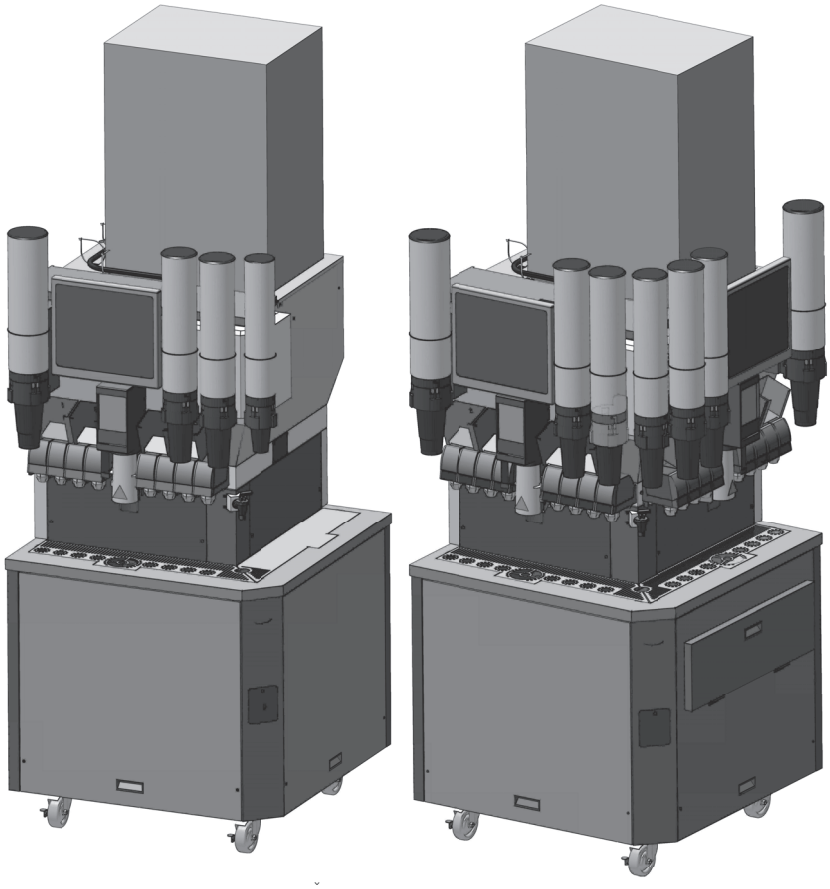
IDC175-HD TOWER DISPENSER

Operator's Manual



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Revision: A

The products, technical information, and instructions contained in this manual are subject to change without notice.

These instructions are not intended to cover all details or variations of the equipment, nor to provide for every possible contingency in the installation, operation or maintenance of this equipment. This manual assumes that the person(s) working on the equipment have been trained and are skilled in working with electrical, plumbing, pneumatic, and mechanical equipment. It is assumed that appropriate safety precautions are taken and that all local safety and construction requirements are being met, in addition to the information contained in this manual.

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

Cornelius will not be responsible for any repair, replacement or other service required by or loss or damage resulting from any of the following occurrences, including but not limited to, (1) other than normal and proper use and normal service conditions with respect to the Product, (2) improper voltage, (3) inadequate wiring, (4) abuse, (5) accident, (6) alteration, (7) misuse, (8) neglect, (9) unauthorized repair or the failure to utilize suitably qualified and trained persons to perform service and/or repair of the Product, (10) improper cleaning, (11) failure to follow installation, operating, cleaning or maintenance instructions, (12) use of "non-authorized" parts (i.e., parts that are not 100% compatible with the Product) which use voids the entire warranty, (13) Product parts in contact with water or the product dispensed which are adversely impacted by changes in liquid scale or chemical composition.

Contact Information:

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

www.cornelius.com

800-238-3600

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This document contains the original instructions for the unit described.

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SAFETY INSTRUCTIONS

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

Safety Overview

- Read and follow **ALL SAFETY INSTRUCTIONS** in this manual and any warning/caution labels on the unit (decals, labels or laminated cards).
- Read and understand ALL applicable OSHA (Occupational Safety and Health Administration) safety regulations before operating this unit.

Recognition

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

DIFFERENT TYPES OF ALERTS

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

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

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

SAFETY TIPS

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

QUALIFIED SERVICE PERSONNEL

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

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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 (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.**

Power Cord

CAUTION:
If the power cord is damaged, it must be replaced with special cord available from the manufacturer or its service agent.

Sound Level

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

GENERAL INFORMATION

The IDC175 -HD tower is a high capacity ice drink dispenser which comes with 1 or 2 dispensing sides. One side is for store and other side is for drive-thru, for the 2 sided dispenser. The dispenser is equipped with 8 SFV1/LVV portion control valves and a Progate ice chute on each side. The machine has built-in cup dispensers and lid holders for easy use.

Variant	1 Sided Unit	2 Sided Unit
Specification		
Unit Weight (Dry)	~476 lbs	~574 lbs
Ice Storage	155 lbs	155 lbs
Maximum Number of Faucets	9, (8 Valves + 1 Water Faucet)	17, (16 Valves + 1 Water Faucet)
Product Cooling	Ice Slurry Bath	Ice Slurry Bath
Electrical	**Connections:** 6 ft (1.83 m) long power cord with 3-prong plug attached to dispenser.	**Connections:** 6 ft (1.83 m) long power cord with 3-prong plug attached to dispenser.
	Power requirement: 220/230VAC, 50/60Hz 16 Amps of total unit draw.	**Power requirement:** 220/230VAC, 50/60Hz 16 Amps of total unit draw.
Unit Positioning	Unit must be placed in a vertical position on a level surface.	Unit must be placed in a vertical position on a level surface.
Dimensions	97.5" x 38.4" X 38.8.	97.5" x 38.4 X 39.1"
CO_2/air Inlet Pressure	75-psig (517.1 kPa), min	75-psig (517.1 kPa), min
Water Inlet pressure.	100 psi (689.5 kPa) max static pressure 40 psi (275.8 kPa) min dynamic pressure 3/8" ID (9.5 mm) hose for water line is recommended.	100 psi (689.5 kPa) max static pressure 40 psi (275.8 kPa) min dynamic pressure 3/8" ID (9.5 mm) hose for water line is recommended.
Features		
4 programmable ice dispense sizes.	Yes	Yes
Automatic/manual ice dispense modes.	Yes	Yes
Integrated lid storage.	No	Yes
4 adjustable casters.	Yes	Yes
Semi-automatic hopper cleaning.	Yes	Yes
Ice Dispensing	1 portion control ice dispensing chute.	2 portion control ice dispensing chutes (one on each side)
Dispensing Valves	8 Cornelius SFV1/LVV portion control beverage valves and one water faucet.	16 Cornelius SFV1/LVV portion control beverage valves (8 on each side) and one water faucet.
Accessories		
Cup Dispensers	4	7
Lid Holders	4 separate removable lid holders. 3 lid holders are for small or medium lids and 1 lid holder is for large lids.	8 separate removable lid holders. 6 lid holders are for small or medium lids and 2 lid holders is for large lids.

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START-UP AND OPERATING INSTRUCTIONS

The IDC175-HD Tower ice drink dispenser shall be installed by qualified personnel following instruction given in the Installation manual part number 621058513INS. Start up the dispenser and adjust valve to the proper BRIX. Contact valve manufacturer to know the procedure of adjusting BRIX.

The ice drink dispenser is designed to operate in ambient temperatures ranging from 65 to 95° F (18 to 35°C). Do not allow the unit to be stored or operated in conditions below 32° F (0° C). This could cause damage to the unit.

⚠ CAUTION:
Dispenser cannot be used with crushed or flaked ice. Use of bagged ice which has frozen into large chunks can void warranty. The dispenser 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 at room temperature before loading into the dispenser hopper

In normal operation, pushing the ice dispenser mechanism will cause ice to flow from the ice chute. Ice flow will continue until the dispenser mechanism is released. Dispensing of any faucet will provide beverage of the appropriate flavor.

⚠ WARNING:
Avoid spilling of ice when manually filling hopper. Clean up immediately any spilled ice. To prevent contamination of ice, the lid must be closed on the unit at all times. **Failure to clean up spills could result in serious injury or death**

NOTE: The dispenser is not designed for a wash-down environment and MUST NOT be placed in an area where a water jet could be used.

NOTE: 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 the use of the appliance by a person responsible for safety.

PORTION CONTROL FUNCTIONS

The portion control on the IDC175-HD Tower Dispenser has several functions including dispensing four programmed ice portions for four cup sizes, programming, and a manual dispense mode.

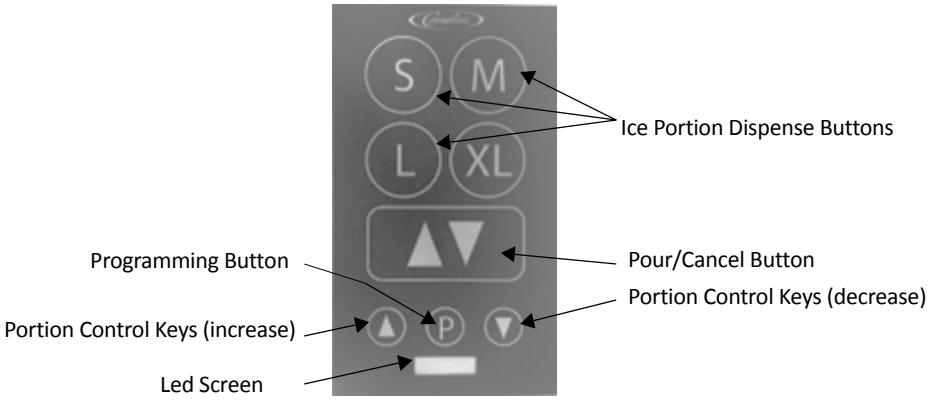

Figure 1.

1. **Ice Portion Dispense Buttons:** These are four buttons (S, M, L, XL) used to dispense the appropriate ice portion. These can also be used in conjunction with the program button to program a portion size.
2. **Pour/Cancel Button:** If ice is being dispensed via portion control, pressing this button will cancel the action and immediately close the gate. If no ice is being dispensed, pressing this button will open the chute and continue dispensing until the button is released.

3. **Program Button:** The programming button is used with a ice portion dispense enabling the user to enter the portion programming mode to adjust the ice portions.
4. **Portion Control Up/Down Buttons:** These buttons are only active in the program mode to change the ice dispense program size and during the semi-automatic hopper cleaning process.
5. **Led Screen:** The program bar is only active in the program mode as a visual aid in setting the portion size and during the semi-automatic hopper cleaning process.

Programming (Changing) the Ice Portion

To change the size for the four ice dispense sizes, follow the steps below.

1. To enter the program mode, press the **program button** (P) and any of the **desired ice portion dispense** buttons (Figure 1) at the same time and hold for 5 seconds. The Ice Portion Bar will come on □□□□□□□□□□ .
2. Press the **up arrow button** (△) to increase the amount of dispensed ice. The LED will move towards the right, indicating the Ice Portion has been increased. Press the **down arrow button** (▽) to decrease the amount of dispensed ice. The LED will move towards the left indicating the Ice Portion has been decreased.
3. To exit the program mode, press any of the **desired ice portion dispense** buttons (Figure 1) or wait 10 seconds and the control will return to the dispense mode.

Place a cup under the ice chute and press any of the **desired ice portion dispense** buttons (Figure 1). If the ice dispense amount is not the desired amount, repeat the process.

Table 1.Recommended weight of ice for each ice portion button

Cup Size	Ice Weight in gms.
S	250
M	300
L	450
XL	-

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CLEANING AND MAINTENANCE INSTRUCTIONS

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

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

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

- **Soap solution** – Preferably Diversey HA or Kay Solid Sense APSC mixed as directed on the package. Refer to local regulations to make sure the chemicals used are approved in your region.
- **Sanitizing Solution** – 382 ppm quaternary (minimum) sanitizer mixed as directed on the package. Refer to local regulations to make sure the chemicals used are approved in your region.

NOTE: None of the cleaning and maintenance procedures require any special access. They are all accessible to the operator. There is a key lock to shut off power to the valves, but access to this is not required for cleaning or maintenance.

DAILY MAINTENANCE:

1. Check the temperature, smell, and taste of the product.
2. Check the water pressure coming to the unit using a pressure gauge on the back room package, it should be same as mentioned on page 3.
3. Check carbonation of the drink visually or by tasting.
4. Using a pressure gauge check the inlet pressure CO_2 or air supply to the system, it should be same as mentioned on page 3.
5. Check the date on all of the BIB's (bags in boxes).

DAILY CLEANING:

1. Remove the cup rest from the unit and clean it with warm soapy water. Rinse it with clean water, and allow it to air dry.
2. Wipe down the exterior of the unit with warm soapy water, rinse with clean water, and allow to air dry.
3. Pour warm soapy water down to the drains to keep them clean and flowing freely.
4. Reinstall the cup rest into the drip tray.
5. Pour all remaining sanitizer solution down the drain to help keep the drain clear.
6. Follow the instructions on lid dispenser cleaning on page 7.
7. Follow the instructions on ice chute cover cleaning on page 7.
6. Follow the instructions on lid storage cleaning on page 8.

Dispensing Valves Cleaning: (Daily Cleaning and Monthly Cleaning)

Refer to the manufacturer's instructions for the valves installed on the unit.

Lid Dispenser Cleaning (Daily Cleaning)

The lid holders are manufactured out of materials that can survive cleaning solutions. Remove the lid holders from the unit and clean with warm soapy water. Rinse it with clean water, and allow it to dry in air. Ensure that the parts are thoroughly dried before refilling with the lids.

NOTE: Lid holders should not be soaked in the dish washer as this will result in the parts getting scratched. Instead the dispenser parts should be rinsed in warm soapy water, then allow to dry.

Removing the lid holders

1. Empty all the cups from cup holders.
2. Empty all lids from lid holders.
3. Grab the lid holders, lift it up and gently pull away from the merchandiser.

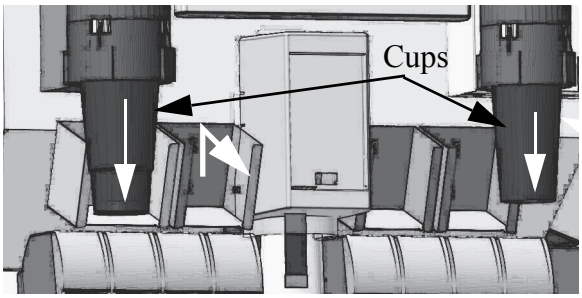

Figure 2

Ice Chute Cover Cleaning (Daily cleaning)

The ice chute needs to be cleaned daily to remove mold/mildew buildup.

NOTE: The Ice Chute has a built in safety feature. When the Ice Chute cover is removed, the unit is disabled. If the Ice Chute cover is not properly installed, Then the Keypad Bezel will not function.

Removing and reinstalling the ice chute cover:

1. Hold ice chute cover and push up until you hear a click; this will disengage the side latches.

Figure 3.

2. Remove the ice chute cover from the unit.
3. Properly clean the ice chute area with a cloth soaked in the sanitizer solution. Wipe it down with a wet cloth.

   IMPORTANT: Do not put the ice chute into a dish washer.

Figure 4.

4. Spray sanitizer on the cover and on the back of the chute. Wipe the cover with a soft cloth. Let it air dry for 5 minutes.
5. Carefully insert ice chute cover and slide down to fully engage or hook to the upper latch.

   NOTE: Check Led screen (Refer Figure 1.). All the 10 LEDs start flashing when the Ice chute cover is not properly installed. Remove and re-insert again until the LEDs stop flashing.
6. Align latches, push side tabs down to lock in place.

Figure 5.

Lid Storage Cleaning (daily cleaning)

The lid storage are manufactured out of materials that can survive cleaning solutions.

1. Open the lid holders door (See Figure 6.) and clean with warm soapy water.
2. Rinse it with clean water, and allow it to dry in air.
3. Ensure that the parts are thoroughly dried before refilling with the lids.

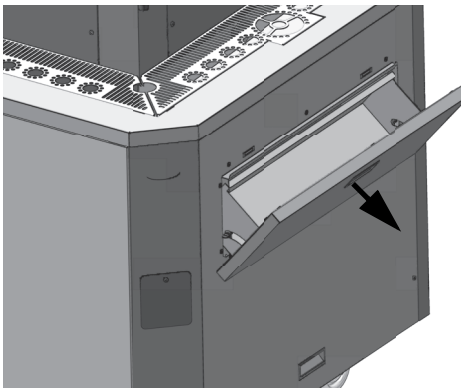

Figure 6

MONTHLY CLEANING: (IN ADDITION TO DAILY CLEANING PROCEDURES)

Product Tubing cleaning:

IMPORTANT: Only trained and qualified persons should perform these cleaning and sanitizing procedures.

Sanitize syrup lines, BIB Systems

1. Remove all of the quick disconnects from all of the BIB containers.
2. Fill a suitable pail or bucket with soap solution.
3. Submerge all of the disconnects (gas and liquid) in the soap solution, then clean them using a Nylon bristle brush **(Do not use a wire brush)**. Rinse with clean water.
4. Using a plastic pail, prepare approximately five (5) gallons of sanitizing solution.
5. Rinse the BIB disconnects in the sanitizing solution.
6. Sanitizing fittings must be attached to each BIB disconnect. If these fittings are not available, the fittings from empty BIB bags can be cut from the bags and used. These fittings open the disconnect so that the sanitizing solution can be drawn through the disconnect.
7. Place all of the BIB disconnects into the pail of sanitizing solution. Operate each of the valves, not more than 3 at a time, until the sanitizing solution is flowing from the valve. Allow sanitizer to remain in the lines for fifteen (15) minutes.
8. Repeat the procedure with portable water to rinse the lines off from sanitizer solution.

9. Remove the nozzle and the syrup diffuser from each valve and clean them with a soap solution. Rinse with clean water and reassemble the nozzle and the syrup diffuser to the valve. (Refer valve manufacture's manual for removal additional cleaning of valves).
10. Remove the sanitizing fittings from the BIB disconnects and connect them to the appropriate BIB container. Operate the valves until all of the sanitizing solution has been flushed from the system and the syrup is flowing freely.

YEARLY MAINTENANCE:

1. Have the water pump check valve inspected and cleaned by a qualified service technician.
2. Have the $CO_{2/Air}$ check valve inspected and cleaned by a qualified service technician.
3. Have the recirculation pump filter inspected and cleaned by a qualified service technician.

   NOTE: Drain water bath before inspecting recirculation pump filter.

ICE HOPPER CLEANING:

Always wash and dry your hands prior to starting the cleaning processes. Keep all supplies clean. Store in a clean and dedicated area. Wash and sanitize all cleaning supplies prior to use. Do NOT use any of the cleaning supplies for any other purposes than HD Tower cleaning.

NOTE: Power ON the unit if its in OFF condition (Dry hands).

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

- **Cleaning solution** – Preferably Diversey HA or Kay Solid Sense APSC mixed as directed on the package. Refer to local regulations to make sure the chemicals used are approved in your region.
- **Sanitizing Solution** – 382 ppm quaternary (minimum) sanitizer mixed as directed on the package. Refer to local regulations to make sure the chemicals used are approved in your region.

NOTE: None of the cleaning and maintenance procedures require any special access. They are all accessible to the operator.

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1. Preparation

Turn OFF the ice maker.

Fill Bucket # 1 (Soap Solution) up to 5 gallons (18.9lts).

Fill Bucket # 2 (Rinse Water) up to 5 gallons (18.9lts).

Fill Bucket # 3 (Sanitizer Solution) up to 5 gallons (18.9lts).

Place the ice collection trays on both sides of the ice dispensing chutes.

Locate clean hose assembly.

CAUTION:
Close the ice bin access door before starting CIP.

Figure 7.

Figure 8.

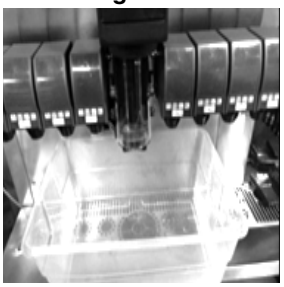

Figure 9.

2. Initiating Hopper Cleaning

Locate the keypad user interface board on the Left side of the unit.

Flip the access door down to locate programming button (refer Figure 10).

Press and hold the programming button then press and hold the pour/ cancel button. Keep pressing both for 5 seconds to start the cleaning process (Refer Figure 11).

All of the LED lights will light for 1 second. Then, the first light to the left (L1) will flash.

NOTE: A 30 second timer will start. If no buttons are pressed, the user interface will automatically cancel the cleaning process and it will return to normal operation mode.

Figure 10.

Figure 11.

3. Empty the Ice Hopper

Ensure that the ice collection trays are under both of the ice dispense chutes.

Press the pour/cancel button to start the ice dispense (See Figure 12.). L1 LED will become illuminated (See Figure 13).

Press the pour/cancel button to pause or restart the ice dispensing as the ice collection trays are filled.

Press the up arrow in the programming area when the hopper is empty.

Figure 12.

Figure 13.

4. Hopper Cleaning Cycle

L2 LED will start flashing, signaling that it is ready to proceed to the next step.

Remove the collection trays.

Place the funnel under both of the ice dispensing chutes.

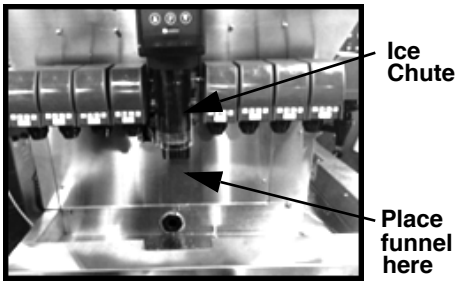

Figure 14.

Locate the CIP access door, rotate the cover to open.

Pull the hose outside and insert the strainer end into the bucket #1with soap solution.

Press and hold pour/cancel button for 5 seconds to begin this step (Cleaning solution will begin to flow through the ice chutes). L2 will become illuminated (See Figure 18).

IMPORTANT: Before starting, make sure the hose is placed all the way to the bottom of the bucket which contains cleaning solution.

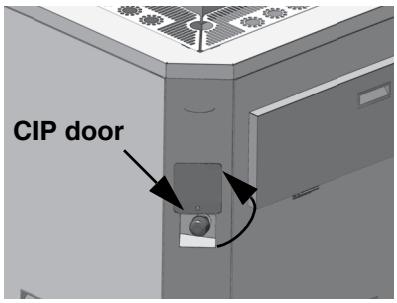

Figure 15.

Figure 16.

Figure 17.

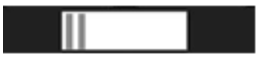

Figure 18.

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5. Rinse Cycle

L3 LED will be flashing, signaling that it is ready to proceed to the next step.

Change the hose to Bucket #2 with Rinse Water.

Press and hold the pour/cancel for 5 seconds to begin. L3 will be illuminated (see Figure 21).

IMPORTANT: Before starting, make sure the hose is placed all the way to the bottom of the bucket which contains water.

Figure 19.

Figure 20.

Figure 21.

6. Sanitizing Cycle

L4 LED will be flashing, signaling that it is ready to proceed to the next step.

Change the hose to Bucket # 3 with Sanitizer Solution.

Press and hold the pour/cancel button for 5 seconds to begin, L4 will be illuminated (see Figure 24).

IMPORTANT: Before starting, make sure the hose is placed all the way to the bottom of the bucket which contains sanitizing solution.

Figure 22.

Figure 23.

Figure 24.

7. Rinse Cycle

L5 LED will be flashing, signaling that it is ready to proceed to the next step.

Refill Bucket #2 with Rinse Water.

Change the hose to Bucket # 2 with rinse water.

Press and hold the pour/cancel button for 5 seconds to begin. L5 will be illuminated (see Figure 27).

IMPORTANT: Before starting, make sure the hose is placed all the way to the bottom of the bucket which contains water.

Figure 25.

Figure 26.

Figure 27.

8. End Cycle

After the rinse cycle (Step #6) is complete, all lights will flash several times.

Press pour/cancel and programming buttons for 5 seconds to exit to normal operations mode.

Push the clear hose into the CIP door till the strainer is inside the box.

Close the flip door.

Put the cup rest back in place.

Wipe down the area with a sanitized cloth.

Figure 28.

9. Clean Ice Chute

Refer Refer Ice Chute Cover Cleaning (Daily cleaning) on page 7

The unit is now ready for operation.

LOADING OF CUPS

1. Guide one complete sleeve of cup into the bottom opening of cup holder.

   NOTE: Make sure there is no cups inside cup holder.

2. Slightly push the cups inside the cup holder, keeping the stack vertically down, from the bottom opening (See Figure 29).

CAUTION:
Do not try to push hard the cups if they are not loading, there is a possibility of cups are restricted between fingers.

3. Gradually remove the support till the cups rests on the fingers.

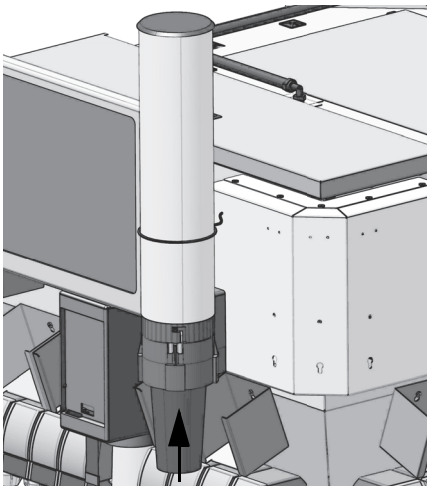

Figure 29.

PLUMBING SCHEMATIC - 2 SIDED

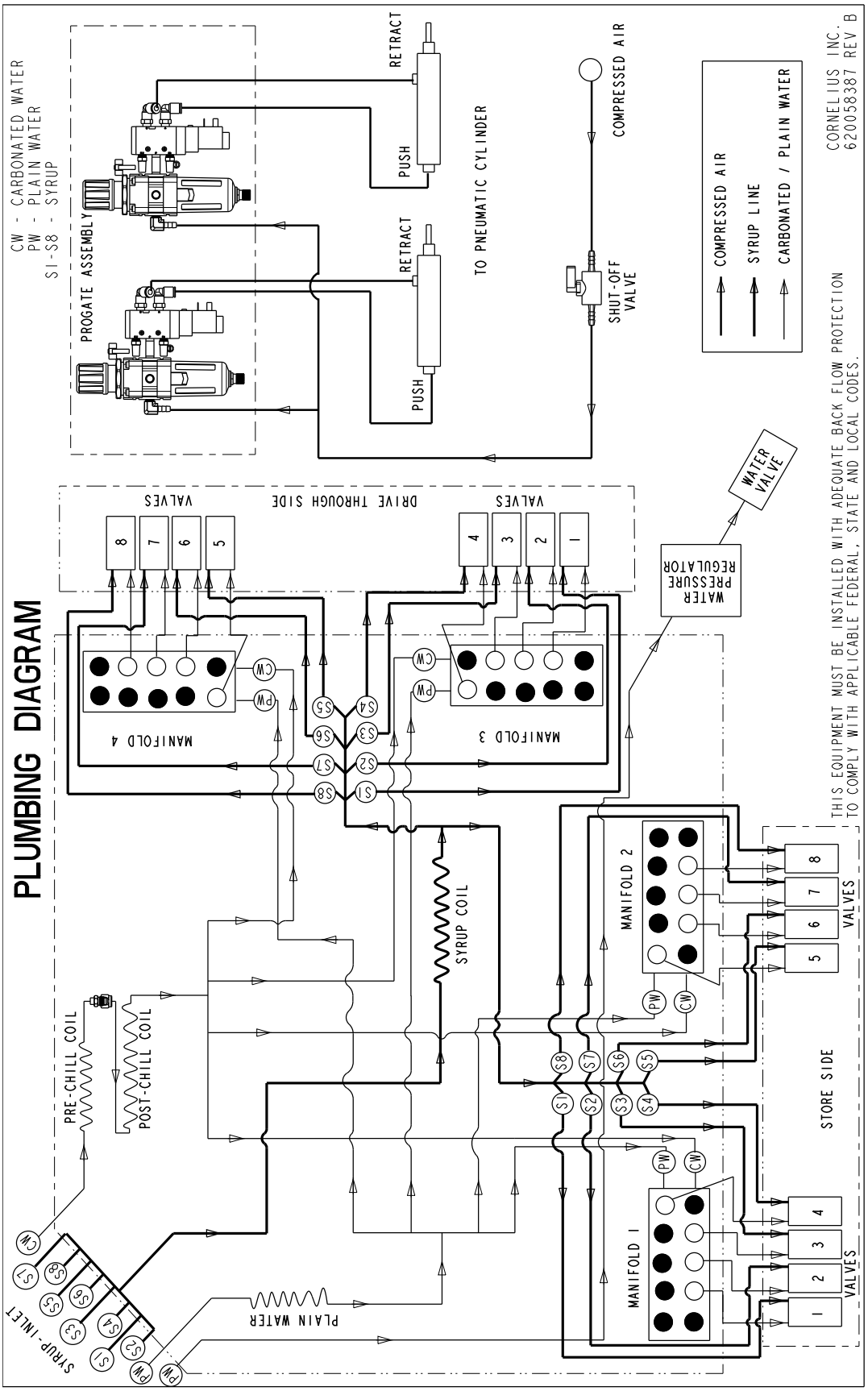

Figure 30.

PLUMBING SCHEMATIC - 1 SIDED

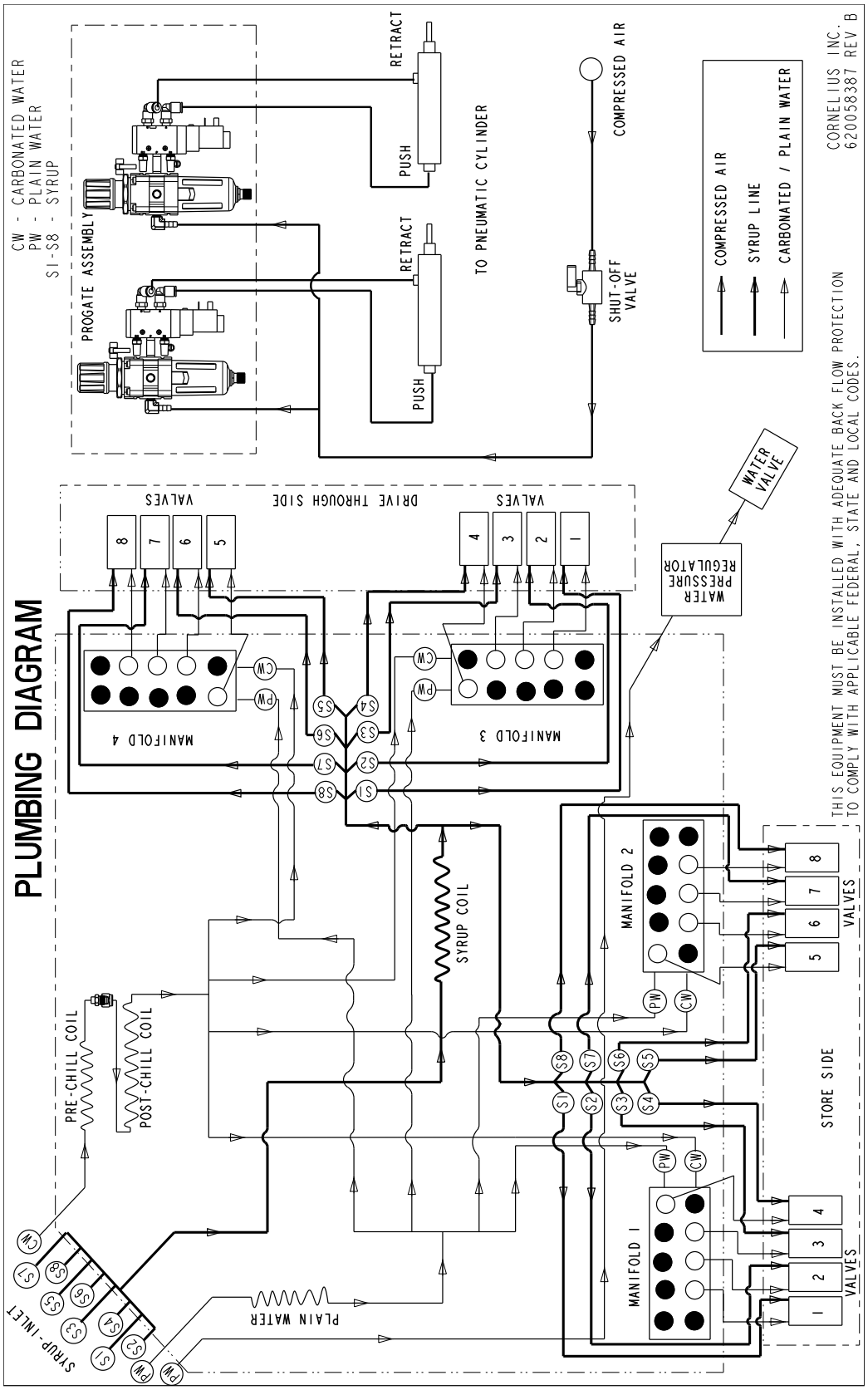

Figure 31.

ELECTRICAL SCHEMATIC - 2 SIDED

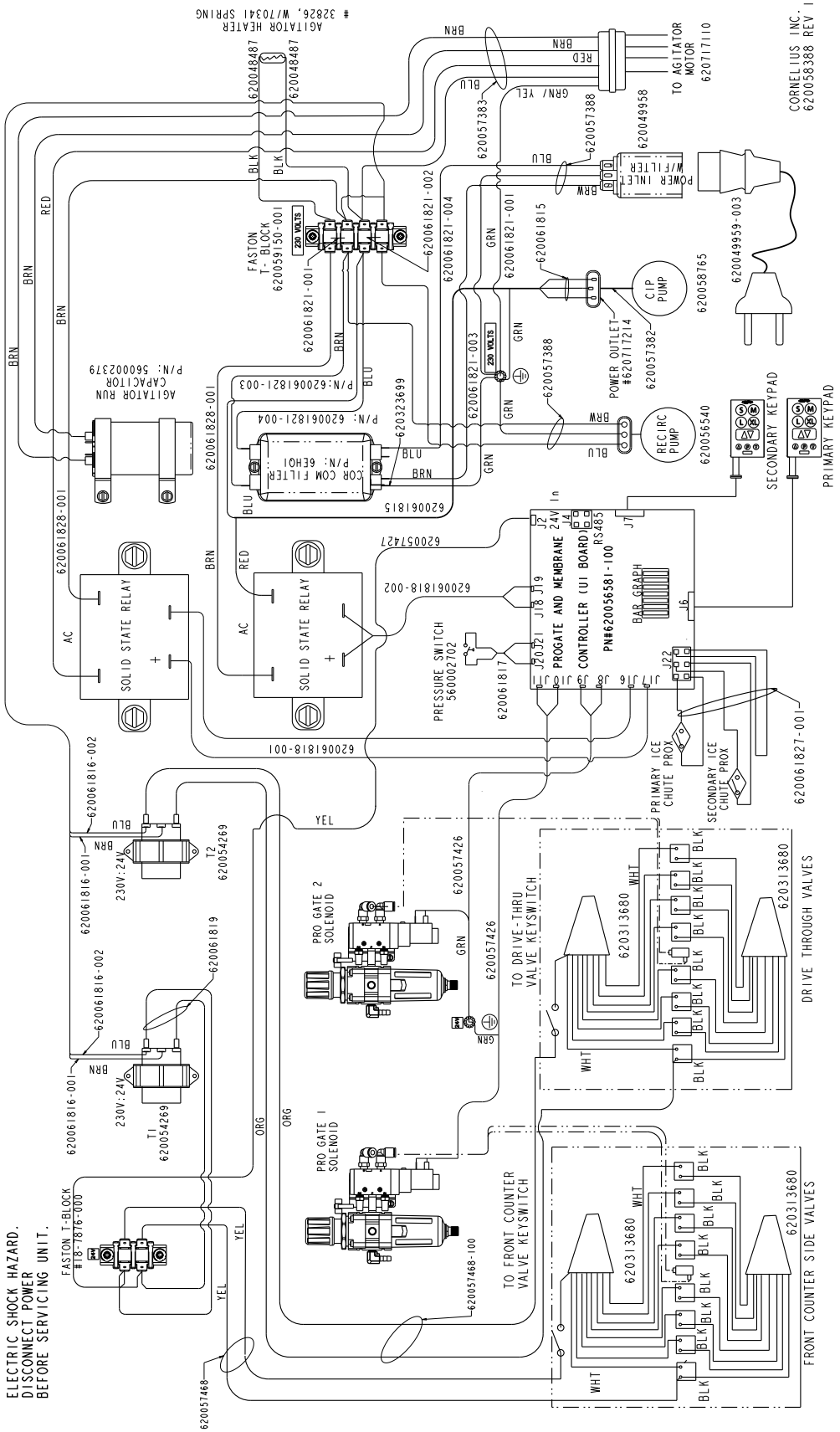

Figure 32.

ELECTRICAL SCHEMATIC - 1 SIDED

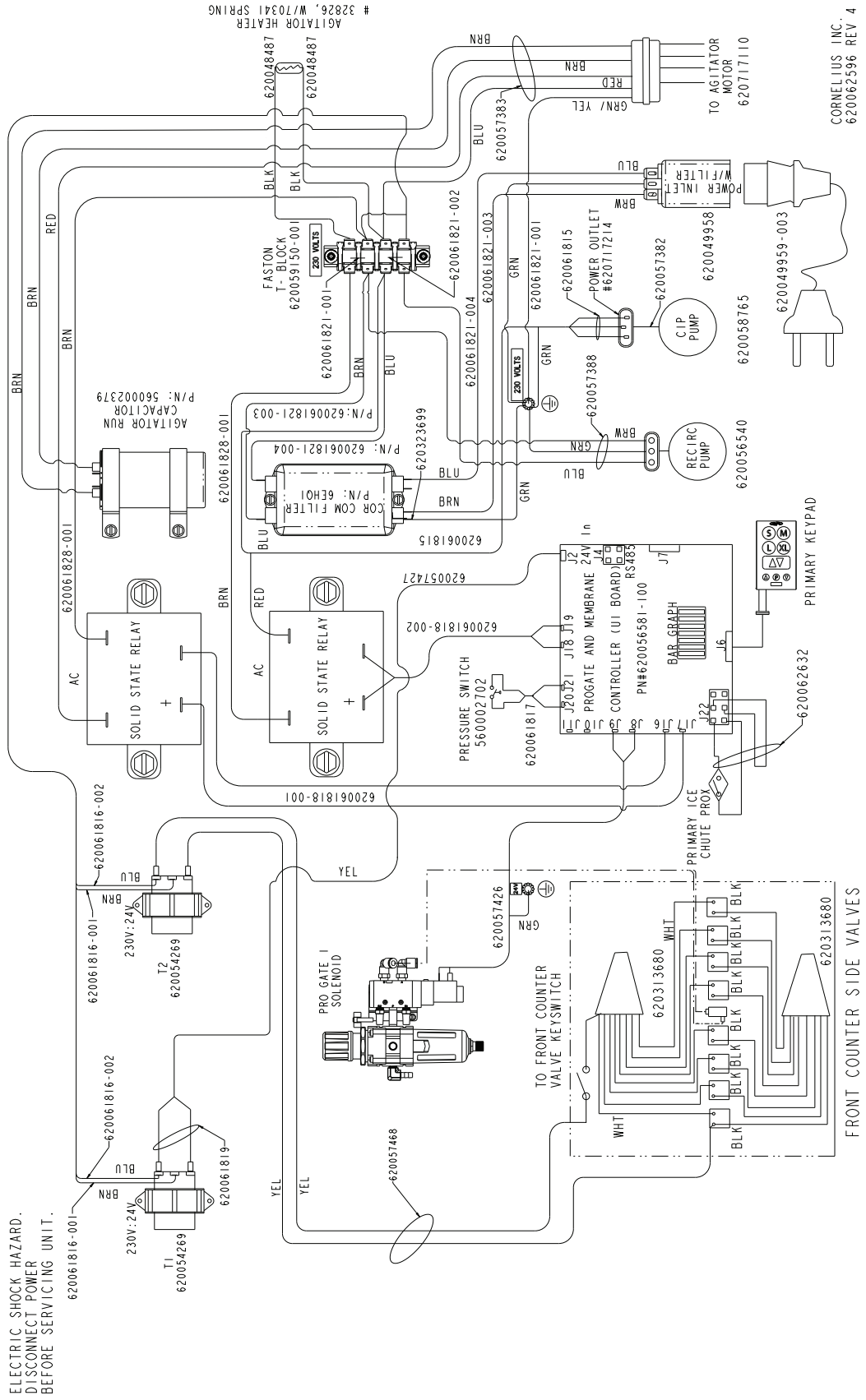

Figure 33.

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.

Failure to keep this area clean may result in injury or equipment damage.

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 identifying the defect.

Table 2. Dispenser Troubleshooting

Symptom	Cause	Remedy
No ice dispensing from both of the ice chutes.	No AC power to the unit.	**Install Power Cord** A. Connect AC power cord to the unit back-panel socket and to the wall outlet. B. Turn on unit Power switch.
	No air/CO_2 is being supplied to the unit.	**Correct Low Gas Pressure** A. Measure the inlet air/ CO_2 pressure at the inlet port of unit. It must be 75 psig. If not, check supply source status and the regulator setting. B. If gas pressure is low, check the regulator setting, then check for any loose connection fittings or for damage to the gas supply hose. Repair as required.
		Confirm Gas Source Output A. Verify that the air compressor is turned ON and operating properly. Or confirm that the CO_2 supply system or cylinder (in the back room package) is capable of the proper supply pressure. Correct any faults that are discovered.

Symptom	Cause	Remedy
No ice dispensing from both of the ice chutes. (conti..)	There is no ice in the hopper (*As an indicator for this, check for the ice level inside the ice chute, it will be low.)*	**Refill the Ice Hopper** A. Check the ice maker for proper operation and repair it as needed. B. If an ice maker isn't used, manually fill the ice hopper.
	No power is being supplied to the Agitator Motor. (*As an indicator for this, the agitator motor does not run when any ice buttons related to the quantity of ice are pressed on the ice-selection keypad.)*	**Realign Ice Chute Cover** A. Confirm that the ice chute cover (on both sides of the unit) has been inserted correctly. **NOTE: Incorrect installation of the cover is indicated by continuous flashing of the LED at the bottom of the ice-selection keypad, behind the flip-open programming cover.)** B. Remove and reinsert the ice chute cover. Check that the fault LED is now off, confirming the cover is properly in place.
	There is a binding load on the agitator motor due to ice lumps being formed on the agitator blades. *(As an indicator for this, the agitator motor does not run when any ice buttons related to the quantity of ice are pressed on the keypad).*	**Remove Ice Lumps in Hopper** A. Open the manual ice-fill door and break away the ice lump that has formed. Be careful to avoid damaging the hopper. Pour in warm water (at 50° C) to aid in quicker ice removal.
	A large slab of ice is blocking the opening above the ice-chute opening.	**Remove Ice Chute Blockage** A. Open the manual fill door and remove the ice blockage. B. To prevent an ice slab being formed, reduce the ice slab thickness by adjusting the Ice Maker settings. **NOTE: If slab thickness is excessive, the agitator arm won't be able to break up the ice.**
Both Ice chutes are not dispensing ice in correct quantities.	The control board has not been programmed correctly.	A. Recalibrate the quantity of ice to be dispensed for a particular cup size to provide the required quantity of ice. Refer Programming (Changing) the Ice Portion on page 5

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Symptom	Cause	Remedy
Unusual water flow or dripping is observed coming from ice chute on both sides of the unit.	There is water in the ice hopper.	A. Check if water is leaking from the ice maker and take the necessary steps to stop it.
	Ice in the hopper is melting quickly.	**Check adapter lid / ice quality** A. Verify that the adapter lid is properly closed to prevent heat infiltration. B. Ice of lower quality is being used. Recommended ice type Half-dice (96%-99% ice fraction)
None of the valves on either side of the unit are dispensing drinks.	There is no power input to the unit.	**Install Power Cord** A. Connect AC power cord to the unit back-panel socket and to the wall outlet. B. Turn on unit Power switch.
		Check Power Cord Integrity A. Plug the AC power cord into a known live AC outlet. B. Measure the voltage at the female cord terminals, it must be 230±10 V. If not, replace the power cord.
None of the valves on any one side, either Left side or Pump side, is dispensing drinks.	No power is being supplied to the valves.	A. Locate the valve key switch on the side of unit. Turn it ON if it is OFF.
Some valves on either side are not dispensing drinks. The remaining ones are operating.	Valves are malfunctioning.	A. Check and repair the problems in the valve. If still not working, call for a service technician.
Valves designated to dispense carbonated drinks are dispensing only syrup.	The carbonated water inlet line to the unit has been depressurized or there is no supply of carbonated water to the line	A. Check the backroom package parameters for CO_2, water and power. If any problems are identified, correct them.
	The carbonated water inlet line is disconnected from the unit.	A. Reconnect the carbonated water inlet line.
	The carbonated water inlet line is damaged (leaking) which causes a loss of pressure in the line.	A. Replace the inlet line if it is damaged

Symptom	Cause	Remedy
All the valves designated to dispense plain drinks are dispensing only syrup.	The plain water inlet line to the unit has been depressurized or there is no supply of plain water to the line.	A. Check the backroom package parameters for water and power. Correct faults that are identified.
	The plain water inlet line has been disconnected from the unit.	A. Reconnect the plain water inlet line to unit.
	The plain water inlet line has been damaged (leaking) causing loss of pressure in the line.	A. Replace the inlet line if it is damaged.
Matching valves (valves that dispense the same brand of drinks on both sides of the unit) dispense only plain/ carbonated water. *(All the corresponding valves (for example: the 1st valves, counted from left to right, on both sides of unit, and the 2nd valves counted from left to right and so on.) dispense only water.*	The particular syrup line is depressurized.	A. Check the backroom package parameters for CO_2, water and power. Correct any faults that are identified. B. If the BIB is empty, replace it.
	The particular syrup inlet line is disconnected from the unit.	A. Inspect and reconnect the syrup line.
Drinks dispensed by all the valves are not of the required quantity (lower/higher volume). As a result, the drinks are too sweet or too diluted to taste.	Pressure in the plain water or the carbonated water inlet is either too high or too low.	A. Check the inlet pressure of carbonated water to the unit; it must be 100 psi for static (still) conditions and 40 psi for dynamic (flowing) conditions. Adjust as needed.
Some valves, on both sides of the unit intermittently dispense drinks of lower volume than required for the size, making the drinks too sweet to taste.	More than 3 valves (carbonated or plain water valves) are actuated at the same time.	A. Make sure that no more than 3 carbonated or plain water valves (considering both sides of the unit) are actuated simultaneously, otherwise water pressure in the lines will be reduced excessively.
Any of the valves consistently dispense drinks that are too sweet/diluted to taste.	The BRIX ratio setting is incorrect for that particular valve.	A. Check and set an appropriate BRIX ratio.

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Symptom	Cause	Remedy
All valves are dispensing warm drinks (>40°F).	There is no ice in the hopper and water bath. *(As an indicator for this, check for the ice level inside the ice chute. It will be low.)*	A. Check for malfunctions in the ice maker and repair them. B. Manually fill the hopper and water bath with ice if there is no ice maker.
	No power is being supplied to the agitator motor. *(As an indicator for this, the agitator motor does not run when any ice Size buttons are pressed on the keypad).*	**Reinstall Ice Chute Cover** A. Check if the ice chute cover on both sides of the unit has been inserted properly. **NOTE: Incorrect installation of the cover is indicated by continuous flashing of the LED at the bottom of the ice-selection keypad, behind the flip-open programming cover.** B. Remove and re-insert the ice chute cover. Confirm that the flashing LED is off, verifying that the cover has been installed correctly.
	There is a binding load on the agitator motor due to ice lumps being formed on the agitator blades. *(As an indicator for this, the agitator motor does not work when any button related to ice Size is pressed on the keypad).*	A. Open the manual ice-fill door and break away the ice lump that has formed. Be careful to avoid damaging the hopper. Pour in warm water (at 50° C) to aid in quicker ice removal.
	A large slab of ice is blocking the opening above the ice-chute opening.	**Remove Ice Chute Blockage** A. Open the manual fill door and remove the ice blockage. B. To prevent an ice slab being formed, reduce the ice slab thickness by adjusting the Ice Maker settings. **NOTE: If slab thickness is excessive, the agitator arm won't be able to break up the ice.**

Symptom	Cause	Remedy
Some valves on both sides are dispensing drinks with excessive foam.	Nozzle and diffuser of the valve are dirty.	A. Clean the nozzles and diffusers regularly.
	Syrup has expired.	A. Replace the syrup BIB.
	Too much carbonation volume in drink.	A. Check for the correct CO_2 inlet pressure setting in the backroom package. Adjust the pressure setting as required.
Water is not dispensing from the spigot (faucet).	The plain water inlet line to the unit has been depressurized or there is no supply of water to the line.	A. Check the backroom package parameters for CO_2, water and power. Correct any faults that are identified.
Water does not spray from the nozzle when the cleaning cycle is ON. The Cleaning cycle remains incomplete.	Water or detergent solution is not reaching the nozzle inlet.	**Check Suction Tube/Strainer** A. Check the suction-tube strainer level inside the bucket. Make sure it is at the bottom of the bucket. B. Clean the strainer at the suction end, making sure that the mesh is clear of any debris. C. Remove any obstruction or kinking in the flexible tube on the suction line.
The solution sprayed from cleaning nozzle does not reach all the surfaces.	Pressure of water/solution in the cleaning line is low.	**Check Suction Tube/Strainer** A. Check the suction-tube strainer level inside the bucket. Make sure it is at the bottom of the bucket. B. Clean the strainer at the suction end, making sure that the mesh is clear of any debris. C. Remove any obstruction or kinking in the flexible tube on suction line.
Water is collecting on the base of the unit.	The pressure-relief valve on the cleaning circuit opens during the cleaning cycle.	**Eliminate Line Clogs / Kinks** A. Stop the cleaning cycle if it is running. B. Check and correct any clogs or kinks in the cleaning circuit. **NOTE: Kinked or pinched tubing increases pressure in the cleaning line and causes the pressure relief valve to open.**

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Symptom	Cause	Remedy
Water is collecting on the adapter panel.	There is excess ice inside the hopper or ice is touching the adapter panel.	A. Remove the excess ice and adjust the ice-level sensor on the ice maker. **NOTE: It is recommended to install an ice level sensing system to indicate or switch off the ice maker when the ice reaches the required level**

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