Surface Mounted Bottle Fillers
INSTALLATION/MAINTENANCE INSTRUCTIONS

BF15 & BF16 Series
Surface Mounted, Sensor Operated
And Pushbutton Operated Bottle Filler

PATENT# D873,608

BF15 Series
Pushbutton Operation

BF16 Series
Sensor Operation

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

TECHNICAL ASSISTANCE TOLL FREE TELEPHONE NUMBER:
1.800.743.8259

Technical Assistance E-Mail: Fieldservice@acorneng.com

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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7020-957-001 Date: 02/01/2024 E

COMPLIES WITH STANDARDS

NSF/ANSI 61

Federal Public Law 111-380 (No Lead)

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Member of MORRIS GROUP INTERNATIONAL

PRIOR TO INSTALLATION

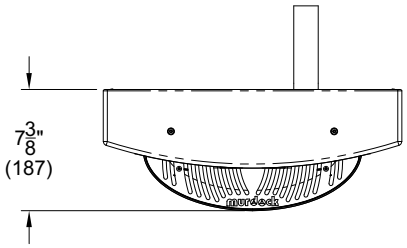
Important: Some options may slightly alter installation. To ensure proper installation, review the manual thoroughly and verify rough-ins before beginning any work. File this Manual with the owner or maintenance personnel upon completion of installation.

- 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).

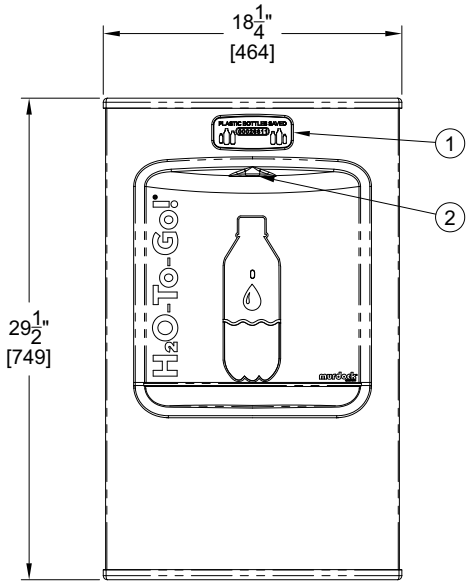
DIMENSIONAL DRAWING

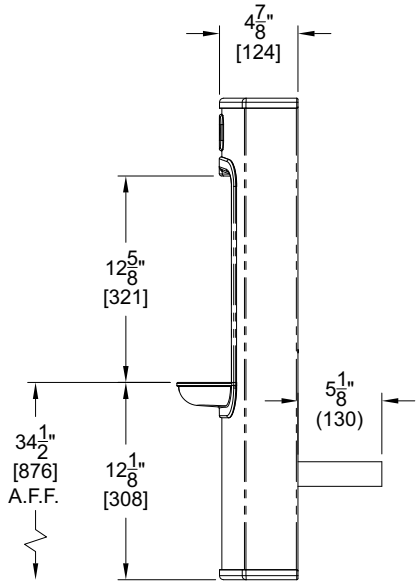
Prior to roughing in, consult with local, state, and federal codes for proper mounting height.

BF15/16 Surface Mounted Bottle Filler



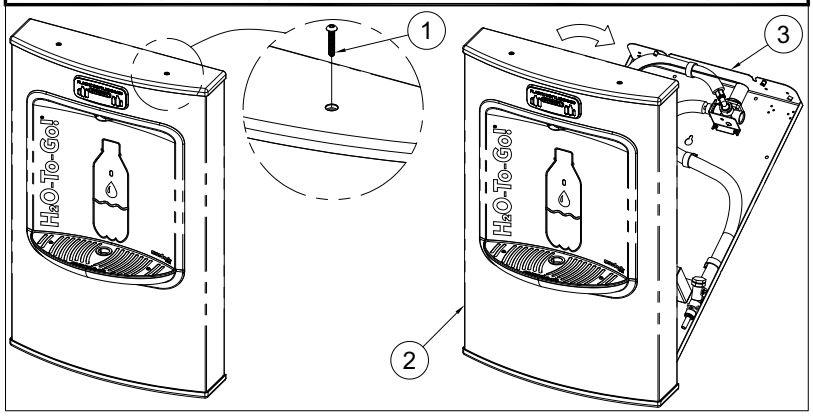
ALL DIMENSIONS ARE IN INCHES (MM)
GENERAL NOTES:
1. OPTIONAL -BCD BOTTLE COUNTER AND FILTER REPLACEMENT DISPLAY
2. LED LIGHTING WITH -BCD OPTION ONLY





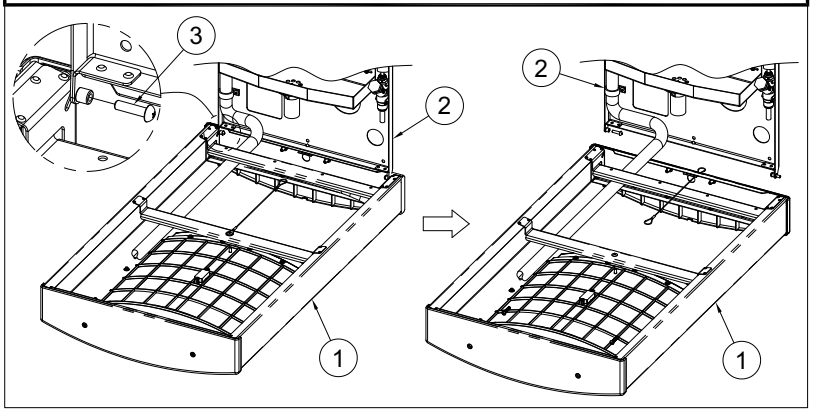
INSTALLATION INSTRUCTIONS:

1 Place unit onto a horizontal surface. Unscrew Top Screws with 1/8" Allen Wrench (not included) and place in a secure location for later use. Swing Mounting Channel away from Bottle Filler Housing.



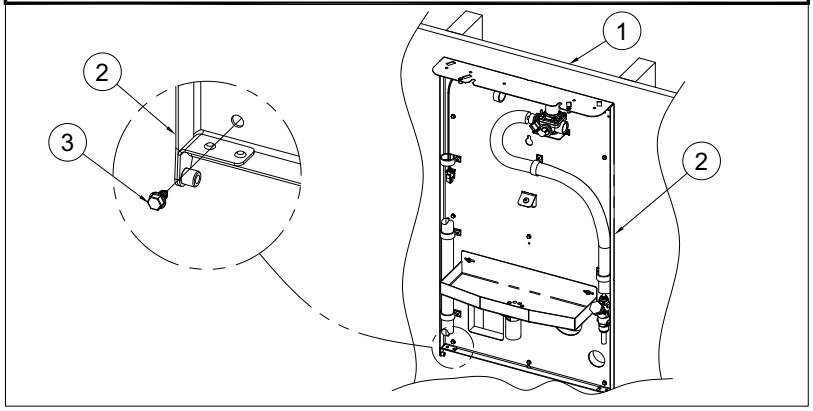
1. #10-32 x 1" Allen Button Head Screw
2. Bottle Filler Housing
3. Mounting Channel

2 Remove Bottle Filler Housing from unit by removing one Screw from the Hinge and sliding the Bottle Filler Housing out. Set aside for later use in the installation.



1. Bottle Filler Housing
2. Mounting Channel
3. #10-32 x 3/4" Phillips Round Head Screw

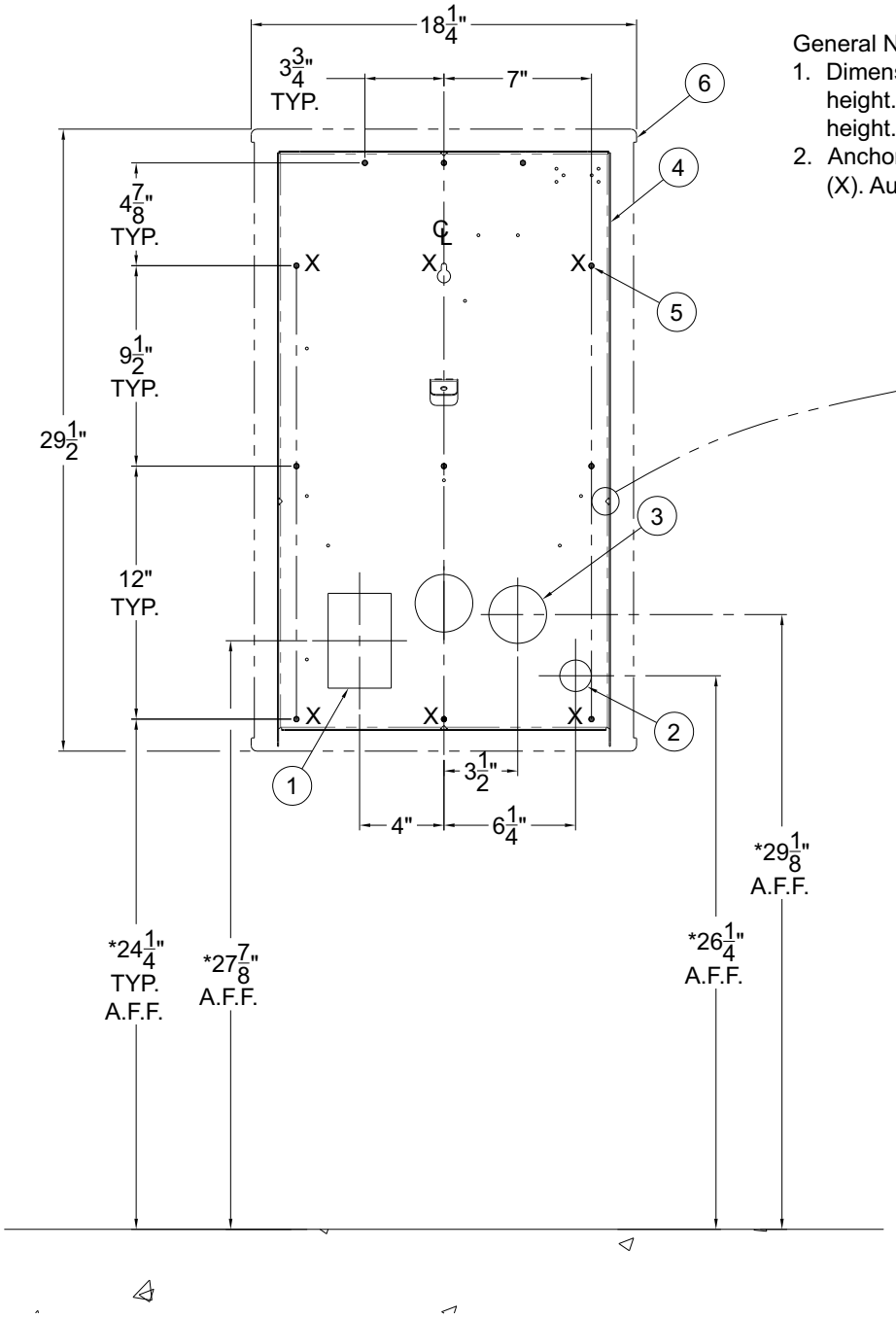
3 Locate and attach Mounting Channel to finished wall. Secure Mounting Channel with Anchoring Hardware, provided by installer. See step four for rough-in layout.

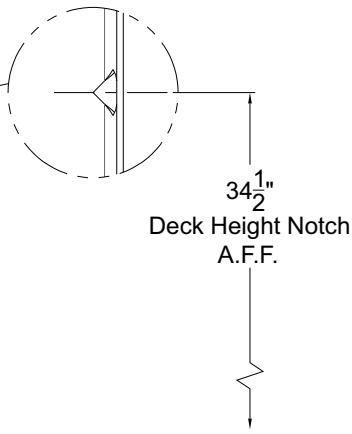


1. Finished Wall
2. Mounting Channel
3. Anchoring Hardware, by others

INSTALLATION INSTRUCTIONS CONTINUED:

4 Provide wall openings as indicated in rough-in detail provided, ensuring to block out the electrical service rough and Waste outlet for 1-1/2" P-Trap. Use Mounting Panel as template.



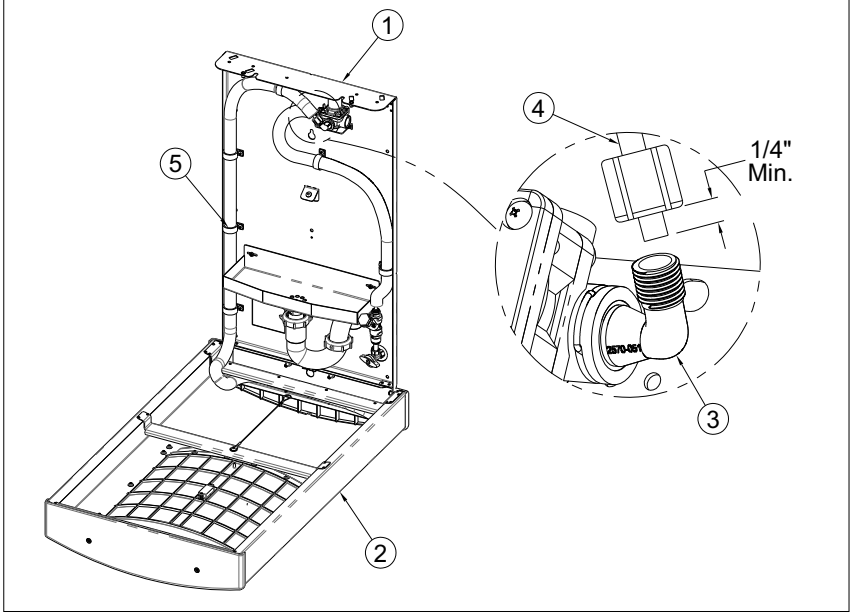


General Notes:
1. Dimension indicated with (*) is for 34-1/2" deck height. Adjust accordingly for preferred deck height.
2. Anchoring is required for holes marked with (X). Auxiliary holes available if required.

1. For BF16 Sensor Operated Models Provide: 110VAC Electrical Duplex Receptacle (by others) 1 Amp minimum required per BF16 unit
2. 3/8" NCT Supply Inlet
3. Waste Outlet for 1-1/2" P-Trap
4. Mounting Panel
5. Ø1/4" Holes, for Anchoring Hardware, by others
6. Housing, Shown for Ref.

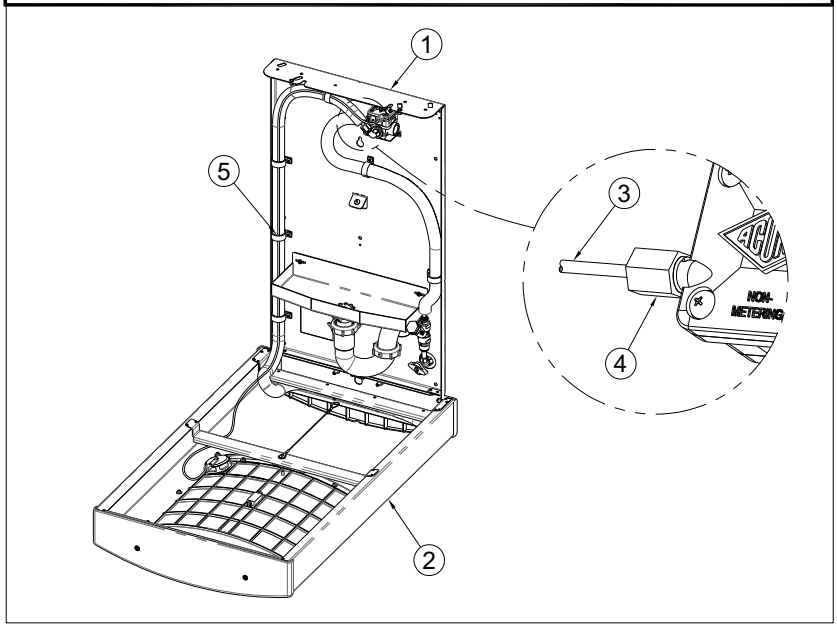
INSTALLATION INSTRUCTIONS CONTINUED: (BF15)

8A With Bottle Filler Housing secured to unit, connect water supply line. Keep supply line within plastic cable holders to prevent supply line from getting pinched or damaged. If Fixture is BF16, see steps 8B-9B.



1. Mounting Panel
2. Bottle Filler Housing
3. Valve Water Supply Outlet Elbow
4. Bottle Filler Water Supply Inlet Tubing
5. Plastic Cable Holder

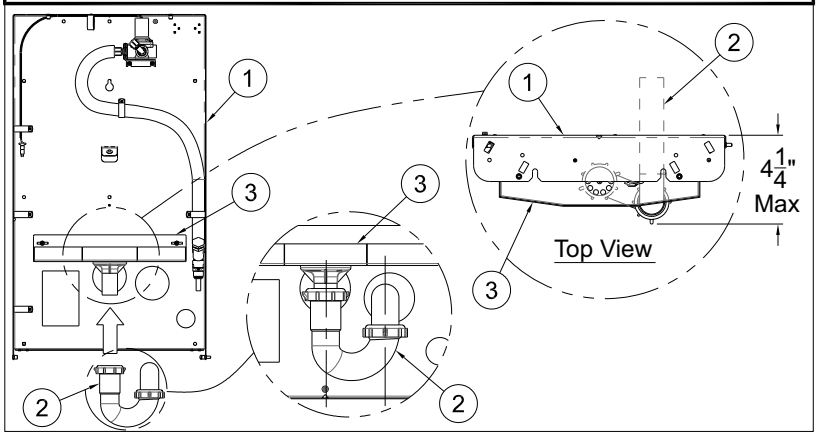
9A With Water Supply Line properly secured, connect 1/8" O.D. Polyethylene Air Line to valve. Keep Air Line within the plastic cable holders to prevent supply line from getting pinched or damaged. Turn on water and check for Leaks throughout the system.



1. Mounting Panel
2. Bottle Filler Housing
3. 1/8" O.D. Polyethylene Air Line
4. Valve Air Line Inlet
5. Plastic Cable Holder

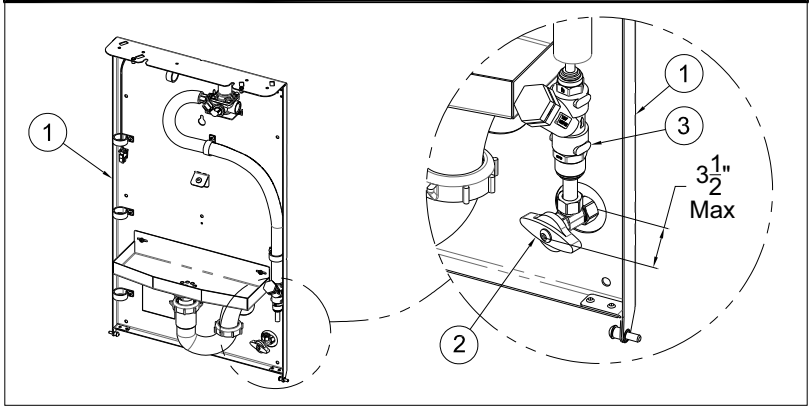
INSTALLATION INSTRUCTIONS CONTINUED:

5 With the Mounting Panel secured to finished wall, install P-Trap Waste Outlet. P-Trap must not extend more than 4-1/4" from finished wall.



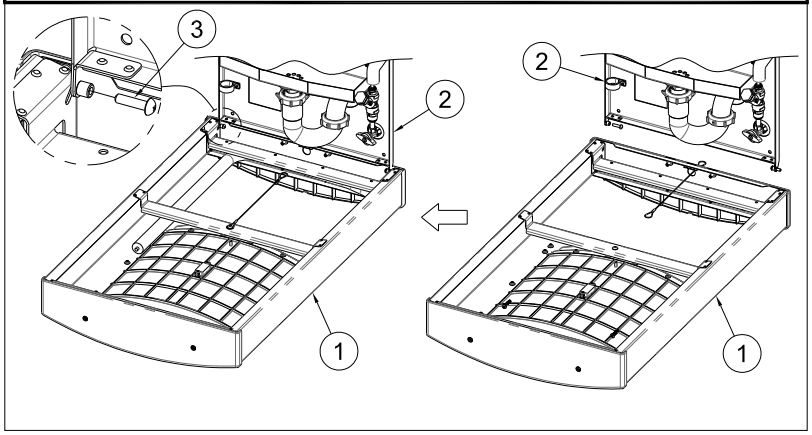
1. Mounting Panel
2. P-Trap
3. Drain Tray

6 Connect 3/8" O.D. "Y" Strainer to main water supply. Recommend using angle stop for easy maintenance. Angle stop must not extend more than 3-1/2" from finished wall.



1. Mounting Panel
2. Angle Stop Recommended, by others
3. "Y" Strainer

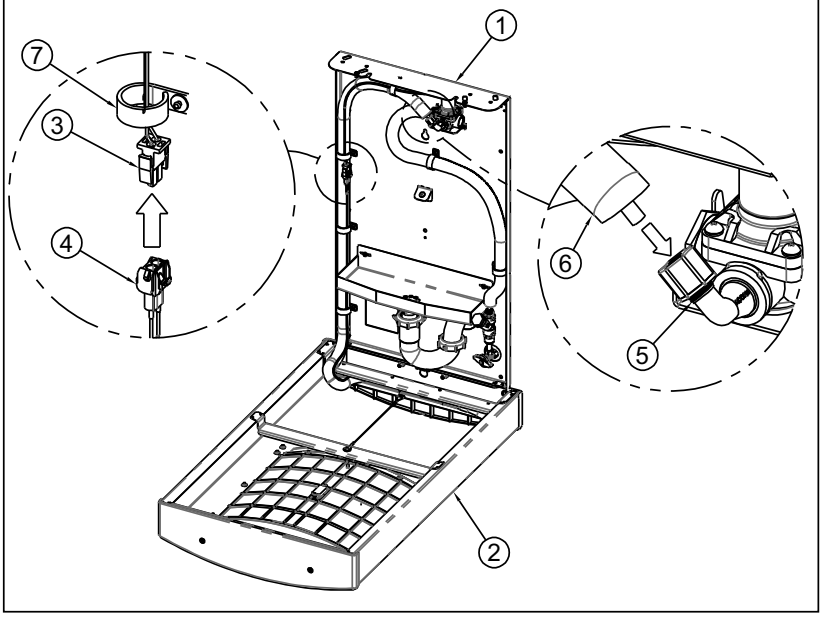
7 Re-mount Bottle Filler Housing by reversing steps taken in Step 2.



1. Bottle Filler Housing
2. Mounting Panel
3. #10-32 x 3/4" Phillips Round Head screw

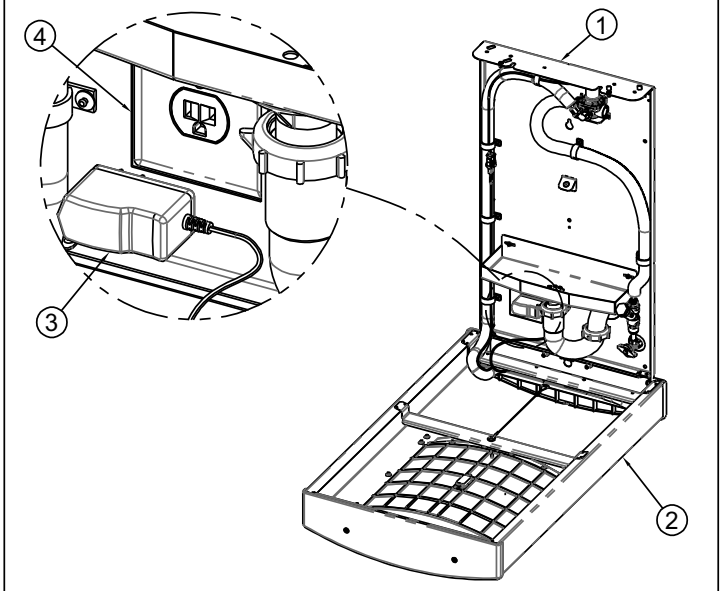
INSTALLATION INSTRUCTIONS CONTINUED: (BF16)

8B With Bottle Filler Housing secured to unit, connect water supply line and electrical wiring as shown below. Keep supply line and wiring within plastic cable holders to prevent supply line and wiring from getting pinched or damaged. If fixture is BF15, see steps 8A-8B.



1. Mounting Panel
2. Bottle Filler Housing
3. Solenoid Valve Electrical Wiring
4. Bottle Counter Display / Sensor Wiring
5. Solenoid Valve Water Supply Outlet Elbow
6. Bottle Filler Water Supply Inlet Tubing
7. Plastic Cable Holder

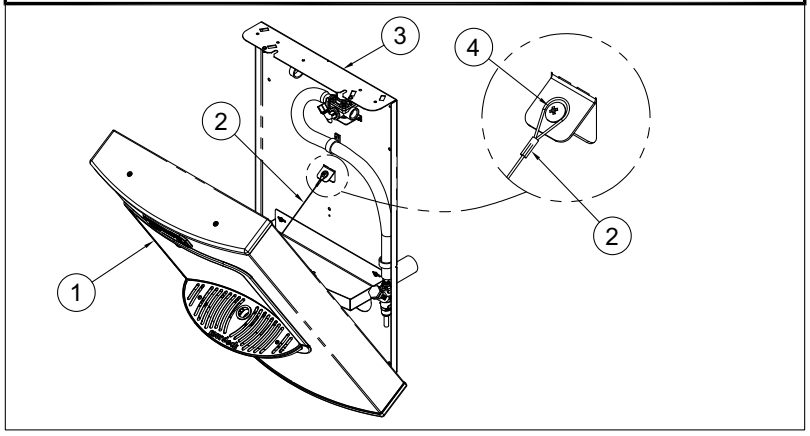
9B Plug-in power supply, turn on water and check for leaks throughout the system.



1. Mounting Panel
2. Bottle Filler Housing
3. Power Supply
4. 110VAC Duplex Receptacle

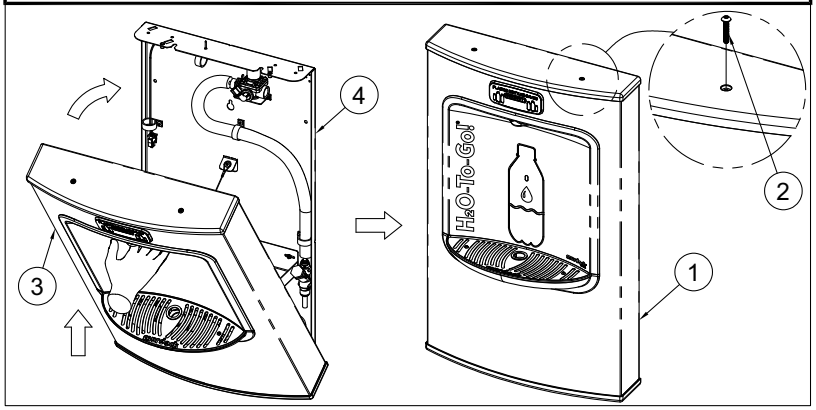
INSTALLATION INSTRUCTIONS CONTINUED:

10 With fixture tested, hook Lanyard from Bottle Filler Housing to Mounting Panel and tighten Screw.



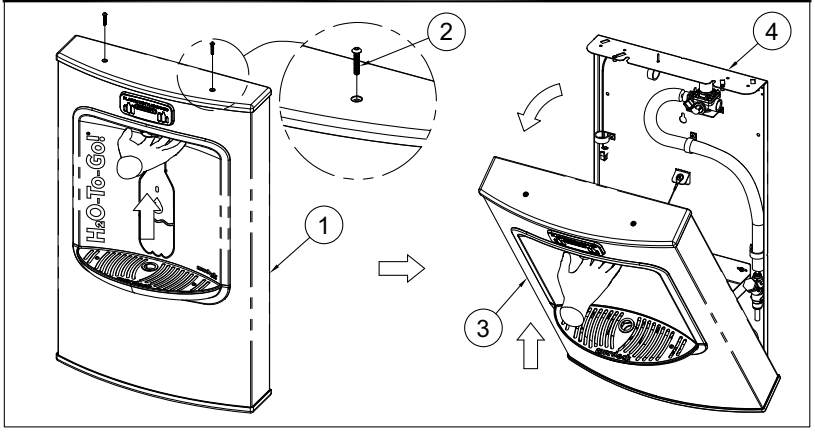
1. Bottle Filler Housing
2. Lanyard
3. Mounting Channel
4. Lanyard Mounting Screw

11 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" Long Allen Button Head Screw
3. Bottle Filler Housing
4. Mounting Channel

12 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" Long Allen Button Head Screw
3. Bottle Filler Housing
4. Mounting Channel

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

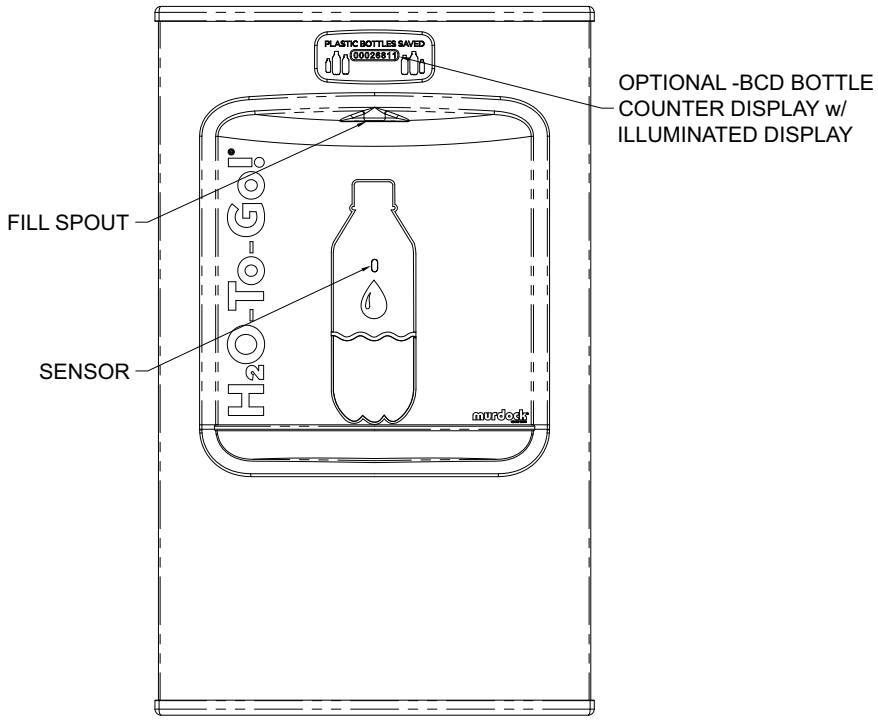
- Counts refilled bottles
- Adjustable for units with and without Filters
- "REPLACEMENT FILTER" alert function
- Alert reset, when Filter is replaced

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.



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:

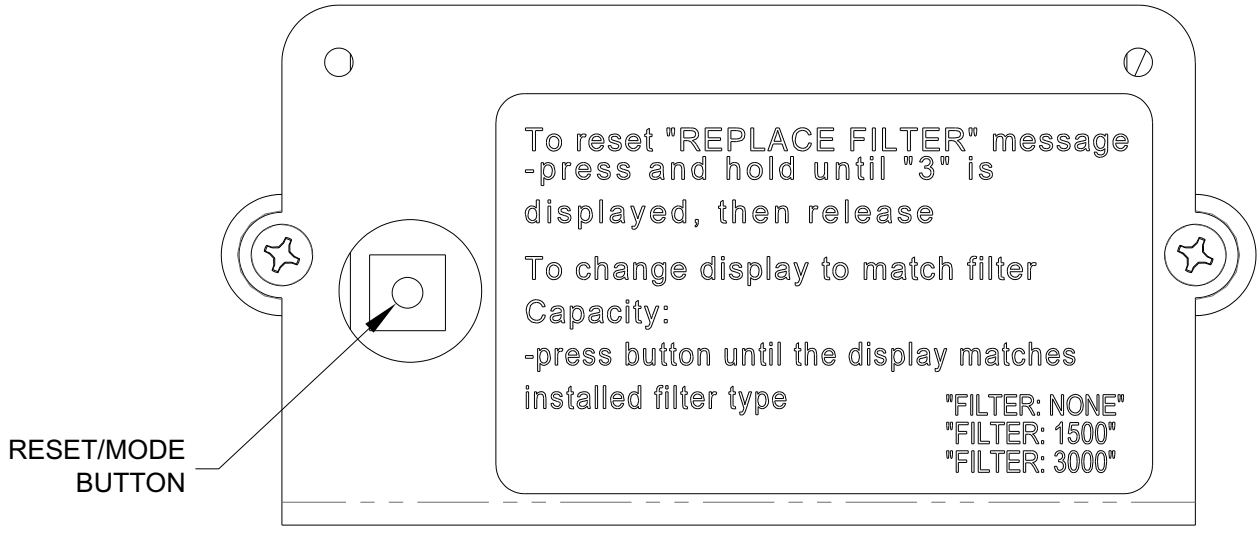
Located on the back of the Display you will find the Reset/Mode Button for the mode settings. The Reset/Mode Selection Button is accessible by removing the Housing, then locate the large hole in the back of the Display Mounting Bracket. Use your finger or nonconductive object to depress the Reset/Mode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

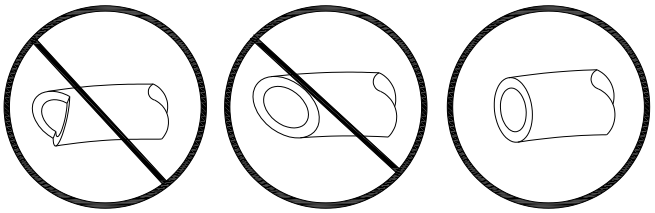


PUSH-IN FITTING INSTALLATION

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

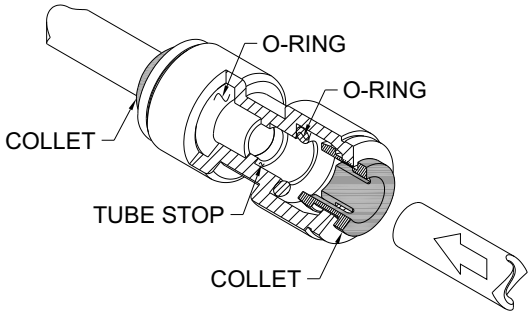
TO CUT TUBE:

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.

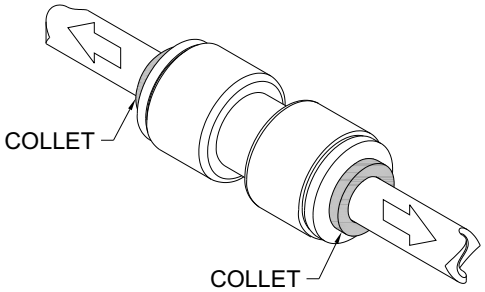


INSERTING THE TUBE:

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

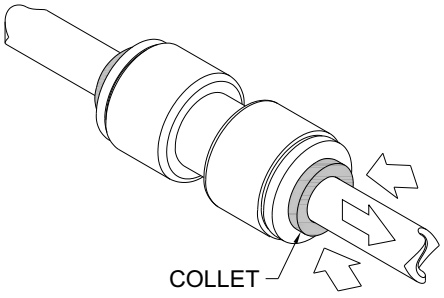


2. Pull on the fitted Tubing to ensure it is secure. Tube should not come free from the Fitting. Water test the connection assembly prior to leaving the site to ensure there are no leaks.

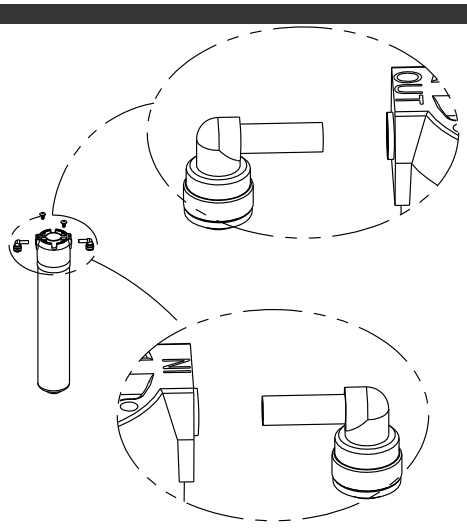


DISCONNECTING THE TUBE:

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.



OPTIONAL WF1 INSTALLATION:



WF1 - Important - Before Starting

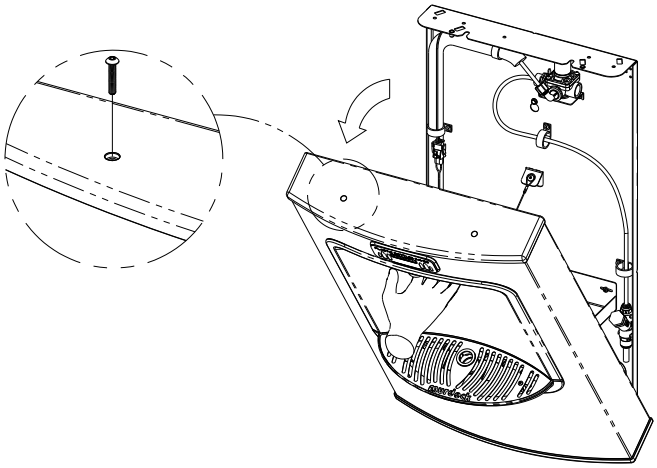
- Turn water service off before attempting installation.
- Refer to page 13 of this manual for information on connecting, disconnecting and testing Push-In Fittings.
- Test fittings and restore water service prior to encasing with insulation tubing.
- NOTE: Fittings and ¼" OD Tubing shown for clarity however insulation tubing may conceal fittings.
- NOTE: Regardless if mounting the **WF1** on the right side or left side of the frame, the "OUT" port or outlet side of the filter should always be facing the center of the frame assembly.

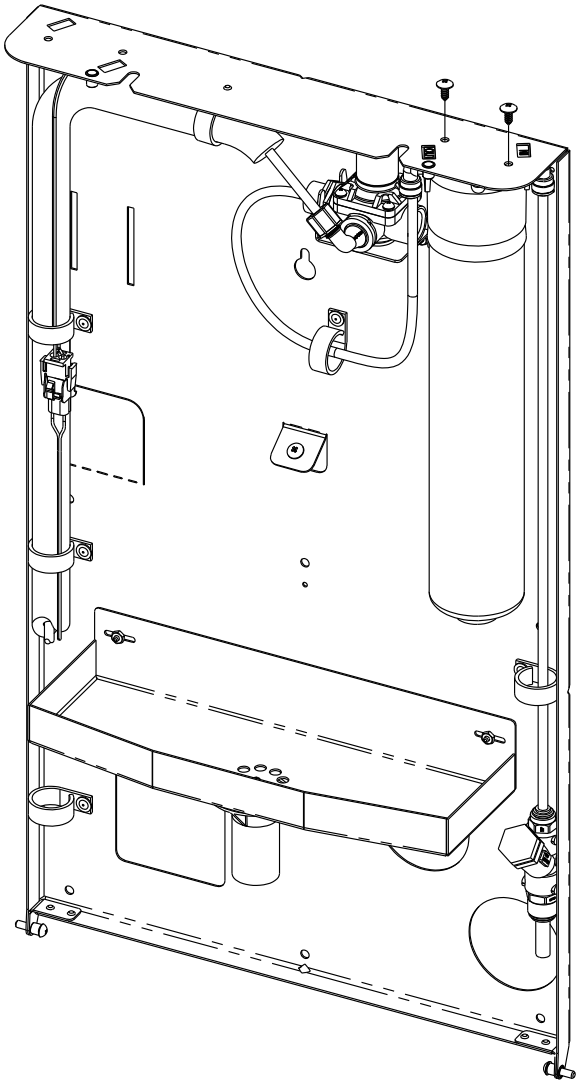
1. Remove screws at the top of the bottle filler to free the face from the mounted channel assembly and lower to fully open position.

2. Disconnect 1/4" OD tubing at the Valve Inlet connection and remove from center Fixing Loop.

3. Dry fit 1/4" OD tubing to top of Frame assembly and cut to length before making up connections to the "IN" port of the **WF1**.

4. Make up connections from **WF1** "OUT" port to Valve inlet as shown routing tubing through center Fixing Loop. Mount the **WF1** to the fixture corner as shown.

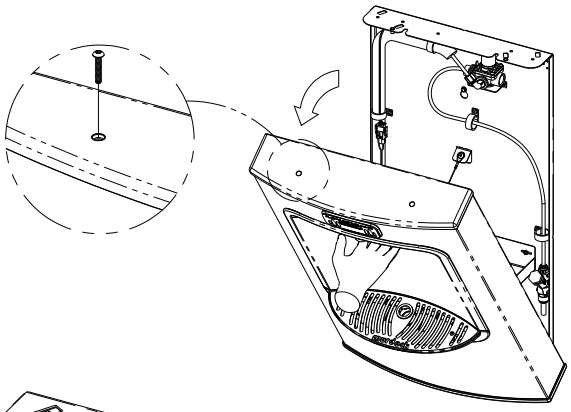


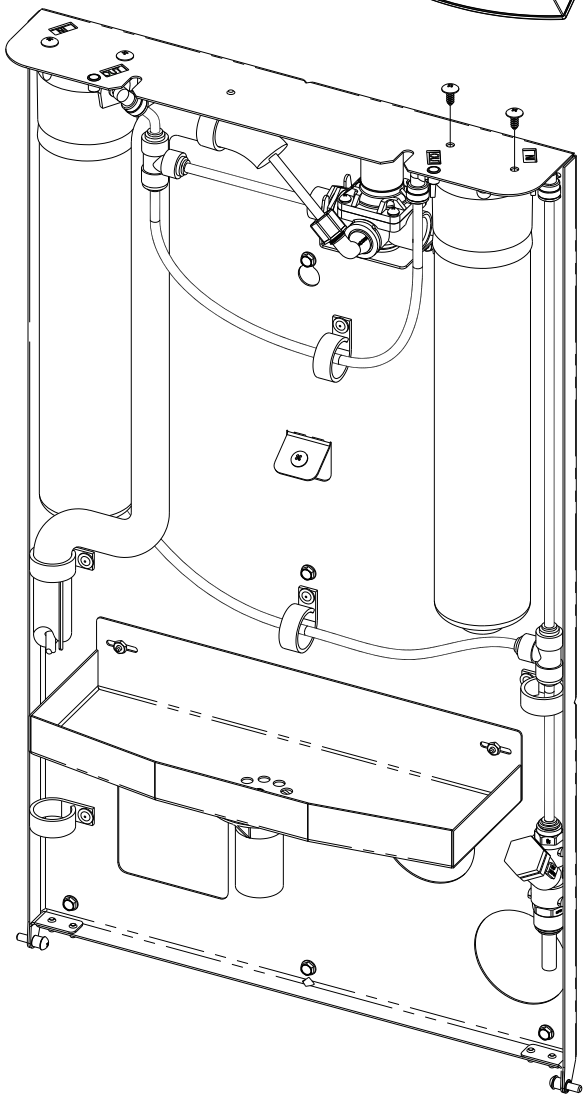


OPTIONAL WF1 INSTALLATION:

WF3 - Important - Before Starting

- Turn water service off before attempting installation.
- Refer to page 13 of this manual 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 ¼" OD Tubing shown for clarity however insulation tubing may conceal fittings.
- NOTE: Regardless if mounting the **WF1** on the right side or left side of the frame, the "OUT" port or outlet side of the filter should always be facing the center of the frame assembly.





1. Remove screws at the top of the bottle filler to free the face from the mounted channel assembly and lower to fully open position.

2. Disconnect 1/4" OD tubing at the Valve Inlet connection and remove from center Fixing Loop.

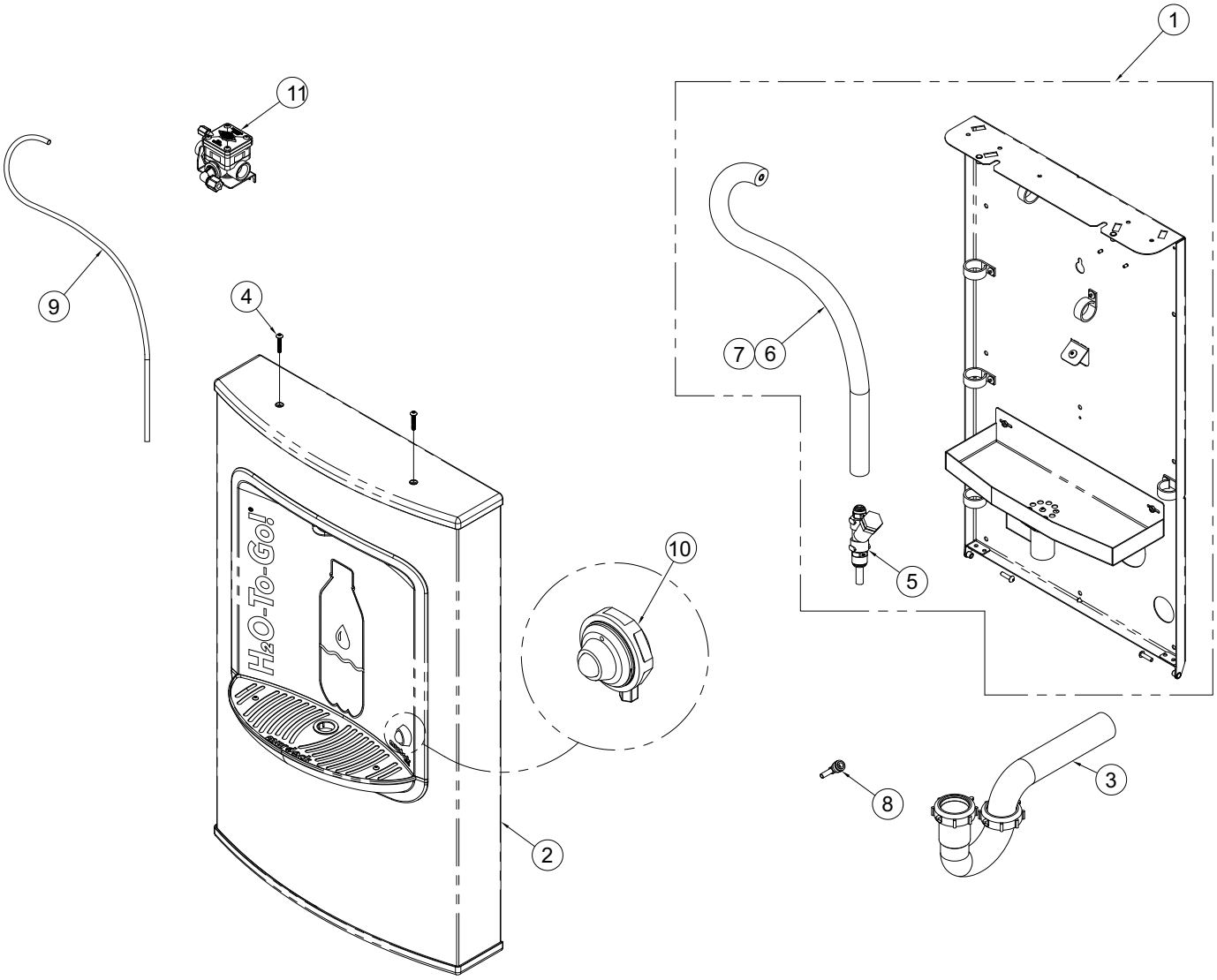
3. Measure tubing 1-1/2" beyond bottom fixing loop and cut. Assemble to TEE fitting as shown using an inline port. Add remaining length of tubing to Tee at other inline port. Make up connections to "IN" port of the right side **WF1**. Mount to top corner of Frame Assembly.

4. With additional tubing, make up connections to supply TEE branch fitting and extend to other **WF1** "IN" port. Mount second WF1 to left side top corner. Trim as required.

5. Make up connections from both **WF1** "OUT" ports to TEE inline fittings. From supply TEE branch fitting connect to Valve inlet as shown.

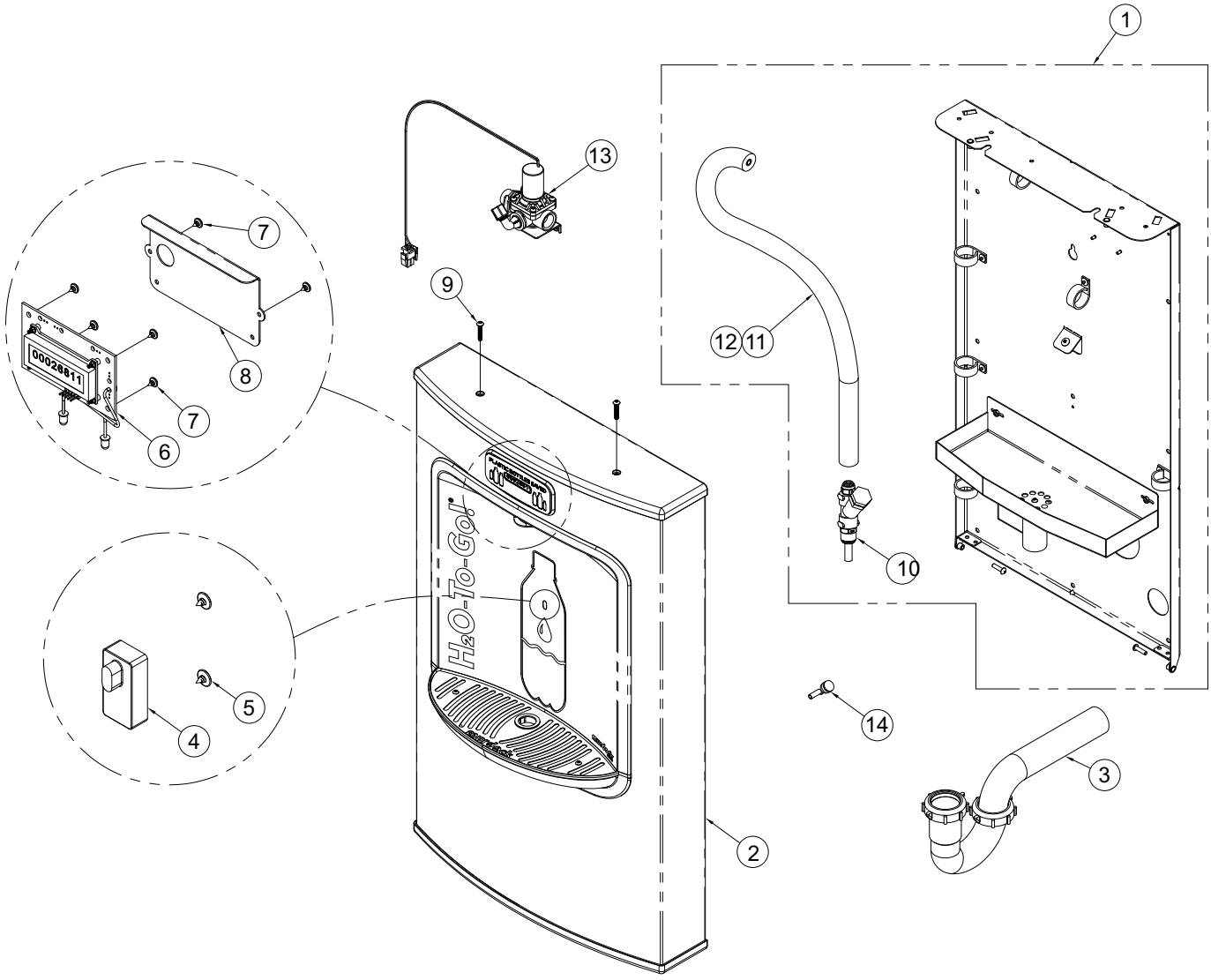
a

BF15 PARTS LIST
BOTTLE FILLER PARTS BREAKDOWN



ITEM #	PART NUMBER	DESCRIPTION	ITEM #	PART NUMBER	DESCRIPTION
1	7014-271-002	WALL MOUNTED FRAME ASSY., BF15/16	7	7012-055-000	FOAM PIPE INSULATION
2	CONTACT FACTORY	HOUSING ASSEMBLY, BF16-BCD	8	1895-709-000	ELBOW, 1/4" PUSH-IN X 1/4" STEM
3	4970-265-000	P-TRAP	9	2150-005-199	1/8" O.D. LLDPE TUBING, CLEAR
4	0116-123-000	#10-32 x 1" BUTTON HEAD SCREW	10	2566-160-001	PBH S/T SIDE OUTLET PUSHBUTTON
5	7000-021-001	"Y" STRAINER	11	7001-203-001	AIR-TROL VALVE & BRACKET ASSY
6	2169-000-000	1/4" O.D. LLDPE TUBING, BLUE			

BF16 PARTS LIST
BOTTLE FILLER PARTS BREAKDOWN



ITEM #	PART NUMBER	DESCRIPTION	ITEM #	PART NUMBER	DESCRIPTION
1	7014-271-002	WALL MOUNTED FRAME ASSY., BF15/16	8	7014-253-199	SPLASH GUARD
2	7014-270-001	HOUSING ASSEMBLY, BF16-BCD	9	0116-123-000	#10-32 x 1" BUTTON HEAD SCREW
3	4970-265-000	P-TRAP	10	7000-021-001	"Y" STRAINER
4	2563-381-001	SENSOR "A" ASSEMBLY	11	2169-000-000	1/4" O.D. LLDPE TUBING, BLUE
5	0110-012-000	#6 x 3/16" TRUSS HEAD SCREW	12	7012-055-000	FOAM PIPE INSULATION
6	0716-111-001	BOTTLE COUNTER WITH CONNECTORS	13	7001-200-001	SOLENOID / VALVE MOUNTING ASSY
7	0110-011-000	#6 x 3/16" PAN HEAD SCREW	14	1895-709-000	ELBOW, 1/4" PUSH-IN X 1/4" STEM