



Install Guide

CT Sparkling & Still Countertop Chiller System CR-1, CR-1PB & CR-2, CR-2PB



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CR-KIT-CT Install Kit Ordered Separately

Install Kit for CR-1 & CR-2
Countertop Chiller Systems

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
12	 JG 3/8 Locking Clips	PIC1812R	Collet locking clip for JG fittings
1	 Splice Barb 1/4" to 1/4"	9001	Use this fitting for adding additional CO2 line
4	 10.5 Oetiker Clamps	0105	Use with 9001 for 1/4" ID braided CO2 hose and barb
1	 12' Section of 3/8" OD tubing	PE-12-EI	Water inlet tubing, filter system to chiller
1	 8' sections of 1/4" ID braided hose	172-04804-00	Additional CO2 hose, if needed. Do not use in JG fittings
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 with 3/4" inlet and outlet fittings to a Crysalli CR-1 or CR-2 chiller unit.

Reference the Crysalli Countertop system Quick Install Guide for part usage and install details.

Connections: The water inlet is the 3/8" quick connect fitting on the bottom of the chiller. Use the PP221212W.

The clear hose is the overflow drain hose.

The 1/4" white braided hose with fitting is the CO2 inlet. The CR-PC160 CO2 Regulator connects to this.

Water bath must be manually filled with water.

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-1 & CR-2 Quick Installation Guide Instructions

1. Select a location for your chilled water dispenser, keeping in mind the unit needs air space behind it and to the sides. Place unit within 6' of water filter connection & 120-volt electrical outlet. Make consideration for proximity of a floor sink for the overflow drain hose.
2. Locate the CR-KIT-CT install kit and unpackage and take note of the fittings, water regulator and hose supplied to complete the install.
3. Locate the CR-24FC water filter system head and filter cartridges. Mount the water filter system in an accessible location with at least 3" of space below the filters for service. The filter system has a 3/4" fpt inlet and outlet, locate the adaptor fittings in the install kit to reduce down to 3/8" (PSEI02026 1/2" tube to 3/4" mpt, and PP062012W reducer 5/8" stem to 3/8" tube). Locate the PE-12-EI, 12' role of 3/8" OD hose. This hose should be used for the inlet and outlet of the filter system and to feed into the inlet of the chiller. Do not use the 1/4" braided hose for water connections or with John Guest fittings, it will not hold. The 1/4" braided hose is for extra CO2 line only.
4. Locate the PSEI6012U9 3/8" anglestop adaptor fitting from the install kit. This fitting replaces the compression nut and ferule ring on the angle stop and is meant to be hand tightened to the angle stop outlet so you have a 3/8" quick connect fitting outlet to the filter system. Measure and cut a length 3/8" OD hose to connect from the angle stop to the inlet of the filter system. Consult local plumbing codes for use and requirements of a backflow device.
5. The water inlet for the chiller is a 3/8" quick connect push-in fitting, located on the bottom base of the unit near the front legs. Connect the end of 3/8" hose from the water filter system to the PP221212W elbow swivel 3/8" tube to 3/8" stem fitting and connect that fitting into the inlet of the chiller.
6. Locate the 8"x8" box for CR-PC160 High Pressure CO2 regulator. Unbox this regulator and locate the 1/4" nylon washer taped to the packaging. The 8' length of 1/4" white braided hose extending out the base of the chiller is the CO2 hose. It has a stainless-steel flare nut on the end. Rout this hose to the location of the CO2 tank. If extra length is required locate the 6' of 1/4" hose, 1/4" barb union and 9.5 Oetiker clamps from the install kit and splice the line in. The 1/4" nylon washer should be inserted into the SS flare nut fitting at the end of the hose and then connect to the CO2 Regulator.
7. The clear hose coming out the bottom of the chiller is overflow water bath drain hose. It is best to run this hose to a floor drain or other waste drain. You will get some draining from this hose during the install start-up of the chiller as the water bath freezes an ice bank.
8. Turn on water at the filter system and flush the water filters of air via the flush valve on the filter system. Check for leaks.
9. Fill water bath: Remove lid and fill water bath with non-filtered/ non-softened tap water, fill up no less than 1/4" to top of white standpipe. This is the vertical white tube in the water bath that is connected to the clear overflow hose.
10. Plug unit power cord into 120-volt outlet. Toggle the on/off rocker switch to the "on" position. Fan and compressor will turn on. Fan and compressor will automatically turn off when a complete ice bank is made and cycle on and off to maintain it.
11. Unit will take between 3-4 hours to make a complete ice bank. 1/3 of the water bath should freeze over the refrigeration coils to form a block of ice. On the CR-1 models the ice bank forms along the right side of the bath. On the CR-2 models the ice bank forms an "n" shape around the outside edges of the bath.
12. Open CO2 at the CO2 tank by turning knob on tank counterclockwise. Adjust regulator via the set screw on the front between 75 PSI. And check for leaks.
13. Pull open the still water and sparkling water faucets to run water through the system. You will need to run the sparkling water faucet for several minutes to cycle the carbonation system before full sparkling water will dispense.
14. Once unit has built the ice bank you are ready to dispense chilled still and sparkling water. Adjust the flow control handles on the faucets for your preferred flow rate.

Countertop 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).

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.

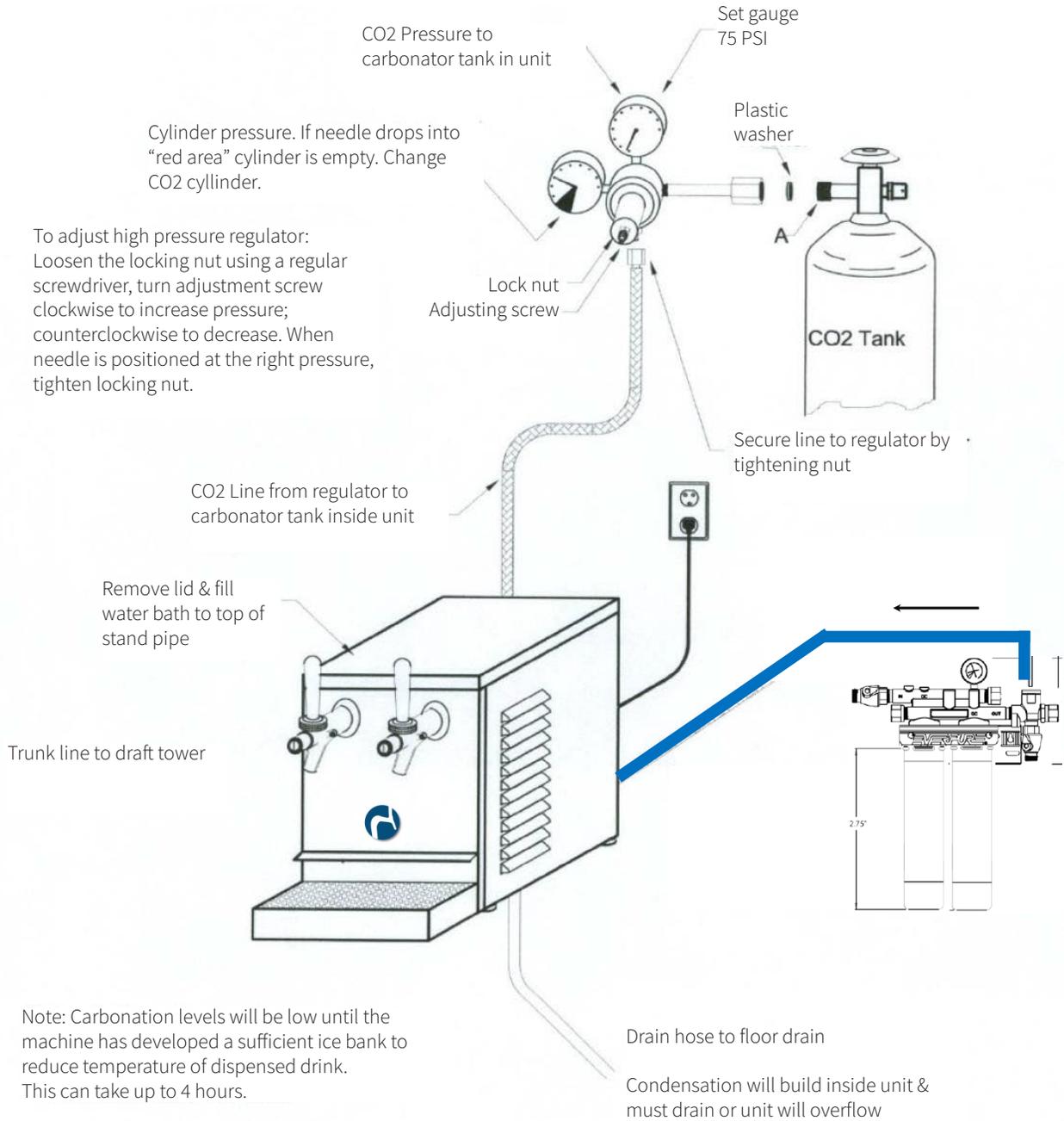
CO2:

- 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.

Countertop Chiller:

- Faucets tight and positioned vertically. Handles tight and positioned front facing.
- Water bath filled with water up to the top of the WHITE stand pipe.
- Unit on and plugged into a dedicated 120V outlet.
- Ice bank formed/forming on refrigeration coils in water bath. Unit cycling on and off properly to maintain ice bank. Unit will take 2 hours to form full ice bank after initial start-up.
- Sparkling water; cold, carbonated. Tastes clean and pure. Adjust flow control on faucet to slow flow rate.
- Run a few liters of sparkling water, is carb pump cycling on and flow consistent without gassing out. Carb pump will cycle on after 1.5 liters of sparkling water is poured. Carb pump should run for 7-14 seconds.
- Still water: cold and consistent flow. Tastes clean and pure. Adjust flow control on faucet to needs.
- Check clearances; Unit should be able to ventilate hot air out sides and breath fresh air in the back. Unit free of obstructions around it and can vent.
- Air filter in rear of machine is accessible
- Water inlet connection to unit leak free and not pinched off anywhere
- Agitator pump agitating bath water.

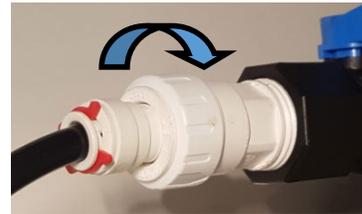
Countertop Chilled Water Dispenser Quick Installation Guide



Installing the Water Filter System & Angle Stop Adaptor

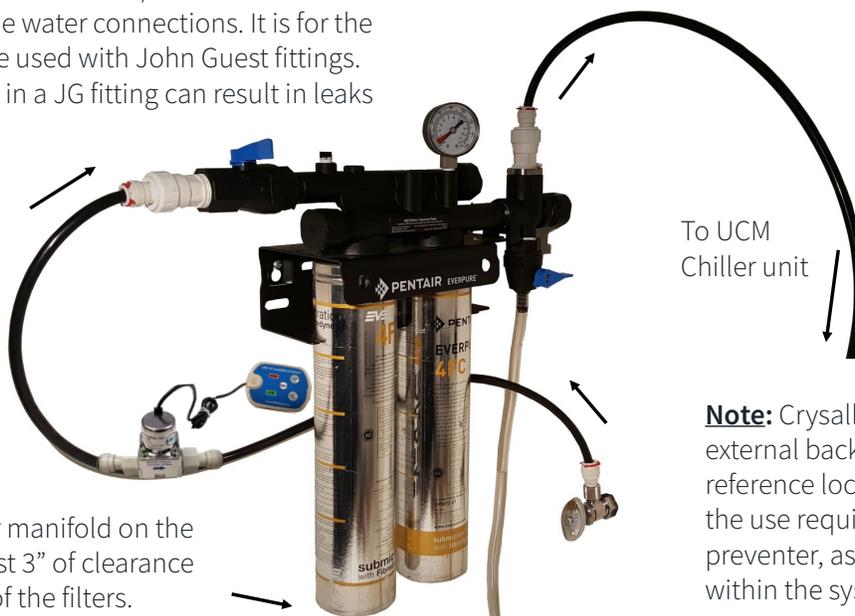
Locate the 2 PSEI012026 1/2" to 3/4" MPT fittings and PP062012W 5/8" stem to 3/8" tube adaptor fittings from the UCM Install Kit, along with 2 red locking clips. These are your inlet and outlet fittings for the twin water filter system. Wrap some Teflon tape around the threads of the 3/4" MPT fitting, 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.



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

To UCM Chiller unit

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.

Water Inlet connection CR-1 and CR-1PB

Locate the PP221212W elbow 3/8" hose to tube fitting and a red locking clip. Connect this fitting to the end of 3/8" hose from the filter system and water reg. Then connect this to the water inlet on the chiller.

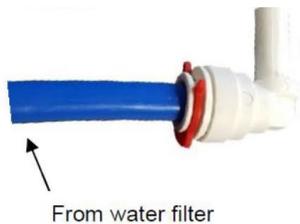


Water inlet connection: 3/8" push-in hose connection.

Located at the base of the chiller, near the front, next to the 1/4" braided CO2 hose, 3/8" clear overflow drain hose and 9' electrical cord.



Push tube end of fitting into water inlet connection on the chiller.



Water Inlet connection CR-2 and CR-2PB

Locate the PP221212W elbow 3/8" hose to tube fitting and a red locking clip. Connect this fitting to the end of 3/8" hose from the filter system and water reg. Then connect this to the water inlet on the chiller.



Connections found on back side of CR-2 and CR-2PB model

- 120 Volt electrical cord and plug, NEMA 5-15
- CO2 inlet connection: 1/4" braided hose (8') with flare nut end connection
- Water inlet connection: 3/8" push in hose connection.
- On/off Switch
- Safety LED light
- Air filter



Water Inlet hose connection made with PP221212W elbow swivel fitting and 3/8" hose from the water filter system.



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. 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



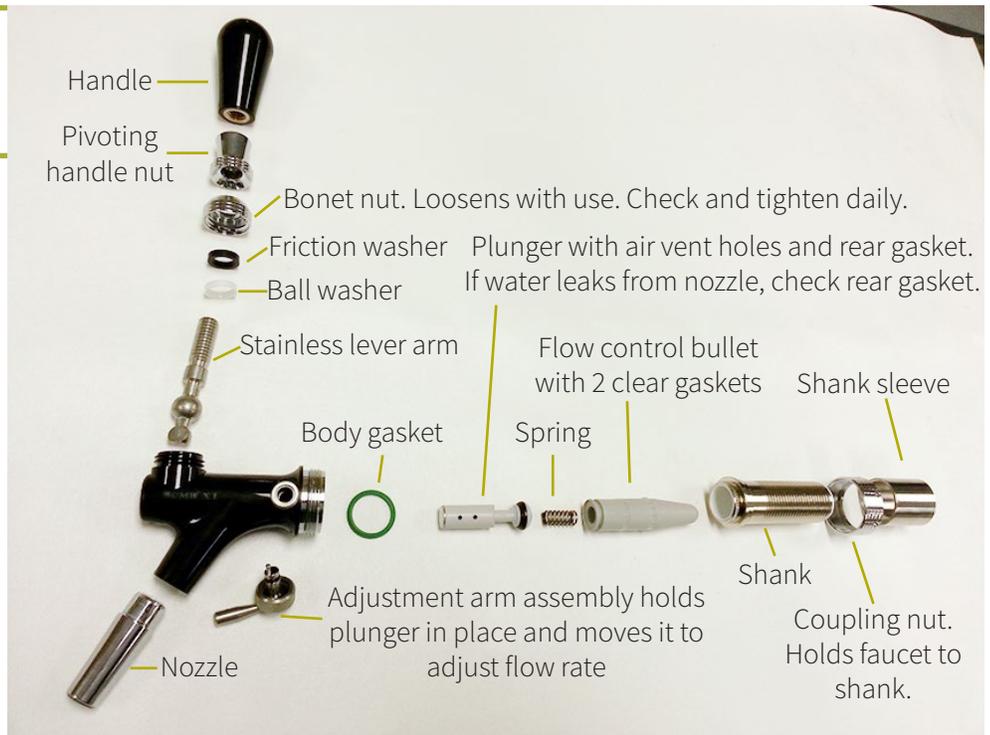
CR-UCM2

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

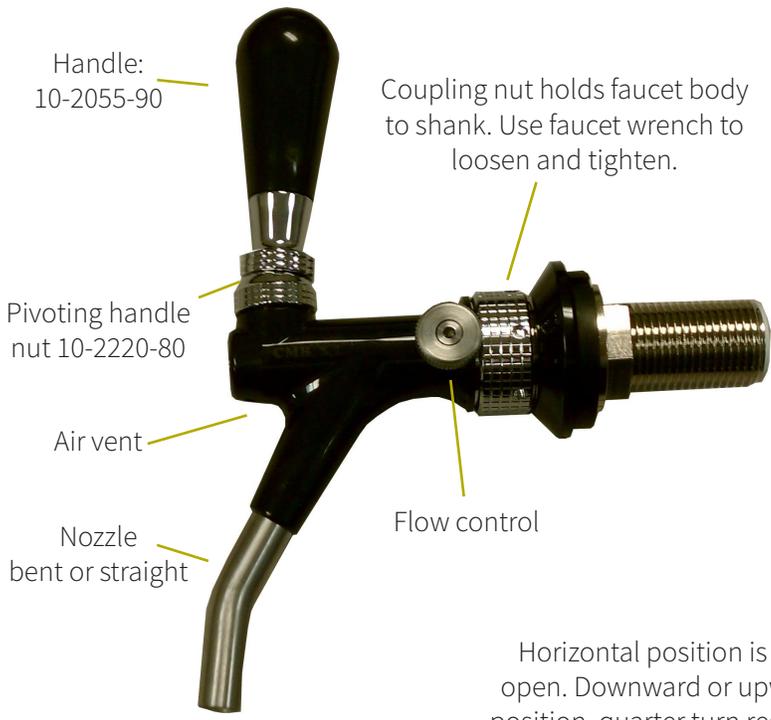


CR-UCM2 ice formation around ref coils

Exploded View of X0101 Faucet



The faucet handle is self-closing when released. The internal spring creates this tension to close the valve and shut off flow. The spring can be removed if self-closing is not desired.



X0102 Rear nut fitting 1/4" barb. Used on CR-1, CR-2 and other countertop models.



Using a 2.5 hex wrench to adjust flow rate



Horizontal position is full open. Downward or upward position, quarter turn restricts or slows flow from the faucet. Flow can be completely shut off if turned too far back.

Push Button Series Flow Control Adjustment, CR-1PB & CR-2PB

The push button (PB) models have a flow control set screw that can be found on the top of the Solenoid valve for each valve. Flow rate adjustments should be made with the unit on, cold, CO2 set to 74 PSI and filling into a glass.

To access, remove the lid of the chiller to expose Solenoid valves. The set screw is the taller notched screw between the two Philips screws for the bracket.



Flow control adjustment screw.

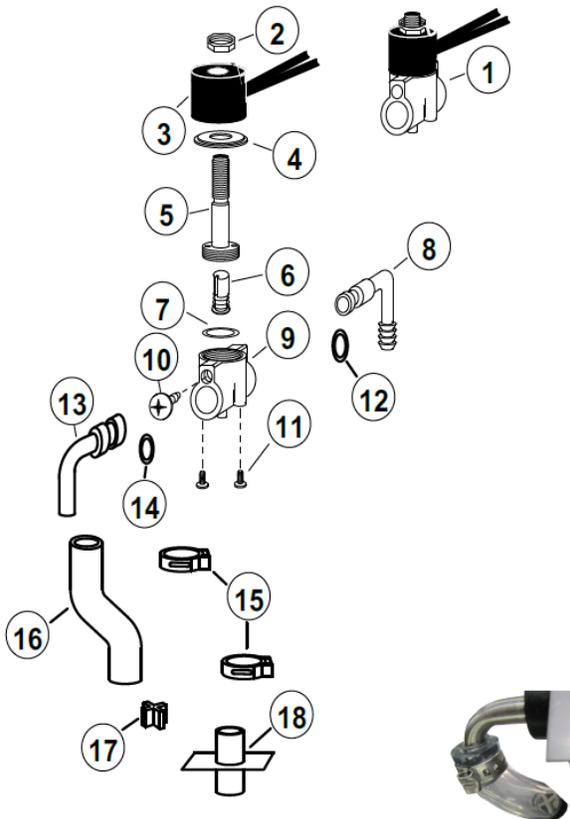
Use a flat head screw driver to turn.



Right to tighten and slow the flow.



Left to loosen and speed the flow up.



Solenoid Valve Assembly Push Button Chilled Water Dispenser 21005-CWD Solenoid Valve Assembly Includes all Parts			
SYM	QTY	Item No.	Description
1	1	21004	Solenoid Valve, Only
2	1	E0623	Nut, Solenoid Valve Stem
3	1	E0525	Coil w/Shield, 24VAC
4	1	E0739	Flux Plate
5	1	E0537	Stem, Solenoid Valve
6	1	E0730	Plunger & Spring Assembly
7	1	E0531	Gasket, Solenoid Stem
8	1	21007	Inlet Fitting, 90 Degree w/O-Ring
9	1	21005-BO	Body Only, Solenoid Valve w/Meterin Pin
10	2	40049	Screw, Inlet Fitting, 10-24 x 1/4" S.S. Phil. T.H.
11	2	40048	Screw, Mounting, 10-24 x 3/8" S.S. Phil. T.H.
12	1	E0137	O-Ring, for 21007 Inlet Fitting
13	1	E0385-SPL	Outlet Fitting, CWD-PB
14	1	E0134	O-Ring, for E0385-SPL Outlet Fitting
15	2	S1090	Clamp, 15.7
16	6"	3/8" CLR	3/8" Clear Tubing
17	1	20007	Diffuser, CWD-PB
18	1	20008	Nozzle, CWD-PB

Found On Push Button Models:
 CR-1PB
 CR-2PB
 CP2000-CT2-PB
 CP2000-CT3-PB
 CP-JR-CT2-PB
 CM-2-PB-SB
 CM-2-PB

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 instructions (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.

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 setting. 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.





CR-1 & CR-2 Countertop 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. A wobbling faucet indicates the faucet body is loosening from the shank which can result in a leak, faucet coming off or stripping the teeth. Use a shank wrench to tighten the shank nut to the faucet.
- 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/Service:

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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.



Name of Customer/Business & Address: _____
Phone: _____

Distributor/Dealer:

Model Number:

Serial Number:

Install Date:

Install Company:

Crysalli Beverage Systems
1739 Sabre Street, Hayward, CA 94545
Phone: 510-732-0100 Fax: 510-732-0155
Website: www.crysalli.com

Or register online:

