



Bubble

POST-MIX BEVERAGE DISPENSER Installation, Operation & Service Manual



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This document contains the original instructions for the unit described.

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Correct Disposal of this Product



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



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SAFETY INSTRUCTIONS

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

Safety Overview

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

Recognition

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

DIFFERENT TYPES OF ALERTS

DANGER:

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

WARNING:

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

CAUTION:

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

SAFETY TIPS

- Carefully read and follow all safety messages in this manual and safety signs on the unit.
- Keep safety signs in good condition and replace missing or damaged items.
- Learn how to operate the unit and how to use the controls properly.
- 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. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- Keep your unit in proper working condition and do not allow unauthorized modifications to the unit.

QUALIFIED SERVICE PERSONNEL



WARNING

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

SAFETY PRECAUTIONS

This unit has been specifically designed to provide protection against personal injury. To ensure continued protection observe the following:

WARNING:

Disconnect power to the unit before servicing following all lock out/tag out procedures established by the user. Verify all of the power is off to the unit before any work is performed.

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

CAUTION:

Always be sure to keep area around the unit clean and free of clutter. Failure to keep this area clean may result in injury or equipment damage.

SHIPPING AND STORAGE

CAUTION:

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

CO₂ (CARBON DIOXIDE) WARNING

DANGER:

CO₂ displaces oxygen. Strict attention **MUST** be observed in the prevention of CO₂ gas leaks in the entire CO₂ and soft drink system. If a CO₂ gas leak is suspected, particularly in a small area, **IMMEDIATELY** ventilate the contaminated area before attempting to repair the leak. Personnel exposed to high concentrations of CO₂ gas experience tremors which are followed rapidly by loss of consciousness and **DEATH**.

POWER CORD

If the power cord is damaged, it must be replaced by a special cord available from the manufacturer or its service agent. Detachable cord sets should meet the below requirements:

- Cord type should be H05VV-F or stronger, with earthing conductor;
- Cord section should be minimum nominal cross-sectional area of 1.0mm²;
- Plug should also be earthing type and obtain approval with above cord.

SOUND LEVEL

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

UNIT LOCATION

This unit is not designed for use in outdoor locations.



CAUTION:

Appliance is not suitable for installation in an area where a water jet could be used.



CAUTION:

The appliance must be placed in a horizontal position.

GENERAL INSTRUCTIONS

GENERAL DESCRIPTION

This manual is a guide for installing, operating, and maintaining this equipment. This section gives the Unit Description, Theory of Operation, and design Data for High-ball dispenser. This unit must be installed and serviced by a qualified Service Person. This unit Contains no User serviceable parts.

WARRANTY REFERENCE INFORMATION

Warranty Registration Date (to be filled out by customer)	
Unit Part Number:	
Serial Number:	
Install Date:	
Local Authorized Serviced Center:	

UNIT DESCRIPTION

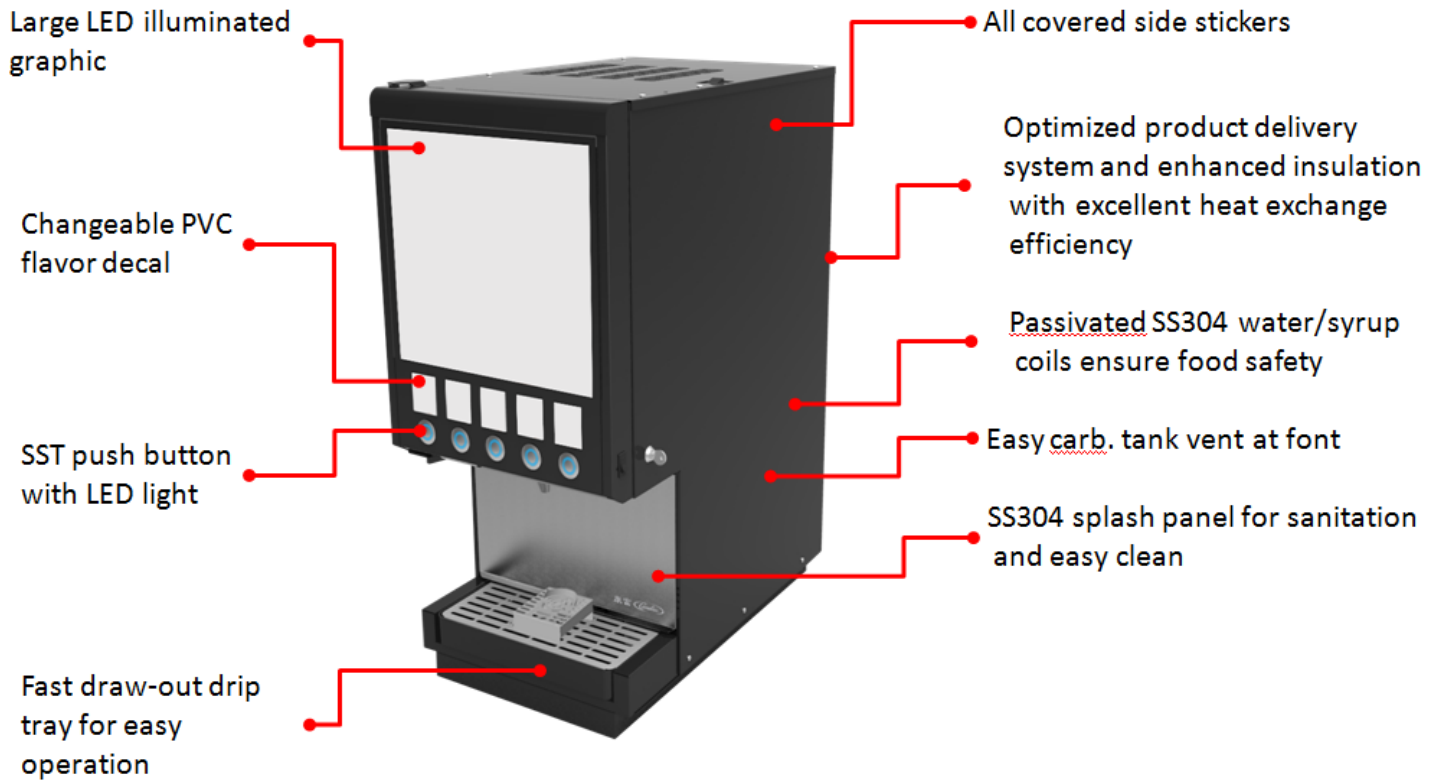
The Bubble post-mix, high-ball dispenser is all in one, plug and play unit. Also it has several advanced functions such as water and CO2 alarm etc..

Bubble

The Bubble-Beverage dispenser is an all in one whiskey drinks machine, plug-and-play, and can provide a variety of different types of alcoholic drinks with different tastes. Installation is very simple and convenient, easy to maintain. All bottles are built-in, and the ratio can be adjusted for easy use.

Bubble whiskey dispenser has the following characteristics :

- Large LED illuminated graphic
- All covered side stickers
- 3 bottles built-in
- Removable drip tray
- Programming board
- Alarm for water & CO2 gas
- Counting number of drinks
- Circuit breaker
- Built-in carbonator
- Removable refrigeration deck (s)
- SST buttons with LED light
- Hi-efficiency soda water valve
- Merchandiser lock



UNIT SPECIFICATION

Table1

Height	34 inches	862mm
Width	16 inches	409mm
Depth	27 inches	685mm
Shipping weight(approx)	165Pounds	75Kg
Water Bath Size	13 gal (US)	48L
Ice Bank Weight	23lb	7Kg



Part Numbers

60 Hz Model, 220 VAC see nameplate

50 Hz Model, 230 VAC see nameplate

Applicable beverage types: whiskey alcoholic beverages

Draw Capacity:

Peak draw capacity: 100cups in 2 hours, 180ml cups

Drink temperature: $\leq 4.4^{\circ}\text{C}$

Ratio: soda water: whisky=3:1; soda water : whisky: flavor=6:1:1

Miscellaneous Information

Refrigerant.....R134a

Compressor HP.....1/3Hp

Safety Approvals.....GB(50Hz),CB(60Hz)

Sanitary Approvals.....GB(50Hz)

Electronic Controls.....Electronic ice bank and liquid level control

THEORY OF OPERATION

NOTE: The unit is factory set to dispense carbonated water as per customer's requirement. it is available to dispense at most 3 non-carbonated waters with carbonated water dispensing from the remaining valve(s). Non-carbonated water dispensing valve(s) may be converted to also dispense carbonated drink(s).

Fill the refrigerating water tank with conductive water until it flows out from the overflow. Connect the drinking water bucket (meeting the drinking water standard) with the equipment intake pipe, connect the CO2 gas source, set it to 85Psi, and connect the signal line. Make sure the correct power supply is connected. Turn on the main power switch and run the machine.

The cold drinking water of this equipment adopts indirect heat exchange design. Drinking water and cold source are separated without contact, which effectively ensures the quality of beverage. Built-in carbonization equipment, drinking water through stainless steel heat exchanger coil in the cold water tank respectively for heat exchange, so as to obtain the required carbonated water cold water and mix different tastes of wine into Hi-bar beverage. The equipment has built-in carbonization pump, which does not need to be connected to the water pressurization system. The pump can be started according to the probe inside the carbonization equipment, and it can provide enough flow and pressure. The refrigeration water tank is equipped with ice control elements, which can control the ice weight more accurately.

The equipment is equipped with three maximum 2L bottles, open the light box to take out the bottle and put the corresponding wine tube in; the equipment is equipped with a water outlet solenoid valve and three peristaltic pumps; connected with a carbonated water outlet valve and three stainless steel outlet tubes; the lower part of the light box is equipped with five stainless steel metal keys, which can support up to five kinds of taste drinks.



Notes

INSTALLATION

CAUTION

Only trained and certified electrical, plumbing and refrigeration technicians should service this unit.

CAUTION:

This appliance is for indoor use only. The appliance is only to be installed in locations where its use and maintenance is restricted to trained personnel.

ALL WIRING AND PLUMBING MUST CONFORM TO NATIONAL AND LOCAL CODES.

WARNING:

It is the responsibility of the installer to ensure that the water supply to the dispensing equipment is provided with protection back flow by an air gap as defined in ANSI A 112.1.2-1979; or an approved vacuum breaker or other such method as proved effective by test and must comply with all federal, state and local codes.

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

Water pipe connections and fixtures directly connected to a potable water supply shall be sized, installed and maintained according to Federal, State and Local laws.

WARNING:

The water source of the equipment is potable barreled water, and water level probe is installed. Please do not use pure water, otherwise it will cause water level control failure; after the water probe and signal wire are connected, turn on the power switch of the equipment. Otherwise, there will be water pump protection shutdown.

DELIVERY INSPECTION AND UNPACKING

Each unit is completely tested thoroughly and inspected before shipment. Upon receiving the units from shipment carrier, carefully inspect the unit for visible indication of damage. If any damages exist, file a claim with the shipment carrier.

Table2

Accessories	Part No.	Quantity
Cup rest		1
Power cord		1
Drain Hose	50119	1
Clamps	70339	2
Decals	Varies with dispenser	1 set
Manual	890759403	1



INSTALLATION REQUIREMENTS

Table3

Weight	Front or rear counter must be level and able to support 400 lbs.(180Kg)
Environment	Indoor installation only
Temperature	10 to 32°C ambient temperature
Clearance	18-inches(450mm) above and 6-inches(150mm) beside
CO2	85 psig at unit with internal carbonator
Water	Bottled water (not pure water)
Electrical	See nameplate on unit for electrical requirements

ELECTRICAL REQUIREMENTS



WARNING:

Before connecting electrical power to the unit refer to nameplate to verify power requirements. To avoid possible serious injury or death the ELCB (earth leakage circuit breaker) must be installed in electrical circuit of all 50 Hz units.



WARNING:

To avoid possible electrical shock the unit must be electrically grounded using the green grounding screw provided inside the electrical contractor box.



CAUTION:

The wiring must be properly grounded and connected through a 10-amp disconnect switch (slow-blow fuse or equivalent HVAC/R circuit breaker).

ALL WIRING MUST CONFORM TO NATIONAL AND LOCAL CODES. MAKE SURE UNIT IS PROPERLY GROUNDED.

ELECTRICAL REQUIREMENTS

Ambient (room) temperature **MUST NOT EXCEED 32° C** temperatures in excess of 32° C will void the factory warranty and may eventually result in refrigeration system failure.

CAUTION — To avoid overheating and damaging to the unit, and voiding the warranty, there must be at least 6 - inch (0.15 m) of clearance on all sides and 18 - inch (0.45 m) on the top of the unit.

CAUTION — This unit is designed for indoor installation only (in non harsh environments).

CAUTION — If the unit is exposed to freezing temperature, water in the unit will freeze and may damage the unit.

CAUTION — Avoid spillage into the top vents.

INSTALLATION PROCEDURE

Counter-top Installation



WARNING:

The unit is heavy and extreme care should be taken when moving or lifting the unit. Do not attempt to lift the unit



manually.

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

Counter-top Installation

1. Place the unit on a level counter capable of supporting at least 400 pounds (180 kg).



2. Take out the suction pipe assembly and the plastic pipe in the accessories and connect it with the water inlet on the back of the equipment; take a bottle of drinking water, open and remove the cap, adjust the plastic positioning plate at the bottom of the suction pipe assembly to ensure that the water level probe is at least 2 cm higher than the suction pipe; then insert the bottled water; at the same time, connect the water level control signal wire and fasten the nut;

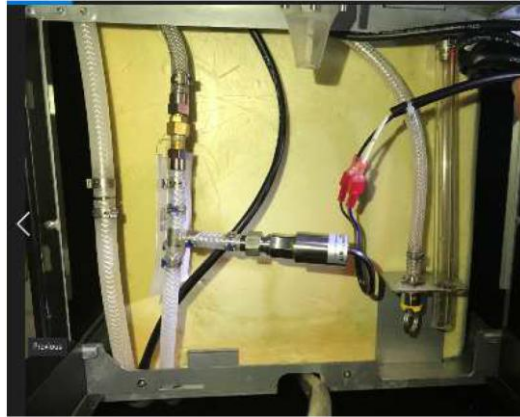
Water inlet

-Water suction pipe
-Water level probe
-positioning plate

Fasten the nut
of signal wire



3. Open the front splash panel and find the air intake pipe from the fitting box. Similarly, pass through the hole in the rear panel of the equipment. Connect the CO2 intake pipe at the front end of the water tank. Connect the power supply, use the water valve nozzle to connect the water tank drainage pipe to the water dripping tray, and stop the water filling. If conditions permit, use ice water. First, the stainless steel nozzle jacket is unloaded by external rotation, then the valve core is removed, the stainless steel water jacket in the fittings is taken out and installed on the valve, the drip box is removed, the drainage pipe is pulled out from the lower part of the equipment, the water plug is removed, and the water pipe is connected to the pagoda pipe with the water jacket.



Connect the carbon dioxide pipe

Take out the drip tray



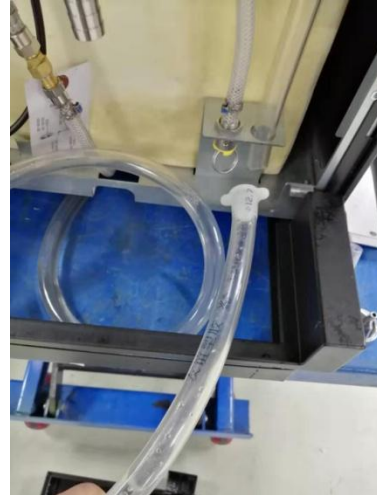
Release the soda water valve & internal parts



Remove the spool clockwise

Remove the water supply
valve sleeve and clip it to
the valve nozzle

Draw drain pipe from bottom
of equipment



Remove the blockage cap, connect the water pipe to the pagoda head of the water jacket, power the equipment, press the soda water button, the water from the valve nozzle will enter the water tank and add to the overflow pipe of the water tank to flow out; then the drainage pipe will be filled with the blockage cap, put into the bottom of the equipment, install the dripping tray; take off the water jacket; reload the valve core and the valve nozzle jacket.



CAUTION — Make sure that the power to the unit is disconnected (unplugged) before removing the covers.

CAUTION — Equipment must be installed horizontally.

CAUTION — The equipment should be installed in the use area and be convenient for the maintenance of trained professional maintenance personnel.

4. Installation of alcoholic drinks: The equipment can only be built-in 3 alcoholic drinks,



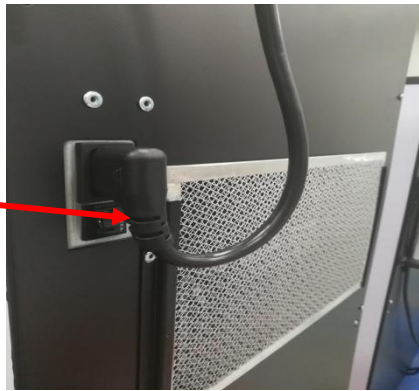
containing at least 1 kind of whiskey. Open the light box panel and see three groups of pipes. They are marked with 1 #, 2 #, 3 #; 1 # must be inserted into the whiskey bottle, 2 # and 3 # must be inserted into the corresponding bottle; among them, choose the appropriate bottle stopper according to the size of the bottle mouth.

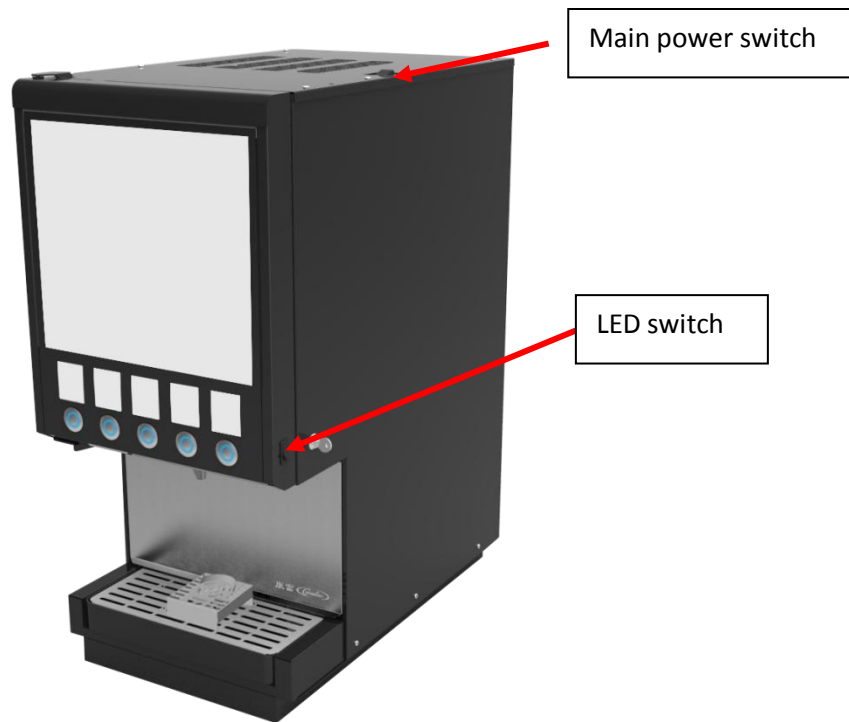


Absorption tube of wine

5. Connect the power cord, turn on the main power supply, turn on the LED light switch above the light box, and the light box will turn on. Close the light box and lock the lock and buckle.

Power cord

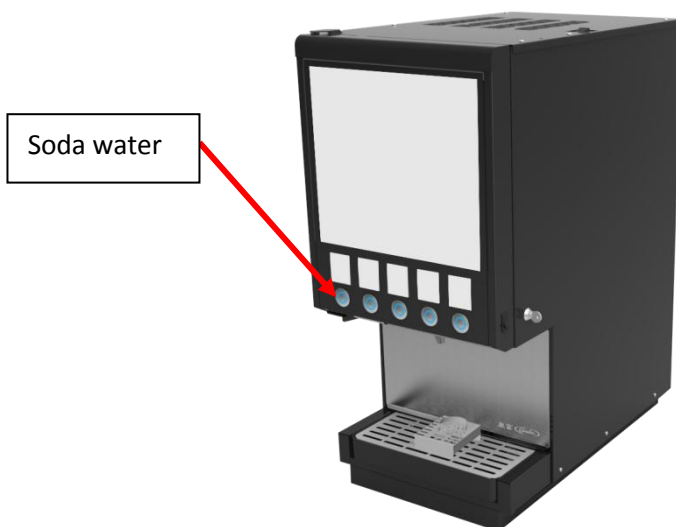




NOTE -- Water bath must be filled with water before the unit will run.

6. Equipment operation, refrigeration system and carbonization system operation.

After the start of operation, the refrigeration system starts to run after self-inspection; the carbonized water pump starts to run, and presses the soda water button (the first button) to exhaust. At this time, the water level in the bucket will drop, and when the water level of the carbonized tank reaches, the pump will stop.



GLOBAL ICE BANK CONTROL (GIBO) THEORY OF OPERATION

Once electrical power is supplied to the Unit, the agitator motor will start. There will be a three-minute time delay before the refrigeration compressor and the condenser fan motor will start. This three-minute time delay will take place each time electrical power to the Unit is interrupted. The Unit will continue to operate until ice covers all three stainless-steel pins on the ice bank control probe. The ice bank control module senses this by measuring the difference in electrical resistance between the water and the ice. When the ice on the evaporator coil becomes thick enough, it covers the three stainless-steel pins on the ice bank control probe. The control module senses there is enough ice and turns the refrigeration compressor and the condenser fan motor off. The Unit remains turned off until the ice bank control three stainless-steel pins are free of ice. Once this happens, the ice bank control module starts the refrigeration compressor and the condenser fan motor.

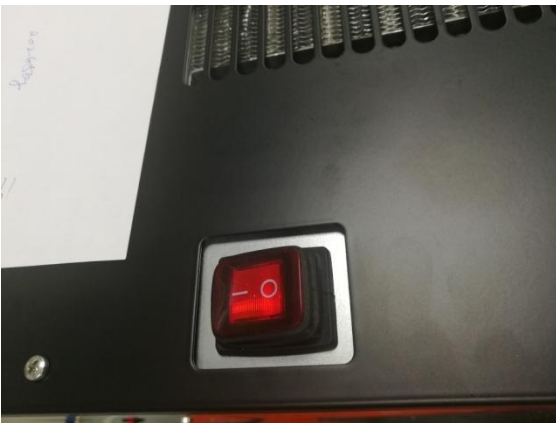
Operation

CAUTION — Pipe connectors and fasteners for drinking water sources must be measured, installed and maintained in accordance with local codes.

CAUTION — The intake pressure of carbon dioxide is 85psi, and the pressure switch is connected.

Equipment operation steps

1. Check whether the water intake connection of the equipment is tight and the position of the water level probe and the suction pipe is correct, that is, the probe is higher than the suction hole of the suction pipe; confirm the use of non-pure water; check whether the pressure of carbon dioxide cylinder is 85psi after decompression of the output pressure; and the pipeline is leak-free; check whether the power line is connected properly and the power supply is correct; press the main power switch at the top of the equipment. Check whether the refrigeration system is working properly.



2. When the refrigeration system stops and the ice stops, drinks with different tastes can be sold normally; drinks with different tastes can be selected according to the valve stickers; the key of this device is to press the button immediately, press the button, do not let go, the light belt is lit, drinks are poured out from the outlet and into the cup; when it is full, the key is loosened and the cup is finished;



Ice Bank Control

The ice bank control operates the compressor and condenser fan motor to control the size of the ice bank. The control board will not restart the compressor until after the compressor has been off for at least 3 minutes to allow the refrigeration system pressures to equalize.

Carbonator Control

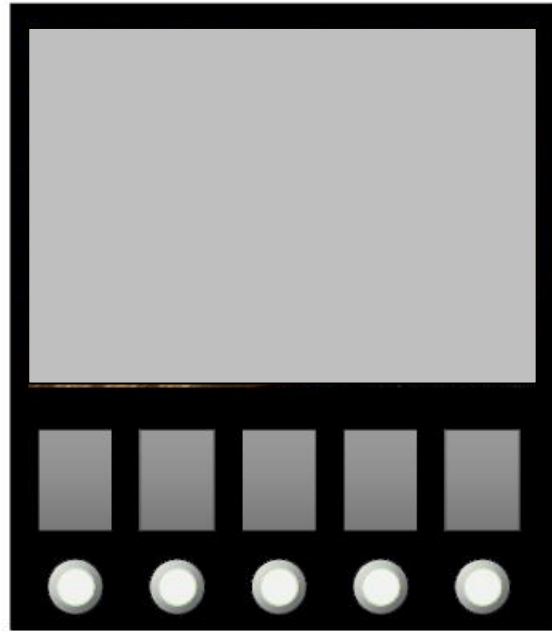
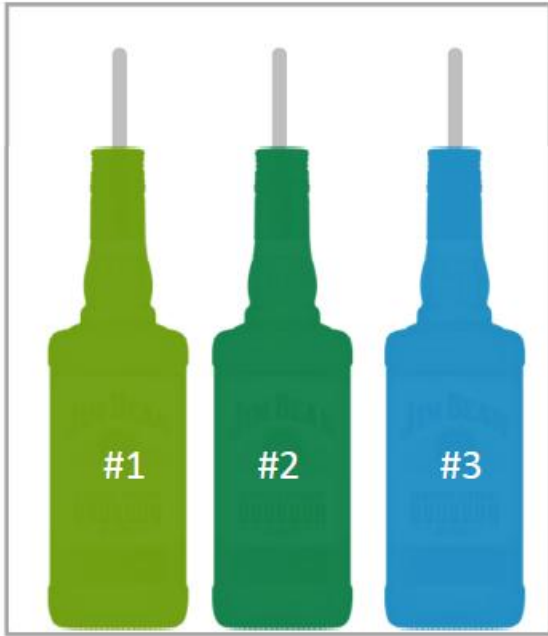
The carbonator control operates the integral carbonator pump to maintain the water level in the carbonator tank within pre-established limits. A programmed timer shuts down the carbonator pump motor if it operates continuously for more than 3 minutes. This prevents the carbonator from running continuously if there is a water leak or loss of water supply.

Voltage Cutout Protection

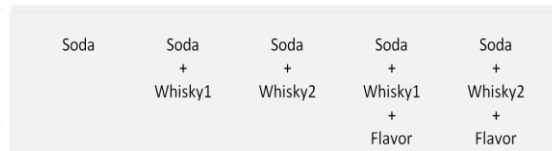
The control board monitors the input line for high and low voltage conditions. If the voltage is outside of the acceptable range, the control will not allow certain operations (to protect motors from damage).

Key and flavor Description

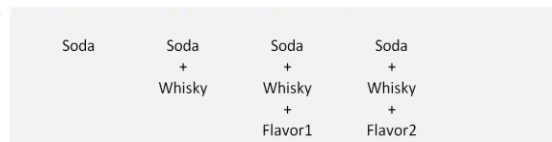
1. There are three kinds of alcoholic drinks in the equipment. There are two optional working modes: one requires two bottles of whiskey and one bottle of liqueur. Mode 2 requires 1 bottle of whiskey and 2 bottles of liqueur.
2. There are three sets of suction pipe components inside the equipment, labeled with 1, 2, and 3. Among them, 1 must be used for whiskey. Five buttons in front of the light box are fixed to the soda water button for the first button (left number on the front of the machine). The following figure is specific:



Mode 1



Mode 2



Note: The key of the device is to press the button immediately. When standby, the LED lamp does not light up (blue light). When you press the button to punch a drink, the LED light belt will light up.

Adjusting the ratio of drinks

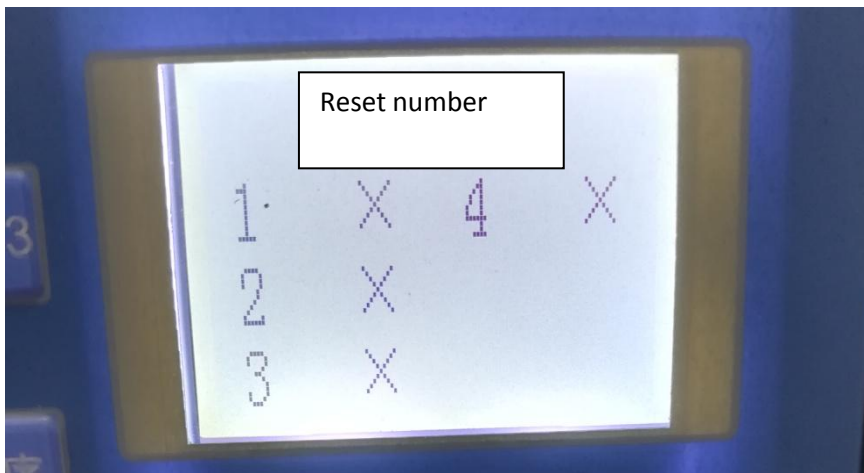
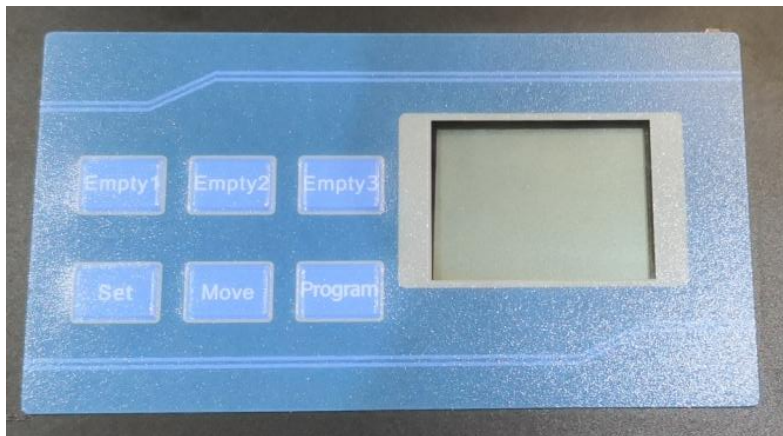
1. The flow rate of liquor and water can be adjusted.
2. Open the light box with a blue film-covered keyboard and a small screen on the back. The following picture:

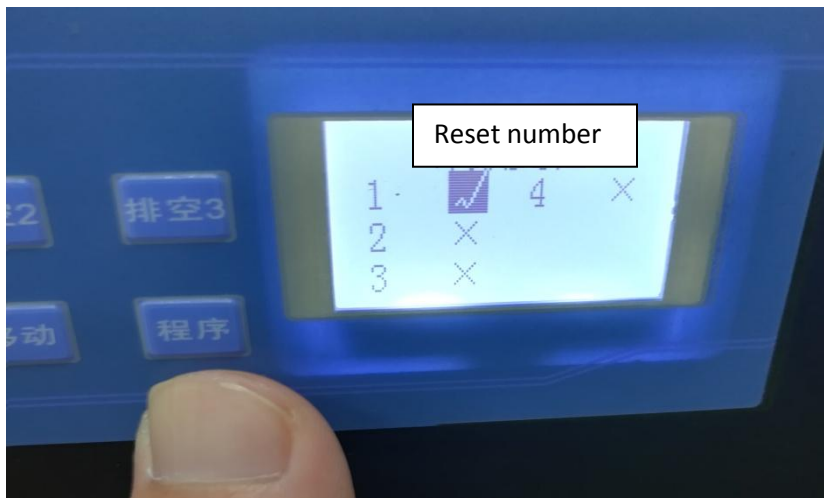
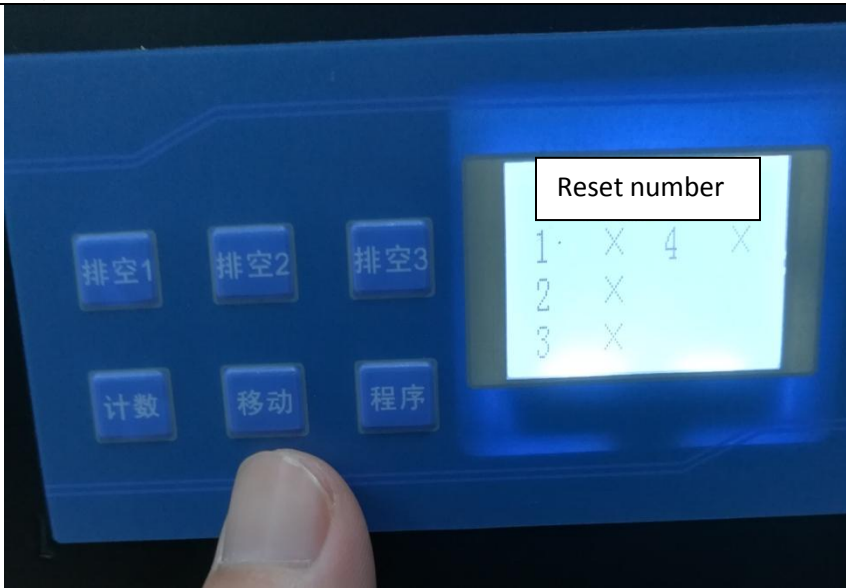


There are six buttons, of which the program keys are functional keys. Long press enters the setting mode, and then long press saves and exits.

3.Zero the drink numbers

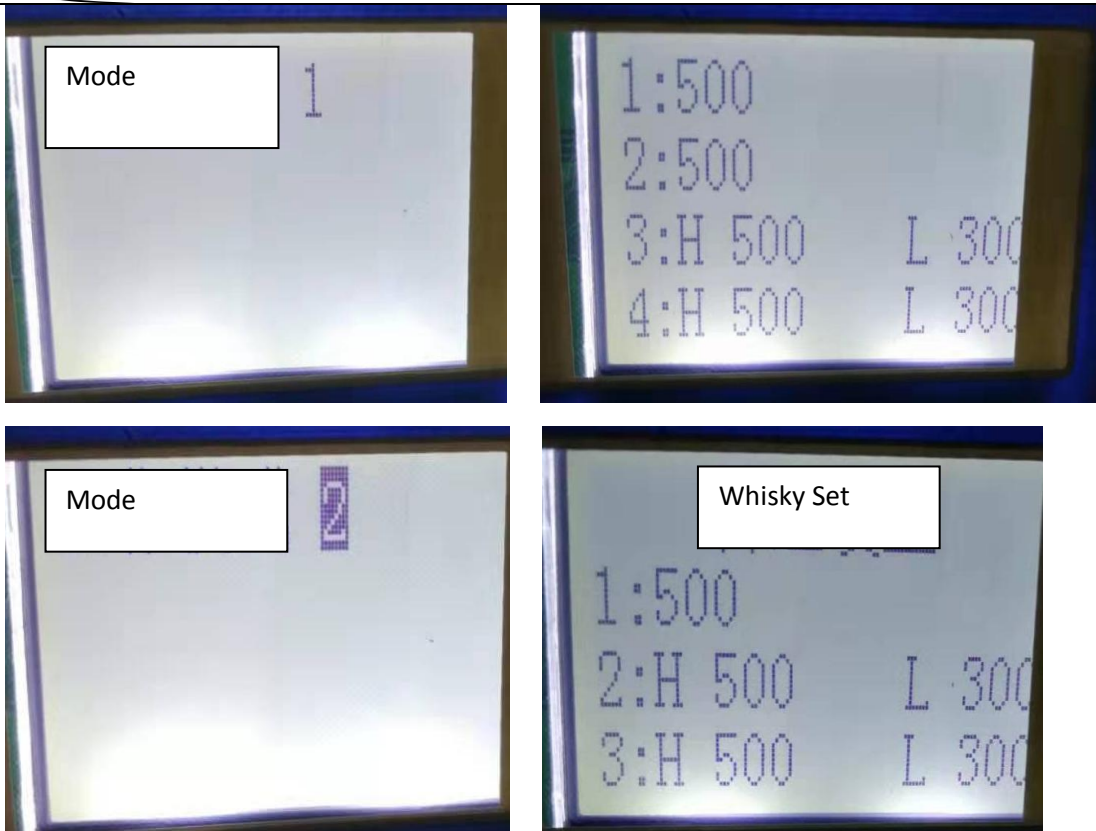
Long press the < program > button, light the screen and let go; you can enter the counting settings mode; working mode 1, a total of four high ball tastes; working mode 2, a total of three high ball tastes; pressing the < counting > button, the "*"in the screen will become, if you need to clear the number of cups of a certain taste, press this operation; pressing the < mobile > button, you can switch to it. It has three counting tastes; the director saves and exits by pressing the < procedure > key. Then the number of cups corresponding to the selected taste will be zero.





4. Speed setting of peristaltic pump (liquor flow rate setting)

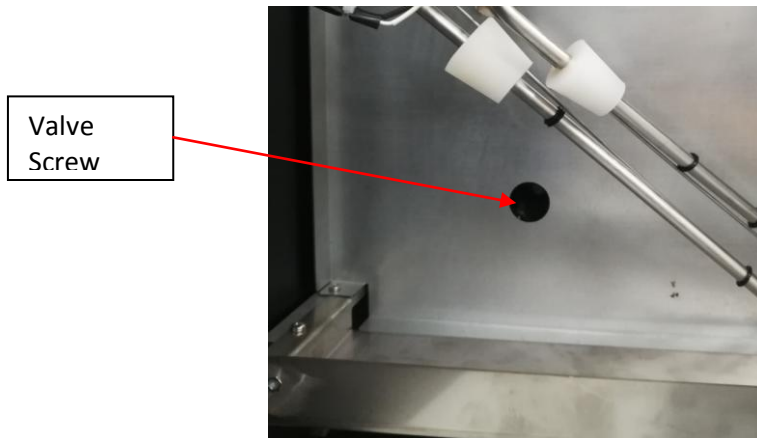
Press the < program > button for the same length to enter the setting mode (take mode 1 as an example), first enter the zero-clearing mode of the cup number, then press the < program > button again, and enter the regulating mode of the speed of 1, 2, 3, 4 High Ball drinks, as shown in the figure below; 1, 2 only need to set one speed, 3, 4 need to set two speeds; press the < move > button to move the cursor to the right. Under the corresponding reference value of speed, set the value by pressing the < counting > key, which is the reference value of 000-999. The higher the value, the higher the speed, and press the < program > key to save and exit for a long time.



Note: It is not recommended to set the speed reference value below 100, which may cause the peristaltic pump not to turn.

5. Set of Soda Water Flow

Open the lamp box, before filling the bottle, there is a round hole in the lower part of the back plate. With a screwdriver, the adjusting bolt of the outlet valve is adjusted clockwise to increase the water flow and counterclockwise to reduce the water flow.



Alarm function

The equipment includes two alarm modes: water shortage alarm and gas shortage (low pressure) alarm.

If the LED blue light belt on the cup metal button flashes intermittently, it indicates that the equipment is in an alarm state; at this time, the sale should be stopped immediately and the alarm type should be detected; from the lower part of the front lamp box of the equipment, the buttons from left to right, in turn, are: the first button flashing blue light is a water shortage alarm, at this time, the soda water button



is pressed, and the last button flashing blue light is unable to produce soda water; When the alarm is low pressure and lack of gas, the button of punching cup should be locked at this time. The following picture:



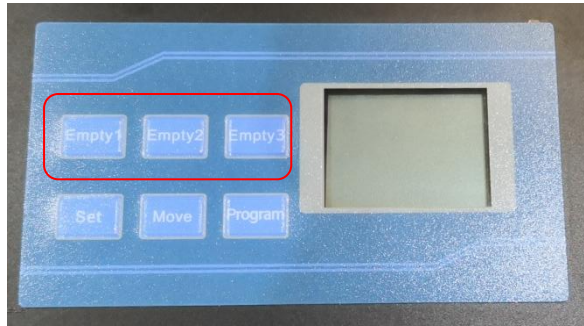
Twinkle when water level is low

Twinkle when CO2 pressure is lower than 63psi

CAUTION — If there is an alarm, please check it immediately; otherwise, the drinks will not be qualified. At the same time, according to the alarm prompt timely replacement of new buckets or cylinders.

Replacement of new bottles (whisky or Flavor)

If the outlet pipe can't make the wine, we need to replace the new bottle; at this time, we should find the wine that needs to be replaced, open the new bottle, remove the cap; lift the bottle slowly from the empty bottle, at this time, the residual liquor will flow into the bottle, when there is no residual liquor to flow out, completely take out the wine tube; then insert into the new bottle; at this time, because there is residual air in the pipe, we need to empty; The number of the wine pipe (1, 2, 3), put a clean cup on the drip tray, then press the corresponding empty button until continuous liquor is produced from the outlet pipe, and the liquor in the glass can be kept and poured into the empty bottle for use.



Method of changing Wine Cups of Different Sizes

The device provides a movable dripping tray. When using large size cups, the small cup platform is pushed to the left, and the large cup is placed at the center of the cup. When using the small cup, the platform is moved to the center of the cup and placed on the small cup to make a cup. As shown in the picture:



Big cup



Small cup



Note: For Korean model, there is no small cup rest.



Notes

Cleaning

Cleaning and maintenance instructions



WARNING:

Before cleaning and maintenance, users should disconnect the power supply according to the procedure. Make sure the power supply is turned off before doing any work. Failure to comply will result in serious injury, death or damage to equipment.



WARNING:

Do not use metal scrapers, sharp objects or rough surface tools on ice storage tanks, top covers, mixers or external surfaces to avoid damage to equipment.

Maintenance requirements

Daily routine cleaning and maintenance is very important for the quality and hygiene of beverages. It must be carried out daily.

1. Brush the inner and outer nozzles of the effluent valve, rotate the outer nozzle clockwise and pull it down, then remove it.
2. Wipe the test bench panel with clean sponge or wet cloth, and scrub the water box and cup holder.

Leak check

1. Air in the exhaust valve;
2. Connect the intake water source (drinking water intake), make sure that the water pipeline has been connected and tightened before, beat soda water through the valve, and then observe whether there is water leakage at each connection, and use tools to tighten the leakage.
3. Check whether there is water flow out of the outlet valve.
4. Check whether there is water leakage at the connection between the drainage pipe and the intake pipe, and if so, tighten it with tools.

Do not use chemical solvents or other detergents to avoid damage to equipment surface materials.

1. Bleed air from the lines by activating dispensing valves.
2. Remove air from carbonator (if dispenser has built-in carbonator) by opening carbonator relief valve until water escapes.
3. Check the system for CO₂ leaks by pressurizing and then turning off the cylinder valve. Wait at least two minutes and check the cylinder pressure gauge (1800 psi gauge) to see if the pressure has dropped.
4. Check the system for water and syrup leaks.

CAUTION — If leakage occurs and cannot be solved by tightening, please contact and notify professional maintenance personnel in time.

Sanitizing whisky & flavor Systems

The whisky & flavor systems should be sanitized at least every 180-day and before or after storage.

Use Kay-5 disinfectant powder to configure disinfectant water. Follow these steps:

1. Remove the suction pipe from the bottle, wipe the suction pipe with a clean wet rag, press the empty key, and make the remaining wine in the pipeline be beaten out and recycled.
2. Disinfection system
 - In a clean barrel, use Kay-5 disinfectant powder to produce about 2 liters of disinfectant water no more than 100 ppm.
 - Place all wine tubes in sterilized water
 - Place appropriate containers at the outlet of the equipment and press each emptying key to ensure that the disinfectant fills every wine road.
 - The disinfectant should be kept in the pipeline for at least 10 minutes, but not more than 15 minutes. In order to avoid sterilizing the water-freezing tube, it is required to press the empty key several times during the process.



-Remove the wine pipe from the sterilized water, press the empty key for each taste, and rinse the disinfectant in the pipe out of the beverage outlet, leaving it in the waste liquid barrel.

3. Flush system

- Put drinking water in a clean bucket.
- Place all wine pipes in drinking water
- Place a large enough bucket under the valve nozzle to hold the water and press each empty key to ensure that each pipe can be flushed 3 to 5 times. Make sure there is no residual disinfectant.



CAUTION:

Flush the system thoroughly, residual sanitizing solution left in the system could create a health hazard.

Double Liquid Check Valve Inspection & Cleaning



CAUTION:

The carbonator double-liquid check valve must be inspected after any disruptions to the water supply system (plumbing work, earth quakes, etc.). It should also be inspected at least once a year under normal conditions. If particles lodge in the check valve CO₂ gas could back flow into the water system and create a health hazard.

1. Shut off CO₂, syrup, and water supplies to the unit.
2. Disconnect the water line from the double check valve then remove the check valve.
3. Disassemble the check valve. Clean and inspect each part, especially check the ball for damage. Replace damaged or worn out parts.
4. Always install a new seat (P/N 315-250-12).
5. Re-assemble and install the check valves.
6. Turn on the CO₂, syrup, and water supplies, and reconnect the electrical power.

Condenser Cleaning

Accumulation of dust and grease on the refrigeration condenser can cause overheating. The condenser should be cleaned as often as necessary to avoid overheating using the following procedure.

1. Unlock and Lift the merchandiser
2. Vacuum or use a soft brush to clean condenser coil. If available, use low pressure compressed air.
3. Clean around top of refrigeration assembly.
4. Close the merchandiser and lock it.

Clean Air Filter



CAUTION:

Accumulation of dust and grease on the air filter can cause condenser overheating. The filter should be cleaned as often as necessary to avoid overheating using the following procedure.

1. Disconnect electrical power to the dispenser.
2. Remove the air filter through the cut out on top panel.
3. Vacuum and use soft brush to clean the filter.
4. Place the cleaned filter back in position.

Notes



SERVICE



CAUTION:

Only trained and certified electrical, plumbing and refrigeration technicians should service this unit.

ALL WIRING AND PLUMBING MUST CONFORM TO NATIONAL AND LOCAL CODES.

PREVENTATIVE MAINTENANCE

Preventative Maintenance Summary

Preventative Maintenance Summary	
Procedure	Frequency
Sanitize Unit	6 months
Check Ratio	6 months
Clean Condenser	6 months and as needed
Carbonator Double Liquid Check Valve	annually
Check for Leaks	annually
Clean air Filter	As needed

Sanitizing

The whisky systems should be sanitized every 6 months using Kay-5 disinfectant powder. See the Operation section of this manual for sanitizing procedure.

Double Liquid Check Valve Inspection & Cleaning

The carbonator double-liquid check valve must be inspected after any disruptions to the water supply system (plumbing work, earth quakes, etc.) It should also be inspected at least once a year under normal conditions. If particles lodge in the check valve CO₂ gas could back flow into the water system and create a health hazard.

1. Disconnect electrical power to the dispenser.
2. Shut off CO₂, water supplies to the dispenser.
3. Check seat and O-rings. Replace if necessary.

Check for Leaks

Periodically check water, CO₂, and drain for leaks.

Check Ratio

Should be done whenever flavors are changed or any service is performed.

Clean Condenser

Accumulation of dust and grease on the refrigeration condenser can cause overheating. The condenser should be cleaned as often as necessary to avoid overheating using the following procedure.

1. Disconnect electrical power to the dispenser.
2. Remove the condenser filter from top accessible slot.
3. Lift the merchandiser up.
3. Remove top panel and side cladding.
4. Vacuum or use a soft brush to clean condenser coil. If available, use low pressure compressed air.
5. Clean around top of refrigeration assembly.
6. Reinstall side panels and top panel and close the merchandiser.



Clean Air Filter

Accumulation of dust and grease on the air filter can cause overheating. The filter should be cleaned as often as necessary to avoid overheating using the following procedure.

1. Disconnect electrical power to the dispenser.
2. Remove the condenser filter from top accessible slot.
3. Take out the filter and clean it with water.

ADJUSTMENTS

CO₂ Connection

1. Unscrew protector cap (with chain attached) from CO₂ cylinder valve. Open CO₂ cylinder valve slightly counter clockwise to blow any dirt or dust from outlet fitting before installing primary CO₂ regulator, then close valve.
2. Remove shipping plug from primary CO₂ regulator assembly coupling nut and make sure gasket is in place inside nut. Install regulator assembly on CO₂ cylinder so gages can be easily read, then tighten coupling.
3. Connect soft drink tanks CO₂ lines to primary CO₂ regulator manifold assembly.
4. Install gas quick disconnects on ends of soft drink tank CO₂ lines.



CAUTION:

To avoid personal injury and property damage. Always secure CO₂ cylinder in upright position with a safety chain to prevent it from falling over.



WARNING:

CO₂ displaces oxygen. Persons exposed to high concentrations of CO₂ will experience tremors, followed by loss of consciousness and death. It is very important to prevent CO₂ leaks, especially in small unventilated areas. If a CO₂ leak occurs ventilate the area before fixing the leak.

Primary and Secondary CO₂ Regulator Settings

1. Open CO₂ cylinder valve slightly to allow lines to slowly fill with gas. When lines are fully pressurized open the valve all the way until it back-seats itself (this prevents leaks from the valve).
2. The Bubble dispenser with integral cold carbonator requires CO₂ supply pressure of 85 psi ;
3. Bleed air from the lines with the relief valves.
4. Check the system for gas leaks.

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



COMPONENT SERVICE

The following are procedures for replacing the major components of the Blu-CE dispenser.

CARBONATOR PUMP REPLACEMENT

1. Disconnect power to the unit.
2. Shut off water and CO₂ at their sources.
3. Remove top panel and side cladding.
4. Depressurize carbonator by removing the solenoid dust cover from any dispensing valve and press valve lever to release the pressure.
5. Disconnect water in and out lines.
6. Loosen the V-band clamp and remove pump.
7. Install new pump.

PUMP MOTOR REPLACEMENT

1. Disconnect power to the unit.
2. Remove top panel and side cladding.
3. Unplug motor harness.
4. Loosen the V - band clamp and remove pump.
5. Remove bolts and remove the motor.
6. Install new motor by reversing this procedure.

AGITATOR MOTOR REPLACEMENT

1. Disconnect power to the unit.
2. Remove top panel and side cladding.
3. Unplug motor harness.
4. Remove mounting screw.
5. Install new motor by reversing this procedure.

CONTROLLER BOARD REPLACEMENT

1. Disconnect power to the unit.
2. Remove top panel and side cladding.
 - Lift up controller cover.
 - Remove mounting screw.
 - Push back controller cover.
3. Unplug all connectors.
4. Squeeze all four standoffs and remove the board.
5. Install new controller board by reversing this procedure.

CONDENSER FAN MOTOR REPLACEMENT

1. Disconnect power to the unit.
2. Remove top panel, side panels and back panel.
3. Unplug motor harness.
4. Remove fan mounting Screw
5. Lift up fan Motor Assembly.
6. Remove fan motor.
7. Install new motor by reversing this procedure.

TROUBLE SHOOTING

⚠ WARNING:
Only an authorized service person should service internal components or electrical components.

⚠ WARNING:
If repairs will be made to the CO₂ or carbonated water systems, disconnect electrical power to the carbonator, shut off CO₂ and water supplies, then bleed systems before proceeding.

⚠ WARNING:
To avoid personal injury disconnect electrical power to the unit before attempting any electrical repairs or working on the internal parts of the unit.

Table 2. Troubleshooting Post-mix System

Trouble	Probable Cause	Remedy
<p>After adjusting the outlet valve, the liquor flow regulator still can't adjust it. Adjust the proportion of water and wine to Ideal proportions.</p>	<ol style="list-style-type: none"> 1. No alcohol supply. <ul style="list-style-type: none"> - The liquor in the bottle is lower than that in the straw. 2. The wine pipe is not tightly connected with the system. <ul style="list-style-type: none"> - There is a liquor outflow at the joint. 3. Liquor flow regulation does not work. <ul style="list-style-type: none"> - Circuit board parameters can not be adjusted or have no effect 4. Dead Bend of Peristaltic Pump Pipeline 5. There is a foreign body in the peristaltic pump. 	<ol style="list-style-type: none"> 1. Replace new liquor. 2. Tightly connect the wine pipe joints. 3. Replace the cupboard. 4. Check and straighten out the pipeline 5. Clean or replace peristaltic pump
<p>The only drinks that come out are alcohol.</p>	<ol style="list-style-type: none"> 1. The bucket is short of water. <ul style="list-style-type: none"> - The water pipe was connected and the bucket was empty. - No pipes, or pipes connected to the air source 2. The pump can't run. <ul style="list-style-type: none"> - The pump does not work 3. Water in the tank is frozen. <ul style="list-style-type: none"> - Water pipes covered with ice, frozen pipes 4. No action of outlet solenoid valve 	<ol style="list-style-type: none"> 1. Connect water supply correctly. <ul style="list-style-type: none"> - Replace the new bucket. - Connecting Water Source 2. Repair or replace new pumps. 3. Check the refrigeration system. <ul style="list-style-type: none"> - Check whether solenoid valve line is falling off - Check whether the DC power supply in the electronic control box works.



<p>The beverage is clear when it is discharged from the valve, but foams appear in the cup or glass..</p>	<ol style="list-style-type: none"> 1. Oil or alkaline substances in the cup. 2. The ice in the cup is supercooled. 	<ol style="list-style-type: none"> 1. Use clean cups. 2. Don't take ice directly from the refrigerator. <p>Use ice with "wet" ice.</p>
<p>Drink temperature is higher than 4.4C degree</p>	<ol style="list-style-type: none"> 1. Influent temperature is higher than 32 degrees C <ul style="list-style-type: none"> - High Water Temperature in Summer - High Temperature Weather 2. Excessive sales. 	<ol style="list-style-type: none"> 1. Extend the interval between drinks. 2. Extend the interval between drinks.

NOTE: Crushed ice also causes dispensing problems. When finished drink hits sharp edges of ice, carbonation is released from dispensed drink.

<p>No wine or water can be produced except water.</p>	<ol style="list-style-type: none"> 1. The connection between the wine pipe and the silicone pipe joint is not tight. <ul style="list-style-type: none"> - There is liquor flowing out at the joint. 2. No alcohol supply. <ul style="list-style-type: none"> - The bottle is short of wine and has been alarmed. 3. Peristaltic pump damage. <ul style="list-style-type: none"> - The power supply connection of peristaltic pump is disconnected - Peristaltic pump parameters set below 100 - Peristaltic Pump Failure 4. The outlet valve does not work. <ul style="list-style-type: none"> - When the adjusting nut of the outlet valve rotates, the flow rate does not change. 5. Peristaltic pump can not be properly adjusted. <ul style="list-style-type: none"> - Adjust the ratio of sugar to water over the ratio of valves 	<ol style="list-style-type: none"> 1. Tightly connect the wine pipe joint. 2. Replace new bottles. 3. Replace the new peristaltic pump. <ul style="list-style-type: none"> - Correct Connection of Peristaltic Pump Wire - Adjust the voltage to more than 100 4. Repair the outlet valve. 5. Adjust syrup flow control according to instructions.
<p>No product dispensed.</p>	<ol style="list-style-type: none"> 1. No electrical power to dispenser. 2. Disconnected dispensing valves power cord. 3. Disconnected or broken wiring to dispensing valve. 4. Inoperative transformer or dispensing valve solenoids. 	<ol style="list-style-type: none"> 1. Plug in dispenser power cord or check for blown power fuse or tripped circuit breaker. 2. Connect dispensing valves power cord. 3. Connect or replace wiring. 4. Replace inoperative part.
<p>Compressor will not stop after sufficient ice bank is produced.</p>	<ol style="list-style-type: none"> 1. Ice bank probe location incorrect. 2. Ice temperature sensor inoperative. 3. Control board inoperative. 	<ol style="list-style-type: none"> 1. Place probe in proper location. 2. Replace ice temperature sensor. 3. Place power switch in ON position.
<p>Compressor operates continuously but does not form sufficient ice bank.</p>	<ol style="list-style-type: none"> 1. Cooling capacity is exceeded by overdrawing. 2. Unit located in excessively hot area or air circulation through condenser coil is restricted. 	<ol style="list-style-type: none"> 1. Reduce amount of drinks drawn per given time. 2. Relocate unit or check and if necessary, clean condenser coil as instructed.



Carbonator pump not operating	<ol style="list-style-type: none"> 1. 3 minutes run limit exceeded. 2. Water supply to carbonator disrupted. 3. Carbonated water tank water level probe electrical wiring disconnected. 4. Inoperative carbonated water tank water level probe. 5. Inoperative carbonator pump or motor. 6. Inoperative control board. 	<ol style="list-style-type: none"> 1. Turn power OFF for 15 second. 2. Correct water supply problem. 3. Connect electrical wiring to water level probe (see note). 4. Replace probe (see note). 5. Replace pump or motor. 6. Replace control board.
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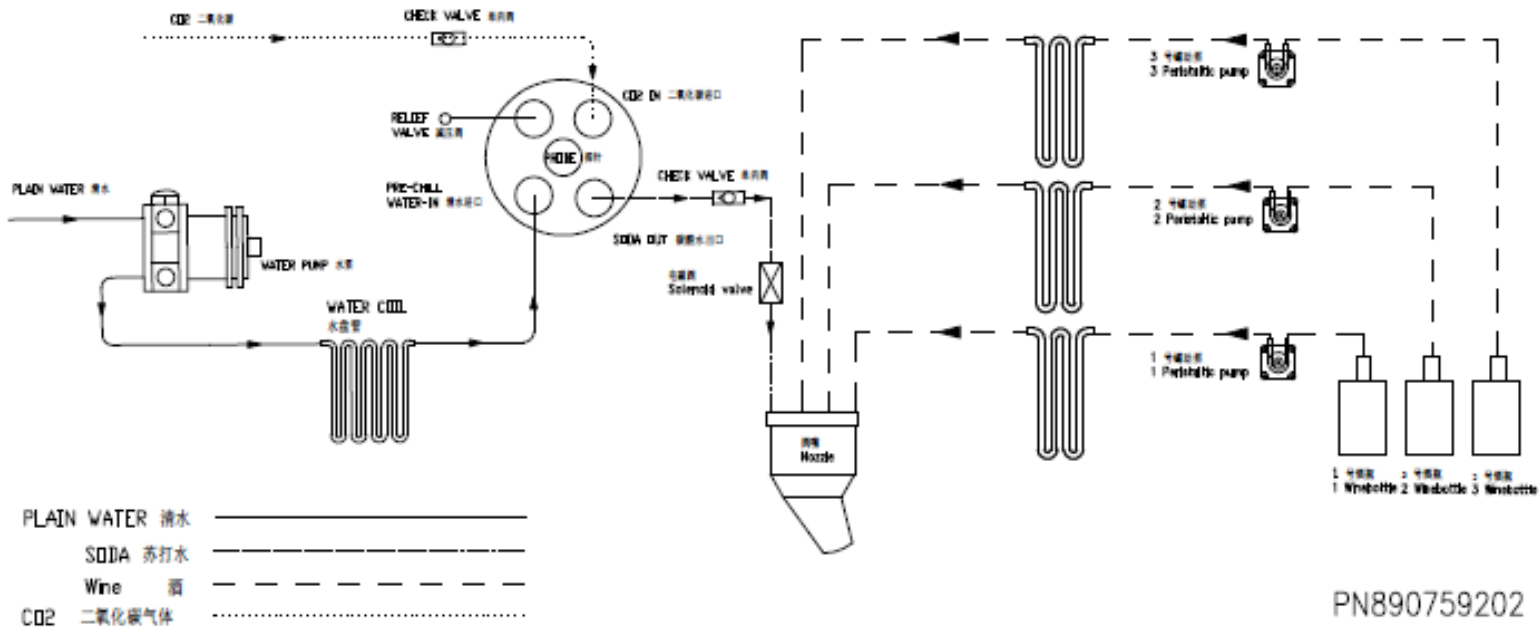
Agitator motor not operating.	<ol style="list-style-type: none"> 1. No power source (blown fuse or tripped circuit breaker). 2. Agitator motor propeller obstructed. 3. Low Voltage. 4. Loose, disconnected, or broken wiring. 5. Inoperative agitator motor. 	<ol style="list-style-type: none"> 1. Replace fuse or reset circuit breaker. (NOTE: Fuse or circuit breaker are not part of unit). 2. Remove obstruction. 3. Voltage must be 90- 135VAC (110-120 volt unit) or 180-260(230 VAC unit) at compressor terminals when compressor is trying to start. 4. Tighten connections or replace broken wiring. 5. Replace agitator motor.
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Refrigeration compressor does not operate.	<ol style="list-style-type: none"> 1. Ice bank sufficient. 2. No water in water tank. 3. Control board power switch on top of unit in "OFF" position. 4. Unit power cord un-plugged, or drop-in refrigeration assembly power cord unplugged. 5. Ice sensor electrically disconnected. 6. No power source (blown fuse or tripped circuit breaker). 7. Low/high voltage. 8. Loose, disconnected, or broken wiring. 9. Overload protector cut out; overheated compressor. Condenser fan motor not operating as required. 10. Inoperative overload protector or start relay. 11. Inoperative ice bank probe. 12. Inoperative control board. 	<ol style="list-style-type: none"> 1. No refrigeration called for. 2. Fill water tank with water as instructed. 3. Place control board power switch in "ON" position (will be a built-in 3-minute time delay before refrigeration compressor starts). 4. Plug in power cord. 5. Electrically connect or replace inoperable sensor. 6. Replace fuse or reset circuit breaker. (Note: Fuse or circuit breaker are not part of unit). 7. Voltage must be 180- 255 Volts or 90 -130Volts. 8. Tighten connections or replace broken wiring. 9. Compressor will cool enough to restart, Do not overdraw cooling capacity of unit. Refer to "Condenser Fan Motor Not Operating" in this section. 10. Replace inoperative part. 11. Replace ice bank probe. 12. Replace control board.
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Notes

PLUMBING DIAGRAM

PLUMP DIAGRAM 管路图



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