LANCER®

Twin Pour

Operation Manual

Lancer Corporation
6655 Lancer Blvd.
San Antonio, Texas 78219
800-729-1500

FS44

Technical Support/Warranty: 800-729-1550
email: custserv@lancercorp.com
web: lancercorp.com

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ABOUT THIS MANUAL

This booklet is an integral and essential part of the product. Please carefully read the guidelines and warnings contained herein as they are intended to provide the user with essential information for the continued safe use and maintenance of the product. In addition, it provides ***GUIDANCE ONLY*** to the user on the correct services and site location of the unit.

BEFORE GETTING STARTED

Each unit is tested under operating conditions and is thoroughly inspected before shipment. At the time of shipment, the carrier accepts responsibility for the unit. Upon receiving the unit, carefully inspect the carton for visible damage. If damage exists, have the carrier note the damage on the freight bill and file a claim with carrier. Responsibility for damage to the dispenser lies with the carrier.

The installation and relocation, if necessary, of this product must be carried out by qualified personnel with up-to-date safety and hygiene knowledge and practical experience, in accordance with current regulations.

READ ALL SAFETY INSTRUCTIONS BEFORE USING THIS UNIT.

This manual contains important safety information and all applicable safety precautions must be observed. To reduce the risk of fire, electric shock, damage to the equipment or personal injury when using this unit all instructions/warnings on the product being used must be followed:

⚠ WARNING

Text following the Warning signal indicates a hazardous situation, which if not avoided, will result in death or serious injury. Be sure to read all Warning statements before proceeding with the installation.

⚠ CAUTION

Text following the Caution signal indicates a hazardous situation, which if not avoided, could result in death or serious injury. Be sure to read the Caution statements before proceeding with the installation

⚠ ATTENTION

Text following the Attention signal addresses a situation that if not followed could potentially damage the equipment. Be sure to read the Attention statements before proceeding

NOTE

Text following the Note signal provides you with information that may help you more effectively perform the installation procedures within this manual. Disregarding information will not cause damage or injury, however it may limit the performance of the dispenser.

IMPORTANT SAFETY INSTRUCTIONS

⚠ Intended Use

- The dispenser is for indoor use only
- This appliance is intended to be used in commercial applications such as restaurants or similar.
- This appliance should not be used by children or infirm persons without supervision.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
- Cleaning and user maintenance shall not be performed by children without supervision.
- This unit is not a toy and children should be advised not to play with the appliance.
- The min/max ambient operating temperature for the dispenser is 40°F to 105°F (4°C to 41°C).
- Do not operate unit below minimum ambient operation conditions.
- Should freezing occur, cease operation of the unit and contact authorized service technician.
- The maximum tilt for safe operation is 5°.
- This appliance must be installed and serviced by a professional.

⚠ Carbon Dioxide (CO_2)

- **WARNING:** Carbon Dioxide (CO2) is a colorless, noncombustible gas with a light pungent odor. High percentages of CO_2 may displace oxygen in the blood.
- **WARNING:** Prolonged exposure to CO_2 can be harmful. Personnel exposed to high concentrations of CO_2 gas will experience tremors which are followed by a loss of consciousness and suffocation.
- **WARNING:** If a CO_2 gas leak is suspected, immediately ventilate the contaminated area before attempting to repair the leak.
- **WARNING:** Strict attention must be observed in the prevention of CO_2 gas leaks in the entire CO_2 and soft drink system.

⚠ Power

- Follow all local electrical codes when making connections.
- Check the dispenser name plate label, located behind the splash plate, for the correct electrical requirements of unit. ***DO NOT*** plug into a wall electrical outlet unless the current shown on the serial number plate agrees with local current available.
- Each dispenser must have a separate electrical circuit.
- ***DO NOT*** use extension cords with this unit.
- ***DO NOT*** 'gang' together with other electrical devices on the same outlet.
- **WARNING:** Always disconnect electrical power to the unit to prevent personal injury before attempting any internal maintenance.
- The resettable breaker switch should not be used as a substitute for unplugging the dispenser from the power source to service the unit.
- Only qualified personnel should service internal components of electrical control housing.
- **WARNING:** Make sure that all water lines are tight and units are dry before making any electrical connections
- If this dispenser is installed in an area that is susceptible to ±10% variation of the nominal line voltage, consider installing a surge protector or similar protection device.

⚠ Water Notice

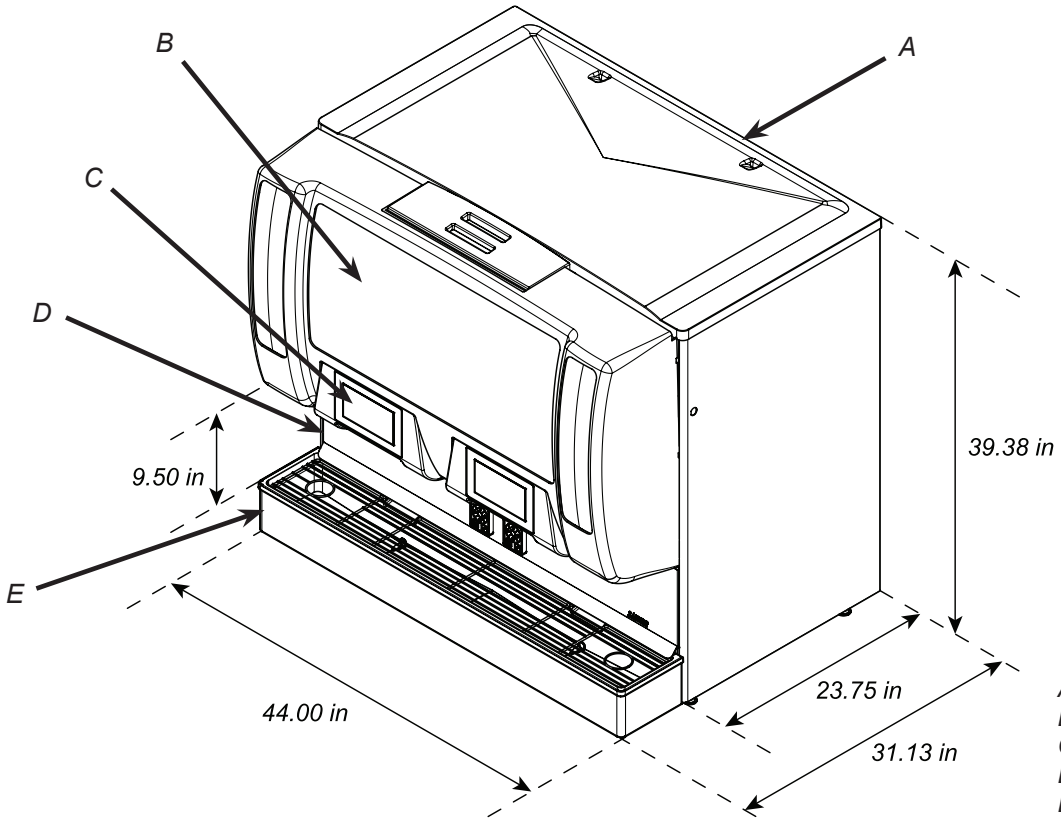
- Provide an adequate, potable water supply. Water pipe connections and fixtures directly connected to a potable water supply must be sized, installed, and maintained according to federal, state, and local codes.
- The water supply line must be at least a 3/8 inches (9.525 mm) pipe with a minimum of 75 psi (0.516 MPa) line pressure, but not exceeding a maximum of 125 psi (0.862 MPa). Water pressure exceeding 125 psi (0.862 MPa) must be reduced to 125 psi (0.862 MPa).
- Use a filter in the water line to avoid equipment damage and beverage off-taste. Check the water filter periodically, as required by local conditions.
- **CAUTION:** The water supply must be protected by means of an air gap, a back flow prevention device (located upstream of the CO_2 injection system) or another approved method to comply with NSF standards. A leaking inlet water check valve will allow carbonated water to flow back through the pump when it is shut off and contaminate the water supply.
- **CAUTION:** Ensure the back flow prevention device complies with ASSE and local standards. It is the responsibility of the installer to ensure compliance.

⚠ Automatic Agitation

- Units are equipped with an automatic agitation system and will activate unexpectedly.
- **CAUTION:** Do not place hands or foreign objects in the ice bin tank. Unplug the dispenser during servicing, cleaning, and sanitizing.
- **CAUTION:** To avoid personal injury, do not attempt to lift the dispenser without assistance. For heavier dispensers, use a mechanical lift.

PRE-INSTALLATION

Specifications & Features



A. Top Cover
B. Merchandiser
C. Touchscreen Display
D. Splash Plate
E. Cup Rest/Drip Tray

DIMENSIONS

Width: 44.00 inches (1118 mm)
Depth: 31.13 inches (790.70 mm)
Height: 39.36 inches (999.74 mm)

WEIGHT

Shipping: 585 lbs (265 kg)
Operating (w/ Ice): 745 lbs (338 kg)
Ice Capacity: 312 lbs (142 kg)

ELECTRICAL

115 VAC / 60 Hz / 6.0 Amps

230 VAC / 50-60 Hz / 3.0 Amps

PLAIN WATER SUPPLY

Min Flowing Pressure: 75 psi (0.516 MPa)

CARBONATED WATER SUPPLY

Min Flowing Pressure: 75 psi (0.516 MPa)
Max Static Pressure: 125 psi (0.862 MPa)

CARBON DIOXIDE (CO_2) SUPPLY

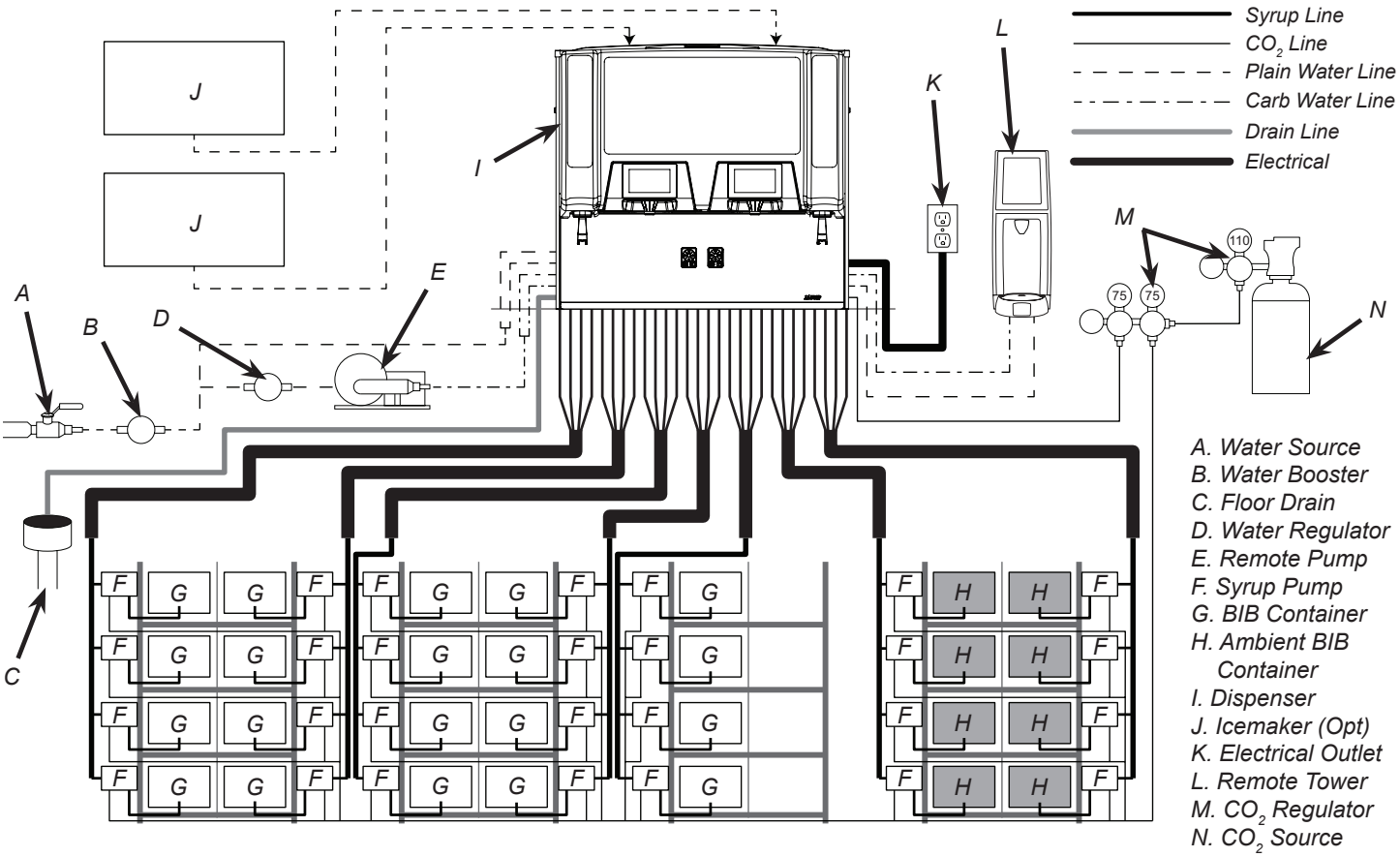
Min Pressure: 70 psi (0.483 MPa)
Max Pressure: 80 psi (0.552 MPa)

FITTINGS

Carbonator Inlets: 3/8 inch barb
Plain Water Inlets: 3/8 inch barb
Brand Syrup Inlets: 3/8 inch barb
Ambient Flavor Inlets: 3/8 inch barb
CO_2 Inlet: 3/8 inch barb
Carb Water Outlet: 3/8 inch barb
Plain Water Outlet: 3/8 inch barb

This unit emits a sound pressure level below 70 dB

General System Overview



Pre-Installation Checklist

TOOLS REQUIRED:

- ☐ Oetiker Pliers
- ☐ Tubing Cutters
- ☐ Wrench
- ☐ Slotted Screwdriver
- ☐ Phillips Screwdriver
- ☐ Drill

BIB SYSTEM:

- ☐ BIB Rack
- ☐ BIB Syrup Boxes
- ☐ BIB Regulator Set
- ☐ BIB Connectors

POST MIX ACCESSORIES:

- ☐ High Pressure CO_2 Regulator
- ☐ Low Pressure CO_2 Regulator Manifold
- ☐ CO_2 Supply
- ☐ Chain for CO_2 Tank
- ☐ Beverage Dispenser
- ☐ Beverage Tubing
- ☐ Oetiker Clamp Fittings
- ☐ Water Booster (Lancer PN: 82-3401 or MC-163172
- ☐ Water Regulator (supplied with unit)

CONSIDER THE FOLLOWING BEFORE INSTALLATION:

- ☐ Location of Water Supply Lines
- ☐ Location of Drain
- ☐ Location of Electrical Outlet
- ☐ Location of Heating and Air Conditioning Ducts
- ☐ Do you have enough space to install the dispenser?
- ☐ Is counter-top level?
- ☐ Can the counter-top support the weight of the dispenser? (Include the weight of an ice machine plus weight of ice, if necessary)
- ☐ Is dispenser located away from direct sunlight or overhead lighting?

INSTALLATION

Read This Manual

This manual was developed by Lancer Corporation as a reference guide for the owner/operator and installer of this dispenser. Please read this manual before installation and operation of this dispenser. Please see page 24 for troubleshooting or service assistance. If the service cannot be corrected please call your Service Agent or Lancer Customer Service. Always have your model and serial number available when you call.

Unpacking the Dispenser

1. Set shipping carton upright on the floor then cut package banding straps and remove.
2. Open top of carton and remove interior packaging.
3. Lift carton up and off of the unit.
4. Remove plywood shipping base from unit by moving unit so that one side is off the counter top or table allowing access to screws on the bottom of the plywood shipping base.

NOTE

If unit is to be transported, it is advisable to leave the unit secured to the plywood shipping base.

5. Remove accessory kit and loose parts from ice compartment.

NOTE

Inspect unit for concealed damage. If evident, notify delivering carrier and file a claim against the same.

6. If leg kit has been provided, assemble legs by tilting unit.

Selecting/Preparing a Counter Location

NOTE

The dispenser should only be installed in a location where it can be overseen by trained personnel

1. Select a level, well ventilated location that is in close proximity to a properly grounded electrical outlet, within five (5) feet (1.5 m) of a drain, a water supply that meets the requirements shown in the Specifications section found on pages 4, and away from direct sunlight or overhead lighting.
2. Sufficient clearance must be provided, if an ice maker is not installed, to allow filling ice compartment from a five gallon bucket (a minimum of 16 inches is recommended).
3. The selected location should be able to support the weight of the dispenser, ice and possibly an icemaker being installed after counter cut out is made. Total weight (with icemaker) for this unit could exceed 800 pounds (363.6kg).

NOTE

Lancer does *NOT* recommend the use of shaved or flake ice in the dispenser.

4. Unit may be installed directly on counter-top or on legs. If installed directly on the counter, unit must be sealed to the counter-top with an FDA approved sealant. If an icemaker is to be mounted on top of dispenser, do not install dispenser on legs.

NOTE

NSF listed units must be sealed to the counter or use legs provided.

5. Select a location for the remote pump deck, syrup pumps, CO_2 tank, syrup containers, and water filter (recommended). Please see General System Overview on page 5 for reference.
6. Cut out required opening for the water, syrup, and CO_2 lines in the designated dispenser location.

Leveling the Dispenser:

In order to facilitate proper dispenser drainage, ensure that the dispenser is level, front to back and side to side. Place a level on the top of the rear edge of the dispenser. The bubble must settle between the level lines. Repeat this procedure for the remaining three sides. Level unit if necessary. For optimum performance place the unit at a 0° tilt. The maximum tilt is 5°.

NOTE

To assure that beverage service is accessible to all customers, Lancer recommends that counter height and equipment selection be planned carefully. The 2010 ADA Standards for Accessible Design states that the maximum reach height from the floor should be no more than 48" if touch point is less than 10" from the front of the counter, or a maximum of 46" if the touch point is more than 10" and less than 27" from the front of the counter. For more information about the customer's legal requirements for the accessibility of installed equipment, refer to 2010 ADA Standards for Accessible Design - http://www.ada.gov.

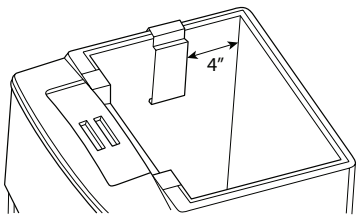
Installing an Icemaker (if necessary)

⚠ ATTENTION

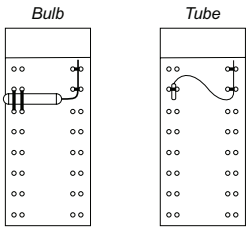
When installing an icemaker on the dispenser, use a bin thermostat to control the ice level (see below). This will prevent damage to the dispensing mechanism. The bracket for mounting a thermostat is located in the ice bin. During the automatic agitation cycle and while dispensing ice, ensure there is adequate space between the top of the ice level and the bottom of the icemaker so the ice can move without obstruction. Contact your icemaker manufacturer for information on a suitable bin thermostat.

1. Install the icemaker per manufacturer specifications. Points of consideration include drainage, ventilation, and drop zones.
2. An adapter plate is required when installing an icemaker. Contact your Sales Representative or Lancer Customer Service for more information.
3. A bin thermostat is required in order to control the level of ice in the dispenser (Refer to ATTENTION). Contact your icemaker manufacturer to obtain the correct bin thermostat.
4. Bin thermostat should be a minimum of 2” below the top edge of the dispenser. The preferred location of the bin thermostat is on the right side wall.

Attach Bin Stat Bracket As Shown



Recommended Bin Stat Attachment



⚠ ATTENTION

Failure to use an ice bin thermostat will not only void your IBD’s warranty but will result in the inability to control the level of ice in the ice bin which can cause damage to your dispenser.

5. Ensure the icemaker is installed properly to allow for removal of the Merchandiser.
6. Ensure manual fill is accessible.
7. Clean and maintain icemaker per manufacturer’s instructions.

NOTE

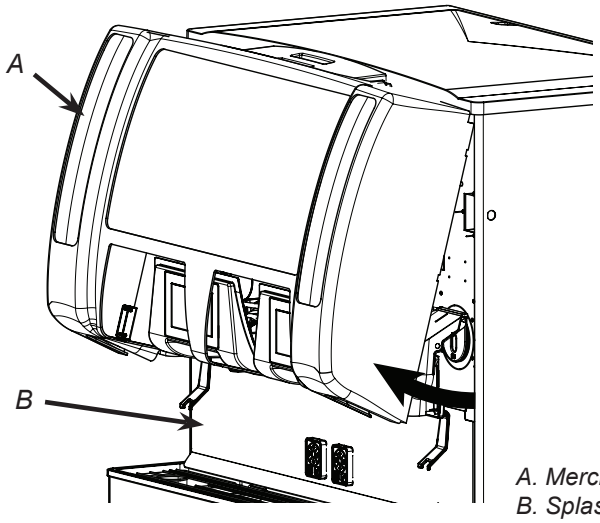
If installing a Scotsman® Pellet icemaker, Lancer recommends setting the auto agitation time to every 60 minutes. To adjust the agitation time, set the dip switches located in the control box behind the merchandiser. See the DIP Switch Legend diagram on page 31 of this manual for reference.

Dispenser Installation

NOTE

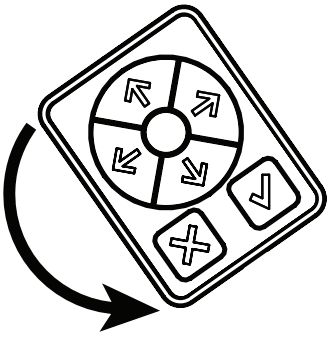
The installation, and relocation if necessary, must be carried out by qualified personnel with up-to-date knowledge and practical experience, in accordance with current regulations.

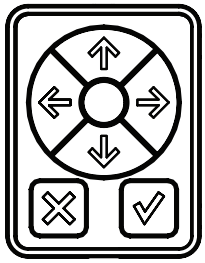
1. To remove the merchandiser, first detach the left and right side from the connection tabs behind the merchandiser, by pulling away from the unit.



A. Merchandiser
B. Splash Plate

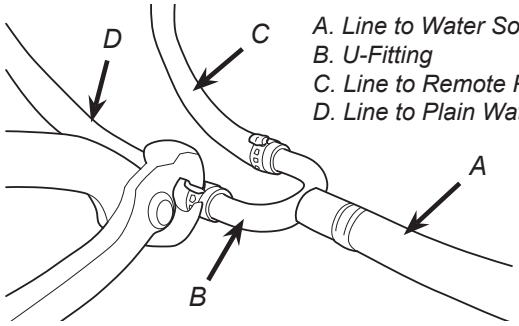
2. Rotate the merchandiser, away from the unit, from the bottom then lift the merchandiser straight up to detach from the top of the ice bin and remove from the unit.
3. Twist/Rotate the ADA panel, located on the unit’s splash plate, in a counterclockwise direction up to a 45° angle.





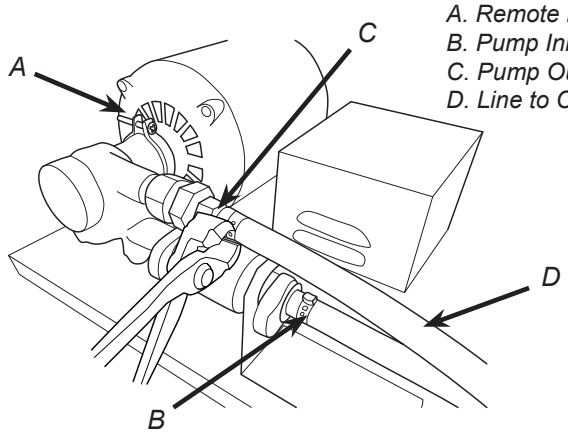
4. Carefully pull ADA panel and electric wire harness from the unit’s splash plate, until the harness connector is visible.
5. Disconnect ADA harness and remove from the unit. Repeat Steps 3-4 for second ADA panel.
6. Remove the splash plate and drip tray.
7. Route appropriate tubing from the water source to the water inlet at the remote pump deck.
8. If necessary, install water booster (Lancer PN MC-163172) between water supply and the remote pump deck.

9. Using tubing cutters, cut the water line and install U-fitting then route appropriate tubing from the U-fitting to the plain water inlet at the unit.



A. Line to Water Source
B. U-Fitting
C. Line to Remote Pump Deck
D. Line to Plain Water Inlet

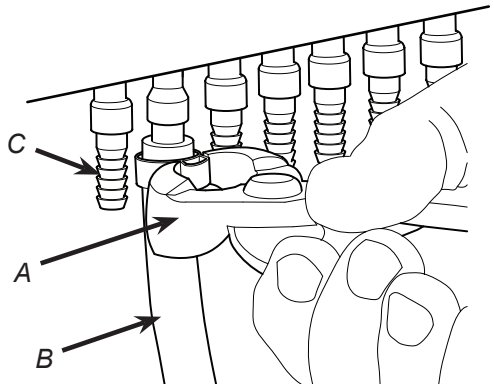
10. Route appropriate tubing from the remote pump deck outlet to the carbonated water inlet at unit.



A. Remote Pump Deck
B. Pump Inlet
C. Pump Outlet
D. Line to Carb Inlet

11. Install a shut-off valve in the water line feeding the remote pump deck as well as the water line feeding the plain water inlet.

12. Route appropriate tubing from the syrup pump location to the syrup inlets and connect tubing to all syrup inlets.

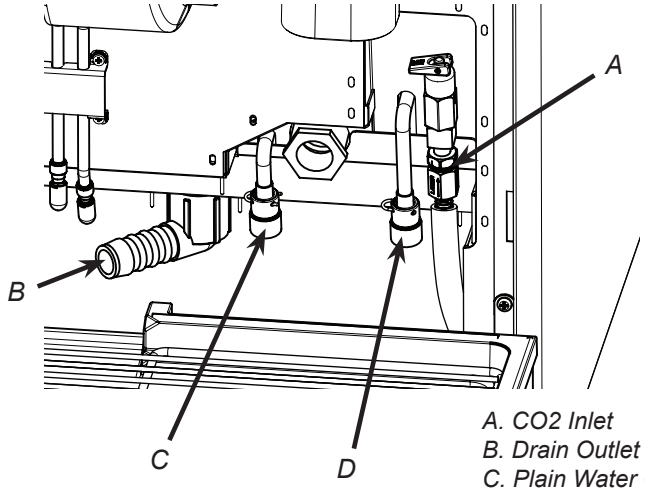


A. Oetiker Pliers
B. Tubing
C. Syrup/Water Inlet

NOTE

See Plumbing Diagrams on the front of the unit or on page 31 for reference.

13. Route appropriate tubing from the CO_2 source location to the CO_2 inlet on the unit and connect tubing to inlet.



A. CO2 Inlet
B. Drain Outlet
C. Plain Water Out
D. Carb Water Out

14. Route the power supply cord to a grounded electrical outlet of the proper voltage and amperage rating.

⚠ WARNING

DO NOT PLUG UNIT INTO GROUNDED ELECTRICAL OUTLET AT THIS TIME. **Make sure that all water lines are tight and unit is dry before making any electrical connections**

15. Route both drain hoses from designated open type drain to both fittings on Drip Tray and connect hose to fittings. (if applicable)

⚠ CAUTION

Drain line must be insulated with a closed cell insulation. Insulation must cover the entire length of the drain hose, including fittings. The drain should be installed in such a manner that water does not collect in sags or other low points, as condensation will form.

⚠ ATTENTION

Pouring hot water into drain may cause the Drain Tube to collapse. Allow only luke warm or cold water to enter Drain Tube. Pouring coffee tea and similar substances into drain may cause the Drain Tube to become clogged with coffee or tea grounds, or other solid particles.

16. Reattach Drip Tray and Cup Rest to unit. (if applicable)

NOTE

When installing the drip tray, make sure both of the cold plate drain hoses are lined up to the openings in the drip tray. Make sure the end of the hose rests at least a half of an inch over the edge of the opening to ensure proper drainage of the cold plate.

Connecting to Remote Dispenser (if necessary)

NOTE

This unit has the ability to supply a remote dispenser with chilled water and carbonated water lines. Please see the manufacturer's specifications and instructions for installation of the remote dispenser. The following are the instructions for plumbing the water lines to the remote dispenser.

1. Connect appropriate tubing to the carbonated water outlet on the right side of the unit and route to the carbonated water inlet on the remote dispenser.

NOTE

See Plumbing Diagrams on the front of the unit or on page 31 for reference.

2. Connect appropriate tubing to the plain water outlet on the right side of the unit and route to the plain water inlet on the remote dispenser.

NOTE

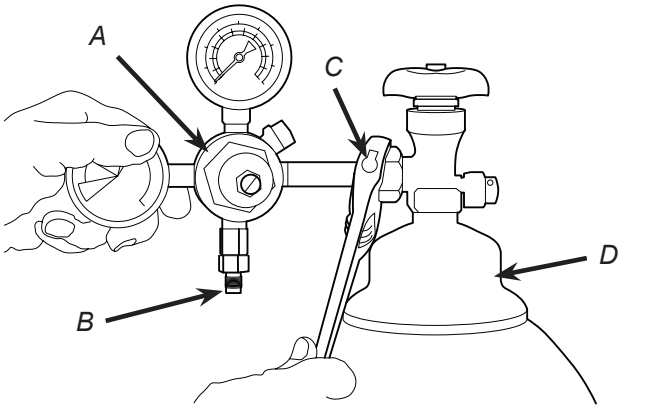
Water lines feeding the remote dispenser must be insulated.

Installing CO_2 Supply

1. Connect high pressure CO_2 regulator assembly to CO_2 cylinder or bulk system.

⚠ ATTENTION

Before installing regulator, assure that a seal (washer or o-ring) is present in regulator attachment nut.

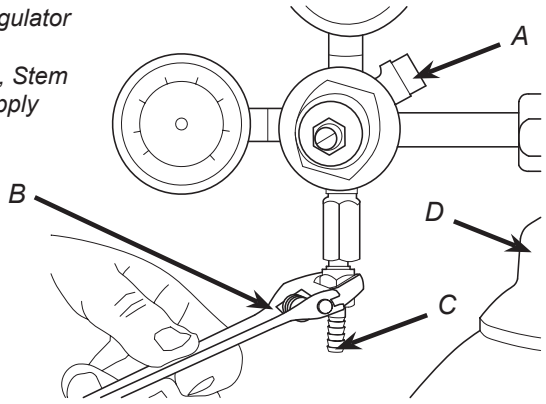


A. CO_2 Regulator
B. Outlet
C. Wrench
D. CO_2 Supply

- *Thread regulator nut on to tank, then tighten nut with wrench*

2. Connect a 3/8" nut, stem and seal to CO_2 regulator outlet.

A. CO_2 Regulator
B. Wrench
C. 3/8" nut, Stem
D. CO_2 Supply

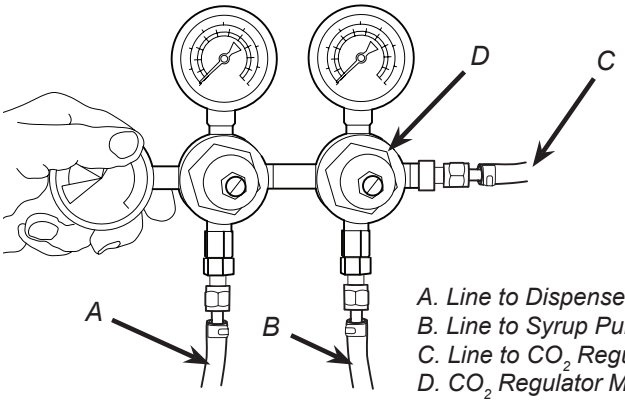


3. Route appropriate tubing from the low pressure CO_2 regulator manifold location to the 3/8" nut, stem on the high pressure CO_2 regulator attached to source and connect tubing.

⚠ ATTENTION

A dedicated CO_2 regulator is required to supply the CO_2 inlet at the unit as well as to all syrup pumps.

4. Connect tubing routed from the CO_2 inlet at the unit to one of the low pressure CO_2 regulator manifold outlets.
5. Connect tubing routed from the tee at the syrup pumps to the second low pressure regulator.

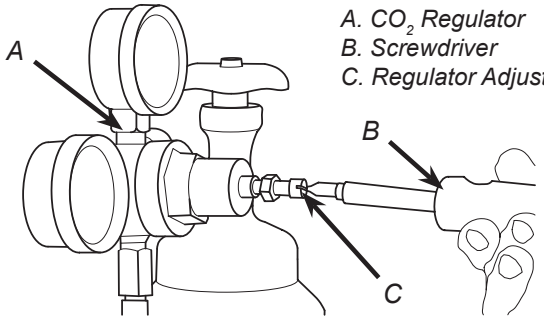


A. Line to Dispenser
B. Line to Syrup Pumps
C. Line to CO_2 Regulator
D. CO_2 Regulator Manifold

6. Using a wrench, loosen lock nut on the regulator adjustment screw of the high pressure CO_2 regulator connected to the source, then using a screwdriver back out lock nut screw all the way.

⚠ WARNING

DO NOT TURN ON CO_2 SUPPLY AT THIS TIME

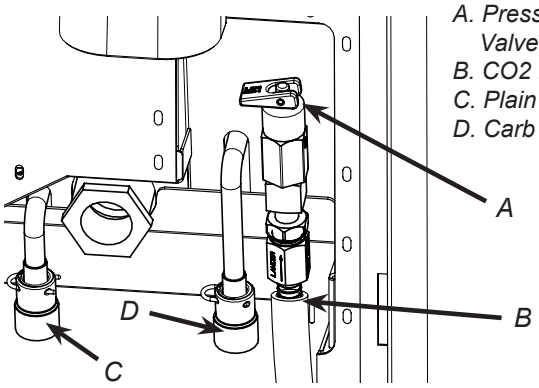


A. CO_2 Regulator
B. Screwdriver
C. Regulator Adjustment Screw

7. Repeat Step 6 for both low pressure CO_2 regulators on the regulator manifold routed to the unit and the syrup pumps.

Dispenser Setup

1. Turn on water source.
2. Open the pressure relief valve located on the front of the unit, by flipping up on the valve cap lever. Hold open until water flows from the relief valve then close (flip down) the relief valve.



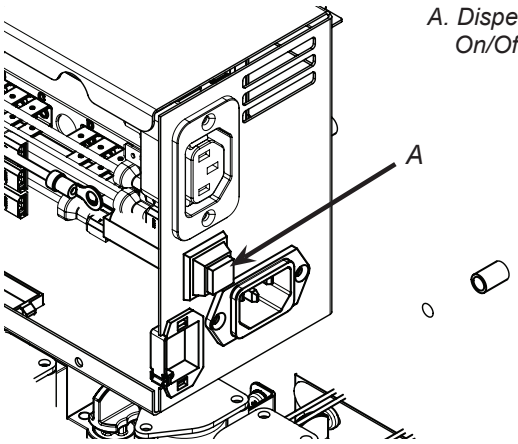
A. Pressure Relief Valve
B. CO2 Inlet
C. Plain Water Out
D. Carb Water Out

3. Verify all Bag-In-Box contains syrup and check all connections for leaks.
4. Place enough ice in the ice bin to fill approximately 1/2 of the bin before plugging in the unit.
5. Connect unit power cord to grounded electrical outlet.

⚠ WARNING

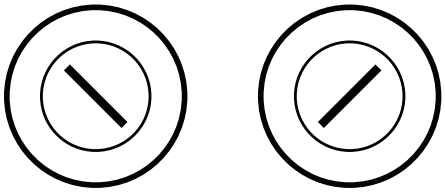
The dispenser must be properly electrically grounded to avoid serious injury or fatal electrical shock. The power cord has a three-prong grounded plug. If a three-hole grounded electrical outlet is not available, use an approved method to ground the unit. Follow all local electrical codes when making connections. Each dispenser must have a separate electrical circuit. Do not use extension cords. Do not connect multiple electrical devices on the same outlet.

6. Turn on the power to the dispenser by pressing the on/off toggle button on the right side of the unit electrical box.



A. Dispenser Power On/Off

7. Test the motor operation by pushing both ice chute levers until agitator motor begins to turn.
8. If necessary, turn on the left and right screen by pressing the screen on/off toggle buttons on the left side of the unit electrical box.
9. If necessary, turn either the left or the right keyswitch to the enabled position.



Disabled Position *Enabled Position*

NOTE

To disable the unit, both keyswitches must be in the Disabled position. To enable the dispenser, only one keyswitch needs to be in the Enabled position.

10. Once the screen has booted up, access the service menu by placing your finger on the empty space at the right side of the screen .
11. In one fluid motion, slide your finger along the center of the screen to the left until you reach the empty space on the left side of the screen, then hold to the screen for a minimum of four (4) seconds.

12. After you have held your finger for a minimum of four (4) seconds, tap all four corners of the screen in any order.

13. A keypad will appear, enter the designated pin number to access the service menu.
14. For technician access to service menu, repeat steps 11 - 12 and enter the technician's pin number ***(4433).***

NOTE

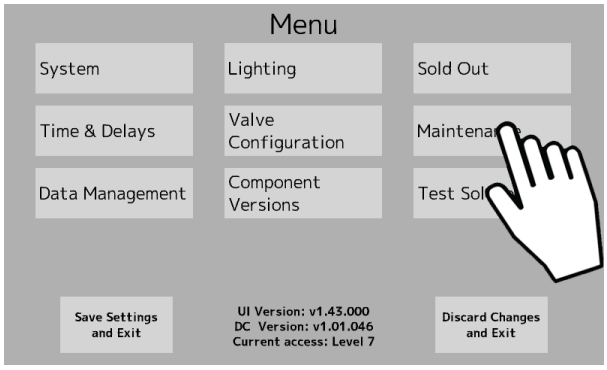
The technician's access to the service menu allows access to the following menus: System, Lighting, Sold Out, Time & Delays, Valve Configurations, Maintenance, Data Management, Component Versions, Test Solenoids.

15. For manager's access to the service menu, repeat steps 11 - 12 and enter the manager's pin number ***(6655)***.

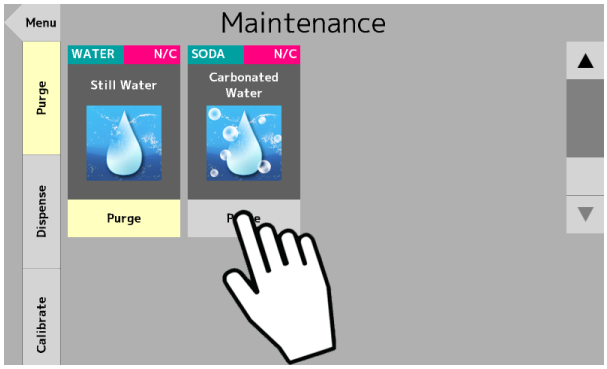
NOTE

The manager's access to the service menu allows access to the Lighting screen (see page 17), the Sold Out screen (See page 17), and the Time & Delays screen (See page 16).

16. For access to only the Sold Out Menu, repeat steps 11 - 12 and enter the Sold Out pin ***(963.)***.
17. From the service menu press the *Maintenance* button.



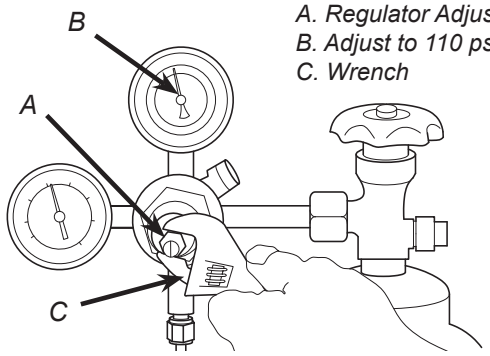
18. Press the *Purge* tab on the far left side of the screen.
19. Scroll down to the water modules and press the *Purge* buttons for both the plain water and the carbonated water modules.



NOTE

Once the purge is activated, it will continue to dispense product until it is deactivated. To deactivate the purge, simply press the *Purge* button again. Up to four modules can be purged at one time. Once four modules are selected, all other modules are grayed out and cannot be selected.

20. Once a steady flow of water is achieved, press the *Purge* button again to deactivate the modules.
21. Repeat steps 10 - 20 for the second screen.
22. Make sure the pump deck is turned OFF before turning on CO_2.
23. Turn on CO_2 at the source then, using a screwdriver, adjust the high pressure regulator at the source to 110 psi (0.758 MPa) then tighten locknut with wrench.



A. Regulator Adjustment Screw
B. Adjust to 110 psi (0.758 MPa)
C. Wrench

24. Adjust both of the low pressure regulators on the regulator manifold to 75 psi (0.517 MPa) then tighten locknut with wrench.
25. Activate each valve until gas-out.
26. Plug in the remote carbonator pump deck, if not already done so, and turn the switch to the ON position.
27. Activate each valve until the carbonator pump comes on. Release the button, allow carbonator to fill and stop. Repeat this process until a steady flow of carbonated water is achieved.

NOTE

The pump deck has a 3 minute timeout feature. If the timeout occurs, turn the deck OFF then ON by flipping the switch on the control box.

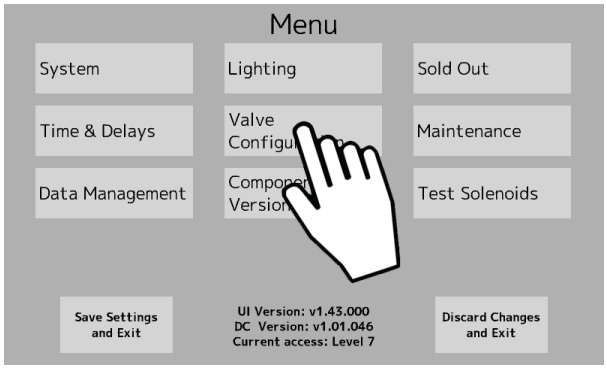
NOTE

To check for CO_2 leaks, close the valve on the CO_2 cylinder and observe if the pressure to the system drops with the cylinder valve closed for five minutes. Open the cylinder valve after check.

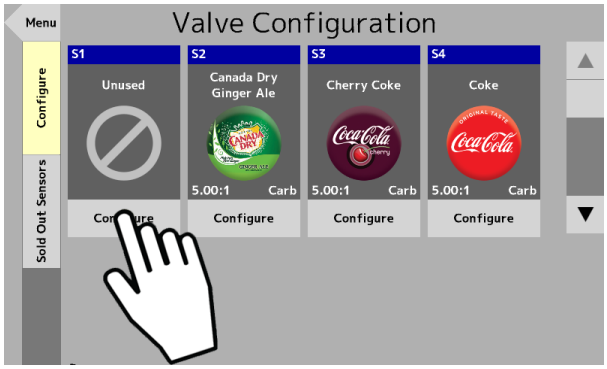
28. Activate each valve to purge air from the syrup lines.

Adding New Brand/Flavor Module

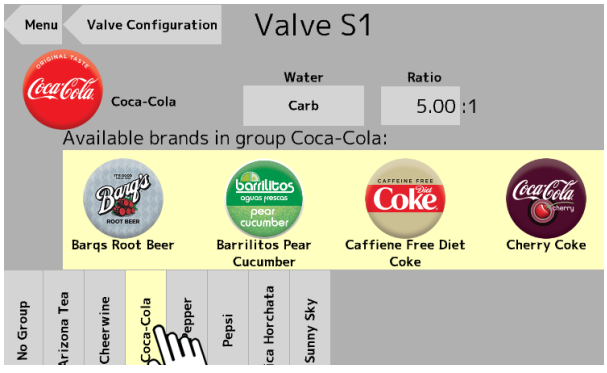
1. In order to add a new brand or flavor module, the module must first be activated.
2. From the Service menu, press the *Valve Configuration* button.



3. From the Valve Configuration menu, press the *Configure* tab on the far left side of the screen.
4. Press the *Configure* button under any brand or flavor module to open its Configuration Page.



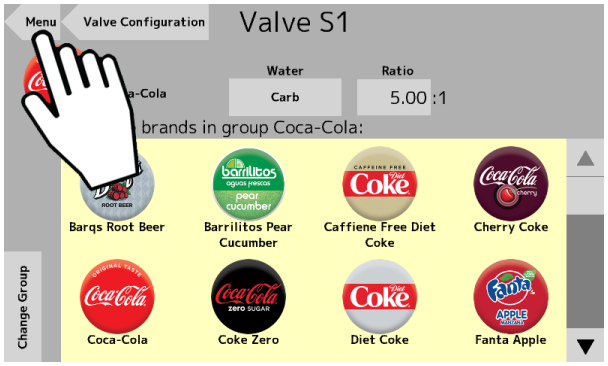
5. Select a new brand from the available Brands Library tabs on the left side of the screen.



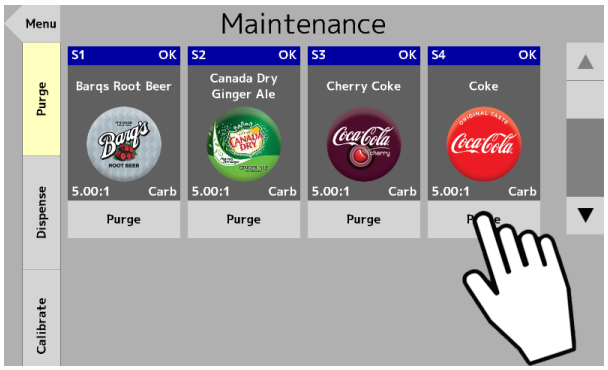
NOTE

Each brand has a default water type and ratio already set when they are selected. The water type and ratio can be adjusted if necessary. Adjust the ratio by tapping the number and entering the new value on the keypad.

6. Once a brand/flavor has been selected to a corresponding module, press the *Valve Configuration* button to return to the Valve Configuration Screen.
7. Repeat Steps 4 and 5 for any of the other brand or flavor modules.
8. Press the Menu button to return to the Service menu.



9. From the Service Menu, press the Maintenance button.
10. Press the Purge tab on the far left side of the screen.
11. Purge any new brand or flavor module until there is a steady flow of syrup. (See previous page)

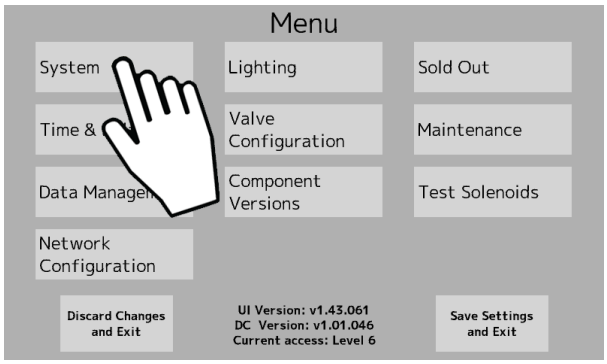


12. Press the Menu button to return to the Service Menu.
13. Repeat steps 1 - 12 for the second screen.

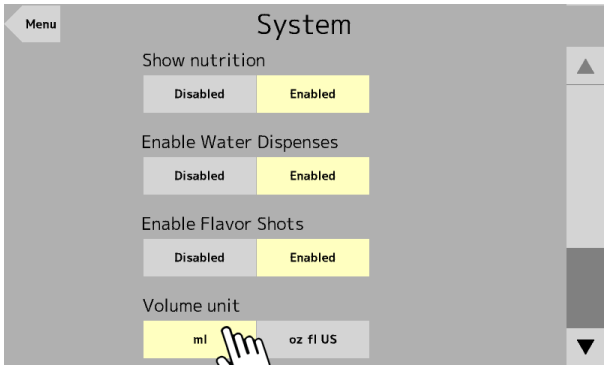
CALIBRATION & MAINTENANCE

Calibrating Plain/Carbonated Water Modules

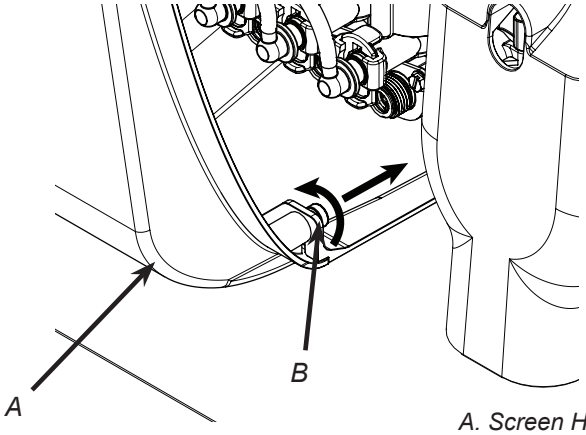
1. In order to correctly calibrate water flow, the volume units must be set to milliliters (ml).
2. Access the Service menu (See page 7) and press the *System* button.



3. From the System menu, press the *ml* button below the “Volume Unit“ heading.

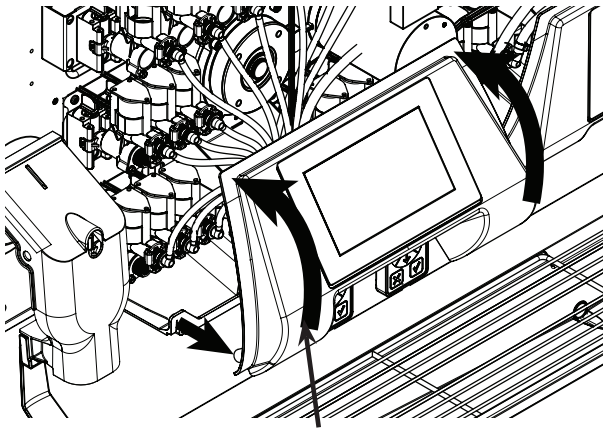


4. Press the Menu button to return to the Service menu.
5. From the Service menu, press the *Maintenance* button.
6. Remove the two thumb screws connecting the plastic screen housing to the unit.



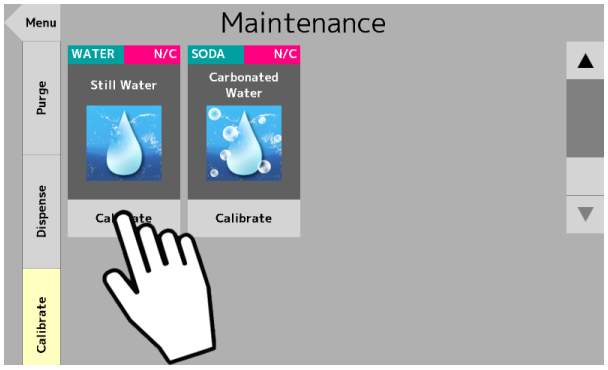
A. Screen Housing
B. Thumb Screw

7. While holding the plastic screen housing, tilt the housing forward until the housing disengages from the unit.

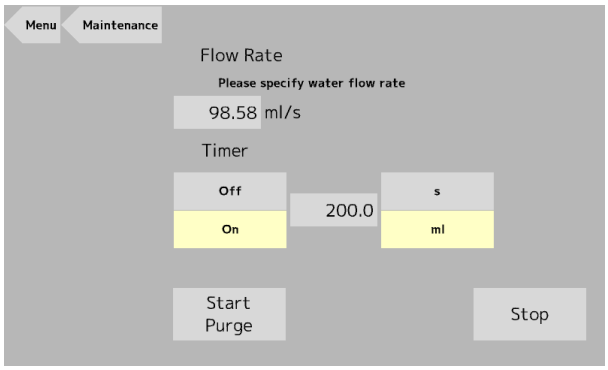


A. Tilt Screen Housing

8. While holding the screen housing, press the *Calibrate* tab on the far left side of the screen and press the *Calibrate* button for the plain water module.



9. Using the keypad, enter a water flow rate value of 98.58 ml/sec.
10. Set the Timer to the ON position and select milliliters (ml) as the desired unit of measurement.

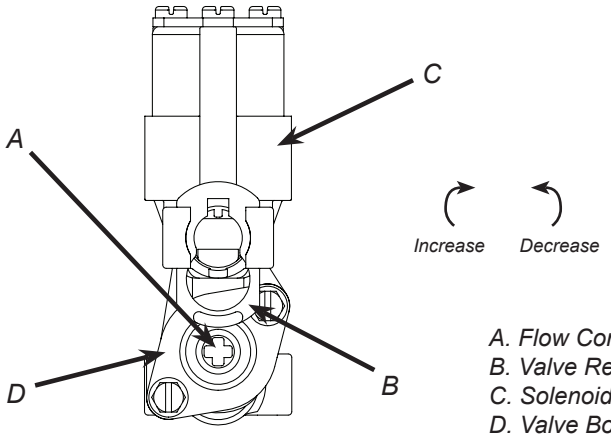


11. Using the keypad, enter a specific volume to be dispensed based on the size of the graduated cylinder being used to calibrate the plain water module.

NOTE

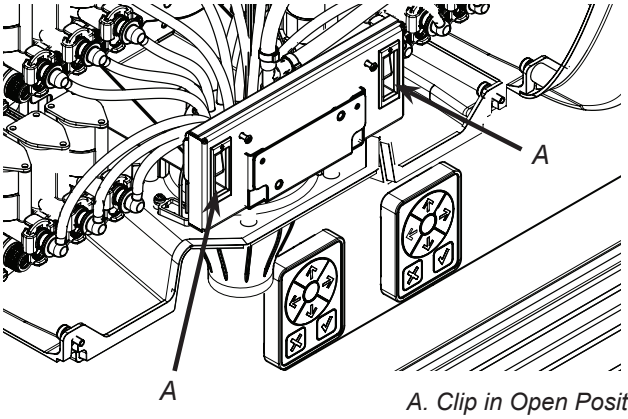
The larger the volume dispensed, the more accurate the results.

12. With a graduated cylinder placed in a position below the nozzle, press the *Start Purge* button. The unit will dispense the volume designated in the previous step.
13. Examine the dispensed volume in the graduated cylinder. If the dispensed volume does not match the value entered on the screen in step 11, use a screwdriver to adjust the plain water flow control. (See Plumbing Diagram on page 31 for reference).



A. Flow Control
B. Valve Retainer
C. Solenoid
D. Valve Body

14. Repeat steps 12 and 13 until the designated volume is achieved.
15. Repeat steps 8 - 14 for the carbonated water module.
16. To re-attach the screen housing, first align the screen housing with the connection tabs on the unit, then rotate the housing down until the connection tabs engage.



A. Clip in Open Position

NOTE

Make sure both of the connection tabs are disengaged in the open position before attempting to re-connect the screen housing. Use a screw driver to open the connection tabs if necessary.

17. Re-connect the two thumb screws removed in Step 6.
18. Repeat steps 5 -17 for the second screen.

Calibrating Brand Syrup Modules

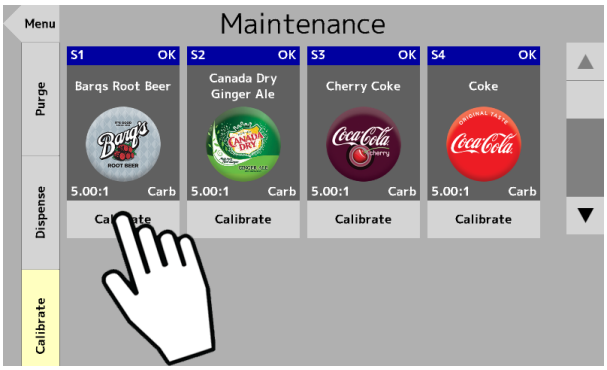
NOTE

Ensure there is ice on the cold plate and the lines are cold before attempting to set the flow rates on the valves. The drink temperature should be no higher than 40°F (4.4°C) when flow rates are set.

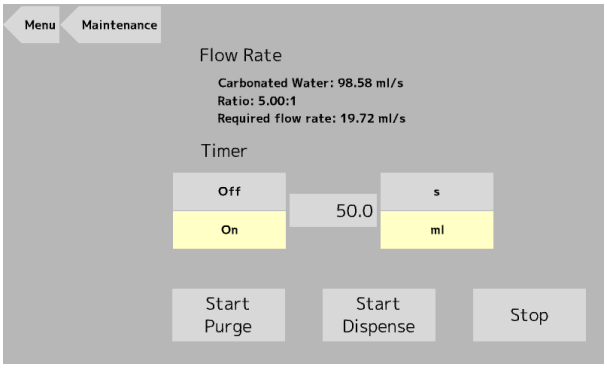
1. From the Service menu, press the *Maintenance* button.
2. Remove the two thumb screws connecting the plastic screen housing to the unit (See page 9).
3. While holding the plastic screen housing, tilt the housing forward until the housing disengages from the unit (See page 9).
4. While holding the screen housing, press the *Calibrate* tab on the far left side of the screen and press the *Calibrate* button for the first brand syrup module.

NOTE

The water flow rate should be set from the calibration of the carbonated/plain water modules in the previous section and the ratio should be determined from when the brand was configured. (See page 12, Adding New Brand/Flavor Module)



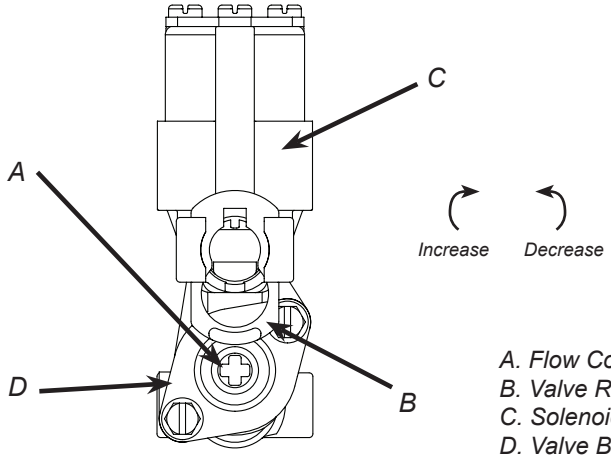
5. Set the Timer to the ON position and select milliliters (ml) as the desired unit of measurement.
6. Using the keypad, enter in an amount of 50 as the preset dispensing amount



NOTE

The finished drink flow rate was set to 98.58 ml/s, which makes the finished syrup flow rate 19.72 ml/s. The final flow rate that should be dispensed is 118.3 ml/s.

7. With the graduated cylinder placed in a position below the nozzle, press the *Start Dispense* button. The unit will dispense the designated syrup amount.
8. Examine the dispensed volume in the graduated cylinder. If the dispensed volume does not match the value of 50 ml, use a screwdriver to adjust the brand syrup flow control. (See Plumbing Diagram on page 31 for reference).



A. Flow Control
B. Valve Retainer
C. Solenoid
D. Valve Body

9. Repeat steps 7 and 8 until the designated volume of 50 ml is achieved.
10. Repeat steps 4 - 9 for the remaining brand syrup modules.
11. To re-attach the screen housing, first align the screen housing with the connection tabs on the unit, then rotate the housing down until the connection tabs engage.

NOTE

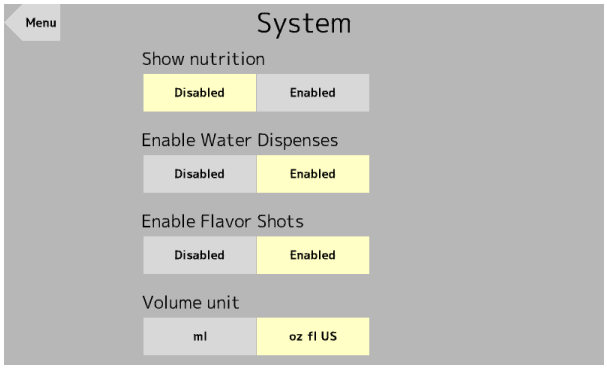
Make sure both of the connection tabs are disengaged in the open position before attempting to re-connect the screen housing. Use a screw driver to open the connection tabs if necessary.

12. Re-connect the two thumb screws removed in Step 2.
13. Repeat steps 1 -12 for the second screen.

FEATURES OF THE TWIN POUR DISPENSER

System Settings

1. From the Service menu, press the *System* button.



2. Press the *Enabled* button, below the “Enable Water Dispenses” heading, to have the ability to pour plain/ carbonated water from the main screen.

3. Press the *Enabled* button, below the “Enable Flavor Shots” heading, to have the ability to pour flavor shots from the main screen.

4. Press the *Enabled* button, below the “Show Nutrition” heading, to have the ability to display a selected brands nutrition information (if available).
5. When enabled, press and hold the *Info* button from a selected brands pour screen to display the nutrition information.

Time & Delay Features

1. From the Service Menu, press the *Time & Delays* button to access the Time & Delays Menu.
2. Enable or Disable any of the three (3) time & delay functions by tapping underneath their designated function names: *Brand Timeout, Screen Saver,* and *Sleep*.

NOTE

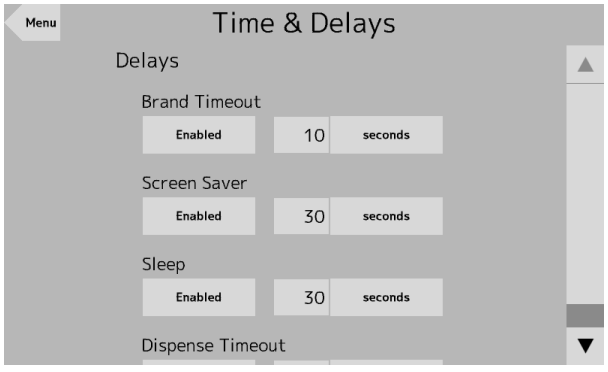
Brand Timeout - the amount of time for a selected brand on the Pour Screen to be deselected after inactivity

Screen Saver - the amount of time for the screen saver to be initiated after inactivity

Sleep - the amount of time for the unit to enter Sleep Mode (see page 4) after inactivity.

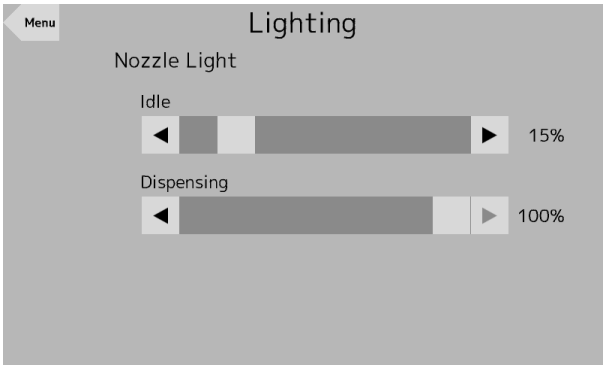
Dispense Timeout - the amount of time a valve will pour before automatic shutoff.

3. Adjust the *Frequency* and *Units of Time* by selecting their corresponding fields.



Lighting Features

1. From the Service menu, press the *Lighting* button.
2. From this menu, the user can adjust the *Nozzle Light* when the unit is dispensing and when the unit is not dispensing (Idle).



Sold-Out Feature

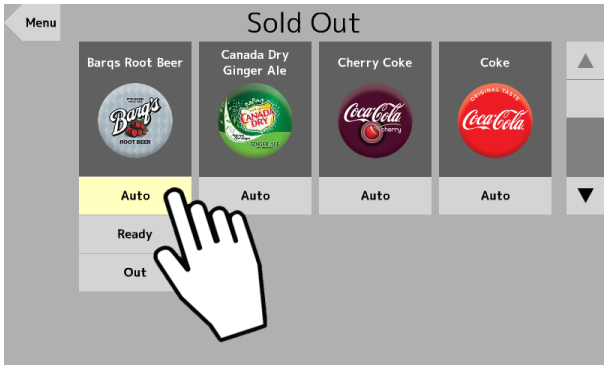
1. From the Service Menu, press the *Sold Out* button.
2. Manually adjust specific brands to read *Ready, Out,* or *Auto*

NOTE

Ready - signifies there is available product and the valve will dispense when activated

Out - signifies there is no available product or there is a problem with the specified brand and will dispense when activated.

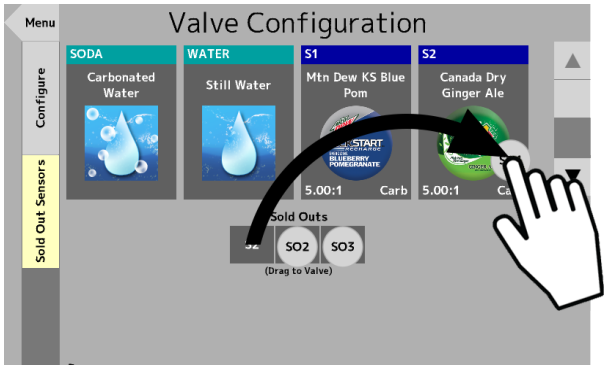
Auto - signifies that the configured Sold Out Sensor controls whether the brand can be dispensed. This feature requires an optional sold out sensor kit, does not come standard, and is available for up to ten (10) brands at one time. The following is a set of instructions on how to set up this feature. If no sold out sensor is assigned then the Auto feature acts the same as the Ready feature.



3. From the Service Menu, press the *Valve Configuration* button.
4. To add the Auto Sold Out feature to a specific brand, press and hold one of the Sold Out Sensors and drag them to a corresponding brand.

NOTE

This feature will automatically shut-off the pump for that specific brand when there is no product to be dispensed. This feature only comes into effect when the corresponding brand is changed to "Auto" in the Sold-Out menu.



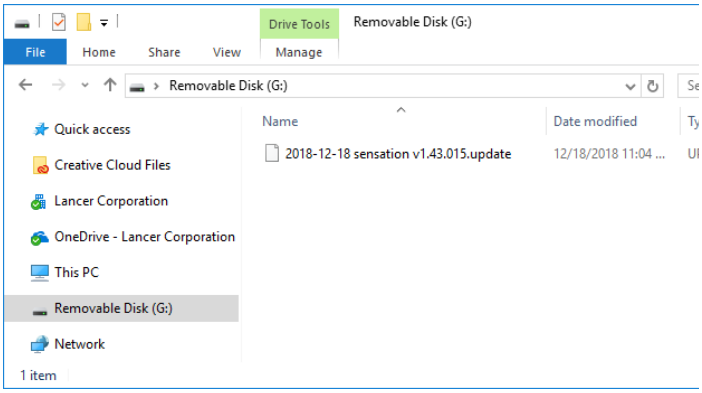
NOTE

If a Sold Out Sensor is utilized for the CO_2 low section then a CO_2 Low Pressure Indicator will appear whenever the unit or a valve is not receiving enough CO_2.

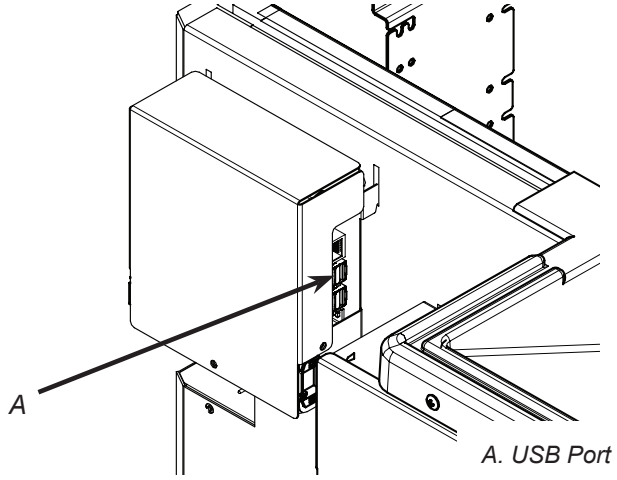
5. Press the *Menu* button to return to the Service Menu.

Update Software

1. Load the *.update* file on to any blank USB as shown in the image below.

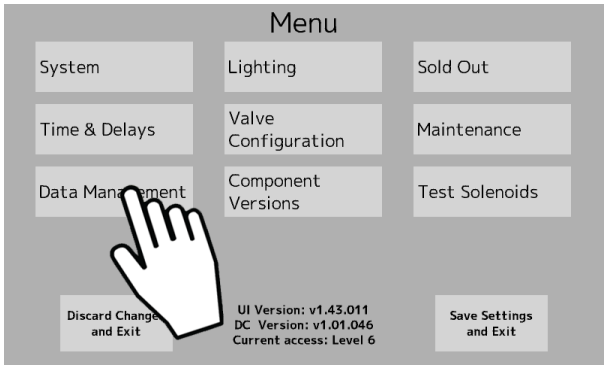


2. Plug the USB into the port on the side of the PCB controller box, located in the upper left corner of the front of the unit.

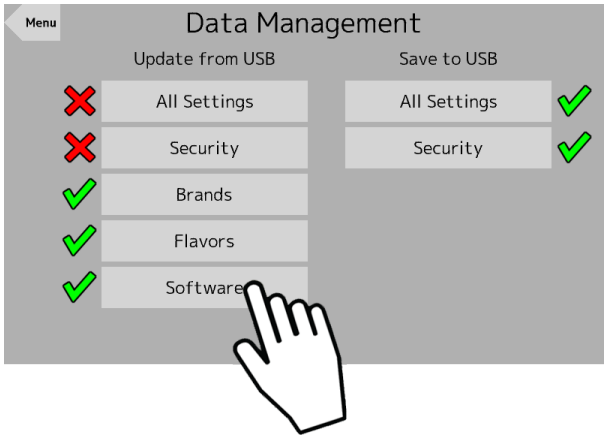


A. USB Port

3. Access the Service menu on the left side screen and press the *Data Management* button.



4. In the “Update from USB” section, press the *Software* button.



5. Verify that the correct update is displayed on the screen then press *Start Update*.

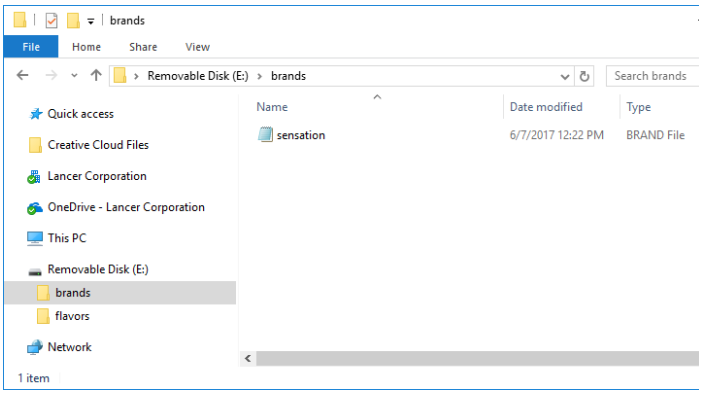
NOTE

The screen will automatically conduct a power cycle once the update is complete. Wait at least ten (10) seconds before accessing the Service Menu once the power cycle is complete.

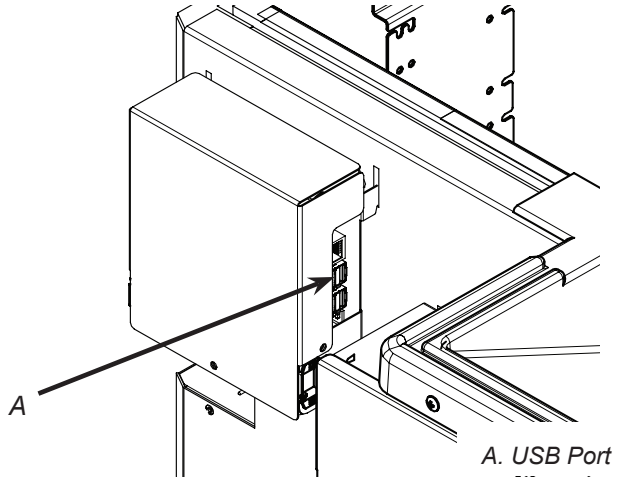
6. Repeat Steps 2 - 5 for the right side PCB and screen.

Update Brands/Flavors

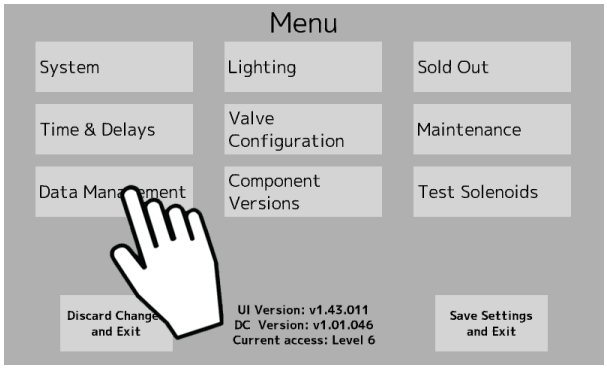
1. Create a USB drive with the updated *.brand* file in a folder named “brands” as shown in the image below.



2. Plug the USB into the port on the side of the PCB controller box, located in the upper left corner of the front of the unit.



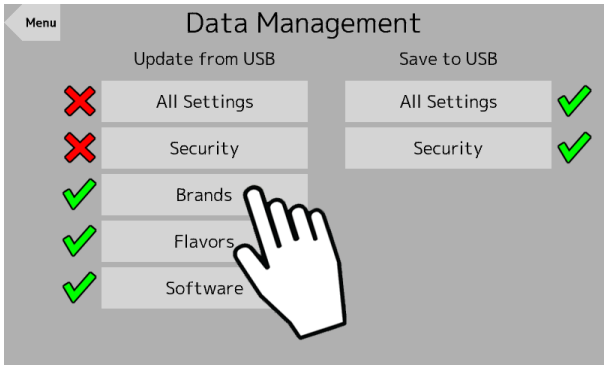
3. Access the Service menu on the left side screen and press the *Data Management* button.



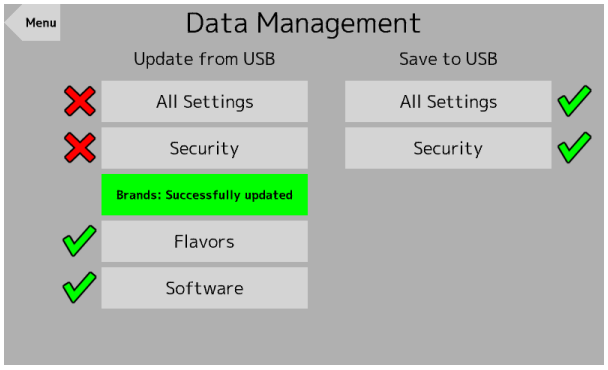
4. In the “Update from USB” section, press the *Brands* button.

NOTE

There will be a check mark next to the Brands button if the USB drive has the brand files in the correct place.



5. Once the Brands button turns green then the updated brands will be available.



6. Repeat Steps 2 - 5 for the right side PCB and screen.

NOTE

To upload new flavors to the TwinPour, create the *flavor.brand* file and put into a folder named “flavors”, then repeat steps 2-6.

CLEANING AND SANITIZING

General Information

- Lancer equipment (new or reconditioned) is shipped from the factory cleaned and sanitized in accordance with NSF guidelines. The operator of the equipment must provide continuous maintenance as required by this manual and/or state and local health department guidelines to ensure proper operation and sanitation requirements are maintained.

NOTE

The cleaning procedures provided herein pertain to the Lancer equipment identified by this manual. If other equipment is being cleaned, follow the guidelines established by the manufacturer for that equipment.

- Cleaning should be accomplished only by trained personnel. Sanitary gloves are to be used during cleaning operations. Applicable safety precautions must be observed. Instruction warnings on the product being used must be followed.

⚠ ATTENTION

- **Use sanitary gloves when cleaning the unit and observe all applicable safety precautions.**
- ***DO NOT* use a water jet to clean or sanitize the unit.**
- ***DO NOT* disconnect water lines when cleaning and sanitizing syrup lines, to avoid contamination.**
- ***DO NOT* use strong bleaches or detergents; These can discolor and corrode various materials.**
- ***DO NOT* use metal scrapers, sharp objects, steel wool, scouring pads, abrasives, or solvents on the dispenser.**
- ***DO NOT* use hot water above 140° F (60° C). This can damage the dispenser.**
- ***DO NOT* spill sanitizing solution on any circuit boards. Insure all sanitizing solution is removed from the system.**

Cleaning and Sanitizing Solutions

Cleaning Solution

Mix a mild, non-abrasive detergent (e.g. Sodium Laureth Sulfate, dish soap) with clean, potable water at a temperature of 90°F to 110°F (32°C to 43°C). The mixture ratio is one ounce of cleaner to two gallons of water. Prepare a minimum of five gallons of cleaning solution. Do not use abrasive cleaners or solvents because they can cause permanent damage to the unit. Ensure rinsing is thorough, using clean, potable water at a temperature of 90°F to 110°F. Extended lengths of product lines may require additional cleaning solution.

Sanitizing Solution

Prepare the sanitizing solution in accordance with the manufacturer's written recommendations and safety guidelines. The type and concentration of sanitizing agent recommended in the instructions by the manufacturer shall comply with 40 CFR §180.940. The solution must provide 200 parts per million (PPM) chlorine (e.g. Sodium Hypochlorite or bleach) and a minimum of five gallons of sanitizing solution should be prepared.

Nozzle Sanitizing Solution

Prepare a chlorine solution (less than pH 7.0) containing 50 PPM chlorine with clean, potable water at a temperature of 90 – 110°F. Any sanitizing solution may be used as long as it is prepared according to manufacturer's recommendations and safety guidelines, and provides 50 PPM chlorine.

Integrity of Plastic Finish

While caring for your unit, please note that there may be some cleaners that may compromise the integrity of the powder coated finish. The recommended method for cleaning the powder coated surface is to use warm water and a mild soap such as Windex, Dawn, 409, etc. Certain chemical cleaners such as Acetone, Mineral Spirits, or Lacquer thinners could cause aesthetic damage. Thoroughly rinse with water after cleaning the surface.

Other Supplies Needed:

1. Clean cloth towels
2. Bucket
3. Extra nozzle
4. Sanitary gloves
5. Small brush (PN 22-0017)

Scheduled Maintenance/Cleaning

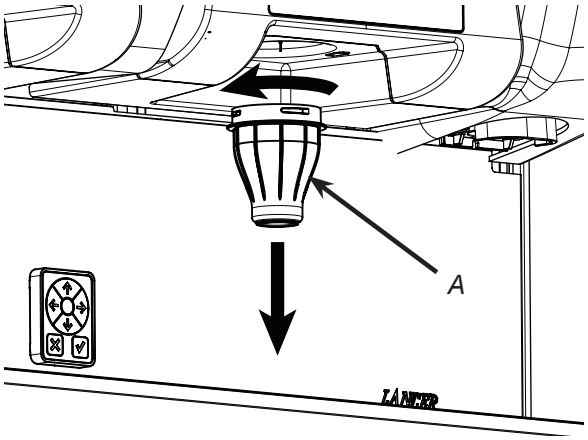
As Needed	• Keep exterior surfaces of unit clean using a clean, damp cloth.
Daily	• Using the cleaning solution, clean top cover and all exterior stainless steel surfaces. • Clean exterior of dispensing valves and ice chute. • Remove cup rest then clean the drip tray and cup rest. Replace cup rest when finished. • Wipe clean all splash areas using a damp cloth soaked in cleaning solution. • Clean beverage nozzles as specified by the section “Cleaning and Sanitizing Nozzles”.
Monthly	• Clean the ice bin, auger, and ice chute assembly as specified by the section “Cleaning and Sanitizing Ice Bin, Auger, and Ice Chute” on page 22.
Every Six Months	• Clean the syrup lines as specified by the section “Cleaning and Sanitizing Syrup Lines - Bag in Box” on page 23. • Pull out unit (if applicable) and clean behind and underneath. Check for any loose components or noises.

Cleaning and Sanitizing Nozzles

1. Prepare the nozzle sanitizing solution as described on page 20.
2. Turn the left and right key switches to deactivate valves and avoid accidental dispense while the nozzles are exposed.
3. Remove the outer nozzle by twisting clockwise and pulling downward.

⚠ ATTENTION

***DO NOT* attempt to activate any valves while the outer nozzle is removed.**



A. Nozzle

4. Using the nozzle brush provided in the installation kit and the cleaning solution described on page 20, clean the outer nozzle of any residual syrup.
5. Rinse the outer nozzle with clean, potable water then soak in the nozzle sanitizing solution prepared in step 1.
6. While the outer nozzle is in the sanitizing solution, using the nozzle brush, dip the brush in the nozzle sanitizing solution and thoroughly brush the bottom of the inner nozzle body.
7. Rinse the brush in warm 90° – 110°F (32.2°– 43.3°C), clean potable water and brush the bottom of the inner nozzle body once more ***WITHOUT*** the sanitizing solution.
8. After the outer nozzle has soaked for fifteen (15) minutes, rinse in warm 90° – 110°F (32.2°– 43.3°C), clean potable water for a minimum of twenty (20) seconds ensuring all surfaces of the nozzle have been thoroughly rinsed.
9. Allow outer nozzle to air dry (to expedite drying, forced convection is recommended).
10. Reinstall the outer nozzle to the unit.
11. Repeat Steps 3 - 10 for the second nozzle.
12. Return the left and right key switches to active valves.

Cleaning and Sanitizing Ice Bin, Auger, and Ice Chute

NOTE

It is recommended to perform this procedure monthly, or more often if desired. Use the cleaning solution described above. An alternate solution of one part water to one part vinegar may be used to remove water spots and calcium deposits.

NOTE

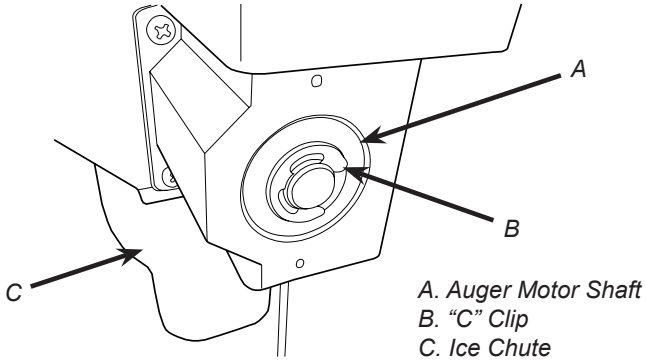
Refer to the Automatic Agitation Warning on page 3.

1. Disconnect power to the dispenser
2. Remove the Merchandiser and Top Cover.
3. Remove Ice Chute Lever, then remove Splash Plate Assembly by lifting it up and out from the dispenser face.

NOTE

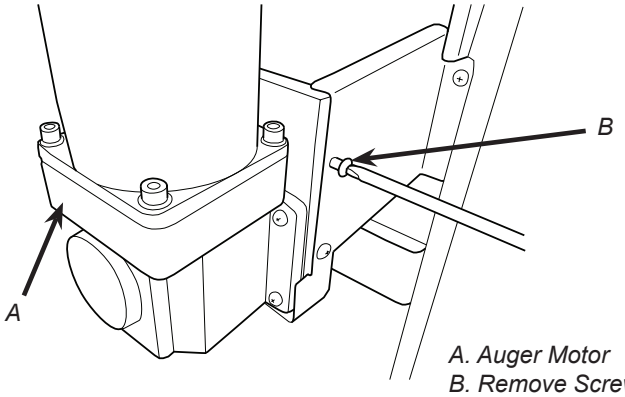
Always remove the ice chute lever before removing the splash plate.

4. Remove or melt out any remaining ice from the ice bin.
5. Disconnect the lower, horizontal LED light bar and remove from unit.
6. Disconnect the two vertical LED light bars on either side and remove from unit. See *LED Lighting Configuration* diagram on page 33 for reference.
7. Use a screwdriver to remove the Auger Motor shaft cover.
8. Remove the “C” clip from the Auger Motor Shaft.



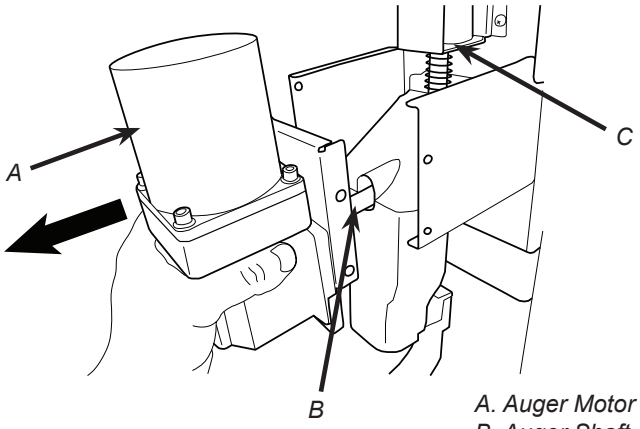
A. Auger Motor Shaft
B. “C” Clip
C. Ice Chute

9. Disconnect the Auger Motor wire harness from junction box.
10. Remove the four (4) screws from the bracket holding the Auger Motor, flavor injector bracket, and LED light bracket.



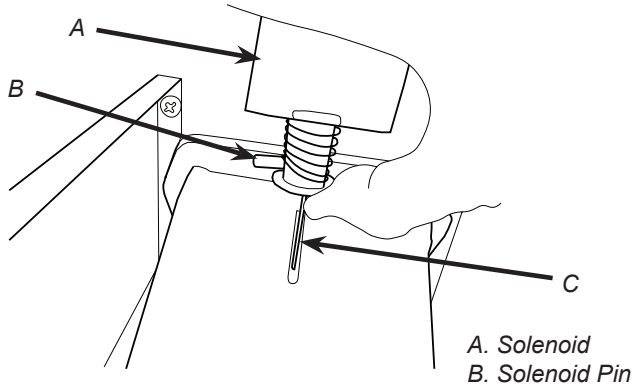
A. Auger Motor
B. Remove Screws

11. Slide the Motor and Mounting Plate Assembly off of the Auger Shaft.



A. Auger Motor
B. Auger Shaft
C. Solenoid

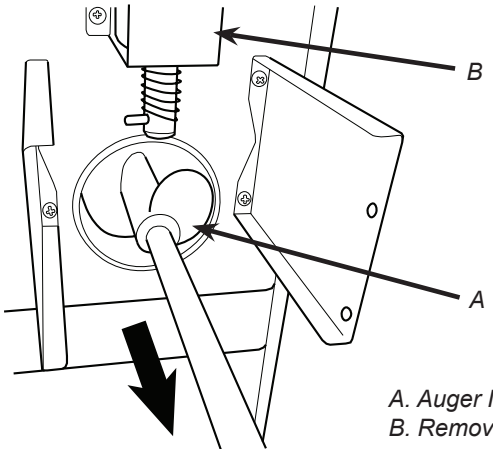
12. Remove the Auger Motor Shaft Key and set aside.
13. Remove the second clip from the Auger Shaft.
14. Disconnect the Ice Chute wire harness from the junction box.
15. Disconnect the solenoid from Ice Chute link by pushing pin through shaft until link is free. (Pin shown in out position)



A. Solenoid
B. Solenoid Pin
C. Ice Chute Link

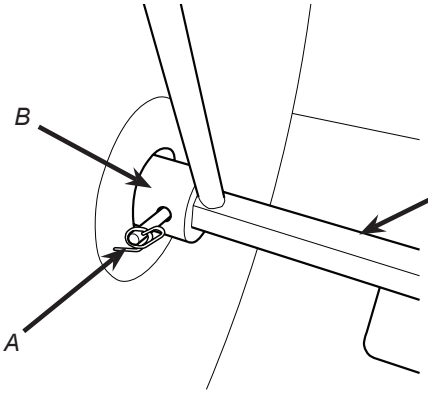
16. Remove the Ice Chute Assembly by removing four (4) screws that secure to unit and set aside.

17. Remove Auger by pulling straight out from unit and set aside.



A. Auger Motor
B. Remove Screws

18. Repeat Steps 7 - 17 for second Auger Motor Assembly.
19. Remove Agitator Clip and Pin from Agitator bar in Ice Bin.



A. Agitator Clip/Pin
B. Hub
C. Agitator Bar

20. Remove the Agitator bar and Hub from the Ice Bin.
21. Repeat Steps 19 - 20 for second Agitator bar.
22. Remove the plastic Ice Shroud by “pinching” in the center and rotating out.
23. Using the Cleaning Solution (page 20) and a clean cloth or soft brush, clean the Ice Chute Assembly, Ice Shroud, Auger, all sides of the Ice Bin, and surface of the aluminum casting.
24. Using the Cleaning Solution and the sponge brush provided, clean all interior surfaces of the ice chute and the ice chute feed through.
25. Using hot water, thoroughly rinse away the cleaning solution.
26. Wearing sanitary gloves, use a clean cloth or towel and the Sanitizing Solution (page 20) to wash all surfaces of removable parts, sides of the Ice Bin, and surface of the aluminum casting.
27. Using the Sanitizing Solution and the sponge brush provided, clean all interior surfaces of the ice chute and the ice chute feed through.
28. Wearing sanitary gloves, reassemble all removable parts. Ensure agitator clip is locked.
29. Fill unit with ice and replace Top Cover.
30. Reconnect dispenser to power source.

Cleaning and Sanitizing Syrup Lines - Bag in Box

1. Disconnect the syrup lines from BIB’s
2. Place syrup lines, with BIB connectors, in a bucket of warm water.
3. Activate each valve to fill the lines with warm water and flush out syrup remaining in the lines.
4. Prepare Cleaning Solution described above.
5. Place syrup lines, with BIB connectors, into cleaning solution.
6. Activate each valve until lines are filled with cleaning solution then let stand for ten (10) minutes.
7. Flush out cleaning solution from the syrup lines using clean, warm water.
8. Prepare Sanitizing Solution described above.
9. Place syrup lines into sanitizing solution and activate each valve to fill lines with sanitizer. Let sit for ten (10) minutes.
10. Reconnect syrup lines to BIB’s and draw drinks to flush solution from the dispenser.
11. Taste the drink to verify that there is no off-taste. If off-taste is found, flush syrup system again.

⚠ CAUTION

Following sanitation, rinse with end-use product until there is no aftertaste. Do not use a fresh water rinse. This is a NSF requirement. Residual sanitizing solution left in the system creates a health hazard.

Cleaning and Sanitizing Flavor Injector Lines

1. Disconnect the each flavor injector line from their bag-in-box containers.
2. Place flavor injector lines, with BIB connectors, in a bucket of warm water.
3. Activate each flavor injector line to fill the with warm water and flush out any syrup remaining in the lines.
4. Prepare Cleaning Solution described on page 20.
5. Place flavor injector lines, with BIB connectors, into cleaning solution.
6. Activate each flavor injector line until lines are filled with cleaning solution then let stand for ten (10) minutes.
7. Flush out cleaning solution from the flavor injector lines using clean, warm water.
8. Prepare Sanitizing Solution described on page 18.
9. Place flavor lines into sanitizing solution and activate each line to fill with sanitizer. Let sit for ten (10) minutes.
10. Reconnect syrup lines to bag-in-box container and draw drinks to flush solution from the dispenser.
11. Taste the drink to verify that there is no off-taste. If off-taste is found, flush syrup system again.

⚠ CAUTION

Following sanitation, rinse with end-use product until there is no aftertaste. Do not use a fresh water rinse. This is a NSF requirement. Residual sanitizing solution left in the system creates a health hazard.

TROUBLESHOOTING

Valve, Syrup/Flavor Line Troubleshooting

TROUBLE	CAUSE	REMEDY
No product when switch is activated.	1. Malfunctioning switch assembly. 2. No power to dispenser. 3. Malfunctioning power supply. 4. Malfunctioning PCB board. 5. Keyswitch is off or keyswitch harness is disconnected. 6. Malfunctioning switch assembly. 7. Malfunctioning LFCV valve module.	1. Replace switch assembly. 2. Check internal breaker and incoming power. 3. Check voltage to power supply. Check fuses. 4. Replace PCB board. 5. Turn keyswitch on and/or reconnect keyswitch harness. 6. Replace switch assembly. 7. Replace module.
Water in ice bin.	1. Coldplate drain is obstructed.	1. Remove splash plate and drip tray to obtain access to drain tubes and clear accordingly.
Water leakage around nozzle.	1. Damaged or improperly installed o-ring on nozzle.	1. If damaged, replace. If improperly installed, adjust.
Miscellaneous leakage.	1. Gap between parts. 2. Damaged or improperly installed o-rings.	1. Tighten appropriate retaining screws. 2. Replace or adjust appropriate o-rings.
Insufficient soda flow (carbonated drinks).	1. Insufficient CO_2 supply pressure. 2. Shutoff on mounting block is not fully open. 3. Foreign debris in soda flow control.	1. Verify incoming CO_2 pressure is between 70 psi (0.483 MPa) and 80 psi (0.552 MPa) 2. Open shutoff fully. 3. Remove soda flow control from valve and clean out any foreign material to ensure smooth spool movement.

TROUBLE	CAUSE	REMEDY
Insufficient water flow (plain water drinks).	1. Insufficient incoming supply pressure. 2. Shutoff on mounting block not fully open. 3. Foreign debris in water flow control. 4. Water filtration problem.	1. Verify incoming supply water pressure to plain water inlet is a minimum of 75 psi (0.516 MPa) and a maximum of 125 psi (0.862 MPa). 2. Open shutoff fully. 3. Remove water flow control from valve and clean out any foreign material to ensure smooth spool movement. 4. Service water system as required.
Erratic ratio.	1. Incoming water and/or syrup supply not at minimum flowing pressure. 2. Foreign debris in water and/or syrup flow control. 3. CO_2 regulator malfunction.	1. Check pressure and adjust. 2. Remove flow control from suspected valve and clean out any foreign material to ensure smooth spool movement. 3. Repair or replace CO_2 regulator.
Insufficient syrup flow.	1. Insufficient CO_2 pressure to BIB pumps. 2. Shutoff on mounting block not fully open. 3. Foreign debris in syrup flow control. 4. Defective BIB pump.	1. Adjust CO_2 pressure to BIB pumps to 80 psi (0.552 MPa) (min. 70 psi (0.483 MPa). Do not exceed manufacturer's recommendations. 2. Open shutoff fully. 3. Remove syrup flow control from valve and clean out any foreign material to ensure smooth spool movement. 4. Replace pump.
Valve will not shut off.	1. Debris in paddle arms. 2. Solenoid plunger sticking.	1. Activate valve a few times to free debris. Clean out any foreign material. 2. Replace solenoid coil.
Water continually leaking at connections.	1. Loose water connections. 2. Flare seal washer leaks.	1. Tighten water connections. 2. Replace flare seal washer.
Water only dispensed, no syrup. Or syrup only dispensed, no water.	1. Syrup BIB empty. 2. Water or syrup shutoff on mounting block not fully open. 3. Improper or inadequate water or syrup supply. 4. CO_2 pressure to syrup pump too low. 5. Stalled or inoperative BIB pump. 6. Kinked line. 7. CO_2 regulator malfunction.	1. Replace syrup BIB as required. 2. Open shutoff completely. 3. Remove valve from mounting block & open shut-offs slightly. Check water & syrup supply. If no supply, check unit for other problems. Ensure BIB connection is engaged. 4. Check the CO_2 pressure to the pump to ensure it is between 70-80 psi (0.483-0.552 MPa). 5. Check CO_2 pressure and/or replace pump. 6. Remove kink or replace line. 7. Repair or replace CO_2 regulator as required.
Syrup only dispensed. No water, but CO_2 gas dispensed with syrup.	1. Improper water flow to dispenser. 2. Carbonator pump motor has timed out. 3. Liquid level probe not connected properly to PCB. 4. Defective PCB assembly. 5. Defective liquid level probe. 6. Weak or defective carbonator pump.	1. Check for water flow to dispenser. 2. Reset by turning the unit OFF, then ON by using the circuit breaker on the power supply or momentarily unplugging unit. 3. Check connections of liquid level probe to PCB assembly. 4. Replace PCB assembly. 5. Replace liquid level probe. 6. Replace pump.

TROUBLE	CAUSE	REMEDY
Excessive foaming.	1. No ice in bin. 2. Incoming water or syrup temperature too high. 3. CO_2 pressure too high. 4. Water flow rate too high. 5. Nozzle and diffuser not clean. 6. Air in BIB lines.	1. Fill bin with ice and allow coldplate to re-stabilize. 2. Correct prior to dispenser. 3. Adjust CO_2 pressure downward, but not less than 70 psi (0.483 MPa). 4. Re-adjust and reset ratio. 5. Remove and clean. 6. Bleed air from BIB lines.
Low or no carbonation.	1. Low or no CO_2. 2. Low water pressure. 3. Worn or defective carbonator pump. 4. Backflow preventer not allowing water to flow. 5. Probe malfunctioning. 6. PCB malfunctioning.	1. Check CO_2 supply. Adjust CO_2 pressure to 70 psi (0.483 MPa). 2. Need water booster kit. 3. Replace carbonator pump. 4. Replace backflow preventer, noting the flow direction arrow from pump to coldplate. 5. Replace probe. 6. Replace PCB.

Ice Bin/Ice Chute/Carbonator Pump Troubleshooting

TROUBLE	CAUSE	REMEDY
Push ice chute; no response.	1. Dispenser not connected to power source. 2. Wiring harness not plugged in. 3. PC board defective. 4. Malfunctioning power supply.	1. Connect dispenser to power source. 2. Plug in wiring harness. 3. Replace PC board. 4. Check voltage to power supply. Check fuses.
Push chute, ice door opens but motor does not run.	1. Wiring harness not plugged in. 2. PC board defective. 3. Motor defective.	1. Plug in wiring harness. 2. Replace PC board. 3. Replace motor.
Push chute, motor runs but ice door does not open.	1. Solenoid not connected to PC board. 2. Solenoid defective. 3. PC board defective.	1. Connect solenoid to PC board. 2. Replace solenoid. 3. Replace PC board.
Push chute, ice door opens, motor runs, but ice does not dispense, or ice is of poor quality.	1. Dispenser is out of ice. 2. Agitator pin is missing or damaged. 3. Poor ice quality. 4. Key not installed on agitation shaft.	1. Fill dispenser with ice. 2. Replace agitator pin. 3. Service ice machine. 4. Install key on agitation shaft.
Noisy/cavitating carbonator pump.	1. Insufficient incoming water supply pressure.	1. Verify incoming supply water pressure to carbonator pump is min. of 75 psi (0.516 MPa), max. of 125 psi (0.862 MPa).

Remote Syrup Pump Troubleshooting

TROUBLE	CAUSE	REMEDY
BIB pump does not operate when dispensing valve is opened.	1. Out of CO_2, CO_2 not turned on, or low CO_2 pressure. 2. Out of syrup. 3. BIB connector not tight. 4. Kinks in syrup or gas lines.	1. Replace CO_2 supply, turn on CO_2 supply, or adjust CO_2 pressure to 70-80 psi (0.483-0.552 MPa). 2. Replace syrup supply. 3. Fasten connector tightly. 4. Straighten or replace lines.
BIB pump operating, but no flow.	1. Leak in syrup inlet or outlet line. 2. Defective BIB pump.	1. Replace line. 2. Replace BIB pump.
BIB pump continues to operate when bag is empty.	1. Leak in suction line. 2. Leaking o-ring on pump inlet fitting. 3. Defective syrup BIB pump.	1. Check BIB connector, if still leaking then replace line. 2. Replace o-ring 3. Replace defective pump.
BIB pump fails to restart after bag replacement.	1. BIB connector not on tightly. 2. BIB connector is stopped up. 3. Kinks in syrup line.	1. Tighten BIB connector. 2. Clean out or replace BIB connector. 3. Straighten or replace line.
BIB pump fails to stop when dispensing valve is closed.	1. Leak in discharge line or fittings. 2. Empty BIB. 3. Air leak on inlet line or bag connector.	1. Repair or replace discharge line. 2. Replace BIB. 3. Repair or replace.

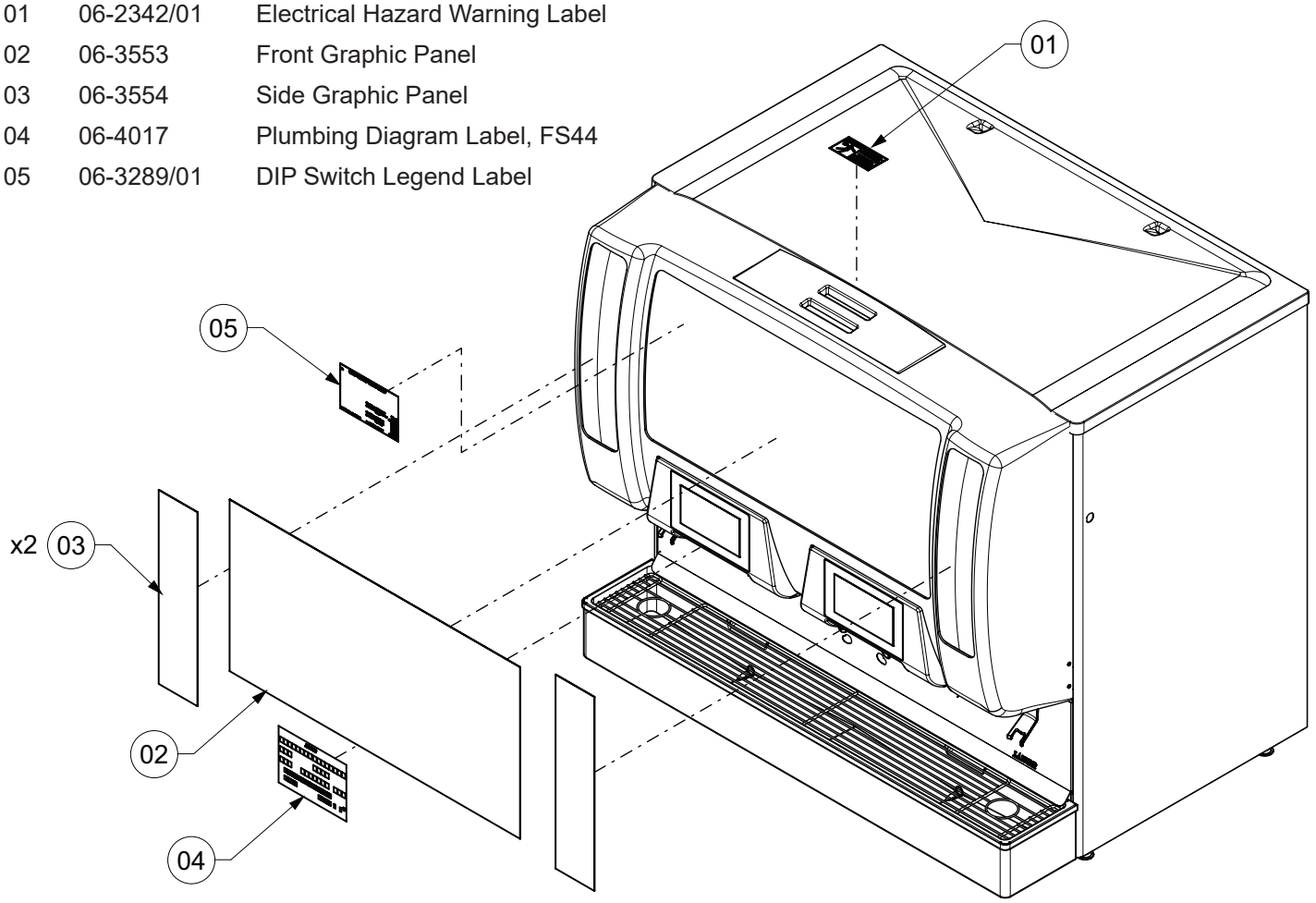
Dispenser Disposal

To prevent possible harm to the environment from improper disposal, recycle the unit by locating an authorized recycler or contact the retailer where the product was purchased. Comply with local regulations regarding disposal of the refrigerant and insulation.

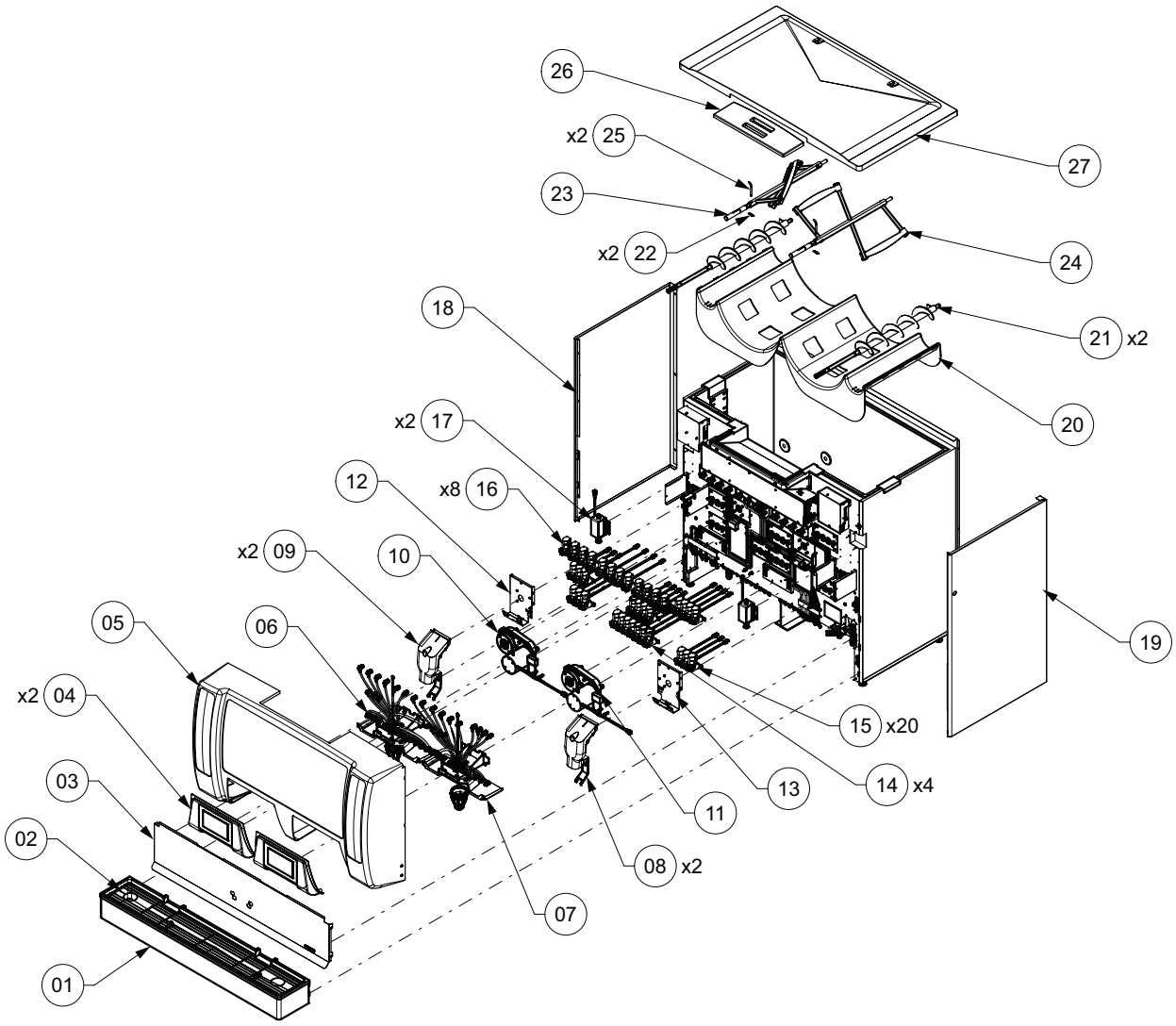
ILLUSTRATIONS AND PART LISTINGS

Graphics & Labels Assembly

Item	Part No.	Description
01	06-2342/01	Electrical Hazard Warning Label
02	06-3553	Front Graphic Panel
03	06-3554	Side Graphic Panel
04	06-4017	Plumbing Diagram Label, FS44
05	06-3289/01	DIP Switch Legend Label

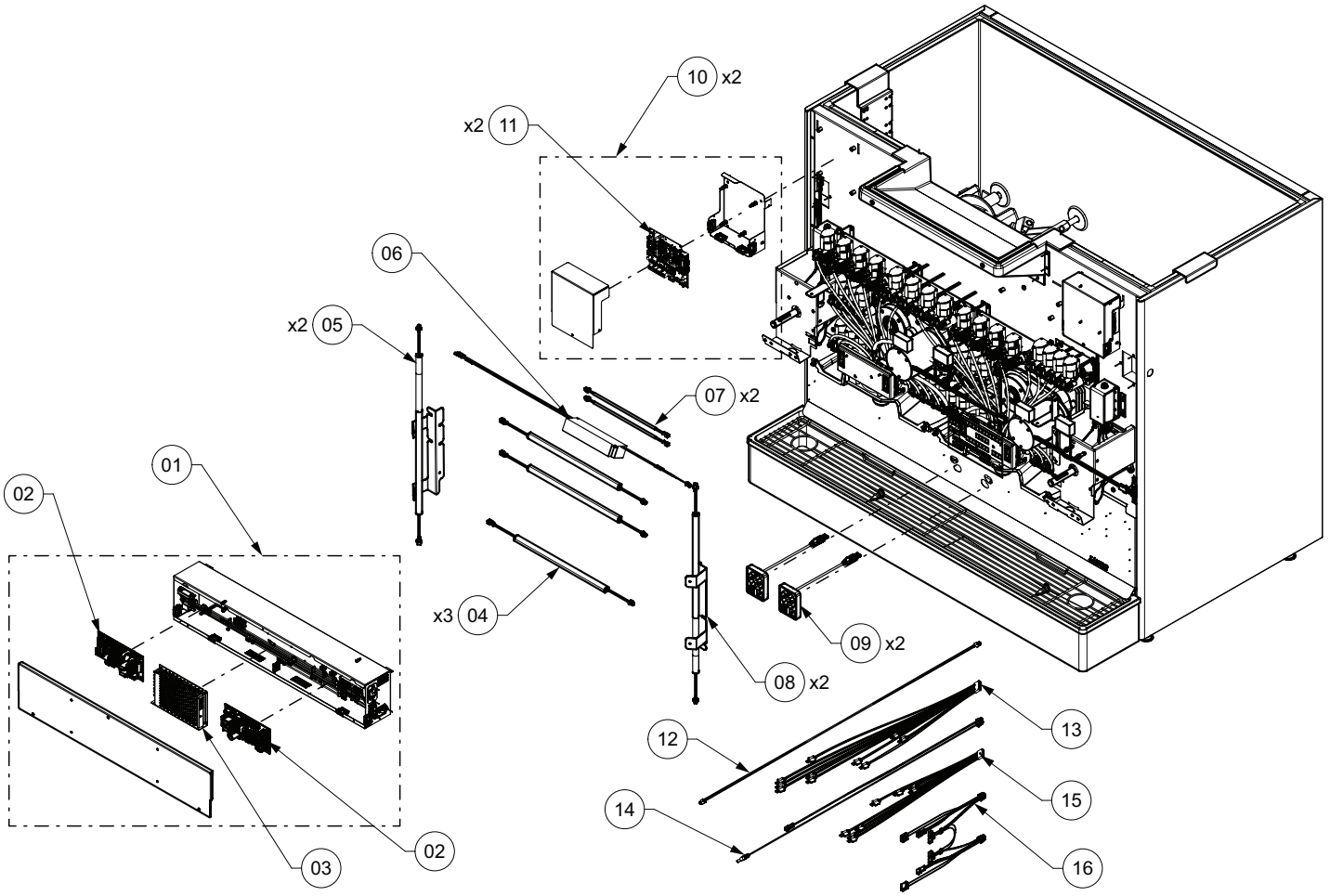


Main Unit Assembly



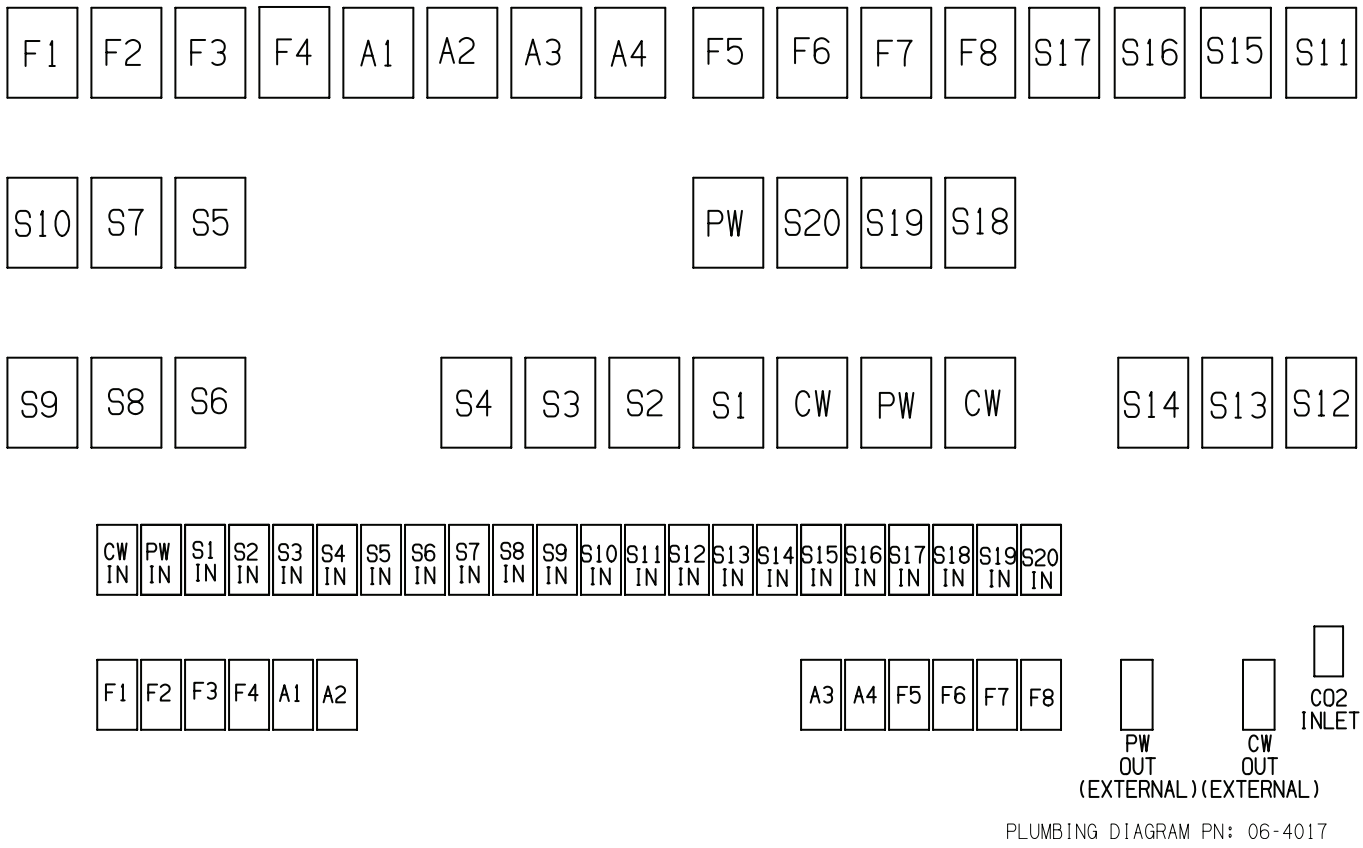
Item	Part No.	Description			
01	82-5207-SP	Drip Tray, IBD44	13	30-12954	Motor Mount Bracket, Right
02	23-1768/01	Cup Rest	14	82-3824	LFCV Valve Assembly, Soda
03	30-12681	Splash Plate, 44” Sensation	15	82-3823	LFCV Valve Assembly, Syrup
-	30-16110	Extended Splash Plate, FS44	16	82-3821	LFCV Valve Assembly, Syrup Inj.
04	82-6043	Bezel Display Assembly	17	82-4507	Solenoid Door Assembly
05	82-6050	Merchandiser Assembly, FS44	-	82-4415	Solenoid Door Assembly(32V DC)
06	82-6060	Nozzle Assembly, Left, FS44	18	30-12488/01	Left Side Wrapper
07	82-6084	Nozzle Assembly, Right, FS44	19	30-12487/01	Right Side Wrapper
08	05-0999/01	Ice Chute Lever	20	05-3468	Ice Shroud, 44” Sensation
09	82-4450	Ice Chute Shell	21	82-4315/01	Pellet Ice Auger
10	82-5128	Agitator Motor Assembly, CW	22	03-0368	Agitator Retainer Pin
-	91-0207	Agitator Motor Assembly,CW,230V	23	82-5063	Left Agitator Assembly
11	91-0197/01	Agitator Motor Assembly, CCW	24	82-5051	Right Agitator Assembly
-	91-0207-01	Agitator Motor Assembly,CCW,230V	25	10-0762	Hex Design Pin
12	30-13106	Motor Mount Bracket, Left	26	05-1476/01	Front Lid, IBD
			27	05-3582	Ice Bin Lid, 44” Sensation

Electrical Assembly



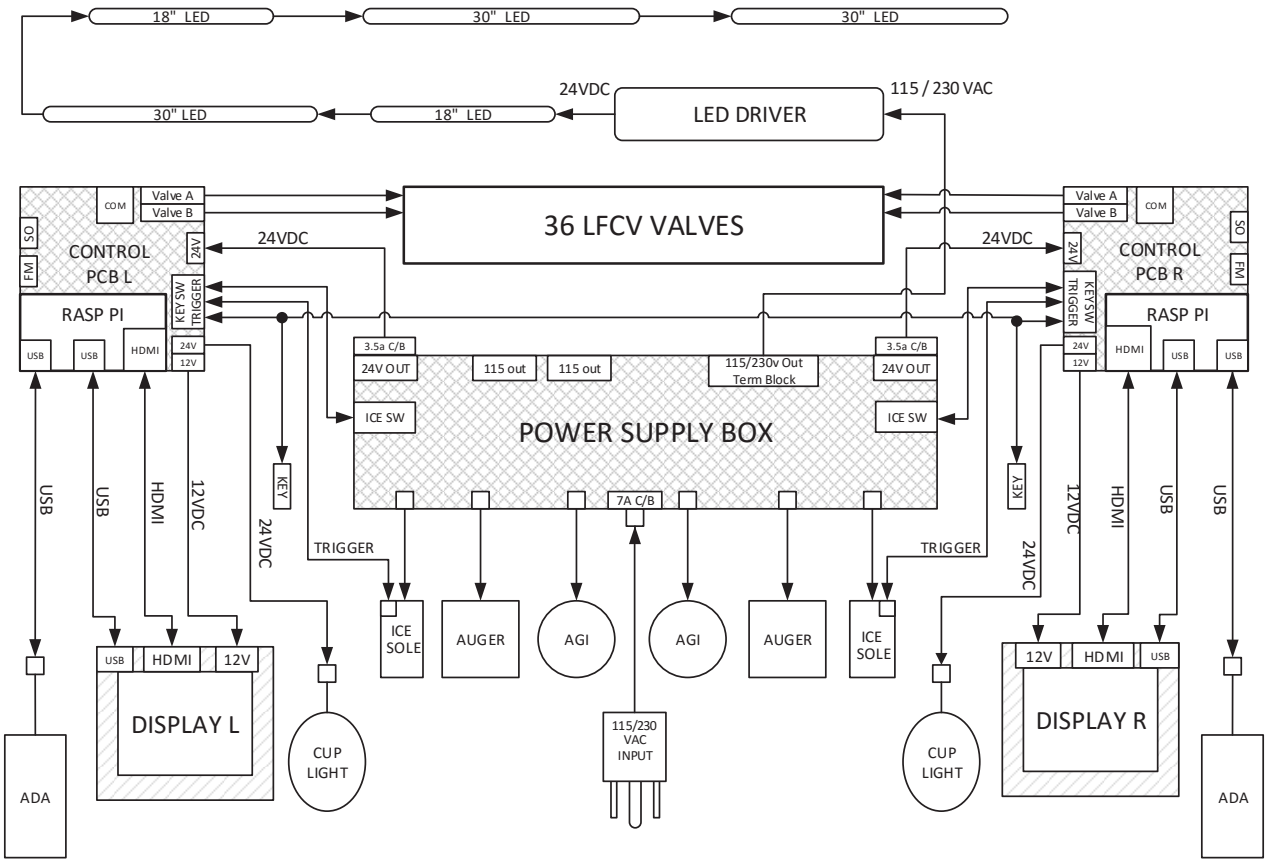
Item	Part No.	Description
01	82-6047	Main Control Box Assembly, FS44
02	64-5037/01	Ice Control Board, PCB Assembly
03	52-4038-28V	Power Supply,AC to DC,28V ADJ, 6.5A,LRS-150F
04	12-0643	LED Light Bar, 18 in, 9.5 W, 24 VDC
05	12-0646	LED Light Bar, 30 in, 9.5 W, 24 VDC
06	12-0652/02	LED Driver Ballast, 60 W
07	52-3793	Jumper Wire Harness, 18 Inch
08	30-12965	Light Side Brackets, 44” Sensation
09	52-4034	ADA Membrane Switch Assy, FS44
10	82-6048	Side Control Box Assembly, FS44
11	52-4029	PCB Controller Assembly, FS44
-	52-4039	FS Touch Memory Card
13	52-4015	Com Cable Harness, FS44
14	52-4018	Valve B Harness, FS44
15	52-4021	Nozzle LCD Harness, FS44
16	52-4017	Valve A Harness, FS44
17	52-4016	Ice Key Switch Harness, FS44

Unit Plumbing Diagram

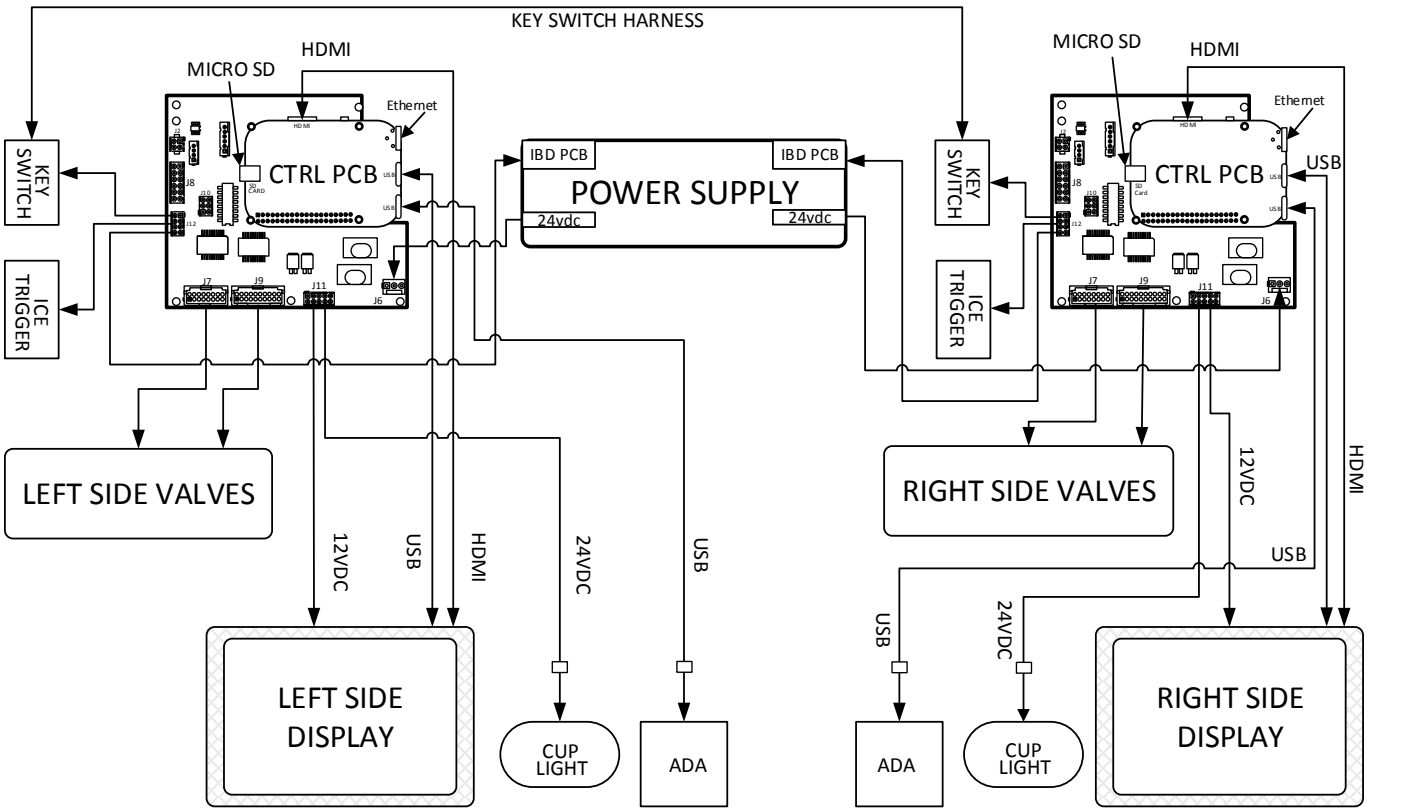


PLUMBING DIAGRAM PN: 06-4017

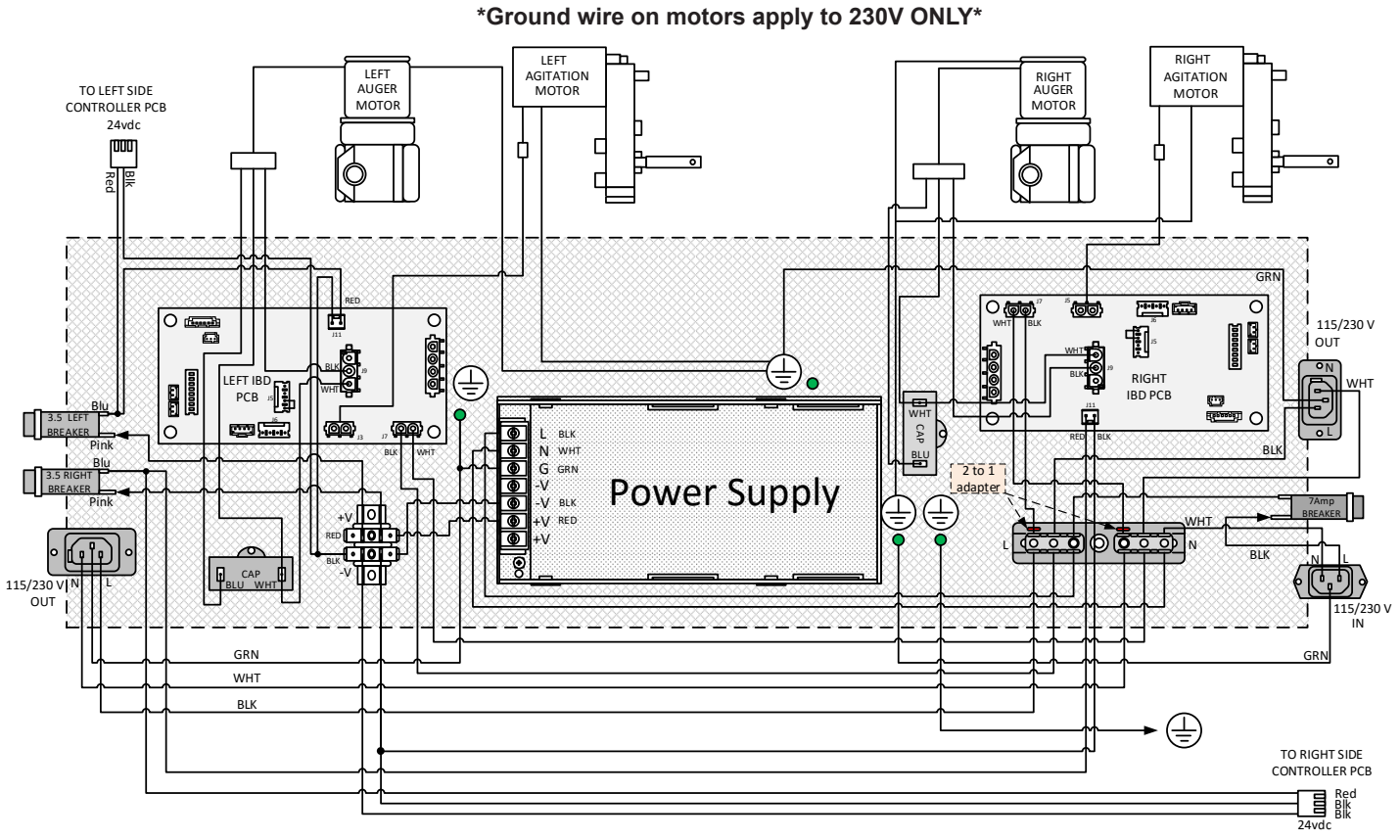
Unit Wiring Diagram - 115 / 230 Volt



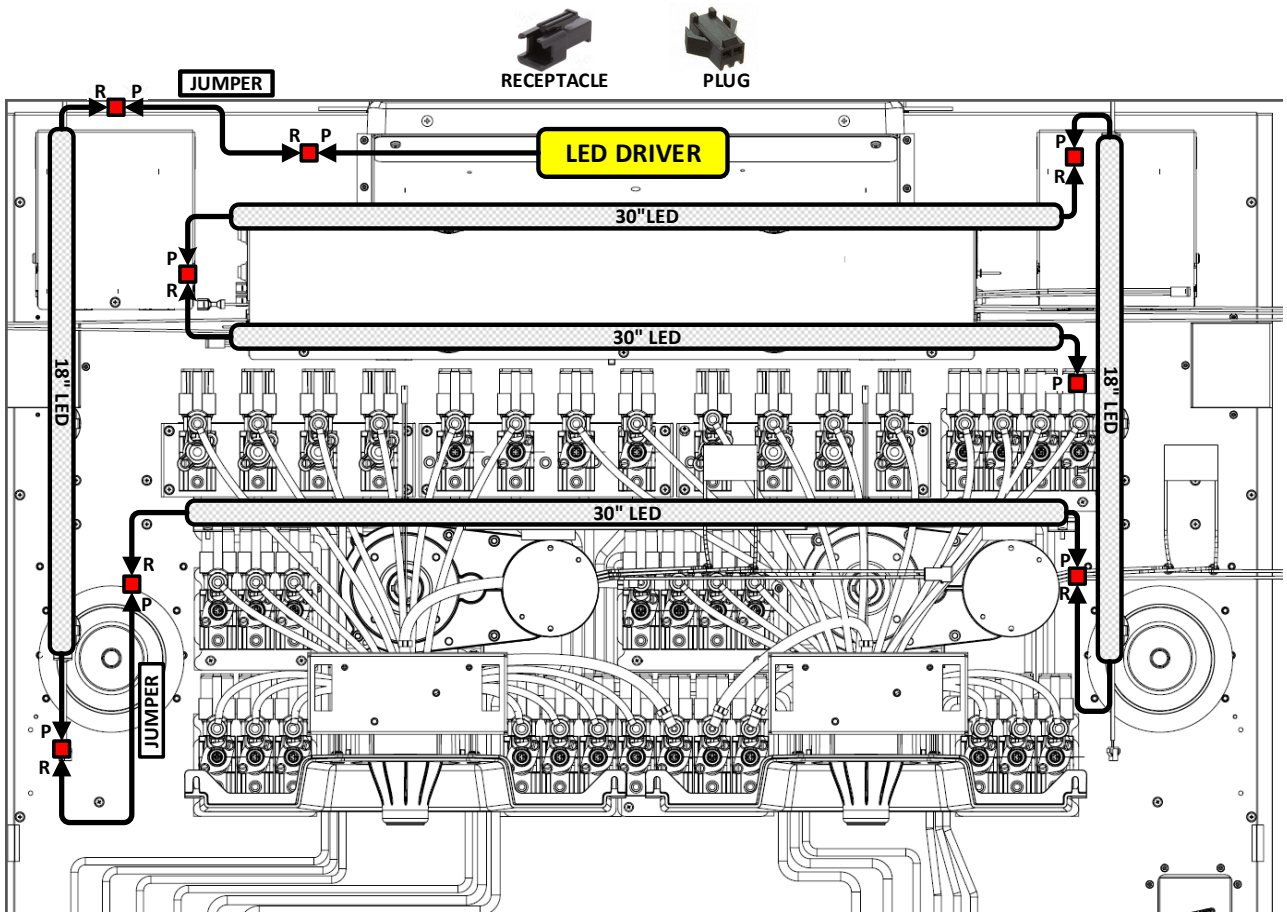
Control PCB Wiring Diagram - 115 / 230 Volt



Power Supply Wiring Diagram - 115 / 230 Volt



LED Lighting Configuration



DIP Switch Legend

SW1

SWITCH #		AUTO AGITATE OFF TIME
3	4	
*OFF	OFF	NO AUTO AGITATION
OFF	ON	20 MINUTES
ON	OFF	40 MINUTES
ON	ON	60 MINUTES

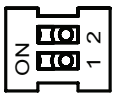
SWITCH #		AUGER RUN TIME
7	8	
OFF	OFF	6 SEC DISPENSED
OFF	ON	9 SEC DISPENSED
*ON	OFF	12 SEC DISPENSED
ON	ON	15 SEC DISPENSED

SWITCH #		AGITATOR ON TIME
5	6	
OFF	OFF	11 SECONDS
OFF	ON	9 SECONDS
*ON	OFF	7 SECONDS
ON	ON	5 SECONDS

SW2 SWITCH 1: MUST BE ON FOR MODEL 4900

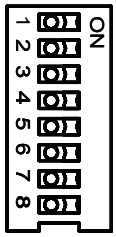
SW2 SWITCH 2: POSITION DOES NOT MATTER

SW2



SW1 SWITCH 1: NOT USED FOR MODEL 4900

SW1 SWITCH 2: NOT USED FOR MODEL 4900



SW1

LANCER PN: 06-3289/01

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LANCER®

Lancer Corp.
800-729-1500
Technical Support/Warranty: 800-729-1550
custserv@lancercorp.com
lancercorp.com