

ELKAY® With FLEXI-GUARD®

INSTALLATION & USE MANUAL

SWIRLFLO® Refrigerated fountains with FLEXI-GUARD® and ezH2O® Bottle Filler



EZWS-ERPBM8K



LZWS-LRPBM8K

INSTALLER



CAUTION:

Review these instructions before beginning installation. Be sure that installation conforms to all plumbing, electrical and other applicable codes.



WARNING:

When installation is complete, ensure these instructions are left in the plastic bag provided inside the installed unit for future reference.



WARNING:

Service to be performed by authorized service personnel only.

NOTE: It is common practice to ground electrical hardware such as telephones, computers and other devices to available water lines. This can, however, cause electrical feedback in the plumbing circuit, which results in an “electrolysis” effect occurring in the fountain. This may result in water which has a metallic taste to it or has a noticeable increase in the metallic content of the water.

When inspecting plumbing circuit, remember the line may be grounded some distance from the installation, and may occur outside the building or area in which the unit is being installed.

This condition can be avoided (in most cases) by using recommended materials during installation. Any drain fittings provided by the installer should be made of **plastic** which will electronically isolate the fountain from the remainder of the building’s plumbing circuits.

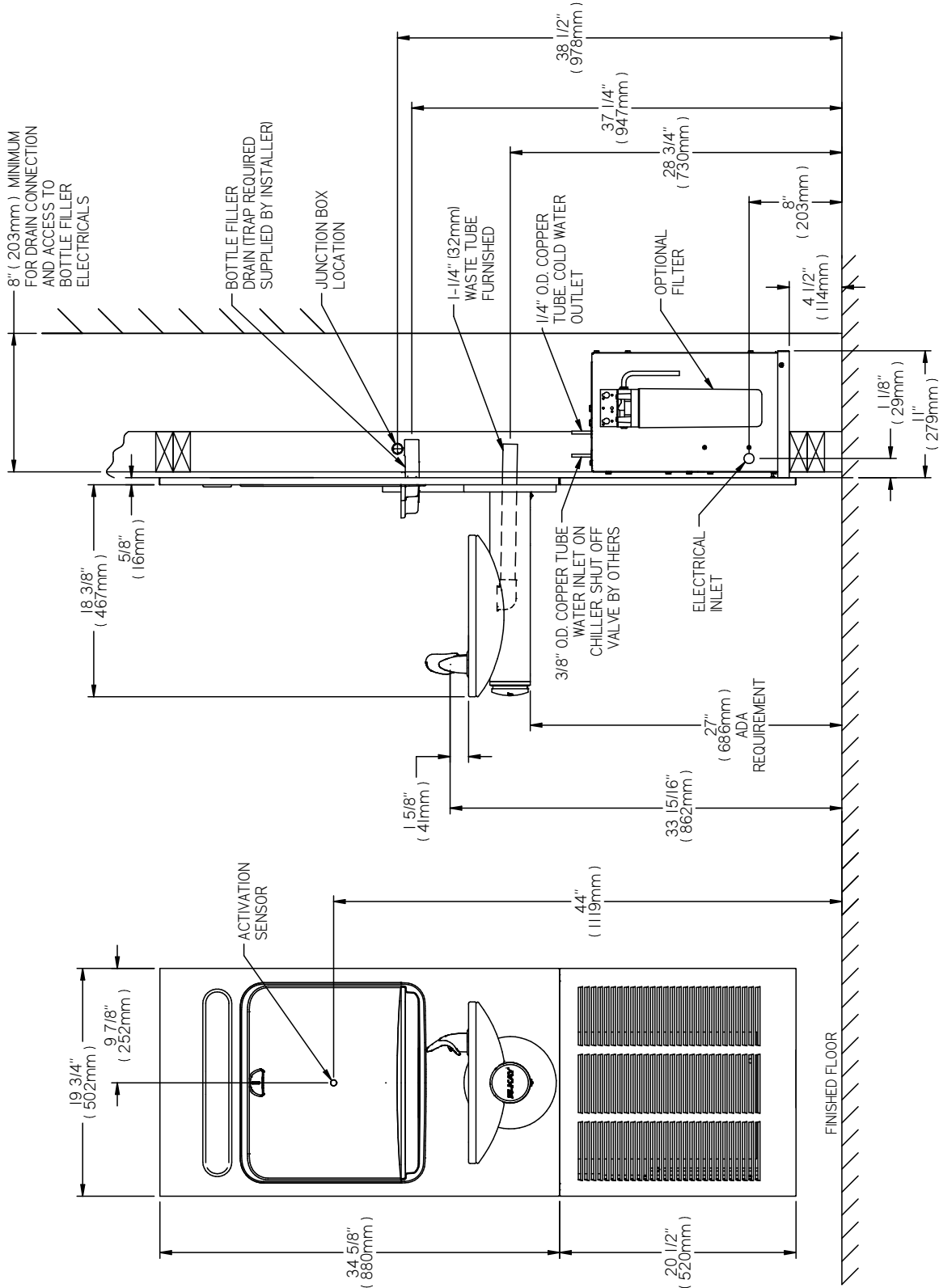
Patent zurn-elkay.com/patents

⚠ **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov

⚠ **ADVERTENCIA:** Cáncer y daño reproductivo - www.P65Warnings.ca.gov

⚠ **AVERTISSEMENT:** Cancer et effets néfastes sur la reproduction - www.P65Warnings.ca.gov

Models EZWS-ERPBM8K / LZWS-LRPBM8K



**** NEW INSTALLATIONS MUST USE GROUND FAULT CIRCUIT INTERRUPTER *GFCI)**

Figure 1 - Rough-in Dimensions

REQUIRED TOOLS AND MATERIALS

These tables show special tools and/or additional materials (not provided) which are necessary to complete installation of these units:

Special Tools		
Item	Description	Quantity
	NONE	

Additional Materials Not Included		
Item	Description	Quantity
1	Unplated copper inlet pipe	1
2	Service Stop/Shut-off Valve	1
3	90° 1-1/4" Drain Line	1
4	1-1/4" Tee Drain Line	1

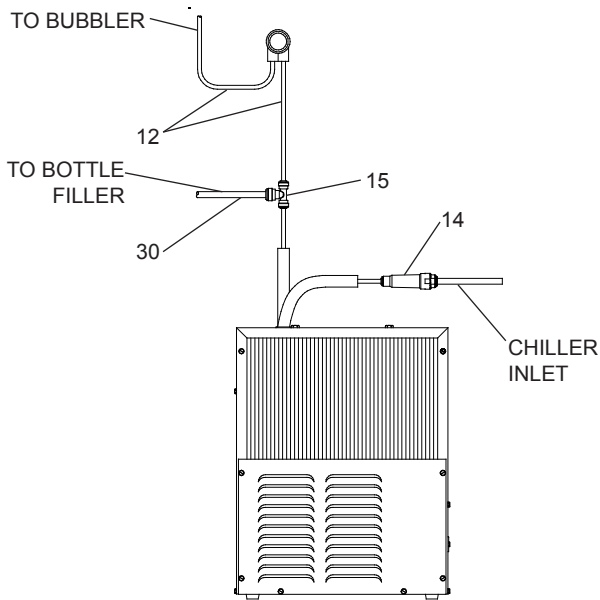


Figure 2 - EZWS-ERP Tube Routing

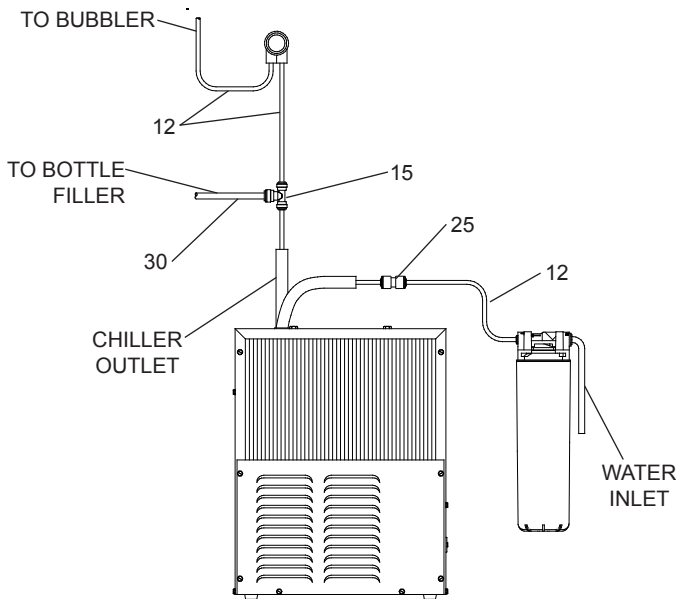


Figure 3 - LZWS-LRPB Tube Routing

- 1. Make water supply connections.** Install a shut-off valve and union connection to building water supply (valve and union not provided). Turn on water supply and flush the line thoroughly.
Caution: DO NOT SOLDER tubes inserted into the strainer or filter head as damage to the o-rings may result.
- 2. Install mounting frame** (instructions supplied with mounting frame).
- 3. (For EZWS-ERPBM8K) Install the strainer** on the inlet tube of the chiller. Install 1/4" x 1/4" x 3/8" tee on outlet tube of the chiller per (Fig. 2).
- 4. (For LZWS-LRPBM8K) Install the filter head** to the bracket then install bracket to side of chiller (Fig. 9). Next install filter to filter head and plumb from filter outlet to the chiller inlet with 1/4" poly tubing and 1/4" x 1/4" union per (Fig. 3).
- 4a. Install chiller on shelf,** install 1/4" X 1/4" x 3/8" Tee on chiller outlet tube. With the back panel standing close to the frame, connect the 3/8" poly tube coming from the bottle filler to the tee (Fig. 3).
Note: Building construction must allow for adequate air flow on both sides, top & back of chiller. A minimum of 4" (102 mm) on both sides & top is required. See chiller installation for additional instructions.
- 5. Hang main panel** on mounting frame hanger. Plug bottle filler into wall box receptacle. Make sure the power cord, reset switch wire & poly tube do not get pinched between the panel & mounting frame. Ensure the panel engages at the top. Align fountain holes with mounting frame holes.
- 6. Remove protective coating** from main panel.
- 7. Install reset switch** for bottle filler (Fig. 4A). Snap the switch into position after locating wires through slot. Wrap up the excess cord.

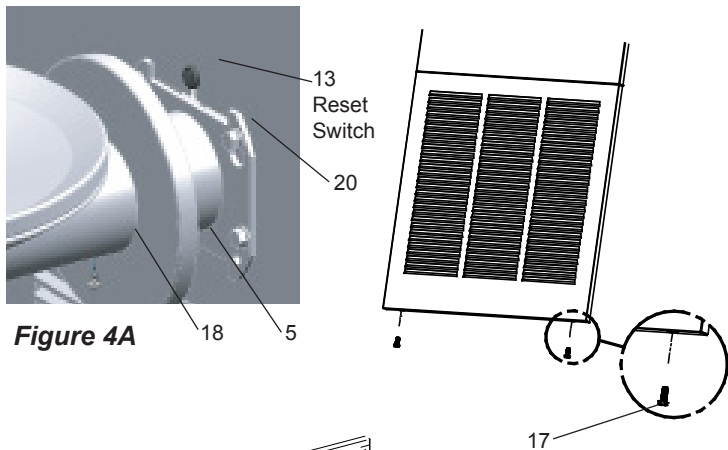
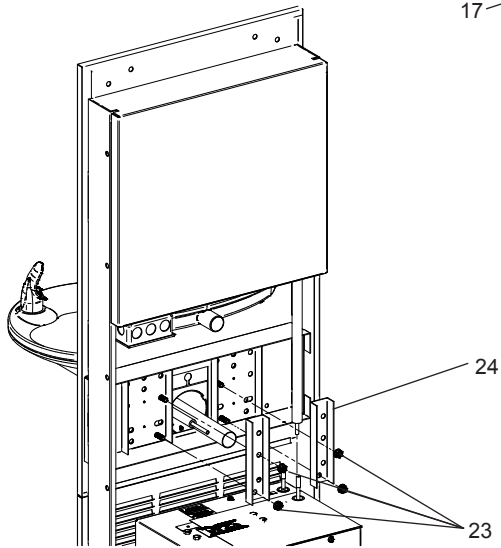


Figure 4A



View From Rear

Figure 4 - Fountain Installation

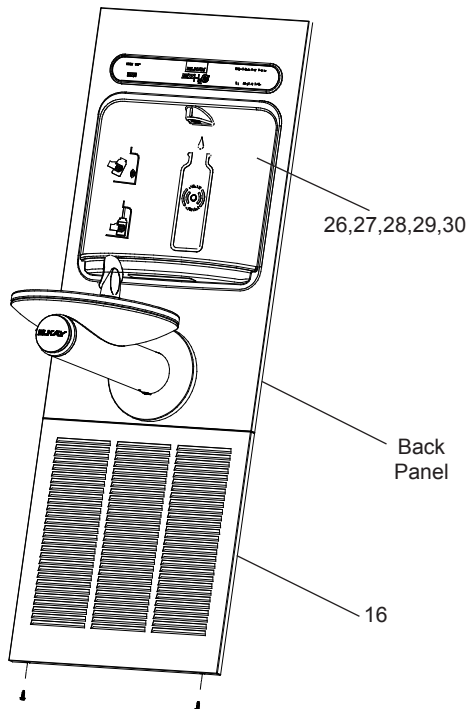


Figure 5 - Lower Panel Installation

8. **Install fountains** with (4) 5/16-18 HHMS, (4) 5/16-18 nuts & (2) support brackets (provided) (Fig. 4). Connect the 1/4" water line from fountain to the remaining opening on the tee at the remote chiller (cut lines to fit as needed), (Test fit refrigerated panel to make sure there is a tight joint between it & the main panel before fully tightening mounting screws.)
9. **Attach waste tubes** (1-1/4" O.D.) to 1-1/4" O.D. slip trap. Trap on the bottle filler side must be 1-1/2" O.D. (provided by others).
10. **Make final water supply connections.**
11. **These products are designed to operate on 20-105 PSI supply line pressure.** If inlet pressure is above 105 PSI, a pressure regulator must be installed in the supply line. (Caution: Any damage caused by connecting these products to a supply line with pressure lower than 20 PSI or higher than 105 PSI IS NOT covered under warranty.)
12. **Make electrical connections** to the bottle filler and remote chiller. The LCD Bottle counter should illuminate.
13. **Verify proper dispensing** from the bottle filler by placing a cup, hand or any opaque object in front of sensor area and verify water dispenses. Note: the first initial dispenses might have air in the line which may cause a sputter. This will be eliminated once all air is purged from the line. A steady stream of water assures all air is removed. The sensor has a 20 second maximum ON time. It may be necessary to step away from the beam a few times to purge all air. Check for leaks.
14. **Check stream height from bubbler.** Stream height is factory set for 35 PSI supply. If supply pressure varies greatly from this, remove push button (Item 7 - Fig. 8) and adjust the screw on the regulator (Item 8 - Fig. 8). To remove push button, remove setscrew from bottom of sleeve (Item 21). Insert a small punch in screw hole and push up while grasping the push button and pull forward removing the push button. Clock wise adjustment will raise stream height and counterclockwise movement will lower stream height. For best adjustment stream should hit basin approximately 6-1/2" from the bubbler. Reassemble the push button by pushing in on button until the push button catches in the sleeve. Reinstall the setscrew (Item 21) in the sleeve (Item 6).
15. **Install the cover plate.**
16. **Install the bottom panel,** tighten screws (Fig. 5).

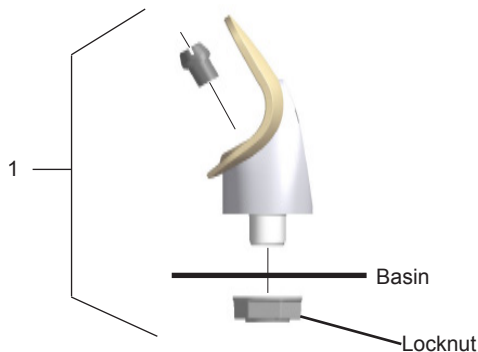


Figure 6 - Flexi-Guard® Bubbler Detail

NOTE:

When installing replacement bubbler and pedestal tighten locknut only to hold parts snug in position. **Do Not over-tighten.**

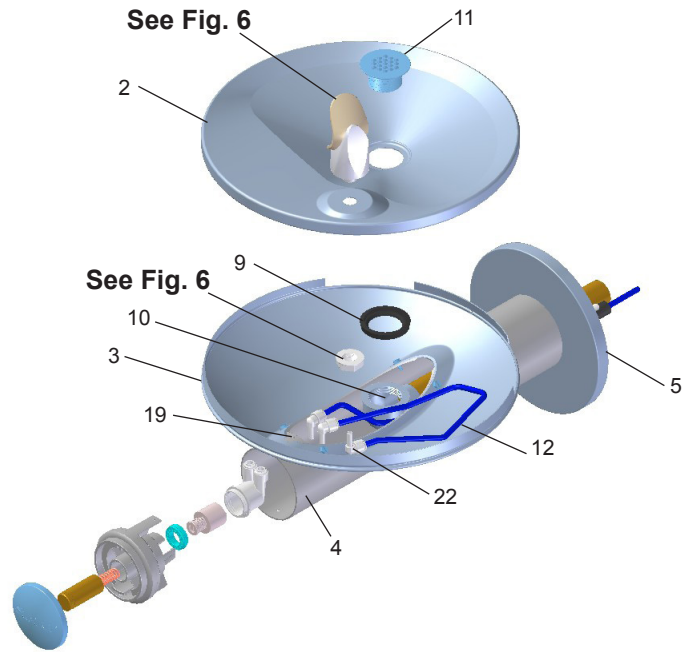


Figure 7 - Fountain Body Assembly

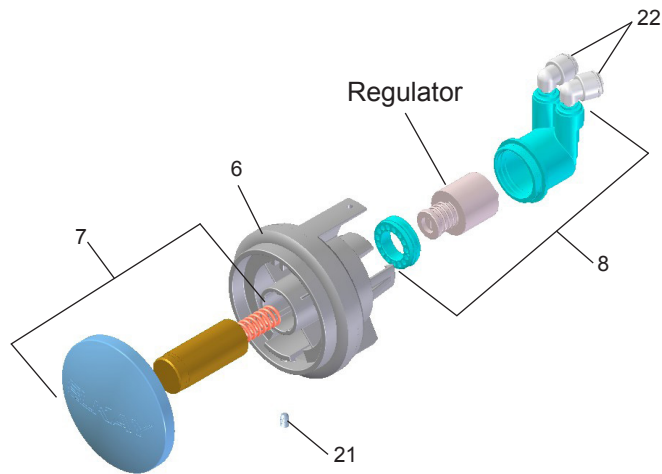


Figure 8 - Push Button Assembly

BF11 - BF12 PROGRAM

SETTING THE CONTROL BOARD

VERIFY CONTROL BOARD SOFTWARE

- 1) To verify the software program of the control board the unit will need to be shut down and restarted. The chiller (if present) does not need to be shut down and restarted.
- 2) Shut down the unit by unplugging the power cord from the wall outlet or switching off the circuit breaker to the unit..
- 3) Restart the unit by plugging the power cord back into the wall outlet or by switching on the circuit breaker to the unit.
- 4) Upon start up, the bottle count display will show the software designation of BF11 or BF12.

ACCESSING THE PROGRAMMING BUTTON

- 1) To access the program button, remove #8-32 screw, pull back cover plate on fountain arm (Fig. 4A). Reset button is located above fountain arm.

RESET THE FILTER MONITOR

- 1) Instructions apply to filtered units only.
- 2) Depress the program button for approximately 2 seconds until the display changes then release. The display will change and scroll through two messages:
"RST FLTR" – Reset Filter Monitor
"SETTINGS" – System Settings Sub Menu
If the program button is not pushed again the display will scroll through the two messages above for three cycles and then default back to bottle count and be back in run mode.
- 3) When the display changes to "RST FLTR", depress the button again. The display will change to show "FLTR =". Depress the button again and the display will show "FLTR =0"
- 4) The Green LED should be illuminated indicating that the visual filter monitor has been reset.

SETTING RANGE OF THE IR SENSOR WHERE APPLICABLE

- 1) Depress the program button for approximately 2 seconds until the display changes then release. The display will change and scroll through two messages:
"RST FLTR" – Reset Filter Status LED
"SETTINGS" – System Settings Sub Menu
If the program button is not pushed again the display will scroll through the two messages above for three cycles and then default back to bottle count and be back in run mode.
- 2) When the display changes to "SETTINGS", depress the button again. The display will change to show
"RNG SET" - Range set for IR sensor.
"UNIT TYP" - Type of unit (REFRIG or NON-RFRG)
"FLT SIZE" - Select filter capacity
"RST BCNT" - Reset bottle count
- 3) When display shows "RNG SET" push program button once the display will show current value (can be 1 – 10) e.g. "RNG = 3".
- 4) Once display shows current value push the program button to scroll through value of 1 – 10. Select the desired range setting, "1" being closest to sensor and "10" being farthest away.
- 5) Once range is selected allow approximately 4 seconds to pass and then the display will go back to bottle counter and be in run mode.
- 6) Test bottle filler by placing bottle or hand in front of sensor to make sure water is dispensed.

SETTING UNIT TYPE

- 1) Depress the program button for approximately 2 seconds until the display changes then release. The display will change and scroll through two messages:
"RST FLTR" – Reset Filter Status LED
"SETTINGS" – System Settings Sub Menu
If the program button is not pushed again the display will scroll through the two messages above for three cycles and then default back to bottle count and be back in run mode.
- 2) When the display changes to "SETTINGS", depress the button again.
The display will change to show
"RNG SET" - Range set for IR sensor.
"UNIT TYP" - Type of unit (REFRIG or NON-RFRG)
"FLT SIZE" - Select filter capacity
"RST BCNT" - Reset bottle count

Continued from below:

- 3) When display shows "UNIT TYPE" push program button once the display will show current value. Can be REFRIG or NON-RFRG
- 4) Push button once to change value. Once value is selected the display will show the new value. (Can be REFRIG or NON-RFRG)
"REFRIG" - stands for refrigerated product. In this setting the flow rate is estimated at 1.0 gallon per minute.
"NON-RFRG" - stands for nonrefrigerated product. In this setting the flow rate is estimated at 1.5 gallons per minute. Both "REFRIG" and "NON-RFRG" simulate 1 bottle equal to 20 oz.
- 5) Allow approximately 4 seconds to pass and the display will return to bottle counter and be in run mode.

RESETTING BOTTLE COUNT

- 1) Depress the program button for approximately 2 seconds until the display changes then release. The display will change and scroll through two messages:
"RST FLTR" – Reset Filter Status LED
"SETTINGS" – System Settings Sub Menu
If the program button is not pushed again the display will scroll through the two messages above for three cycles and then default back to bottle count and be back in run mode.
- 2) When the display changes to "SETTINGS", depress the button again. The display will change to show:
"RNG SET"- Range set for IR sensor.
"UNIT TYP" - Type of unit (REFRIG or NON-RFRG)
"FLT SIZE" - Select filter capacity
"RST BCNT" - Reset bottle count
If the button is not pushed again the display will scroll through the four messages above for three cycles and return to run mode.
- 3) When display shows "RST BCNT" push program button once the display will show current value, e.g. "0033183".
- 4) Once display shows current value push the program button once more to reset back to 0. The display will show BTLCT = 0 for approximately 2 seconds and then return to run mode showing 00000000 bottles.
NOTE: Once the bottle count is reset to zero there is no way to return to the previous bottle count.
- 5) Testing the bottle counter:
REFRIG units: Place bottle or hand in front of sensor for approximately 9 seconds to see bottle counter count 00000001,
(This is based on filling a 20 oz. bottle).
NON-RFRG units: Place bottle or hand in front of sensor for approximately 6 seconds to see bottle counter count 00000001,
(This is based on filling a 20 oz bottle).

SETTING FILTER CAPACITY

- 1) Depress the program button for approximately 2 seconds until the display changes then release. The display will change and scroll through two messages:
"RST FLTR" – Reset Filter Status LED
"SETTINGS" – System Settings Sub Menu
If the program button is not pushed again the display will scroll through the two messages above for three cycles and then default back to bottle count and be back in run mode.
- 2) When the display changes to "SETTINGS", depress the button again. The display will change to show:
"RNG SET"- Range set for IR sensor.
"UNIT TYP" - Type of unit (REFRIG or NON-RFRG)
"FLT SIZE" - Select filter capacity
"RST BCNT" - Reset bottle count
If the button is not pushed again the display will scroll through the four messages above for three cycles and return to run mode.
- 3) When display shows "FLT SIZE" push program button once. The display will show current value. Can be 3000GAL or 6000GAL.
- 4) Push program button again to display the desired "FLT SIZE".
- 5) Allow approximately 4 seconds to pass and the display will return to bottle counter and be in run mode.

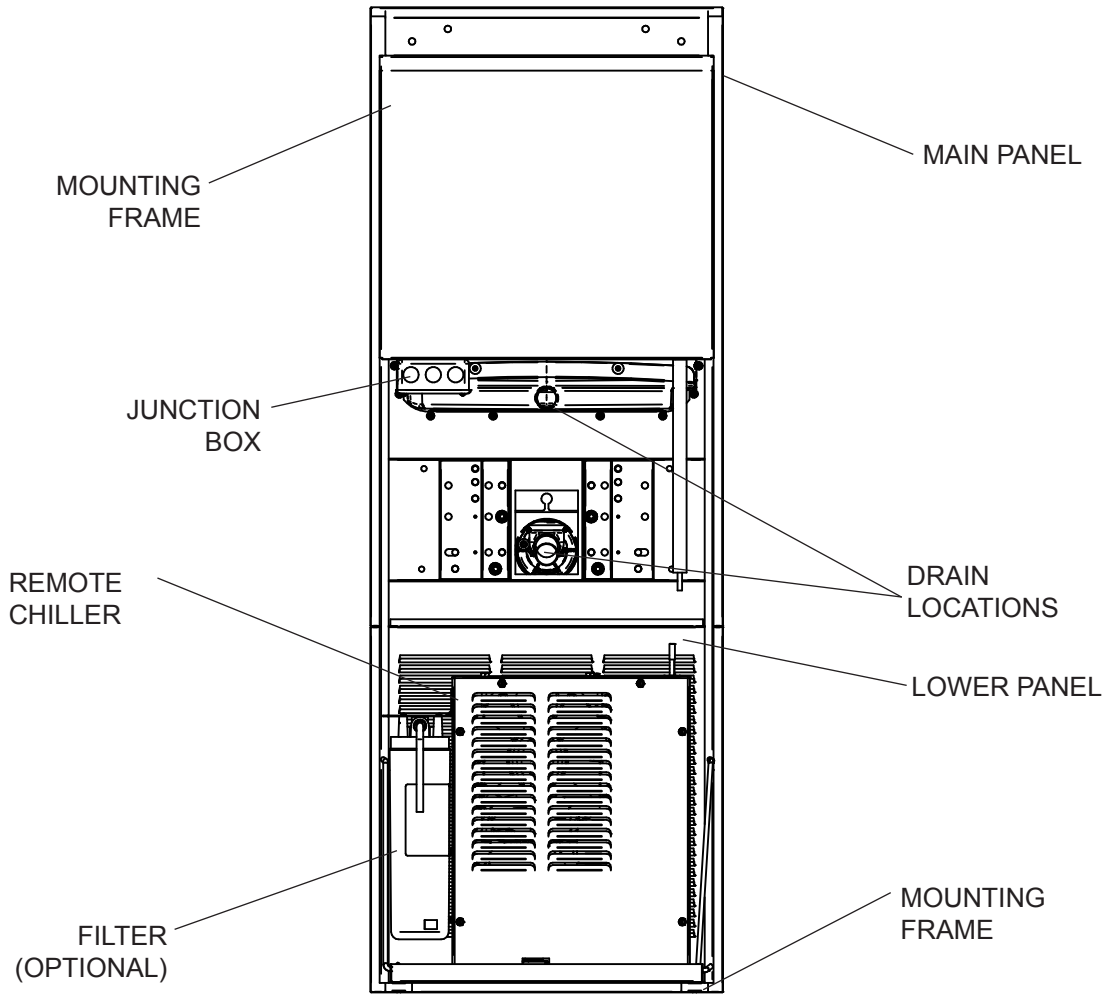


Figure 9

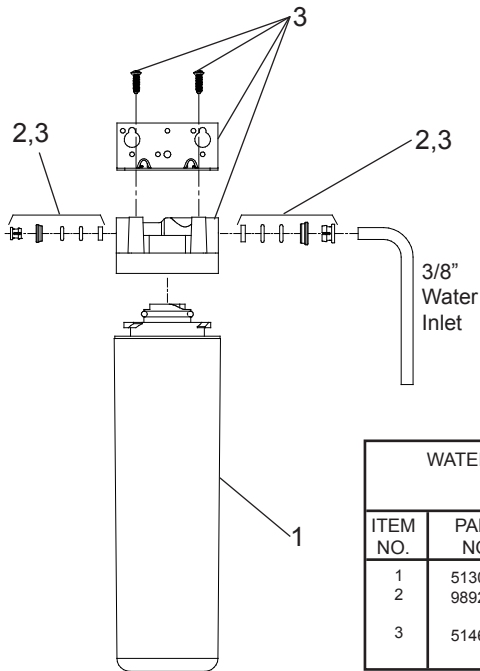


Figure 10

WATERSENTRY® PLUS FILTER PARTS LIST (See Fig. 10)		
ITEM NO.	PART NO.	DESCRIPTION
1	51300C	Filter Assy-3000 Gal.
2	98926C	Kit-Filter Head Fittings-Includes John Guest Fittings
3	51469C	Assy-Filter & Brkt includes Fltr Head/Mtg Bkt/ John Guest Fittings/Screws

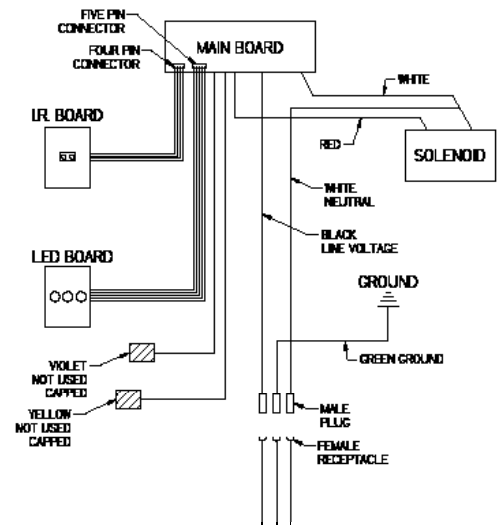


Figure 11

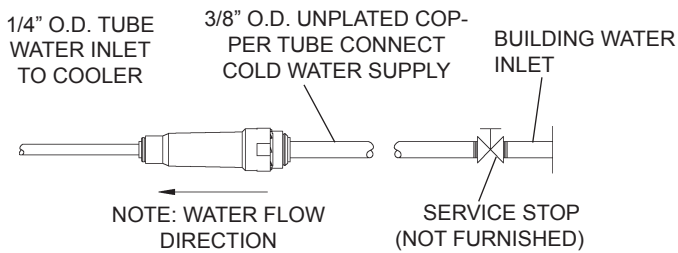
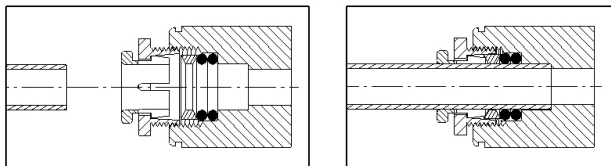


Figure 12 – Water Supply Connections

PARTS LIST		
ITEM NO.	PART NO.	DESCRIPTION
1	56073C	Kit - Bubbler Assy
2	28708C	Basin - Swirlflow
3	28473C	Lower Shell
4	45767C	Fountain Body
5	28343C	Cover Plate
6	45781C	Sleeve
7	98871C	Kit - Swirlflo Pushbutton/Spring
8	98530C	Kit - Regulator/Spring/Nut
9	56163C	Gasket - Drain
10	0000000930	Assy - Drain/Tailpipe
11	45768C	Drain - Plug 1-1/2"
12	56092C	Poly Tubing (Cut To Length)
13	99003C	Reset Switch
14	55996C	Strainer (Provided with Chiller)
15	0000001144	Tee - 1/4 x 1/4 x 3/8
16	26833C	Lower Panel
17	111008343890	Screw - #10-24 x .62 HHSM
18	70432C	Screw - #8-32 x .38 THSM
19	38417001	Screw - #8-18 x .37 HHSM
20	75560C	Screw - 5/16-18 x 1.00 HHMS
21	75632C	Setscrew - #10-32 x .38
22	70817C	Fitting - Elbow 1/4 x 1/4
23	111577343890	Nut - Serrated Hex 5/16-18
24	28395C	Bracket - Support
25	70683C	Fitting - Union 1/4 x 1/4

BOTTLE FILLER REPLACEMENT PART KITS		
ITEM NO.	PART NO.	DESCRIPTION
26	98543C	Kit - Electrical Package
27	98544C	Kit - EE Sensor
28	98545C	Kit - Solenoid Valve Replacement
29	98546C	Kit - Aerator Replacement
30	98549C	Kit - Hardware & Waterway Parts



Note: Screw the locknut hand tight to seal

Figure 13

Installation Package

The components for installation are packed in three separate boxes, regardless of the type of unit being installed. The boxes contain the following:

- Box No. 1: Wall Frame(s)
- Box No. 2: Remote Chiller, ECH8
- Box No. 3: Fountain(s), Arm(s) and Panels

Additional materials, as noted in the Parts List, are also shipped in these boxes.

TROUBLESHOOTING & MAINTENANCE

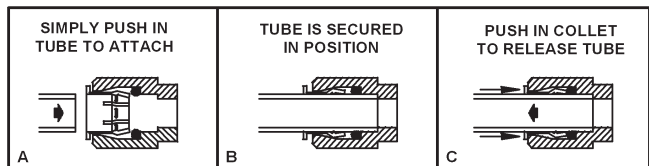
Orifice Assembly: Mineral deposits on orifice can cause water flow to spurt or not regulate. Mineral deposits may be removed from the orifice by poking with a small round file not over 1/8" diameter, or using a small diameter wire.

CAUTION: DO NOT file or cut orifice material

Stream Regulator: If orifice is clean, regulate flow as in Step 14 of the installation instructions. If replacement is necessary, see parts list for correct regulator part number.

Actuation of Quick Connect Water Fittings: Cooler is provided with lead-free connectors which utilize an o-ring water seal. To remove tubing from the fitting, relieve water pressure, push in on the gray collar while pulling on the tubing. (See Fig. 14) To insert tubing, push tube straight into fitting until it reaches a positive stop (approximately 3/4").

OPERATION OF QUICK CONNECT FITTINGS



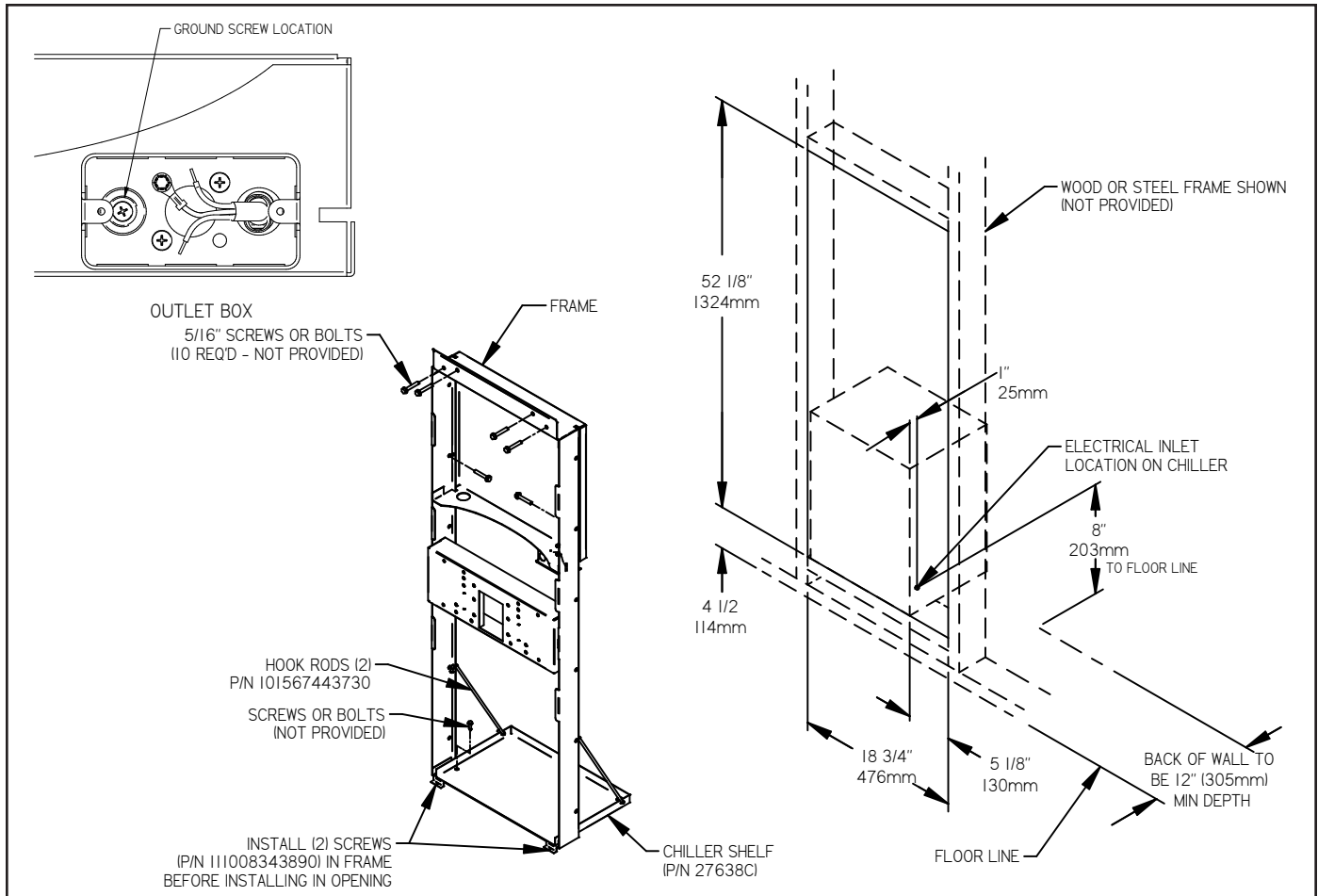
PUSHING TUBE IN BEFORE PULLING IT OUT HELPS TO RELEASE TUBE

Figure 14 – Quick Connect Fittings

FOR PARTS, CONTACT YOUR LOCAL DISTRIBUTOR OR CALL 1.800.834.4816
REPAIR SERVICE INFORMATION TOLL FREE NUMBER 1.800.260.6640

ELKAY MANUFACTURING COMPANY • 1333 BUTTERFIELD ROAD • DOWNERS GROVE, IL 60515 • 630.574.8484 • www.elkay.com

MFWSF110 MOUNTING FRAME INSTRUCTIONS



1. **Cut a square rectangular wall opening** 18 3/4" (476mm) W x 52 1/8" (1324mm) H and 4 1/2" (114mm) above the floor line. These dimensions are required to obtain proper rim and bubbler heights for compliance with ANSI standard A117.1.
2. **Reinforce the wall opening** on all sides so that it will adequately support the water fountain. This reinforcement must support up to 150 lbs static load and provide a means for securing the frame assembly in place.
NOTE: Building construction must allow for adequate air flow on both sides and top of remote chiller unit. Minimum of 4" (102mm) is required.
3. **Install plumbing and electrical rough-ins.** A junction box for a (3) wire, 10 amp branch circuit is provided on the inside of the chiller. (Standard 120 Volts, 60 Hz and single phase).
4. **Remove frame assembly and related hardware** from packaging. Install the frame squarely in wall opening with frame upright edges flush with the finished wall face. Place shelf inside frame and line up the (2) holes on each. Insert loose ends of rods into holes on sides of shelf panel. Using appropriately sized screws or bolts (not provided), fasten the shelf and frame to bottom of wall opening. Secure the frame sides and top to the wall using (10) 5/16" bolts or screws (not provided). Tighten securely.
NOTE: Be sure that frame is squared in location. Do not use less than required screw quantity and size.
5. **Mounting Frame Wiring Instructions:**
 - a. Turn off electrical supply to installation location circuit.
 - b. Remove Junction Box Cover to gain access to electrical box.
 - c. Connect electrical supply using conduit, wiring, and connectors per local and national codes.
 - d. Connect ground wire to ground screw (provided).
 - e. Connect black wire to "hot" power supply line 120V 60Hz, 1 phase.
 - f. Connect white wire to Neutral line.
 - g. Replace Junction Box Cover.
 - h. Connect electrical power to installation location circuit.

Patent [zurn-elkay.com/patents](http://www.zurn-elkay.com/patents)

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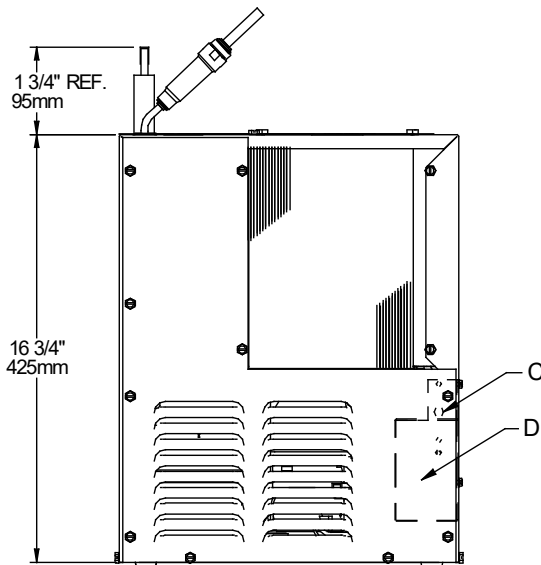
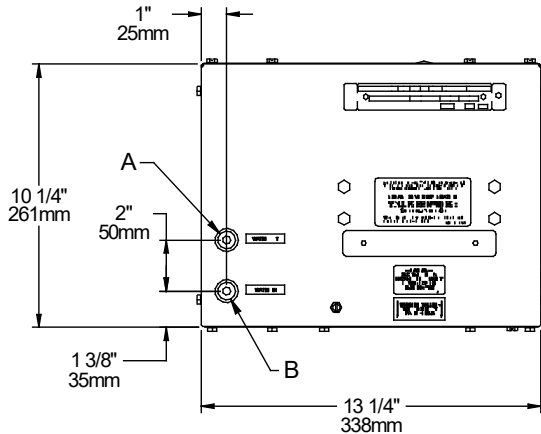
FOR PARTS, CONTACT YOUR LOCAL DISTRIBUTOR OR CALL 1.800.323.0620

ELKAY® Refrigeration Package

INSTALLATION, CARE & USE MANUAL

Note: Danger! Electric shock hazard. Disconnect power before servicing unit.

USES HFC-134A REFRIGERANT



LEGEND
A = 1/4" O.D. TUBE WATER OUTLET
B = 1/4" O.D. TUBE WATER INLET
C = TEMPERATURE ADJUSTMENT
D = ELECTRICAL

INSTALLATION

1. When mounting unit in an open area, to insure proper ventilation, maintain a 4" (102mm) clearance from cabinet louvers on each side of cooler. When mounting unit in a cavity or behind a wall maintain minimum space of 4" (102mm) on each side, 4" (102mm) on the top and a depth of 12" (305mm).
2. Water inlet is 1/4" (6 mm) O.D. tube. Contractor to supply the connections as required.
3. Connecting lines to be of unplated copper, thoroughly flushed to remove all foreign matter before being connected to cooler. If flushing does not remove all particles, a water strainer should be installed in supply line. This cooler is manufactured in such a manner that it does not in any way cause taste, odor, color or sediment problems.
4. Connect cooler to building supply line with a shut-off valve and install the in-line strainer between the valve and cooler.
5. Electrical: Make sure power supply is identical in voltage, cycle, and phase to that specified on cooler serial plate. Never wire compressor directly to the power supply.
6. This chiller has been designed for use with potable water **ONLY**.

START-UP

1. Open supply line valve.
2. Purge air from all water lines by operating bubbler valve of fountain to which cooler is connected. Steady stream assures all air is removed.
3. Rotate fan to insure proper clearance and free fan action.
4. Connect to electrical power.

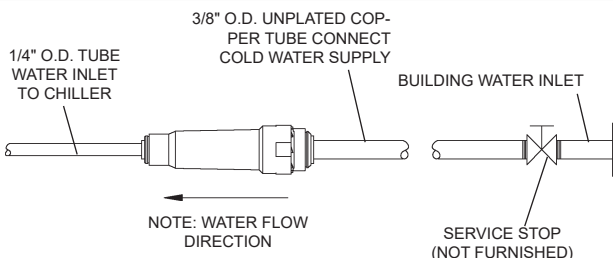
TROUBLE SHOOTING & MAINTENANCE

Temperature Control: Factory set at 50°F (± 5°) under normal conditions. For colder water, adjust screw on item no. 9 in clockwise direction.

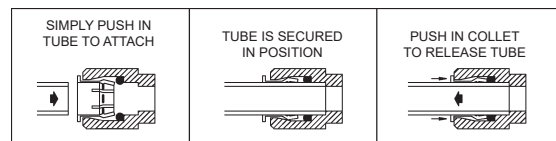
Ventilation: Cabinet louvers and condenser fins should be periodically cleaned with brush, air hose or vacuum cleaner. Excess dirt or poor ventilation can cause no cold water and compressor cycling on the compressor overload protector.

Lubrication: Motors are lifetime lubricated.

Actuation of Quick Connect Water Fittings: Cooler is provided with lead-free connectors which utilize an o-ring seal. To remove tubing from the fittings, relieve water pressure, push in on gray collar while pulling on the tubing. To insert tubing, push tube straight into fitting until it reaches a positive stop, approximately 3/4".



OPERATION OF QUICK CONNECT FITTINGS



PUSHING TUBE IN BEFORE PULLING IT OUT HELPS TO RELEASE TUBE

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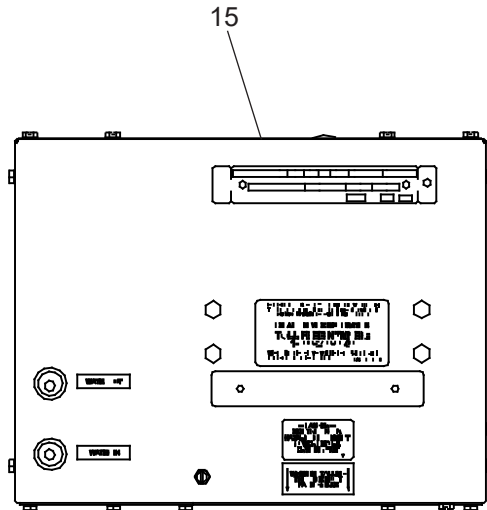
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115V ITEMIZED PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION
1	98724C	KIT - EVAP REPLACE ASSY
2	28478C	CABINET
3	98776C	KIT - CONDENSER/DRIER
4	98775C	KIT - FAN MTR/BLADE/NUT/SHROUD
5	20282C	BRACKET - FAN MOUNTING
6	98778C	KIT - HEAT EXCHANGER/DRIER
7	66703C	DRIER
*8	36322C	COMPRESSOR SERVICE PAK
9	98773C	KIT - COLD CONTROL/SCREWS
10	28477C	PANEL - FRONT
11	0000000238	KIT - ELECT/RELAY/COVER/OL
12	98777C	KIT - COMPRESSOR MTG HDWE
13	50930C	BUMPER
14	27303C	BASEPLATE
15	22300C	PANEL - REAR
16	55996C	IN-LINE STRAINER

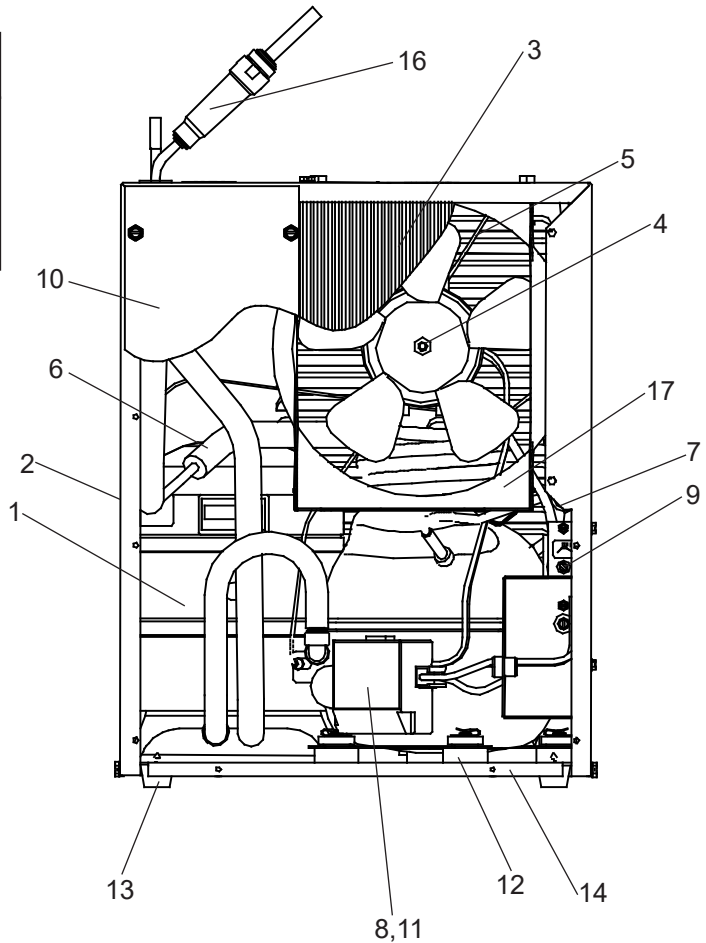
***INCLUDES RELAY & OVERLOAD. IF UNDER WARRANTY, REPLACE WITH SAME COMPRESSOR USED IN ORIGINAL ASSEMBLY.**

NOTE: All correspondence pertaining to any of the above water cooler or orders for repair parts MUST include model number and serial number of cooler, name and part number of replacement part.

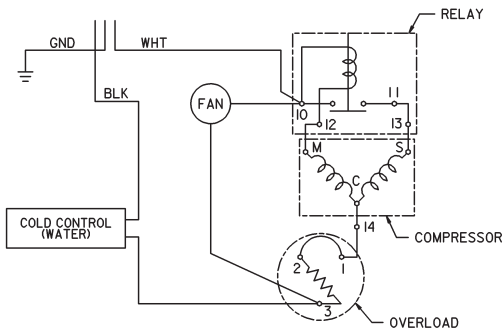


220V - 50/60HZ ITEMIZED PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION
4	0000000244	KIT - FAN MTR/BLADE/NUT/SHROUD (50 HZ)
	0000000245	KIT - FAN MTR/BLADE/NUT/W/O SHRD (60 HZ)
*8	1000002147	COMP. SERVICE PAK (50 HZ)
	1000002146	COMP. SERVICE PAK (60 HZ)
11	98751C	KIT - ELECT/RELAY/COVER/OL (50 HZ)
	98752C	KIT - ELECT/RELAY/COVER/OL (60 HZ)
17	56237C	SHROUD



WIRING DIAGRAM



REPAIR SERVICE INFORMATION TOLL FREE NUMBER 1.800.260.6640
FOR PARTS, CONTACT YOUR LOCAL DISTRIBUTOR OR CALL 1.800.834.4816

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