SPIRE 6.0

OPERATOR'S MANUAL

MODEL: SPIRE 6.0

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Revision: A

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Notice

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.

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Correct Disposal of this Product

RECYCLE

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

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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.

SAFETY ALERT SYMBOL

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

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.
- **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 the power is off to the unit before any work is performed. Failure to disconnect the power could result in serious injury, death or equipment damage.
⚠ CAUTION	Always be sure to keep area around the unit clean and free of clutter. Failure to keep this area clean may result in injury or equipment damage.

Shipping And Storage

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

CO_2 (Carbon Dioxide) Warning

⚠ DANGER	CO_2 displaces oxygen. Strict attention **MUST** be observed in the prevention of CO_2 gas leaks in the entire CO_2 and soft drink system. If a CO_2 gas leak is suspected, particularly in a small area, **IMMEDIATELY** ventilate the contaminated area before attempting to repair the leak. Personnel exposed to high concentrations of CO_2 gas experience tremors which are followed rapidly by loss of consciousness and **DEATH.**

Mounting in or on a Counter

⚠ WARNING	While installing the unit in or on a counter top, the counter must be able to support a weight in excess of 340 lbs. to insure adequate support for the unit. **Failure to comply could result in serious injury, death or equipment damage.** **Note: Many units incorporate the use of additional equipment such as ice makers. When additional equipment is used you must check with the equipment manufacturer to determine the additional weight the counter will need to support to ensure a safe installation.**

Unit Location

⚠ CAUTION	• This unit is not designed for use in outdoor locations. • The appliance must be placed in a horizontal position. • The appliance is not suitable for installation in an area where a water jet would be used.

Machine Usage

⚠ CAUTION	• 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. • Children should be supervised to ensure that they do not play with the appliance.

SPIRE 6.0 SYSTEM OVERVIEW

SPIRE 6.0 DROP-IN DISPENSER: DESCRIPTION

The Spire 6.0 unit is a 23" drop-in beverage dispenser designed to support crew service and drive-through operations. This unit features one multi-brand dispensing valve capable of providing custom flavor-shot drink combinations and four single-brand dispensing valves for quick brand selection and dispensing. Dispensing valves on this unit are Optifill[tm] valves with automatic shut-off control. See Figure 1 for a detailed view of the Spire 6.0 unit.

Figure 1

This drop-in unit can be installed on a counter as a counter-top unit or on a cabinet stand as a free-standing unit. This dispenser supplies beverages direct from syrup tanks with no additional cooling. See Figure 2 for the dimensions of the Spire 6.0 unit.

SPIRE 6.0: SPECIFICATIONS

Model Name	Spire 6.0
Model Number	Spire 6.0 (PBD 2323 DT)
Total unit weight (empty)	216 lbs (98 kg)
Ice storage	100 lbs (45.4 kg)
CO_2 operating pressure	75 psig (0.52 MPa) max Note: CO_2 pressure is regulated down to 75 psi by a supplied preset regulator.
Ambient operational temperature	65 to 75° F (18 to 24° C)
Maximum number of brands/flavors available	12 brands / 6 flavors / 4 waters
Electrical	Amps: 12 A dedicated, protected circuit Volts: 115 V, Hertz: 60 Hz, Phase: 1
Dimensions	See Figure 2- Spire 6.0 Physical Dimensions
Noise Level	The unit emits acoustical noise with an A-weighted sound pressure level no greater than 75 dB, as measured in accordance with EN 60335-2-75

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SPIRE 6.0: PHYSICAL DIMENSIONS

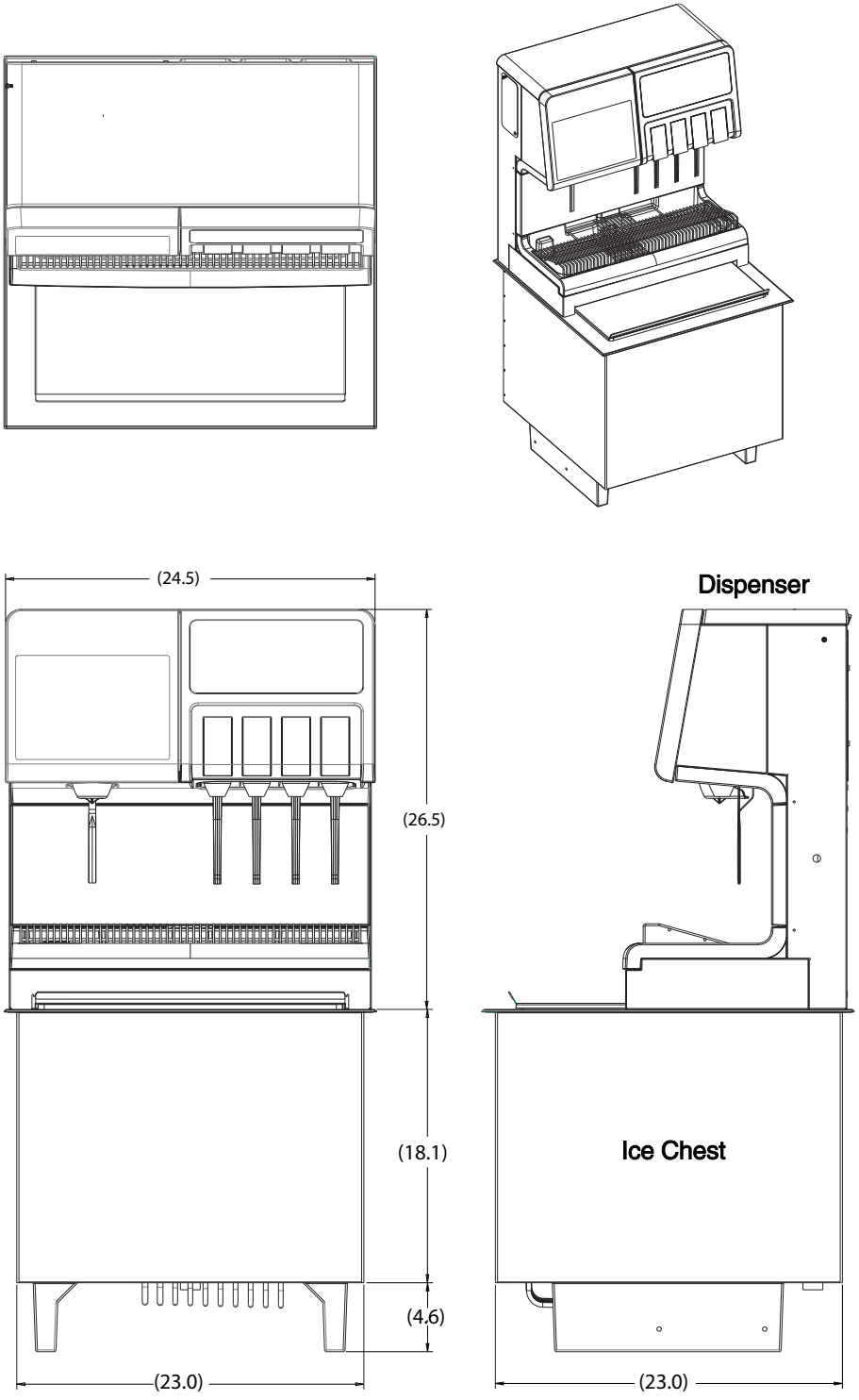

Figure 2 - Spire 6.0 Physical Dimensions

START-UP & OPERATION

START-UP AND OPERATION PROCESS

The following summarizes the activities to follow for start-up and operation of a Spire 6.0 unit.

NOTE: Read all information in this manual first, before performing activities for start-up and operation.

1. Installation. Make sure the dispenser is installed properly before start-up and operation.
2. Cleaning and Maintenance. Review all cleaning and maintenance activities according to the guidelines in this manual. See "Cleaning and Maintenance Instructions" on page 11.
3. Fill the ice bin, as necessary, to prepare for cold drink dispensing."Cleaning and Sanitizing Interior and Exterior Surfaces (Monthly)" on page 15.
4. Power-up the Dispenser. See "Powering-Up the Spire 6.0" on page 5.
5. Review Valve Operation and dispense drinks. See "Valve Operation" on page 7 and follow the procedures in "Dispensing a Drink" on page 7.

Installing the Dispenser

Before start-up and operation, the Spire 6.0 dispenser must be installed by qualified personnel following instructions given in the Spire 6.0 Installation manual (621058673INS).

Filling the Ice Bin

The Spire 6.0 is equipped with a 100 lb ice bin. Make sure the ice bin is cleaned and sanitized before filling the ice bin. See "Cleaning and Sanitizing Interior and Exterior Surfaces (Monthly)" on page 15.

Powering-Up the Spire 6.0

When the dispenser is plugged into an AC power outlet, power is supplied to the NUC (Next Unit of Computing) device (located behind the front access panel of the dispenser). Perform the following to power-up the unit.

1. Make sure the dispenser is plugged into an AC power source. This supplies power to the unit.

   NOTE: When AC power is supplied to the unit, power is supplied to the NUC (Next Unit of Computing) computer used to power-up the Spire 6.0 dispenser.

   Note: The small NUC computer is located in the **Computer Housing** at the back of the unit behind the Access Panel. (See "Removing and Replacing Access Panels" on page 17). The NUC computer provides the user interface to the display panel and stores configuration parameters to support dispenser operating features and functions.

2. Power-up the NUC computer.

   To do this, press the Computer Reset On/Off button . See Figure 3.

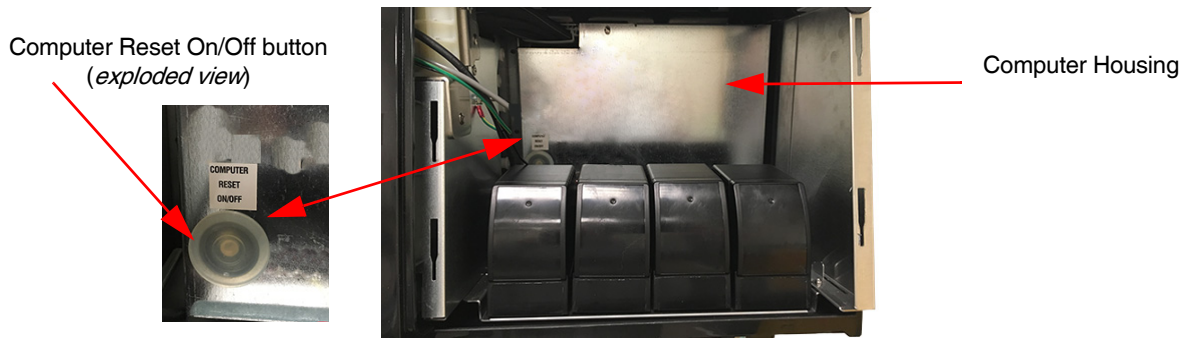

Figure 3

Spire 6.0 - Touch Screen and Menu Overview

Before dispensing drinks, become familiar with the Spire 6.0. This unit features a display panel with a touch-screen interface (Consumer User Interface).

Spire 6.0 - Touch-Screen Interface

The Spire 6.0 unit features a display panel with a touch-screen interface (Consumer User Interface).

Each icon on the interface is a touch-sensitive button used to perform beverage selection and dispensing operations. Refer to Figure 4 and review the following brief description of the Spire 6.0 touch-screen interface.

- **Preset Drink Combination Icons:** Preset drink combinations icons can be established for quick selection of frequently requested drink combinations.
- **Brand Selection Icons:** Brand selection icons are used to select a brand or brand assigned with up to three (3) flavor shots.
- **Flavor Shot Assignment Icons:** Flavor shot icons are used to assign up to three (3) flavor shots to a single brand.
- **Water Selection Icons:** Water selection icons are used to select water to be dispensed.
- **Auto Pour Button:** After a cup is pressed against the Optifill^{tm} valve lever, the Auto Pour button will dispense a drink employing the automatic top-off and shut-off control features of the the Optifill^{tm} valve. See "Valve Operation" on page 7.
- **Manual Pour Button:** After a cup is pressed against the valve lever, the Manual Pour button allows you to control the drink level in the cup manually, by holding and releasing the Manual Pour button until the desired drink level in the cup is achieve.

  Note: The Auto Pour and Manual Pour buttons on the touch-screen interface only affect the valve servicing the multi/brand nozzle and not the four (4) single brand valves.
- **Clear Button:** Use the Clear button to clear a selection from the touch-screen interface.

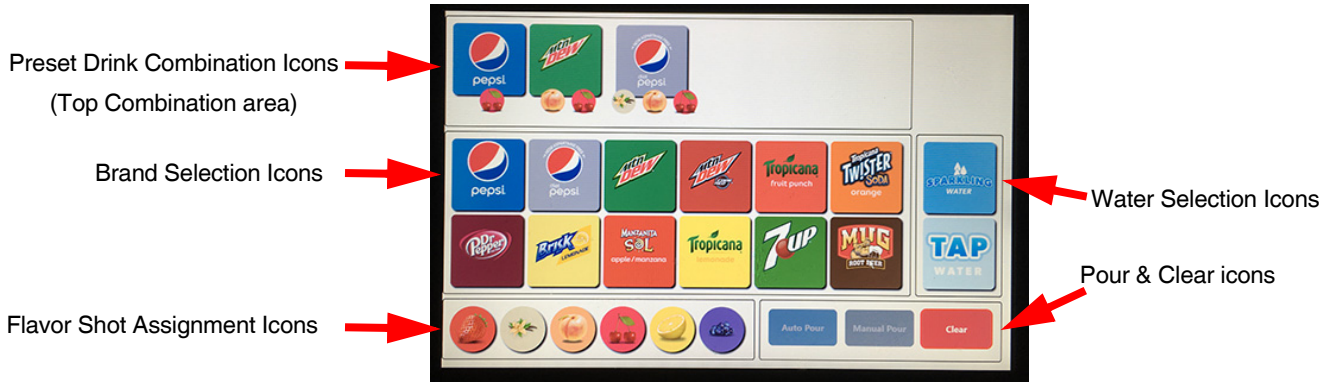

Figure 4

VALVE OPERATION

The Spire 6.0 dispenser employs Optifill^{tm} dispensing valves that provide an automatic top-off and shut-off control feature. With this feature enabled, once a cup is pressed and maintained against the valve lever, the valve is activated and a drink will dispense an **initial pour**.

As long as the cup is maintained against the valve lever, once liquid (or foam) touches the level from the initial pour, dispensing will stop temporarily (**top-off delay time**). With the cup maintained against the valve lever, a **top-off pour** will commence to complete an appropriate dispense level.

If a cup is moved away from the valve lever after the initial pour, a top-off pour will not occur.

NOTE: The factory default for the top-off delay time is 4.0 seconds. For the top-off pour to operate, the cup must stay in place against the lever. For details on programming the automatic top-off and shut-off control feature of an Optifill^{tm} dispensing valve, see the Spire 6.0 Installation Manual (621058734INS).

NOTE: The key switch, located on the right side of the dispenser tower, is used to disable right hand ('Legacy') beverage valves from dispensing. This feature is useful for preventing unwanted dispensing during off-hours or when cleaning the unit.

DISPENSING A DRINK

With the Spire 6.0 beverage dispenser you can dispense single-brand drinks without flavor shots, single-brand drinks with custom flavor-shot combinations, single-brand drinks with preset flavor shot combinations, or singe-brand drinks with custom flavor shot combinations.

IMPORTANT: The Ice Chest Cover needs to be closed before dispensing a drink.

Dispensing a Single-Brand Drink - Single-Brand Dispensing Valve(s)

To dispense a single-brand drink using one of the four (4) **single-brand dispensing valves**, do the following:

1. Place a cup under the Optifill^{tm} valve for the chosen brand, then press the cup against the valve lever.

   Result: The Optifill^{tm} valve will begin to dispense the drink (**initial pour**) until the cup is removed from the lever or until liquid (or foam) touches the valve lever, at which time the pouring will stop.

   Note: If a **top-off delay time** is enabled, (a preset time delay) for the Optifill^{tm} valve, as long as the cup is maintained against the valve lever, the pour will begin again (**top-off pour**) after the preset top-off delay time. See "Valve Operation" on page 7.

   IMPORTANT: For the top-off feature to operate, the cup must stay in place against the lever.

2. Once dispensing has stopped, remove the cup from the cup rest.

Dispensing a Single-Brand Drink - Touch-Screen Interface

To dispense a single-brand drink using he **multi-brand dispensing valve** and **touch-screen Interface**, do the following:

1. Place a cup against the Optifill[tm] valve lever under the multi-brand dispensing nozzle.
2. Select (touch-select) a single-brand icon from the Brand Selection area of the touch screen.

   Result: A check-mark on the brand icon indicates the brand selected. See Figure 5.

   Note: To clear a selection, use the "Clear" icon button.

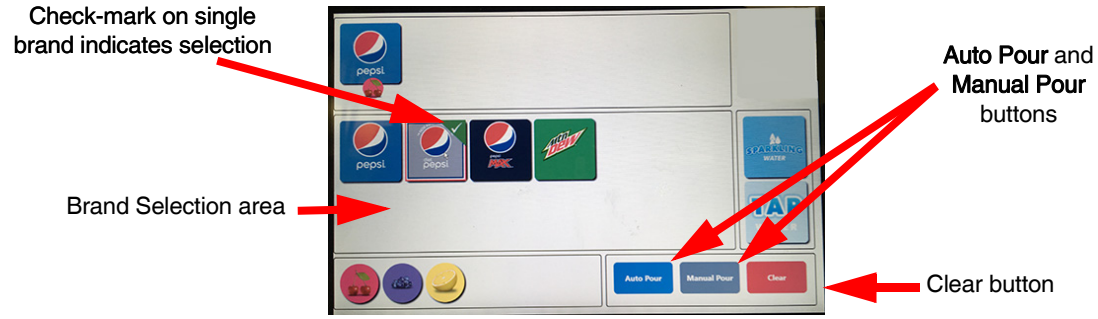

Figure 5

3. Select the **Auto Pour** or **Manual Pour** button.

   Auto Pour Result: The Optifill[tm] valve will begin to dispense the drink (**initial pour**) until the cup is removed from the lever or until liquid (or foam) touches the valve lever, at which time the pouring will stop.

   Note: If a **top-off delay time** is enabled, (a preset time delay) for the Optifill[tm] valve, as long as the cup is maintained against the valve lever, the pour will begin again (**top-off pour**) after the preset top-off delay time. See "Valve Operation" on page 7.

   IMPORTANT: For the top-off to operate, the cup must stay in place against the lever.

   Manual Pour Result: The drink selection will dispense until the Manual Pour button is released.

   Note: With the Manual Pour button, you control the drink level in the cup manually, by holding and releasing the Manual Pour button until the desired drink level in the cup is achieve.

4. Once the appropriate drink level in the cup is achieved, remove the cup from the cup rest.

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Dispensing a Preset Drink Combination

The top of the Spire 6.0 touch-screen interface (Top Combination area, See Figure 4) can be configured to display six (6) brand icons each with up to three (3) flavor shots assigned to each brand, to establish preset drink combinations.

For details on how to establish preset drink combination icons, see the Spire 6.0 Installation Manual (621058734INS).

Perform the following steps to dispense a preset drink combination after preset drink combination icons have been established for the touch-screen interfaces.

1. Place a cup against the Optifill^{tm} valve lever under the multi-brand dispensing nozzle.
2. Select (touch-select) a preset drink combination icon from the Top Combination area of the touch screen. See Figure 4.

   Result: A check-mark appears on the preset drink combination icon to indicate the selection.

   Note: To clear a selection, use the "Clear" icon button on the touch-screen interface.
3. Select the **Auto Pour** or **Manual Pour** button.

   Auto Pour Result: The Optifill^{tm} valve will begin to dispense the drink (**initial pour**) until the cup is removed from the lever or until liquid (or foam) touches the valve lever, at which time the pouring will stop.

   Note: If a **top-off delay time** is enabled, (a preset time delay) for the Optifill^{tm} valve, as long as the cup is maintained against the valve lever, the pour will begin again (**top-off pour**) after the preset top-off delay time. See "Valve Operation" on page 7.

   IMPORTANT: For the top-off to operate, the cup must stay in place against the lever.

   Manual Pour Result: The drink selection will dispense until the Manual Pour button is released.

   Note: With the Manual Pour button, you control the drink level in the cup manually, by holding and releasing the Manual Pour button until the desired drink level in the cup is achieve.
4. Once the appropriate drink level in the cup is achieved, remove the cup from the cup rest.

Dispensing a Single Brand Drink with Custom Flavor Shots

Up to three (3) flavor shots can be assigned to a single-brand in the brand selection area of the touch-screen interface before dispensing the custom beverage combination.

Perform the following to dispense a single brand drink with custom flavor shot(s):

1. In the Brand Selection Area, identify a brand to be assigned up to three (3) flavor shots. See Figure 6.

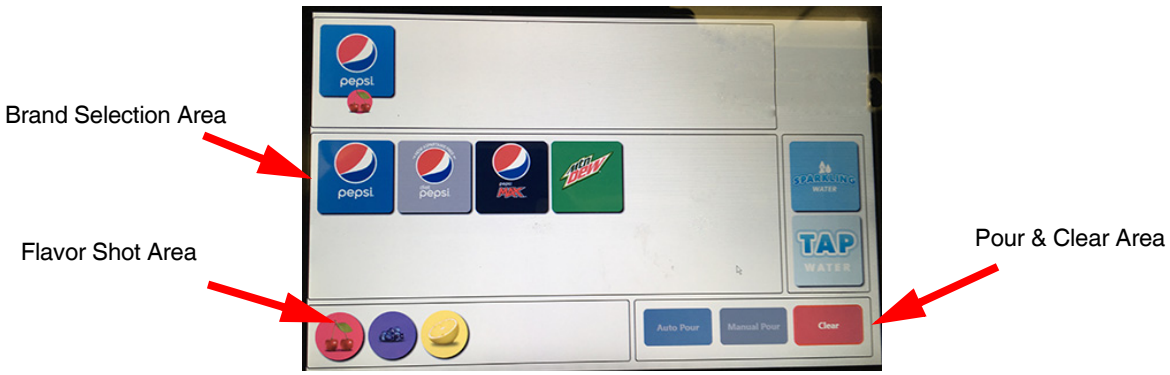

Figure 6

2. Select a brand icon (in the brand selection area) to be assigned with a flavor shot.

   Result: A check-mark indicates the brand selected.

   See Figure 7.

   Note: To clear a selection, use the "Clear" icon button in the Pour & Clear Area of the interface. See Figure 6.

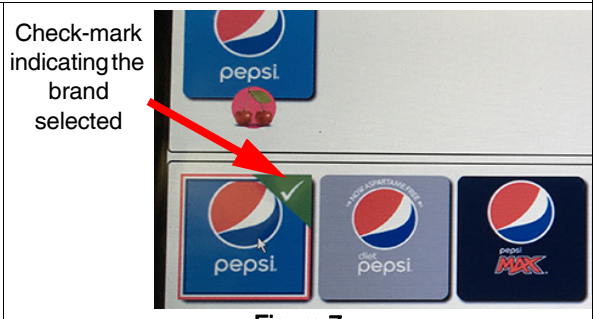

Figure 7

3. Select a flavor shot icon (in the flavor shot area).

   Result: A check-mark indicates the flavor shot selected.

   Note: You can assign up to three (3) flavor shots to a selected brand. To do this, repeat this step and a check-mark will appear on additional flavor shot icons.

   Note: To clear the selections, use the "Clear" icon button in the Pour & Clear Controls area of the interface.

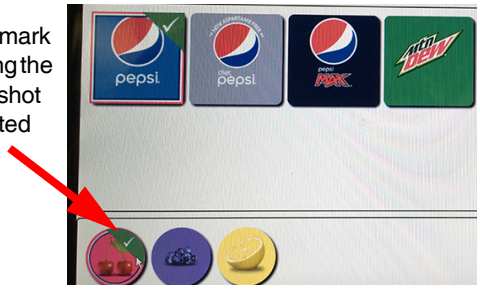

Figure 8

4. With brand and flavor shots selected, place a cup against the Optifill^{tm} valve lever under the multi-brand dispensing nozzle and select the **Auto Pour** or **Manual Pour** button in the Pour & Clear area of the touch-screen interface

   Auto Pour Result: The Optifill^{tm} valve will begin to dispense the drink (**initial pour**) until the cup is removed from the lever or until liquid (or foam) touches the valve lever, at which time the pouring will stop.

   Note: If a **top-off delay time** is enabled, (a preset time delay) for the Optifill^{tm} valve, as long as the cup is maintained against the valve lever, the pour will begin again (**top-off pour**) after the preset top-off delay time. See "Valve Operation" on page 7.

   IMPORTANT: For the top-off to operate, the cup must stay in place against the lever.

   Manual Pour Result: The drink selection will dispense until the Manual Pour button is released.

   Note: With the Manual Pour button, you control the drink level in the cup manually, by holding and releasing the Manual Pour button until the desired drink level in the cup is achieve.

   Once the appropriate drink level in the cup is achieved, remove the cup from the cup rest.

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CLEANING AND MAINTENANCE INSTRUCTIONS

Review and conduct the following cleaning and maintenance activities according to the guidelines in this manual.

⚠ 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.** • Do not use metal scrapers, sharp objects or abrasives on the ice storage bin, top cover, agitator disc or exterior surfaces as damage to the unit may result. Do not use solvents or other cleaning agents as they may attack the material resulting in damage to the unit. • **Use the Soap Solution and Sanitizing Solutions identified in this manual**.

SOAP AND SANITIZING SOLUTIONS

Use the following soap and sanitizing solutions when cleaning the Spire dispenser.

- **Soap Solution**: Use a mixture of mild detergent and warm (100° F) potable water.
- **Sanitizing Solution:** Use Stera Sheen Green Label: Dissolve 1 packet [2 oz (59.0ml)] of Stera Sheen Green Label into 2 gallons of tap water [75-95F (23.9-35C)] to achieve 100ppm of chlorine. Or, use Kay-5 Sanitizer/ Cleaner: Dissolve 1 packet [1 oz (29.6ml)] of Kay-5 Sanitizer/Cleaner into 2.5 gallons of tap water [75-95F (23.9-35C)] to achieve 100ppm of chlorine.

DAILY CLEANING ACTIVITIES

Perform the following daily cleaning activities on a daily basis during low traffic times.

1. Remove and clean the cup rest.

   Lift the **cup rest** from the drain pan and clean with it with a warm soap solution and nylon bristle brush. Then, rinse it with clean water and allow to air dry.

Figure 9

2 Wipe down the **drain pan**, **splash guard** and **exterior of the unit** with a warm soap solution. Then, rinse with clean water and allow to air dry. See "Soap and Sanitizing Solutions" on page 11.

3. Remove the valve nozzle components (nozzle housing and nozzle) from the multi-brand valve. The location of the multi-brand valve nozzle components is shown in Figure 9. The nozzle housing and nozzle is shown in Figure 10 and Figure 11).

   To remove the valve nozzle housing, place your hand on the valve nozzle housing lever and turn the component clockwise (to the right) about a 1/4 turn, then pull it down.

   Note: The nozzle may be inside the nozzle housing when the housing is removed as in Figure 10. If so, separate the nozzle from the housing before cleaning as shown in Figure 11. If not, grasp the nozzle under the valve and pull it down from the unit.

   Result: Nozzle components are removed from under the multi-brand dispensing valve.

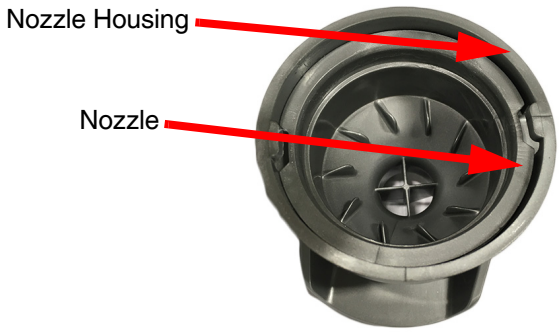

Figure 10 - Nozzle Housing with Nozzle, Multi-brand Valve

Figure 11 - Nozzle Housing (left) & Nozzle (right)

4. Next, remove the diffuser located under the multi-brand valve.

   To do this, with the nozzle housing removed, grasp the diffuser and pull it straight away from the nozzle base. (The nozzle base located behind the display panel, is secured to the unit).

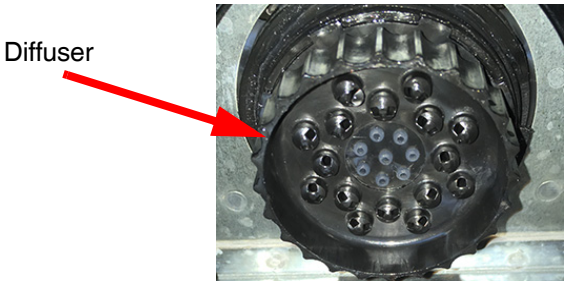

Figure 12

5. Remove the nozzle components (nozzle and diffuser) from each of the four (4) single-brand dispensing valves.

   To do this, firmly grip the nozzle under a single-brand dispensing valve and turn it clockwise (to the right) about 1/4 turn, then pull it straight down. Do this for each of the four (4) single-brand dispensing valves.

   Note: A diffuser for the single-brand dispensing valves is inside the nozzle as in Figure 13. Separate the diffuser from the nozzle housing before cleaning, as shown in Figure 14. To do this, grasp the diffuser and pull it straight out of the nozzle.

   Result: Nozzles and diffusers for each single-brand dispensing valve is removed and ready to clean.

Figure 13 Nozzle with Diffuser, Single Brand Valve(s)

Figure 13

Figure 14 Nozzle and Diffuser, Single Brand Valve(s)

Figure 14

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6. Once all nozzle components are removed and separated, clean these components using a warm soap solution and nylon bristle brush. See "Soap and Sanitizing Solutions" on page 11.

   After cleaning, let them air dry.

7. Pour warm soap solution down the drain to keep the drain clean and flowing smoothly.

8. Spray all the nozzle components (nozzle housings, nozzles, diffusers) inside and outside with approved sanitizing solution. See "Soap and Sanitizing Solutions" on page 11.

9. Re-install clean nozzle components for the **multi-brand valve**.

   To replace these components back into the unit, do the following:

   - Push the diffuser on to the nozzle base so that the diffuser gasket is against the nozzle base. See Figure 12.
   - With the diffuser in place, place the multi-brand nozzle in the nozzle housing so that notches in nozzle line up with the tabs of the housing. See Figure 10 above.
   - Finally, place the nozzle housing (with the nozzle inside) over the nozzle base (as shown in Figure 12) and turn the housing approximately 1/4 turn (counter-clockwise) to secure the housing to the nozzle base.

   Result: Clean nozzle components for the multi-brand valve are re-installed.

10. Re-install clean nozzle components for each of the **four (4) single-brand valves**.To do thi

    - First, make sure the **diffuser gasket** is seated properly and is in the correct position on top of the **diffuser** as shown in Figure 15. Then, push the diffuser on to the nozzle base so that the diffuser gasket is against the nozzle base. See Figure 12.
    - With the diffuser in place, place the nozzle in the nozzle housing so that notches in nozzle line up with the tabs of the housing. See Figure 10 above.
    - Finally, place the nozzle housing (with the nozzle inside) over the nozzle base (as shown in Figure 12) and turn the housing approximately 1/4 turn (counter-clockwise) to secure the housing to the nozzle base.

    Result: Clean nozzle components for each of the four (4) single-brand valves are re-installed.

WEEKLY MAINTENANCE

In addition to daily cleaning check the following items weekly to maintain the unit in proper condition.

- Temperature, smell and taste of the product.
- Water pressure [60 - 65 psi, (0.45 MPa)], coming to the unit using the pressure gauges on the back room package.
- Carbonation of the drink.
- Level of the CO_2 cylinder in the back room supplying the unit.
- Date on all of the BIBs in the back room package.

MONTHLY CLEANING

The following cleaning activities are to be performed monthly.

- Conduct all daily and weekly cleaning and maintenance activities appropriately, as scheduled.
- Flush and sanitize all syrup lines, as well as all of the syrup connectors. See "Sanitizing syrup lines, BIB Systems (Monthly) - Product Tubing" on page 14.
- Clean the and sanitize the ice bin. See "Cleaning and Sanitizing Interior Surfaces (Monthly)" on page 20.

Sanitizing syrup lines, BIB Systems (Monthly) - Product Tubing

Sanitizing the syrup lines and BIB system should be done monthly.

⚠ 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.

Perform the following steps to sanitize the syrup lines for BIB systems:

1. Remove all the quick disconnects from all the BIB containers in the back room.

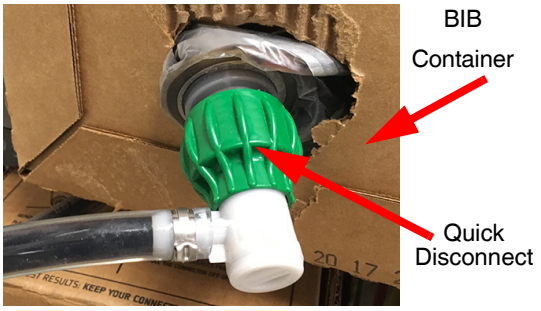

Figure 15

2. Fill a suitable pail or bucket with warm water and a soap solution.
3. Submerge all the disconnects in a warm soap solution and clean them using a nylon bristle brush.

   ⚠ IMPORTANT Do not use a wire brush.
4. Rinse them thoroughly with clean, potable water.
5. Using a large plastic pail, prepare approximately five (5) gallons of sanitizing solution. See "Soap and Sanitizing Solutions" on page 11.
6. Soak the BIB disconnects in the sanitizing solution for a minimum of fifteen (15) minutes.
7. Sanitized 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 the sanitizing solution can be drawn through the disconnect.

Figure 16

8. Place all the BIB disconnects into the pail of sanitizing solution. Operate all the valves until the sanitizing solution is flowing from the valve. Allow sanitizer to remain in the lines for fifteen (15) minutes.

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Cleaning and Sanitizing Interior and Exterior Surfaces (Monthly)

⚠ CAUTION	While pouring liquid into the ice bin, do not exceed the rate of 1/2 gallon per minute. Pouring more liquid into the bin could result in an overflow situation that may result in personal injury or damage to the equipment.

Perform the following to clean and sanitize all interior and exterior surfaces of the dispenser and ice chest.

1.	Prepare a warm soap solution. See "Soap and Sanitizing Solutions" on page 11.
2	Use a nylon bristle brush or sponge, and clean interior surfaces of the ice chest, making sure to cover all surfaces with soap solution.
3	Rinse the ice chest and all interior surfaces with clean potable water.
4	After cleaning the interior surfaces, use a warm soap solution to clean all exterior surfaces of the dispenser and ice chest. Then, rinse all cleaned surfaces with clean potable water.

YEARLY MAINTENANCE

- Have the water pump and check valve inspected and cleaned by a qualified service technician.
- Have the CO2 gas check valve inspected and cleaned by a qualified service technician.

Replenishing CO_2 Supply (As Required)

NOTE: When the indicator on the 1800-psi gage is in the shaded ("change CO_2 cylinder") portion of the dial, CO_2 cylinder is almost empty and should be changed.

⚠ **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**.

Perform the following steps to change the CO_2 cylinder:

1. Fully close (clockwise) the CO_2 cylinder valve.

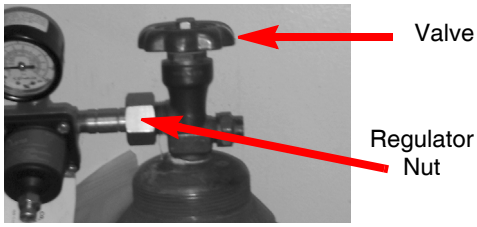

Figure 17

2. Slowly loosen the CO_2 regulator assembly coupling nut, allowing CO_2 pressure to escape.
3. Remove the regulator assembly from the empty CO_2 cylinder.
4. Unfasten the safety chain and remove the empty CO_2 cylinder.

⚠ **WARNING** To avoid personnel injury and/or property damage, always secure the CO_2 cylinder with a safety chain to prevent it from falling over. Should the valve become accidentally damaged or broken off, a CO_2 regulator can cause serious personnel injury or death could occur.

Figure 18

5. Position the full CO_2 cylinder in its proper location and secure it with a safety chain.
6. Make sure the gasket is inside the CO_2 regulator assembly coupling nut and is properly seated.

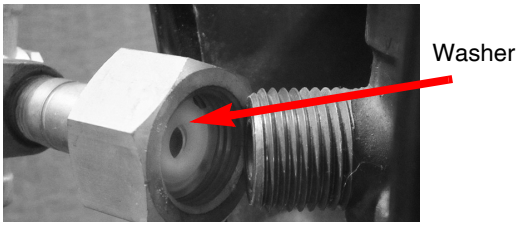

Figure 19

7. Install the regulator assembly on the CO_2 cylinder.
8. Open (counterclockwise) the CO_2 cylinder valve slightly to allow the lines to slowly fill with gas.
9. Open the valve fully to back-seat the valve to prevent gas leakage around the valve shaft).
10. Check all CO_2 connections for leaks and tighten any loose connections.

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Removing and Replacing Access Panels

The front access panels must be removed before the nozzle panel, splash panel, and drain pan can be removed in order to gain access to the drain lines and carbonator relief valve.

Removing the Front Access Panel and Opening the Display Panel

Access to the single-brand valves and NUC is provided behind the front access panel and access to the multi-brand valve is provided behind the display panel. Perform the following to open the front access panel and display panel.

1. Locate the front access panel. See Figure 20.

   The access panel is at the top, on the right, providing access to the four (4) single-brand dispensing valves and the NUC (Next Unit of Computing) device. Note that the back of this panel has two (2) hook brackets on either side of the panel which hook into slots in the frame of the unit. All front access panels on this unit use the same type of bracket.

   NOTE: The front access panel must be removed first, before you can move the swing-out display panel.

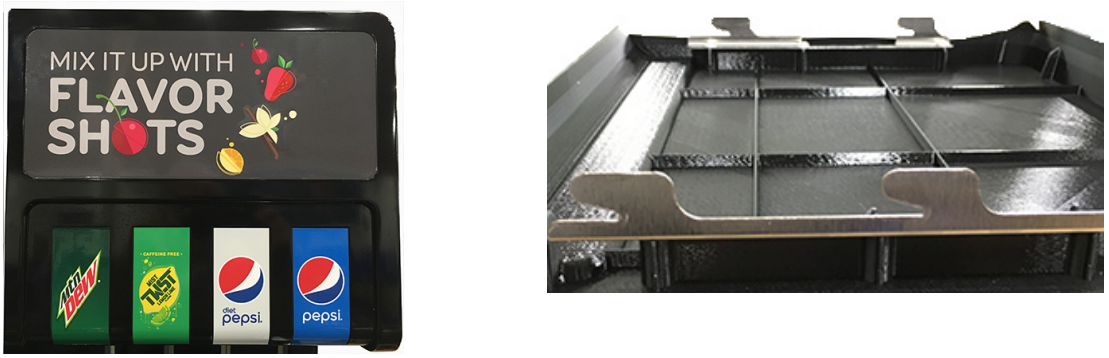

Figure 20

2. Remove the front access panel.

   To do this, hold the bottom of the access panel against the unit, slide the panel straight up, then pull it out from the unit.

   Result: The frame slots for the access panel and four (4) single-brand valves are revealed behind the front access panel. See Figure 21.

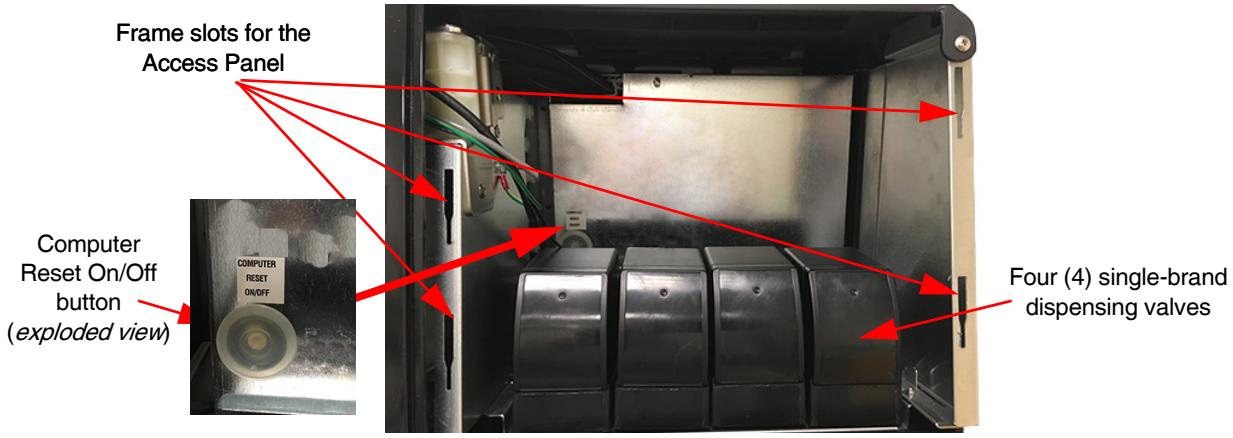

Figure 21

3. With the Access Panel removed, open the display panel.

   To do this, grasp the display panel at the top left and bottom right corners, then carefully pull to release the display panel from the retaining clamps.

   Note: The display panel is mounted on a **swing-arm** and is secured to the unit with a **retaining catch** on the frame and a **post** on the panel. Carefully handle the display panel and swing-arm to avoid damage to these components.

   Result: Access is provided to the components behind the display panel and front access panel.

   Note: A second retaining catch is located on the swing-arm to secure the display panel to the swing-arm when the panel is pulled out from the unit.

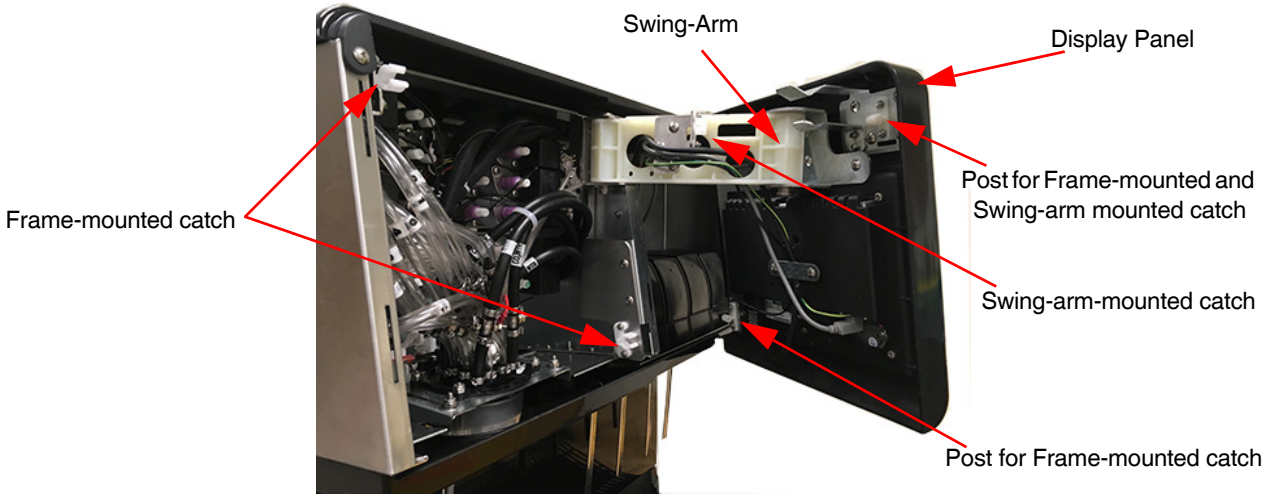

Figure 22

4. Re-attach the display panel.

   If the display panel is secured to the swing-arm-mounted catch, release the panel from the catch. Then, position the display panel so that the posts line-up with the frame-mounted catches. When in position, press firmly on the **bezel** of the display panel to secure it to the frame-mounted catches.

CAUTION
Do not press on the glass panel; use the bezel surrounding the glass touch-screen display panel.

5. Re-attach the front access panel.

   Note: The display panel must be secured to the frame before attaching the front access panel.

   Start by positioning the front access panel so the two (2) hook brackets on either side of the panel line-up with the slots in the frame. See Figure 20 and Figure 21. Then, insert the two (2) hook brackets on either side of the panel into the slots and push the panel down into place.

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Removing the Nozzle Panel, Splash Panel and Drain Pan

To access the drain and carbonator relief valve underneath the drain pan, the front access panel, display panel, nozzle panel, splash panel and drain pain need to be removed in the appropriate sequence.

Perform the following steps to remove the nozzle panel, splash panel and drain pan.

1. Remove the front access panel and open the display panel. To do this, see "Removing the Front Access Panel and Opening the Display Panel" on page 17.

   Result: The nozzle assembly behind the display panel is exposed and the nozzle panel is ready for removal.

2. Remove the Nozzle Panel. See Figure 23.

   To do this, slide the nozzle panel toward the front of the unit so that the hooks release from the slots in the frame. Then, then tilt the front of the nozzle panel down toward the drain pan and lower the panel down past the valve levers.

   Result: The Splash Panel is ready for removal.

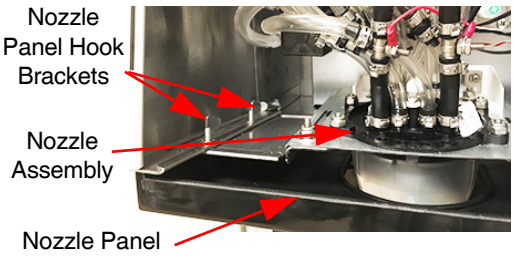

Figure 23

3. Remove Splash Panel. See Figure 24.

   The splash panel has hook brackets that hang into slots in the frame. To remove the splash panel, slide the splash panel up toward the valve nozzles to unhook the brackets from the frame, then lift the panel away from the unit.

   Result: The Cup Rest and Drain Pan are ready for removal.

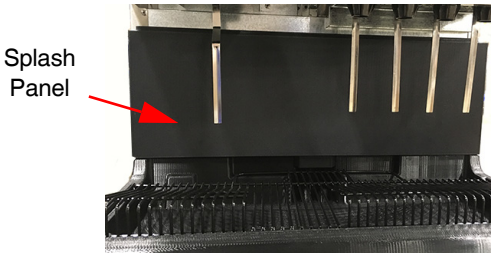

Figure 24

4. Remove the Cup Rest and Drain Pan as shown in Figure 25.

   To do this, remove the cup rest if it is in place over the drain pan. Then, lift the back of the drain pan up so that the drain tube on the drain pan is removed from the drain, then lift the drain pan away from the unit.

   NOTE: The bottom of the drain pan has a drain tube that must be lifted up passed the unit drain in order to remove the drain pan. See Figure 26.

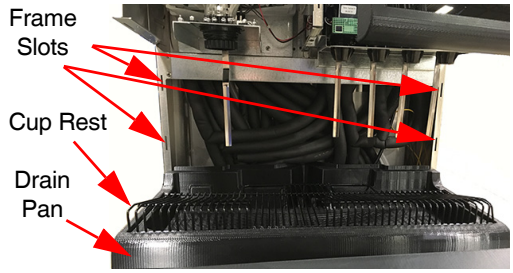

Figure 25

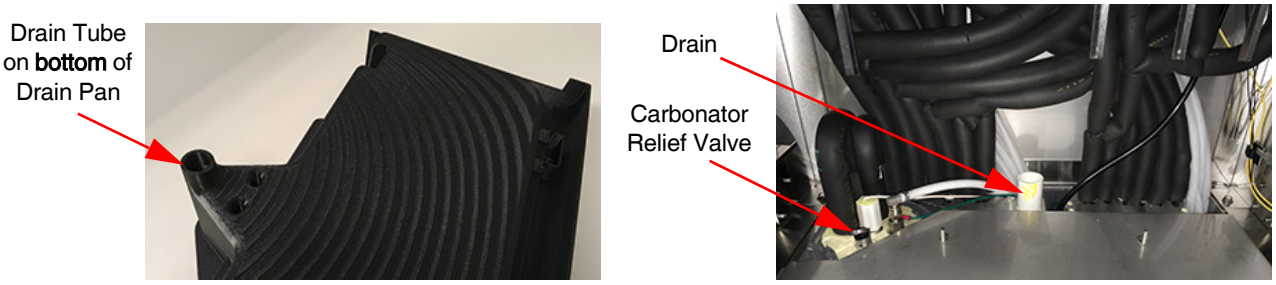

Figure 26

Replacing the Drain Pan, Splash Panel and Nozzle Panel

Replacing the drain pan, splash panel or nozzle panel should be after installation is complete. Perform the following activities to replace the drain pan, splash panel and nozzle panel, in the following sequence as indicated.

1. Replace the drain pan. Refer to Figure 26 and Figure 25.

   Lift up the drain pan so that the drain tube on bottom of the drain pan can be inserted into the drain, then lower the drain pan into place.

2. Replace the splash panel. Refer to Figure 24.

   With the drain pan in place, align the four (4) hook brackets on the back of the splash panel with the four (4) slots in the frame, then lower the splash panel into place.

3. Replace the nozzle panel. Refer to Figure 23.

   Note: The front access panel must be removed and the display panel must be opened before replacing the nozzle panel. See "Removing the Front Access Panel and Opening the Display Panel" on page 17.

   With the drain pan and splash panel in place, move the nozzle panel under the valve levers, then lift the panel up and place the four (4) hook brackets into the frame slots provided for this panel.

4. Replace the Cup Rest over the drain pan. Refer to Figure 25.

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