

BF16S Series
Surface Mounted, Sensor Operated Bottle Filler



springH2O[®]
BOTTLE FILLERS BY MURDOCK[®]

Please visit www.murdockmfg.com
for most current specifications.

BF16S Series
Sensor Operation

TECHNICAL ASSISTANCE TOLL FREE TELEPHONE NUMBER:
1.800.743.8259

Technical Assistance E-Mail: Fieldservice@acorneng.com



IMPORTANT

NOTE: To ensure fresh water supply, BF16S Stainless Steel Bottle Filler is provided with an Auto-Purge Sensor feature. Auto-Purge function is Factory pre-programmed to activate Bottle Filler for 10 second duration, 24 hours after the last activation of the unit. Purge cycle adjustments are possible with the optional **-AP Auto-Purge Function Controller** offered with the fixture or after the unit has been received using P.N. 2563-398-000.

<https://www.murdockmfg.com/option-ap-auto-purge-bottle-filler>

NOTES TO INSTALLER:

1. Please leave this documentation with the owner of the fixture when finished.
2. Please read this entire booklet before beginning the installation.
3. Check your installation for compliance with plumbing, electrical and other applicable codes.

For current Warranty click hyperlink [Product Warranty](#) or visit: www.murdockmfg.com/terms-and-warranty

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COMPLIES WITH
STANDARDS



NSF/ANSI 61



Federal
Public Law
111-380
(No Lead)



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murdock[®]
SINCE 1853

Member of



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PRIOR TO INSTALLATION

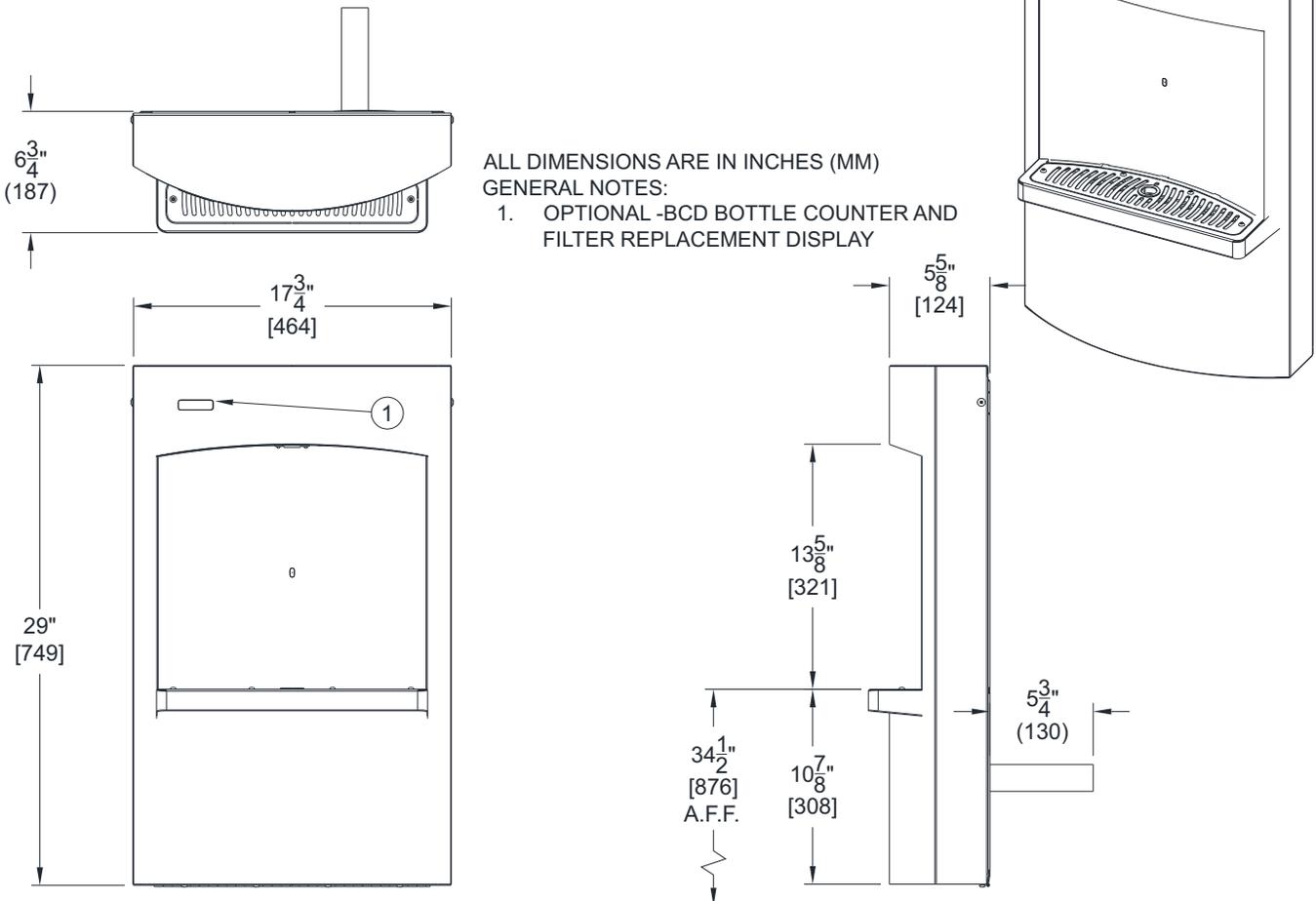
Important: Some options may slightly alter installation. To ensure proper installation, review the manual thoroughly and verify rough-ins before beginning any work. File this Manual with the owner or maintenance personnel upon completion of installation.

- Fixture mounting requirements: Industry standard wall construction, adequate to support the fixture and (installer provided) wall anchors sufficient to secure the fixture.
- Fixture operates within water pressure range of 20 to 105 PSIG. Murdock will not warranty fixtures damaged when connected to supply lines with flow pressure lower than 20 PSIG or higher than 105 PSIG.
- Per UPC 609.10- *All building water supply systems in which quick acting valves are installed shall be provided with devices to absorb the hammer caused by high pressure resulting from the quick closing of the valve. These pressure-absorbing devices shall be approved mechanical devices. Water pressure-absorbing devices will be installed as close as possible to the quick closing valve.*
- Water supply inlet is 3/8" O.D. Copper Tube.
- Completely flush supply of all foreign debris before connecting to fixture. Bottle Filler is designed to provide trouble-free drinking water unaffected by fixture connection tubing and fittings and not cause problems with taste, odor, color or sediment.
- Electrical Receptacle(s) must be wired to a GFCI protected circuit. Fixture must be earth grounded per N.E.C. (National Electrical Code).

DIMENSIONAL DRAWING

BF16S Surface Mounted Bottle Filler

Prior to roughing in, consult with local, state, and federal codes for proper mounting height.

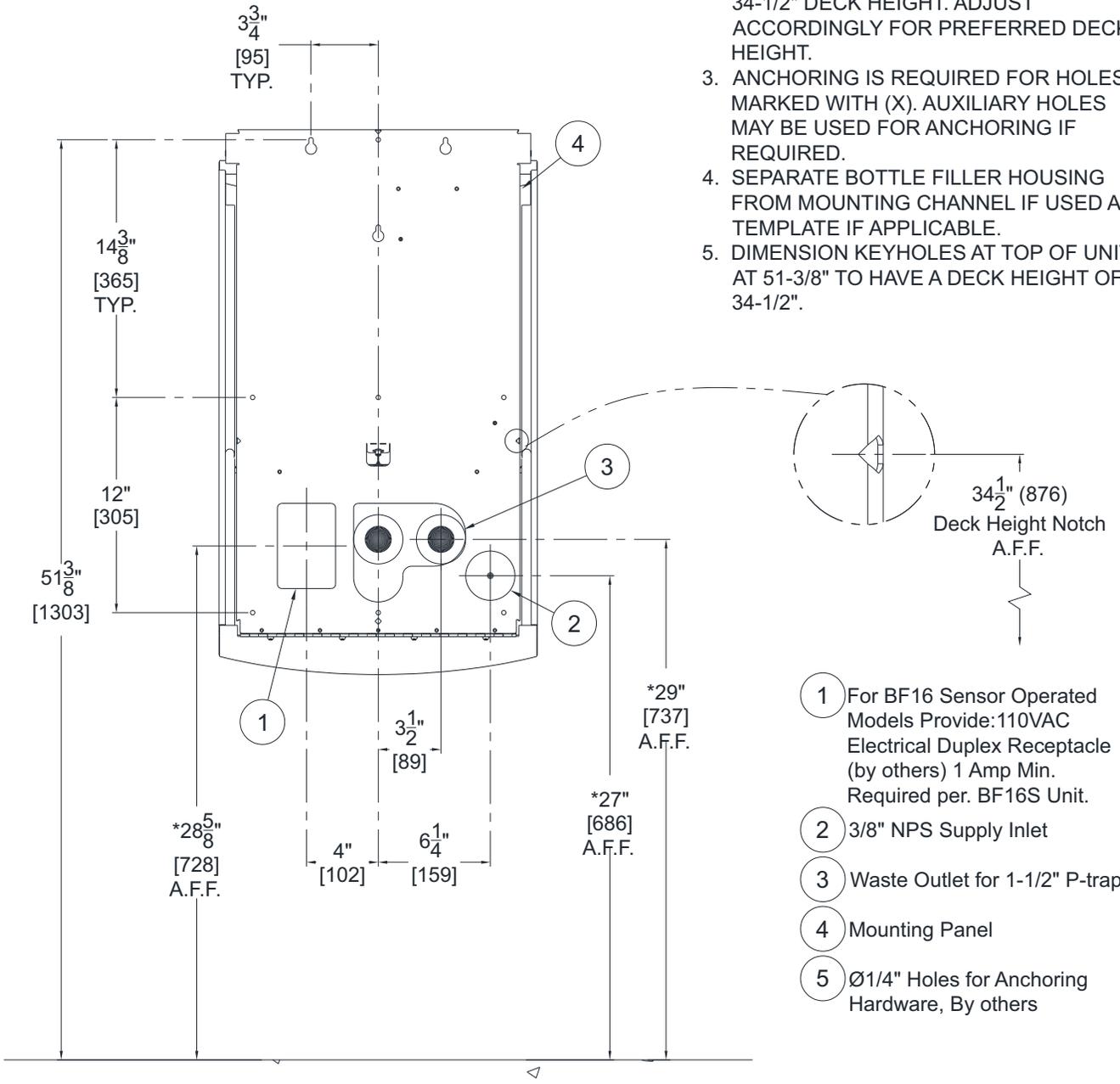


INSTALLATION INSTRUCTIONS ROUGH-IN:

- 1** Provide wall openings as indicated in rough-in detail provided, ensuring to block out the electrical service rough and Waste connection for 1-1/2" Waste Outlet. Use Mounting Channel as template.

GENERAL NOTES:

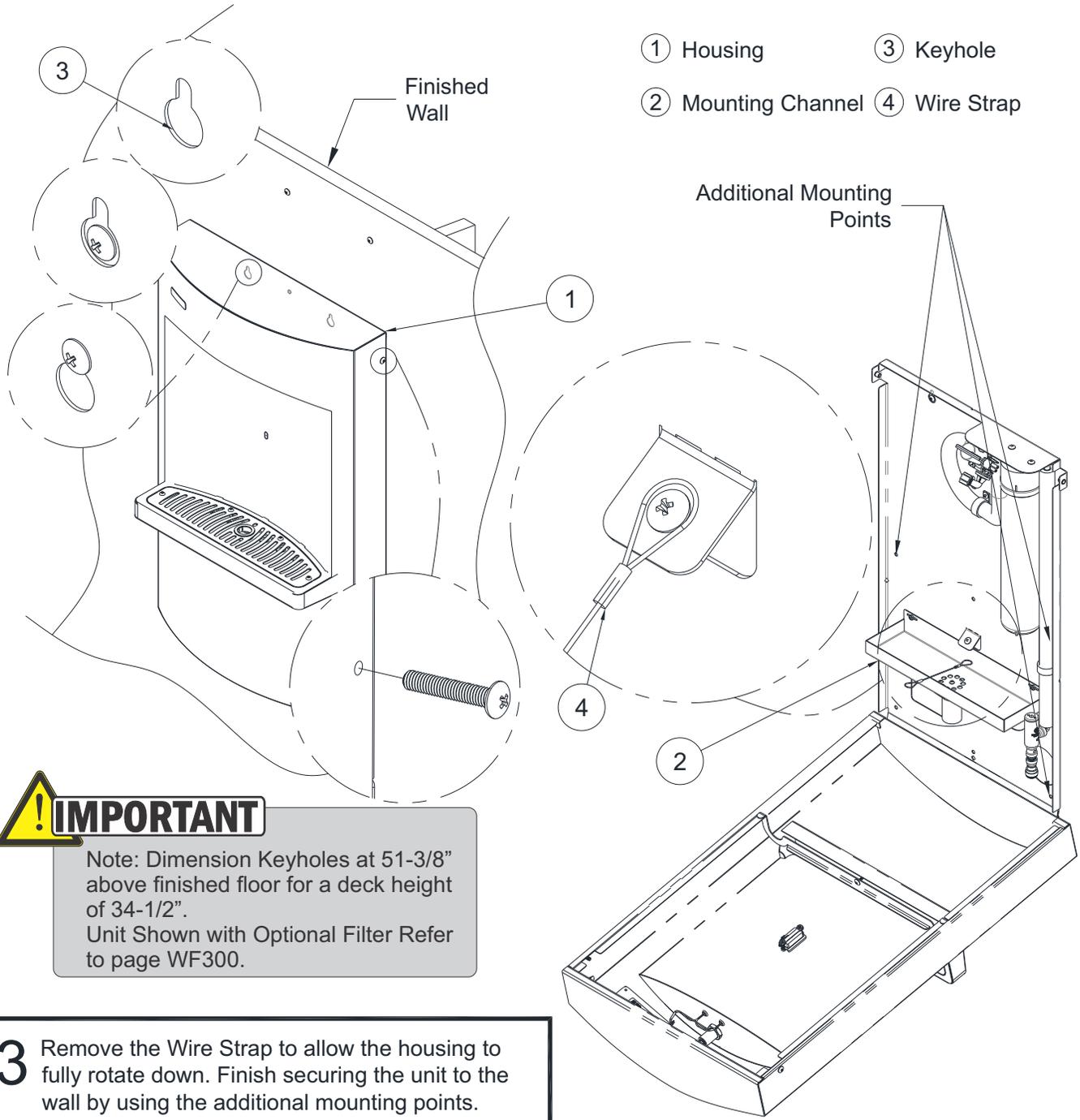
1. ALL DIMENSIONS ARE IN INCHES (mm)
2. DIMENSIONS INDICATED WITH (*) IS FOR 34-1/2" DECK HEIGHT. ADJUST ACCORDINGLY FOR PREFERRED DECK HEIGHT.
3. ANCHORING IS REQUIRED FOR HOLES MARKED WITH (X). AUXILIARY HOLES MAY BE USED FOR ANCHORING IF REQUIRED.
4. SEPARATE BOTTLE FILLER HOUSING FROM MOUNTING CHANNEL IF USED AS TEMPLATE IF APPLICABLE.
5. DIMENSION KEYHOLES AT TOP OF UNIT AT 51-3/8" TO HAVE A DECK HEIGHT OF 34-1/2".



- 1 For BF16 Sensor Operated Models Provide:110VAC Electrical Duplex Receptacle (by others) 1 Amp Min. Required per. BF16S Unit.
- 2 3/8" NPS Supply Inlet
- 3 Waste Outlet for 1-1/2" P-trap
- 4 Mounting Panel
- 5 Ø1/4" Holes for Anchoring Hardware, By others

INSTALLATION INSTRUCTIONS:

2 Hang the unit from the two keyholes at located at the top of the mounting channel and remove the two screws located near the top of the housing.

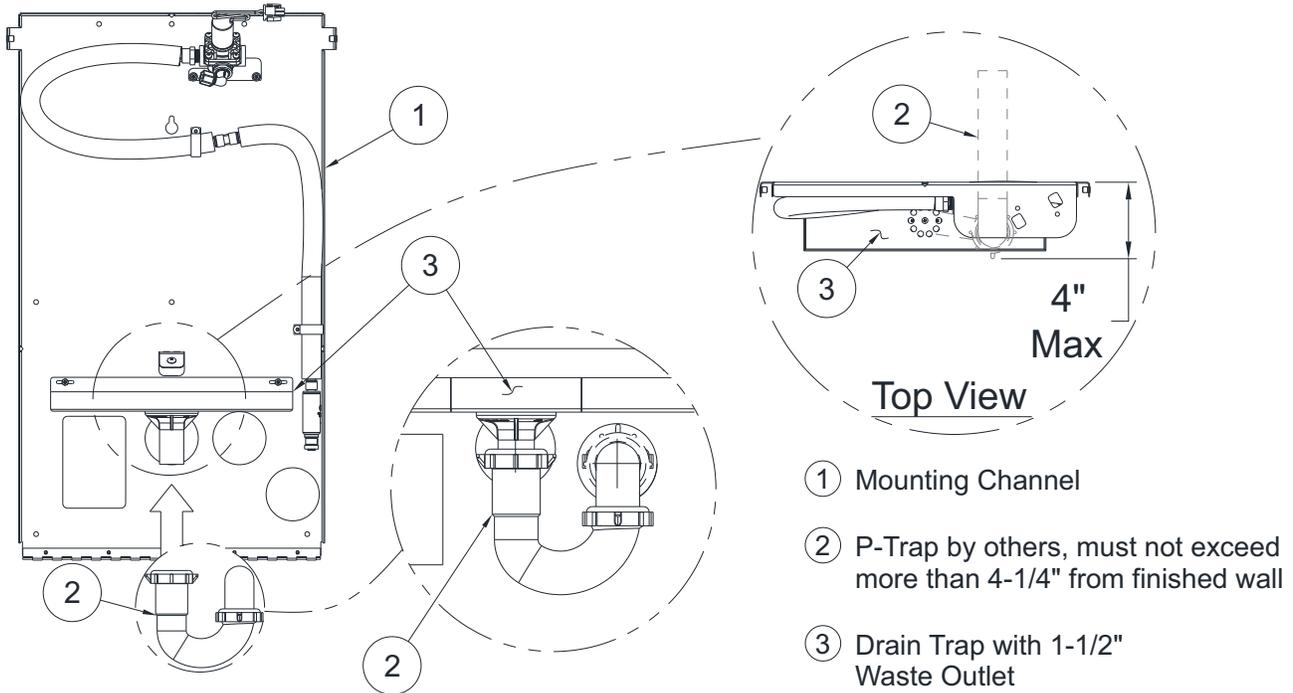


! IMPORTANT
Note: Dimension Keyholes at 51-3/8" above finished floor for a deck height of 34-1/2".
Unit Shown with Optional Filter Refer to page WF300.

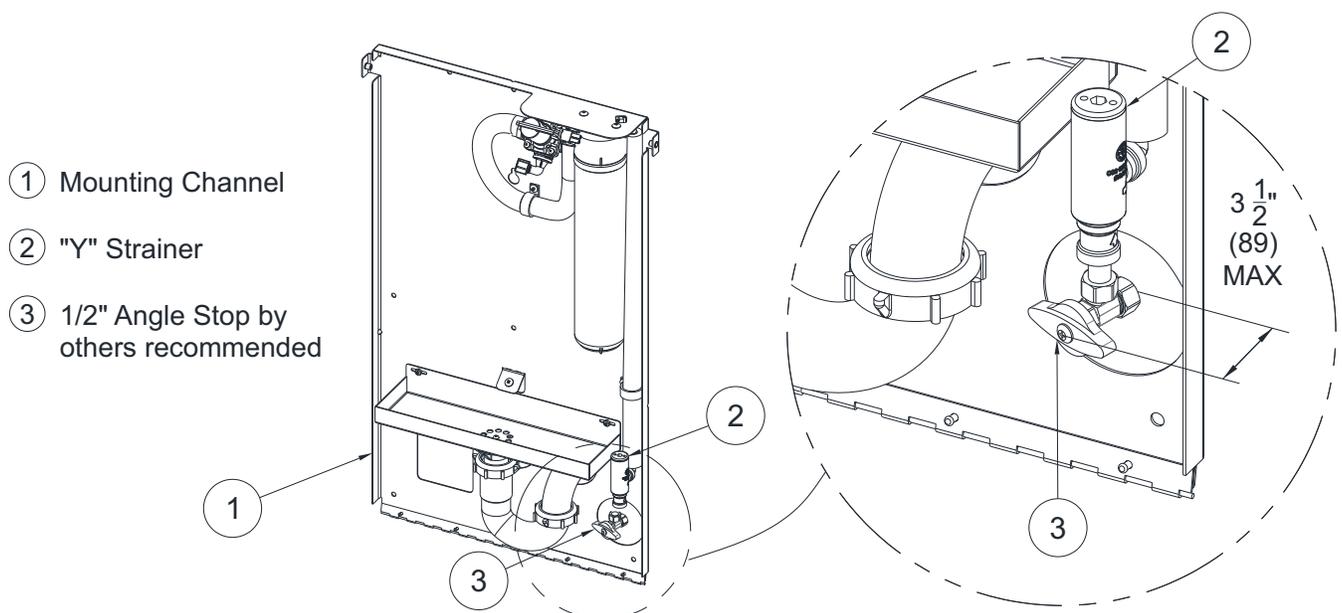
3 Remove the Wire Strap to allow the housing to fully rotate down. Finish securing the unit to the wall by using the additional mounting points.

INSTALLATION INSTRUCTIONS CONTINUED:

4 With the Mounting Channel secured to finished wall, install 1-1/2" O.D. P-Trap Waste Outlet.

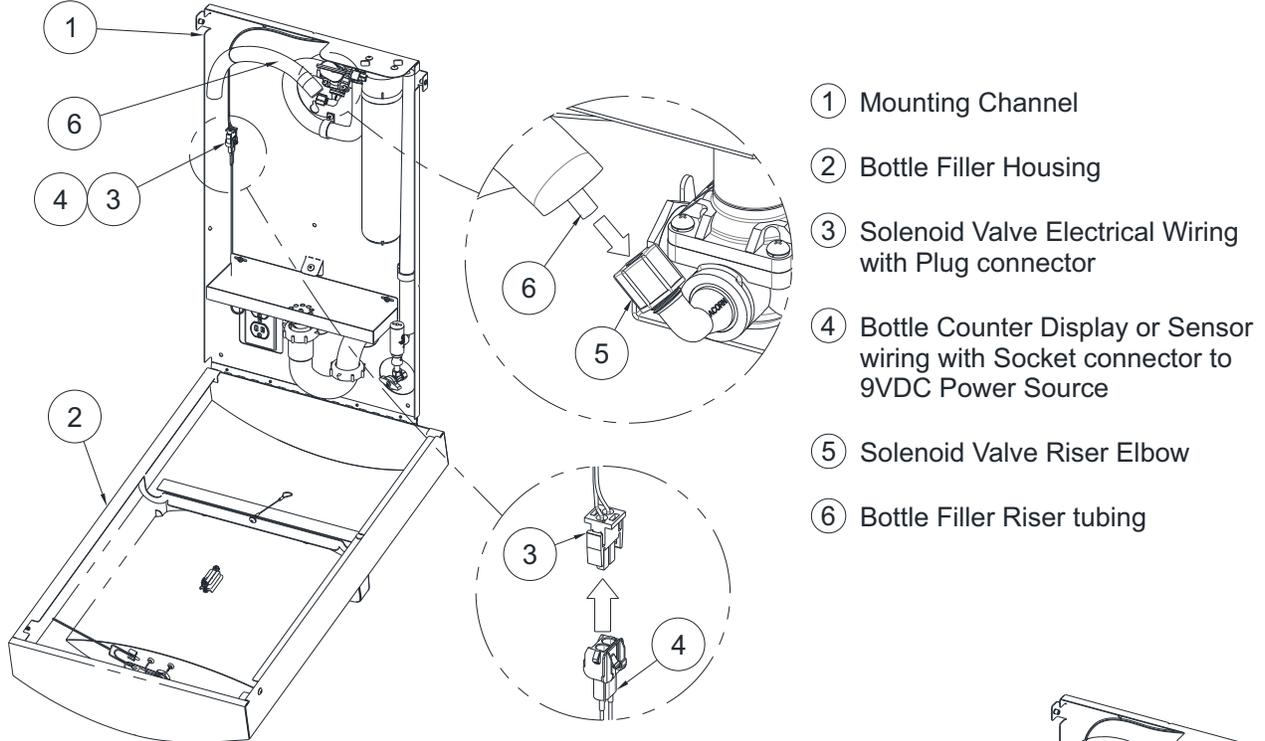


5 Connect 1/4" O.D. x 1/2" "Y" Strainer assembly to main water supply. Recommend using angle stop for easy maintenance. Angle stop must not extend more than 3-1/2" from finished wall.



INSTALLATION INSTRUCTIONS CONTINUED:

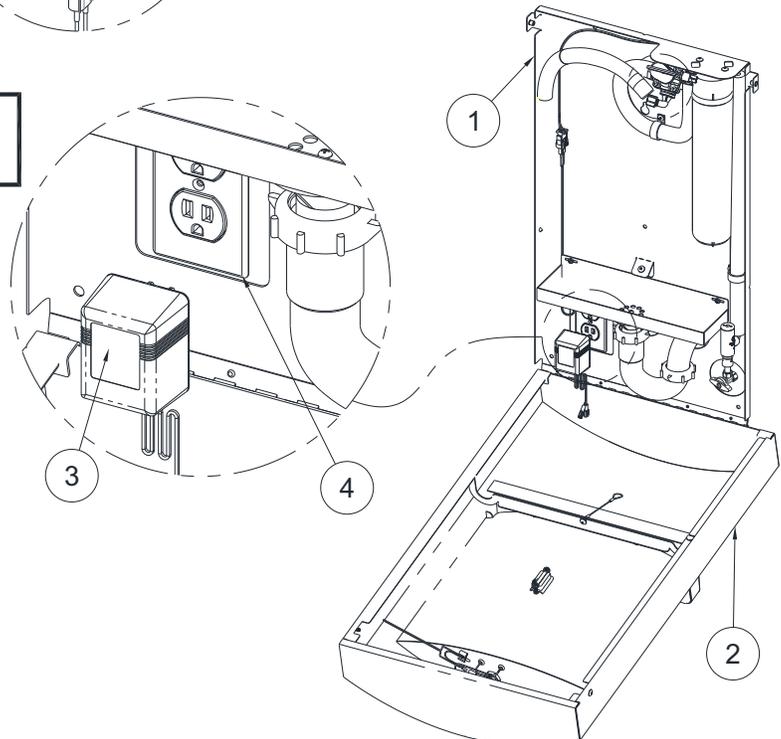
6 With Housing secured to Channel, connect Filler Riser tubing and electrical wiring as shown below. Keep Riser tube and wiring within plastic cable holders to prevent supply line and wiring from getting pinched or damaged.



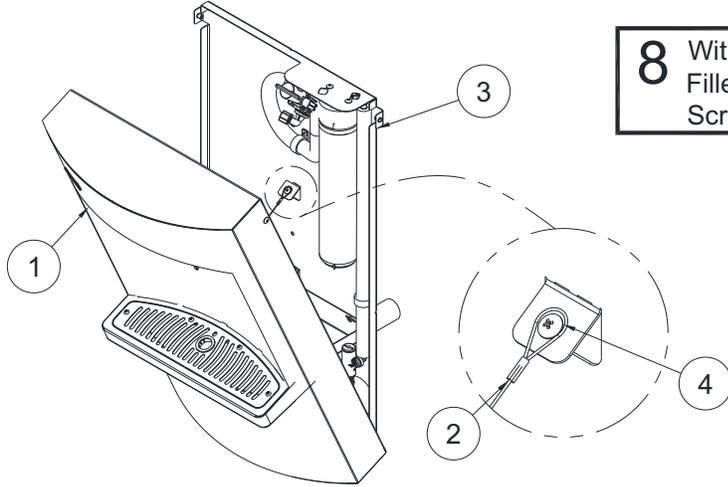
- ① Mounting Channel
- ② Bottle Filler Housing
- ③ Solenoid Valve Electrical Wiring with Plug connector
- ④ Bottle Counter Display or Sensor wiring with Socket connector to 9VDC Power Source
- ⑤ Solenoid Valve Riser Elbow
- ⑥ Bottle Filler Riser tubing

7 Plug-in power supply, turn on water and check for leaks throughout the system.

- ① Mounting Channel
- ② Bottle Filler Housing
- ③ Power Supply Input: 100-240VAC, 50-60Hz, Output: 9VDC. 0.8A
- ④ GFCI Protected Electrical Outlet by others



INSTALLATION INSTRUCTIONS CONTINUED:

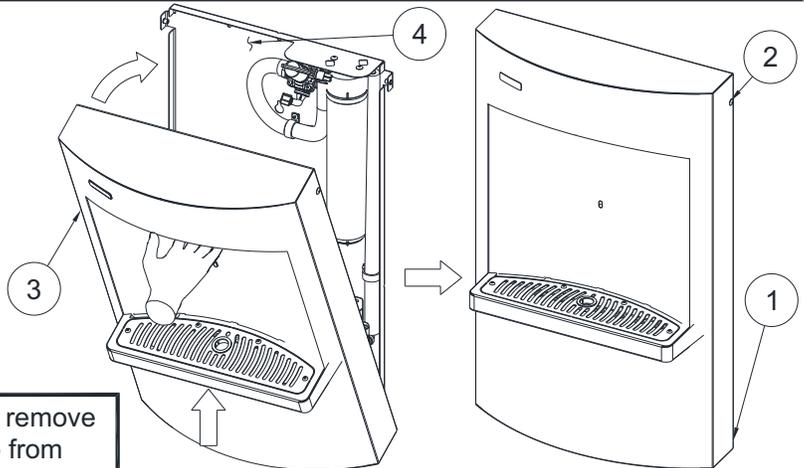


8 With fixture tested, hook Wire Strap from Bottle Filler Housing to Mounting Panel and tighten Screw.

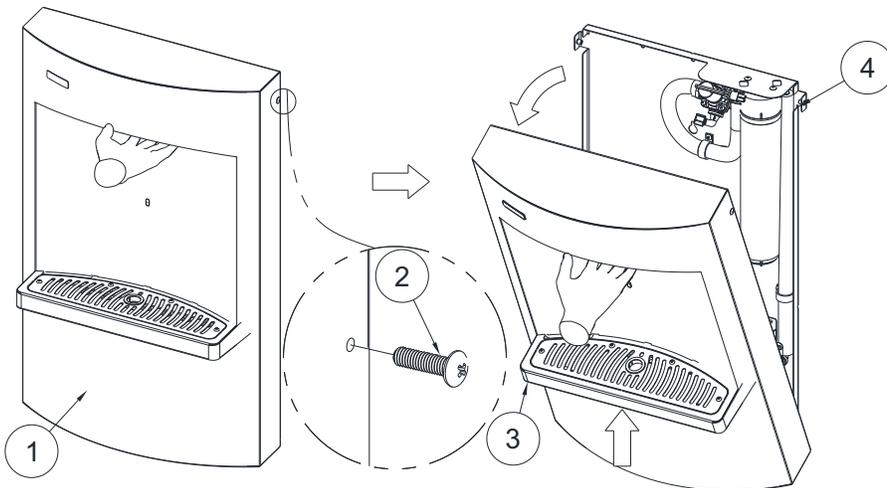
- ① Bottle Filler Housing
- ② Wire Strap
- ③ Mounting Channel
- ④ Wire Strap Mounting Screw

9 Lift up from Fill Spout area to close the unit by swinging Bottle Filler Housing up and secure with Screws from step 1. Do not force closed. Address any interference if necessary. Do not over-tighten.

- ① Bottle Filler Assembly
- ② #10-32 x 1/2" Long Philips Head Screw
- ③ Bottle Filler Housing
- ④ Mounting Channel



10 To open unit for maintenance purposes, remove Top Screws. Lift Bottle Filler Housing up from Fill Spout area then pull away from wall.



- ① Bottle Filler Assembly
- ② #10-32 x 1/2" Long Philips Head Screw
- ③ Bottle Filler Housing
- ④ Mounting Channel

OPTIONAL WF3000 INSTALLATION:

WF3000 - Important - Before Starting

- Turn water service off before attempting installation.
- Refer to Push-in Fittings installation for information on connecting, disconnecting and testing Push-In Fittings.
- Test fittings and restore water service prior to encasing with insulation tubing.
- NOTE: Fittings and 1/4" OD Tubing shown for clarity however insulation tubing may conceal fittings.
- NOTE: Mounting the Filter on the right side of the frame, the "OUT" port or outlet side of the filter should always be facing the center of the frame assembly.

INSTALLATION INSTRUCTIONS:

- 1. Access Filter Compartment:** Remove screws [1] at the top of the bottle filler to free the face from the Housing Back Plate Assembly and lower to fully open position. **Figure 1.**
- 2. Prep Water Supply Riser:** Remove supply riser tubing [2] from center Fixing loop [3] (**Figure 2.**) . Disconnect 1/4" O.D. tubing connector [4] as show in **Figure 3.**
- 3. Install Filter In-Line:** Using Push-in elbows [5] dry fit 1/4" O.D. tubing to Filter Cap [6] to the "IN" port of the Filter (Water Supply Side) and to the "OUT" port to the control valve inlet [7]. If needed, cut 1/4" tubing as required for proper fit. **Figure 3 & Figure 4.**
- 4. Mount Filter Assembly:** Route Supply Tubing [8] through center Fixing Loop [3]. Mount the Filter [9] to the upper back plate as shown. **Figure 5 & Figure 6.**

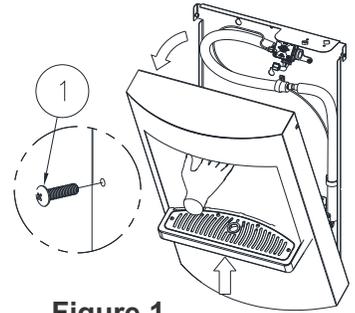


Figure 1.

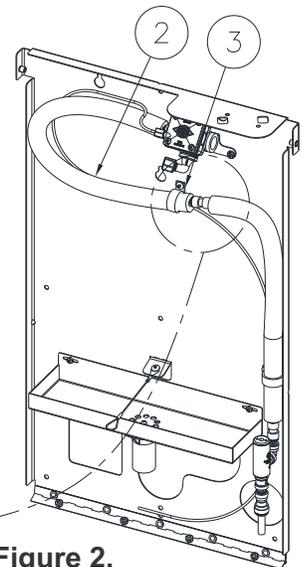


Figure 2.

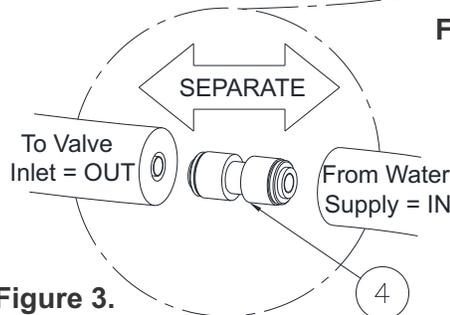


Figure 3.

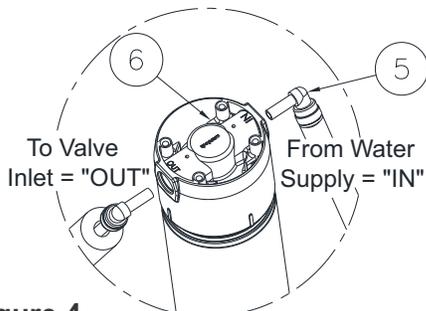


Figure 4.

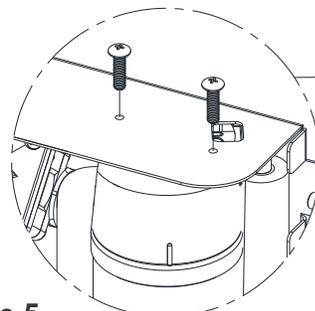


Figure 5.

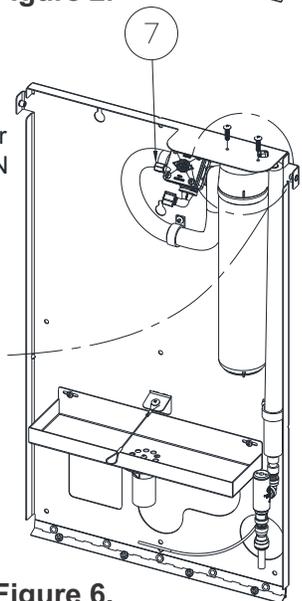


Figure 6.

ELECTRICAL INSTALLATION:

NOTE: PLUG-IN POWER IS A STANDARD FEATURE FOR BF16.

- 1A. Plug-In Operation: Plug transformer provided into GFCI protected electrical service, used by the Bottle Filler.
2. Connect the Sensor Wires to either the Solenoid Valve or -BCD Bottle Counter Display (if equipped).

START UP:

1. Air within the Bottle Filler System or the structure supply piping will cause an irregular Spout outlet stream until purged out by incoming water. Hold cup (or similar object) directly below Filler Spout is recommended when first activating Bottle Filler to prevent excessive splashing. Activate sensor until steady water stream is achieved.

OPERATING INSTRUCTIONS:

Position container to be filled directly in front of the Sensor and centered under the Filler Spout. Water flow starts automatically. When the container is almost filled, remove container. The water will stop flowing.

BOTTLE COUNTER ADJUSTING & RESETTING INSTRUCTIONS:

NOTE: Bottle Counter Has Multiple Functions

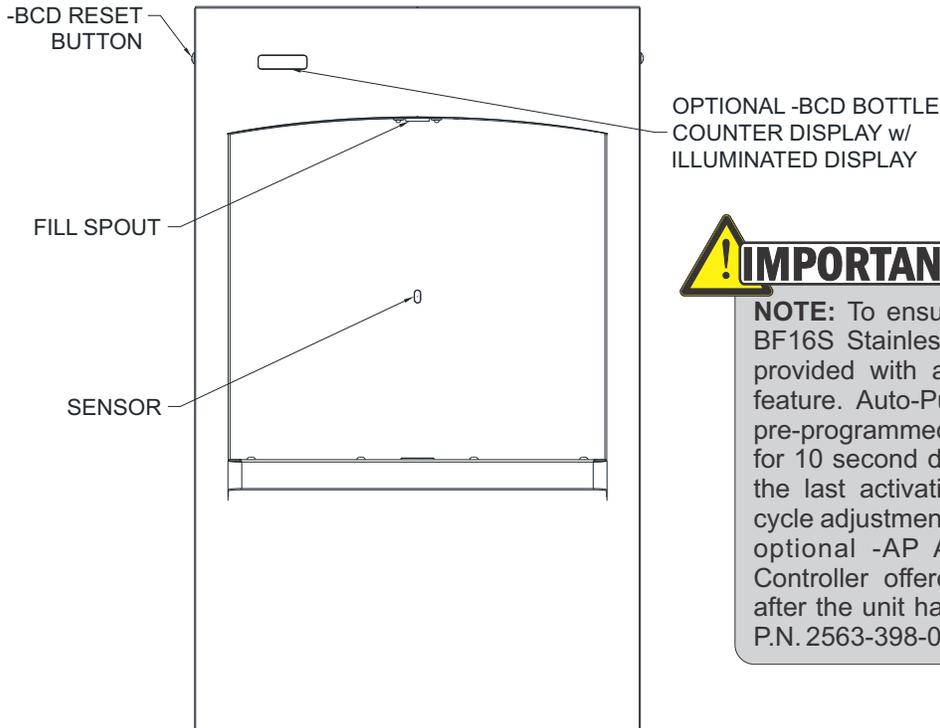
- Reset/ Mode Button
 - Counts refilled bottles
 - Adjustable for units with and without Filters
 - "REPLACEMENT FILTER" alert function
 - Alert reset, when Filter is replaced

Description

Illuminated LCD Display counts bottles and has a Filter replacement alert function.

Bottle Counting Function

The software applies a flow volume of approximately 16.9 fl oz (volume in standard size plastic water bottle) to each bottle counted. If the flow volume is less than 16.9 fl oz, there will be no count but the volume will accumulate, so that part way through the next cycle the total bottle count will change.



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FILTER REPLACEMENT FUNCTIONS:

NOTE: When the volume accumulates to programmed Filter volume, the “REPLACE FILTER” alert will appear on the display every time the Bottle Filler is activated.

Counter Modes:

Located on the back of the Display you will find the Reset/Mode Button for the mode settings. The Reset/Mode Selection Button is accessible by removing the Housing, then locate the large hole in the back of the Display Mounting Bracket. Use your finger or nonconductive object to depress the Reset/Mode Selection Button.

CAUTION: DO NOT USE SHARP OR METAL OBJECTS!!!

With this Reset/Mode Button, you are able to indicate whether the unit has a Filter or does not have a Filter. The Reset/Mode Button is used to remove the “REPLACE FILER” alert after the Filter has been replaced.

Systems With or Without Filter:

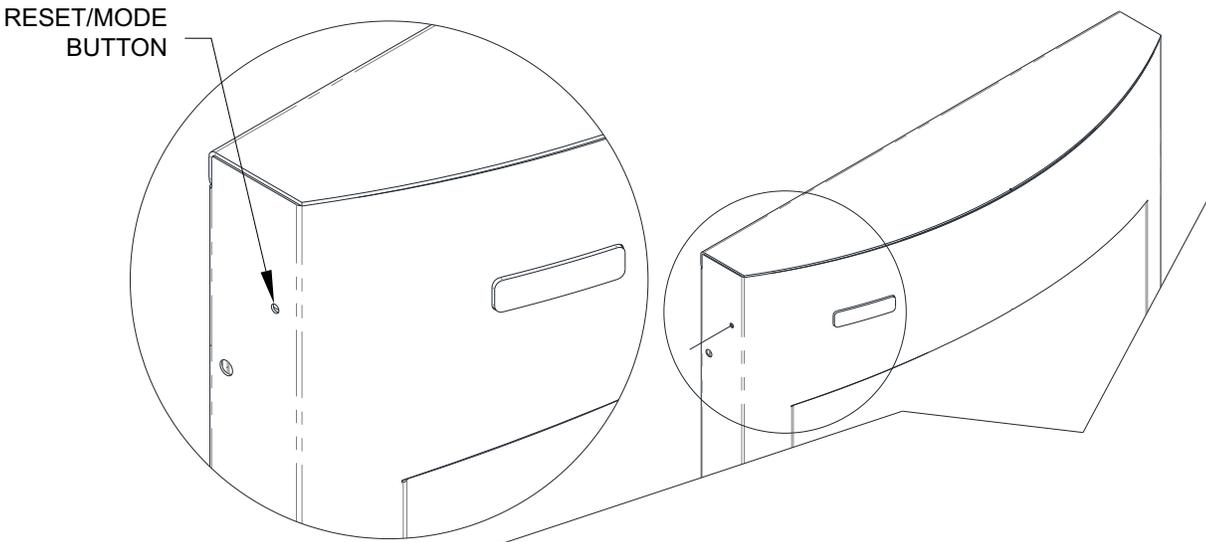
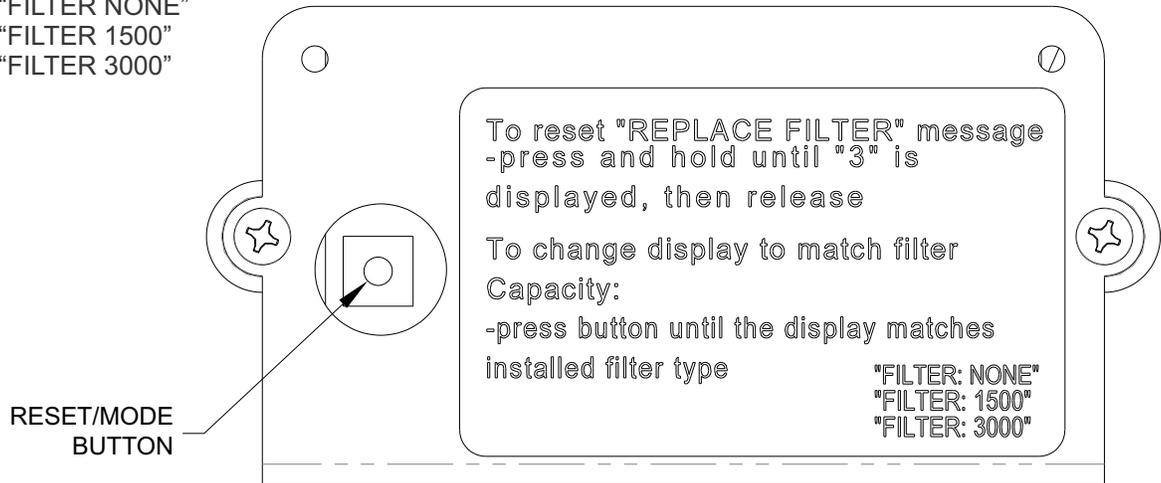
•**To reset “REPLACE FILTER” message:**

-Press and hold Button until “3” is displayed, then release.

•**To change display to match Filter capacity:**

-Press and hold Button until the Display matches installed Filter type, then release.

“FILTER NONE”
“FILTER 1500”
“FILTER 3000”

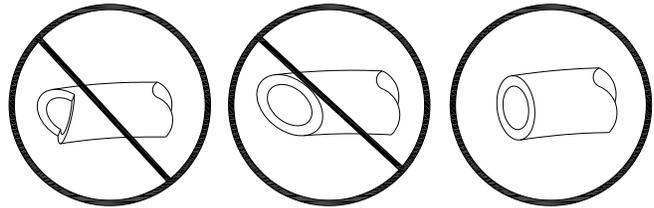


PUSH-IN FITTING INSTALLATION

NOTE: FITTINGS AND TUBE SHOULD BE KEPT CLEAN, BAGGED AND UNDAMAGED PRIOR TO INSTALLATION.

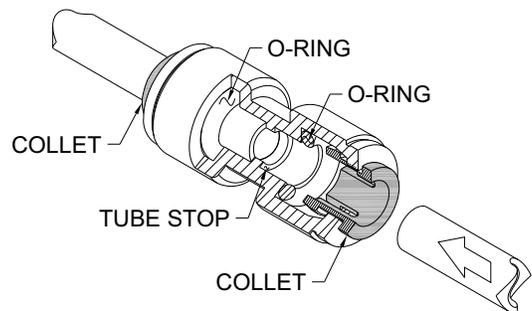
TO CUT TUBE:

Cut to fit length of 1/4" PE Tubing and remove any burrs or sharp edges. Ensure that the outside diameter is free from score marks. Tube ends should be square.

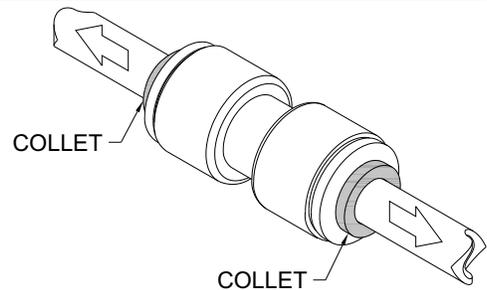


INSERTING THE TUBE:

1. Firmly and fully insert the Tubing end into the Push-In Fitting up to the Tube Stop located approximately 1/2" deep.

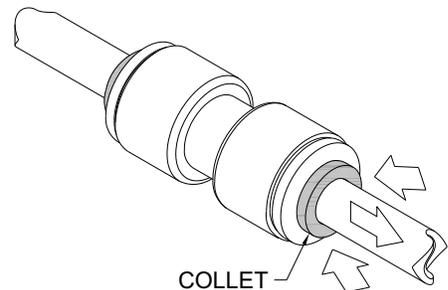


2. Pull on the fitted Tubing to ensure it is secure. Tube should not come free from the Fitting. Water test the connection assembly prior to leaving the site to ensure there are no leaks.

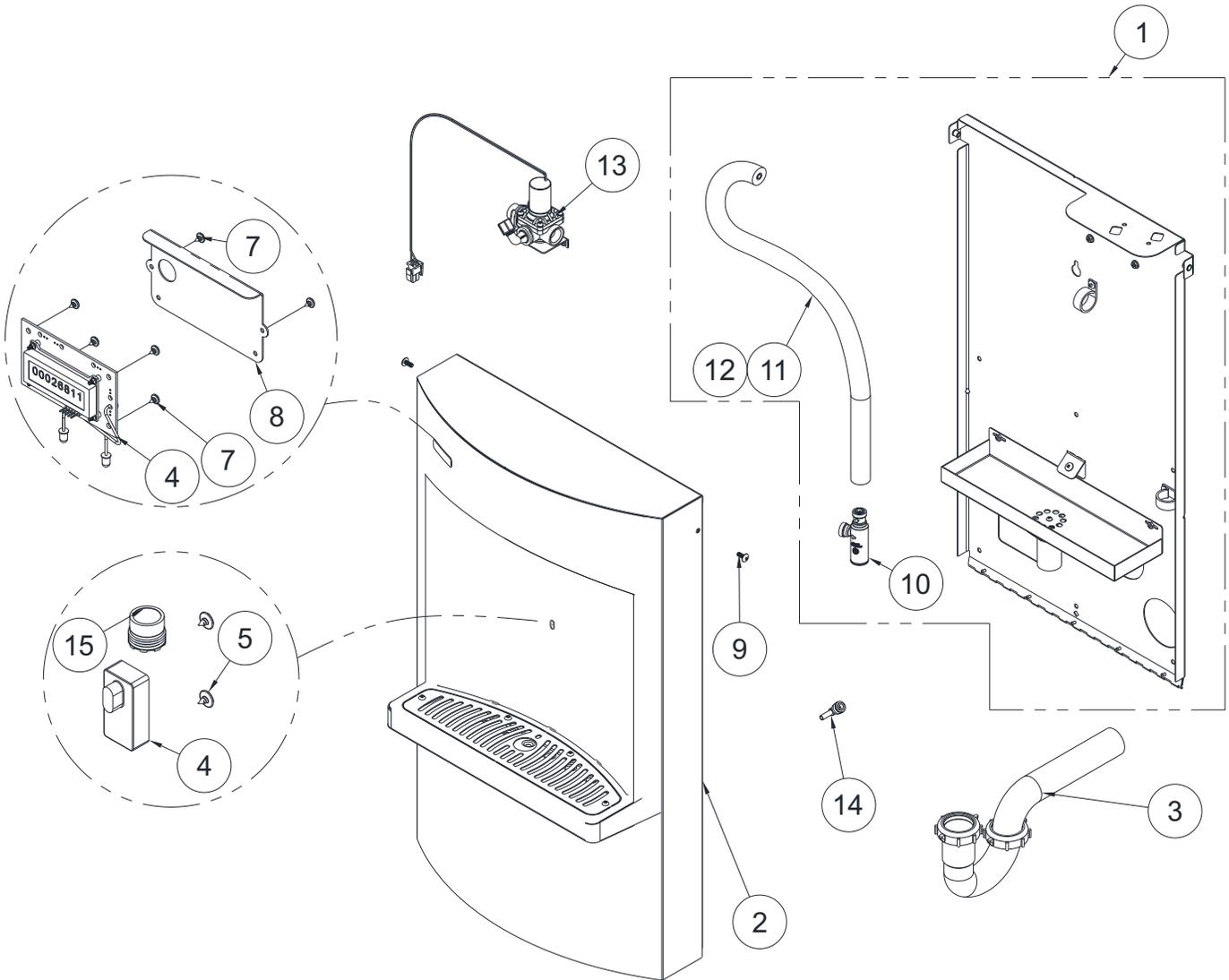


DISCONNECTING THE TUBE:

Prior to disconnecting the Tube from the Fitting, ensure that the water line is depressurized. Push Collet Square towards the Push-In Fitting Body and hold. While holding the Collet in, pull on the PE Tubing to remove from the Push-In Fitting.



BF16 PARTS LIST
BOTTLE FILLER PARTS
BREAKDOWN



ITEM #	PART NUMBER	DESCRIPTION	ITEM #	PART NUMBER	DESCRIPTION
1	CALL MFG	WALL MOUNTED FRAME ASSY., BF15/16	9	0116-010-000	#6-32 UNF 1/2" S/S PHIL RD. HD SCREW
2	CALL MFG	HOUSING ASSEMBLY, BF16-BCD	10	7003-096-001	"Y" STRAINER
3	4970-265-000	P-TRAP	11	2169-000-000	1/4" O.D. LLDPE TUBING, BLUE
4	2563-381-001	SENSOR "A" ASSEMBLY	12	7012-055-000	FOAM PIPE INSULATION
5	0302-003-000	HEX NUT, 8-32 UNC -2B, ST. STL	13	7014-496-001	SOLENOID / VALVE MOUNTING ASSY
6	0716-111-001	BOTTLE COUNTER WITH CONNECTORS	14	1895-709-000	ELBOW, 1/4" PUSH-IN X 1/4" STEM
7	0108-106-000	#6-32 UNC 3/4" S/S PHIL RD. HD SCREW	15	7040-033-000	NEOPREL LAMINAR NOZZLE
8	7014-253-199	SPLASH GUARD			