plain water inlet tube.</p> <p>B. Use 3/8" ID (.9525 cm) tubing and connect it to the 10 inlet barb fittings of the syrup inlet tubes.</p> <p>C. Use Oetiker clamps to secure the lines to the barb fittings.</p> <p>NOTE: Before connecting please check label on pipe inlet (CW: Carb water, WTR: Plain water).</p>	 <p>Figure 8.</p>

NOTE: When connecting the bundle syrup tubing to the syrup tubing from the ABS 2.0 unit, keep a record of what syrup is connected to what valve number. This record will be important when setting up the syrup mapping. Refer Page 53

STEP 4 – INLET AIR OR CO₂ CONNECTION

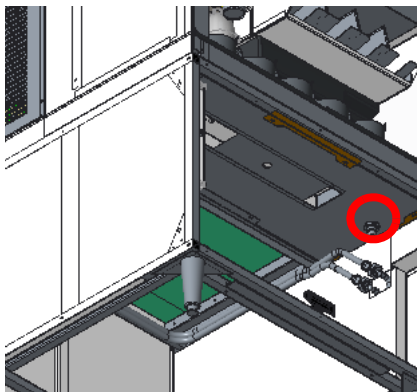
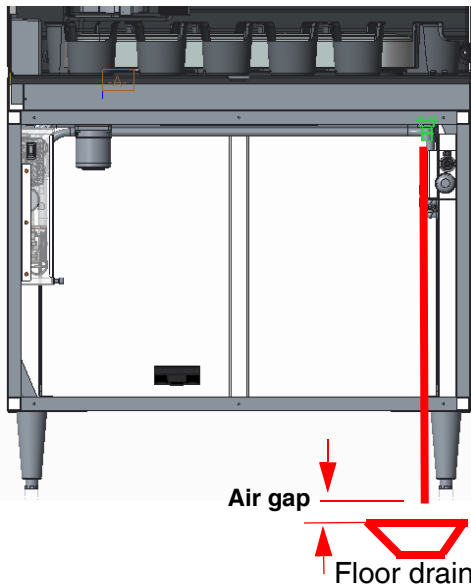
Table 8.

Step	Action	
1	<p>A. Remove the highlighted screws and take out the side access panel as shown in Figure 9.</p> <p>B. Route the compressed air tube through the hole from top of the unit.</p>	 <p>Figure 9.</p>
2	<p>A. Remove the cap as shown in Figure 10.</p> <p>B. Use 1/4" ID (0.64 cm) tubing capable of handling a minimum of 120 psi (827.4 kPa).</p> <p>C. Use Oetiker clamps to secure the lines to the barb fittings.</p>	 <p>Figure 10.</p>  <p>Figure 11.</p>

STEP 5 – UNIT DRAIN ASSEMBLY CONNECTION

follow the installation procedure step by step to avoid damages to unit.

Table 9.

Step	Action	
1	Assemble the drain tubes to the unit drain shown in Figure 12. using the fittings, clamps, and insulation provided with the dispenser. The completed drain line must pitch continuously downward and should not contain “traps” “bends” and “pinch” to ensure proper drainage.	 <p>Figure 12.</p>
2	The unit must be located close to a permanent drain (preferably under the unit when in operating position) to route the unit drip tray drain hose inside the permanent drain. provide sufficient air gap for proper venting of drain fluid.	 <p>Figure 13.</p>

STEP 6 – CUP HOLDERS INSTALLATION

Table 10.

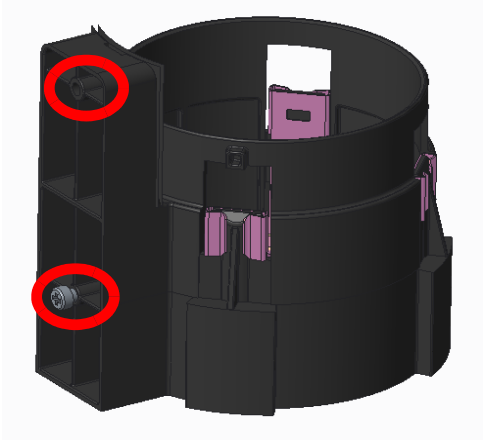
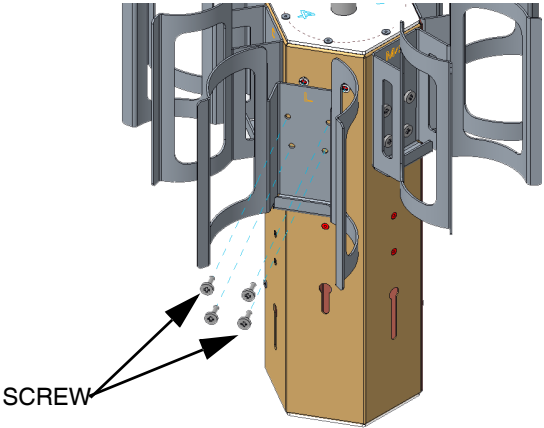
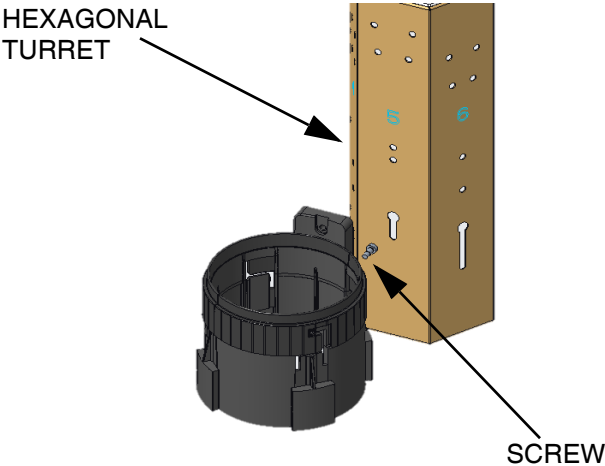
step	Action	
1	Each cup dispenser has two mounting holes as shown in Figure 14.	 <p data-bbox="1045 863 1161 894">Figure 14.</p>
2	Attach the cup tube clip to the turret by fastening four screws as shown Figure 15.	 <p data-bbox="1045 1392 1161 1423">Figure 15.</p>
3	<p>Assemble the base of the cup dispenser by hooking the key hole slot on hexagonal turret as shown in Figure 16.</p> <p>NOTE: Assure proper mounting location.</p>	 <p data-bbox="1045 1944 1161 1976">Figure 16.</p>

Table 10. (Continued)

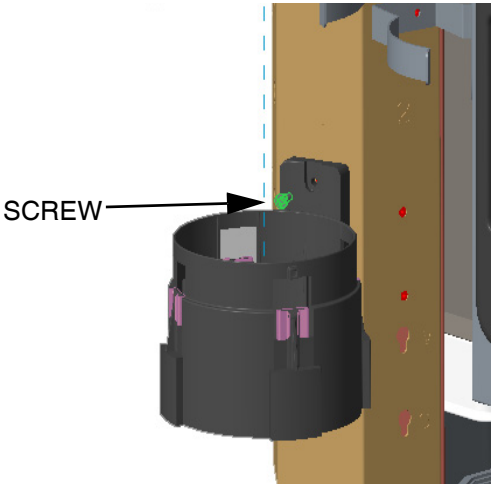

4	Pivot the base to align the second mounting hole on cup holder with the top hole and fix in place with a screw as shown in Figure 17.	 <p>Figure 17.</p>
5	Load one complete sleeve by pushing through bottom opening and gradually lower the hand until the cups are supported.	 <p>Figure 18.</p>
6	Repeat the procedure for rest of the cup dispensers	

Table 11.

CUP SIZE MATRIX		
Position	Upper	Lower
1.	30oz Large - Plastic	21oz Medium - Paper
2.	21oz Medium - Paper	16oz Small - Paper
3.	30oz Large - Plastic	21oz Medium - Paper
4.	12oz Child - Paper	Unused
5.	30oz Large - Plastic	21oz Medium - Paper
6.	21oz Medium - Paper	16oz Small - Paper

STEP 7 – CLEAN and SANITIZE the ICE BIN (PRIOR to MOUNTING the ICE MAKER)

Table 12.








Step	Action	
1	Remove the agitator assembly by unscrewing the thumbscrew and lifting the agitator assembly out of the hopper as shown in Figure 19.	 <p>Figure 19</p>
2	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.	 <p>Figure 20</p>
3	Reassemble agitator assembly. Take special care to ensure that the thumbscrew is tight.	 <p>Figure 21.</p>
4	Using a mechanical spray bottle filled with sanitizing solution, spray the entire interior and the agitator assembly. Allow them to air dry.	 <p>Figure 22.</p>

Table 12. (Continued)

Step	Action	
5	Remove the ice chute cover from the unit.	 <p>Figure 23.</p>
6	Clean the inside of the ice chute and ice chute cover with a mild detergent solution and rinse thoroughly to remove all traces of detergent.	 <p>Figure 24.</p>
7	Using a mechanical spray bottle filled with sanitizing solution, spray the inside of the ice chute. Allow it to air dry.	 <p>Figure 25.</p>
8	Reassemble the ice chute assembly.	
9	Close the display panel.	

STEP 8 – ICE MAKER INSTALLATION

Table 13.

step	Action	
1	Carefully place the ice maker on the unit.	
2	Ensure the dispensing area of the ice maker is aligned with the cut-out on the top of the unit and the rear of the ice maker is flushed with the bracket. Align the screw slots on the ice maker to those on the bracket.	
3	Use the additional screws provided with the unit to assemble the ice maker to the bracket.	
	NOTE: Cornelius Inc. recommended to install a system to sense the level of Ice inside the Ice hopper (by adjusting the Ice fill lever, or by installing an Ice bin probe or a similar system) to avoid over filling up the Ice bin which could cause heavy condensation on the Ice water adapter. Example: With the Scotsman CVD Ice maker you can adjust the fill lever electronically	

Table 14. List of ice maker compatible with ABS 2.0

SL NO.	BRAND	MODEL
1	MANITOWOC	IB-0696C
2	MANITOWOC	IB-0890C
3	MANITOWOC	IB-1090C
4	SCOTSMAN	PRODIGY EH222 800
5	SCOTSMAN	PRODIGY EH222 1000
6	HOSIZAKI	KMS-1122MLH

STEP 9 – PRE-COOLER INSTALLATION

Table 15.

step	Action	
1	Place the Pre-Cooler unit in the ABS 2.0 lower cabinet. If the electrical outlets are behind the ABS, plug the power cords in before the pre-cooler is installed. When sliding the Pre-Cooler into the ABS 2.0 dispenser lower cabinet, someone should guide the Pre-Cooler water tank and overflow hoses over front support bar of the cabinet. If not supported the drain filter could crack or break	
2	Pull (slide) the Pre-Cooler out of the ABS 2.0 dispenser lower cabinet as far as it will go (stops will prevent Pre-Cooler from sliding out too far).	
3	Route and connect the three labeled 1/2-inch I.D. carbonated and plain water tubing from the ABS 2.0 unit to the Pre-cooler. The tubing is individually insulated and labeled as being WATER and CARBONATED WATER , the connections on the Pre-cooler are also marked as being WATER and CARBONATED WATER .	
4	Route 1/2-inch I.D. carbonated and plain water tubing from the bundle tubing to the Pre-Cooler and connect to the labeled 1/2-inch barbed carbonated and plain water inlet connectors on the Pre-Cooler.	

IMPORTANT: Before connecting the carbonated and the plain water tubing to the Pre-Cooler, the Pre-Cooler must be pulled out of the ABS 2.0 dispenser lower cabinet to the stops. The water tubing is the correct length and does not need to be cut to fit. The carbonated and the plain water tubing should properly coil when the Pre-Cooler is pushed back in place inside the ABS 2.0 dispenser cabinet. When Pre-Cooler is in place inside the ABS 2.0 dispenser lower cabinet, the carbonated and plain water tubing must not be in contact with the refrigeration compressor, the compressor discharge tube, or the agitator motor.

STEP 10 – PREPARING the DISPENSER for OPERATION

1. Remove two wing nuts securing the Pre-Cooler water fill hole cover, then remove the cover.
2. Make sure plug in end of the water tank drain hose is secure.

NOTE: Use a low-mineral-content water where a local water problem exist.

3. Fill water tank with clean water until water flows out of the water tank overflow hose.
4. Install Pre-Cooler water fill hole cover and secure with two wing nuts.

Very carefully, push the Pre-Cooler back inside the ABS 2.0 dispenser lower cabinet. **Make sure the carbonated and plain water tubes are not kinked and not contacting the refrigeration compressor, compressor discharge tube, or the agitator motor.**

5. Set the Pre-Cooler power switch to the OFF position, then plug Pre-Cooler power plug into electrical outlet. Turn the power switch for the Pre-Cooler electrical control box to the ON position.
 - A. Leak test all tubing connections.
 - B. Install lower access cover.

6. Install CUP CONVEYOR, loose-shipped with the ABS dispenser in the drip tray area. Proceed to the

INITIAL SET-UP & PROGRAMMING SECTION for the completion of the installation and set-up. Be sure to fill out the brand Line-Up form on

TEAR-OUT REFERENCE CHART – BRAND LINE-UP

NOTE: This reference chart is to be used by the POS programmer to properly set the POS system to agree with the ABS 2.0 set-up. The syrup map must also be adjusted to agree with this form as described.

This syrup table shows the default factory settings and provides space for you to enter your actual hook-up information. Tear this sheet out and fill in the syrup connection information as you make your hook-ups. This information will be important during the setup process.

U.s. Version As Follows:

Table 16.			
DEFAULT SETTINGS		POS PROGRAMMING DATA	
VALVE	DISPLAY ID	POS ID	ACTUAL brand
1	COCA COLA	1	
2	DIET COKE	2	
3	Dr. PEPPER	3	
4	SPRITE REMIX	4	
5	SPRT	5	
6	FANTA ORANGE	6	
7	BARQ'S ROOT BEER	7	
8	HAWAIIAN PUNCH	8	

Australian Version as follows:

Table 17.			
DEFAULT SETTINGS		POS PROGRAMMING DATA	
VALVE	DISPLAY ID	POS ID	ACTUAL brand
1	COCA COLA	1	
2	DIET COKE	2	
3	Dr. PEPPER	3	
4	SPRITE REMIX	4	
5	SPRT	5	
6	FANTA ORANGE	6	
7	BARQ'S ROOT BEER	7	
8	HAWAIIAN PUNCH	8	

STEP 11 – SET-UP and PROGRAMMING

TOUCH PANEL LAYOUT & EXPLANATION

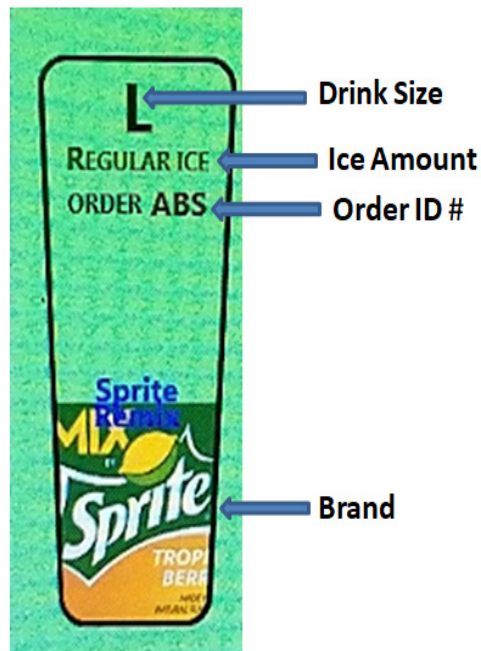
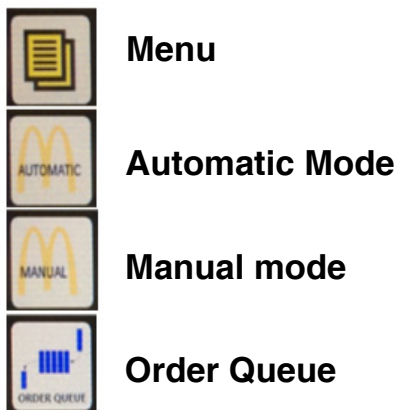
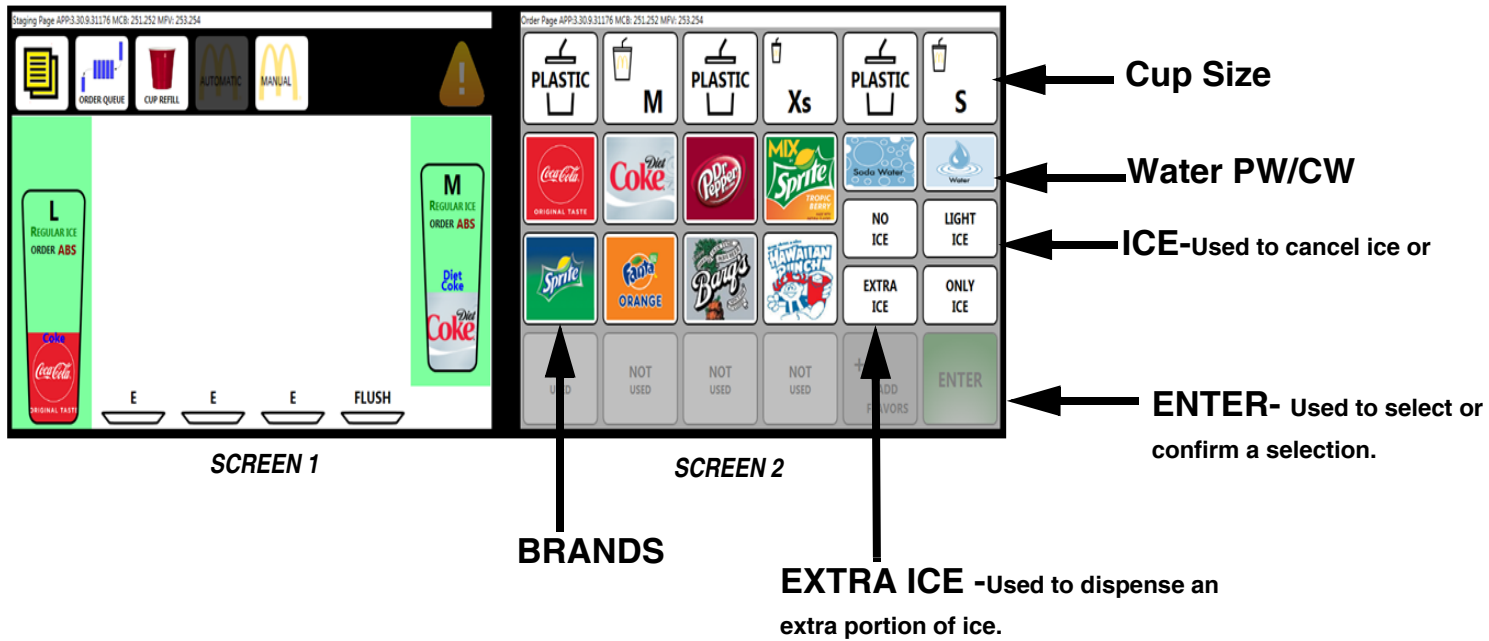


Figure 26.

DISPLAY EXPLANATION

The screen displays represented in the following illustrations are samples of the screen data.

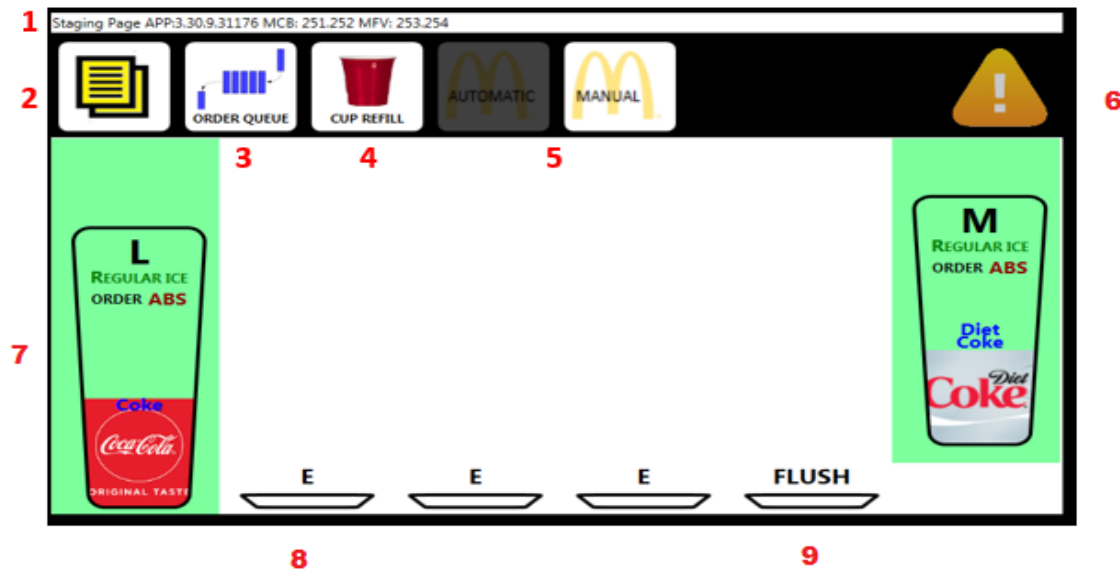


Figure 27.

1. Software Version.
2. Page/Menu.
3. Order Queue.
4. Cup Refill.
5. Automatic/ Manual (Dark is Selected).
-Currently in Automatic Mode
6. Alarm cleaning due or past due.
7. Order - Current example.
-L (Large), Regular (Ice type)
-Order (ABS = Semi Auto or Order Number)
8. Finished Drinks 1-6, left to right, Coke is Position 1.
9. Flush - CW has flushed the Nozzle.

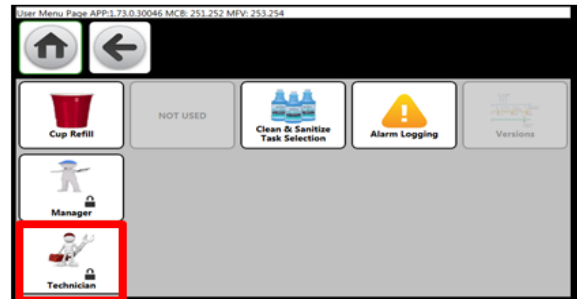
MOVING THROUGH THE MENU

As the following instructions will indicate, you can move through the menu items by select **ICON** from touch screen. A reminder of the need to press **ENTER** to accept a selection. The partial menu below shows the use of **BACK** button to move back to a previous menu and **HOME** button to move back to the starting screen. The following instructions indicate when it is necessary to press the **BACK** button or **HOME** button.

SELECT

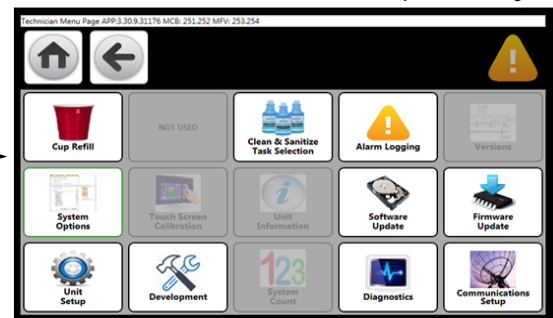
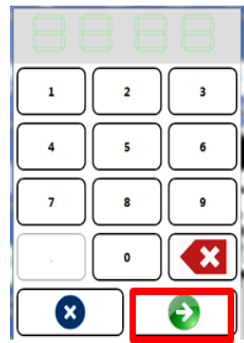


MENU 1



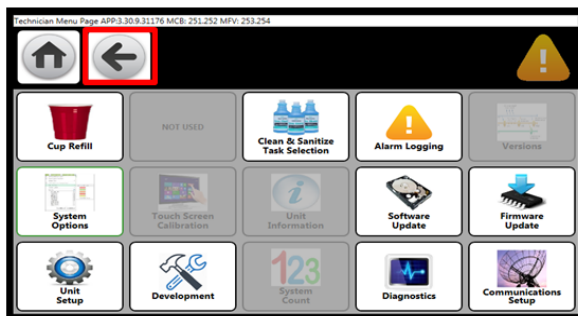
MENU 2

CODE 9876

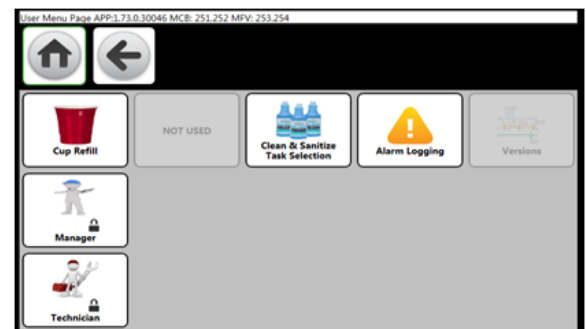


MENU 3

USE OF BACK BUTTON



MENU 3



MENU 2

Figure 28.

USE OF HOME BUTTON

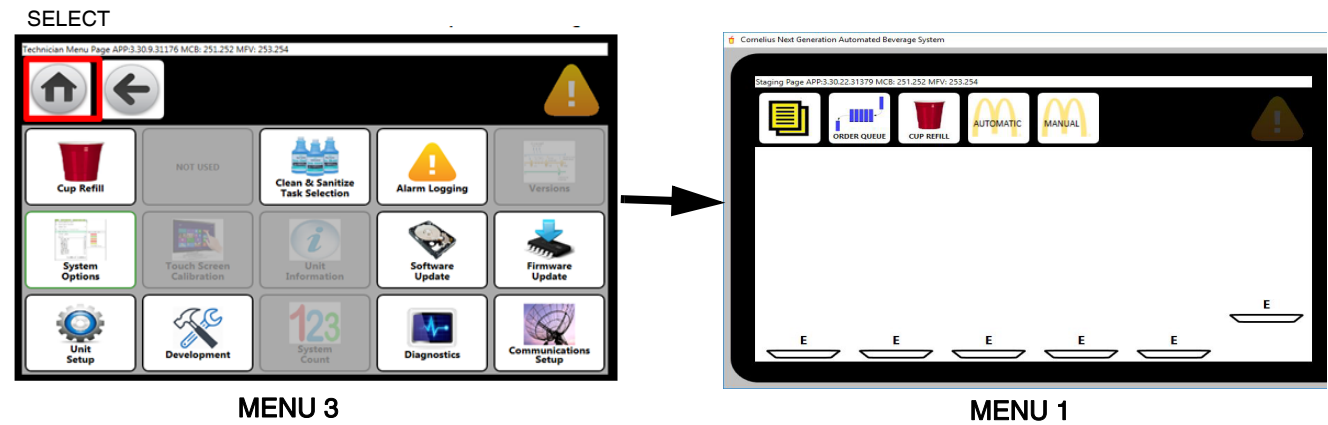


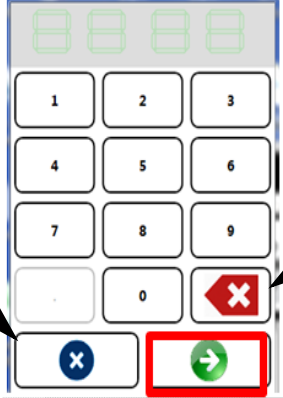

Figure 29.

ENTERING THE TECHNICIAN SCREEN

Table 18.

Step	Action	
1	Select the Menu left top corner shown in Figure 30.	<p>Figure 30.</p>
2	Select the Technician Icon at left bottom corner shown Figure 31.	<p>Figure 31.</p>

Table 18.

3	Enter the pass code (9876) then select green arrow as shown Figure 32.	 <p>Close the Keypad</p> <p>Clear the entry</p> <p>Figure 32.</p>
4	See the Technician Screen as shown Figure 33.	 <p>Figure 33.</p>

EXPLANATION OF CONVEYOR POSITIONS

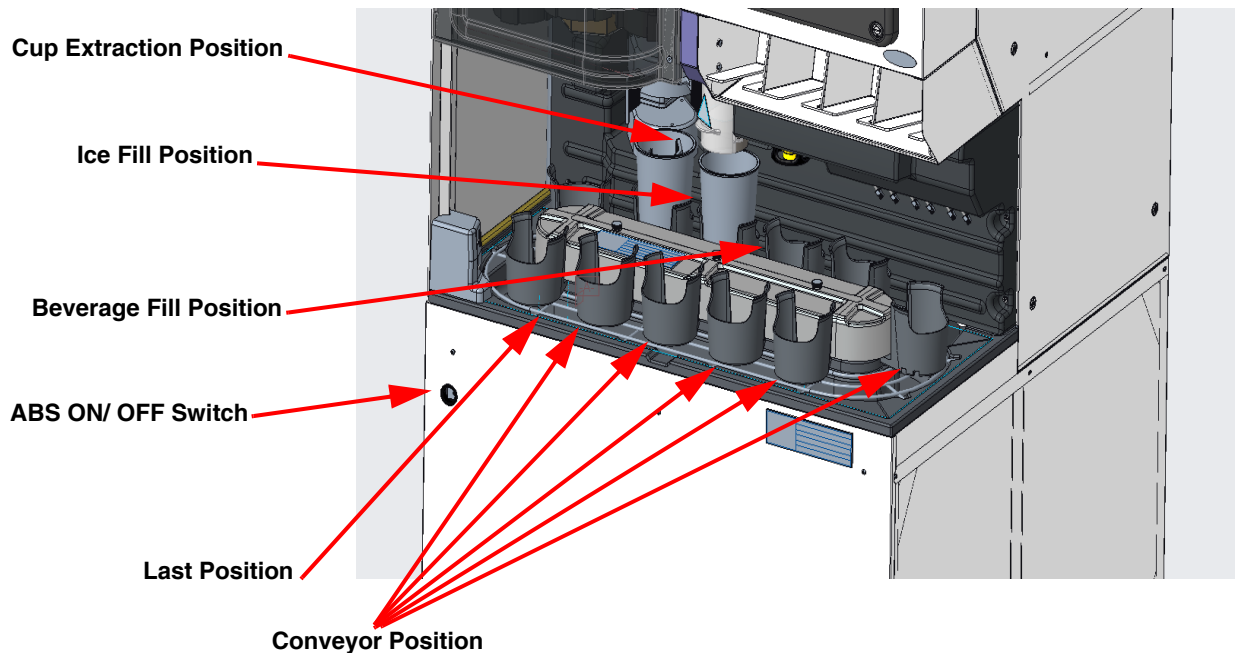


Figure 34.

INITIAL SET-UP, PROGRAMMING

NOTE: The ABS 2.0 system is factory set to satisfy the majority of all installations. Do not make any adjustments until you are sure the factory settings will not satisfy the store requirements.

You will be required to make the following settings:

1. Map syrups to match line up.
2. Water flow rates and syrup to water ratio.
3. Test and adjust (if necessary) the ice portion sizes.
4. Match/adjust valve flow rate to the ABS control.

INITIALIZING AND SELF TEST

Turn ON the ABS 2.0 unit at the ABS 2.0 ON/OFF switch located on the left top corner of the stand (see Figure 34.). During the power-up sequence the **Self Test** and **Initializing** messages will be displayed as each test is being made. When the tests are complete the final message will be displayed and will remain for 5 seconds before the unit is placed in the manual mode.



Figure 35.

If the Initialing process ends with a “**No COM System Ports Found**” message, it means that the communication cable between the POS system and ABS system is not connected. If it is not convenient to connect the cable at this time but you wish to proceed with the Set Up, Choose **CLOSE WINDOW** from screen to bypass the Failed message. The system will then be placed in the MANUAL mode.

INITIAL SET- UP ADJUSTMENTS

Important Start-up Information

NOTE: All CO₂ (air), syrup and water products must be connected and operational before the Start-Up sequence can be started. The cup holders must be in place and filled with cups. The bin must be full of 32°F. ice.

Filling Cup Holder

Table 19.

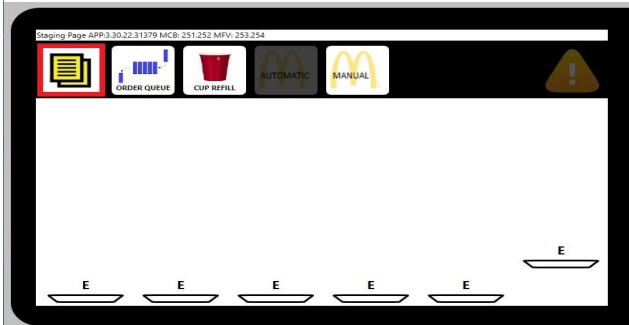

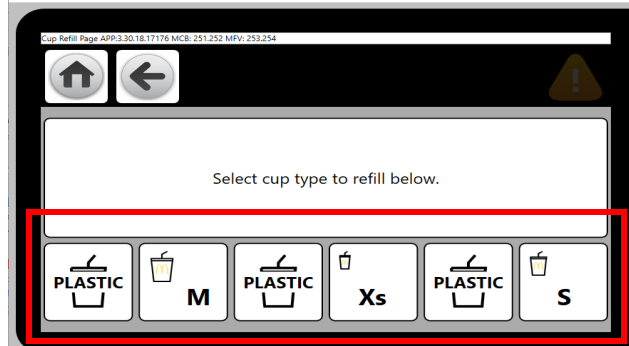
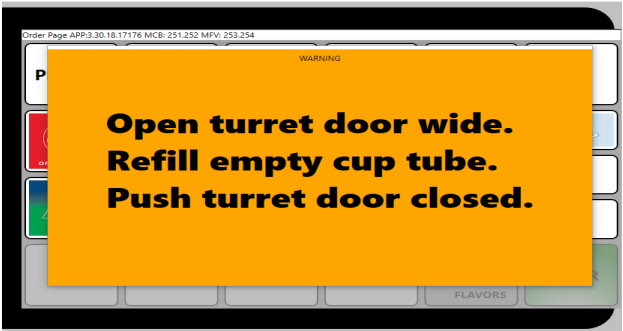



Step	Action	
1	Select Menu as shown in Figure 36. or select cup refile	 <p>Figure 36.</p>
2	If in menu page Select Cup Refill ICON as shown in Figure 37.	 <p>Figure 37.</p>
3	Select Cup size to bring the cup holder position to front.	 <p>Figure 38.</p>

Table 19.

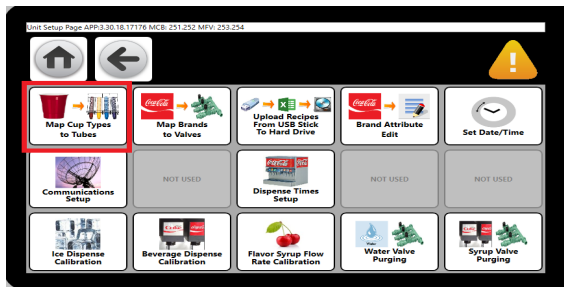
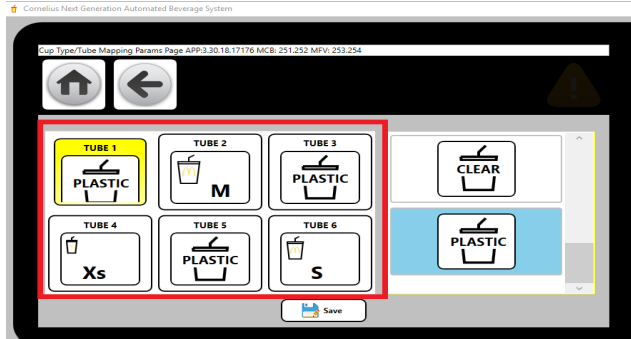
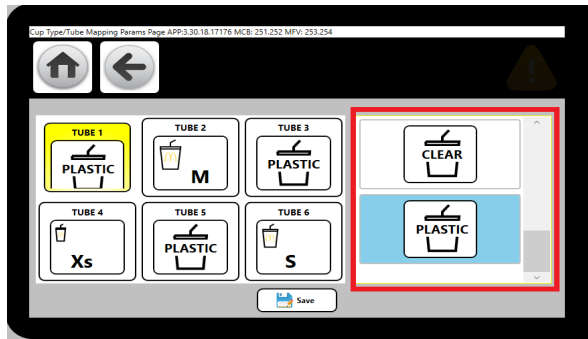
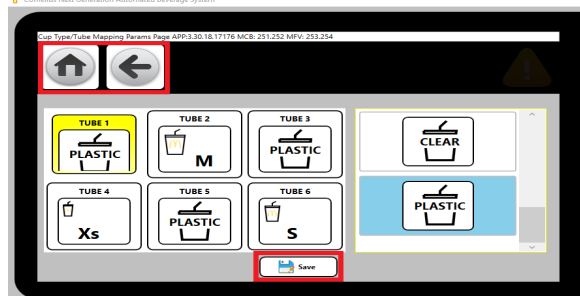
4	After selecting the cup size the screen with instruction message will pop up as shown in Figure 39. Open the turret door.	 <p>Figure 39.</p>
5	<p>Fill Cup's in the cup holder. Spin Turret by hand for all other size.</p> <p>Ensure the cup size with holder cup size mark see Figure 40.</p> <p>Load from top only.</p>	 <p>Figure 40.</p>
6	<p>DO NOT Over Fill</p> <p>Must stay below black motor cover or turret will not spin</p>	 <p>Limit of Cup height</p> <p>Figure 41.</p>
7	Close turret Door	 <p>Figure 42.</p>

The cup Holders must be installed onto the 6-sided column see Page 17. The cup tubes can only be installed in one position. The cup holder will be labeled with the cup size (Child, Small, etc.).

ADJUSTMENTS

SETTING CUP MAPPING

Table 20

Step	Action	
1	Select Map Cup Type to Tubes button from Unit Set up Menu as shown in Figure 43.	 <p>Figure 43.</p>
2	Select the cup position from right side as shown Figure 44.	 <p>Figure 44.</p>
3	Select the correct cup size from the left side by scrolling the up/down arrow	 <p>Figure 45.</p>
4	After Mapping the cup size SAVE and back to desire Menu	 <p>Figure 46.</p>

SYRUP MAPPING (BRAND)

Syrup Map

The table below, shows all the brand names that are resident in the ABS 2.0 system. The shaded area is the default brands.

U.S. Version as follows:

Table 21.			
DEFAULT SETTINGS		POS PROGRAMMING DATA	
VALVE	DISPLAY ID	POS ID	ACTUAL brand
1	COCA COLA	1	
2	DIET COKE	2	
3	Dr. PEPPER	3	
4	SPRITE REMIX	4	
5	SPRT	5	
6	FANTA ORANGE	6	
7	BARQ'S ROOT BEER	7	
8	HAWAIIAN PUNCH	8	

Australian Version as follows:

Table 22.			
DEFAULT SETTINGS		POS PROGRAMMING DATA	
VALVE	DISPLAY ID	POS ID	ACTUAL brand
1	COCA COLA	1	
2	DIET COKE	2	
3	Dr. PEPPER	3	
4	SPRITE REMIX	4	
5	SPRT	5	
6	FANTA ORANGE	6	
7	BARQ'S ROOT BEER	7	
8	HAWAIIAN PUNCH	8	

ACCESSING BRAND MAPPING

MAPPING – FIRST STEP ACCESSING BRAND MAPPING

The illustration in does not represent an actual situation. It is for explanation only.

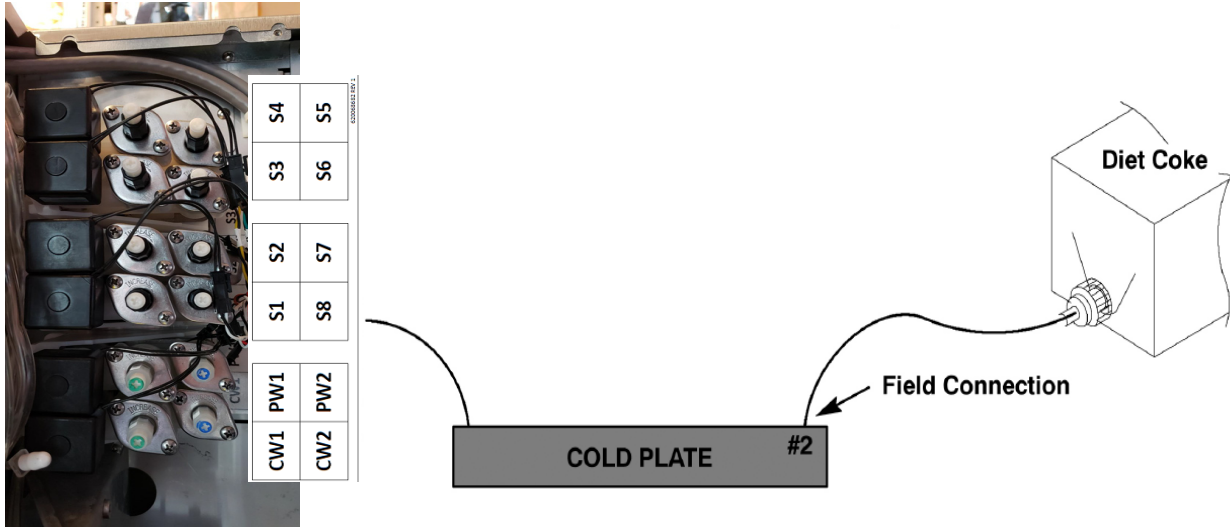


Figure 47. Syrup Map Explanation 1

Drink List

Create a drink list showing the exact position of each drink in the ABS 2.0 system give to GM or keep at the unit (Behind screen)

Table 23.	
POS ID	brand / Aust. Version
1	COCA COLA
2	DIET COKE
3	Dr. PEPPER
4	SPRITE REMIX
5	SPRT
6	FANTA ORANGE
7	BARQ'S ROOT BEER
8	HAWAIIAN PUNCH

Mapping -- Second Step

Table 24

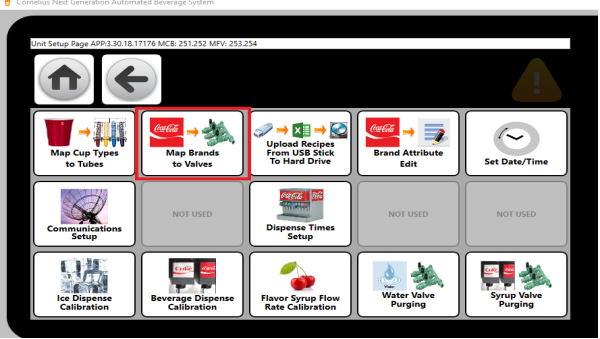
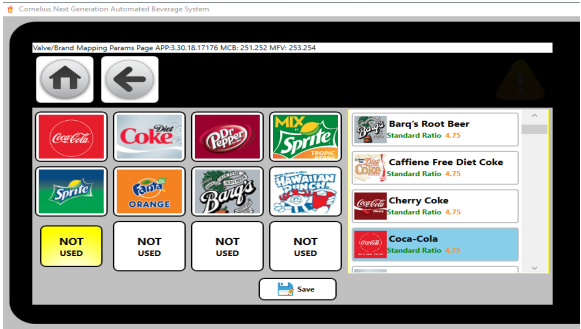
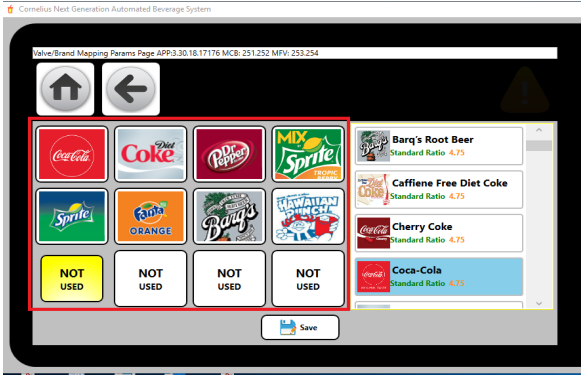
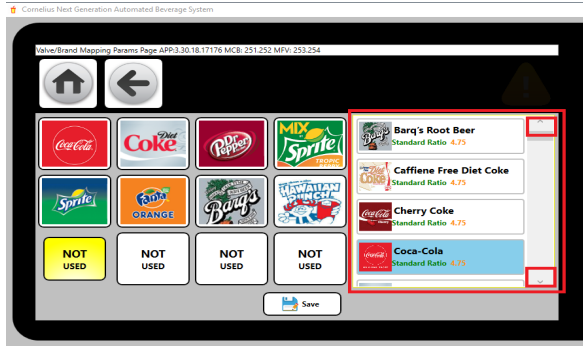
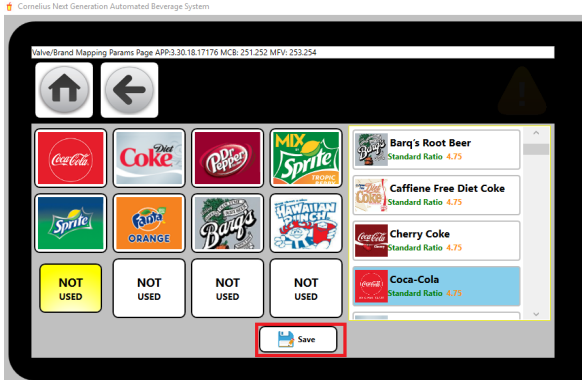
Step	Action	
1	From unit setup Menu select the Map Brands to Valves as shown in Figure 48.	 <p>Figure 48.</p>
2	Brand mapping menu as shown in Figure 49.	 <p>Figure 49.</p>
3	Select the Valve's as shown in Figure 50. Order 1-4, 5-8 Left to right.	 <p>Figure 50.</p>

Table 24 (Continued)

4	Select the brand to assign the valve by scrolling through brand's using the up/down arrow as shown in Figure 51.	 <p>Figure 51.</p>
5	Save the Mapping and back to home or previous menu	 <p>Figure 52.</p>

Drink List

Create a drink list showing the exact position of each drink in the ABS system and present this to the POS programmer. The chart at the back of the installation manual can be used for this purpose.

Table 25.

POS ID	Flavor
1	COCA COLA
2	DIET COKE
3	Dr. PEPPER
4	SPRITE REMIX
5	SPRITE
6	FANTA ORANGE
7	BARQ'S ROOT BEER
8	HAWAIIAN PUNCH

VALVE PURGE

The Table 25 below shows water and syrup valve purging procedure.

Table 26

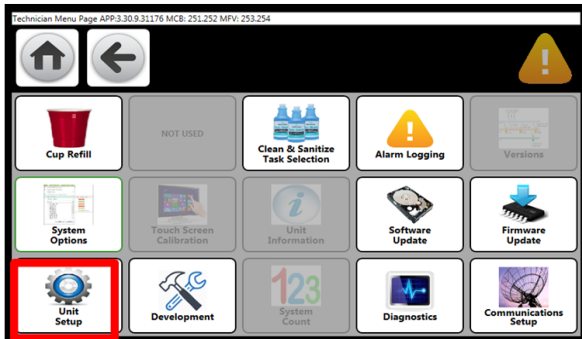
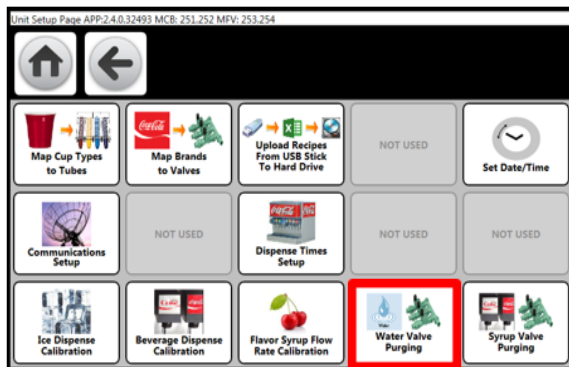
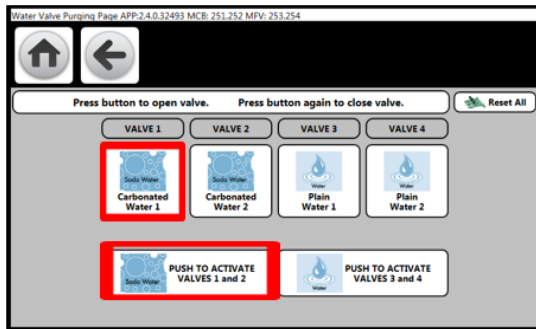
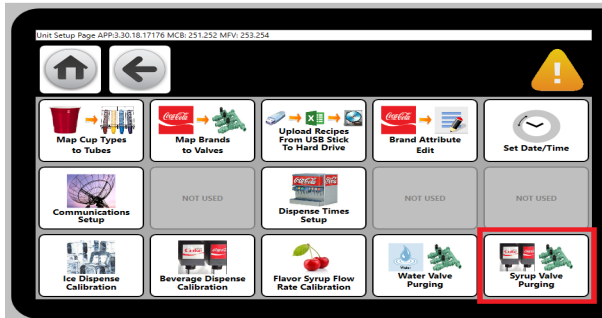
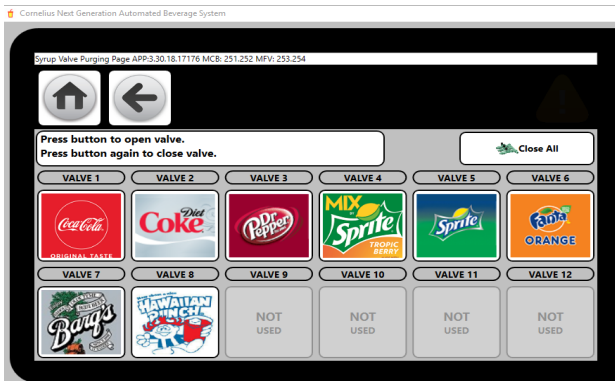
Step	Action	
1	Log in to the technician screen and select UNIT SETUP shown in Figure 53.	 <p>Figure 53.</p>
2	Select Water Valve Purging. From screen as shown Figure 54.	 <p>Figure 54.</p>
3	Select each CW/PW valve individually first.	 <p>Figure 55.</p>
4	Select BACK button to go back to Unit setup Menu	 <p>Figure 56.</p>

Table 26

5	Select Syrup Valve Purging	 <p>Figure 57.</p>
6	While in this mode, press each syrup brand button, SODA and WATER until all air is purged from the tubing. In this mode the valve will remain open as long as a button again press. All air must be purged from the tubing before proceeding.	
7	At the end of this sequence press the BACK icon or HOME icon to return to the desired menu. See "Moving through the Menu" on page 27.	



SET FLOW RATE AND VALVE RATIO

NOTE: Cold plate should have ice on it and should be cold.

Remove the conveyor assembly to allow easy access to the area under the valve for the ratio cup.

Table 27

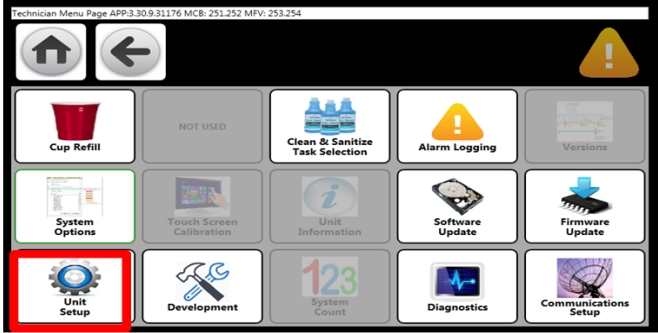
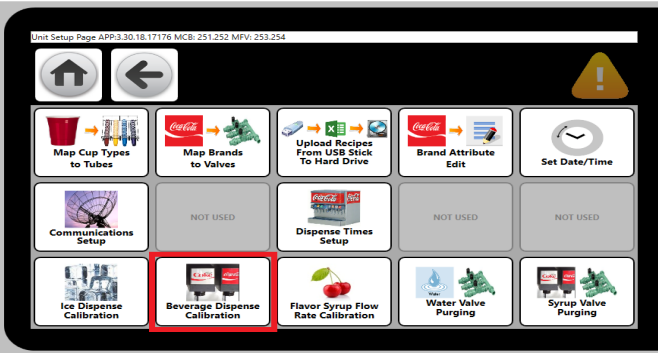
Step	Action	
1	Select the Unit setup Menu from technician screen	<div></div> <p>Figure 58.</p>
2	Select the Beverage Dispense Calibration	<div></div> <p>Figure 59.</p>



Figure 60. Front View, Valve

ADJUSTING WATER FLOW RATE

Overview: The ABS 2.0 uses 2 MFV water valves for both carbonated water (CW1 & CW2) and plain water (PW1 & PW2). Each valve module has a high-flow orifice and a low-flow orifice. The high-flow orifice provides approximately 75% and the low-flow orifice provides approximately 25% of the total flowrate. During a beverage dispense, both valves are activated and together provide the total water flowrate required.

NOTE: The default water volume shown on the Beverage Dispense Calibration screen is 12.00. This is the target volume after calibration which equates to a water flowrate of 3.0 oz/sec. If the final water flowrate is different than 3.0 oz/sec, this procedure will update the default value.

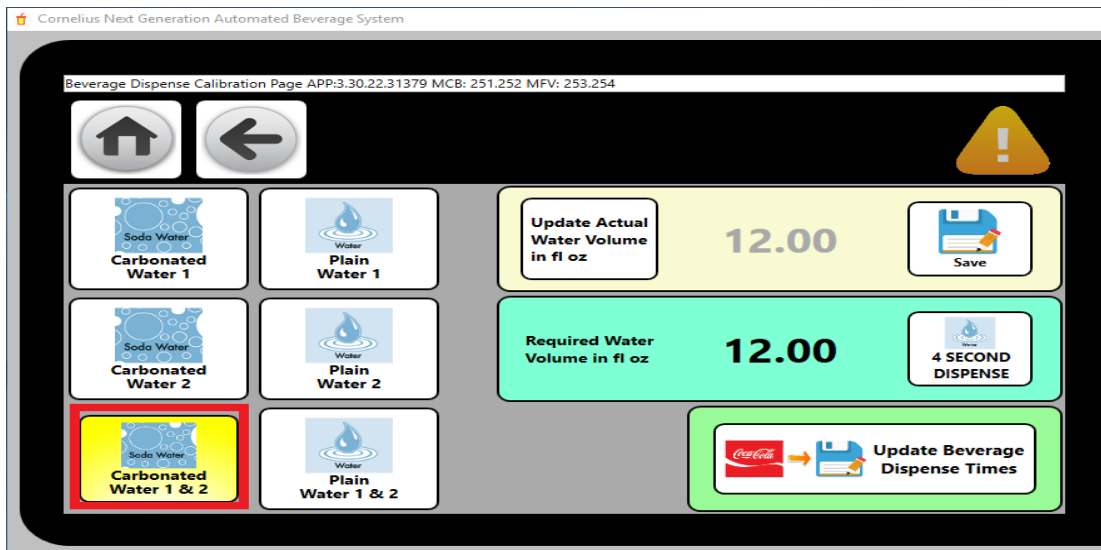


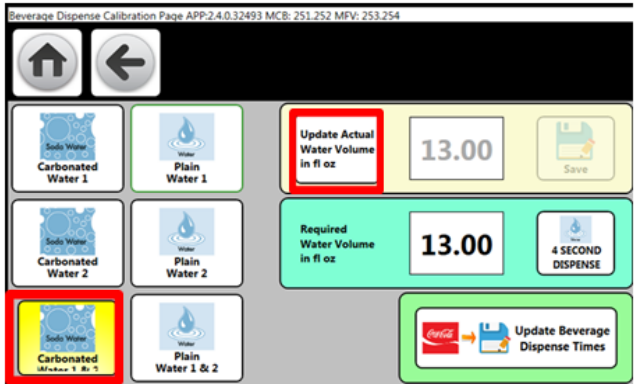

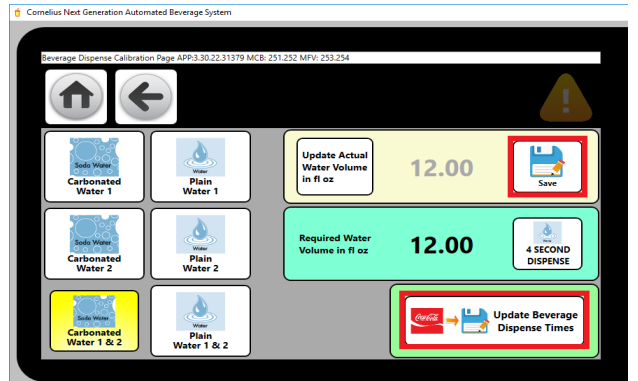
Figure 61.

- 1) From the Beverage Dispense Calibration screen, select the button for **Carbonated Water 1**. Hold the water compartment of the ratio cup under the nozzle and press the **4 SECOND DISPENSE** button. Target volume for CW1 is approximately 9 ounces. Turn the **CW1** adjustment screw on the MFV valve clockwise to increase the flowrate or counter-clockwise to decrease the flowrate until the target volume is reached.
- 2) Next, select the button for **Carbonated Water 1 & 2**. Hold the water compartment of the ratio cup under the nozzle and press the **4 SECOND DISPENSE** button. Target volume for CW1 & CW2 is 12 ounces. Turn the **CW2** adjustment screw on the MFV valve clockwise to increase the flowrate or counter-clockwise to decrease the flowrate until the target volume is reached.
- 3) Repeat steps 1 & 2 for the plain water valves PW1 & PW2. The total target volume for plain water is 12 ounces.

SET OVERALL WATER VALVE

Important: This is the step that adjusts the pour times of all beverages dispensed from the ABS 2.0. If this step is not completed, then drinks will either over- or under-pour depending on the flowrate adjustment of the valves.

Table 28

Step	Action	
1	After both CW valves are adjusted, do another 4 second dispense and measure the volume dispensed in the ratio cup. Select Update Actual Water Volume in fl oz and using the keypad enter the volume measured in the ratio cup and press the green arrow .	 <p>Figure 62.</p>  <p>Figure 63.</p>
2	Press Save and then press Update Beverage Dispense Times . The dispense times for all drink sizes and types are now updated based on the set flowrate.	 <p>Figure 64.</p>
3	Repeat steps 1 & 2 for the plain water valves PW1 & PW2.	

Troubleshooting:

- If drinks **overflow**, this means the dispense times are too high for the flowrate that the valves have been adjusted to. Repeat the above steps and **increase** volume entered. This will shorten the dispense time prevent overflowing.
- If drinks **underfill**, this means the dispense times are too low for the flowrate that the valves have been adjusted to. Repeat the above steps and **decrease** volume entered. This will lengthen the dispense time prevent underfilling

ADJUST THE SYRUP RATIO (BRAND)

After the water flow rates are set, the syrup ratio must be adjusted. The water flow rates were set based on a ratio of 4.75:1 (4.25:1 = Australia). The actual ratios will be set at 4.75:1 and 5.25:1, therefore, the finished drink flow rate will vary *slightly* from the desired flow rate of 4.0 oz/sec.

NOTE: Always adjust the ratio for the syrup with the highest viscosity first. Some syrups may be too viscous and you might be unable to achieve the desired ratio. In these cases, the PW or CW flow rate will have to be lowered to permit setting the proper ratio.

NOTE: Once the PW and CW flow rates are set they should not be changed. Any change to the PW or CW will require that all syrup to water ratios be readjusted.

NOTE: Be sure to use the correct ratio cup for the ratio being adjusted.



Figure 65.

U.S.A. FOLLOW THE PROCEDURE BELOW:

1. Hold the ratio cup water compartment below the valve and select the Plain Water button if adjusting a non-carbonated drink or the carbonated water button if adjusting a carbonated water drink.
2. Hold the appropriate ratio cup syrup compartment below the valve. Select the syrup brand and press the **"4 SECOND DISPENSE"**.
3. Acceptable ratio is shown in the illustration below as the Correct Reading within the same bandwidth.

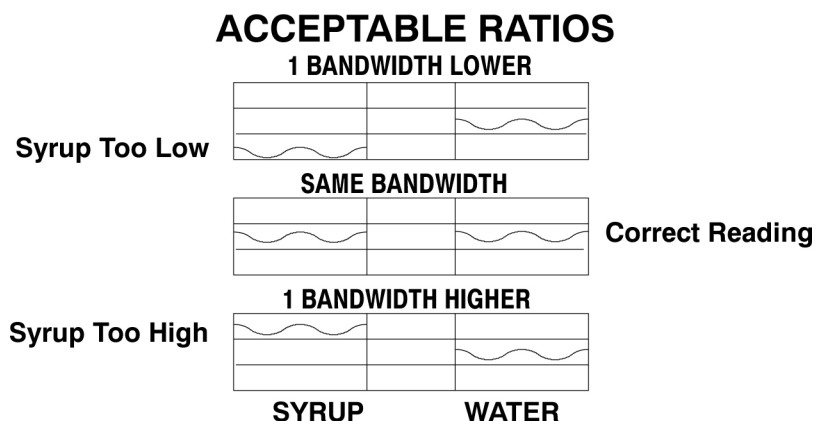


Figure 66. Ratio Cup, Acceptable Ratio

AUSTRALIA FOLLOW THE PROCEDURE BELOW:

1. Using the table below, determine the volume of syrup that should dispense in the 4 second pour.

Example: The ratio for the brand is 5.25, and it is a carbonated (CW) drink, the unit should dispense 75.7 ml of syrup in the 4 second dispense. If the ratio for the brand is 5.25, and it is plain water (PW) drink, the unit should dispense 66.3 ml of syrup in the 4 second dispense.

Table 29.		
Ratio	CW/PW	ml Syrup
5.25/1	CW	75.700
5.25/1	PW	66.300
4.75/1	CW	82.300
4.75/1	PW	72.000
4.25/1	CW	90.100
4.25/1	PW	78.900
9.5/1	PW	39.500

2. Hold the volume measuring device below the valve, Select the syrup brand and press the **"4 SECOND DISPENSE"**.
3. Adjust the flow regulator as required.

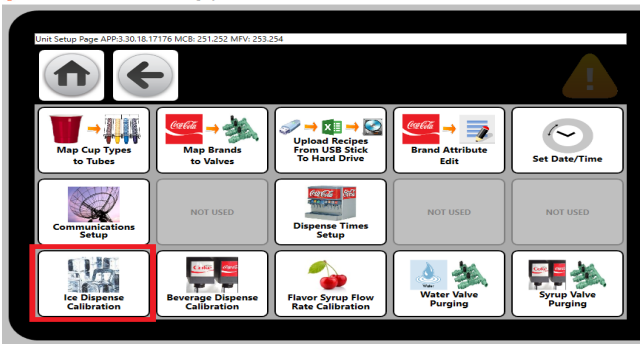
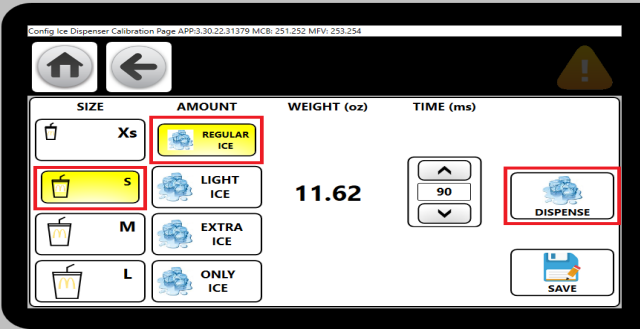
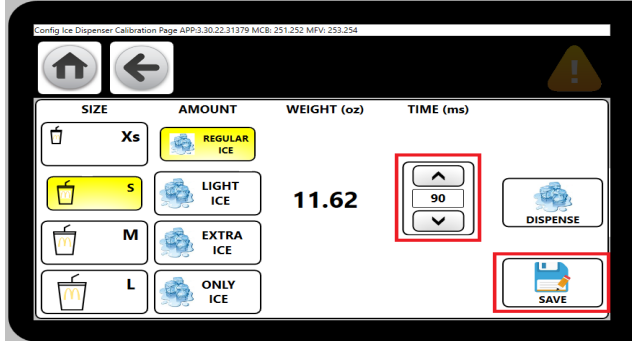
See Figure 60 for location of the adjustment screws on the valve.

At the end of this adjustment press the **HOME** button twice to return to the main menu.

ADJUST ICE PORTION

Install the conveyor assembly before beginning the next procedure. Place the measuring cup under the ice dispenser.

Table 30

1	Place the measuring cup under the ice dispenser. Select the "Ice Dispense Calibration" icon from the Unit setup menu as shown in Figure 67.	 <p>Figure 67.</p>
2	From the Ice Dispense Calibration Menu Select the Cup Size, Amount of Ice and Press "DISPENSE" button as shown in Figure 68. and measure the weight of the Ice.	 <p>Figure 68.</p>
3	If weight is not correct adjust the Ice dispense time by pressing the up/down arrow as shown in Figure 69. if correct weight is obtained Save the setting by pressing the save button.	 <p>Figure 69.</p>
4	Repeat the process for all remaining cup size with different amount of Ice and save the setting.	

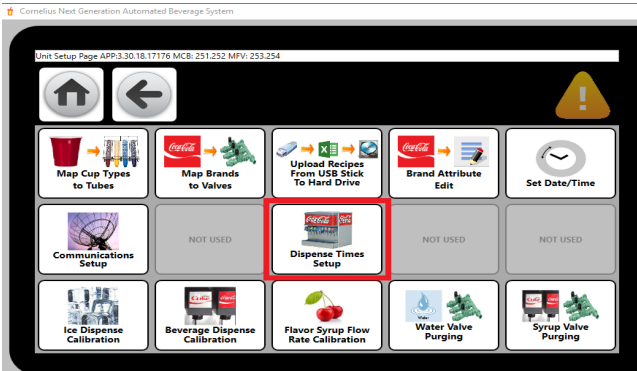

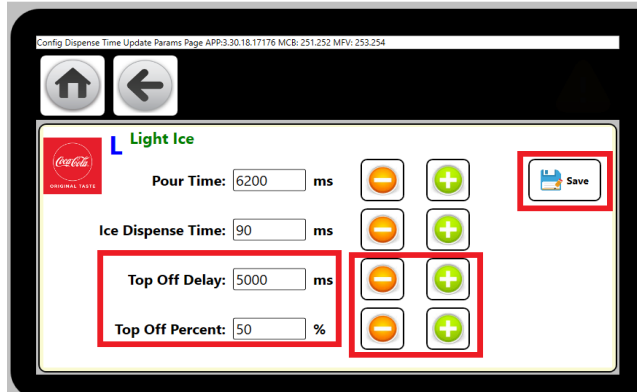
When the level is correct, press **SAVE** button to save the changes and then repeat the process for all cup sizes.

TOP-OFF EXPLANATION

Drink brands that tend to pour with excessive foam have been adjusted so 70% of the drink pours and then after a delay the remainder of the drink pours.

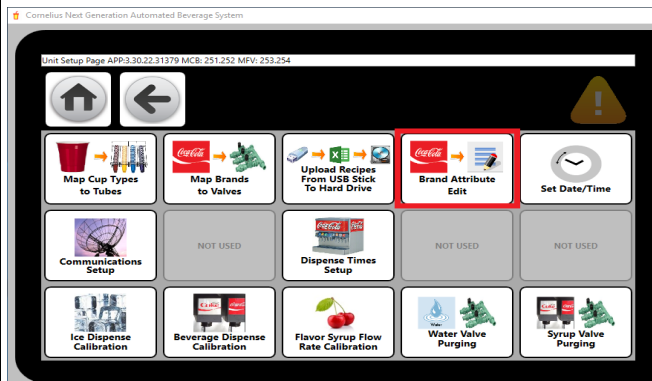
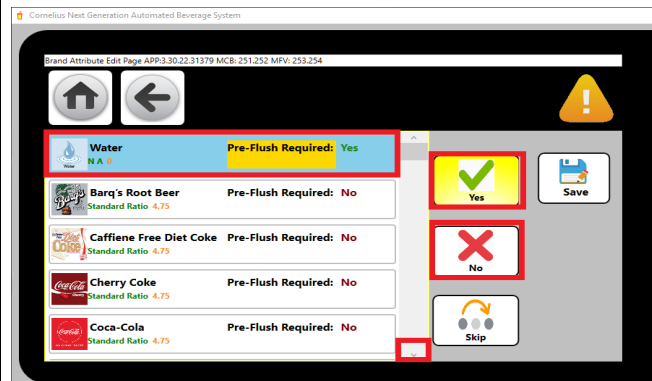
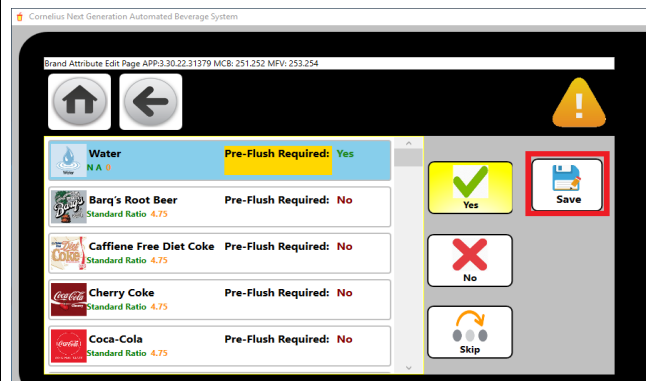
ADJUSTING THE TOP-OFF

Table 31

Step	Action	
1	Select the “Dispense Time Setup” icon from unit setup menu as shown in Figure 70.	 <p>Figure 70.</p>
2	From the Dispense Time Setup menu select the Brand, Cup size, Ice volume and Press “Edit” Button as shown in Figure 71.	 <p>Figure 71.</p>
3	Use the (+) and (-) button to enter the value of Top Off Delay and Percent and the press Save button to save the setting as shown in Figure 72.	 <p>Figure 72.</p>
4	Repeat the above steps for remaining Brands with different Cup size and Ice volume. Also follow the same step for Plain Water / Carbonated Water.	

BRAND FLUSH SETTING

Table 32

Step	Action	
1	From the Unit setup menu select Brand Attribute Edit Button . as shown in Figure 73.	 <p>Figure 73.</p>
2	Select the brand or water type select YES green button for flush before drink or select NO red button for without flush drink. Use the scroll up & down to chose different brand or water type selection.	 <p>Figure 74.</p>
3	Save the setting as shown in Figure 75.	 <p>Figure 75.</p>

NOTE: Flush is used to serve clear drink, It ensures the taste of the drink.

SAVING THE SET-UP

Select preferences in respective set up and press “**SAVE**” icon shown in Figure 76. to save the setting of the menu

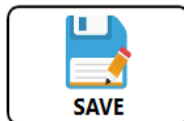


Figure 76.

MANUAL MODE OPERATION

In the MANUAL mode, POS data is updated and ALARM messages are displayed. In MANUAL mode the highlight flashes to alert operator that the ABS 2.0 unit is in the MANUAL mode. While in the MANUAL mode, POS drink orders continue to be received and placed in the order buffer.

It is highly recommended that the MANUAL mode be used when refilling the cup tubes or removing foreign objects from the conveyor/drip tray to prevent sudden movement of the turret or conveyor when an order is received.

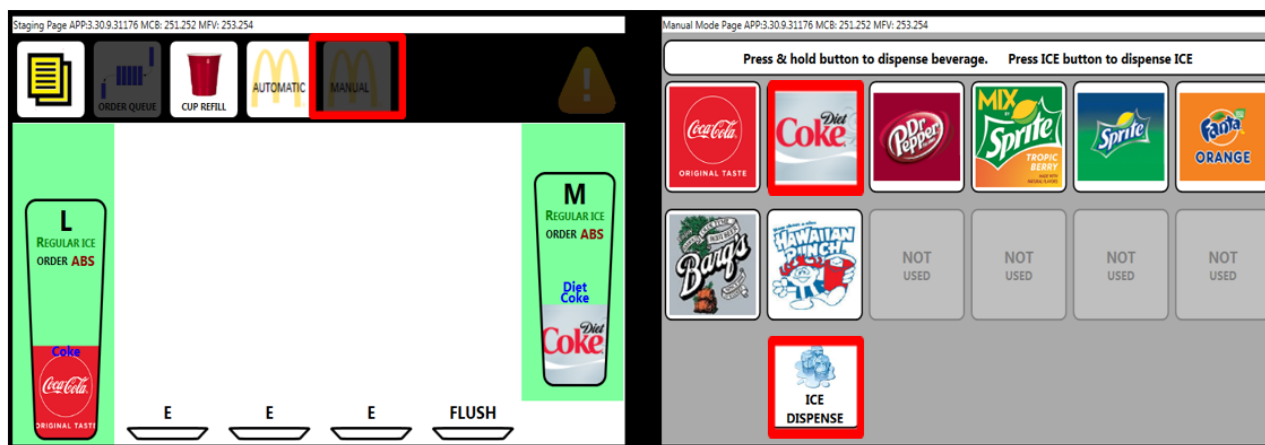


Figure 77.

In the manual mode select the **Brand** then Press and hold button to dispense Beverage as required. as same as Press and hold **ICE** button to dispense ice. There is no need of cup selection in manual mode.

AUTOMATIC MODE OPERATION

In automatic mode the beverage dispense automatically from the input of POS system. By default ABS 2.0 System is setup to Automatic operation mode.

If alarm conditions are present (but previously acknowledged) the ABS 2.0 status will indicate **Warning**. While the Warning status is present. the word **AUTOMATIC** will flash.

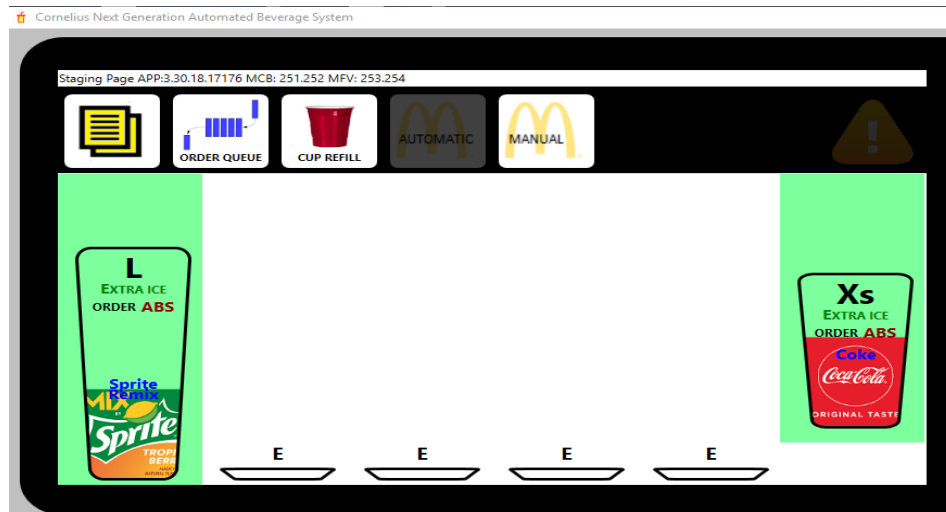


Figure 78.

CLEAR THE POS ORDER BUFFER

Table 33

1	Select Order Queue as shown Figure 79.	<p>Figure 79.</p>
2	Delete Undesired Orders or Delete All If several orders stack up and are no longer needed, it may be easier to delete all and manually enter in what is missing	<p>Figure 80.</p>

SEMI-AUTOMATIC DRINK ORDER ENTRY

Manual order entry can be made without entering the drink at the POS. This is normally done to correct an error in entry, to pour a replacement drink or to accommodate a customer special request.

NOTE: Steps 1, 2, 3, 4 below can be made in any order. If any selection in any step is incorrect it may be reentered. "Order Entry" will be displayed on the second line of the display.

NOTE: Pressing the Clear button at any time will cancel the operation.

While in the **Automatic** mode:

1. Press a **Cup** button to select the size drink desired. The display will indicate the selection made.
2. Press a **BRAND** button to select the brand desired. The display will indicate the selection made.
3. Press the **No Ice** or **Extra Ice**, or **FLOAT** button if either ice feature is desired, or a float drink is requested. Not pressing these buttons will cause the normal ice portion to dispense. The display will indicate the selection made. The **No Ice**, **Extra Ice** and **light Ice** buttons are toggle buttons, so, if an error is made simply press the button again to cancel.
4. After the proper selections are made, press the **Enter** button to dispense the drink.

Once entered, the ABS system will determine how many drinks are ahead in the POS queue before the Semi-Automatic drink order will be started.

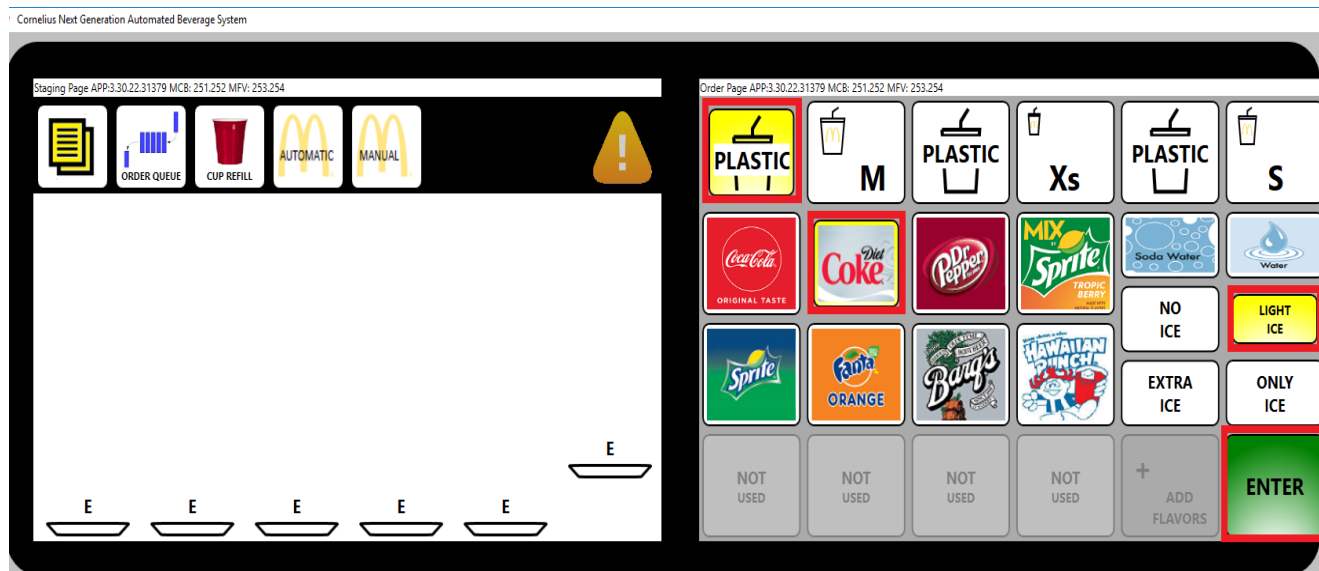
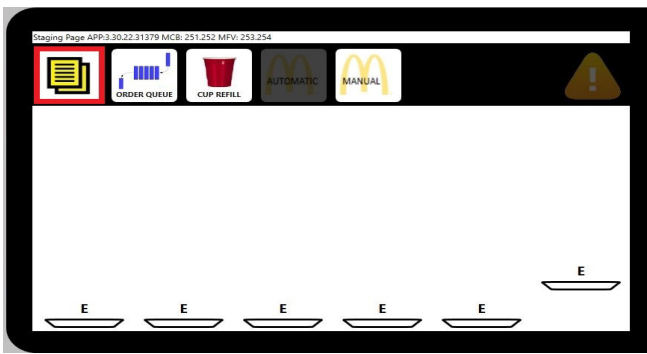
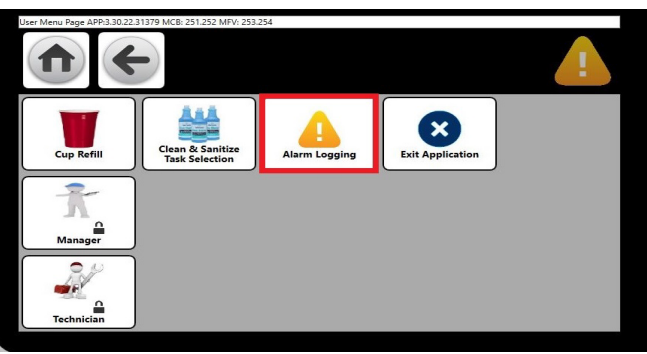
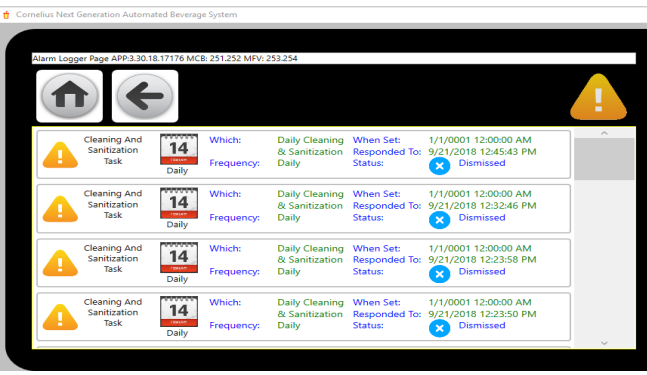
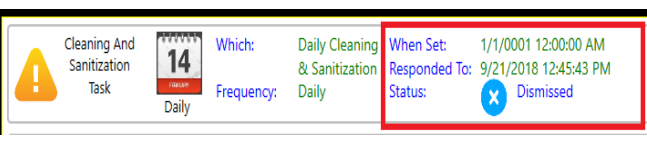


Figure 81.

ALARM & WARNING MESSAGES

To view warnings, follow the steps.

Table 34

Step	Action	
1	From the starting page select the Menu page Icon as shown in Figure 82.	 <p>Figure 82.</p>
2	From the menu page select “Alarm Logging” button to entering the menu as shown in Figure 83.	 <p>Figure 83.</p>
3	In the alarm logging menu all alarm and warning are listed. Use scroll button to view all the messages.	 <p>Figure 84.</p>
4	Current status of the messages show at right side as shown in Figure 85.	 <p>Figure 85.</p>

WIRING DIAGRAM



PLUMBING DIAGRAM

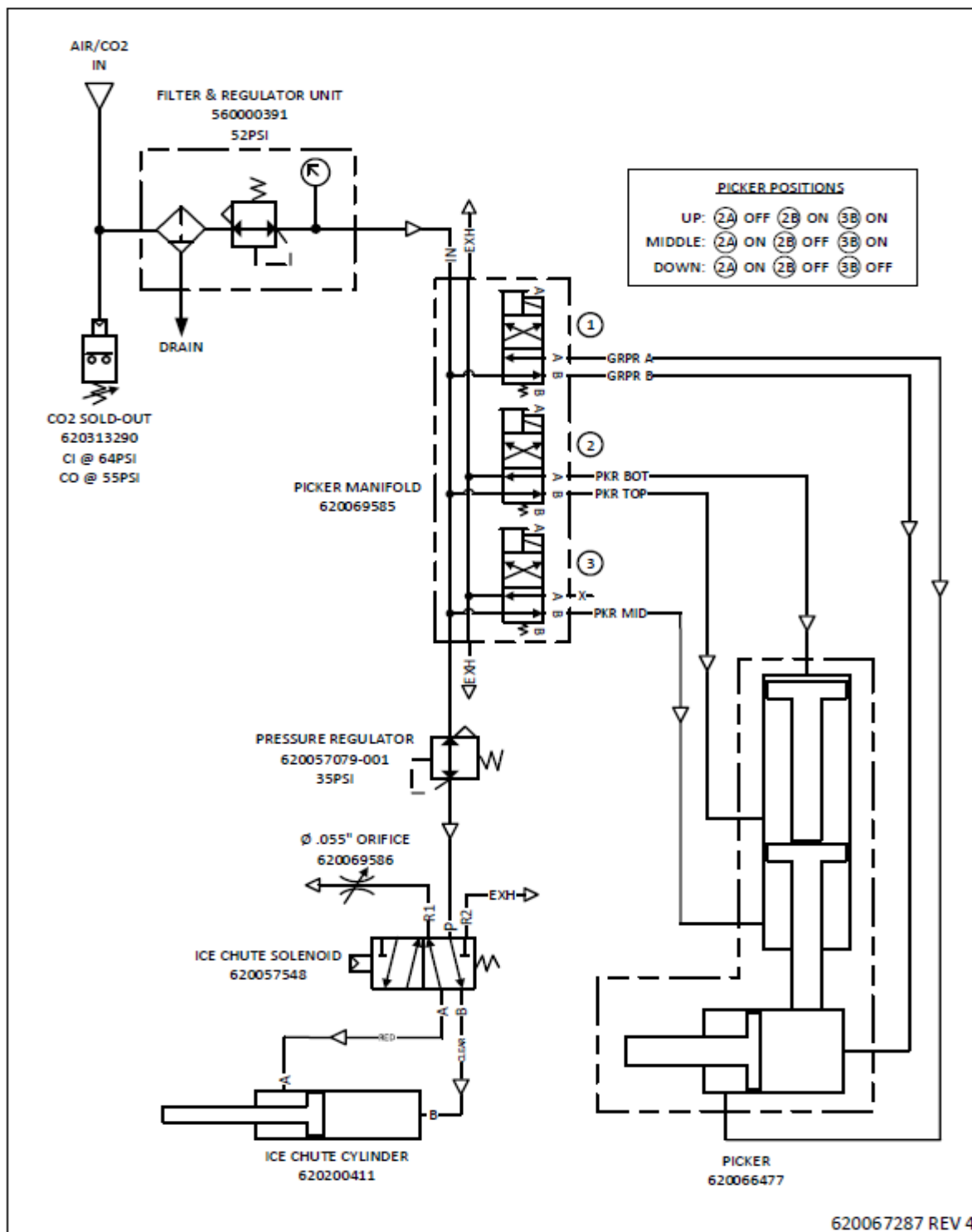


Figure 87.

TROUBLESHOOTING

MECHANICAL ISSUES

Table 35.

Message	Explanation	Correction
CLEAR CUP JAM	Cup(s) is jammed in the conveyor at the cup extraction position and the conveyor and turret are unable to operate.	Remove all cups from the conveyor cup holders at the Extract Position before pressing the ENTER button. Another cup will be extracted and dispensing will continue.
	Cup Tubes.	Over stacking of cups in cup tubes. DO not fill above the top of the cup tube.
		Cup tube fingers are damaged (bent), replace all four fingers.
		Cup tubes not properly mounted. Remove and remount cup tubes.
	Loose or missing Hardware.	Check each cup tube to insure all hardware is present on the cup tube. Replace any missing hardware.
	Cups.	Cups are packed together and will not separate.
NO CUP EXTRACTED	The gripper did not or could not extract a cup from the cup tube.	Check cup supply at the extract station and make sure the cups are not stuck. Make sure the gripper pads are not damaged
	Grabber Pads.	Wet, dry off if damaged, replace.
	CO ₂	Check bulk co ₂ tank, if empty go to back up co ₂ and turn on.
	Cup Tubes.	Cup tube fingers are damaged (bent), replace all four fingers.
	Cups	Cups are packed together and will not separate.
TURRET STALLED	Turret unable to rotate clockwise of counter-clockwise.	Clear obstruction (cup holder, cup tube or cup). Press ENTER
CONVEYOR STALLED	Cup(s) is jammed in the conveyor at the cup extraction position and the conveyor and turret are unable to operate. Does the conveyor rotate?	Remove all cups from the conveyor cup holders at the EXTRACT POSITION before pressing the ENTER button. Another cup will be extracted and dispensing will continue. Make sure conveyor is installed correctly. Repair or Replace.
AIR OR CO₂ LOW OR OUT	CO ₂ supply is low or empty or Air compressor not operating	Change CO ₂ cylinder or have bulk tank refilled. Check cause not operating and repair.

BEVERAGE / ICE RELATED ISSUES:
Table 36

Message	Explanation	Correction
NO ICE DISPENSE	A. Ice Chute not installed correctly. B. Bad solenoid valve. C. Plugged orifice. D. No / Low CO ₂ .	Reinstall Ice Chute. Call for service. Call for service. Call for service.
BEVERAGES TOO SWEET	A. Carbonator not working. B. No co2 pressure in carbonator. C. Valve ratio requires adjusting. D. Plugged filter.	Call for service. Call for service. Call for service. Replace.
BEVERAGES NOT SWEET ENOUGH	A. Empty B.I.B container. B. Valve ratio requires adjusting.	Replace. Call for service.
BEVERAGE NOT COLD	A. No ice in hopper. B. Drains plugged and water standing on coldplate. C. Master Cooling system not cooling.	Fill ice bin. Clean ice bin and flush drain with warm water. Call for service.
DRINKS FOAMY	A. Nozzle & Syrup diffuser not clean. B. Bulk coke tank needs to be sanitize. C. Lower or out of Co2. D. No jumper transfer hose used on bulk tank	Clean and Sanitize. Clean and Sanitize. Replace or Switch to Back Up. Make sure jumper hose on bulk tank is connected when changing bulk tanks

POS RELATED ISSUES

Table 37

Message	Explanation
ABS SYSTEM NOT COMMUNICATING	<ul style="list-style-type: none"> • Verify that the ABS 2.0 unit is enabled in the POS Drink Dispenser setup. • Verify that POS cable is connected to COM2 on the CCU. • Verify that the POS cable is connected to the ABS 2.0 unit. • Verify all programming is correct. • Verify that no error messages are displayed on the ABS 2.0 unit. • Reboot power to the CCU. • Reboot power to the ABS 2.0 unit.
ABS UNIT WILL NOT DISPENSE A DRINK WITHOUT ICE OR WITH EXTRA ICE	<ul style="list-style-type: none"> • For no ice you must have to check ice chute sensor or nematic. • For extra ice, you must have the modify ice dispense time.
ABS UNIT IS DISPENSING THE WRONG SIZE OR BRANDS	<ul style="list-style-type: none"> • Make sure that the order in which the brands and size are the same in brand Setup and size Setup in the Drink dispenser as it is on the ABS 2.0 System. Coca-Cola will provide the brand Position Guide for POS programming. • Call your POS vendor for service.
ABS IS NOT DISPENSING ONE OR MORE OF A SIZE OR BRANDS	<ul style="list-style-type: none"> • Verify the brand and Size spelling is the same in both the brand and Size setup as it is in the Menu item Setup. • Call your POS vendor for service.







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