

REMCOR[®]



JETRAY

OLYMPUS POST-MIX

230 VAC / 50 & 60 Hz

115 VAC / 60 Hz

Service Manual



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OLYMPUS™ POST-MIX BEVERAGE DISPENSER

The products, technical information, and instructions contained in this manual are subject to change without notice. These instructions are not intended to cover all details or variations of the equipment, nor to provide for every possible contingency in the installation, operation or maintenance of this equipment. This manual assumes that the person(s) working on the equipment have been trained and are skilled in working with electrical, plumbing, pneumatic, and mechanical equipment. Appropriate safety precautions should be followed and all local safety and construction requirements should be met.

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SAFETY

SAFETY INSTRUCTIONS

Read and follow all safety instructions

Read and follow all safety instructions in this manual and on the machine (decals, labels, and laminated cards).

Read and understand all applicable OSHA (Occupation Safety and Health Administration) safety regulations before operating the machine.

Recognize safety alerts



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

Different types of alerts

There are three types of safety alerts:



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



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



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

SAFETY TIPS

- Carefully read all safety messages in this manual and safety signs on the machine.
- Keep safety signs in good condition and replace missing or damaged safety signs.
- Learn how to operate the machine and how to use the controls properly.
- Do not let anyone operate the machine without proper training.
- Keep your machine in proper working condition and do not allow unauthorized modifications to the machine.

AUTHORIZED SERVICE PERSONNEL



CAUTION — Only trained and certified electrical, plumbing and refrigeration technicians should service this unit. ALL WIRING AND PLUMBING MUST CONFORM TO NATIONAL AND LOCAL CODES.

CO₂ (CARBON DIOXIDE) WARNING



WARNING — CO₂ Displaces Oxygen. Strict Attention **must** be observed in the prevention of CO₂ gas leaks in the entire CO₂ and soft drink system. If a CO₂ gas leak is suspected, particularly in a small area, **immediately** ventilate the contaminated area before attempting to repair the leak. Personnel exposed to high concentration of CO₂ gas will experience tremors which are followed rapidly by loss of consciousness and death.



CAUTION — PRECAUTIONS TO BE TAKEN IN STORAGE: Store and use with adequate ventilation. Firmly secure cylinders upright to keep from falling or being knocked over. Screw valve protection cap firmly in place by hand. Store only where temperature will not exceed 52° C (125° F). Store full and empty cylinders separately. Use a first-in, first-out inventory system to prevent storing full cylinders for long periods.



CAUTION — PRECAUTIONS TO BE TAKEN IN HANDLING: Protect cylinders from damage. Use a suitable hand truck to move cylinders; do not drag, roll, slide, or drop cylinders. Never attempt to lift a cylinder by its cap; the cap is intended solely to protect the valve. Never insert an object (e.g. wrench, screwdriver, pry bar) into cap openings; doing so may damage the valve and cause a leak. Use an adjustable strap wrench to remove over-tight or rusted caps. Open valve slowly. If valve is hard to open, discontinue use and contact your supplier. Never apply flame or localized heat directly to any part of the cylinder. High temperatures may damage the cylinder and could cause the pressure relief device to fail prematurely and venting the cylinder contents. Never strike an arc on a compressed gas cylinder or make a cylinder part of an electrical circuit. For additional information on storage and handling, refer to Compressed Gas Association (CGA) pamphlet P-1, "Safe Handling of Compressed Gases in Containers," available from the CGA.

SHIPPING AND STORAGE



CAUTION — Before shipping, storing, or relocating the unit, syrup systems must be sanitized and all sanitizing solution must be purged from the syrup systems. All water must also be purged from the plain and carbonated water systems. A freezing ambient environment will cause residual sanitizing solution or water remaining inside the unit to freeze resulting in damage to the internal components.

EQUIPMENT HANDLING



CAUTION — This equipment is NOT suitable for installation in an area where a water jet could be used and MUST NOT be cleaned by water jet.



CAUTION — This equipment is top heavy and unstable when empty and MUST NOT be operated unless the unit is in place and the water bath is filled.

SYSTEM OVERVIEW

PRODUCT OVERVIEW

The Olympus™ over-the-counter, post-mix, beverage dispenser is compact, lightweight and is available in three sizes. All sizes can be ordered with or without built-in carbonator and with or without built-in syrup pumps.

- Small — four valve
- Medium — five valve
- Large — six valve

Olympus™ dispensers may be island mounted or installed on a front or rear counter. The refrigeration deck is easily removed for service and maintenance. Adjustable water flow regulators and syrup flow regulators, located on standard LEV dispensing valves, are easily accessible.

Key-lock and ON/OFF switches
(ON/OFF switch optional on small unit)



The Olympus™ over the counter, post-mix, beverage dispenser offers the following features:

- Key-lock switch
- Lighted merchandiser (optional)
- Built-in syrup pump (optional)
- Removable drip tray
- Leg kit (not available for mini-pump unit)
- Four to six valves
- Built-in carbonator (optional)
- Removable refrigeration deck
- Removable cladding



SPECIFICATIONS

Dimensions (with carbonator)

	Small	Medium	Large
Valves	4	5	6
Valve Positions Convertible To Water *	3	3, 4	3, 4, 5
Nominal Ice Bank Size	6.4 kg (14 lbs.)	8.2 kg (18 lbs.)	11.4 kg (25 lbs.)
Water Bath Volume	28 L (7.3 gal.)	32 L (8.4 gal.)	40 L (10.5 gal.)
Overall Height	668 mm (26.3 in)	668 mm (26.3 in)	668 mm (26.3 in)
Height (with mini-pumps)	777 mm (30.6 in)	777 mm (30.6 in)	777 mm (30.6 in)
Overall Width	330 mm (13.0 in)	368 mm (14.5 in)	432 mm (17.0 in)
Depth	648 mm (25.5 in)	648 mm (25.5 in)	648 mm (25.5 in)
Counter Weight (empty water bath)	48.2 kg (106 lbs.)	55.9 kg (123 lbs.)	58.2 kg (128 lbs.)
Counter Weight (filled water bath)	75.9 kg (167 lbs.)	87.7 kg (193 lbs.)	97.8 kg (215 lbs.)
* valves numbered right to left facing the front of the dispenser			

Miscellaneous Information

- Refrigerant HFC-134a
- Compressor HP 1/3+
- Design Valve Flow Rate 3.0 oz./sec. (4.5 max.)
- Standard Valve LEV
- Cup Clearance 250 mm (9.8 inches)
- Safety Approvals CE, ETL, ETL C
- Sanitary Approvals ETL S (NSF 18)
- Electronic Controls Electronic ice bank and liquid level control

INSTALLATION



CAUTION — Only trained and certified electrical, plumbing and refrigeration technicians should service this unit. ALL WIRING AND PLUMBING MUST CONFORM TO NATIONAL AND LOCAL CODES.

DELIVERY INSPECTION AND UNPACKING

Inspection

Upon delivery inspect the unit for damage or irregularities and immediately report problems to the delivering carrier and file a claim with that carrier.

Unpacking

Remove shipping tape and other packing material.

Unpack the loose parts and make sure all items are present.

LOOSE PARTS:	
Name	Quantity
Drain Hose - P/N 50119	5 feet
Clamps - P/N 70339	2
Decals - P/N varies with dispenser	1 set

INSTALLATION REQUIREMENTS

Requirements Summary

- Weight:..... counter must be level and able to support at least 100 kg (220 lbs.)
- Environment: indoor installation only
- Temperature: 4° to 43° C (40 to 110° F) ambient temperature
- Clearance: 46 cm (18-in) above 15 cm (6-in) for side panel vents
- CO₂:..... 5.2 bar (75 psi) at dispenser
- Syrup: 4.1 bar (60 psi)
- Water: 4.5 bar recommended (65 psi), (min. 3.5 to max. 5.2 bar (50-75 psi))
- Electrical: nominal 230 VAC, 50 or 60 Hz
- 180 VAC min. operating voltage
- 255 VAC max. operating voltage
- nominal 115 VAC, 60 Hz
- 90 VAC min. operating voltage
- 130 VAC max. operating voltage

Electrical Requirements

Before connecting electrical power to the dispenser refer to nameplate to verify power requirements.



DANGER — To avoid possible serious injury or death the ELCB (earth leakage circuit breaker) must be installed in the electrical circuit.



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



CAUTION — The wiring must be properly grounded and connected through a disconnect switch (slow-blow fuse or equivalent HVAC/R circuit breaker) – 10 amp for 230 volt units or 20 amp for 115 volt units. ALL WIRING MUST CONFORM TO NATIONAL AND LOCAL CODES. MAKE SURE UNIT IS PROPERLY GROUNDED.

Environmental Requirements

Ambient (room) temperature **MUST NOT EXCEED 43° C (110° F)**. Temperatures in excess of 43° C (110° F) will void the factory warranty and may eventually result in refrigeration system failure.



CAUTION — To avoid overheating and damaging to the unit, and voiding the warranty, there must be at least 15 cm (6 in) of clearance on all sides and 46 cm (18 in) on the top of the unit.



CAUTION — This unit is designed for indoor installation only (in a non-harsh environments). Avoid exposure to direct sunlight.



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

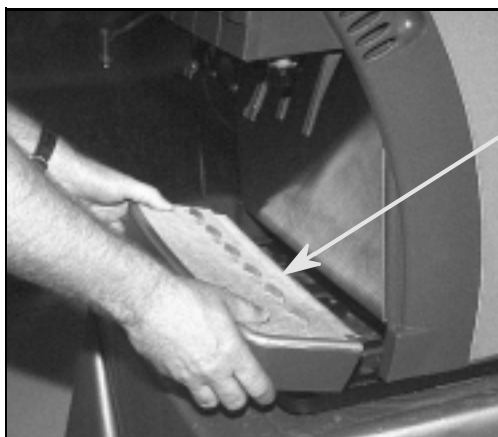


CAUTION — Avoid spillage into the top vents.

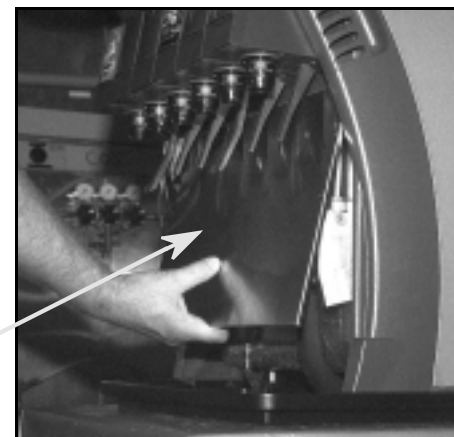
INSTALLATION PROCEDURE

Counter-top Installation

1. Place the dispenser on a level counter capable of supporting at least 104 kg (230 lbs).
2. Caulk around the base of the dispenser using a Dow Corning RTV 731 or equivalent approved sealant to prevent spills from seeping under the dispenser (to comply with National Sanitation Foundation (NSF) requirements).
3. Remove drip tray and splash panel.



Remove
drip tray

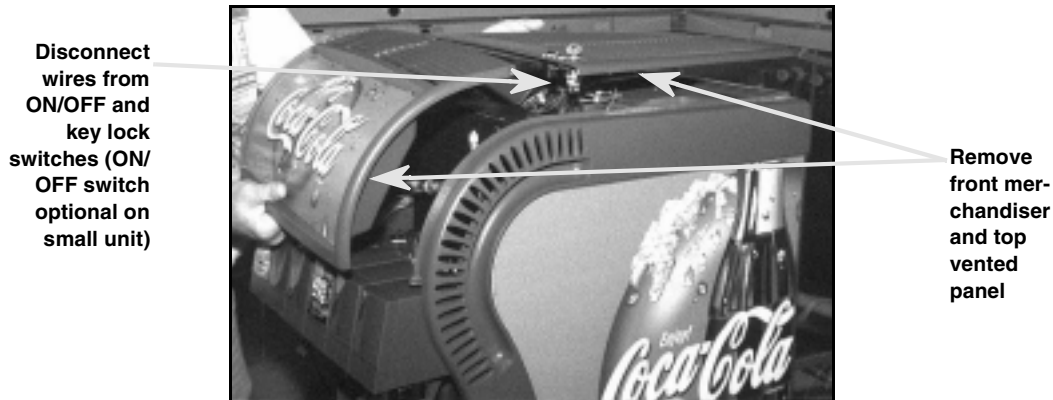


Remove
splash
panel

4. First remove front merchandiser panel and then top vented cladding panel. Disconnect wires from ON/OFF and key lock switches.



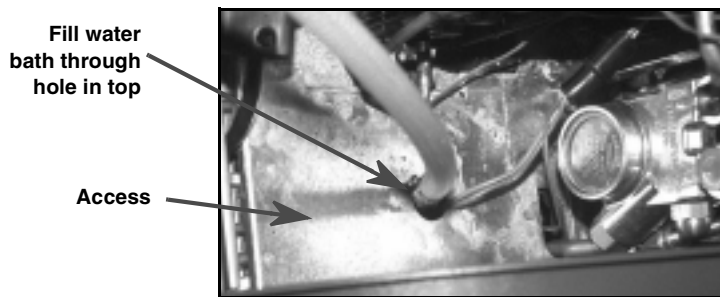
CAUTION — Make sure that the power to the dispenser is disconnected (unplugged) before removing the covers.



5. Remove access cover and fill the water bath with water until it comes out the overflow tube. Make sure the overflow tube is not blocked or plugged. Use low-mineral tap water, not distilled or deionized water.



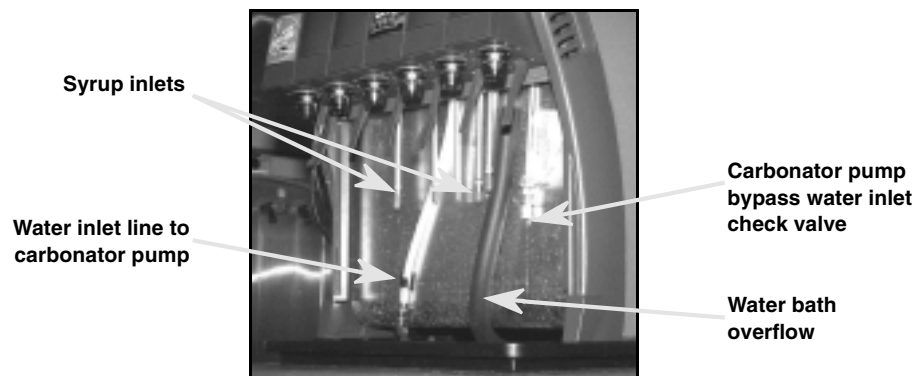
CAUTION — Never add antifreeze or other chemicals to the water bath as serious damage may occur.

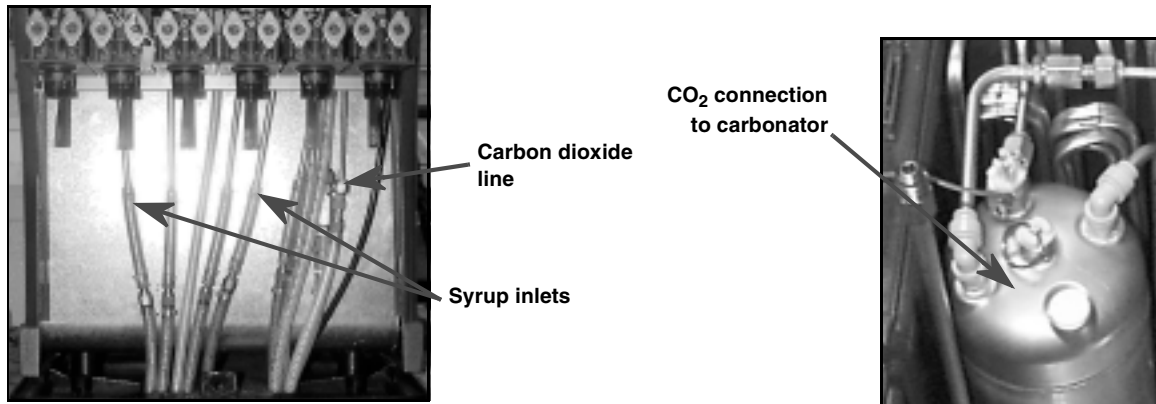


Connect Syrup, Water, CO₂ and Carbonated Water Lines

Routing And Connecting Lines

1. Route syrup and plain water lines underneath the dispenser. The lines can be routed up through a hole in the counter or from the back of the unit. Connect the inlet lines to the appropriate inlet connections. The water inlet requires two connections, one directly to the carbonator pump inlet and one to the pump bypass inlet fitting behind the splash panel (see plumbing diagram). Be sure to connect the water supply to both inlet connection points.





Internal Carbonator Dispenser

NOTE: All water pipe, tubing, and fixtures connected to the potable water supply must be sized, installed, and maintained in accordance with Federal, State, and Local laws and regulations.

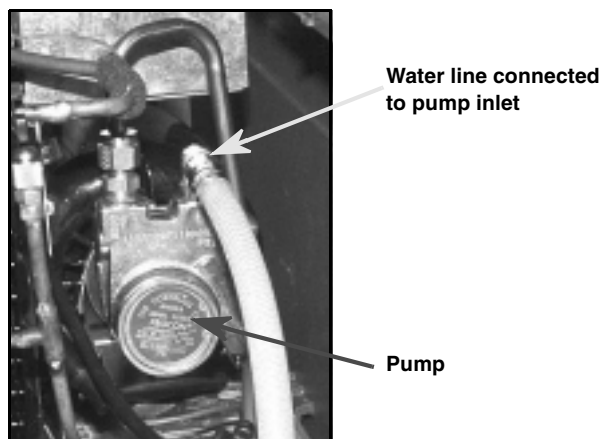
NOTE: It is the installer's responsibility to ensure that the water supply is equipped with protection against backflow. This protection can be an air gap as defined by ANSI/ASME A112.1.2-1979, or by an approved vacuum breaker or other approved method.

NOTE: Recommended supply water pressure is 4.5 bar (65 psi). Supply water pressures higher than 5.2 bar (75 psig) will require installation of a water pressure regulator to control the pressure to 4.5 bar (65 psi). Pressures in excess of 5.2 bar (75 psi) may cause flooding of the carbonator tank and reduced carbonation.

If supply water pressure is less than 3.5 bar (50 psi), a water pressure booster is recommended. Pressures less than 3.5 bar (50 psi) may result in reduced water flow to the valves which dispense non-carbonated drinks.

NOTE: It is recommended that a water shutoff valve and water filter be installed in the water supply line.

2. Connect water line to pump. If any valves will dispense non-carb product, connect second water line to pump bypass inlet.

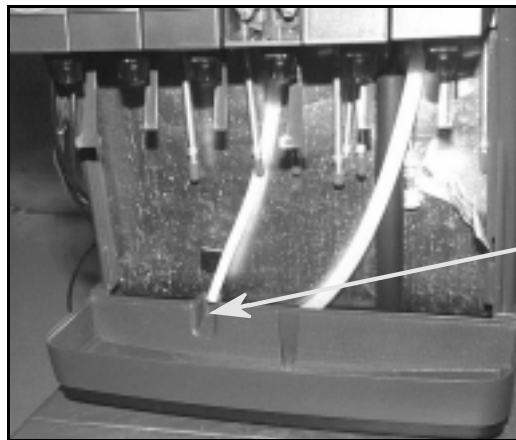


3. Connect optional drip tray drain hose (if used). Be sure to drill out the stem in the drip pan if a drain hose is used (use a 11mm (7/16") bit).



Connect optional drip tray drain hose

4. Reinstall drip tray and position water bath overflow hose in drip tray indent.



Position water bath overflow hose in drip tray indent

Primary And Secondary CO₂ Regulator Settings

1. Open CO₂ cylinder valve slightly to allow lines to slowly fill with gas. When lines are fully pressurized open the valve all the way until it back-seats itself (this prevents leaks from the valve).
2. Adjust the cylinder CO₂ regulator to 5.2 bar (75 psig) for bag-in-box applications, 2.8 bar (40 psig) for sugar base tank applications and .69 bar (10 psig) for diet base tank applications.

NOTE: The Olympus™ dispenser with integral cold carbonator requires CO₂ supply pressure of 5.2 bar (75 psig).

3. Bleed air from the lines with the carbonator tank relief valve.
4. Check the system for gas leaks.

Connect Electrical Power

NOTE: Before connecting electrical power to the dispenser, refer to nameplate to verify the power requirements.

1. Make sure that the electrical power circuit breaker is switched off or the fuse removed.
2. Plug the dispenser into the power receptacle.
3. Reinstall wires to On/Off and key lock switches. Rest panel on top of unit.(ON/OFF switch optional on small unit)
4. Turn electrical power on. Turn On/Off and key lock switches ON.(ON/OFF switch optional on small unit)

Check for Leaks

1. Bleed air from the lines by activating dispensing valves.

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

Reinstall Panels

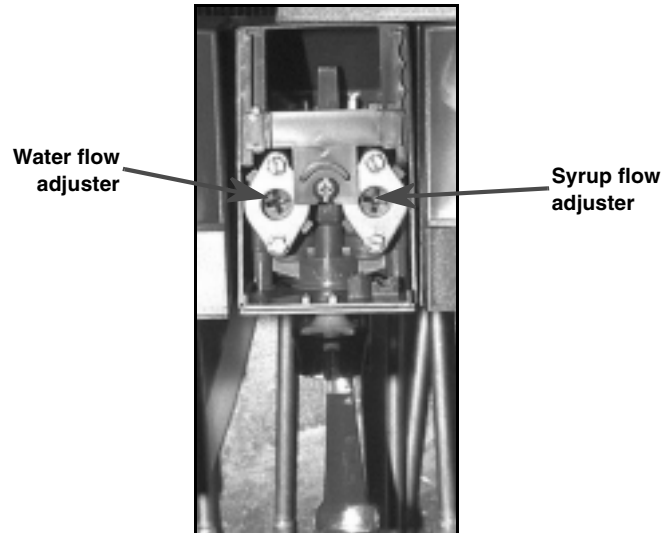
1. Shut the power off at the circuit breaker or fuse. Then reinstall top panel, front merchandiser panel, and front stainless steel splash plate.
2. Turn power ON.
3. Check to see that the refrigeration system started after the built-in 3 minute delay.
4. Allow dispenser to form an ice bank before dispensing beverages. This will take 3-6 hours.

Adjust Water-To-Syrup Ratio



1. Remove valve cover and install syrup separator in place of nozzle.
2. Hold cup under valve and dispense beverage for a specific time (such as 4 seconds).
3. NOTE: Water and syrup must be cold before checking ratios.
4. Adjust carbonated water flow to the desired rate (such as 74 ml (2.5 oz) per second). Turn the flow adjuster 1/4 of a turn at a time and recheck the flow. To increase reading turn clockwise.

5. Next set syrup flow adjuster to get the desired ratio.

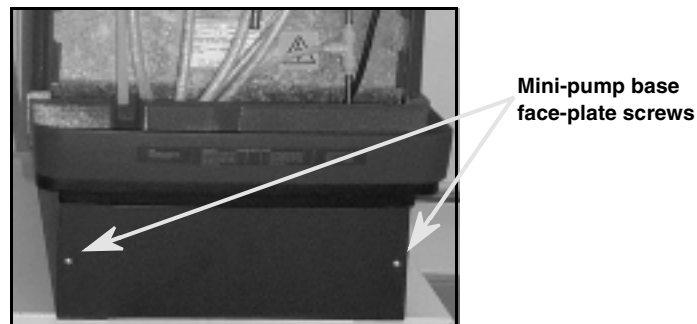


6. Test the valve and adjust until a consistent ratio is delivered three consecutive times.
7. Repeat procedure for other valves.

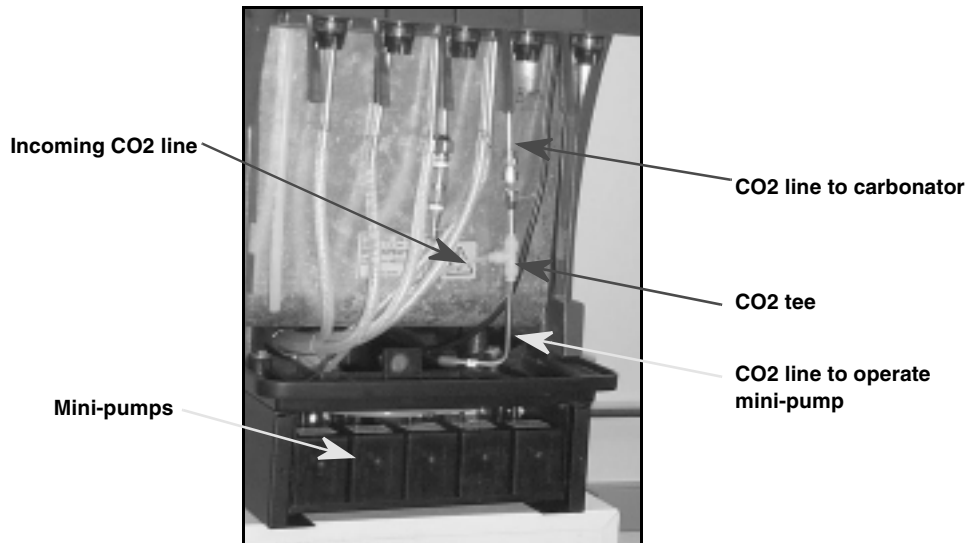
DISPENSER INSTALLATION WITH BUILT-IN MINI-PUMPS

Position Dispenser On Counter

1. Position the Olympus™ dispenser on counter and remove drip tray and splash panel following the instructions in Section 3.1.
2. Remove two face plate screws holding pump bracket assembly and remove assembly.

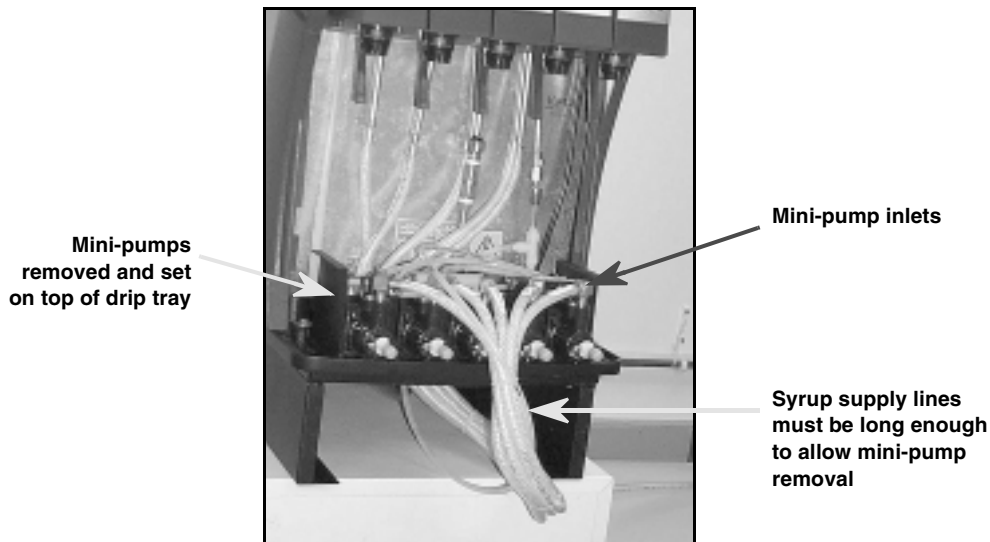


3. CO₂ is used to drive the syrup mini-pumps. Connect the CO₂ tee to the CO₂ line (see below).



4. The syrup supply lines must connect directly to the mini-pumps. The mini-pump outlets connect to the dispenser syrup inlet fittings. These connections are factory assembled. With this in mind, connect syrup, water and drain lines and fill the water bath following the instructions in Section 3.2.

NOTE: When cutting the hoses be sure to leave enough length so that the mini-pumps can be removed and worked on.



5. Connect electrical power following the instructions in Section 3.3.
 6. Check for leaks following the instructions in Section 3.4.
 7. Reinstall the mini-pump assembly and cover plate.

NOTE: Be sure lines do not kink as the assembly is reinstalled.

8. When the water bath is cool, ratio the valves.

NOTE: If there is a problem with ratioing the valves one possible problem is a blocked or restricted mini-pump.

MISCELLANEOUS

Front Illuminated merchandiser (Optional)

Turning off the valve keylock switch also turns off the merchandiser (refer to electrical diagram in reference section).

Plain Water Conversion (Optional)

The Olympus™ dispenser can be configured for plain water dispensing at the factory or after installation. If a different plain water configuration is desired, it can be changed in the field. The refrigeration deck must be removed to gain access to the configurable water fittings (refer to the plumbing diagram). Disconnect the fittings (if so equipped) by pushing the collar. Reconnect the fitting by inserting the tubing into the fitting.

Electronic Control Board Function

An integrated circuit board and microprocessor are used to control the electrical functions of the Olympus™ beverage dispenser. Functional features of the control board include:

- Ice bank control with compressor start-up protection
- Carbonator control with continuous run protection
- LED diagnostics

Inputs to the control board include line power, the ice bank position sensor, and carbonator water level sensor. Switched outputs from the circuit board include the compressor, agitator motor, condenser fan motor, and carbonator pump (refer to electrical diagram in reference section).

Ice Bank Control

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

Carbonator Control

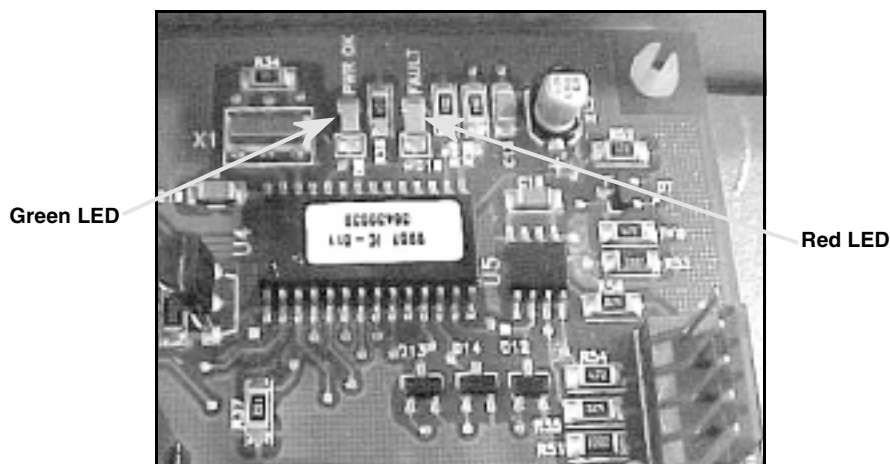
The carbonator control operates the integral carbonator pump to maintain the water level in the carbonator tank within pre-established limits. A programmed timer shuts down the carbonator pump motor if it operates continuously for more than 3 minutes. This prevents the carbonator from running continuously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

Voltage Cutout Protection

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

LED Diagnostics

LED diagnostic lights are mounted on the control board to assist in troubleshooting. There is one green LED and one red LED.



Functions of the LEDs are:

- Red and Green OFF = no power to the dispenser
- Green ON = line voltage is within acceptable range
- Red ON = a fault condition, including carbonator pump running for more than 3 minutes, ice bank control calling for the compressor within the 3 minute startup delay period.

NOTE: The control board must be reset if the carbonator pump does not run because the 3-minute continuous run period has been exceeded (red LED ON). To reset the control board toggle the main power switch OFF, wait 15 seconds, then toggle to ON.

OPERATIONS

OPERATIONS

Starting And Stopping The Dispenser

Key-lock and ON/OFF switches



Push power ON/OFF switch to **ON** to power on the dispenser.(small unit will be powered on when the unit is connected to a power source)

Insert key into key lock and turn **ON** to activate valves (and optional illuminated front merchandiser).

Dispensing Product

To dispense beverage press a cup or glass against the lever or push the button on the valve cover.



Dispensing lever

Replenishing Syrup Supply

Tank System:

1. Remove the empty syrup tank by disconnecting the syrup tube first, then the CO₂ tube.
2. Rinse the disconnects in warm water to remove any syrup residue.
3. Move a full tank into position and connect the CO₂ tube first, then the syrup tube.

Bag-In-Box System:

1. Disconnect the syrup tube from the empty bag-in-box and remove the empty box.
2. Rinse the disconnects in warm water to remove any syrup residue.
3. Install a full bag-in-box and connect the syrup tube.

ADJUSTMENTS

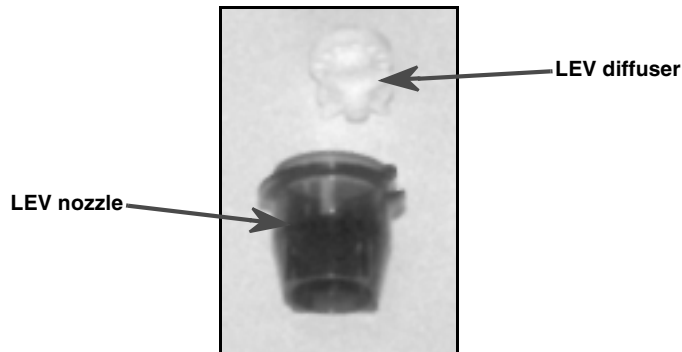
Water-to-Syrup Ratio Adjustment

The ratio adjustment should only be done by a qualified service person. See the Service section of this manual for adjustment procedure.

CLEANING

Daily Cleaning

- Check CO₂ supply.
- Check syrup supply.
- Remove nozzle assembly and rinse with warm (not hot) water. If possible, soak nozzle assembly over night in carbonated water then rinse with warm water.



- Wash external surfaces with mild soap solution, rinse with clean water, and wipe dry. Remove the drip tray, wash with mild soap solution, rinse and dry.

NOTE: Do not use abrasive or harsh cleaners on the dispenser.



CAUTION — This equipment is NOT suitable for installation in an area where a water jet could be used and MUST NOT be cleaned by water jet.

Sanitizing Syrup Systems

The syrup systems should be sanitized at least every 3 months and before or after storage. See the Service section of this manual for sanitizing procedure.

SERVICE



CAUTION — Only trained and certified electrical, plumbing and refrigeration technicians should service this unit. ALL WIRING AND PLUMBING MUST CONFORM TO NATIONAL AND LOCAL CODES.

PREVENTATIVE MAINTENANCE

Preventative Maintenance Summary

Preventative Maintenance Summary	
Procedure	Frequency
Sanitize dispenser	3 months
Check ratio	6 months
Clean condenser	6 months (as needed)
Carbonator Double Liquid Check Valve	annually
Check for leaks	annually
Clean BIB connectors	annually

Sanitizing

The syrup systems should be sanitized every 3 months by a qualified service person using the following procedure (or the sanitizer manufacturer's procedure if it meets NSF and FDA requirements). Use Chlor-Tergent from Oakite Products, Inc. (or equivalent sanitizer).

Sanitizing Syrup Tank System:

1. Remove quick disconnects from syrup tanks, then rinse all quick disconnects in potable water.
2. Using a clean empty syrup tank, prepare a full tank of sanitizing solution by mixing 21° to 38° C (70° to 100° F) potable water and 10 cc / 3.79 L (.34 oz./gal) of sanitizer. This mixture will provide 100 PPM of chlorine. Shake the sanitizing solution tank to thoroughly mix the sanitizing solution.
3. Connect tank containing sanitizing solution into one of the syrup circuits.
4. Place waste container under applicable dispensing valve. Dispense from the valve to permit sanitizing solution to purge all syrup out of the syrup circuits. Continue to dispense from the dispensing valve until only sanitizing solution is dispensed from the syrup circuits, then close the valve.
5. Repeat steps 3 and 4 to purge syrup from remaining syrup circuits.
6. Allow sanitizing solution to remain in the syrup circuits for not less than 10- or more than 15-minutes contact time,
7. Remove tank containing sanitizing solution from the syrup circuits.
8. Connect tank containing potable water into one of the syrup circuits.



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

9. Place waste container under applicable dispensing valve. Dispense from the valve to permit potable water to purge sanitizing solution from the syrup circuits and the dispensing valve. Continue to dispense from the valve until only potable water is dispensed from the syrup circuits, then close the valve.
10. Repeat steps 8 and 9 preceding to purge sanitizing solution out of the remaining syrup circuits with potable water.



CAUTION — To avoid possible personal injury or property damage, DO NOT remove the syrup tank cover until CO₂ pressure has been released from the tank.

11. Disconnect tank containing potable water from the syrup circuits, then connect tanks containing syrup.
12. Dispense from all valves until only syrup is dispensed to permit syrup to purge all potable water from the system.
13. Dispose of sanitizing solution in a sanitary sewer, not in a storm drain, then thoroughly rinse inside and outside of the syrup tank that was used for sanitizing solution to remove all sanitizing solution residue.

Sanitizing Bag-In-Box Syrup System.

1. Disconnect all syrup outlet tubes connectors from the bag-in-box syrup containers, then wash all connectors in warm potable water.
2. Using a clean 20 L (5 gal) container to prepare 15 L (4 gal) of sanitizing solution by using 21° to 38° C (70° to 100° F) potable water and 40 cc / 15 L (1.36 oz. / 4 gal) of sanitizer. This will provide 100 PPM of chlorine. Thoroughly stir solution to mix the sanitizing solution
3. Install bag outlet fitting, cut from empty bag-in-box syrup containers, on ends of syrup outlet tube connectors.
4. Place all syrup outlet tubes, with bag outlet fittings on their ends, in container containing sanitizing solution.
5. Place waste container under applicable dispensing valve. Dispense from the valve to permit sanitizing solution to purge all syrup out of the syrup circuits. Continue to dispense from the dispensing valve until only sanitizing solution is dispensed from the syrup circuits, then close the valve.
6. Remove all syrup outlet tubes from the container with sanitizing solution. Then place all syrup outlet tubes in the container containing potable water.



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

7. Place waste container under applicable dispensing valve. Dispense from the valve to permit potable water to purge sanitizing solution from the syrup circuits and the dispensing valve. Continue to dispense from the valve until only potable water is dispensed from the syrup circuits, then close the valve.
8. Remove all syrup outlet tubes from container containing potable water.
9. Remove all bag outlet fittings from the syrup outlet tubes connectors.
10. Connect all syrup outlet tubes connectors to bag-in-box syrup containers.
11. Dispense from all valves until only syrup is dispensed to permit syrup to purge all potable water from the circuits.
12. Dispose of sanitizing solution in a sanitary sewer, not in a storm drain, then thoroughly rinse inside and outside of the syrup tank that was used for sanitizing solution to remove all sanitizing solution residue.

Double Liquid Check Valve Inspection & Cleaning



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

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

Check For Leaks

Periodically check syrup, water, CO₂, and drain for leaks.

Check Ratio

Check the ratio whenever flavors are changed or any service is performed.

Clean Condenser

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

1. Disconnect electrical power to the dispenser.
2. Remove top panel (one screw). Disconnect wires to On/Off and Keylock switches.
3. Remove merchandiser (and wires if illuminated).
4. Vacuum or use a soft brush to clean condenser coil. If available, use low pressure compressed air.
5. Clean around top of refrigeration assembly.
6. Reinstall merchandiser, wires to switches and top panel.

TROUBLE SHOOTING

IMPORTANT: Only a service person should service internal components or electrical wiring.

IMPORTANT: If repairs are to be made to one of the syrup circuits, disconnect applicable syrup tank and bleed pressure from the system before proceeding.

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



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

TROUBLESHOOTING POST-MIX SYSTEM

Trouble	Probable Cause	Remedy
1. Adjustment of dispensing valve syrup flow regulator does not increase to desired water-to-syrup ratio.	A. No syrup supply. B. Syrup supply container not securely connected into system. C. Tanks System – Syrup tanks secondary CO ₂ regulator out of adjustment. Bag-in-Box System – Primary CO ₂ regulator out of adjustment. D. Inoperative dispensing valve syrup flow control. E. Tapered washer inside tube swivel nut connection distorted from being over tightened restricting syrup flow.	A. Replenish syrup supply. B. Securely connect syrup supply container into syrup system. C. Adjust syrup tanks secondary CO ₂ regulator as instructed. Adjust primary CO ₂ regulator as instructed. D. Repair dispensing valve syrup flow control. E. Replace tapered gasket. Make sure it seats properly.
2. Adjustment of dispensing valve syrup flow regulator does not decrease to desired water-to-syrup ratio.	A. Dirty or inoperative dispensing valve syrup flow control.	A. Disassemble clean and sanitize dispensing valve syrup flow control.

TROUBLESHOOTING POST-MIX SYSTEM

Trouble	Probable Cause	Remedy
3. Dispensed product carbonation too low.	A. Primary CO ₂ regulator out of adjustment for existing water conditions or temperature. B. CO ₂ supply depleted. C. Air in carbonator water tank. D. Water, oil, or dirt, in CO ₂ supply.	A. Adjust primary CO ₂ regulator. As instructed. B. Replenish CO ₂ supply. C. Vent air out of carbonator water tank through relief valve. Open No. 1 dispensing valve to make carbonator water pump cycle on. D. Remove contaminated CO ₂ . Clean CO ₂ system (lines, regulator, etc.) using a mild detergent solution. Install a clean CO ₂ supply.
4. Dispensed product comes out of dispensing valve clear but foams in cup or glass.	A. Oil film or soap scum in cups or glasses. B. Ice used for finished drink is sub-cooled.	A. Use clean cups or glasses. B. Do not use ice directly from freezer. Allow ice to become "wet" before using. (Refer to following NOTE).

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

TROUBLESHOOTING POST-MIX SYSTEM

Trouble	Probable Cause	Remedy
5. Dispensed product produces foam as it leaves dispensing valve.	<ul style="list-style-type: none"> A. Recovery rate of refrigeration system exceeded, ice bank depleted. B. Primary CO₂ regulator pressure too high for existing water conditions or temperature. C. Tanks System – Syrup over-carbonated with CO₂ as indicated by bubbles in inlet syrup lines leading to dispenser. D. Dispensing valve restricted or dirty. E. Tapered gasket inside carbonated water line swivel nut connector distorted restricting carbonated water flow. F. Dirty water supply. G. Finished drink above 4.4°C (40°F). 	<ul style="list-style-type: none"> A. Allow ice bank to recover. B. Reduce primary CO₂ regulator pressure settings. C. Remove syrup tanks quick disconnects. Relieve tank CO₂ pressure, shake tank vigorously, then relieve tank CO₂ pressure as many times as necessary to remove over-carbonation. D. Sanitize syrup system as instructed in <i>Service and Maintenance Manual</i>. E. Replace tapered gasket. Make sure it is properly seated. F. Check water filter. Replace cartridge. G. Check refrigeration system.
6. No product dispensed.	<ul style="list-style-type: none"> A. Dispensing valves keyed lock-out switch in “OFF” position. B. No electrical power to dispenser. C. Disconnected dispensing valves power cord. D. Disconnected or broken wiring to dispensing valve. E. Inoperative transformer or dispensing valve solenoids. 	<ul style="list-style-type: none"> A. Place keyed lock-out switch in “ON” position. B. Plug in dispenser power cord or check for blown power fuse or tripped circuit breaker. C. Connect dispensing valves power cord. D. Connect or replace wiring. E. Replace inoperative part.

TROUBLESHOOTING POST-MIX SYSTEM

Trouble	Probable Cause	Remedy
7. Only carbonated water dispensed.	A. Syrup supply container not securely connected into syrup system. B. No syrup supply. C. Bag-in-Box System – Inoperable syrup pump. Tanks System – Syrup tanks CO ₂ regulator not properly adjusted. D. Inoperable dispensing valve. E. Dispensing valve syrup flow control not properly adjusted.	A. Securely connect syrup supply container into syrup system. B. Replenish syrup supply. C. Replace inoperable syrup pump. Adjust syrup tanks CO ₂ regulator as instructed. D. Repair dispensing valve. E. Adjust dispensing valve syrup flow control (Water-to-Syrup ratio) as instructed.
8. Only syrup dispensed.	A. Water inlet supply line shutoff valve closed. B. Carbonator not operating. C. Primary CO ₂ regulator not properly adjusted.	A. Open water inlet supply line shutoff valve. B. Restore carbonator operation. C. Adjust primary CO ₂ regulator as instructed.

TROUBLESHOOTING CARBONATOR

Trouble	Probable Cause	Remedy
1. Carbonator pump not operating.	A. Water supply to carbonator disrupted. B. Carbonated water tank water level probe electrical wiring disconnected. C. Inoperative carbonated water tank water level probe. D. Inoperative carbonator pump or motor. E. Inoperative control board. F. 3 minute run limit exceeded	A. Correct water supply problem. B. Connect electrical wiring to water level probe (see note). C. Replace probe (see note). D. Replace pump or motor. E. Replace control board. F. Turn power OFF for 15 seconds

TROUBLESHOOTING REFRIGERATION SYSTEM

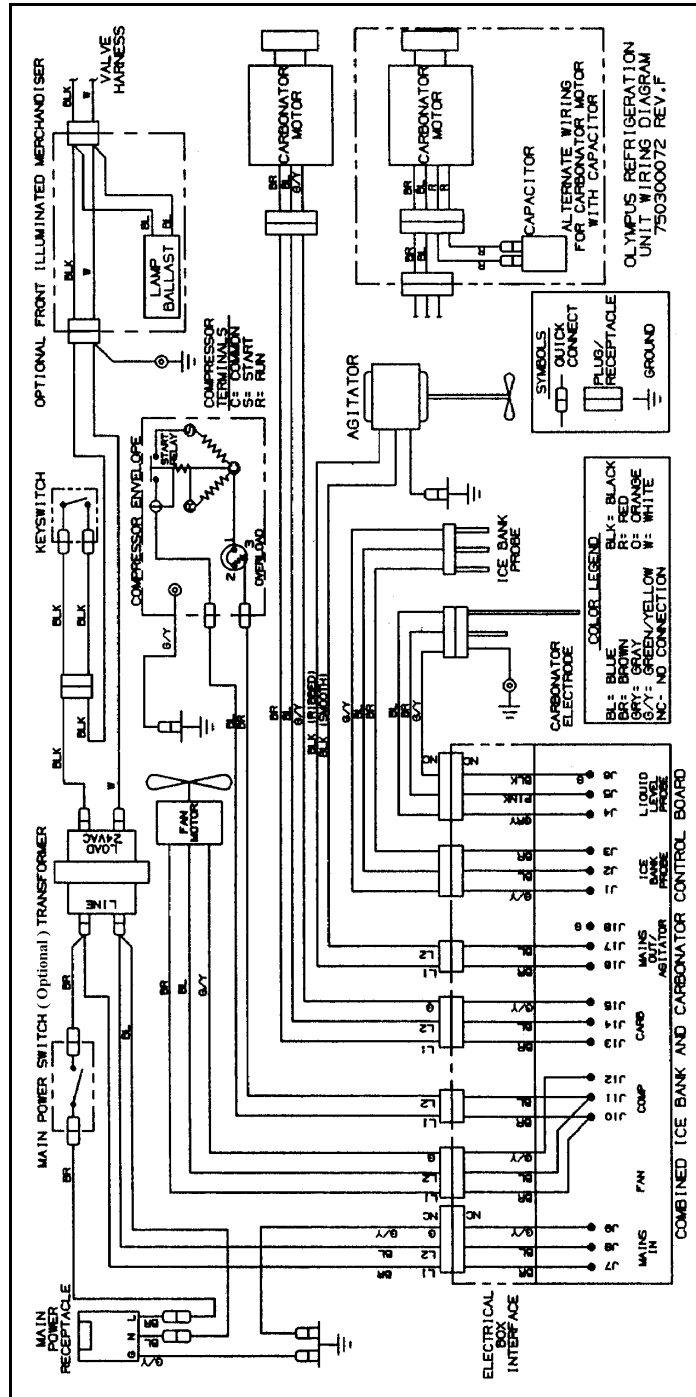
Trouble	Probable Cause	Remedy
1. Refrigeration compressor does not operate.	<ul style="list-style-type: none"> A. No water in water tank. B. Control board power switch on top of dispenser in "OFF" position, or building power not connected to unit (small) C. Ice sensor electrically disconnected. D. Dispenser power cord unplugged, or drop-in refrigeration assembly power cord unplugged. E. No power source (blown fuse or tripped circuit breaker). F. Low/high voltage. G. Loose, disconnected, or broken wiring. H. Overload protector cut out; overheated compressor. Condenser fan motor not operating as required. I. Inoperative overload protector or start relay. J. Inoperative ice bank probe. K. Inoperative control board. 	<ul style="list-style-type: none"> A. Fill water tank with water as instructed. NOTE: Ice Bank Control will not turn compressor on unless probes are covered with water. B. Place control board power switch in "ON" position or connect unit to power source. (will be a built-in 3-minute time delay before refrigeration compressor starts). C. Electrically connect or replace inoperable sensor. D. Plug in power cord. E. Replace fuse or reset circuit breaker. (Note: Fuse or circuit breaker are not part of dispenser). F. Voltage must be 90-130 or 180-255 VAC. G. Tighten connections or replace broken wiring. H. Compressor will cool enough to restart. Do not overdraw cooling capacity of dispenser. Refer to "Condenser Fan Motor Not Operating" in this section. I. Replace inoperative part. J. Replace ice bank probe. K. Replace control board.
2. Compressor will not stop after sufficient ice bank is produced.	<ul style="list-style-type: none"> A. Ice bank probe location incorrect. B. Ice temperature sensor inoperative. C. Control board inoperative. 	<ul style="list-style-type: none"> A. Place probe in proper location. B. Replace ice temperature sensor. C. Replace control board.

TROUBLESHOOTING REFRIGERATION SYSTEM

Trouble	Probable Cause	Remedy
3. Compressor operates continuously but does not form sufficient ice bank.	A. Cooling capacity is exceeded by over-drawing. B. Dispenser located in excessively hot area or air circulation through condenser coil is restricted. C. Problem with sealed refrigeration system.	A. Reduce amount of drinks drawn per given time. B. Relocate dispenser or check and if necessary, clean condenser coil as instructed. C. Service or replace system.
4. Agitator motor not operating.	A. No power source (blown fuse or tripped circuit breaker). B. Agitator motor propeller obstructed. C. Low voltage. D. Loose, disconnected, or broken wiring. E. Inoperative agitator motor.	A. Replace fuse or reset circuit breaker. (NOTE: Fuse or circuit breaker are not part of the dispenser). B. Remove obstruction. C. Voltage must be 90–135 VAC (115 volt unit or 180–260 (230 VAC unit) at compressor terminals when compressor is trying to start. D. Tighten connections or replace broken wiring. E. Replace agitator motor.

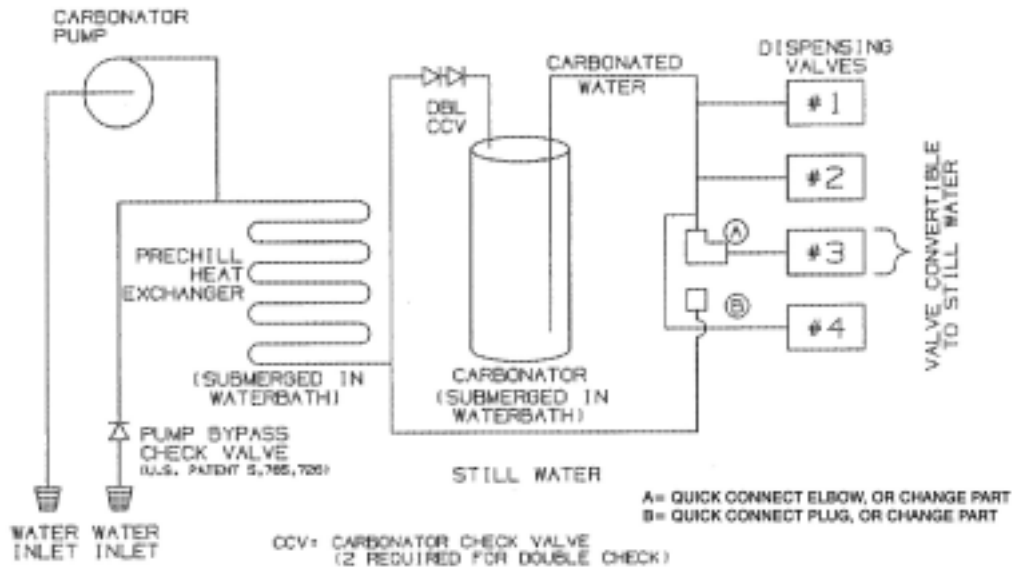
REFERENCE MATERIAL

WIRING DIAGRAM



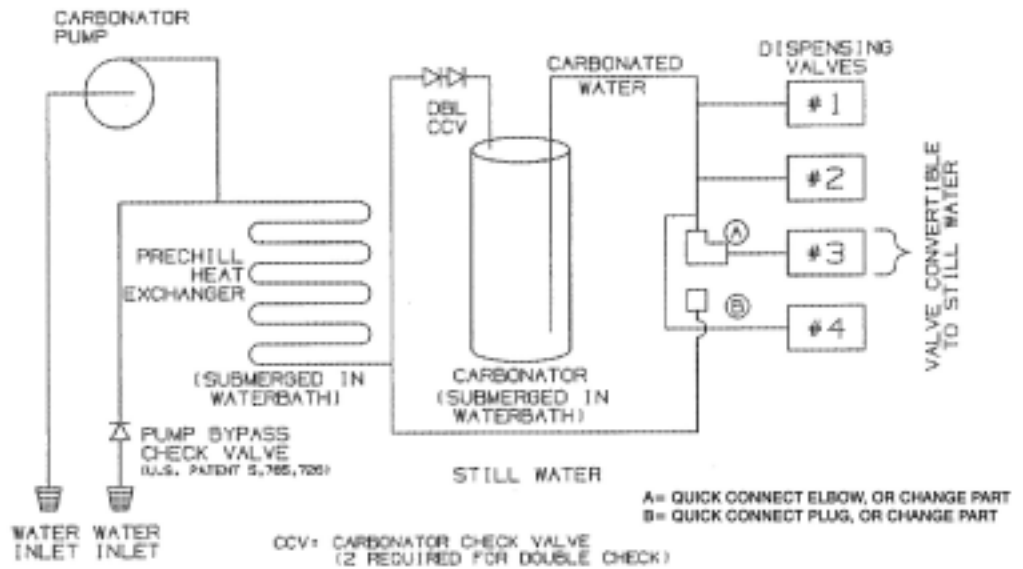
WATER CIRCUITS

OLYMPUS WATER CIRCUITS, INTEGRAL CARBONATOR



Olympus™ 4 Valve Water Circuit

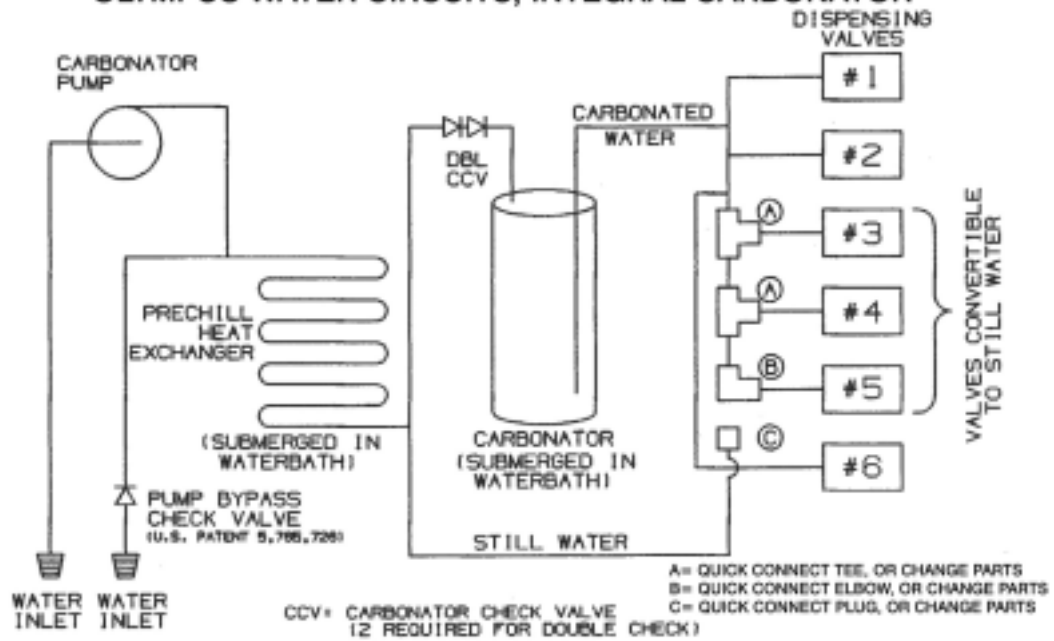
OLYMPUS WATER CIRCUITS, INTEGRAL CARBONATOR



Olympus™ 5 Valve Water Circuit

WATER CIRCUITS

OLYMPUS WATER CIRCUITS, INTEGRAL CARBONATOR



Olympus™ 6 Valve Water Circuit



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