Crysalli
Beverage Systems

Install Guide

UCM Sparkling & Still Remote Dispenser System

CR-UCM1 & CR-UCM2 Remote Chiller
with CBR, or CM Series Towers





Register your
product online:

Crysalli Beverage Systems a division of WPD
1739 Sabre Street, Hayward, CA 94545
www.crysalli.com
510.732.0100
01122023

CR-KIT-UCM Install Kit
Ordered Separately

Install Kit for CR-UCM1 & CR-UCM2 Remote Chiller with CBR, or CM Series Towers.

QTY		Description	Part Number	Usage
	1	3/8 Tube x 9/26-24 Female Adapter	PSEI6012U9	Quick connect fitting adaptor to an anglestop
	2	1/2” Tube to 3/4” NPT	PSEI02026	Adaptor reducers for filter system inlet and outlet
	2	5/8” (1/2”) Stem to 3/8” tube	PP062012W	Adaptor reducers for filter system inlet and outlet
	8	JG 90 elbow 3/8” smooth to 3/8”	PP221212W	For trunkline outlet of unit and water inlet
	1	JG U shape union 3/8” to 3/8”	PIUB12S	To complete water re-circ circuit from conduit
	12	JG 3/8 Locking Clips	PIC1812R	Collet locking clip for JG fittings
	2	JG 3/8” to 3/8”: union	PP0412W	Extra 3/8” push-in fitting union for adding water line
	4	JD Splice 3/8” Barb to 3/8” Smooth	PI251212S	Extra barb adaptors for connecting filter to inlet line
	1	Splice Barb 1/4” to 1/4”	9001	Use this fitting for adding additional CO2 line
	1	Splice Barb 3/8” to 3/8”	9013	Use this fitting for adding additional drain line
	4	10.5 Oetiker Clamps	0105	Use with 9001 for 1/4” ID braded CO2 hose and barb
	4	15.7 Oetiker Clamps	0157	For 3/8” drain hose and barb
	1	5’ Trunkline, 2 product, 2 red recirc	CR-4L38	To connect the draft tower to CR-UCM Chiller
	1	Leak Block Sensor	CR-LBS	Set in drain pan
	1	12’ Section of 3/8” OD tubing	PE-12-EI	Water inlet tubing, filter system to chiller
	1	6’ section of 3/8” ID clear BIB hose	200-0610X100 WPD	Additional drain line if needed
	1	8’ sections of 1/4” ID braided hose	172-04804-00	Additional CO2 hose, if needed. Do not use in JG fittings
	1	Roll of Armaflex tape	1007	Insulation tape for wrapping conduit lines and tower
	1	2’ Sleeve of Armaflex	INSUL 1 3/8 x 1/2	Additional insulation wrap for conduit lines and tower
	4	12” Zip Ties	S-14042	
	6	8” Zip Ties	S-14041	

This Kit is designed to supply you with the fittings & parts you may need to complete the install of an CR-24FC Filter system to a Crysalli CR-UCM chiller unit and a CBR-V2-SSX dispensing tower with CR-4L38 trunkline.

This kit is supplied with 5’ of CR-4L38 trunkline unless a secified different total length is ordered, which you get instead.

Note: The Crysalli Draft tower comes with 3/8 to 1/4 John Guest Union fittings for product line hook up, they are not in this kit.

When installing a second CBR-V2-SSX tower, use the CBR2-FKM fitting kit (sold separately) which includes additional fittings for splicing in and hooking up a second tower.

Additional tools needed: Oetiker Crimper (part # 10258), sharp knife, tube cutter, wrenches, teflon tape and silicon.

The CR-24FC filter system will require appropriate screws and anchors to mount to wall or cabinet.

Do not use the 1/4” Braded hose for connections to John Guest fittings. This additional hose is for CO2 only.

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.

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

CR-UCM Series Start-up and Install Check List

Start-up Sequence:

- ☐ Confirm the water bath is filled.
- ☐ Turn water on to unit (confirm flow from faucets).
- ☐ Plug unit in and toggle on/off switch to the “on” position.
- ☐ Turn CO2 on at tank (carb tank may need to be bled).
- ☐ Review system operation & maintenance w/ customer.

Water Filters, CR-24FC and CR-24FCP:

- ☐ Water on. Filters flushed via the flush valve and flowing water.
- ☐ Water pressure at/through water filter system above 50 psi and not dropping off.
- ☐ All connections leak-free.

CO2:

- ☐ CO2 hose from unit: flare nut connection on end of CO2 hose tight to CR-PC160 CO2 Regulator (be sure to use nylon washer supplied with reg in fitting).
- ☐ CO2 reg connected to CO2 tank (card board/plastic washer used) tight and leak free.
- ☐ CO2 tank full, opened all the way and set to 75 PSI.

CBR Tower:

- ☐ Faucets tight to shank and positioned vertically. Free of leaks. Customer has faucet wrench and instructed how to use it.
- ☐ Handles are screwed down tight, front facing and on the appropriate faucet.
- ☐ Sparkling water; cold, carbonated and tastes clean and pure (run a few liters of water; is carb pump cycling on and flow consistent without gassing out).
- ☐ Still water: cold and consistent flow. Tastes clean and pure.
- ☐ Flow adjustment on faucets set and knob tightened down so flow rate appropriate and locked in.
- ☐ Connections to tower made using supplied Super Seal JG fittings from kit and leak free.
- ☐ All exposed hoses and fittings all wrapped in insulated foam tape.

Remote Chiller: Unit On

- ☐ Unit on and plugged into a dedicated 120V outlet.
- ☐ Cabinet properly ventilated to handle BTU load of unit heat. Can fresh air draw in and hot exhaust air vent out. Unit free of obstructions around it and can vent. If using a fan box, check that it is plugged in and running.
- ☐ Unit positioned so air filter is accessible. If using a CR-ABUCM air baffle, it is in place and sealing to vents.
- ☐ Rear outlet connections for trunkline (hoses and fittings) to tower wrapped in insulted tape and leak free.
- ☐ Water inlet connection to unit leak-free and not pinched off anywhere.
- ☐ Water bath filled with non filtered water up to the top of the white stand pipe.
- ☐ Ice bank formed on refrigeration coils in water bath. Unit cycling on and off properly to maintain ice bank. Unit will take 2 to 4 hours to form full ice bank after initial start-up.
- ☐ Carb pump cycling on for 7-14 seconds after 1.5 liters of sparking water is poured, and not screeching.
- ☐ Agitator pump agitating bath water and pumping re-circ water through the trunkline.

How to make a Standard Connection using JG fittings

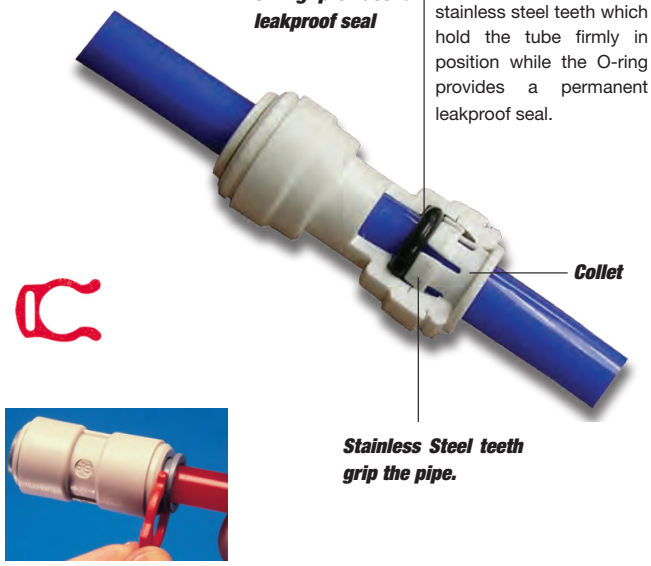
John Guest®

Inch Polypropylene Fittings

Lead Free · NSF 51 NSF 61 · GENUINE JG John Guest

MAKING A GOOD CONNECTION:

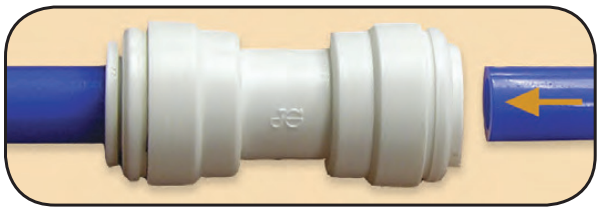
To make a connection, the tube is simply pushed in by hand; the unique patented John Guest collet locking system then holds the tube firmly in place without deforming it or restricting flow.



CUT THE TUBE SQUARE

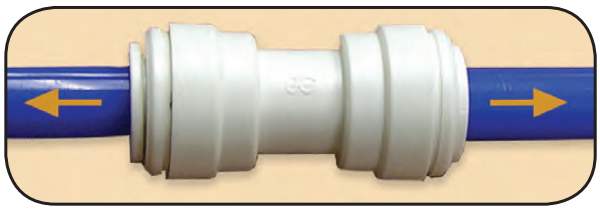
Cut the tube square and remove burrs and sharp edges. Ensure that the outside diameter is free from score marks. For soft or thin-walled plastic tubing we recommend the use of a tube insert.

PUSH UP TO TUBE STOP



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

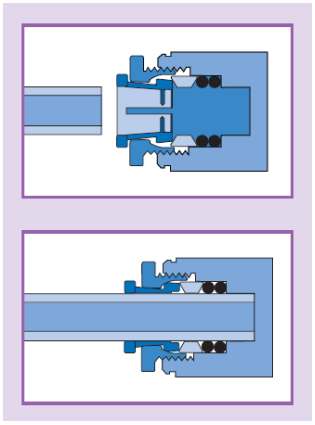
PULL TO CHECK SECURE



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

Inch *Superseal* Fittings

For use with Stainless Steel Tubing

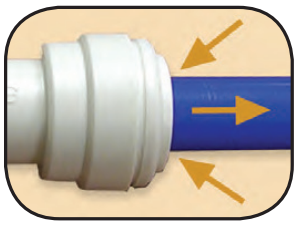


CBR Towers

Correctly set and tightened

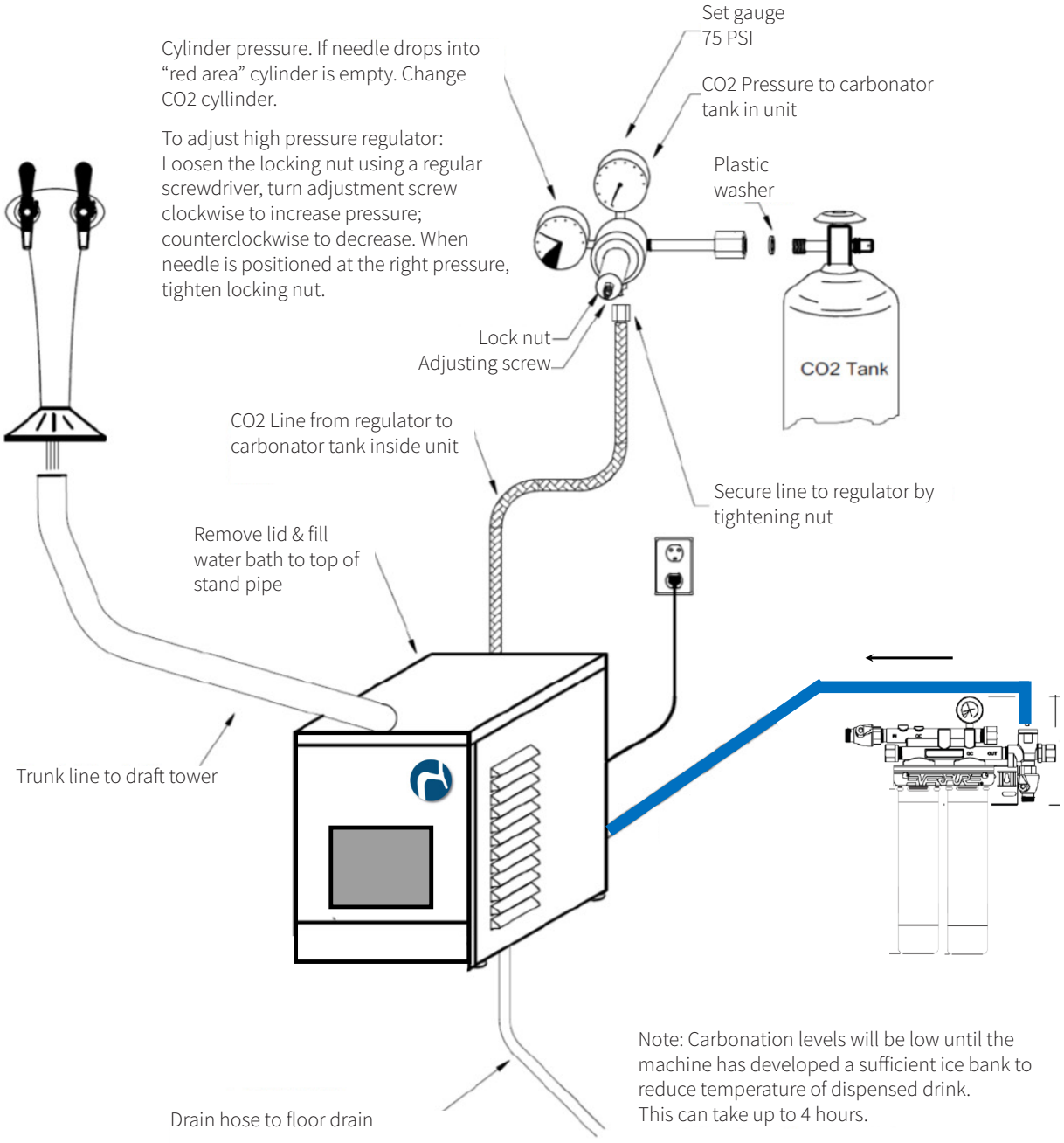
Fitting not tightened down

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.

Under Counter Chilled Water Dispenser Quick Installation Guide



*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.
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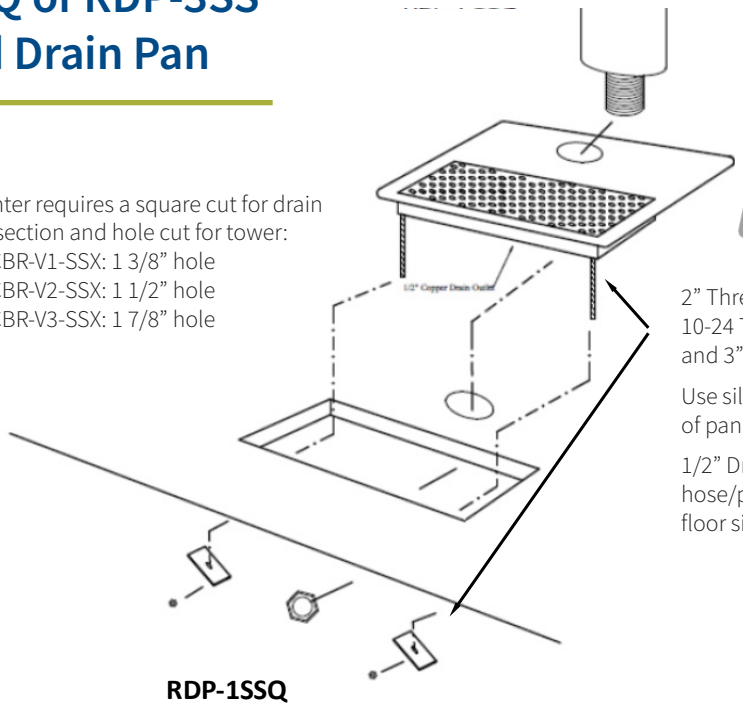
Backflow devices should be sourced from local plumbing stores.

Mounting the RDP-1SSQ or RDP-3SS Recessed Drain Pan



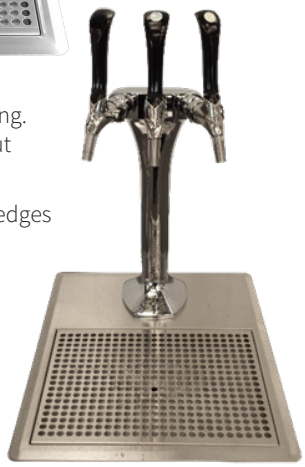
Counter requires a square cut for drain pan section and hole cut for tower:

- CBR-V1-SSX: 1 3/8” hole
- CBR-V2-SSX: 1 1/2” hole
- CBR-V3-SSX: 1 7/8” hole

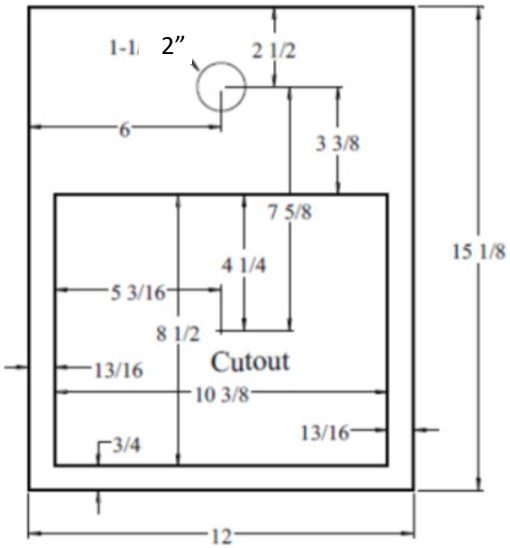
2” Threaded stud for mounting. 10-24 Thread with locking nut and 3”x1” SS Mounting Strip.

Use silicone on bottom and edges of pan to seal to countertop.

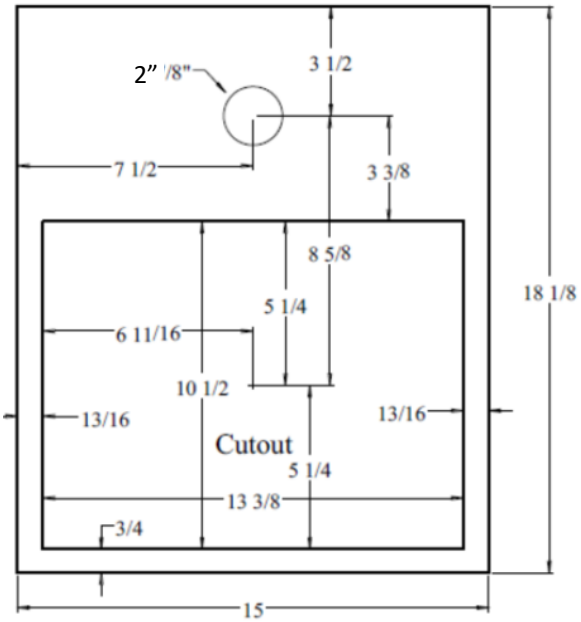
1/2” Drain stub, connect hose/pipe and run to floor sink.



RDP-1SSQ



RDP-3SSQ

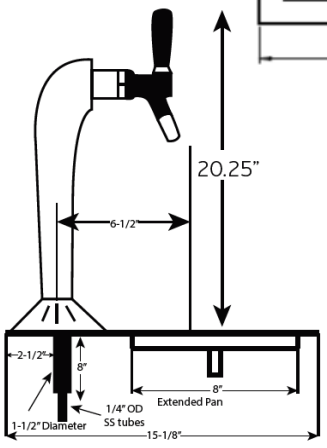


RDP-1SSQ for use with:

- CBR-V1-SSX
- CBR-V2-SSX

Specs:

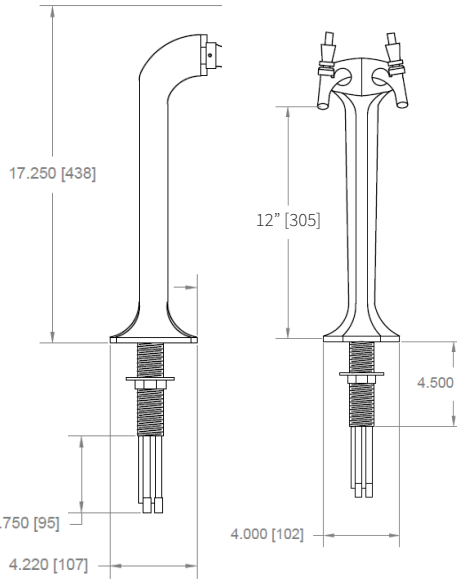
- 12” x 15 1/8” Overall
- 2” Tower hole on pan
- 10 3/8” x 8 1/2” Drain pan
- 1/2” Dia copper drain stub



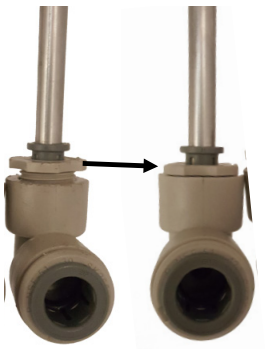
Mount and connecting the CBR towers

Step 1: Locate the box containing the tower for the system. A draft tower, such as the CBR-V2C-SSX or CBR-V3C-SSX, is 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 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.



CR-4L38 Trunkline Tower End Connections

Step 1: Locate the CR-4L38 Trunkline. 5' will be included with the UCM install kit, unless a longer length was ordered. If a longer length is being used pull the line from the chiller to the tower, being careful not rip the pvc wrap and not to make any bends that kink the tubes. Leave enough length at both ends so connections can be made and the chiller can move for service. If installing 3-valve tower, the 3rd water line, ambient water, should be tee'd off the water filter outlet and fed over to the tower.

Trunkline: 3/4" foam insulation with a PVC exterior wrap.

Four 3/8" plastic barrier tubes, wrapped together.

Two-product tubes: blue striped & natural color.

Two re-circ tubes: red striped

Step 2: Cut back the insulation (or tubes) so 2.5"-3" of tubing is exposed.

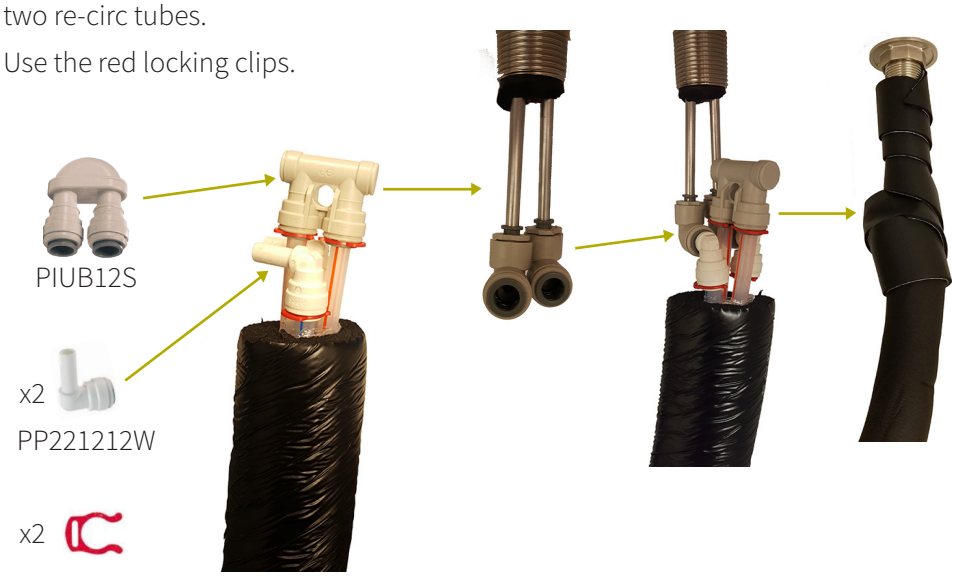
Cut the two product tubes (blue striped and natural color ones) back 1.5", so the red striped tubes extend past them at least 1.5".

Cut the tubes square and remove burrs and sharp edges. Make sure the red striped tubes are cut to the same height.

Step 3: Find the two white PP221212W plug in elbow fittings that come with the CBR Tower and connect them to the product tubes.

Find the grey PIUB12S u-bend fitting in the UCM install kit and connect it to the two re-circ tubes.

Use the red locking clips.



Step 4: Once assembled, connect the stem end of the plug in elbow fittings to the super seal fittings on the tower. Connect the blue striped tube to left faucet tube for sparkling water. Natural to still chilled water. If using a 3-valve tower, run a separate hose from the filter to the 3rd tube for ambient water. After testing the system for leaks, wrap all exposed hoses and fittings with the insulated tap found in the UCM install kit.

Mounting Faucets & Handles to Tower

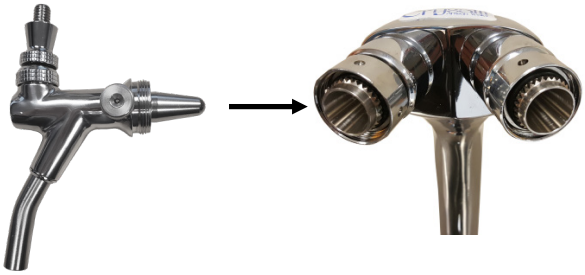
Locate the faucet bodies, handles and wrench.

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.

<u>Using the faucet wrench on the shank nut:</u>

- 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

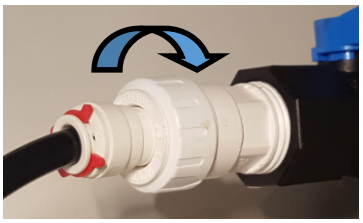
Tighten shank nut with faucet wrench

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.

Installing the Water Filter System & Angle Stop Adaptor

PP062012W

PSEI012026



Locate the 2 PSEI012026 1/2” to 3/4” MPT fittings and PP062012W 5/8” stem to 3/8” tube adaptor fittings from the UCM Install Kit, along with 2 red locking clips. These are your inlet and outlet fittings for the twin water filter system. Wrap some Teflon tape around the threads of the 3/4” MPT fitting, attach them to the two ends of the filter manifold. Push the smaller adaptor fittings on to the larger fittings and twist lock the larger fittings collet. Push the blue 3/8” hose ends into these fittings and apply the red locking clip.

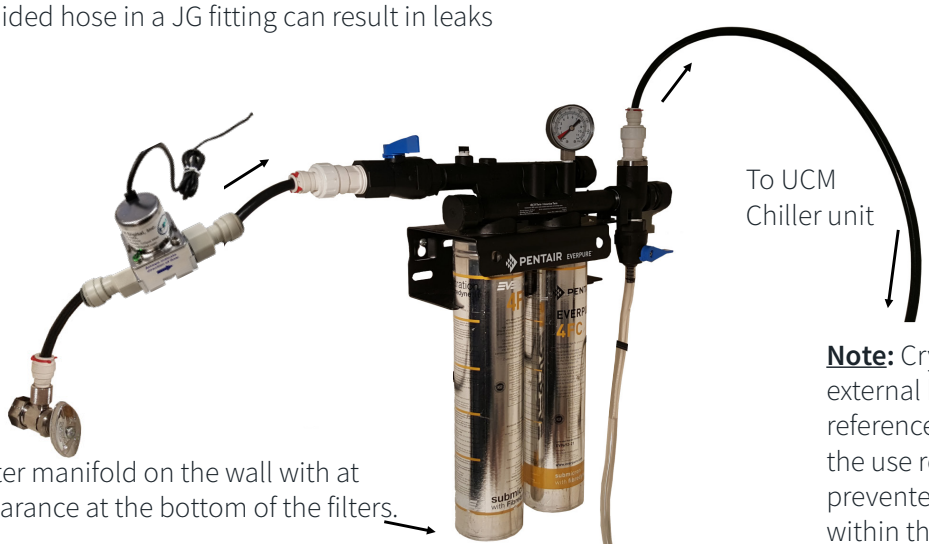
The UCM Install Kit comes with 12’ of the blue or black PE-12-EI tubing. Cut this to appropriate length for inlet and outlet plumbing needs.

Locate the PSEI6012U9 angle stop adaptor in the UCM Install Kit. Locate the angles stop water source feeding the system, remove the compression nut and ferule ring from it and replace with the PSEI6012U9 fitting.

Note: The Install Kit comes with a 1/4” white braided hose as well, this is not for the water connections. It is for the CO2 only and cannot be used with John Guest fittings. Using the braided hose in a JG fitting can result in leaks and flooding.

Leak Block Sensor, LBS10JG:

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 filtersystem that is feeding your Crysalli 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 nextto your Crysalli unit, ideally between the filter system and chiller.



Mount the filter manifold on the wall with at least 3” of clearance at the bottom of the filters.

Note: Crysalli does not provide external backflow preventers. Always reference local plumbing codes for the use requirement of a backflow preventer, as well as type and location within the system.

Placing the UCM Remote Chiller

CR-ABUCM

CR-TFB1

CR-WMB2

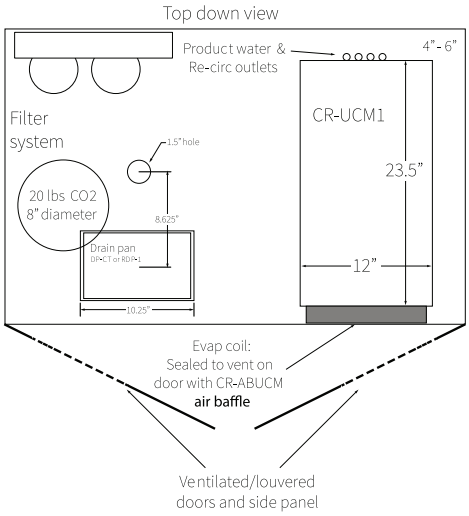
The CR-UCM Chillers generate a lot of heat when running, take all necessary measures to place it in an environment/space that allows for it to vent hot air out & away and pull in fresh, cool air. Failure to do so will void warranty and cause operational issues. Consider the CR-TFB1 thermostat fan to help vent hot air out.

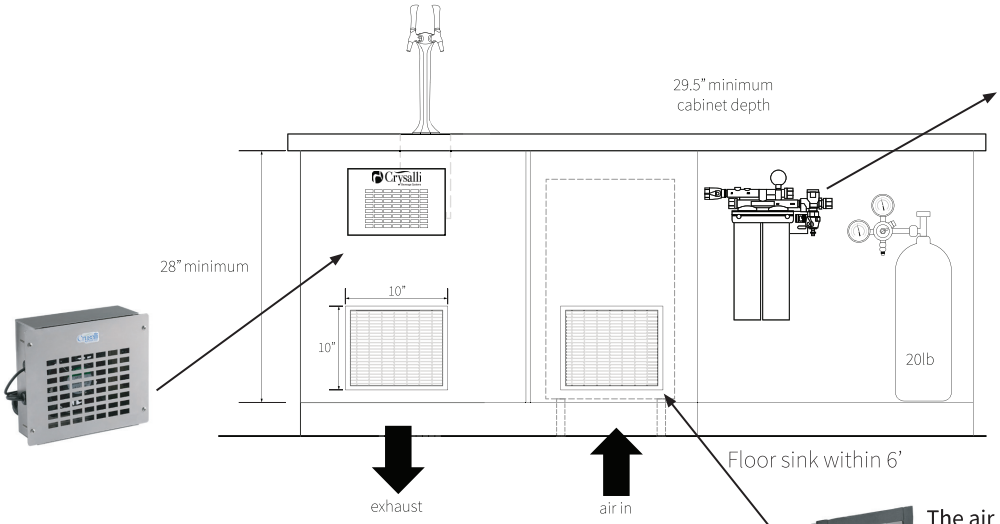
Place the CR-UCM Chiller so the front air filter is facing out or has the clearest path to breath air in, while being accessible for removal and cleaning. If using the CR-ABUCM Air Baffle assembly slide it over the air filter and position the unit so the baffle presses up to vent holes/louvers of the cabinet.

The unit will vent hot air out the sides (and back on the UCM2), leave at least one side free of obstructions and positioned so this hot air can vent out of the space.

The top of the unit will need about 8"of clearance so the lid can be removed and the water bath filled with water and inspected. *If going in a cabinet, avoid placing the unit directly under the CBR draft tower*, since you may not get enough clearance with the tower stem and lines protruding down.

If wall mounting the unit, appropriately anchor the wall mount bracket (CR-WMB1 or WMB2) to the wall/studs so it can support a minimum of 300 lbs. Remove the feet/ legs from the chiller and place it on the bracket, use the supplied 5/16-18 1" bolts to screw the unit to the bracket via the leg holes.





Crysalli filtration System part # CR-24FC

***Water filtration systems and CO2 should be installed within 6' of the chiller

CR-UCM Electrical notes:
Use with a dedicated circuit GFI outlets are not recommended since they have the tendency to trip when the compressor turns on.

Air exhaust grill Min: 70 sq./in open space or 100 sq/in with 30% restrictions

Air intake grill Min: 50 sq./in open space or 70 sq/in with 30% restrictions

The air baffle, part # CR-ABUCM, minimizes recirculation of hot air

Air intake grill should mate up **directly with the air baffle gasket. Air baffle adds 2" depth**

Connecting the UCM Chiller

Step 1: Position the UCM unit so you can make the trunkline and water connections. Locate the 5 PP221212W elbow fittings from the UCM Install Kit. You will use these on the trunkline hoses to the upper outlets and the water in on the back of the chiller.

Step 2: Connect 1 of the PP221212W fittings and red locking clips to the water inlet hose from the water filter system; then, connect to the UCM Chiller water in.

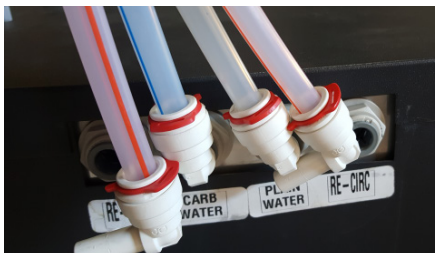
Step 3: Cut back 6”-8” of the insulation from the CR-4L38 trunkline to expose the 4 hoses. Cut the two product hoses a little less than 1/4” shorter than the re-circ hoses.

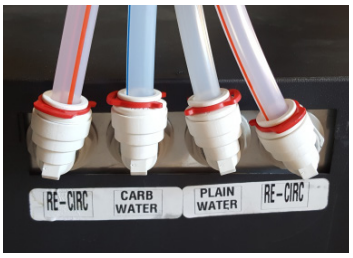
Connect 4 of the PP221212W fittings to the hoses, use the red locking clips on the hose to fitting connections.

x4 ea.

Step 4: Connect the hoses to the outlets:

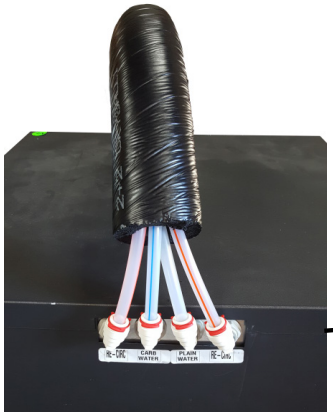
- Blue-striped hose the to the “CARB WATER”
- Natural hose to the “PLAIN WATER”
- The two red-striped hoses to the “RE-CIRC”





Step 5: If you are comfortable your connections are leak-free, wrap the exposed hoses and fittings with the insulated tape and push the unit in place.

CR-4L38 trunkline connected to a UCM Chiller



Connecting CO2 and Filling Water Bath

CR-PC160

Flare nut with nylon washer in it

CR-S115

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. If additional hose is required, the UCM Install Kit comes with an additional 8' of 1/4" braided hose*, a 1/4" barb union and 10.5 oetiker clamps to extend it.

***WARNING:** Do not use this extra 1/4" braided hose with John Guest fittings for the water inlet or water filter connection, it is not the correct OD or tube type to work with these fittings and will result in leaks.

If using dedicate 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. Locate paper washer with CO2 tank and thread CO2 reg to tank, making sure its tight.

For bulk CO2 tank use or shared CO2 systems, use the CR-S115 secondary high pressure CO2 regulator to regulate.

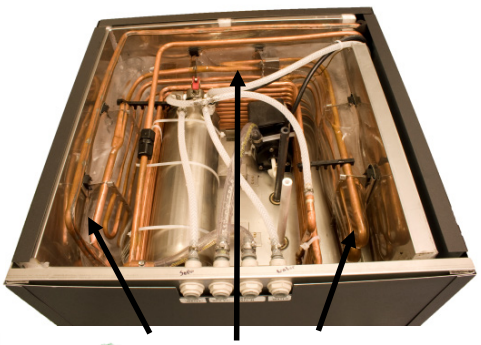
Step 2: Route the clear over flow water bath drain hose from the back of the unit to a floor sink or floor drain.

The water bath must be filled with water for the system to work and build an ice bank. This water is not used for consumption, it is only used to form an ice bank around the refrigeration coils and chill the water flowing through the water cooling coils. Water will drain from the over flow hose upon initial start up as the ice bank forms. After that only periodic condensation may drip from the over flow hose.

Remove the lid of the chiller to expose the water bath area. Fill this area with water (preferably non-filtered) up to the white stand pipe, covering the carb tank, water coils and refrigeration coils.

CR-UCM1
Fill with 4 gallons of water
or up to the white stand pipe

CR-UCM2
Fill with 6 gallons of water
or up to the white stand pipe



CR-UCM2 ice formation around ref coils

CO2 Information

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 instructors (found with CO2 regulator) and other handling instructions from the CO2 tank supplier.

CR-PC160 High Pressure CO2 Regulator 0-160 PSI

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.

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

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

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

Upon start up of the system, the CR-SSX0101-HEX Faucets used on the CBR-V1-SSX, CBR-V2-SSX, and CBR-V3-SSX dispensing towers will need the flow rate adjusted and set.

The faucets come equipped with a flow control valve on each of them to adjust and set the flow rate. The slower you can set the flow of sparkling water, the better the bubble profile.

1. This valve is located on the right side of each faucet. It is round with two flat sides.
2. Locate the 2.5mm Allen wrench (suppled with tower) and insert into allen head.
3. Flow is typically set based on the cup size. Sparkling water will retain more bubbles with a slower flow. Adjustments should be made while the faucet handle is held open and water is flowing, to visually see the flow setting. Also, it is advised to fill into the glass or carafe you will typically be filling to judge the fill time and minimize splashing.
4. Once set, tighten the outer ring nut to help keep the flow set and prevent it from being loosened by hand. First hand tighten, then rotate an additional 1/4 turn clockwise with a wrench.
5. The valve may need to be adjusted periodically. Leave the supplied 2.5mm Allen wrench along with the red spanner wrench with the owner/operator.
6. Review with them the flow rate and how to adjust as well as the maintenance guide in the owners manual.

CR-UCM & CBR Tower 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).
- ☐ Clean and dry drain pan and drain grate. Check that water is draining, pour warm water down drain if necessary.
- ☐ Check over faucets for action and hand tighten any loosened handles or nuts on them. The set nut holding the handle down will loosen with use.
- ☐ Check flow from faucet, loosen, readjust and tighten flow control knob as needed.
- ☐ Check that flow, temperature and carbonation of water poured from the unit are consistent to average use.

Weekly:

- ☐ Clean the faucets by wiping them down. If there is any scale or slime submerge them in cleaners/ sanitizer and use a brush on them.
- ☐ Check CO2 level at CO2 tank.

Monthly:

- ☐ Clean the air filter. Remove it to brush down and wash off dust and dirt, then reattach.
- ☐ Check for good water pressure at the water filter system by running water from flush valve on filter.
- ☐ Visually check pre-filter in clear bowl on water filter system (if applicable) to determine if it needs replacing. Use only EPC5-10 replacement pre-filter cartridge.

Quarterly:

- ☐ Check the water bath level, either top off or drain, clean and refill.

Semianually:

- ☐ Change the water filters. Use only 4FC replacement filter cartridges.
- ☐ Drain water bath, clean and refill with new water.
- ☐ Remove and disassemble faucets for cleaning and inspection.

Annually:

- ☐ Inspect internal water bath components such as agitator/re-circ pump and blade, check valves for CO2 and water, and all hose connections.
- ☐ Flush and rinse system with food safe sanitizer (this work should be performed by a certified service tech).

Model Number:

Install Date:

Serial Number:

Installer/Servicer:

Scan for warranty:

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