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## Install Guide

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### Serenity-CBRM


















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## CR-KIT-JRUC-CRBM Install Kit

*Ordered Separately*

Install Kit for CP-JR-UC-BH to CBR-V2C-MINI

QTY		Description	Part Number	Usage
1		3/8 Tube x 9/26-24 Female Adapter	PSEI6012U9	Optional quick connect fitting adaptor to a 3/8" anglestop
5		JG 90 elbow 3/8" smooth to 3/8"	PP221212W	Water inlet and outlet connections on unit. Swivel connections
2		JG 1/2" mpt to 3/8"	CI321214S	JG fittings for Shurflo Water Reg inlet and outlet. Attached to Reg
2		JG super seal elbow 1/4" to 3/8"	SI030812S	Super seal fitting for SS 1/4" product lines on CBR-V2C-MINI tower
1		JG 3/8 Plug	PP0812W	Ambient water outlet fitting plug on CP-JR chiller
1		9/26-24 to 3/8" Tube and 9/26-24 mpt	PASVPP6	Angle stop TEE in adaptor. For adding an outlet off the anglestop
1		Filter head 3/8 tube inlet & outlet	QL1	Manifold head for the water filter. Mount to cabinet wall
1		Water filter cartridge	2FC	Water filter, 1.5gpm, 6,000 gal capacity. Change at least once a year
1		Tube cutter	TSNIP	For cutting the 3/8" tube to needed lengths
1		8' Sleeve, 1/2" thick insulation	4463K133	Sleeve for insulation for 2 product lines to tower, 5/8 ID
1		15' Roll of Armaflex tape	1007	Insulation tape to wrap product and re-circ lines and tower
1		50 PSI Water pressure reducer valve	183-150-NF	Install after water filter system to regulate pressure feeding unit to 50 PSI
17		JG 3/8 Locking Clips	PIC1812R	Collet locking clip for 3/8" Hose to JG fittings
1		25' of 3/8"OD hose	PE-12-EI-25	Water Inlet and Product hose. Cut in 4 sections to needed lengths
1		Leak Block Sensor	CR-LBS10-JG	Leak detector to be installed before filter systems, includes fittings
4		15" Zip ties		For securing hose and water reg. to wall
1		High Pressure CO2 Regulator	CR-PC160	For connecting to CO2 tank. Controls CO2 pressure. Adjustable. Includes 1/4" nylon washer

For questions or assistance with install contact Crysalli 510-732-0100 or your local Distributor.

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## Serenity System Description

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Congratulations on the purchase of your Crysalli system. The Crysalli Serenity, made up of a CP-JR-UC-BH Undercounter chiller/carbonator, CR-12FC water filter system and a CP-X3PBWF faucet tower or a CBR-V2C-MINI tower is a configuration designed to dispense bottle quality cold sparkling, cold still and ambient temp still water at the press of a button or pull of a handle.

The Serenity CP-JR-UC-BH unit consists of a condensing unit (refrigeration), a manual fill water bath reservoir, water-cooling coil, a carbonator tank, a carbonator pump, an agitator pump, and cooling coils. The unit will freeze over 1/3 of the water in the reservoir/bath to create a 3 lbs ice block (bank). This ice bank is responsible for maintaining a 32-degree reservoir water temp. The cooling coils and carbonator tank are submerged in the reservoir/bath water to chill and maintain ice cold product temperatures.

For proper function the Crysalli units must have a water supply, dedicated 120 Volt electrical supply and a full CO2 tank. The Installation kit including water filter, a high-pressure CO2 regulator, 50 PSI water pressure reducing valve, connecting lines and fittings that must be used to ensure proper operation.

**WARNING:** CO2 can be dangerous. Failure to connect the regulator per the instructions may result in leaks, explosions, asphyxiation and cause serious personal injury or death. Do not operate or place a Crysalli unit in a freezing ambient environment. A freezing ambient environment will cause water in unit to freeze and expand, possibly resulting in damage to pump/motor assembly, tank, water coil, water bath, valve(s), etc.

### The detailed stuff: Theory of operation

The Crysalli Serenity System was designed to manufacture and dispense carbonated and non-carbonated water much like

your local bottling plant that cans or bottles your favorite carbonated or non-carbonated water.

Initially water is filtered with sub-micron filtration to remove, sediment, chlorine, taste, odor and color, while retaining the naturally occurring minerals dissolved in the water for flavor. This filtered water is chilled and then carbonated to dispense a quality drink (ice-cold temperatures are key). To chill the water, the incoming filtered water is routed through a water coil that is submerged in the ice-cold water bath. The temperature of the incoming water is at ambient (room) temperature as it enters the water coil. As the incoming water passes through the water coil the heat is removed from the water and chilled to a temperature acceptable for a quality drink (34-40 degrees target). This chilled water is now routed into the equally cold and submerged carbonator tank where it is mixed with CO2. The carbonation pump must cycle on to jet water (at a higher pressure than the CO2) into the carb tank so the two can properly mix. This water is now transformed into sparkling water and ready for dispensing and enjoying.

Most of the above happens in the water bath part of the machine. The water bath is the sealed upper area where water is constantly agitated and a certain amount of it will be transformed into ice. This water bath and ice bank acts as a reservoir for refrigeration only (none the water in the bath is used for consumption) so you can have an ice cold and properly carbonated sparkling water to drink. Your Crysalli unit will cycle itself on and off as it maintains this ice.

It should be recognized that without refrigeration your carbonation system would not produce a drink that will hold carbonation. There is a direct relationship between dispensed temperature and the volumes of CO2 that can be held in liquid form (how bubbly your sparkling water can be). Thus, your Crysalli unit should be left on even when not in use so it can maintain the ice bank and cold temperatures.

**The really detailed stuff:** The following will give a general overview of the flow of individual circuits and

a clearer understanding of your mini bottling plant:

An Ice Bank Control (IBC, S0513A) senses the level of the ice in the water bath and turns on or off the refrigeration system. The IBC has a sensing bulb, cap tube and controller. The bulb is submerged in the water bath. There is fluid in the bulb that expands when the bulb is covered in ice. This pushes fluid through the cap tube that pushes a diaphragm that activates the switch in an open position to shut the refrigeration off. Once ice is dissipated from the bulb the fluid backs off, deactivating the switch (closing the circuit) and turns the refrigeration back on to rebuild the ice bank. The water that does not freeze in the water bath surrounds the Water Cooling Coils and Carbonator Tank (Carb Tank) and is constantly recirculating via the submerged Agitator Pump (S0833).

Ambient filtered water enters the Crysalli through the incoming water line. The incoming water should be regulated with the use of the 50 PSI water pressure reducer from the install kit. (If the water is not regulated to 50 PSI and the water pressure is equal or greater than the incoming CO2 the act of carbonation will be greatly inhibited or completely eliminated. Also, RO water, or water with little or no TDS, less than 30 ppm, will have a hard time carbonating the water and should not be used without consulting Crysalli technical support). This water proceeds through the water coil where it is chilled prior to entering the carb tank or in the case of non-carbonated water chilled prior to going directly to a valve.

Carbon dioxide gas (CO2) passes from a CO2 cylinder through high-pressure regulator. The high-pressure regulator (CR-PC160) regulates the CO2 feeding the Crysalli unit and should be set at 75 PSI. The gas, after leaving the high-pressure regulator goes directly to the carbonator tank. This gas must be at a pressure greater than the incoming water by at least 25 PSI to assure the proper function of the carbonator. Hence the inclusion of the 50 PSI water pressure reducing valve in the install kit.

The carbonator utilizes a soda jet recirculating principle. This process

was pioneered in the early 1950's. This principle produces instantaneous carbonation at extremely large capacities. Combined with "cold carbonations" (ice cold water with the carb tank submerged in the same ice cold environment) results in a superior sparkling water with small dense bulbs that retain in a glass of water for a long time.

The standing CO2 gas pressure stops the water from entering the carb tank by itself. So during the cycle of operation the water must be pushed with a carb pump/motor (S1523). The carb pump has pistons, which drives the water through the water coil, through a dual check valve, through the soda jet and into the carb tank.

The position and angle of the soda jet is fixed to direct an extremely high velocity solid jet of fresh water so as to impinge upon the surface of the stored body of carbonator water within the stainless-steel mixing tank. The force created by this jet of fresh cold water entering the mixing tank causes all the water within to cascade and foamesce through the carbon dioxide gas area in a continuous recirculating-manner.

This action causes a breakdown of the surface tension of the water, forming numerous minute gases filled water bubbles. The micro thin walls of these cold water bubbles surrounded by gas both inside and out, offer maximum water surface for the absorption of the gas. The size opening through this jet permits large volumes of water to be carbonated.

As the incoming water is being carbonated it is monitored by a carb tank probe (S0073) that is in the carb tank. As the water level within the tank rises, it makes contact with the upper probe which will de-energize a relay on the liquid level control board and stop the motor from turning the pump. The carb pump/motor will be inactive until water within the tank recedes below the long probe tip, at which

time, the relay on the liquid level control board will close, engaging the motor once again. You will notice the carb pump running as you pour sparkling water and stop soon after you are done pouring once it has finished refilling the tank.

All of the sensors and parts in your Crysalli unit are connected to and are energized by the liquid level control board (LLCB, part # S0068-U). This is the communication center for the system, telling each part when to turn itself on or off, such as the refrigeration system via the signal from the ice bank control or the carb pump/motor via the signal from the carb tank probe. The board also monitors if the carb pump/ motor runs continuously for too long, which is typically caused by starving the system of water as a result of a plugged water filter or the coils freezing over in the water bath (if the ice bank control stuck closed).

LLCB monitors the pump via a timer built into it that tracks the run time of the carb motor. *If it runs for more than 4-8 minutes, the LLCB shuts the carb pump/motor down and illuminates the LED light near the on/off switch to warn you it's in a safety for which the carb system is off.* Resetting the safety, which turns the LED light off, and turns the carb system back on is achieved by toggling the on/off switch to the off position for 10 seconds, then back on.

Two items to note if your unit goes into this safety in which the LED light is on:

1. The refrigeration system stays on when in the safety, but since the carb system will be off, thus the machine will eventually just dispense CO2 gas and no water from the sparkling water faucet.
2. Also the safety being triggered can be a good indication that the water filter is plugged and needs to be changed out. The filter should be changed before resetting the safety limit.

### **Undercounter cooling system (the CP-JR-UC-BH only)**

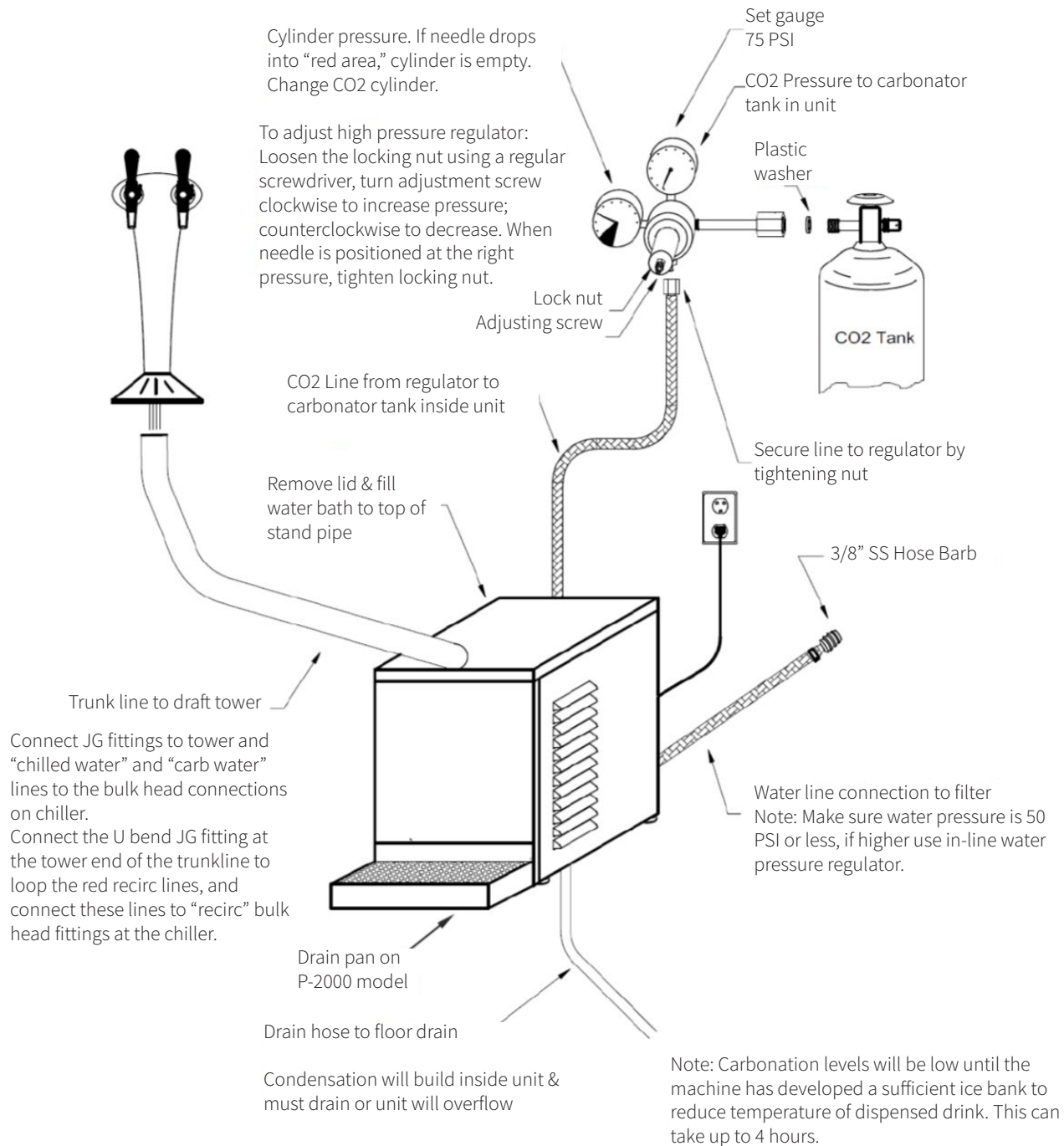
When installing the CP-JR-UC-BH in a cabinet, the following operations are very important:

Location of the cabinet: Since the CP-JR-UC-BH has a refrigeration system and carbonation pump in it, it will make noise when the refrigeration system cycles on and as you dispense sparkling water the carb pump will cycle on. So be aware of these ambient noises as standard function and don't place the unit in an area they are not wanted.

As the unit runs it will create heat, 585 BTU per hour (as a reference, 1 burning match creates 1 BTU, so image heat from 585 matches in the cabinet), so there should be some fresh air venation into and out of the cabinet as well enough space surrounding the chiller to ensure adequate air circulating through the refrigeration condenser. Do not block any of the vented panels on chiller.

The chiller should be located within 5' of the faucet. Water shut off valve/angle stop and dedicate 120-volt power outlet should be located as near the chiller as possible to facilitate install and service. Position the chiller so the condenser coil vent panel is closest to fresh air or the door of the cabinet.

# Undercounter Chilled Water Dispenser Quick Installation Guide



# How to make a Standard Connection using JG fittings



## Inch Polypropylene Fittings



### MAKING A GOOD CONNECTION:

To make a connection, the tube is simply pushed in by hand; the unique patented John Guest collet locking system then holds the tube firmly in place without deforming it or restricting flow.



PIC1812R



Secures the collet in its position to prevent an accidental disconnection of the tube.

Locking clips should be connected only after full insertion to prevent scraping of the tube. Locking Clips are not designed for use with John Guest Stem Adapters in Swivel Combinations.

### CUT THE TUBE SQUARE



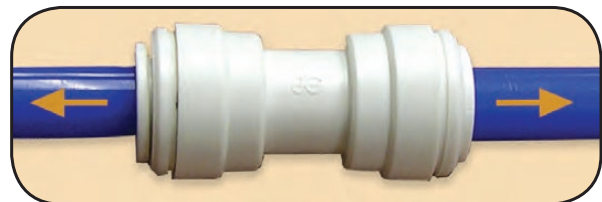
Cut the tube square and remove burrs and sharp edges. Ensure that the outside diameter is free from score marks. For soft or thin-walled plastic tubing we recommend the use of a tube insert.

### PUSH UP TO TUBE STOP



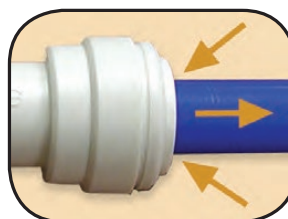
Push the tube into the fitting and up to the tube stop.

### PULL TO CHECK SECURE



Pull on the tube to check that it is secure. Test the system before use.

### TO DISCONNECT Push in collet and remove tube



To disconnect, ensure that the system is depressurized, push the collet square against the fitting. With the collet held in this position the tube can be removed.



## Connecting the Angle Stop Adaptor Valve

To tee off an angle stop water valve that is already being used, locate the PASVPP9 angle stop adaptor tee. To connect the angle stop adaptor valve:



1. Shut off water supply at brass/chrome supply valve.
2. Disconnect riser from brass/chrome supply valve.
3. Ensure that the sealing gasket is fully inserted into the angle stop valve female thread.
4. Install angle stop adaptor valve on supply valve.
5. Connect the riser to the angle stop adaptor valve.
6. Fully insert tubing into the Speedfit side of the valve.
7. Open valves and check for leaks.



For a dedicated angle stop water valve, use the PSEI6012U9 adaptor fitting.



To use the PSEI6012U9 angle stop adaptor, identify the angle stop water valve in your cabinet that will be the water source for the system, remove the compression nut and ferule ring from it and thread the PSEI6012U9 fitting onto the valve where the nut and ferule ring were, hand tighten the fitting down.



\*Conversion adaptor can be threaded to either side of the valve to make configurations of 1/2"x1/2" NPS or 3/8"x3/8" compression.

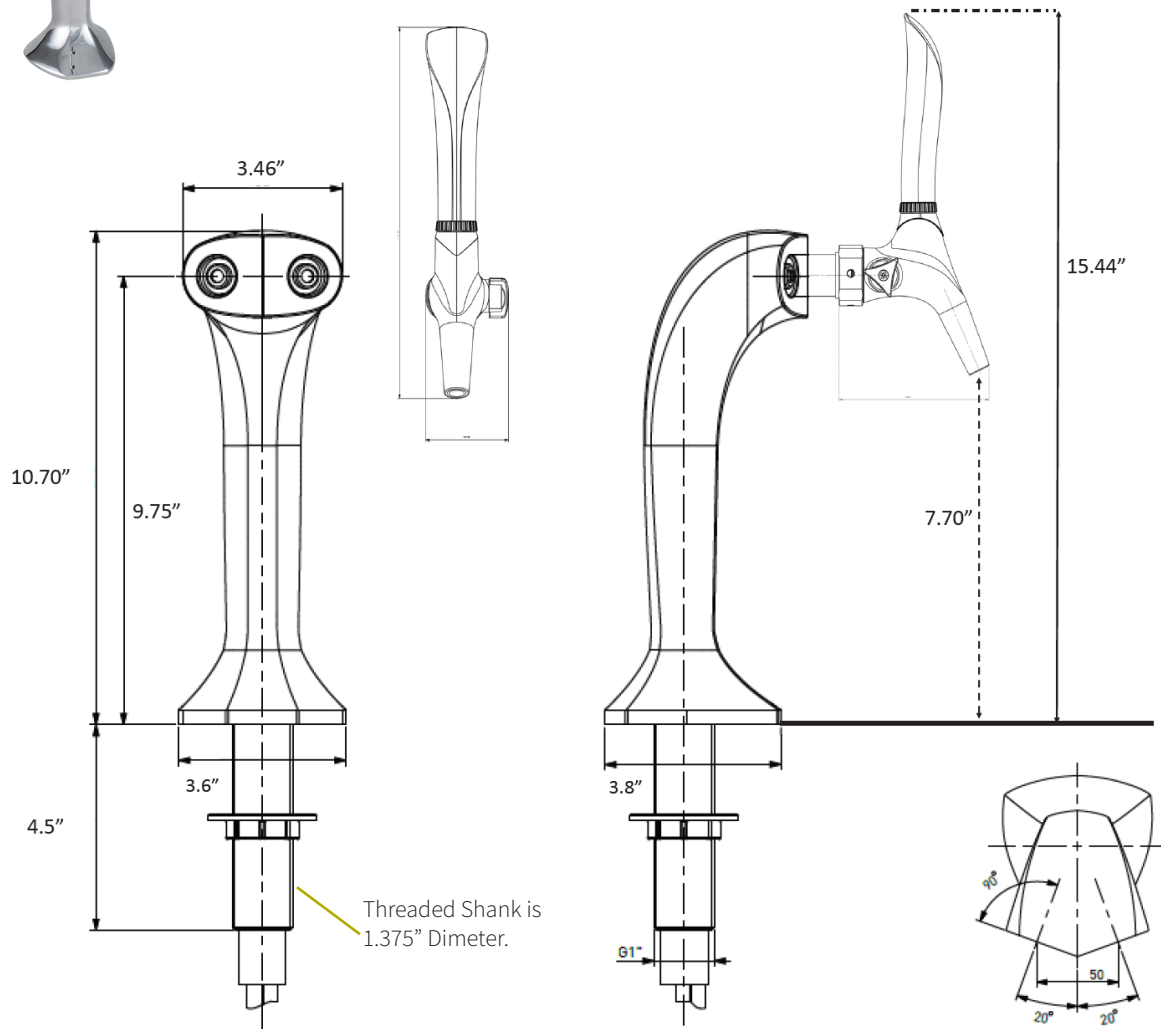


1/4 Turn valves. These valves have been designed to allow temporary servicing of downstream equipment and must only be used in the fully open or fully closed position.

DO NOT USE THESE VALVES:

- In a partially open position to control flow.
- To provide a permanent termination.
- Without tubing assembled or plugged (or threaded connections sealed).
- As a tap or "faucet."

## CBR-V2C-MINI



\*Countertop hole cut-out requirements for tower:  
1.5"



## Mount and connecting the CBR-V2C-MINI

**Step 1:** Locate the box containing the tower for the system. A draft tower such as the CBR-V2C, CBR-V3C or LIT-V2C, are packaged with the faucet bodies and handles shipped loose, a faucet wrench, a set of SI030812S superseal fittings for the 1/4" stainless steel tubes on the tower, PP221212W plug in elbow fittings and instructions.



**Step 2:** Insert tower into the hole 1.5" in the countertop for it, thread on and tightened the set nut to secure tower. Locate grey SI030812S superseal union elbow fittings supplied with the tower (one per tube). Loosen the collet nut on the fitting to the last thread then push the fitting onto the 1/4" stainless steel tube as shown on John Guest instruction page. Tighten the collet nut all the way down to lock fitting onto SS tube (failure to tighten the collet nut

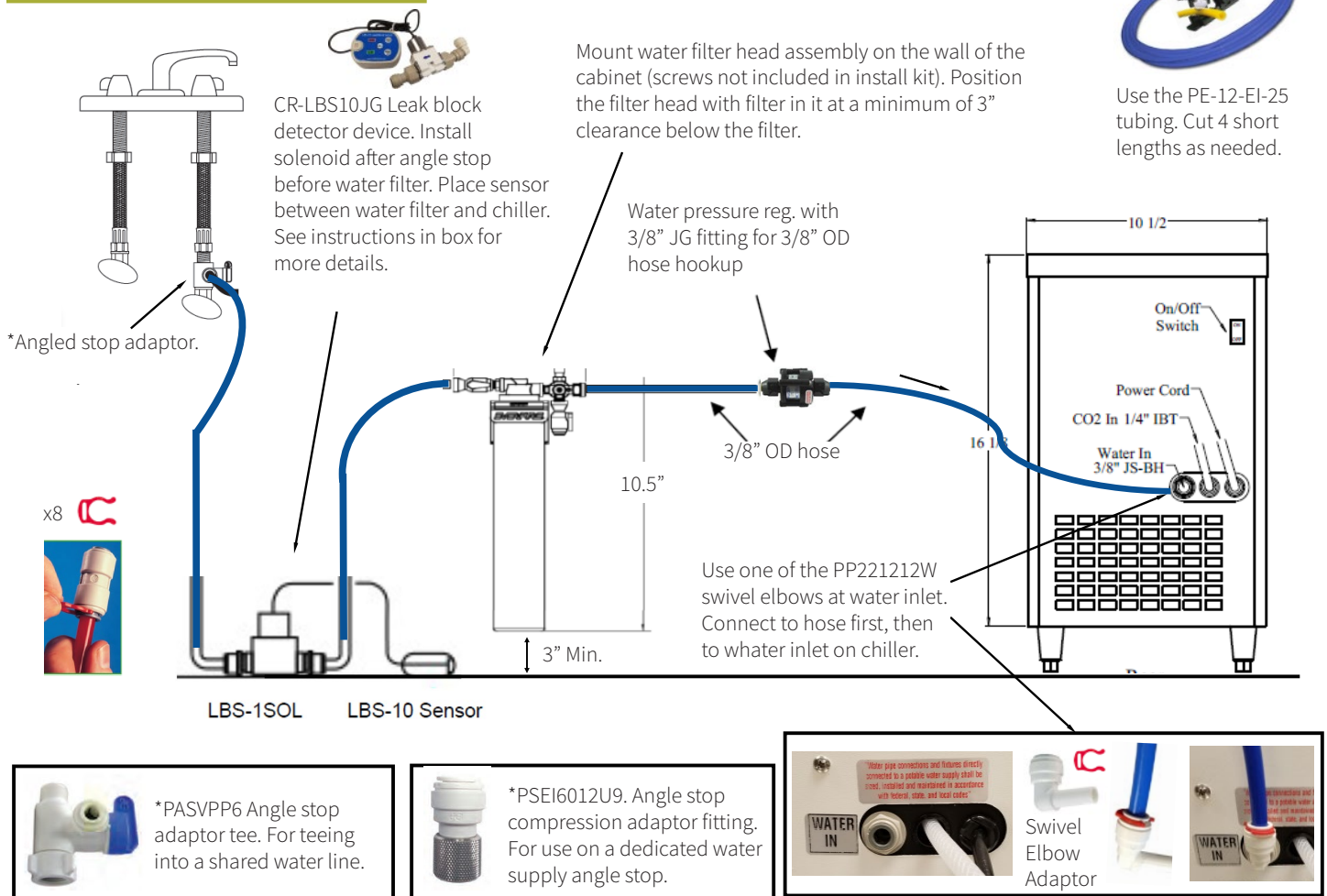
can result in a leak or the fitting slipping off). You will use the white plug-in elbow fittings to connect the product line from the trunkline to the tower. It is easiest to attach these fittings to the product tubes of the trunkline first (using the red locking clips), then connect them to the superseal fittings on the tower tubes (see "CR-4L38 Trunkline Tower End Connections" page).



SI030812S Superseal elbow, loosen collet nut, push into SS tube and tighten collet nut or spin fittings around to tighten them and create a seal.



# Inlet Connections from Angle Stop



Cut three 6' lengths of 3/8" hose for Locate 2 elbow fittings, 2 red lips, tube cutter, blue 3/8" hose, 8' insulated sleeve and insulated tape.

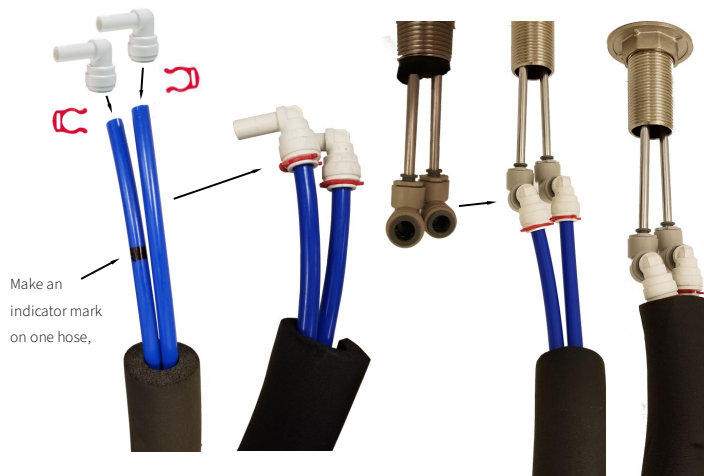
Cut two 6' lengths of 3/8" hose for the carb water and cold water connections.

With a permanent marker or tape, mark one hose at each end about 3" down to differentiate them.

Slide your 2 hoses, carb water and cold water into the 8' length of insulated tubing. Leave about 6" worth of hose exposed.

Push the elbow swivel fitting onto the blue hose ends and slip the red clips into the collet of the fittings.

Push the smooth end of the elbow fittings into the super seal fittings attached to the product lines of the draft tower. Once connection are made, slide the insulation tubing up



and over connections as high up as possible. Use insulated tape roll to wrap exposed cold product lines after the system is leak checked.

After all connections are made at the machine and tower, turn on the water to the unit and check all connections for leaks, then wrap all exposed hoses and fittings with the insulated tape. Failure to do so can result in sweating of the hoses and fittings which will result in water drips.

## Mounting Faucets & Handles to Tower

Locate the faucet bodies, handles and wrench.

The faucet bodies attach to the shanks that are pre-attached to the tower and leak tested.

When attaching the faucet body to the shank, be sure the faucet is properly aligned before tightening it down. Adjusting the faucet angle when attached to the shank can result in loosening the shank to tower connection which can cause a leak.

Using the faucet wrench on the shank nut:

- Counter-clockwise tightens the shank nut to the faucet body.
- Clockwise loosens it for removal.



Push faucet onto the shank



Angle the faucet body vertically straight



Set the faucet position, push back to lock in



Pull shank nut to faucet and hand tighten



Tighten shank nut with faucet wrench



Once the faucet bodies are attached to the tower, thread the handles on to the them. Thread down until the position the handle with curve is facing you, if loose, tighten the black set nut up to the handle base to lock the handle in position. Apply the round sparkling and still water image stickers to the appropriate handles at the top of them.

# Serenity Chiller

## CR-JR-UC-BH

Do not enclose unit in a sealed space or block any louvered sides. It is required that the cabinet is ventilated to draw fresh air in and move the hot air out.

Sparkling carb water flow rate adjuster. A metric 2.5 allen wrench is included. Turn to the right to decrease flow. Note, a slower flow will yield more carbonation.

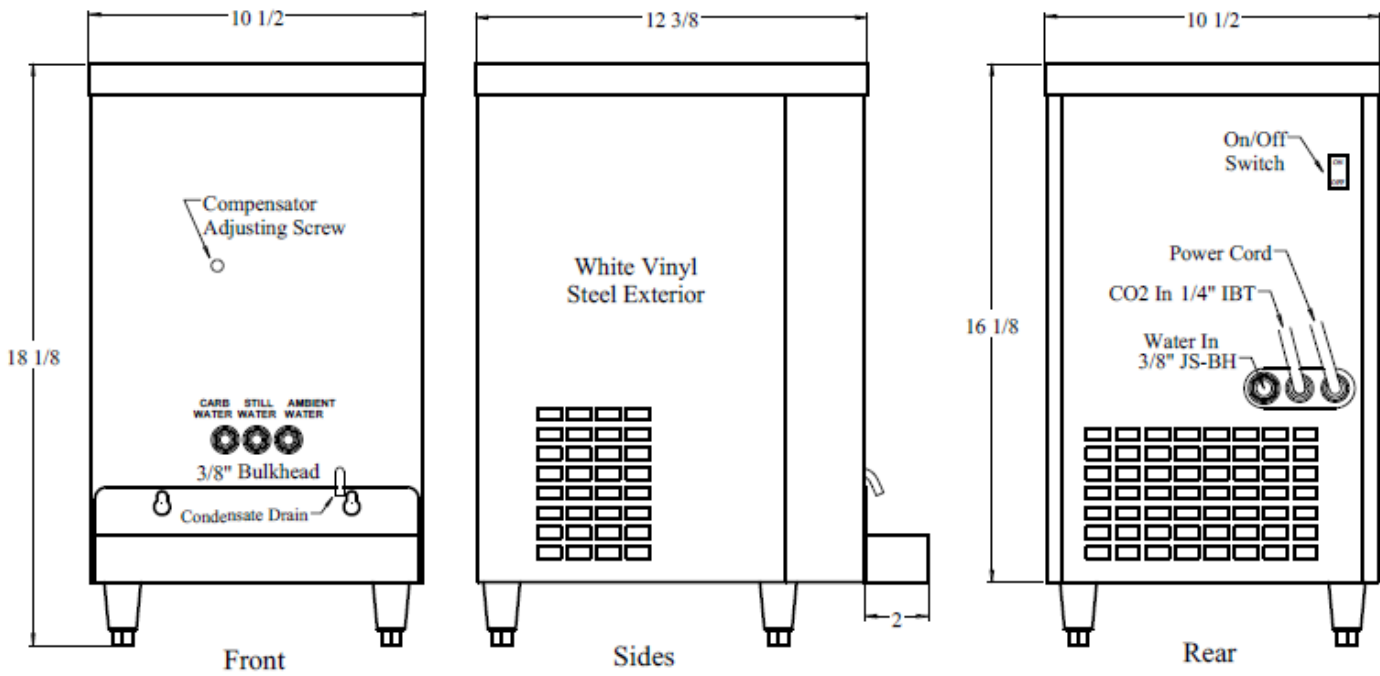
Water bath over flow drip pan.

Lid to water bath. Fill bath with 1 gallon of water.

Hot air out. Do not block.

- Electrical Data:**
- Includes an 8' Cord and Plug.
  - NEMA 5-15 plug end
  - 120 Volt 60Hz, 1 Phase.
  - 3.5 Amp, Carb Motor: 0.7 Amp
  - Condensing unit: 2.2 Amp
  - 15 Amp Max Overcurrent Protection

- Refrigeration Data**
- 1/8 Horsepower Condensing Unit
  - 584 BTU per hour
  - R-134A
  - 3.24 Oz, 90 Gram
  - Design Pressures
  - High Side: 235
  - Low Side: 150



Draw rate	1-8 oz/min	Total drinks < 45	40
Compressor	1/8 HP	Ice bank	3 lb.
Water bath	1 gallon	Electrical	120-volt 60-hz
Carbonator	1.5 - GPM	Shipping weight	60 lb.
		Dry weight	47 lb.

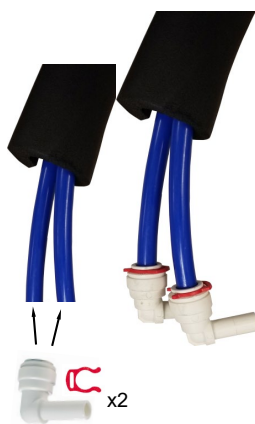


## Serenity CR-JR-UC Connections with CBR-V2C-MINI

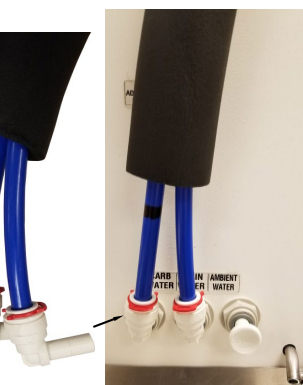
With the connections made at the faucet, cut back some the insulated tube at the other end to match the length of hose and then push it back to expose the hoses for connection to the chiller. If the total length of the two hoses is too long, it should be cut back to an appropriate length (always leave slack in the hose in case the unit needs to be moved), also re-mark the hose end to identify the matching connection at the tower.

Locate 2 swivel elbow fittings and red clips, these should be used to decrease tension on the hoses when connected to the bulkhead of the chiller. Push the fittings onto the hose ends and place the locking clips on the fitting collet just as you did at the tower end.

Push the assembled hose and fittings into the bulkhead connections for carb water and plain water (cold) on the chiller. Pull the insulation down over the fittings. After water is turned on to the unit, go back and check fittings for leaks and wrap all exposed hose and fittings with insulated tape to prevent sweating from them.



Use the 2 remaining PP221212W swivel elbows on the outlet connections.



Push assembled hose and fittings into bulkhead connections on chiller.



Pull Insulated sleeve down over hose and fittings.



Use insulated tape to wrap the fittings and exposed hose. Wrap them well to insulate.



Match your connections

Chiller Label	to	Faucet Label
Carb water	=	Sparkling
Plain water	=	Chilled still
Ambient water	=	Plugged

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## CR-12FC Filter System

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Flow Rate: 1.5 gpm

Capacity: 6,000 gallons

Effectively filters dirt and particles as small as 1/2-micron in size by mechanical means.

Reduces chlorine taste & odor and other offensive contaminants that can adversely affect the taste and quality of sparkling and still water.

NSF/ANSI standard 42 class I and 53 certified to reduce cysts such as Cryptosporidium and Giardia by mechanical means.

Replace cartridge when flow rate becomes inconveniently slow from faucet or at least once per year.



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## 50 PSI Water Pressure Reducer Valve

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Install after the water filter system close to the chiller.

Reducer valve is directional. Arrow on valve indicates water flow direction. Failure to install in the correct direction will result on no water flow.

Do not over tighten fittings. Fittings have an O-ring gasket, so Teflon tape is not required.



\*Always reference local plumbing codes to determine if a backflow preventer is required and to check the type/style of backflow preventer that is accepted as well as the plumbing location it needs to be placed in.

Crysalli does not include backflow preventers in the install kits because of variability in requirements.

Backflow devices should be sourced from local plumbing stores.



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## CR-LBS10JG Kit

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Leak block control unit sensor

Solenoid latch valve

9V battery

John Guest fittings

### Operating Instructions

#### Installation:

1. Install the 3/8" fittings to the solenoid valve inlet and outlet ends. The thread of solenoid valve is 1/2" BSP male. Then connect a 3/8" OD tube from the angle stop to the inlet fitting on the solenoid valve (indicated by position of the arrow). Then connect a 3/8" OD tube from the outlet end of the solenoid to the water treatment system that is feeding your Crysalli CP2000 unit.
2. Put the 9V battery in the control unit and activate it by holding the check/reset button for 4 seconds (see operation instructions for more details).
3. Place the control unit next to your Crysalli unit, ideally between the filter system and chiller.
4. Turn on water and check for leaks at your connection points.

#### Operation:

1. Reset to work
  - a) Keep pressing button for 4 seconds, the control unit activates solenoid valve to open the inlet tube of water treatment system, and generates a long beep sound.
2. Auto shut-off when water leak is detected.
  - a) The control unit shuts activate solenoid valve to shut off the inlet tube of the water treatment system to block water flow, and generates an acoustic signal, "beep-beep," and blinks the blue light continuously to notify the water leak is detected. After the leakage problem is solved, keep pressing button for 4 seconds, the control unit activates solenoid valve to open the inlet tube of water treatment system again with a long beep sound.
3. Low power shut-off
  - a) When the battery power is low, the control unit shuts off the inlet tube of the water treatment system, blinks red light and generates an acoustic signal "beep" to notify that the battery needs to be replaced to keep water leak protection functional.

## Connecting CO2 and Filling Water Bath

**Step 1:** The hose for the CO2 connection is 6' long, 1/4" braided hose with a 1/4" flare nut on the end extending out from the chiller near the water inlet. Route this hose to the location of the CO2 tank. Locate the CR-PC160 primary high pressure CO2 regulator. Unbox it and be careful to locate the 1/4" nylon washer taped to the packaging. Insert this washer into the flare nut on the end of the hose and thread it on to the 1/4" mpt flare on the CO2 reg. Use a wrench to tighten it on. Locate paper washer with CO2 tank and thread CO2 reg to tank, making sure its tight.



**Step 2:** Remove the lid of the unit to expose the water bath. This is a sealed chamber designed to hold 1 gallon of water that is used to chill the product water hoses and carb tank.

Manually fill the water bath up with 1 gallon of water, up to the White stand pipe.

Overflow of water will drip into the SS drip tray as water freezes.

Once turned on the water bath will freeze a block of ice over the refrigeration coils on the side.

Give the unit an 1.5 –2 hours to freeze a full ice bank. Unit will cycle on and off to maintain ice bank. Empty any water that drained into the SS drip tray.

Check water bath every 6 months and top off it needed. Once a year, drain, clean and refill.

### Start-up sequence:

1. Make all connections to unit and from unit to faucet.
2. Place battery in leak detector and position sensor near chiller and water filter.
3. Connect the CO2 reg to the CO2 hose (use the 1/4" nylon washes supplied with the regulator, for the flare fitting on the braded hose). Connect the reg to a CO2 tank. Do NOT turn the CO2 on yet.
4. Fill the water bath with 1 gallon of water and replace lid on unit.
5. Turn the water on to the unit. Check for leaks.
6. Draw about a gallon of water from the still chilled or ambient water valves until water is flowing without sputtering to flush the water filter of air.
7. Plug the unit in and toggle the power on.
8. Turn the CO2 on at the tank. Set CO2 pressure to 75 psi. Tighten any CO2 fittings that are leaking.
9. Draw water from the sparkling button on the faucet. Run about a gallon of water till you visually see carbonation in the water. The carb pump will run as you draw carb water.
10. Water bath will need an 1.5-2 hours to form full ice bank. At this point run more sparkling water to check carbonation level of the water and make your flow rate adjustments at the chiller to meter down the force of flow.
11. Enjoy fresh cold sparkling and still water at a push of the button.



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## CO2 Information

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CO2 tanks can be sourced and refilled from local beverage CO2 companies (both bulk and/or tank) and welding supply companies.

On average, 1lb of CO2 will be used for every 5 gallons of sparkling water. A 20lb tank should carbonate 100 gallons (12,800oz or 378 liters) of sparkling water.



**WARNING:** CO2 can be dangerous. CO2 cylinders contain high pressure gas which can be hazardous if not handled properly. Follow all CO2 regulator instructions (found with CO2 regulator) and other handling instructions from the CO2 tank supplier.

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## CR-PC160 High Pressure CO2 Regulator 0-160 PSI

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**Attaches to 5-100lb CO2 tanks. Set at 75 PSI as a starting point.**

**Note:** Low-pressure beer regulators 0-60 PSI will not work properly with Crysalli.

Fill level gauge: Volume of CO2 in tank. Tank is empty when needle is in the red zone or zero.

Output pressure gauge: Shows CO2 output pressure settig. Set to 75 PSI.

Threaded connection to CO2 tank.

1/4" Male flare connection to Crysalli chiller. Use nylon washer supplied with regulator in fitting.

Pressure adjustment screw and locking nut.



## Sparkling Water Flow Adjustment Lock Out



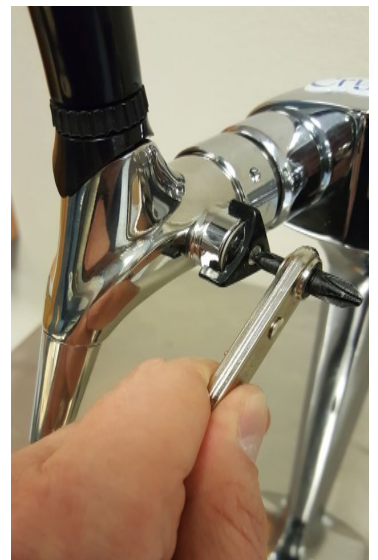
These faucets are designed with a flow control adjustment knob (decrease or increase the flow of the water) on the right side of the faucet body. It will be desirable to lock in a lower flow of the sparkling water rather than allowing it to be adjustable. This can prevent splashing in self service applications and will maximize carbonation profile of the water (the slower the pour the

better the bubble profile). The faucets can also “wander” or increase to full flow on its own with use. To lock in a set flow rate, these faucets are supplied with a stainless steel lock washer on the adjustment knob, once tightened down it will prevent the knob from being turned or moving on its own.



To set the flow rate & lock the flow adjustment knob (make sure system is on and cold, and CO2 open):

- Locate the black plastic three pronged adjustment knob on the right side of the faucet, and check that you can freely turn it (you may need to loosen the Phillips head set screw a little so the knob can turn).
- With a cup under the faucet pull open the handle so sparkling water is flowing. While water is flowing turn the knob to adjust the flow rate (clockwise or away from you to decrease the flow).
- Once a favorable flow rate is determined, tighten the set screw (while not turning the knob) so teeth of washer bite in to the plastic, this will lock the knob so it can no longer be turned or move out of adjustment on its own.
- Check the flow rate again by filling a cup and confirm if the knob is properly tightened down so it can't be turned by hand.







## **Crysalli Serenity Cleaning and Maintenance** **Recommendations**

### **Daily:**

- ☐ Wipe down the unit or draft tower, cleaning and drying all surfaces. (Use window cleaner on mirrored and chrome finishes).
- ☐ Check flow from faucet, loosen, readjust, and tighten flow control knob as needed. Note that the sparkling water can come out more forceful after prolonged non-use.
- ☐ Check that flow, temperature and carbonation of water poured from the unit are consistent to average use.

### **Monthly:**

- ☐ Check CO2 level at CO2 tank. A 5 lbs CO2 tank can last up to 3 months with moderate volume use. If sparkling water is no longer carbonated, this is an indication the CO2 tank is empty and should be replaced.

### **Quarterly:**

- ☐ Inspect and clean any dust from the condenser coils on chiller (use compressed air or a wire brush, avoid any damage to the coil fins).
- ☐ Check the water bath level, either top off or drain, clean and refill.

### **Semianually:**

- ☐ Drain water bath, clean and refill with new water (pull white stand pipe inside water bath to drain water. Be sure have a container under the ss drain spout at the front of the unit to catch the draining bath water). Remember to replace the dip tube before refilling the bath.
- ☐ Check for drop off in water pressure from the cold and ambient water at the faucet. This will be an indication that the water filter is plugging with debris and should be changed. Use only 2FC replacement filter cartridges. (The sparkling water should not slow down its flow as the filter begins to clog. A plugged water filter will result in the sparkling water gassing out as it is pouring. Or only dispensing CO2 gas. If the system does not dispense water and only gas then check if the LED light is on at the chiller. This is a safety warning that the water flow is plugged. Check the water filter or ice bank in water bath. Turn the unit off for 10 seconds then back on once water flow issue is resolved to reset safety).

### **Annually:**

- ☐ Inspect internal water bath components such as agitator pump, CO2 and water inlet. Check valves on carb tank, bleed valve on carb tank and all hose connections.
- ☐ Change water filter. Use only 2FC replacement filter.

Model Number:

Install Date:

Serial Number:

Installer/Service:



## **Limited Express Warranty**

Crysalli Beverage Systems (hereinafter referred to as Crysalli) warrants for a period of 12 months from installation date (except as limited below) that new Crysalli water systems, towers and faucets (hereinafter referred to as Product) manufactured by ICI for Crysalli shall be free of defects in material or workmanship under normal and proper use and maintenance as specified by Crysalli and upon proper installation and start-up in accordance with the Quick Install Guide and Owners Manuals. Any accompanying water filtration system is warranted by the Manufacture of that product only, not by Crysalli, ICI or WPD.

The obligation of Crysalli under this limited express warranty is limited to the repair or replacement of parts, components, or assemblies that in the opinion of Crysalli are defective. This warranty is further limited to the cost of parts, components or assemblies and standard straight time labor charges at the servicing location. Replacement parts are warranted for 90 days or the balance of the original warranty period, whichever is longer. The foregoing constitutes Crysalli's sole obligation and the consumer's exclusive remedy for any breach of this warranty. Crysalli's liability under this warranty shall in no event be greater than the actual purchase price paid by the consumer for the Product. Additional expenses including, without limitation, service travel time, overtime or premium labor charges, accessing or removing the Product, or shipping are the responsibility of the consumer.

The foregoing limited express warranty shall not apply to costs for: (1) periodic or routine maintenance including water filter change outs, (2) repair or replacement of the Product or parts due to normal wear and tear, (3) defects or damage to the Product or parts resulting from clogged water filters, misuse, abuse, neglect or accidents, (4) defects or damage to the Product or parts resulting from improper or unauthorized alterations, modifications, or changes; (5) defects or damage to any Product that has not been installed and/or maintained in accordance with the Owners Manual, Quick Install Guide or technical instruction provided by Crysalli, ICI or WPD; and (6) any work being performed by non-authorized service agents.

THIS LIMITED EXPRESS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES OR GUARANTEES OF ANY KIND, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL CRYSTALLI, WPD, OR ICI BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES. Upon the expiration of the warranty period, Crysalli's liability under this limited express warranty shall be terminated. The foregoing limited express warranty shall constitute the sole liability of Crysalli, WPD and ICI and the exclusive remedy of the customer or user.

To secure prompt and continuing warranty service, the warranty registration card or online form must be completed and sent to Crysalli within thirty (30) days from install date. Complete the following registration card and send to Crysalli/WPD to below address. Retain a copy for your record.

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Name of Customer/Business & Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Distributor/Dealer: \_\_\_\_\_

Model Number: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Install Date: \_\_\_\_\_

Install Company: \_\_\_\_\_

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