IDC PRO 255

Service Manual

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

Contact Information:

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

www.cornelius.com

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This document contains the original instructions for the unit described.

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Correct Disposal of this Product

 RECYCLE

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.

TABLE OF CONTENTS

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 and/or national and local codes 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.

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.

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**.

UNIT LOCATION

⚠ **CAUTION:**
The unit is not designed for a wash-down environment and MUST NOT be placed in an area where a water jet (pressure washer) could be used.

⚠ **CAUTION:**
This appliance is not intended for use by personnel (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless given supervision or instruction concerning use of the appliance by a person responsible for safety.

SYSTEM OVERVIEW

The Refresh IDC PRO 255 unit solves your ice and beverage service needs in a sanitary, space saving, economical way. It is designed to be manually filled with ice from any remote ice making source. The unit dispenses cubes (up to 1-1/4 inch in size), cube-lets and compressed (not flaked) ice. Also, the unit includes beverage valves and cold-plate.

⚠ **CAUTION:**

The unit cannot be used with crushed or flaked ice. Use of bagged ice which has frozen into large chunks can void warranty. The unit agitator is not designed to be an ice crusher. Use of large chunks of ice which "jam up" inside the hopper will cause failure of the agitator motor and damage to the hopper. If bagged ice is used, it must be carefully and completely broken into small, cube-sized pieces and left to "temper" or warm up for a minimum of 20 minutes in room temperature before loading into the unit hopper.

FEATURES

- Brand density - 10 brands on each side, 7 chilled, 3 ambient and up to 8 flavor shots (4 per side) for over 320 drink combinations.
- Large 32" HD merchandising display.
- 255 lbs. capacity ice cube hopper.
- Dispenses cubed or chewable soft ice.
- UI Touch screen

SPECIFICATIONS

Table 1.

Model	IDC Pro 255
Maximum Number of Valves available	32 Total; 20 brands, 8 flavors & 4 water
Built-in Cold Plate	Yes
Voltage	120 V 60 Hz, single phase; 8.5A. of total unit draw
	220 -240V 50 - 60Hz, single phase; 5.5A of total unit draw
Height	39-3/16 in. (.955 m) to top of Adapter lid
Depth	32-3/8 in. (0.823 m)
Width	30 in. (0.762 m)
Screen Dimensions	32 in. Diagonally
CO_2 Operating Pressure for brand	65 psig (5.17 bar) minimum
CO_2 Operating Pressure for flavor	30-45 psig (2.07-3.10 bar)
Water Pressure	60 psig (3.45-4.48 bar) minimum
Water Volume	Minimum flow rate, 125 gal/hr. (0.473 cubic meters/hr.)
Shipping Weight	545 lbs. (247.2 kg)
Counter Weight	440 lbs. (199.6 kg)
Ice Storage Weight	255 lbs. (115.7 kg)

Table 1.

Cup Clearance	9-3/4 in. (24.77 cm)
Ambient Operating Temperature	65 to 95° F (18.3 to 35° C)
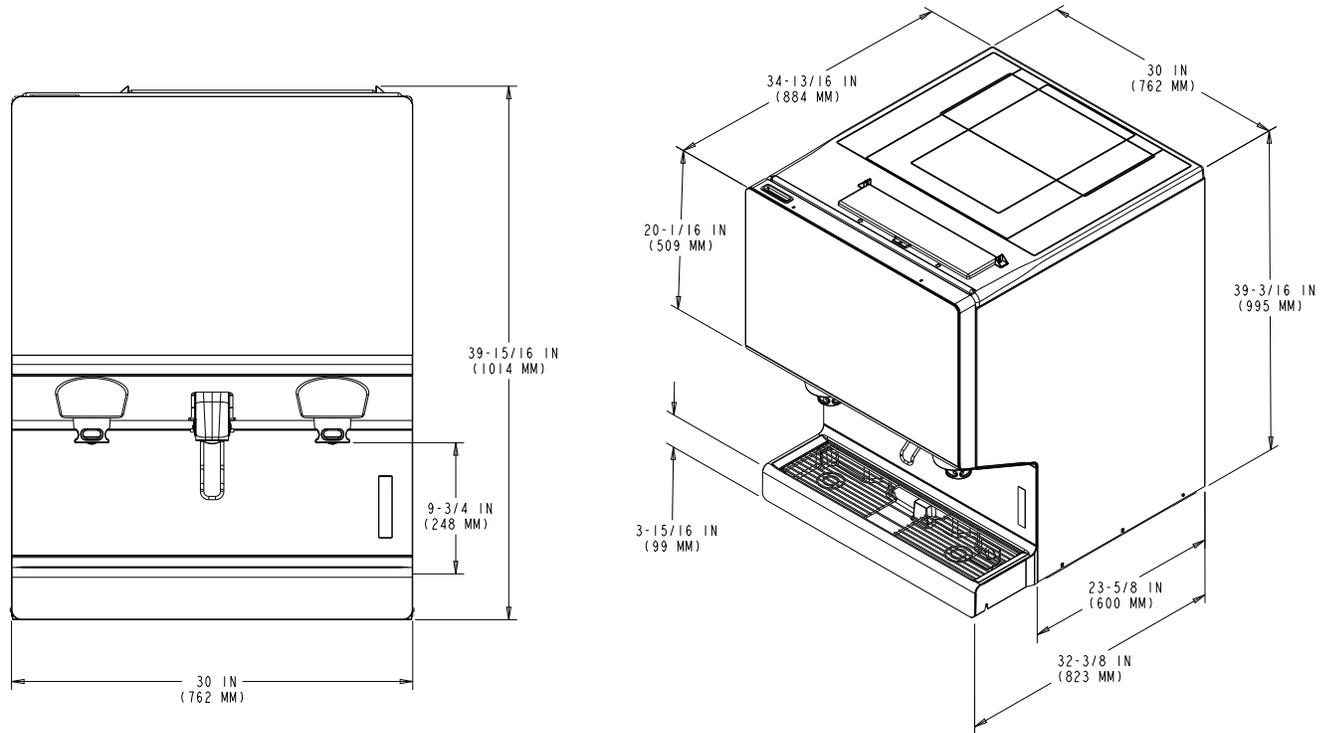
Figure 1.

SUGGESTED PLUMBING PYTHON BUNDLE

- Water: Insulated for both carbonated recirculation lines and water lines.
- Syrup: non-Insulated tubing for syrup lines.
- Flavor: Non-Insulated tubing for flavor lines, for under counter or backroom installation.

INSTRUCTIONAL VIDEOS

- Instructional videos can be viewed at the following web address.

www.newproducts-cornelius.com/resources/

OFF CYCLE AGITATION SETTINGS

The off-cycle agitation timer is set from the factory for a 4sec agitation every hour. For soft ice, reset to 3hours off, .5sec on.

MOTOR ON TIME

FULL CCW - 0.5 SECONDS
FULL CW - 5 SECONDS

OFF TIME

FULL CCW - 10 MINUTES
FULL CW - 3 HOURS

E-BOARD AGITATION TIMER

ON TIME

OFF TIME
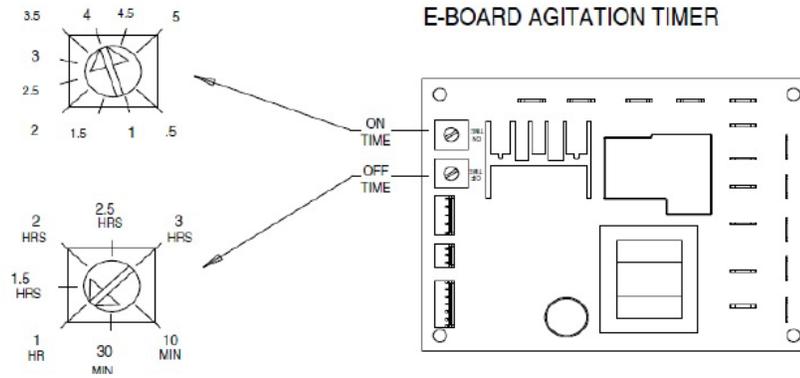
Figure 2.

E-Box Configuration

⚠️ **WARNING:**
Disconnect power to the unit before accessing the E-box.
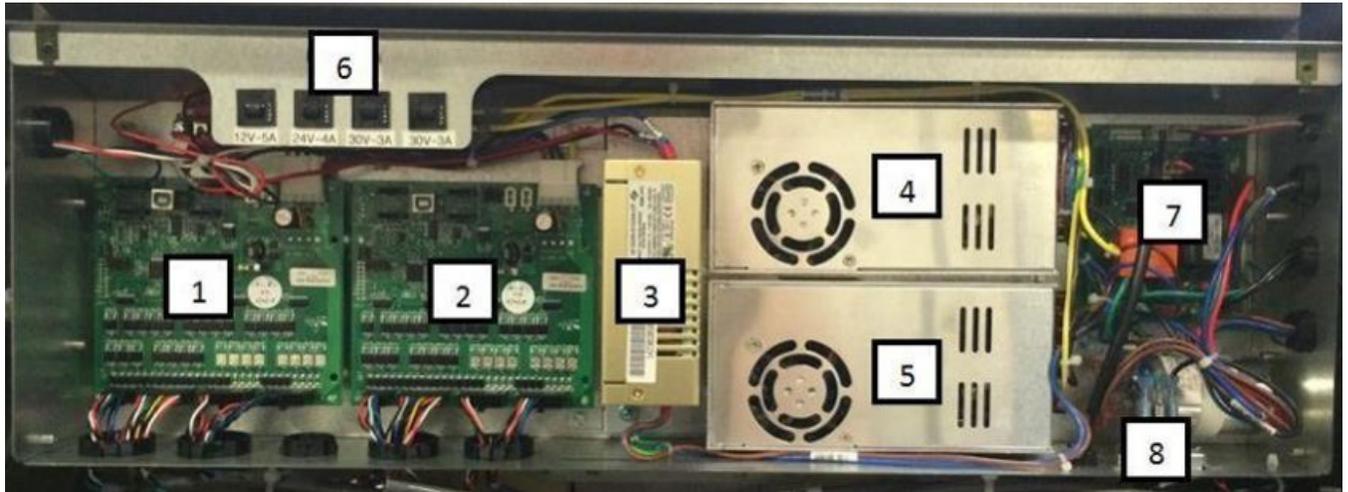
Figure 3.

1. Left hand valve bank MFV board.

2. Right hand valve bank MFV board.

3. 12VDC/24VDC Power Supply.

    A. 12VDV – Control voltage for MFV boards and computer.
    B. 24VDC – Powers display and touchscreen.

4. 30VDC Power supply for LH Valve Bank.

5. 30VDC Power supply for RH Valve Bank.

6. Circuit Breakers as follows:

    A. 5A – 12VDC
    B. 4A – 24VDC
    C. 3A – 30VDC
    D. 3A – 30VDC

7. Agitation Timer / Liquid Level Control Board.

8. AC Power Inlet.

MULTI-FLAVOR VALVE CONFIGURATION

⚠ **WARNING:**
Disconnect power to the unit before accessing the MFV valve.

Table 2.

Step	Action	
1	Back-block layout behind each valve bank.	 **Figure 4.**
2	MFV Valve Module placed on the back-block.	 **Figure 5.**
3	Press the top snap (Dovetail) of black-block towards down as indicated in Figure 6.	 **Figure 6.**

Step	Action	
4	Each round shutoff (Spindle) needs to be pressed towards down as shown as in Figure 7 to allow fluid to flow past the back-block into the valves.	**Figure 7**

DISASSEMBLY OF AN MFV VALVE MODULE

Table 3.

Step	Action	
1	Once the valve module is removed, pull the locking clip towards up and remove.	**Figure 8.**
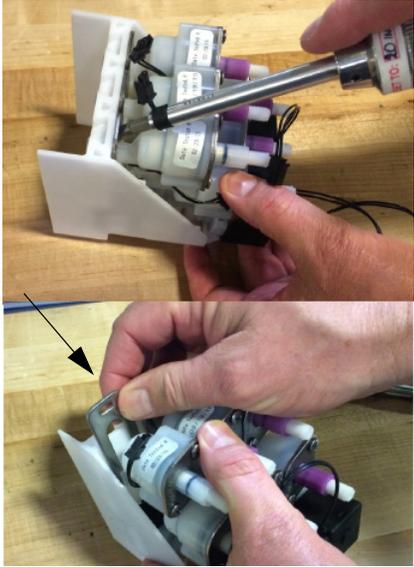
Step	Action	
2	Pull up and rotate valve upwards of bracket to remove from the module. **NOTE: Check for all O-rings on bottom of valves.**	 **Figure 9.**
3	Rotate solenoid counterclockwise and remove to service the solenoid and plunger. **NOTE: Solenoid should read 9.1ohms**	 **Figure 10.**

REASSEMBLY Of MFV VALVE

Table 4.

Step	Action	
1	Place valve into the valve carrier.	 **Figure 11.**

Step	Action	
2	Start the block at an angle and push towards down-wards as indicated in Figure 12, ensure that rear flange of the valve fits behind the wall of the carrier bracket.	**Figure 12.**
3	Ensure that bottom o-rings seat and are not pinched in the outlet barbs. **NOTE: Only use Dow III or equivalent.**	**Figure 13**
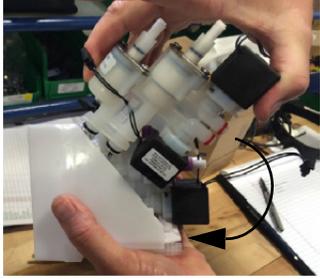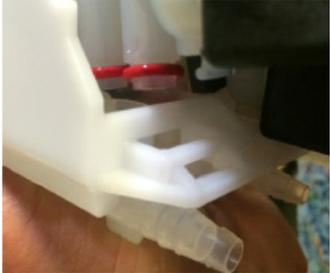
IDC Pro Interactive Touchscreen

The touchscreen door assembly contains the computer, touch sensor board, Wi-Fi card, 32" LCD Display and 2 cooling fans. The internals components are serviceable separately.

Figure 14.

Figure 15.

Touch Controller Removal

⚠ **WARNING:**
Disconnect power to the unit before accessing displace assembly.

Table 5.

Step	Action	
1	Remove touch controller board cover (top right on back of door) by unscrewing the four screws as indicated in Figure 16.	 **Figure 16.**
2	Unlock the touch tails from board by flipping up black tabs and carefully remove touch tails from the board.	 **Figure 17.**
3	Unscrew the four screws and take the touch controller board out.	 **Figure 18.**
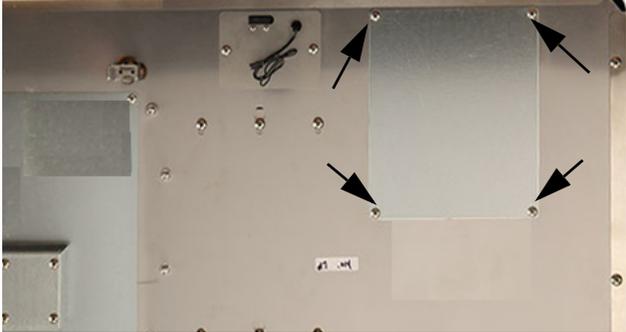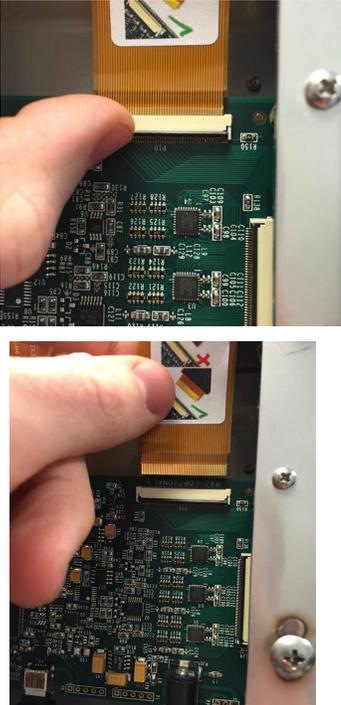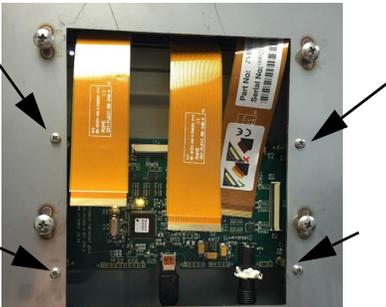
Step	Action	
4	Reverse process for re-installation.	

Intake Fan Removal

Table 6.

Step	Action	
1	Remove the intake fan cover by unscrewing the four screws, pull the cover up front and disconnect the harness.	Intake Fan **Figure 19.**
2	Loosen the nuts from all the four corners and pull it out.	
3	Reverse process for re-installation	

Exhaust Fan Removal

Table 7.

Step	Action	
1	Remove the exhaust fan cover by unscrewing the four screws.	Exhaust Fan **Figure 20.**
2	Disconnect the harness connected with fan and pull towards front and take it out as shown in Figure 21.	 **Figure 21.**
3	Reverse process for re-installation.	
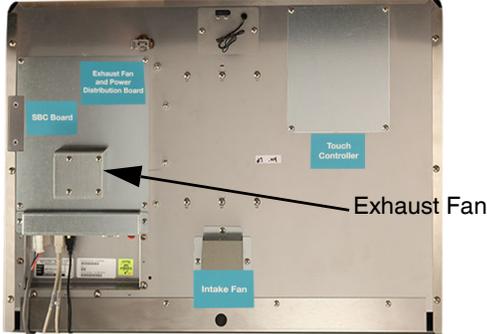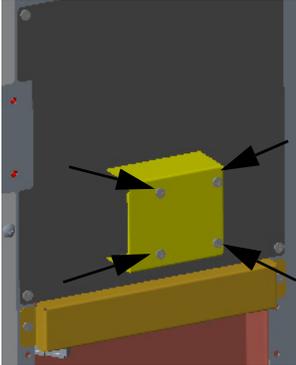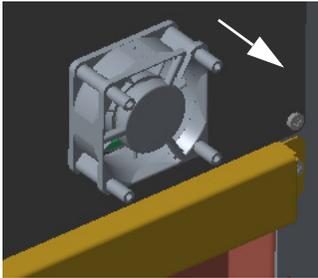
Single Board Computer

Table 8.

Step	Action	
1	Remove the single board computer cover by unscrewing the four screws. **NOTE: The fan connection will be on the board.**	 **Figure 22.**
2	Disconnect all the harness connected to the board.	 **Figure 23.**
3	Unscrew the two screws and pull the sheet metal block towards downward.	 **Figure 24.**
4	Unscrew the screw from all the four corners and take the single board out.	 **Figure 25.**
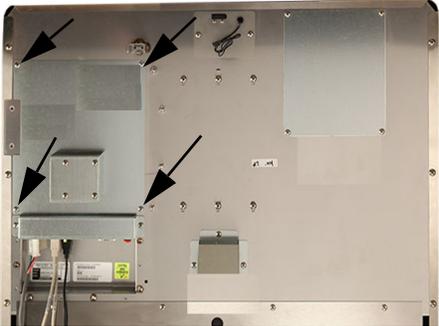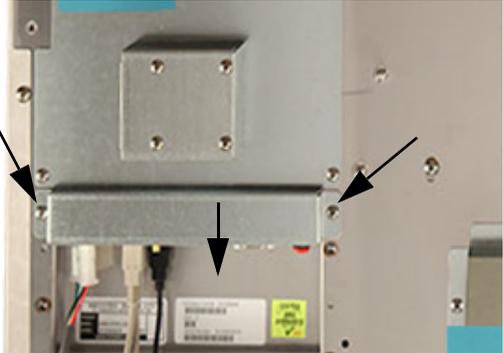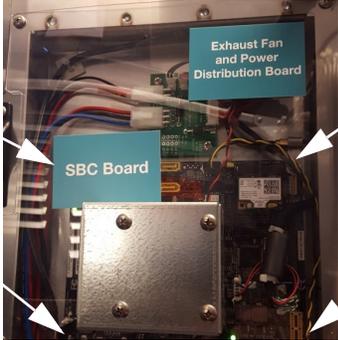
Nozzle Diffuser Removal

Diffuser cleaning or sanitizing is recommended twice weekly.

Table 9.

Step	Action	
1	Turn nozzle counterclockwise (left) pull down, the diffuser will stay in position (it is keyed only fits one way).	**Figure 26.**
2	Pull diffuser down. Clean with warm soapy water then sanitize and reinstall. **NOTE: Do not soak for more than 2 minute. Seal may warp**	**Figure 27.**
3	Repeat removal process for each side.	**Figure 28.**
4	Reverse process for re-installation	

- 16 -

DRIP TRAY COVER AND REMOVAL

Table 10.

Step	Action	
1	Remove the cup rest from the unit.	**Figure 29.**
2	Loosen the thumbscrews on both sides of the drip tray cover.	Thumbscrew ⟶ **Figure 30.**
3	Remove the drip tray cover from the unit.	
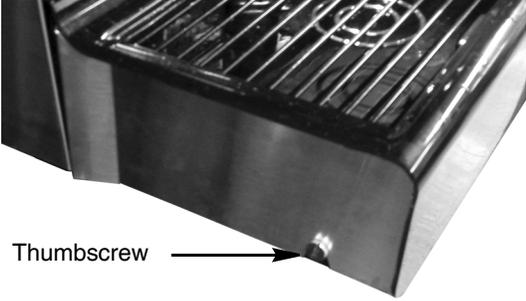
Splash Panel Removal

Table 11.

Step	Action	
1	Open the display panel and remove the thumb-screw holding the upper splash panel as shown in Figure 31 and pull the panel forward and down to remove it.	 **Screw** Upper Splash panel Pull downwards **Figure 31.**
2	Loosen the two screws from the top two corners of the splash panel as shown in Figure 32, slide the panel upward to disengage the two bottom tabs and pull the splash panel forward to remove it.	 MOUNTING SCREW **Figure 32.**
3	Replace the splash panels onto the unit.	

Ice Chute Removal

Table 12.

Step	Action	
1	Open the display panel and remove the thumbscrew holding the upper splash panel as shown in Figure 33 and pull the panel forward and down to remove it to gain access for Ice chute.	 Screw Upper Splash panel Pull downwards **Figure 33.**

Step	Action	
2	Release locking tabs outward on both the side as shown in Figure 34.Then lift chute upwards to remove as shown in Figure 35. **NOTE: Make sure the pin of ice gate is through the hole of the encapsulated magnet. Screen door should be closed to test operation.**	 **Figure 34.** Lift the entire sub assembly as indicated **Figure 35.**
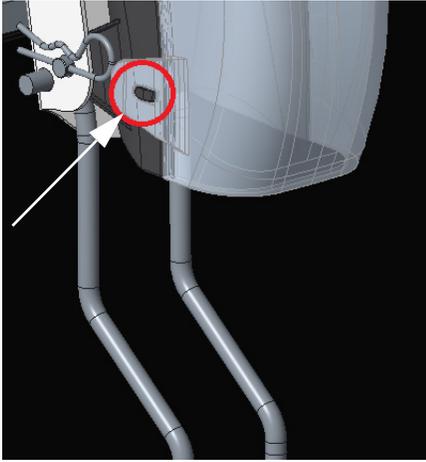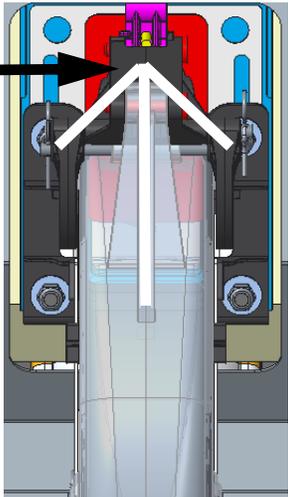
CONNECTING PRODUCT TO THE UNIT

The unit must have a product supply connected to each inlet on the valve. Refer to the "Plumbing Diagram" section on page 40 for details of the hook-up.

NOTE: All inlet connections are clearly marked with a label adjacent to the inlet connections.

Always check for leaks on all connections.

WATER & SYRUP LINE CONNECTIONS

The standard unit supports the following:

- 1-water line from carbonator/chiller
- 1-water line for non-carbonated drinks
- 20-Syrup lines
- 8-Flavor Shots

Product Line Connections

To connect the syrup, water and flavor shot lines from the backroom package to the unit, perform the procedure as shown in Table 13.

NOTE: If lines are to be cut, mark the line numbers above the cut with a marker. If syrup lines are mixed up they can be mapped later in the control. Make sure that syrup lines and flavor lines are NOT mixed.

Table 13.

Step	Action
1	Locate the water, syrup and flavor lines under the counter. The lines are marked S1- S14 for chilled syrup A1-A6 for ambient (non chilled) syrup, CW for Carbonated Water, PW for plain water and F1 through F8 for flavor lines.
2	Connect syrup lines 1-4 from the unit to the appropriate lines from the backroom package.
3	Connect the carbonated lines CW from the unit to the carbonator/chiller in the backroom.
4	Connect the plain water lines PW from the unit to the appropriate lines from the backroom package.
5	Adjust the CO_2 regulator for syrup BIB pumps as indicated in Table 14.

Table 14.

Regulator	Pressure Settings
Basic Pressure Syrup Valves	65 PSIG (5.17 bar) minimum
Basic Pressure Flavor Shot Valves	30-45 PSIG (2.07-3.10 bar)

NOTE: If using less than 14 brands, 6 no-chilled syrup, or 8 flavor shots, use of splitter is recommended lines can be split to share products to both side.

Ex: S1-S8, S2-S9, A1-A4, A2-A5, F1-F5, F2-F6

PREPARING FOR OPERATION

SERVICE MODE

The Service mode is used to perform all of the maintenance and troubleshooting for the unit. There are three menu levels available depending on the classification of the operator. Figure 38 shows the service mode screen for operators, service mode screen for supervisors and shows the service mode screen for service technicians. To enter the service mode, perform the procedure in Table 15.

Table 15.

Step	Action	
1	Display the keypad screen by tapping each corner of the video screen Starting in the upper right corner (1) and continuing to tap each corner in a Counter clockwise direction in a sequence of 1,2,3 and 4 as shown in Figure 36. **NOTE: As each corner is touched, a small confirmation rectangle may momentarily appear to confirm the touch.**	 **Figure 36.**
2	Input the proper password for your access level (operator, manager or technician) and press Enter. The Service UI screen is displayed, as shown in Figure 38 depending on your access level.	 **Figure 37**
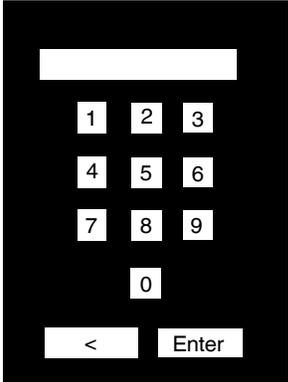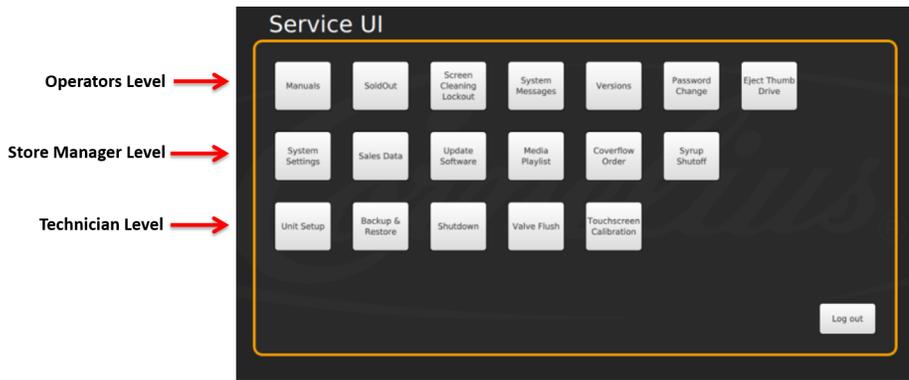
Figure 38

The service screen has a few layout changes, however the access levels remain the same. You have the ability to change your default pass-codes.

Row 1 of the service screen shows what will be displayed when the operators level pass-code is entered.
Row 2 is displayed when the manager level pass-code is entered. This level has visibility to levels 1 and 2.
Row 3 is displayed when the technician level pass-code is entered. This level has visibility to all 3 levels.

NOTE: The Shutdown button is available on all levels.

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INITIAL SETUP

Before operating the unit, perform the initial setup described in the following sections.

Mapping Brands

To map the valves to the available brands, perform the procedure in Table 16.

Table 16.

Step	Action	
1	Display the keypad screen by tapping each corner of the video screen Starting in the upper right corner (1) and continuing to tap each corner in a Counter clockwise direction in a sequence of 1,2,3 and 4 as shown in Figure 39. **NOTE: As each corner is touched, a small confirmation rectangle may momentarily appear to confirm the touch.**	 **Figure 39.**

Table 16.

Step	Action	
2	Input the proper password for your access level (technician) and press Enter.	**Figure 40.**
3	The Service UI screen is displayed.Press the unit setup button as shown in Figure 41.	**Figure 41.**
4	Press the Brand Mapping button to open the Brand Mapping screen as shown in Figure 42.	**Figure 42.**

Table 16.

Step	Action	
5	Press the Brand or Flavor icon that is to be remapped.	**Figure 43.**
6	The Brand Selection screen opens as shown in Figure 44 and you can select the brand to be mapped to the valve location.	**Figure 44.**
7	Repeat Steps 4 & 6 for each location desired.	
8	When all the flavors or brands on the right are mapped, press the left button and repeat Steps 4 and 6 for the left side or, if the setup will be identical on the LH and RH side, press the copy to other side button and confirm when prompted.	
9	When all the flavors or brands are mapped as desired, press the Save button to save the settings.	

Purging The Syrup Lines

The purge process is performed as part of the "Syrup Line Cleaning & Sanitizing" section on page 26. If a BIB container is replaced, the syrup lines need to be purged and sanitized. To purge the lines, perform the procedure in Table 17.

Table 17.

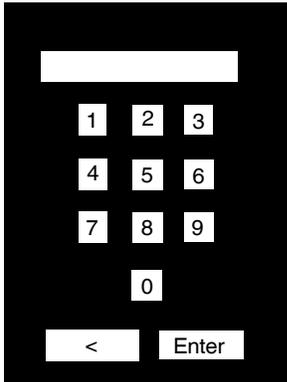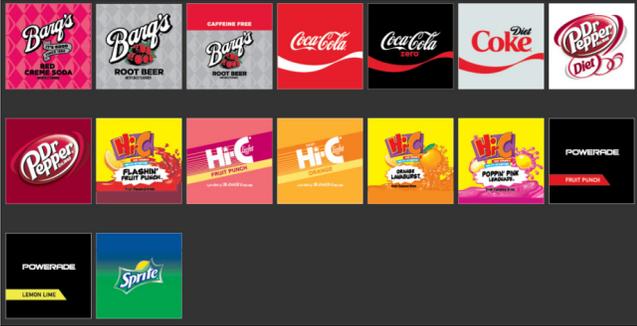| Step	Action	
1	Ensure that the water and CO_2 are turned on. (initial setup only)	
2	Display the keypad screen by tapping each corner of the video screen Starting in the upper right corner (1) and continuing to tap each corner in a Counter clockwise direction in a sequence of 1,2,3 and 4 as shown in Figure 45. **NOTE:** **As each corner is touched, a small confirmation rectangle may momentarily appear to confirm the touch.**	 **Figure 45.**
3	Input the proper password for your access level (technician) and press Enter.	 **Figure 46.**
4	The Service UI screen is displayed.	 **Figure 47.**
5	Press the Unit setup button as shown in Figure 47.	
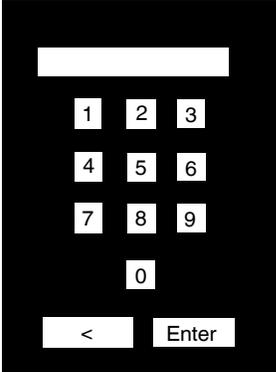
Table 17.

Step	Action	
6	The Unit setup screen is displayed. Press the Valve Purge button as shown in Figure 48	**Figure 48.**
7	The Valve Purge screen is displayed. Select up to 4 syrup and 2 water at a time, per side, to purge. **NOTE: 12 minute default if not turned off.**	**Figure 49.**
8	When the syrup flows and lines are purged, press the same again to turn off, or simply select the next valve needed and the first valve selected will stop pouring.	
9	Repeat Step 7 until all lines are purged. When dispensing carbonated water, make sure carbonator is purged.	
10	When all lines are purged, press the Back button to display the Service User Interface screen and select the Log Out button.	

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 in Table 18.

Table 18.

Step		Action
1	Remove all the quick disconnects from all the BIB containers.	**Figure 50.**

Step	Action	
2	Fill a suitable bucket with a soap solution.	
3	Submerge all disconnects (gas and liquid) in the soap solution and then clean them using a nylon bristle brush. **(Do not use a wire brush.)** Rinse with clean, potable water.	**Figure 51.**
4	Using a plastic pail, prepare approximately 5 gallons (18.93 l) of sanitizing solution.	
5	Sanitizing fittings must be attached to each BIB disconnect. If the fittings are not available, the fittings from empty BIB bags can be cut from the bags and used. These fittings open the disconnects so the sanitizing solution can be drawn through the disconnect.	
6	Place all the BIB disconnects with the sanitizing fittings in place into the pail of sanitizing solution. Use the "Purging The Syrup Lines" section on page 25 to purge the lines. Allow the sanitizer to remain in the lines for 15 minutes.	**Figure 52.**
7	While the lines are soaking, remove the nozzles and syrup diffusers and clean them in a mild soap solution, rinse them with clean water.	
8	Use a mechanical sprayer filled with sanitizing solution to spray the nozzles and diffusers and allow them to air dry.	
9	Reassemble the nozzles and syrup diffusers and replace then on the valves.	
10	Remove the sanitizing fittings from the BIB disconnects and connect the disconnects to the appropriate BIB container.	
11	Use the "Purging The Syrup Lines" section on page 25 to purge the lines. Continue until all the sanitizer has been flushed from the system and only syrup is flowing.	

Adjusting the Water to Syrup Ratio (BRIX)

NOTE: During the BRIXing process, agitate the ice in the bin occasionally to ensure that the cold plate is at the proper operating temperature.

Water and syrup MUST be cold before checking BRIX.

The unit must be BRIXED initially before the unit is put into operation. To BRIX the unit, perform the procedure in Table 19.

Table 19.

Step		Action
1	Display the keypad screen by tapping each corner of the video screen Starting in the upper right corner (1) and continuing to tap each corner in a Counter clockwise direction in a sequence of 1,2,3 and 4 as shown in Figure 53. **NOTE:** **As each corner is touched, a small confirmation rectangle may momentarily appear to confirm the touch.**	 **Figure 53.**
2	Input the proper password for your access level (technician) and press Enter.	 **Figure 54.**
3	Press the Unit Setup button as shown in Figure 55.	 **Figure 55.**

Table 19.

Step		Action
4	Select the Brix setup screen as shown in Figure 56.	 **Figure 56.**
5	All instructions and volumes below are based on the pour rate of 3oz/sec	 **Figure 57.**
6	Place a graduated cylinder under the valve.	
7	Select the CW1 button and press Pour to dispense 10 oz (295.7 ml).	
8	If the flow rate is not correct, adjust the proper valve to the desired flow. Refer to Figure 58 for valve locations.	
9	Turn the flow adjustment valve a 1/4 of a turn at a time and recheck the flow. To increase the flow, turn the knob clockwise.	
10	Test the valve and adjust until a consistent ratio is delivered two consecutive times.	
11	Select PW1 and press Pour to dispense 10 oz (295.7 ml.).	
12	Perform Steps 8 through 10 for the PW1 valve.	
13	Select CW3 and Pour to dispense 10 oz (295.7 ml.).	
14	Perform Steps 8 through 10 for the CW3 valve.	
15	Select PW3 and press Pour to dispense 10 oz (295.7 ml.).	
16	Perform Steps 8 through 10 for the PW3 valve.	
17	Place a graduated cylinder or brix cup under the valve.	
18	Select S1 and press Pour to dispense 2.0 oz (60 ml.).	
19	If the rate is not correct, perform Steps 8 through 10 for the S1 valve.	
20	Repeat Steps 18 and 19 for S2 through S7 and A1 through A3.	
21	Repeat Steps 18 through 19 for S8 through S14 and A4 through A6.	
22	When the flow rate process is complete, select the Back button to return to the Unit Setup screen.	
23	Press the Back button on the Unit Setup screen to return to the Service UI screen.	
24	Press the Log Out button to return to normal operation.	
25	Flavor shots Brix (once HY flavor shots for scale) 30:1	

Syrup Valves (Black)   Water Valves (White)   Flavor Shots (Purple)
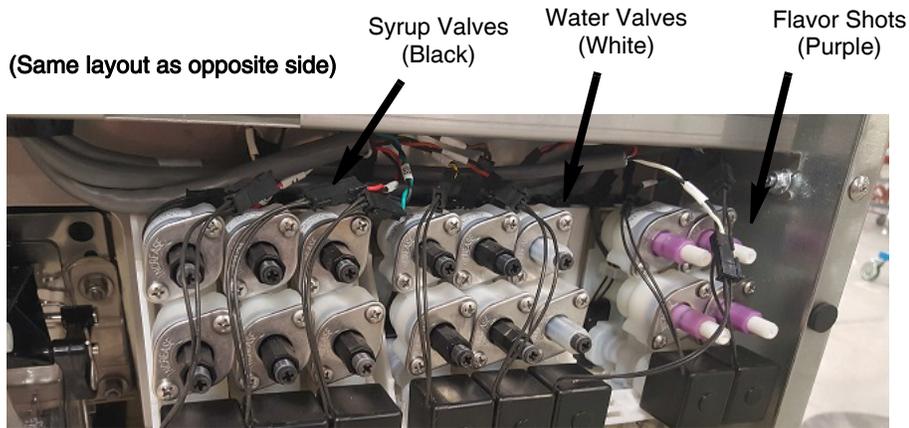
(Same layout as opposite side)

Figure 58.

Cleaning Interior Surfaces

As part of the monthly cleaning and sanitizing the hopper, perform the procedure in Table 20.

⚠ **CAUTION:**

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.

Table 20.

Step	Action	
1	Remove the agitator assembly by unscrewing the thumbscrew and lifting the agitator assembly out of the hopper.	**Figure 59.**
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.	**Figure 60.**

Table 20.

3	Reassemble agitator assembly. Take special care to ensure that the thumbscrew is tight.	
		Figure 61.
4	Using a mechanical spray bottle filled with sanitizing solution, spray the entire interior and the agitator assembly. Allow them to air dry.	
		Figure 62.
5	Open the display panel and remove the ice chute cover from the unit.	
		Figure 63.
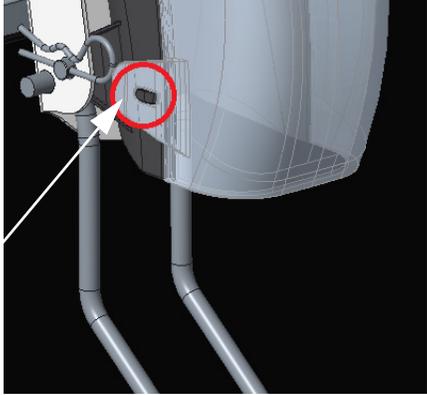
Table 20.

6	With a nylon bristle brush or sponge, clean the inside of the ice chute, gasket, and cover with soap solution and rinse thoroughly to remove all traces of detergent.	**Figure 64.**
7	Re-assemble the ice chute assembly.	
8	Using a mechanical spray bottle filled with sanitizing solution, spray the inside of the ice chute. Allow it to air dry.	**Figure 65.**
9	Close the display panel.	

UNIT OPERATION

⚠️ **WARNING:**

This unit must be grounded to avoid possible electrical shock to the operator. The unit power cord is equipped with a three pronged plug. If a three pronged (grounded) outlet is not available use an appropriate method to ground the unit.

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

To initially start up the unit for operation, perform the procedure in Table 21.

Table 21.

Step	Action
1	Connect electrical power to the unit.
2	Check for water leaks, and tighten any loose connections.
3	Dispense several drinks for checking.

UNIT SHUTDOWN/RESTART

The unit can be shutdown by entering the service UI at any level and selecting the "shutdown" icon. To shut down or restart the unit, perform the procedure in Table 22.
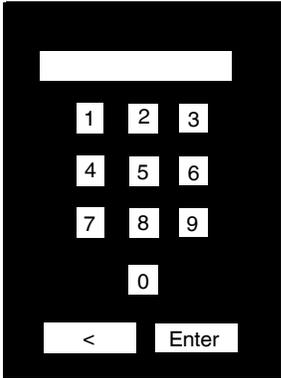
Table 22.

Step	Action	
1	Display the keypad screen by tapping each corner of the video screen Starting in the upper right corner (1) and continuing to tap each corner in a Counter clockwise direction in a sequence of 1,2,3 and 4 as shown in Figure 66. **NOTE:** **As each corner is touched, a small confirmation rectangle may momentarily appear to confirm the touch.**	 **Figure 66**
2	Input the proper password for your access level (technician) and press Enter.	 **Figure 67.**
3	Select the Shutdown button to display the Shutdown/Restart Screen, as shown in Figure 68.	 **Figure 68**
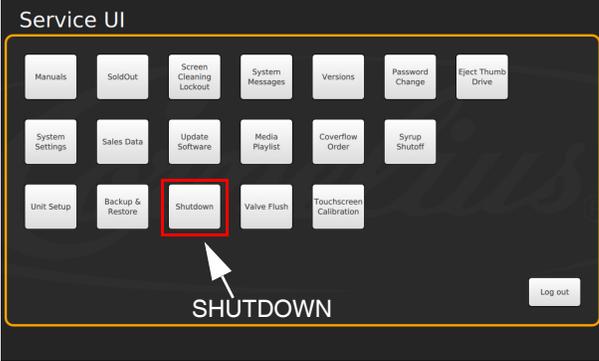
Table 22.

Step	Action	
4	Press the Shutdown button to start the shutdown process or press the Restart button to restart the unit.	 **Figure 69.**
5	Red/Black button on back of screen shown in Figure 70. To prompt screen push button & select Restart or Shutdown. To hard shutdown hold for 5-7 sec until screen get blank. Wait for 10 sec and press once to restart.	

UPDATING SOFTWARE REVISIONS

The unit can be updated as new versions of software become available, they may be installed on the unit by performing the procedure in Table 23.

Table 23.

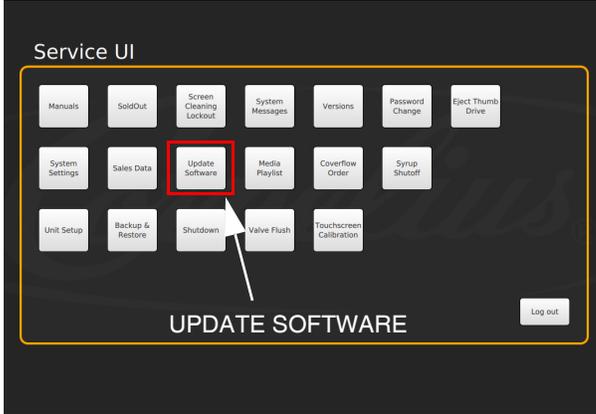| Step	Action	
1	Enter Service mode, as described in "Service Mode" section on page 21.	
2	Open the display panel.	
3	On the back of the display, unplug the USB connection as shown in Figure 70 to the ADA panel and plug in the USB stick with the software update loaded on it.	 **Figure 70.**

Table 23.

Step	Action	
4	Press the Update Software button as shown in Figure 71.	**Figure 71.**
5	The Update Software screen is displayed. Press the Launch Software Updater button.	**Figure 72.**
6	The Software Updater screen is displayed. Press the Update Software button.	**Figure 73.**

Table 23.

Step	Action	
7	The second Update Software screen is displayed.	 **Figure 74.**
8	Select the software version to be installed by selecting from the list on the left side of the screen. If the list on the left side of the screen is empty, press the Scan button. This reads the software updates contained on the USB stick. When the proper version is highlighted, press the Install Software button on the right side of the screen.	
9	When the update is complete, press the Back button to revert to the previous screen, then press the Restart/Refresh button to restart the unit.	
10	Unplug the USB stick from the connector and reinstall the ADA cable.	
11	Close the display panel.	

EDITING THE MEDIA PLAYLIST

The unit is capable of changing the display video on a preprogrammed schedule. This allows the user to set a specific time and duration for playing a specific media for breakfast, lunch, dinner or any special media required.

To set the media playlist schedule, perform the procedure in Table 24.

Table 24.

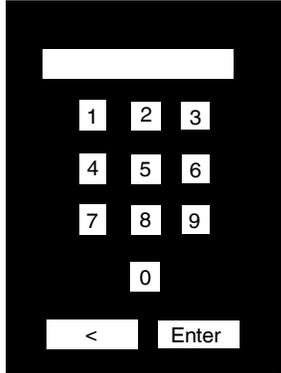| Step	Action	
1	First, enter the Service Screen at either manager or technician level permissions.	
2	Display the keypad screen by tapping each corner of the video screen Starting in the upper right corner (1) and continuing to tap each corner in a Counter clockwise direction in a sequence of 1,2,3 and 4 as shown in Figure 75. **NOTE:** **As each corner is touched, a small confirmation rectangle may momentarily appear to confirm the touch.**	 **Figure 75.**

Table 24.

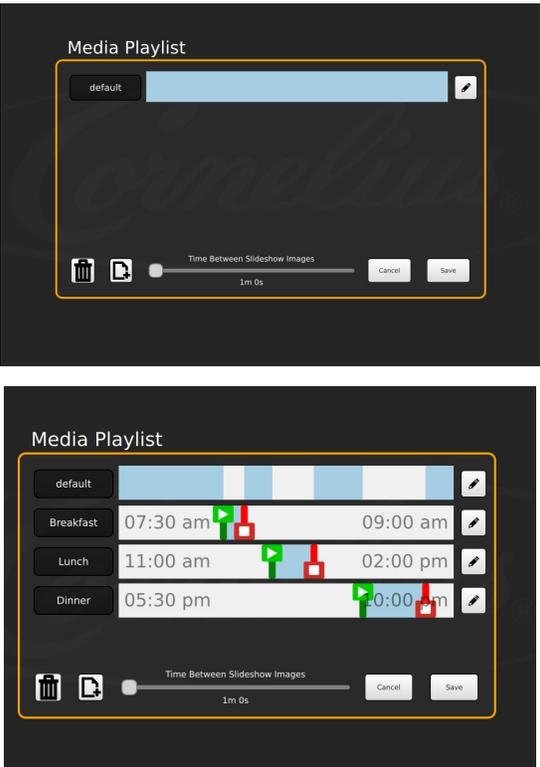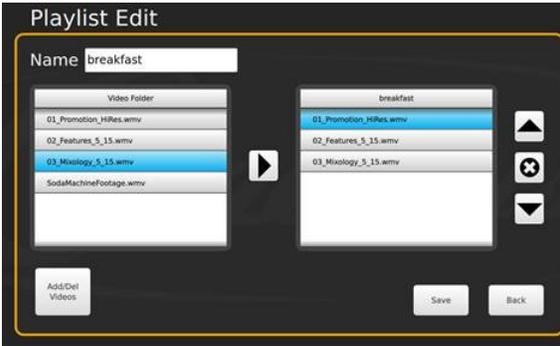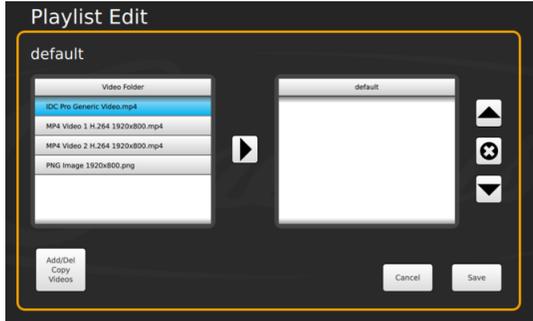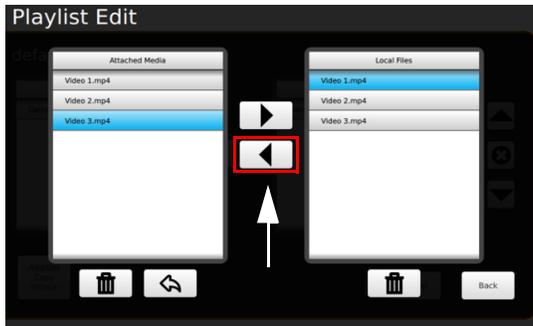| Step	Action	
3	Input the proper password for your access level (technician) and press Enter.	 **Figure 76.**
4	This will take you to the Service UI screen.	 **Figure 77.**
5	This is where you can access the videos (Media Play-list) or sales information (Marketing Data). To start with changing the play-list, select the "Media Play-list" button. This brings you to this screen (only the default play-list appears initially).	 **Figure 78.**

Table 24.

Step	Action	
6	First, to manipulate the play-list and their schedule. A new play-list can be added by selecting the second button on the bottom left (with the + symbol). This will add a new play-list in addition to the default play-list. The times when it starts playing and finishes can be adjusted by dragging the play and stop handles left and right. The corresponding times appear in the bar shown. So, the "breakfast" play-list above plays from 7:30 to 9:00am. The default play-list will fill in the gaps and plays unless any other play-list is set at that time. Now, to modify what's actually in these play-list (or their names), select the pencil on the RH side of the play-list. The next screen will appear: **NOTE: 2GB max video format mp4(H.264) size:1920:800.**	 **Figure 79.**
7	At the top is the name, click on the white box and a keyboard will appear to allow you to change the name. Below this are two lists of videos. On the RH side is the play-list that you are editing. The videos will play, starting at the top, and repeat, throughout its specified time. To remove a video from the play-list, select it from the list and press the 'X' on the right side. To add a video that is on the machine to the play-list, select it from the list on the left and press the arrow in the center. The position of this video can be changed by using the 'up' and 'down' arrows on the right. Static image option: you can add .jpeg and .png file to the play-list and adjust their duration with the slider on the media play-list menu. To add a video from a USB drive, select the "Add/Del Videos" button in the bottom left. Next screen will pop up:	 **Figure 80.**

Table 24.

| Step	Action	
8	All the videos or images currently on the machine are shown on the right. A USB stick that is connected to any of the (3) available ports will be displayed on the left. Click on the name of the drive and, subsequently, through any folders to find the videos to be added.	**Figure 81.**
9	These videos can be transferred to the machine by selecting them and pressing the arrow button in the center. Any videos that were added are now available to the play-list by pressing the 'Back' button. File can also be copied from the machine to USB drive by selecting the files on the RH side and pressing the left facing arrow. **NOTE: If attached files are deleted they will be deleted from the USB drive.**	**Figure 82.**
10	Important Note: Please press save on the Play-list Edit screen and again on the Media Play-list screen when making any changes.	
11	To export sales information, return to the main service UI. Insert a USB drive in an available USB slot on the back of the door. Select "Marketing Data" and again select "Export Data". The data will be exported directly to the USB.	

PLUMBING DIAGRAM
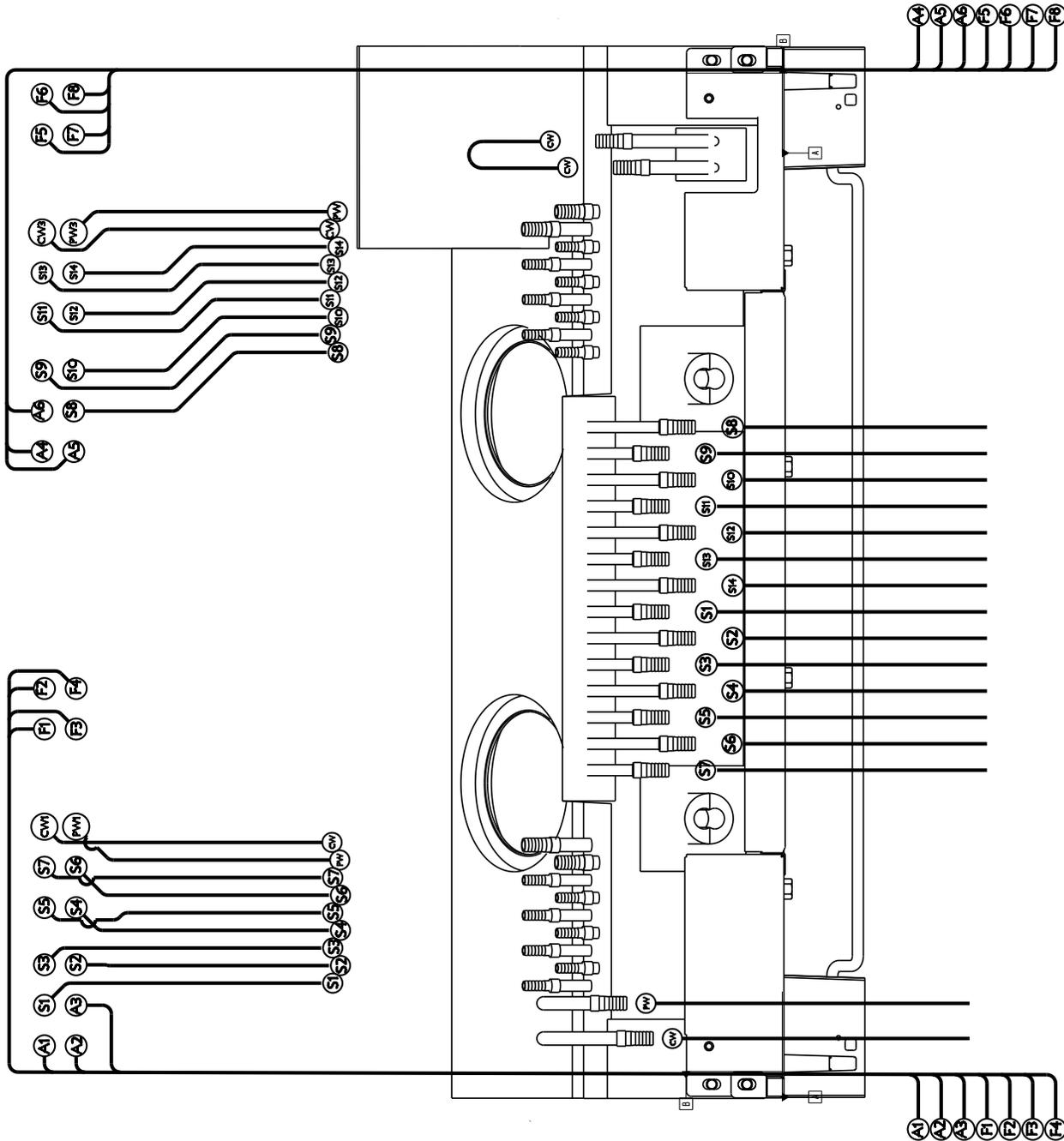
Figure 83.

S - Syrup Line.

F - Flavor Line.

A - Ambient Line.

WIRING DIAGRAM
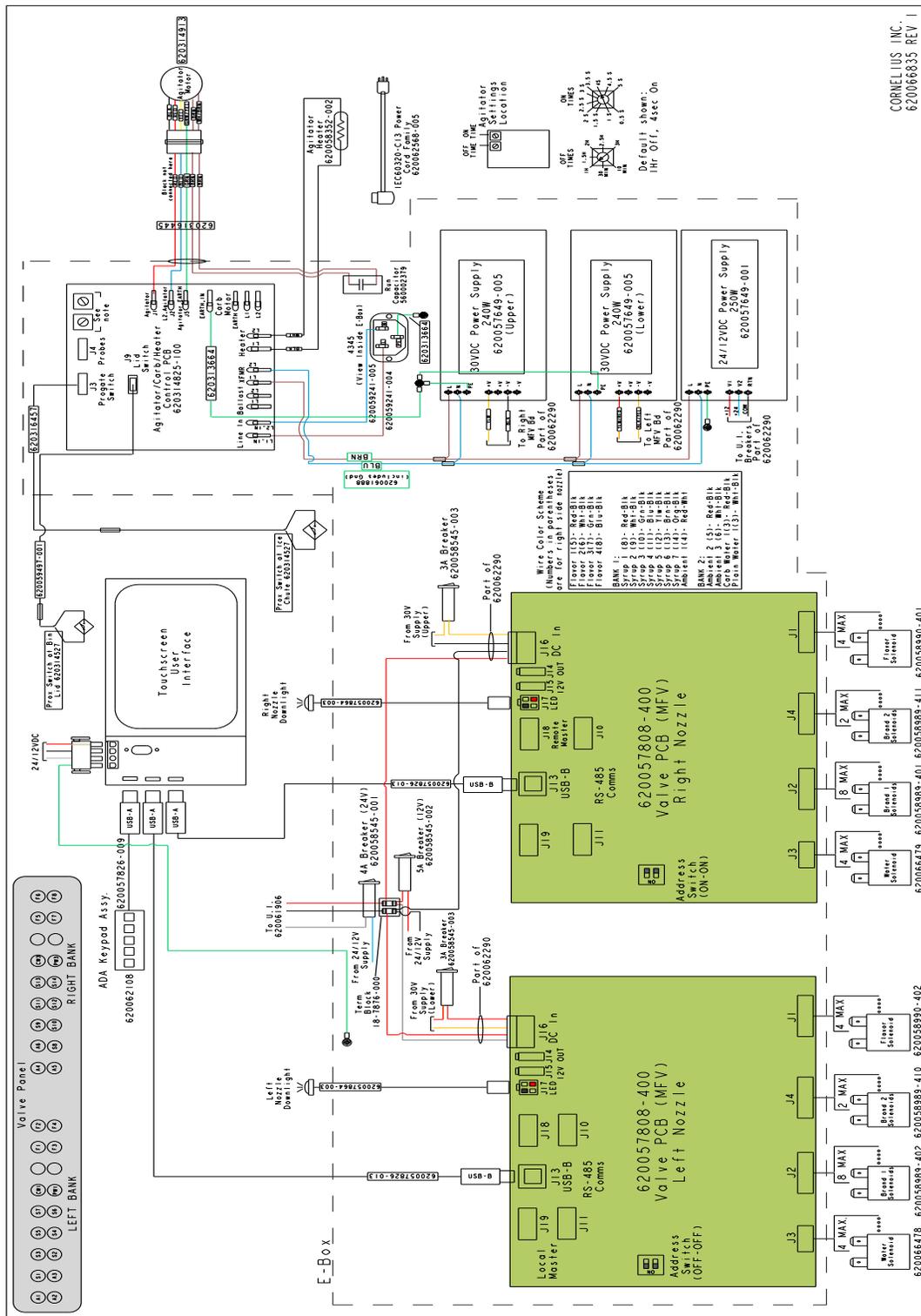
Figure 84.

TROUBLESHOOTING

⚠ **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:**

If repairs are to be made to a product system, remove quick disconnects from the applicable product tank, then relieve the system pressure before proceeding. If repairs are to be made to the CO_2 system, stop dispensing, shut off the CO_2 supply, then relieve the system pressure before proceeding. If repairs are to be made to the refrigeration system, make sure electrical power is disconnected from the unit.

Should your unit fail to operate properly, check that there is power to the unit and that the hopper contains ice. If the unit does not dispense, check the following chart under the appropriate symptoms to aid in locating the defect.

UNIT TROUBLESHOOTING

Table 25.

Symptom	Cause	Remedy
Blown fuse or circuit breaker	A. Short circuit in electrical wiring. B. Inoperable agitator motor (shorted motor).	A. Repair wiring. B. Replace gear motor.
Agitator does not turn	A. No power. B. Improperly installed upper ice chute assembly (Reed switch is not being activated). C. Inoperable reed switch. D. Electrical board driver circuit is defective. E. Gear motor has open circuit. F. Reed switch is not activated, improper assembly of upper ice chute to lower chute. G. Broken wire in the 2-wire harness leading to the reed switch. H. Bad connection at main control board. I. Door not closed or not making switch connections to lid.	A. Restore power or plug in unit. B. Check the upper ice chute assembly for proper assembly and operation. C. Replace reed switch. D. Replace main control board. E. Replace gear motor. F. Check to make sure tongue of upper chute engages into the back of the lower chute, ensure upper chute engages outside the lower chute, and snap front of chute into place. G. Repair of replace 2-wire harness. H. Repair connection or replace 2-wire harness. I. Check distance from screen to lid.
Ice dispenses continuously	A. Ice gate mechanism is stuck in open position B. Stuck or bent ice lever (does not allow gate to close and open reed switch).	A. Inspect gasket for proper position. Examine gate plate to see if it slides freely behind the lower ice chute. B. Examine ice dispense lever to see if it is bent.
Slushy ice or water in hopper	A. Blocked drains in cold plate B. Poor ice quality due to water quality or ice maker problems	A. Remove access covers in cold plate cover & inspect/clean drains. B. Correct water quality or repair ice maker.
Beverage does not dispense	A. No 30 VDC to valves. B. No touch response.	A. Restore 30 VDC to valves. B. Re-start the unit.
Beverage is too sweet	A. Valve BRIX requires adjustment.	A. Adjust valve BRIX.
Low water pressure	A. Could be caused by excessively long runs (over 40 ft.) of 3/8" water supply line. B. Low water pressure. C. Plugged water filter. D. Water booster bladder has burst.	A. Increase line size to 1/2". B. Add water pressure booster pump. C. Change water filter. D. Replace water booster tank/bladder.

NOTE: **Contact your local syrup or beverage equipment distributor for additional information and troubleshooting of beverage system.**

Cornelius Inc.
www.cornelius-usa.com