

**M-OBR4-GRC Series**  
**RECESSED OUTDOOR BOTTLE FILLER WITH**  
**GRC DRINKING FOUNTAIN**



**TECHNICAL ASSISTANCE TOLL FREE TELEPHONE NUMBER:**  
**1.800.591.9360**

Technical Assistance E-Mail: [Fieldservice@acorneng.com](mailto: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](http://www.murdockmfg.com/terms-and-warranty)

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7020-963-001  
1 of 16

01/25/24 A

COMPLIES WITH  
**STANDARDS**



Federal  
Public Law  
111-380  
(No Lead)



Test rating conditions are  
compliant with ARI 1010.

**murdock**<sup>®</sup>  
SINCE 1853

Member of  
  
MORRIS GROUP  
INTERNATIONAL

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626-336-4561  
[www.murdockmfg.com](http://www.murdockmfg.com)

**IMPORTANT**

This fixture is intended to dispense water that has been lowered in temperature, but otherwise remains unchanged by the materials in the drinking fountain.

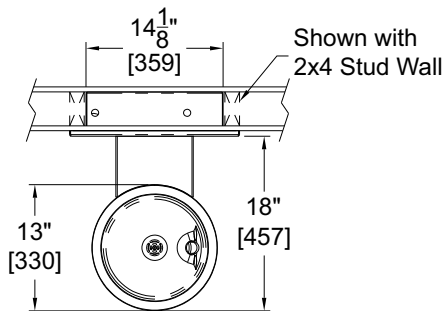
**NOTICE**

A dielectric coupling must be used to connect the drinking fountain to the water supply. A nonmetallic coupler is furnished with this water cooler to meet this requirement.

**DIMENSIONAL DRAWING**

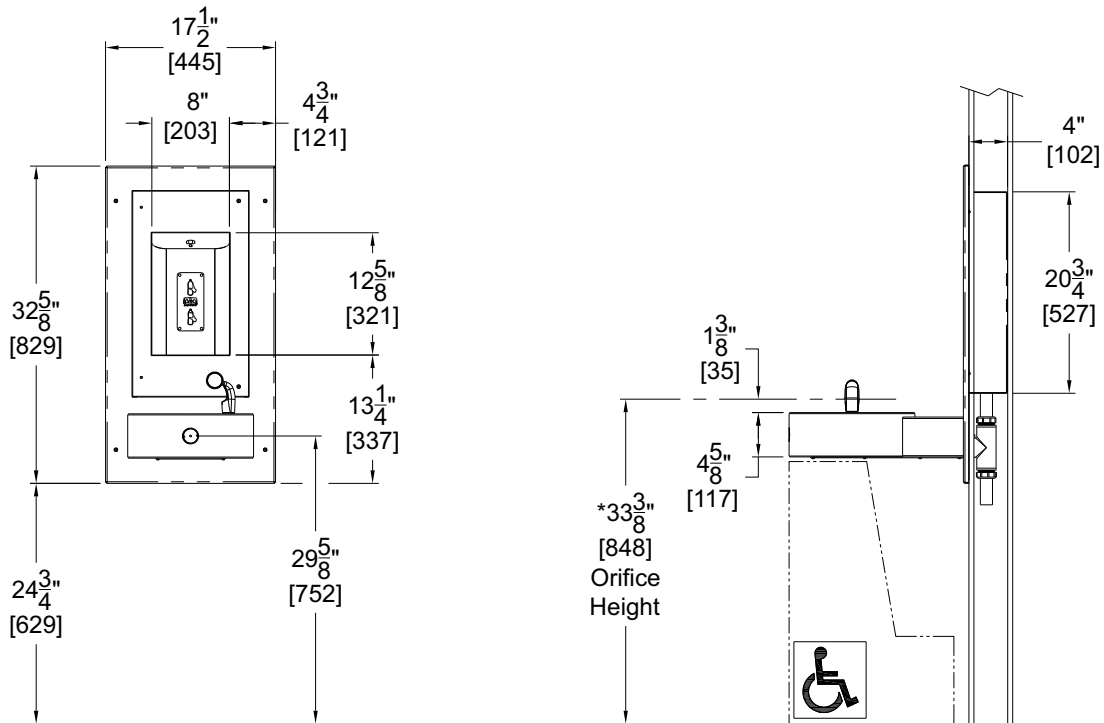
Prior to roughing in, consult with local, state, and federal codes for proper mounting height.

**M-OBR4-GRC Recessed Outdoor Bottle Filler with Drinking Fountain.**



General Notes:

1. All dimensions are in inches [MM]
- \*2. Dimensions shown are for recommended adult height. Adjust vertical dimensions as necessary to comply with Federal, State & Local Codes
3. Stop Valve not provided



**NOTES:** Dimensions shown for Adult ADA compliant installation. For Child ADA compliant parallel approach installation, decrease height of installation by 3 inches. Provide clear floor space as required. Adjust vertical dimensions as required to comply with federal, state, and local codes.

**IMPORTANT:**

1. Water Supply Service Stop Valve, and Water Connections to be supplied by others in accordance with local codes.
2. Waste is 1-1/4" Outer Diameter. Drinking Fountain water inlet is 1/4" outer diameter Push-In Fitting. Bottle Filler water inlet is 1/4" Outer Diameter Push-In Fitting. Water line by others.
3. Completely flush Supply Lines of all foreign debris before connecting to fixture.
4. Do NOT solder Tubes inserted into the Chiller, Bottle Filler or the Fountain Strainer as damage to the O-Rings on the Push-In Fittings may result.
5. All burrs must be removed from outside of cut Tubes before inserting into Strainer or other components.
6. **WARNING:** Warranty is voided if installation is not made following current Murdock Mfg. installation instructions and if components are assembled to the fixture that are not approved by Murdock Mfg.
7. Fixture operates within water pressure range of 25 PSIG (174 kPa) to 105 PSIG (724 kPa).
8. **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 shall be installed as close as possible to the quick closing Valve*

**PRIOR TO INSTALLATION:**

1. Read all installation instructions carefully, before proceeding.
2. Carefully remove all fixture components from packaging, preventing scratching or damage. Inspect fixture and all parts from damages and all parts that are bolted on.
3. Provide mounting surface, adequate to support the fixture and loads on the fixture.
4. Provide rough-ins as shown on the roughing-in and dimensional drawing, including Water Supply and Drain Pipe (See rough-in details)
5. Completely flush water Supply Lines of all foreign debris, before connecting to the fixture.

**DRINKING FOUNTAIN START UP:**

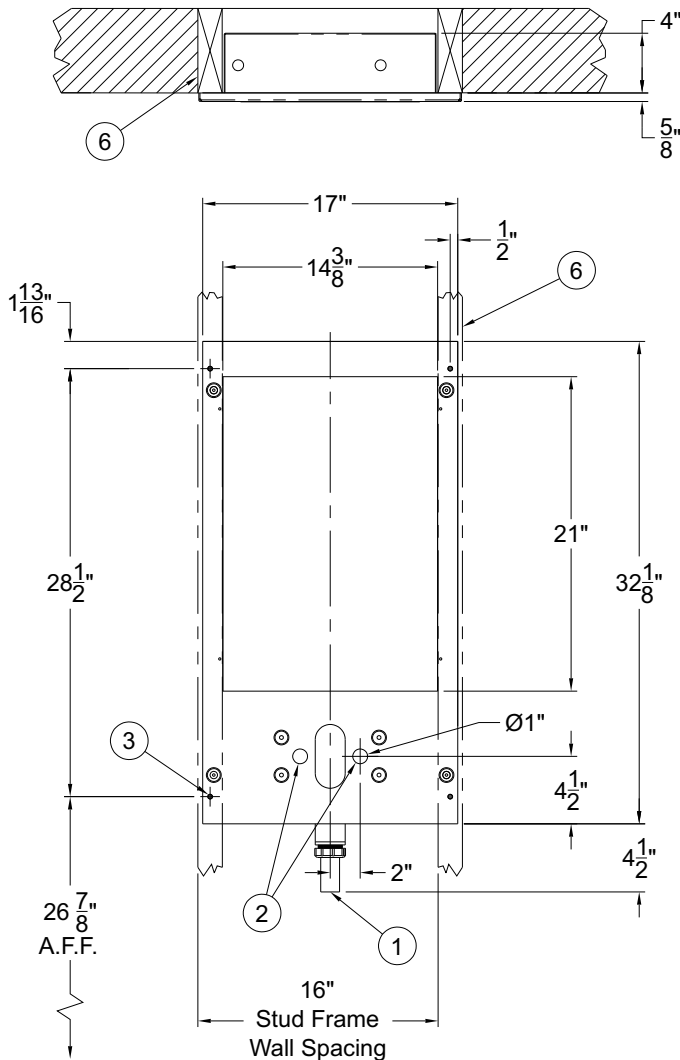
1. Before connecting Power Supply, but after thoroughly flushing the Supply Line and connecting it to the Cooler, turn on the building Water Supply and check all connections for leaks.
2. Air within the Drinking Fountain System or the Structure Supply Piping will cause an irregular Bubbler outlet stream until purged out by incoming water. Covering the Bubbler with a clean cup (or similar object) is recommended when first activating Drinking Fountain to prevent excessive splashing.
3. Depress self-closing Pushbutton until steady water stream is achieved.
4. If water flow requires adjustment, insert a slotted narrow blade Screwdriver in the hole centered on the underside of the fixture in the knee clearance area up to the Flow Regulator. Turning clockwise will increase flow and turning counterclockwise will decrease flow.
5. Recheck all water connections with water flowing through system.

**BOTTLE FILLER START UP:**

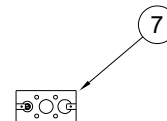
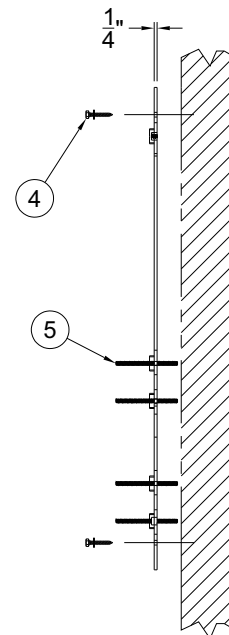
1. **Pushbutton Operated:** Air within the bottle filler system or the structure supply piping will cause an irregular spout outlet stream until purged out by incoming water. Press and hold pushbutton until steady water stream is achieved
2. **Sensor Operated:** Hold container to be filled just below the sensor in the center of the filler spout and then move the container upward and water flow will start automatically. When the container is almost filled, lower the container below the sensor until the water stops flowing. (See label on the bottle filler.)

## Mounting Installation

- 1** Provide wall opening as indicated in rough-in detail provided. Block-out for bottle filler box and provide structural support for mounting plate  $\phi 1/4"$  anchoring holes provided.



Note:  
Electrical Service  
Required for Plug-In  
Transformer; Transformer  
does not sit inside Botle  
Filler Box.

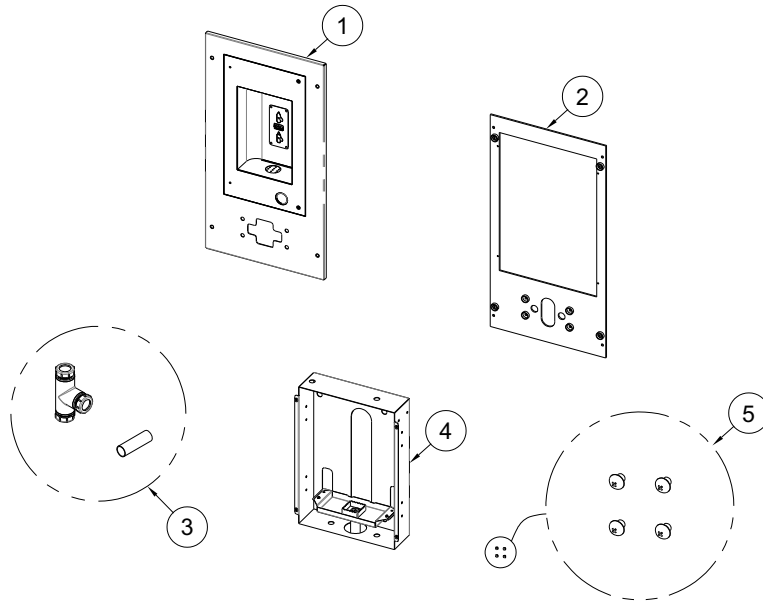


- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>① 1-1/4" O.D. Bottle Filler/Drinking Fountain Waste</li> <li>② 1/4" O.D. Drinking Fountain Supply Inlet</li> <li>③ Mounting Holes</li> <li>④ 1/4" Anchoring Hardware, by others</li> </ul> | <ul style="list-style-type: none"> <li>⑤ 5/16" Threaded Studs</li> <li>⑥ 2x6 Stud Wall, for reference only</li> <li>⑦ GFCI Electrical Service Protected Circuit for -SO Sensor Operated units, by others</li> </ul> |
|---|---|

**NOTES:** Dimensions shown for Adult ADA compliant installation. For Child ADA compliant parallel approach installation, decrease height of installation by 3 inches. Provide clear floor space as required. Adjust vertical dimensions as required to comply with federal, state, and local codes.

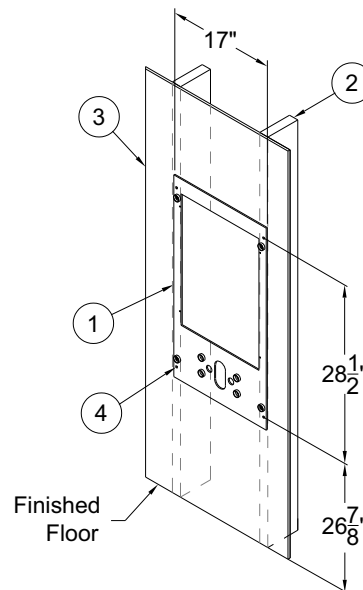
## Mounting Installation (Continued)

- 2** Separate Fixture Panel, Bottle Filler Box, Mounting Plate and #10-32 x 1/4" Screws from packaging careful to avoid damage to fixtures and fixture sub-assemblies.



- 1 Bottle Filler Panel
- 2 Mounting Plate
- 3 Waste Outlet, Ref. only  
(Plumbing may vary)
- 4 Bottle Filler Box
- 5 (4) #10-32 x 1/4" Phillips  
Head Screws

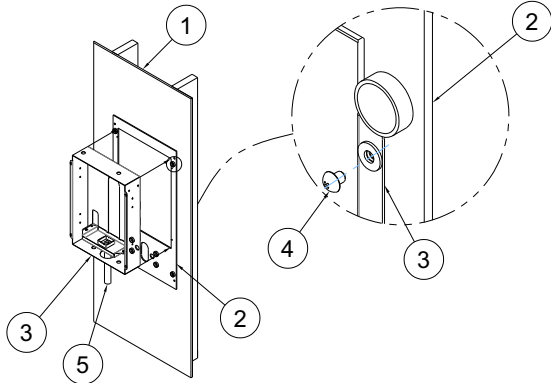
- 3** Supporting Mounting Plate against wall, align Bottle Filler opening and Mounting Plate Ø1/4" Anchoing holes with structural support before fixing to wall with installer provided Anchoing Hardware.



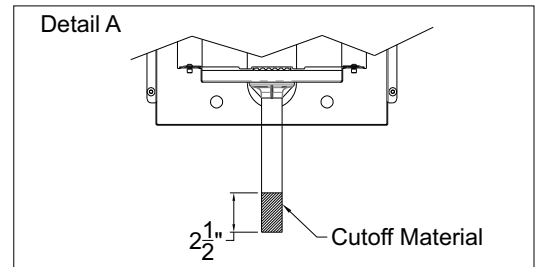
- 1 Mounting Plate
- 2 2x6 Stud Frame
- 3 Finish Wall, Ref. only
- 4 Anchoing Hardware,  
provided by others

## Bottle Filler Installation

- 1** Position Bottle Filler Box in the center of the Mounting Plate opening and secure with #10-32 x 1/4" Phillips Head Screws.  
Note: Cutoff 2-1/2" of material from the tailpiece. See Detail A.

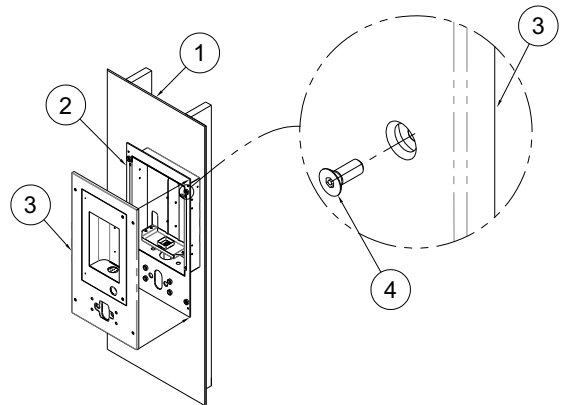


- 1 Finished Wall
- 2 Mounting Plate
- 3 Bottle Filler Box
- 4 10-32 x 1/4" Screws
- 5 1-1/4" OD Tailpiece

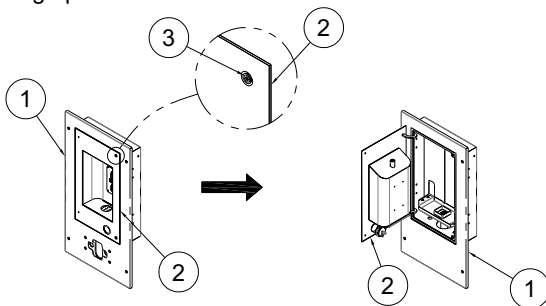


- 2** Position Bottle Filler Panel and center to Mounting Plate and secure with #10-32 x 1/2" Stainless Steel Flat Head Center Reject Hex Screw.

- 1 Finished Wall
- 2 Mounting Plate
- 3 Bottle Filler Panel
- 4 10-32 x 1/2" Screws



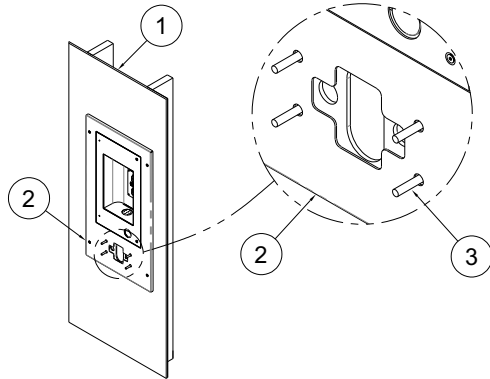
- 3** With Bottle Filler Panel installed, open Bottle Filler. Remove the #10-32 x 3/4" Flat Head Center Reject Screws and swing open Bottle Filler.



- 1 Bottle Filler Panel
- 2 Bottle Filler
- 3 #10-32 x 3/4" Screws

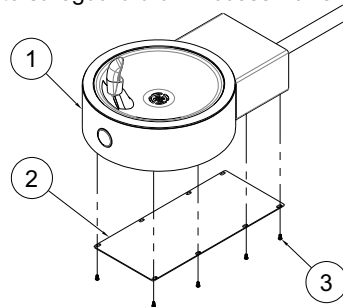
## Drinking Fountain Installation

- 1** Install the drinking fountain threaded studs through the Bottle Filler Panel and into the Mounting Plate so that a minimum of 1-1/4" of thread projects beyond Bottle Filler Panel .



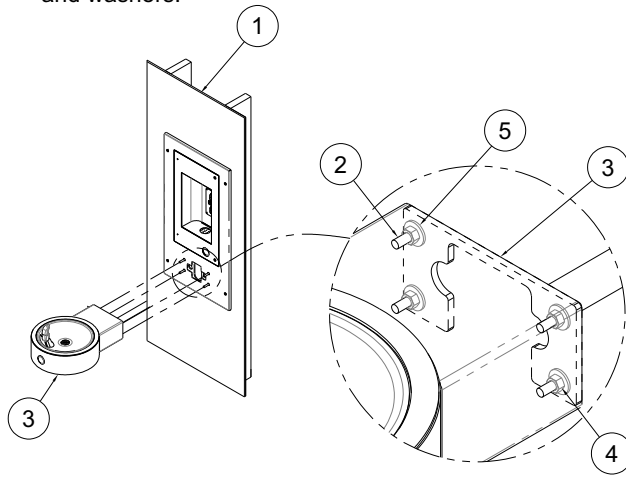
- 1 Finished Wall
- 2 Bottle Filler Panel
- 3 5/16"-18 Threaded Studs

- 2** Remove the Drinking Fountain bottom Access Panel by removing the Access Panel Vandal Resistant Screws. Be sure to safeguard drain Access Panel screws.



- 1 Drinking Fountain
- 2 Bottom Access Panel
- 3 #10-32 x 3/8" Screws

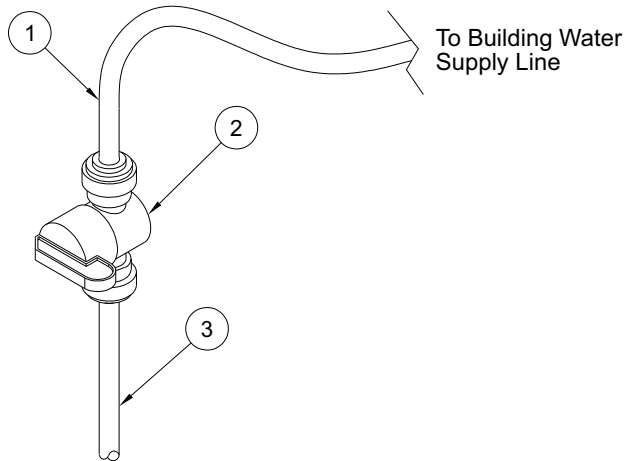
- 3** Align threaded studs with drinking fountain mounting openings and slide fixtures to panel and secure with nuts and washers.



- 1 Finished Wall
- 2 5/16"-18 Threaded Studs
- 3 Drinking Fountain Housing
- 4 5/16"-18 Hex Nut
- 5 5/16"-18 Zinc Plated Washer

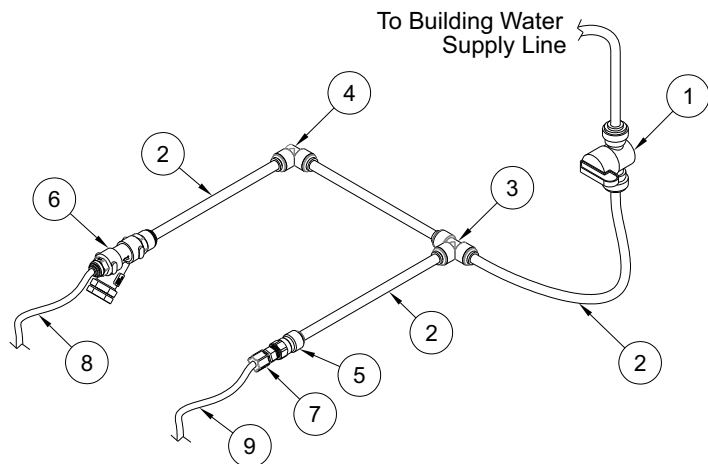
## Supply Connections

- 1** It is recommended that a supply stop be installed before making up connections to the fixture 3/8" OD supply inlet.



- ① 3/8" Water Supply Tubing
- ② Shut-Off Valve
- ③ Water Supply Outlet

- 2** Multiple Water Supply connections are required from the Building Water Supply Line to connect to the 1/4" NCT x 1/4" OD Push-In Y-Strainer and 1/4" NPT Male Fitting for the Bottle Filler Supply Line (See Steps 3 and 4). **DO NOT SOLDER.** Soldering will damage strainer O-Ring preventing a watertight seal. Layout shown for reference only.

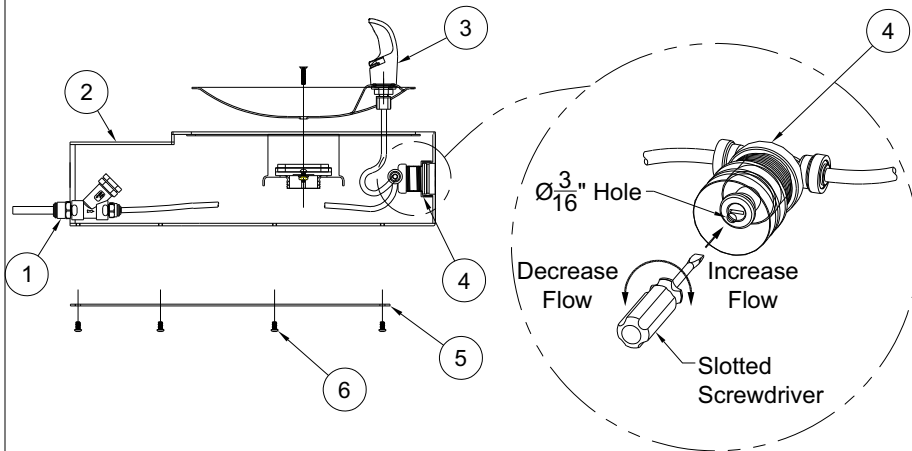


- ① 3/8" Shut-Off Valve (For Ref. Only)
- ② 3/8" Water Supply Tubing (For Ref. Only)
- ③ 3/8" Push-in Tee (For Ref. Only)
- ④ 3/8" Push-in Elbow (For Ref. Only)
- ⑤ 3/8" Push-in x 1/4" Female NPT (For Ref. Only)
- ⑥ 1/4" NCT x 1/4" OD Push-In Y-Strainer
- ⑦ 1/4" OD x 1/4" NPT Male Fitting
- ⑧ 1/4" Water Supply Tubing to Drinking Fountain
- ⑨ 1/4" Water Supply Tubing to Bottle Filler



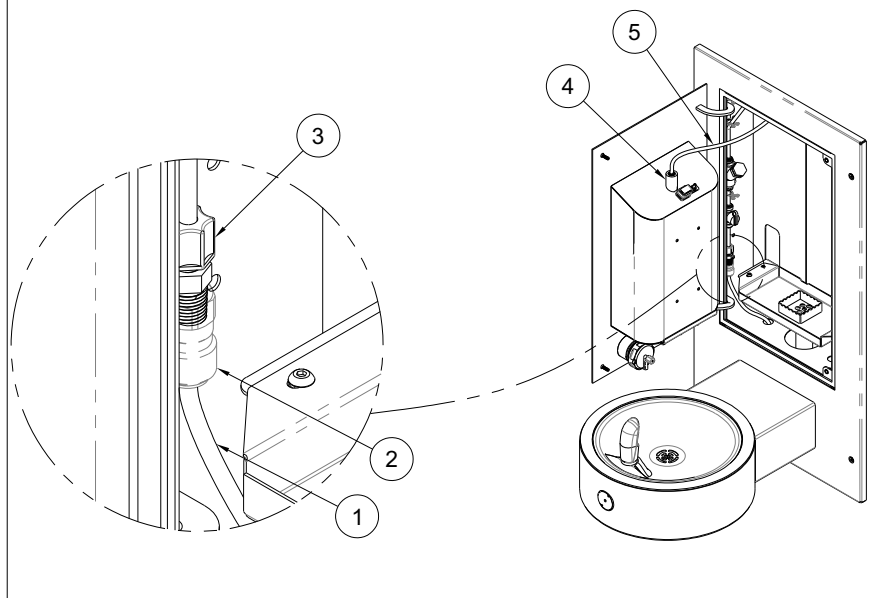
## Supply Connections (Continued)

- 3** Connect one of the Multiple Water Supply Connections to the 1/4" NCT x 1/4" OD Push-In Y-Strainer located within the Drinking Fountain. To increase or decrease flow, use slotted screwdriver. Re-install Access Panel with screws.



- 1 1/4" NCT x 1/4" OD Push-In Y-Strainer
- 2 Drinking Fountain
- 3 Drinking Fountain Bubbler
- 4 Pushbutton
- 5 Bottom Access Panel
- 6 Access Panel Screws

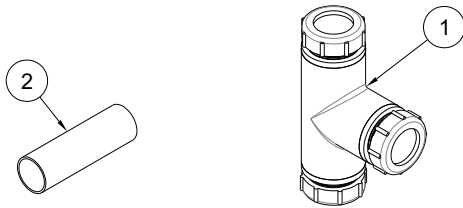
- 4** Connect the last Multiple Water Supply Connection to the 1/4" OD Tube x 1/4" NPT Male Fitting. (Note: An adapter is required to connect the Main Water Supply Line to the 1/4" Male NPT Fitting). Connect the blue 1/4" OD Tube to Bottle Filler Spout.



- 1 Water Supply Tubing
- 2 3/8" OD x 1/4" Female NPT Adapter (For Reference Only)
- 3 1/4" OD x 1/4" NPT Male Fitting
- 4 Bottle Filler Spout
- 5 1/4" OD Blue Tube

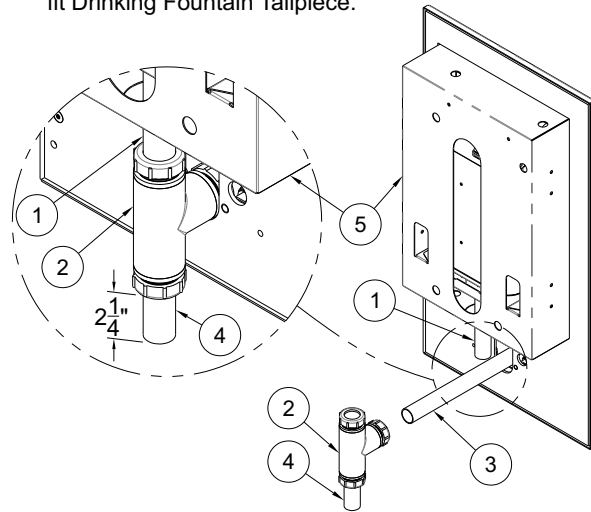
## Waste Plumbing Installation

- 1** Remove the 1-1/4" Tee Assembly with compressions and the 1-1/4" x 4" Brass Tubing from packaging.



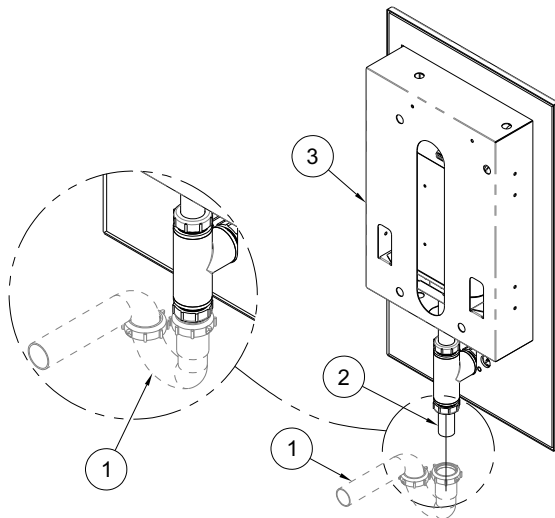
- (1) 1-1/4" Tee Assembly with Compression  
(2) 1-1/4" x 4" Brass Tubing

- 2** From the interior of the building, install Tee Assembly with Compression to Drinking Fountain and Bottle Filler. Cut to fit Drinking Fountain Tailpiece.



- (1) 1-1/4" Bottle Filler Tailpiece  
(2) 1-1/4" Tee Assembly with Compression  
(3) 1-1/4" Drinking Fountain Tailpiece  
(4) 1-1/4" Waste Outlet Tailpiece  
(5) Bottle Filler

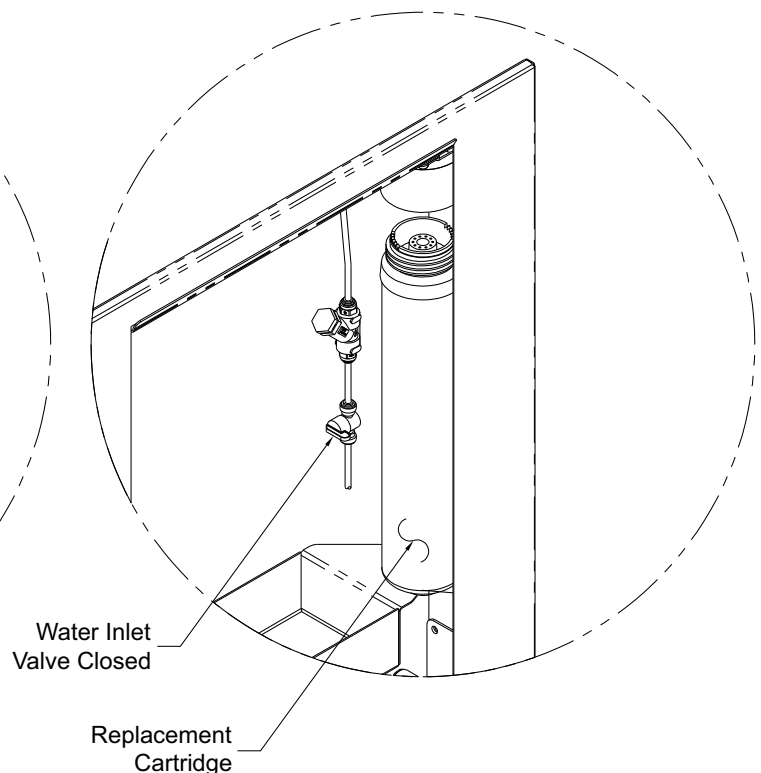
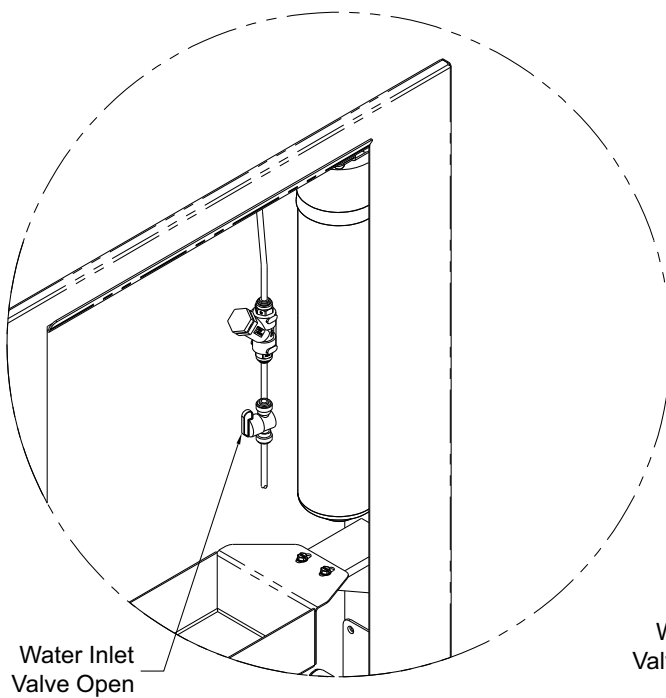
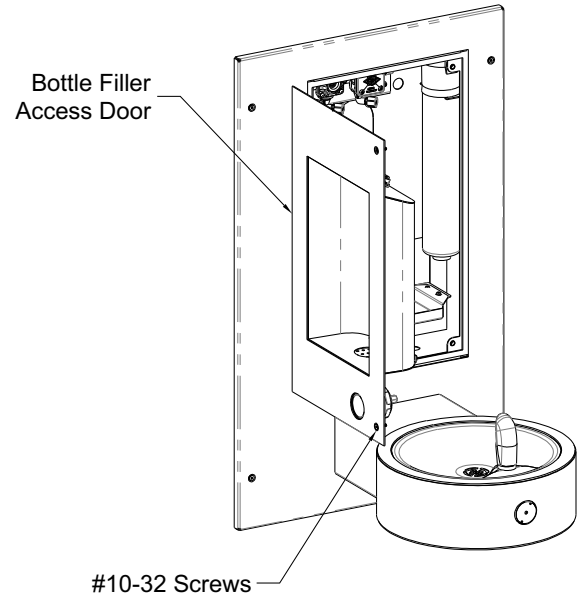
- 4** Install P-Trap to Waste outlet. P-Trap is provided by others.



- (1) P-Trap, by others  
(2) 1-1/4" Waste Outlet Tailpiece  
(3) Bottle Filler

## Water Filter Cartridge Replacement Instructions:

1. Open Bottle Filler Access Door by unfastening the #10-32 Screws from the Bottle Filler Access Door .
2. Locate the Shut-Off Valve Knob and give it a 1/4 turn clockwise to shut-off the water supply.
3. With the Filter Assembly secured on the unit, hold the Cap firmly, turn the Replaceable Cartridge Filter counterclockwise to remove.
3. Remove and replace the cartridge turning clockwise to secure.
4. Turn Shut-Off Valve Knob a 1/4 turn counterclockwise to open the water supply.
5. Test for leaks and proper operation before closing the Bottle Filler Access Door and re-fastening the #10-32 Screws.



## Trouble Shooting:

**IMPORTANT: BEFORE MAKING ANY OF THE REPAIRS LISTED, MAKE SURE THE WATER CHILLER IS DISCONNECTED FROM THE ELECTRICAL SUPPLY AND THE WATER SUPPLY VALVE IS SHUT OFF.**

### **TROUBLE SHOOTING:**

#### **1. ADJUSTMENTS:**

- a. Cartridge – The water flow can be adjusted using a slotted narrow blade screwdriver and turning clockwise to increase flow and counterclockwise to decrease flow.
- b. Cold Water Thermostat – The water temperature can be adjusted using a slotted screwdriver and turning clockwise to make colder and counterclockwise to make warmer.
- c. Bubbler Stream - Bubbler can be rotated slightly to direct the stream backwards or forwards. Adjust the stream to minimize splashing. Splashing may occur from bubbler stream if the unit is not level. Shim lower mounting point, if necessary, to level chiller.

#### **2. RESTRICTED OR NO WATER FLOW:**

- a. Ensure water supply service stop valve is fully open.
- b. Verify minimum 20 psig supply line flow pressure.
- c. Check for twists or kinks in outlet tubing.
- d. Check the water inlet “Y” strainer. Sediment from the main supply can get trapped in the screen along with installation materials such as pipe dope and flux. The screen should be cleaned and checked on a regular basis and replace if needed.
- e. The cartridge valve located in the water control assembly or bubbler can also become clogged with foreign material. The cartridge valve can only be replaced and not repaired.
- f. Check flow adjustment. See start up note #3.
- g. Flow control in solenoid valve outlet elbow clogged remove & clean.
- h. No power to transformer connections, loose or wires cut.

#### **3. WATER DRIPS OR WILL NOT SHUT OFF:**

- a. Open fixture. Loosen nuts holding valve bracket assembly to bottom of fixture but, do not remove. Move complete valve bracket assembly further back from the front push pad and tighten to lock in place.
- b. Replace valve cartridge.

### **SENSOR TROUBLE SHOOTING:**

#### **4. IF LIGHT WITHIN SENSOR DOES NOT FLASH ONCE WHEN USER IS WITHIN RANGE:**

- a. Verify 120VAC input & 9VDC output transformer output 9VDC.
- b. Replace defective transformer.
- c. Transformer polarity crossed. Replace transformer, sensor may be damaged and also need replacement.
- d. Sensor in “Security Mode” after 30 seconds of consistent detection. Remove source of detection and wait 30 seconds before checking.
- e. Sensor is picking up a highly reflective surface. Eliminate cause of reflection and wait 30 seconds before checking.

#### **5. IF LIGHT WITHIN SENSOR LENS FLASHES ONCE WHEN THE USER IS WITHIN RANGE:**

- a. Repair bad connection from sensor to solenoid.
- b. There is debris or scale in the solenoid assembly. Remove solenoid, pull out plunger and spring. Clean with scale remover solution.
- c. There is debris or scale in the center or two holes in convolution of the water diaphragm. Remove and clean.

**CLEANING & MAINTENANCE GUIDE:**

1. Motors have lifetime lubrication and do not require scheduled maintenance.
2. Excess dirt or poor ventilation will cause the compressor overload protector to turn the compressor off and it will cycle on and off with no cold water coming out of bubbler. Periodically clean with vacuum cleaner, air hose or brush the condenser fins and cabinet ventilation louvers. In environments where dirt and dust is more prevalent, clean more frequently.
3. Periodically remove fountain top and clean out in-line strainer.
4. Periodically remove access panel of cooler and clean out inline "Y" strainer

**For Powder coated units:** Units should be cleaned using a mild soap solution with a sponge or cotton cloth. Wipe down surfaces then rinse with clean water.

**For Stainless steel units:**

1. To Remove water spots or rust spots, stainless steel cleaner/polish on a cloth is recommended.
2. If there are stubborn spots or if you wish to treat a scratch, using synthetic abrasive general purpose pads, such as Scotch-Brite™, are recommended.
3. Apply stainless steel cleaner/ polish to the synthetic abrasive pads and carefully rub the panel with the grain.
4. DO NOT use harsh chemicals, abrasive or petroleum based cleaners. Use of these will void the Murdock warranty. DO NOT use abrasives on powder coated units.
5. Stainless steel should be kept clean at all times. If a coating of stainless steel cleaner/ polish is maintained, stainless steel surfaces will retain their new, clean, polished appearance indefinitely.

**DRINKING FOUNTAIN CARTRIDGE REPLACEMENT/ STRAINER MAINTENANCE**

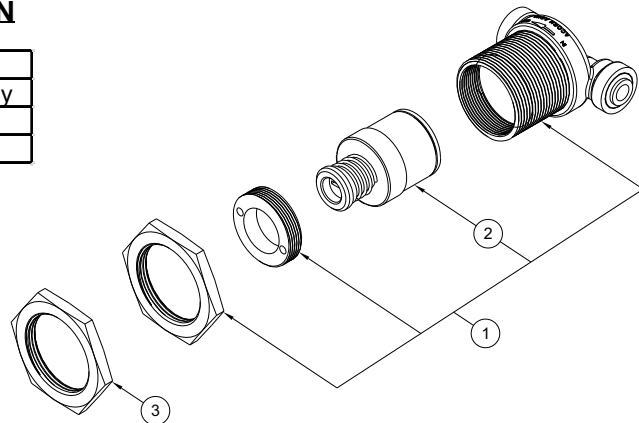
Note: Use the universal maintenance tool to perform the following:

1. Strainer plug must be removed before cartridge replacement and strainer maintenance (no need to turn the water off at the angle stop). Some residual water will drain during plug removal.
2. Clean strainer as needed using clean water.
3. Cartridge replacement - insert diamond end of the universal tool into pushbutton, rotate 90 degrees and pull firmly to remove the button. Remove cartridge retaining nut . Remove and replace cartridge. When replacing cartridge be sure to align the inlet and outlet ports on the cartridge with the ports in the valve body.

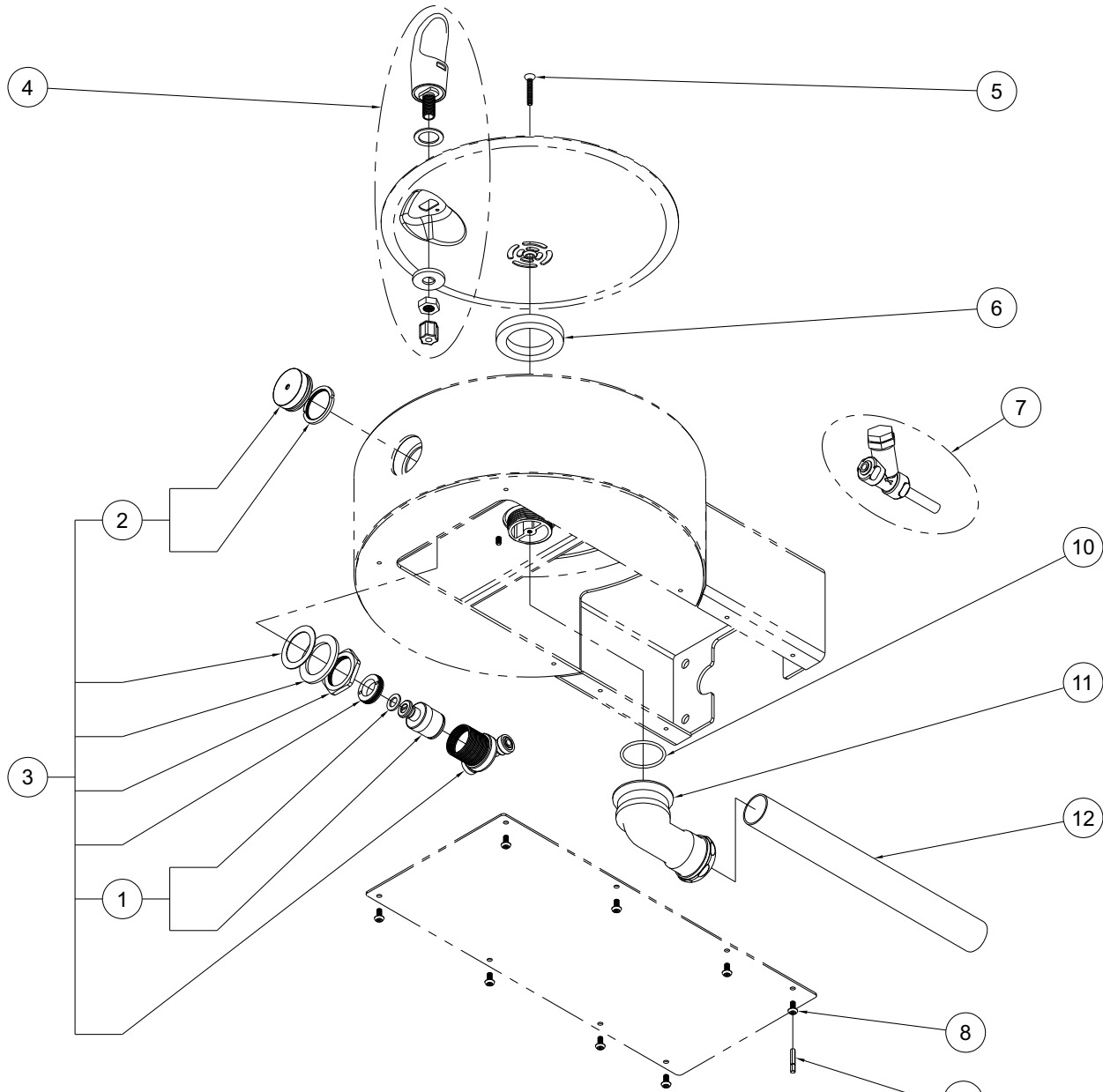
•NOTE: STRAINER SCREEN MUST BE IN PLACE FOR WATER TO FLOW.

**CARTRIDGE VALVE PARTS BREAKDOWN**

ITEM #	PART NUMBER	DESCRIPTION
1	7000-050-001	Valve Cartridge Assembly
2	7000-060-000	Valve Cartridge
3	7000-053-199	Jam Nut



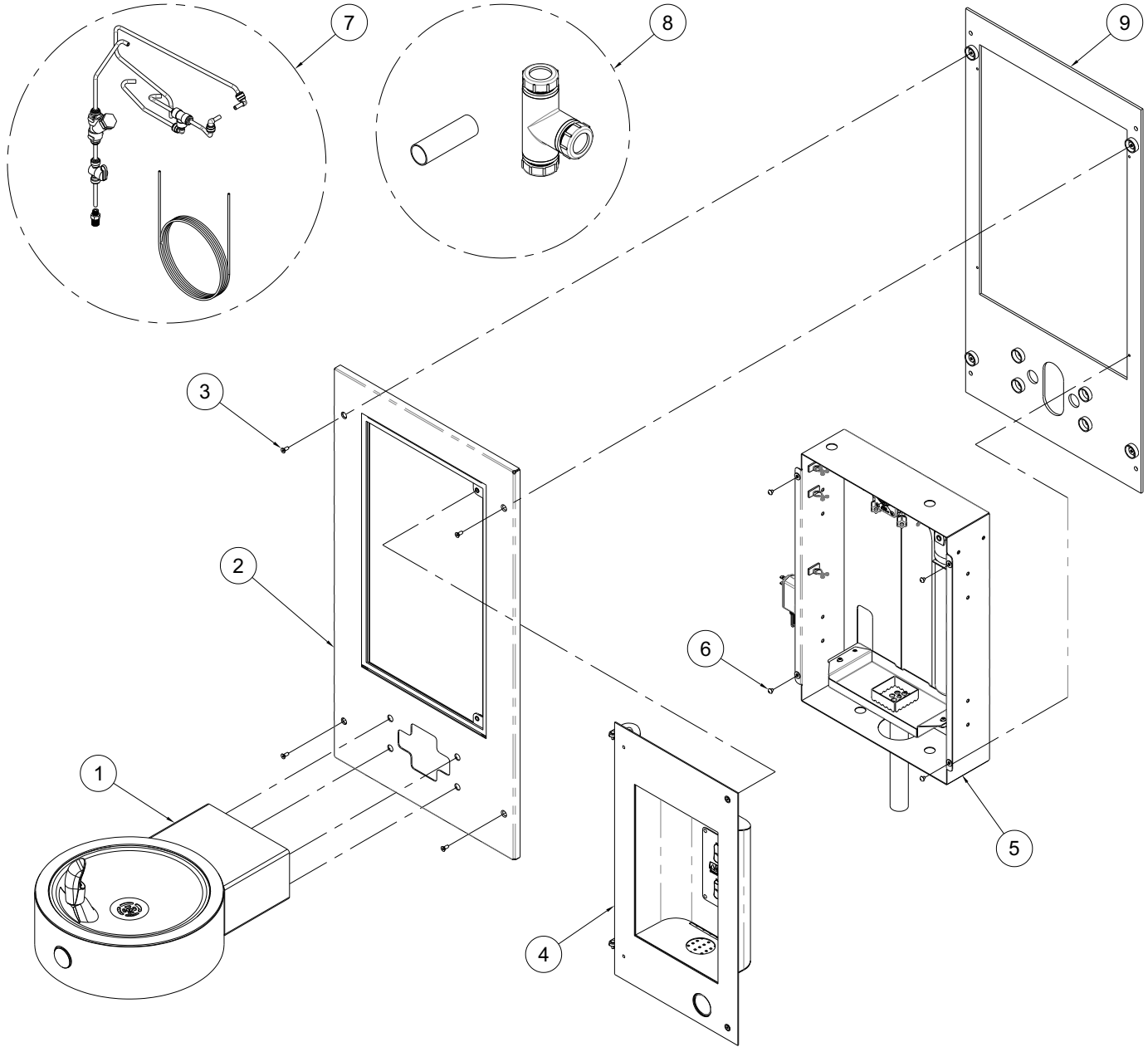
**DRINKING FOUNTAIN PARTS BREAKDOWN**



ITEM	PART NUMBER	DESCRIPTION	ITEM	PART NUMBER	DESCRIPTION
1	7000-050-001	Valve Cartridge	7	7000-021-001	Y-Strainer
2	7000-068-001	Retaining Ring and Button	8	0112-002-000	Center Reject Allen Button Head
3	7000-065-001	Recessed Pushbutton Valve	9	0296-025-199	Center Reject Hex Driver Bit
4	7000-012-001	Stainless Steel Bubbler	10	0401-128-000	#128 O-Ring
5	0152-010-000	Center Reject Allen Flat Head	11	7000-017-001	Elbow, O-Ring x 1-1/4"
6	7000-006-000	Flat Drain Adapter Gasket	12	7000-112-199	1-1/4" OD x 20-1/2" LG Drain

Repairs must be made with Murdock Manufacturing parts only. Please order through your local representative or distributor. The phone number to locate your local representative is 1.800.591.9360.

**M-OBR4-GRC SERIES BREAKDOWN**

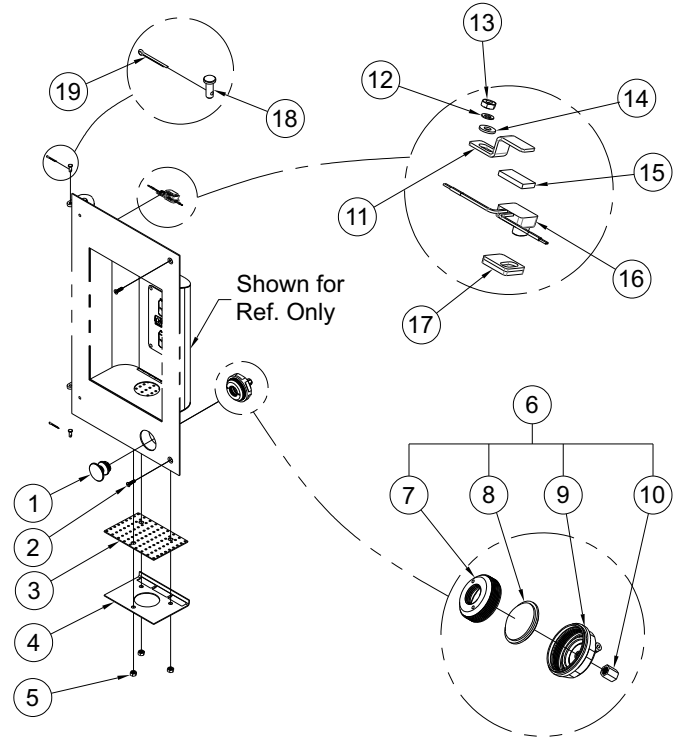


ITEM	PART NUMBER	DESCRIPTION	ITEM	PART NUMBER	DESCRIPTION
1	7007-081-001	Wall Mounted Drinking Fountain	6	0116-004-000	#10-32 x 1/4" Round Head Screw
2	JSMBF495-001	Cover Plate Assembly	7	JSMBF494-001	Water and Air Supply Components
3	0152-002-000	#10-32 x 1/2" Flat Head Screw	8	JSMBF486-001	Waste Outlet Components
4	JSMBF475-001	Bottle Filler Door Assembly	9	JSMBF491-001	Mounting Plate Assembly
5	JSMBF462-002	Bottle Filler Housing Assembly			

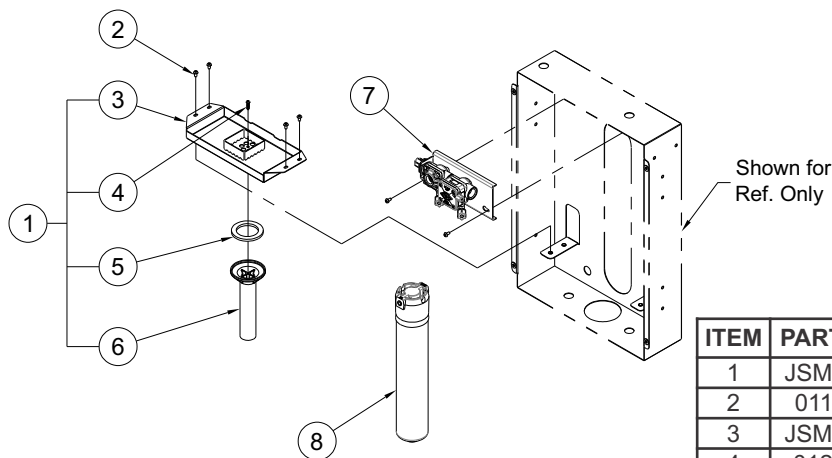
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## 5 Bottle Filler Door Assembly Parts Breakdown

ITEM	PART NUMBER	DESCRIPTION
1	7002-125-002	Pushbutton Assembly
2	0152-006-000	#10-32 x 3/4" Hex Flat Head Screw
3	JSMBF479-199	Bottom Screen
4	JSMBF480-199	Alcove Screen Plate
5	0302-005-000	1/4-20 UNC Stn. Stl. Hex Nut
6	2566-050-002	Back Outlet Pushbutton Assembly
7	2566-022-000	Escutcheon Retainer
8	2566-001-000	Air-Trol Diaphragm
9	2566-056-199	Diaphragm Retainer, Back Outlet
10	1895-450-000	1/8" OD Nylon Compression Nut
11	7013-010-199	Nano Sensor Bracket
12	0331-023-000	#8 Stn. Stl. Flat Washer
13	6527-108-000	#8 Internal Tooth Lockwasher
14	0302-003-000	#8-32 UNC Stn. Stl. Hex Nut
15	7013-019-199	Foam Tape
16	7013-057-002	Nano Sensor Assembly
17	7013-009-001	Nano Sensor Spacer Assembly
18	0341-107-000	Stainless Steel Clevis Pin
19	6560-016-000	Cotter Pin



## 6 Bottle Filler Housing Assembly Parts Breakdown



ITEM	PART NUMBER	DESCRIPTION
1	JSMBF483-001	Drain Tray Assembly
2	0112-011-000	#10-32 x 3/8" Center Reject Screws
3	JSMBF483-002	Drain Tray
4	0124-055-000	#8 x 3/4" Phillips Round Head Screw
5	7000-006-000	Drain Adapter Gasket
6	7003-180-000	Drain
7	JSMBF464-001	Valve Assembly
8	7012-311-000	WF1 Water Filter

Repairs must be made with Murdock Manufacturing parts only. Please order through your local representative or distributor. The phone number to locate your local representative is 1.800.591.9360.