

AI81.8 Series
Barrier Free, Wall Mounted Electric Drinking Fountain



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

Murdock® assumes no responsibility for use of void or superseded data. © Copyright Murdock Mfg., City of Industry, CA Member of Morris Group International. Please visit www.murdockmfg.com for most current specifications.

7020-007-001
1 of 8

01/31/24 B

COMPLIES WITH
STANDARDS



NSF/ANSI 61



Federal
Public Law
111-380
(No Lead)



Member of

MORRIS GROUP
INTERNATIONAL

murdock®
SINCE 1853

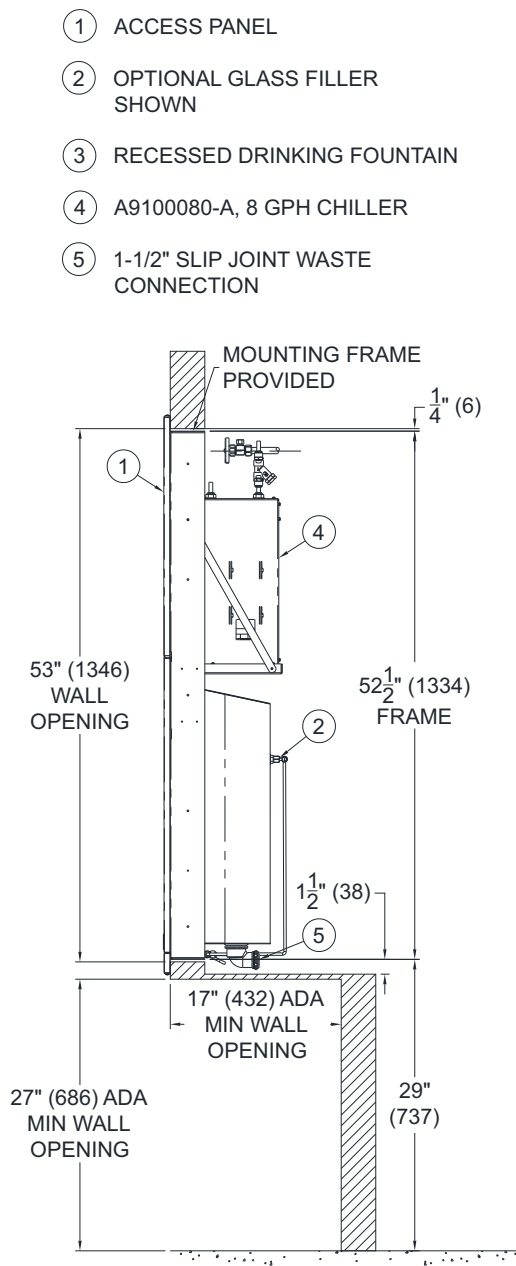
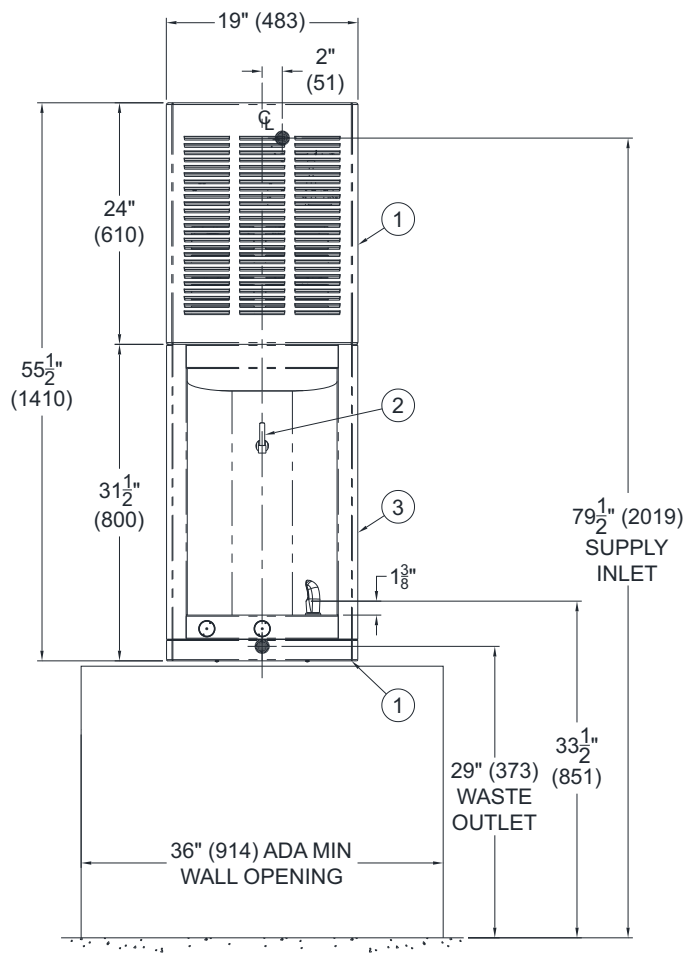
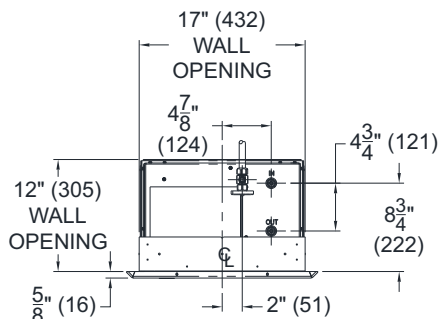
15125 Proctor Ave, City of Industry,
CA, 91746 U.S.A.
Phone 800-591-9360
626-336-4561
www.murdockmfg.com

ELECTRIC DRINKING FOUNTAINS

INSTALLATION/MAINTENANCE INSTRUCTIONS

ROUGHING-IN AND DIMENSIONAL DRAWING

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



GENERAL NOTES:

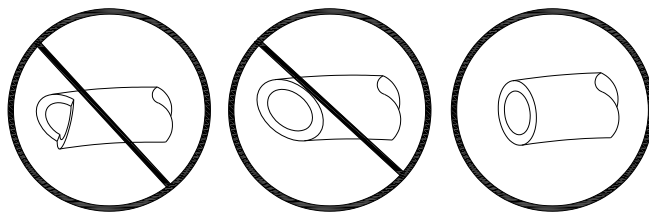
1. ALL DIMENSIONS ARE IN INCHES [MM]
- *2. DIMENSIONS SHOWN ARE FOR RECOMMENDED ADULT HEIGHT, ADJUST VERTICAL DIMENSIONS AS NECESSARY TO COMPLY WITH FEDERAL, STATE, & LOCAL CODES
3. STOP VALVE NOT PROVIDED
4. WATER LINE FROM CHILLER TO FOUNTAIN SHOULD BE COVERED WITH SPONGE FOAM RUBBER OR ICE WATER TYPE INSULATION OF ADEQUATE THICKNESS

PUSH-IN FITTING INSTALLATION

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

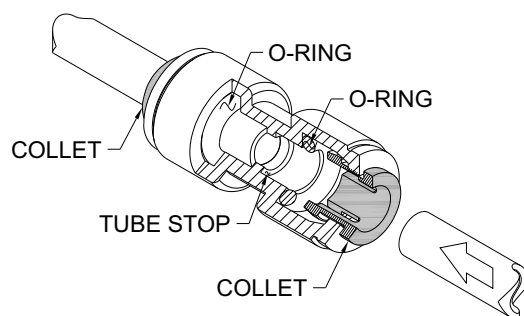
TO CUT TUBE:

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.

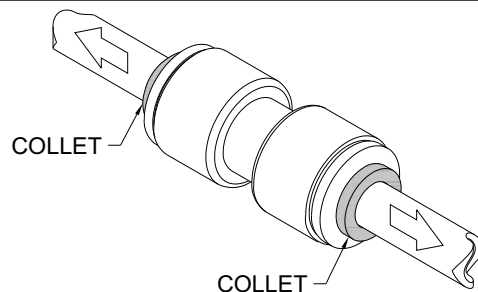


INSERTING THE TUBE:

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

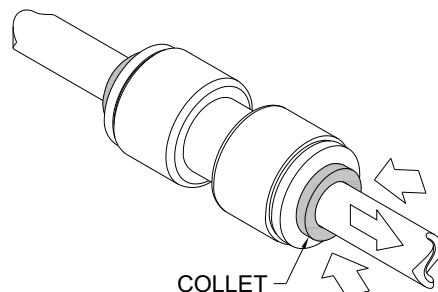


2. Pull on the fitted Tubing to ensure it is secure. Tube should not come free from the Fitting. Water test the connection assembly prior to leaving the site to ensure there are no leaks.



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.



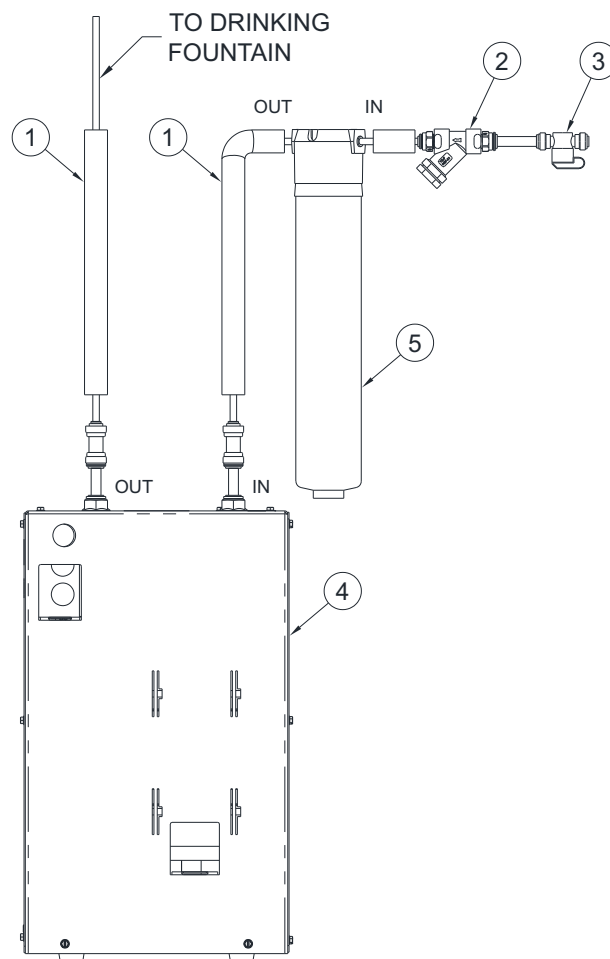
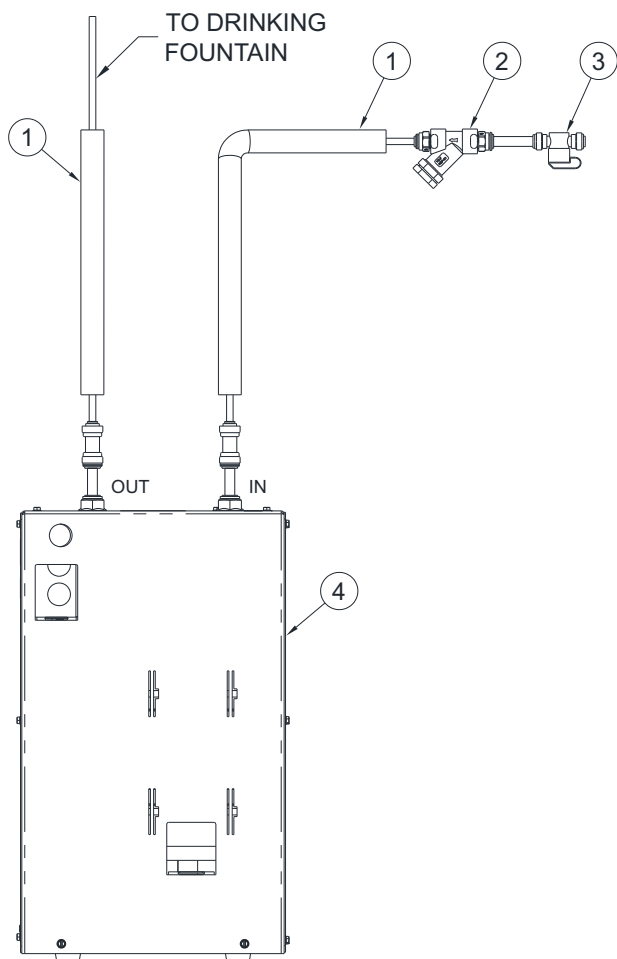
IMPORTANT:

1. Water Supply Service Stop Valve, Water Connections and Electrical Connections to be supplied by others in accordance with local codes.
2. Provide 4" minimum clear space in front of bottom trim panel and above in-wall chiller to allow for proper ventilation.
3. Waste is 1-1/4" Outer Diameter. Chiller water inlet is 3/8" Outer Diameter copper tube. Chiller water outlet is 3/8" Outer Diameter copper tube. Drinking Fountain water inlet is 1/4" Outer Diameter connection. Bottle Filler water inlet is 1/4" Outer Diameter connection. Water line by others from in-wall chiller to drinking fountain must have adequate insulation.
4. Completely flush supply lines of all foreign debris before connecting to fixture. Chiller is designed to not cause problems with taste, odor, color, or sediment. Optional water filters (WF1 & WF3), are available for remote installation should any of these problems arise from the water supply.
5. 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.
6. All burrs must be removed from outside of cut tubes before inserting into strainer or other components.
7. Power supply must be identical in voltage, cycle and phase to that specified on the chiller data plate. Refer to submittal.
8. This unit must be grounded per the requirements of applicable electrical codes.
9. WARNING: Warranty is voided if installation is not made following current Acorn Engineering installation instructions and if components are assembled to the fixture that are not approved by Acorn Engineering.
10. Fixture operates within water pressure range of 174 kPa (25 psig) to 724 kPa (105 psig). Acorn Engineering will not warranty chiller damaged when connected to supply lines with flow pressure lower than 174 kPa (25 psig) or higher than 724 kPa (105 psig). A pressure regulator must be furnished by others on supply line if inlet pressure is greater than 724 kPa (105 psig).
11. Due to cold waste water, Acorn Engineering recommends that waste piping supplied by installer be insulated appropriately to prevent excessive condensation.
12. *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 are bolted on.
3. Provide mounting surface, sufficient 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, drain pipe and electrical service. (See rough-in details)
5. It is common for electrical equipment to be grounded to water lines either within a structure or away otherwise remains unchanged by the materials in the water cooler. Every attempt should be made to prevent this kind of grounding from generating feedback into the water cooler creating electrolysis. Electrolysis will cause a metallic taste or cause water content to increase.
6. Receptacle(s) must be wired to a GFCI protected circuit. Fixture must be earth grounded per NEC (National Electrical Code).
7. Completely flush water supply lines of all foreign debris, before connecting to the fixture.

WATER PATH DETAIL



① INSULATED 1/4" OD TUBING

② Y-STRAINER

③ ANGLE STOP BY OTHERS

④ CHILLER w/ 3/8" OD TUBE
INLET/OUTLET CONNECTIONS

⑤ OPTIONAL -WF1 1500 GALLON
WATER FILTER SHOWN WITH
1/4" OD TUBE INLET/OUTLET

*NOTE: INSULATION TUBING MAY OVERLAP FITTINGS. ILLUSTRATIONS
MAY SHOW EXPOSED 1/4" OD TUBING FOR CLARITY ONLY.

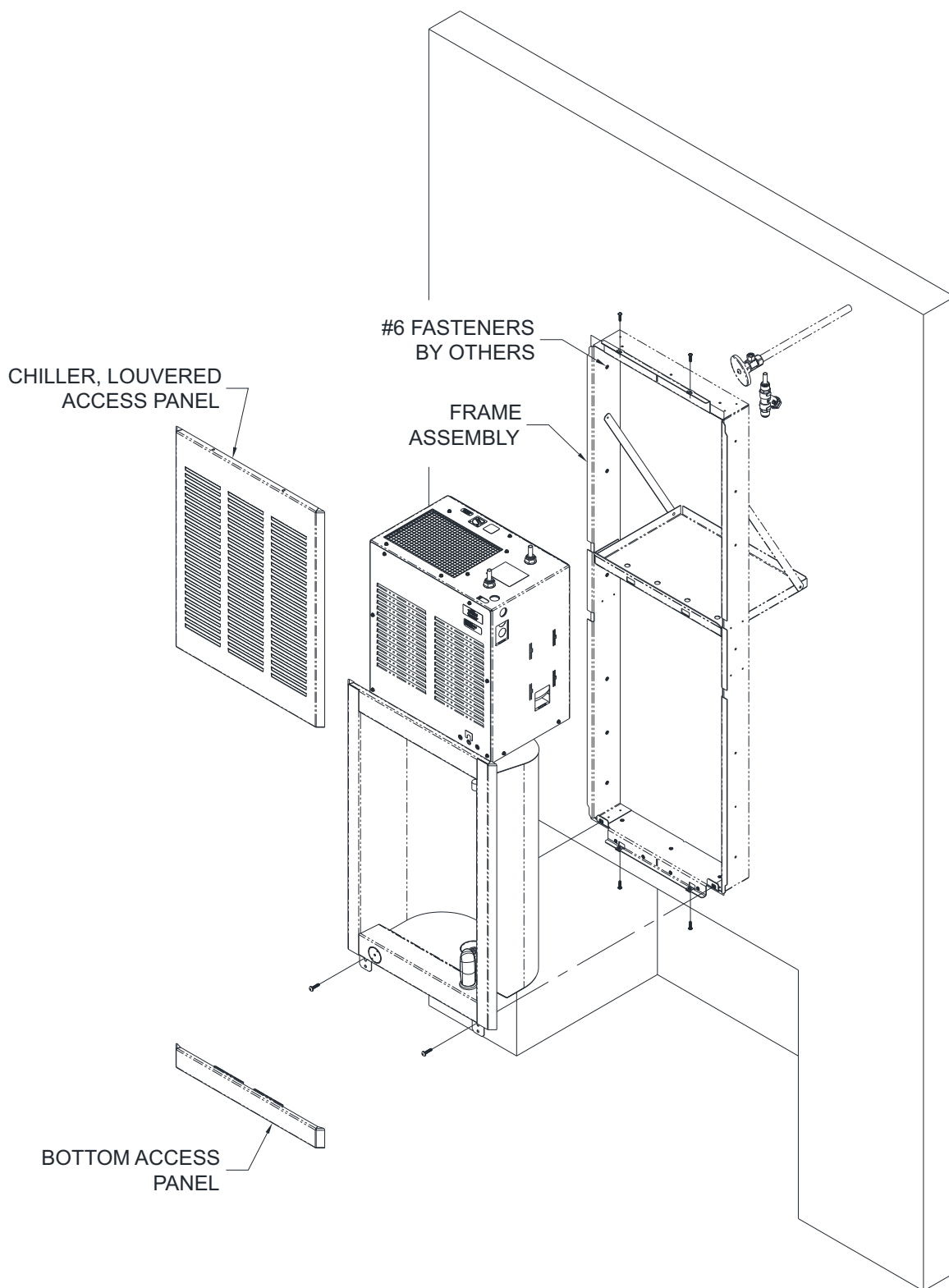
INSTALLATION:

1. Provide wall opening as indicated in Rough-in sheet. Provide structural support around opening for frame anchoring if required.
2. Carefully remove Drinking Fountain and Chiller mounting frame from packaging to prevent damage.
3. Insert and center mounting frame into the rough-in blockout, with sides, top and bottom flange against finished wall. Level and secure using mounting hardware provided by the installer. Verify if level and shim if necessary.
4. Secure Frame to wall through sides top and bottom using anchoring hardware by others.
5. Place the Chiller Unit onto the basepan of the frame assembly. Make up electrical connections as required. Refer to A910.8 Chiller manual 7020-978-001 for complete Chiller installation information.
6. Position the top of the Fountain assembly over the Frame S-clip just below the Chiller basepan and engage while securing bottom tabs to Frame assembly with #10-32 screws and washers provided. Screws must thread into captive nuts behind Frame tab. Tighten screws to pull the Fountain flush with the wall.
7. Assembly 3/8" OD Tube x 3/8" Tube Y-Strainer assembly to Chiller inlet. Ensure Y-strainer assembly is orientated in the proper direction of flow. Refer to arrow on strainer.
8. Make up 1/4" OD Tube riser connections to 1/4" OD x 3/8" OD push-in fitting on the Chiller outlet and run riser tube to connections Fountain and optional Bottle Filler. The 1/4" OD Riser tube from Chiller to Fountain should be insulated to prevent condensation and maintain cool water temperature.
9. Make-up Waste connection to drinking fountain 1-1/4" OD connection.
10. After thoroughly flushing supply line, connect water supply to 3/8" OD Tube connection on Chiller.

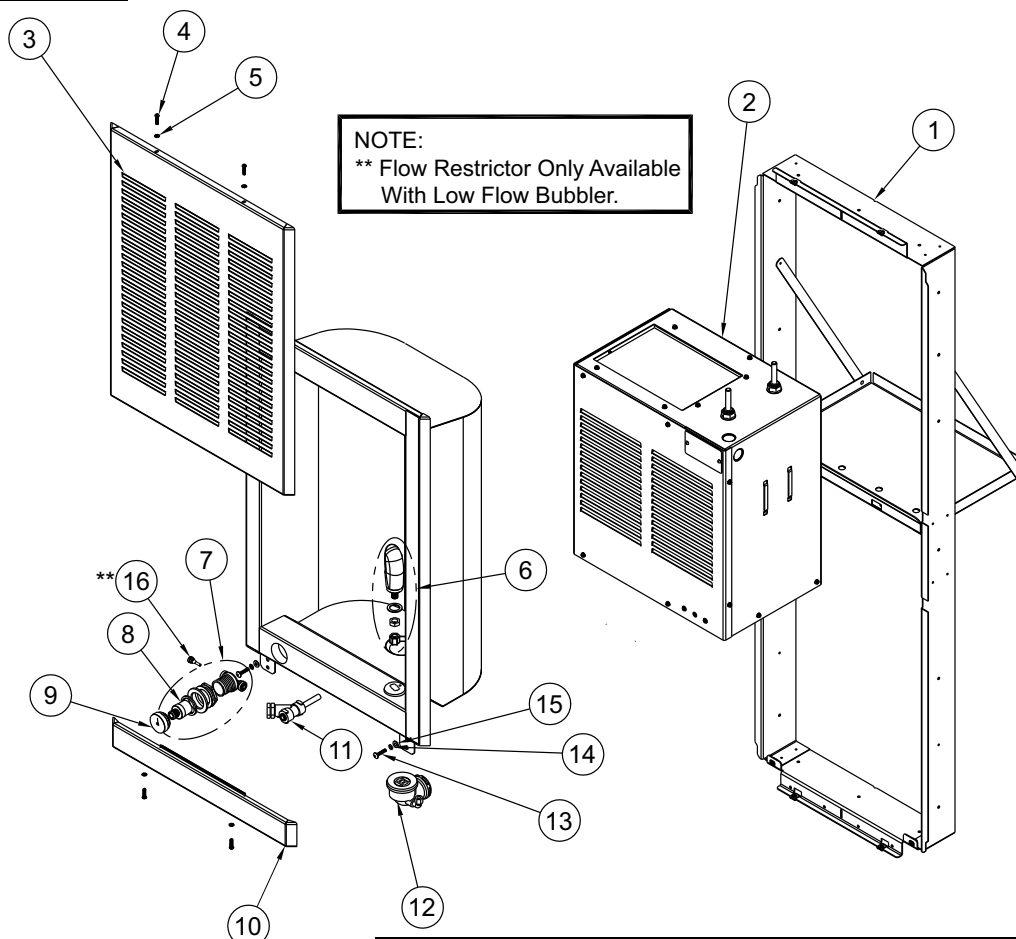
START UP:

1. Before assembling Access Panels to fixture, but after thoroughly flushing the supply line and connecting it to the fixture, turn on building water supply and check all connections for leaks.
2. Air within the Fountain or the structure supply piping will cause an irregular outlet stream until purged out by incoming water.
3. Recheck all water and drain connections with water flowing through system.
4. Install Removable Access Panels to fixture. Secure with hardware provided.

EXPLODED VIEW



AI81408S PART LIST:



ITEM #	PART NUMBER	DESCRIPTION
1	A0000000-MF7	CHILLER/FOUNTAIN FRAME ASSY
2	A9100080-A	CHILLER
3	7035-107-199	LOUVERED ACCESS PANEL
4	0279-002-000	#8-32 x 3/4" L, BUTTON HEAD SCREW
5	0322-001-000	#8-32 LOCKWASHER, STAR
6	7000-012-001	BUBBLER, STAINLESS STEEL
	7000-099-002	BUBBLER, FLEXIBLE -LOW FLOW
7	7000-050-001	CARTRIDGE VALVE ASSEMBLY
8	7000-060-000	CARTRIDGE FLOW REG, 0.50 GPM
9	7000-091-001	CARTRIDGE PUSHBUTTON
10	7035-111-199	BOTTOM ACCESS PANEL
11	7000-021-000	Y-STRAINER
12	4926-055-001	GRID STRAINER w/CLOSE ELL ASSY
13	0116-006-000	#10-32 x 1" L, PHILLIPS SCREWS
14	0321-011-000	#10 LOCKWASHER, STAR
15	0331-004-000	#10 WASHER, FLAT, SS
16	7003-093-001	FLOW RESTRICTOR, FLEX BUBBLER