ELKAY® With FLEXI-GUARD®

INSTALLATION & USE MANUAL

SWIRLFLO® Refrigerated fountains with FLEXI-GUARD® and EZH$_2$O® Bottle Filler



EZWS-EDFPBM114K



LZWS-EDFPBM114K

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.

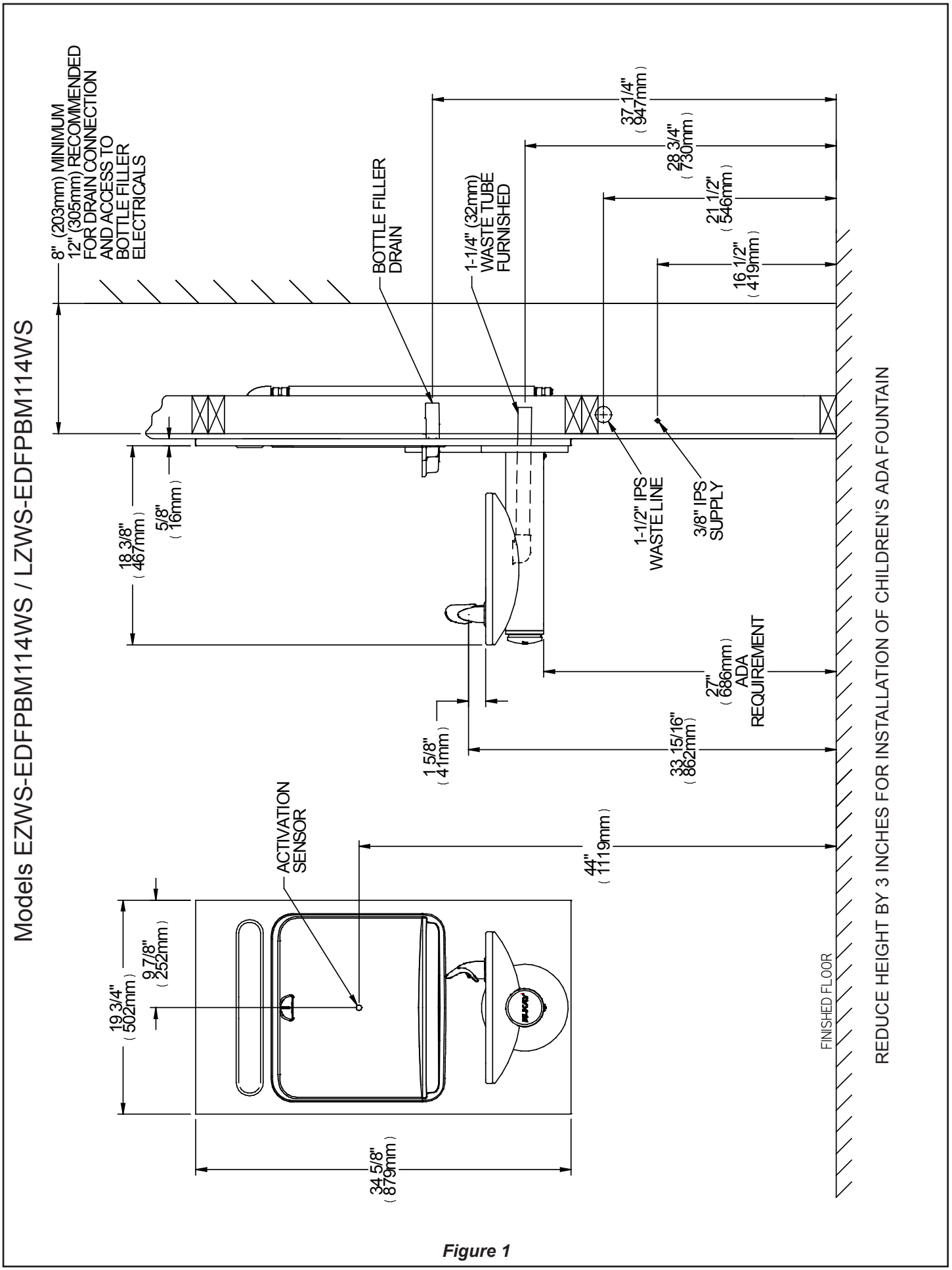

Models EZWS-EDFPBM114WS / LZWS-EDFPBM114WS
8" (203mm) MINIMUM
12" (305mm) RECOMMENDED
FOR DRAIN CONNECTION
AND ACCESS TO
BOTTLE FILLER
ELECTRICALS
BOTTLE FILLER
DRAIN
1-1/4" (32mm)
WASTE TUBE
FURNISHED
37 1/4"
(947mm)
28 3/4"
(730mm)
21 1/2"
(546mm)
16 1/2"
(419mm)
18 3/8"
(467mm)
5/8"
(16mm)
1-1/2" IPS
WASTE LINE
3/8" IPS
SUPPLY
27"
(686mm)
ADA
REQUIREMENT
1 5/8"
(41mm)
33 15/16"
(862mm)
ACTIVATION
SENSOR
44"
(1119mm)
19 3/4"
(502mm)
9 7/8"
(252mm)
34 5/8"
(879mm)
FINISHED FLOOR
REDUCE HEIGHT BY 3 INCHES FOR INSTALLATION OF CHILDREN'S ADA FOUNTAIN

Figure 1

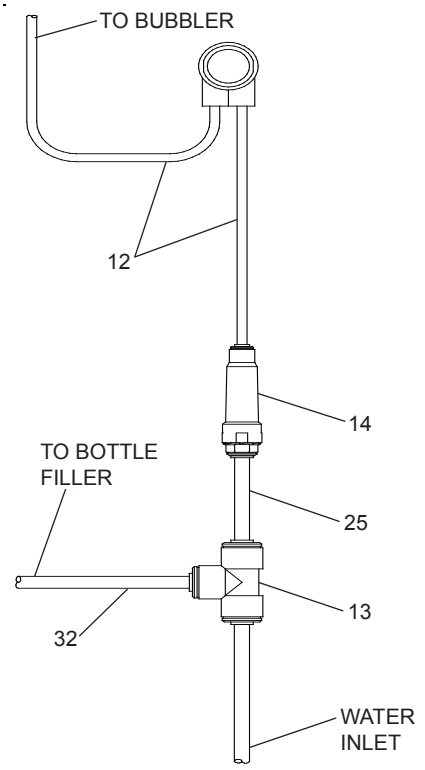


Figure 2 - EZWS-EDFPBM114K Tube Routing

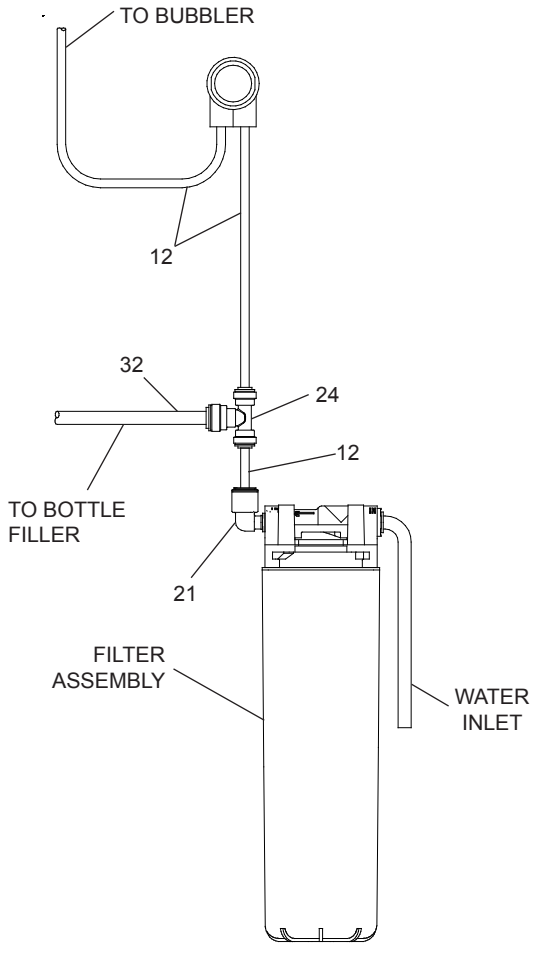


Figure 3 - LZWS-EDFPBM114K Tube Routing

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

1. **Make water supply connections** (Fig 11). 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-EDFPBM114K)** Install 3/8” tee, poly tubing and strainer per (Fig 2).

4. **(For LZWS-EDFPBM114K) Access** to the interior of the unit is necessary for filter mounting and changing. Filter mounting location is open to installer’s discretion. Recommended location to be within 18” of service stop (not supplied).

   Install the filter head to the bracket then install filter bracket to appropriate surface near fountain. Next install a 1/4” elbow to filter head outlet.

4a. **Install** the supplied 4” poly tubing and armaflex to the previously installed elbow. Connect supplied 1/4” x 1/4” x 3/8” tee to the 4” poly tubing. With the back panel standing close to the frame, connect 3/8” poly tube coming from the bottle filler to the tee per (Fig. 3).

5. **Hang main panel** on mounting frame hanger. 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 fountain** with (4) 5/16-18 HHMS, (4) 5/16-18 nuts & (2) support brackets (provided) (Fig 5). Connect the ¼” water line from the fountain to the remaining opening on the tee at the remote chiller (cut line to fit as needed).

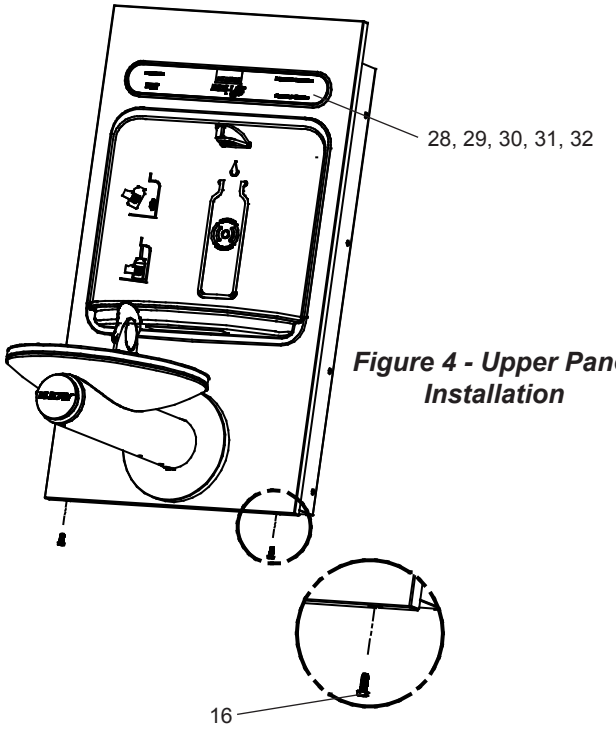


Figure 4 - Upper Panel Installation

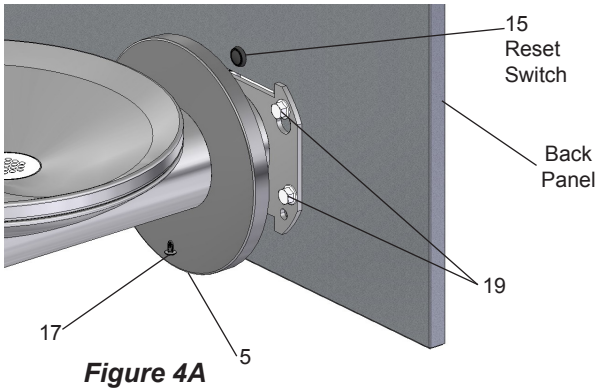


Figure 4A

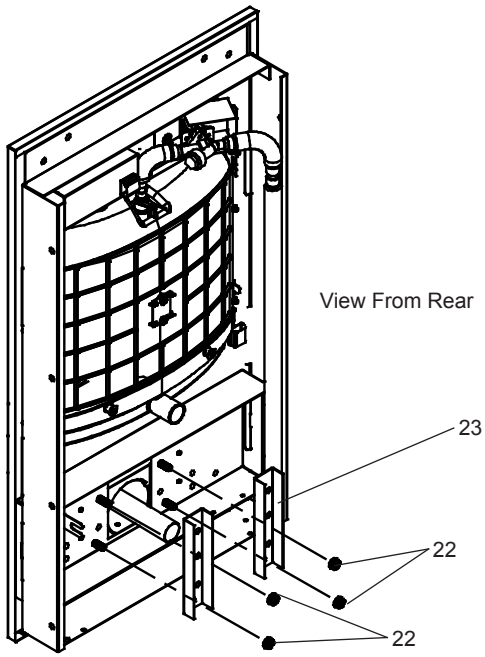


Figure 5 - Fountain Installation

8. **Install reset switch** for bottle filler (Fig 4A). Connect the switch wire to the extension wire on the back of the bottle filler. Wrap up the excess cord.

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. 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 - Figure 9) and adjust the screw on the regulator (Item 8 - Figure 9). To remove push but ton, remove setscrew from bottom of sleeve (Item 6). 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 20) in the sleeve (Item 6).

15. **Install the cover plate.**

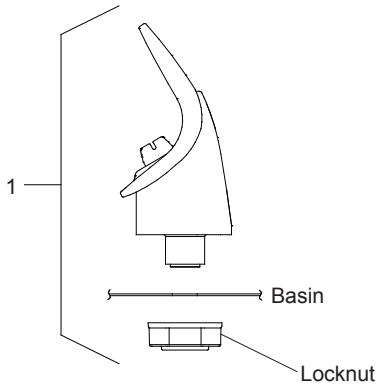


Figure 6 - Bubbler Details

NOTE:
When installing replacement bubbler and pedestal, tighten locknut only to hold parts snug in position. **Do Not overtighten.**

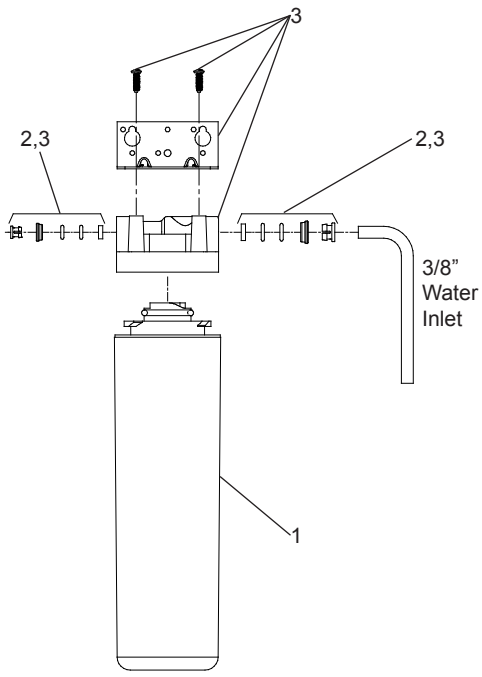


Figure 7 - Filter Detail

WATERSENTRY® PLUS FILTER PARTS LIST (See Fig. 7)		
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 & Bracket includes Fltr Head/Mtg Bkt/ John Guest Fittings/Screws

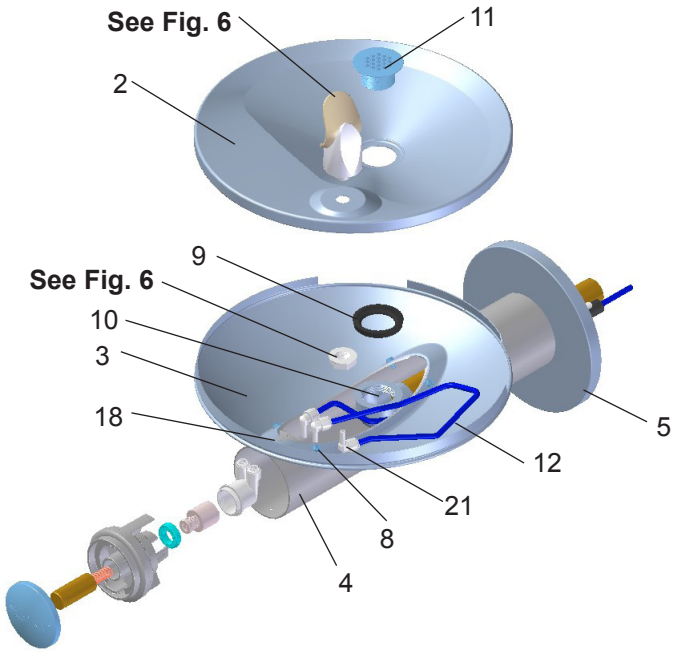


Figure 8 - Fountain Body Assembly

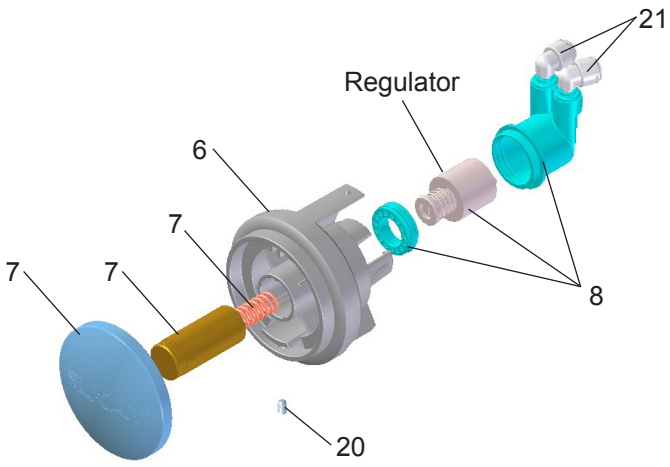


Figure 9 - Push Button Assembly

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) The units lower panel must be open to access the power cord and wall outlet.
3) Shut down the unit by unplugging the power cord from the wall outlet.
4) Restart the unit by plugging the power cord back into the wall outlet.
5) 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 the top cover of the bottle-filler. Remove the two (2) screws holding top cover to bottle-filler with a 5/32" allen wrench. Remove top cover. Do not discard mounting screws, they will be needed to reinstall the top cove after programming operations are completed. The programming button is located at the top right side of the unit on the control board.
NOTE: When applicable, there is also an alternate reset button located on the lower part of the water cooler. After removing the bottom cover, the reset button will be located on the left side of the cooler, mounted on the side panel support.

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.

Continued from below:

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 "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.

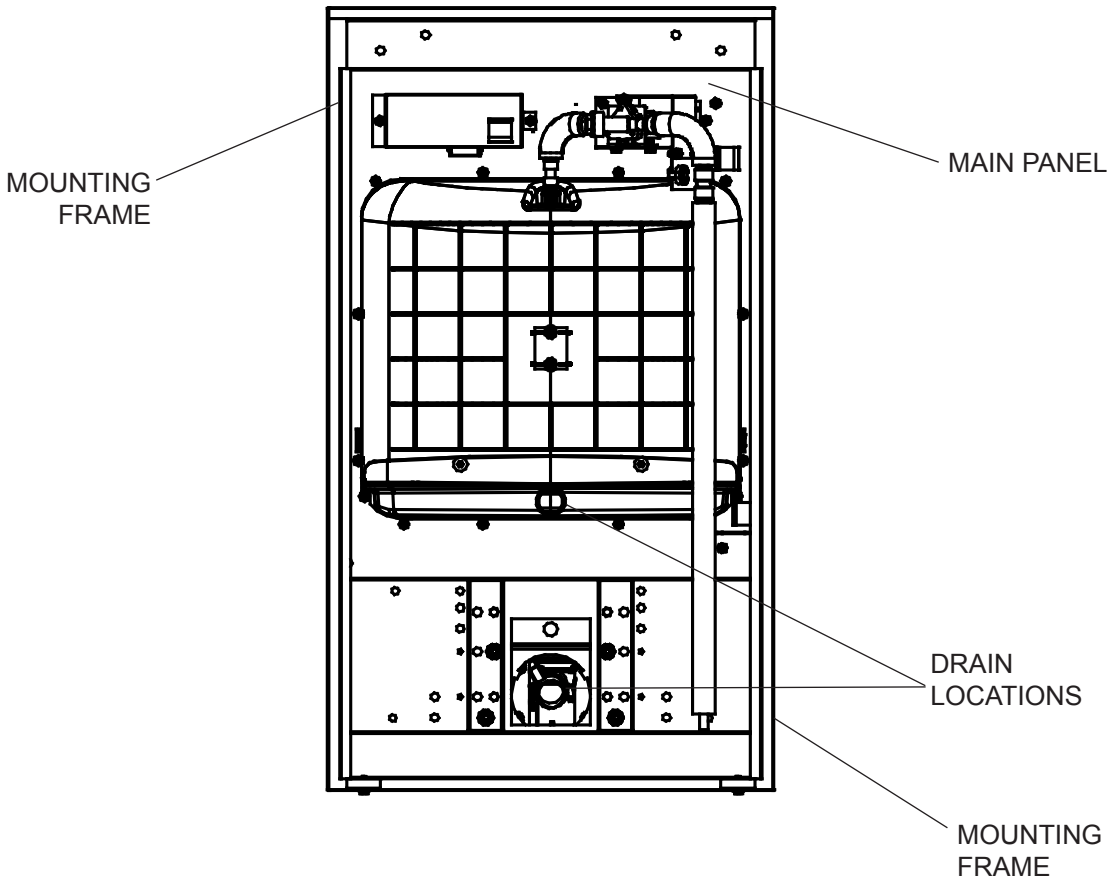


Figure 10

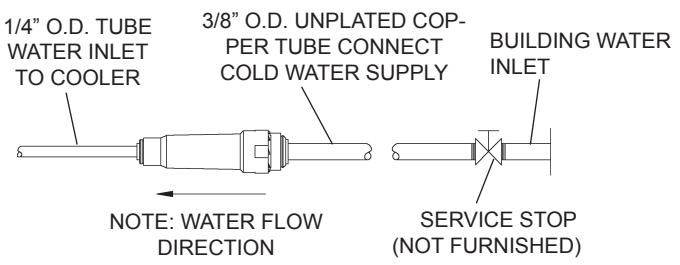
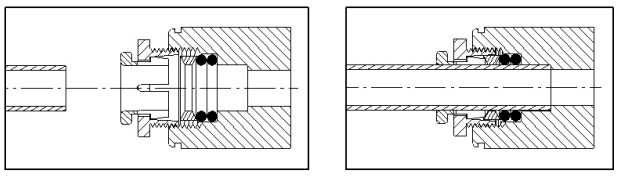


Figure 11 – Water Supply Connections



Note: Screw the locknut hand tight to seal

Figure 12

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	70852C	Tee - 3/8”
14	55996C	Strainer
15	36301C	Reset Switch
16	111008343890	Screw - #10-24 x .62 HHSM
17	70432C	Screw - #8-32 x .38 THSM
18	38417001	Screw - #8-18 x .37 HHSM
19	75560C	Screw - 5/16-18 x 1.00 HHMS
20	75632C	Setscrew - #10-32 x .38
21	1000001772	Kit - 70817C Elbow 1/4 (3 Pack)
22	111577343890	Nut - Hex 5/16-18
23	28395C	Bracket - Support
24	0000001144	Tee - 1/4 x 1/4 x 3/8
25	62223C	Copper Tube - 3/8”Cut to Length

BOTTLE FILLER REPLACEMENT PART KITS		
ITEM NO.	PART NO.	DESCRIPTION
28	98543C	Kit - Electrical Package
29	98544C	Kit - EE Sensor
30	98545C	Kit - Solenoid Valve Replacement
31	98546C	Kit - Aerator Replacement
32	98549C	Kit - Hardware & Waterway Parts

Installation Package

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

Box No. 1: Wall Frame(s)
Box No. 2: 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 Figure 13) To insert tubing, push tube straight into fitting until it reaches a positive stop (approximately 3/4”).

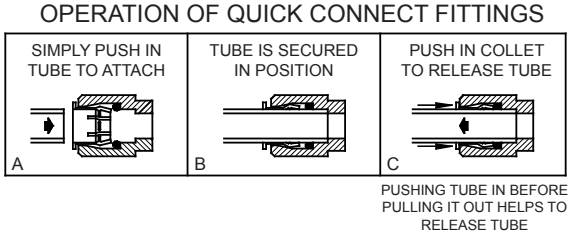


Figure 13 – Quick Connect Fittings