

**A171-UG-SO, A171-UG Series, and A171-UG-VR Series  
Barrier Free, Wall Mounted Drinking Fountain**



**A171100F-UG-SO**



**A171100F-UG**



**A171400S-UG-VR**

A171100F-UG-SO / A171400F-UG-SO / A171100S-UG-SO / A171400S-UG-SO

A171100F-UG / A171400F-UG / A171100S-UG / A171400S-UG

171100F-UG-VR / A171400F-UG-VR / A171100S-UG-VR / A171400S-UG-VR

**TECHNICAL ASSISTANCE TOLL FREE TELEPHONE NUMBER:**

**1.800.591.9360**

Technical Assistance Fax: 1.626.855.4894



**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.

**LIMITED WARRANTY - UNITED STATES & CANADA**

Murdock warrants that its products are free from defects in material or workmanship under normal use and service for a period of one year from date of original shipment or for 18 months after the date of shipment from the factory, whichever comes first. Murdock's liability under this warranty shall be discharged solely by replacement or repair of defective material, provided Murdock is notified in writing within one year from date of shipment, F.O.B. Industry, California.

This warranty does not cover installation or labor charges and does not apply to materials, which have been damaged by other causes such as mishandling or improper care or abnormal use. The repair or replacement of the defective materials shall constitute the sole remedy of the Buyer and the sole remedy of Murdock under this warranty. Murdock shall not be liable under any circumstances for incidental, consequential or direct charges caused by defects in the materials, or any delay in the repair or replacement thereof. This warranty is in lieu of all other warranties expressed or implied. Product maintenance instructions are issued with each unit and disregard or non-compliance with these instructions will constitute an abnormal use condition and void the warranty. Stainless steel must be protected on job site during construction and must be properly maintained after the water has been introduced into the water cooler or drinking fountain, or Murdock's limited warranty is void.

**LIMITED EXPORT WARRANTY - One year on parts only.**

Murdock assumes no responsibility for use of void or suspended data. © Copyright Murdock, City of Industry, CA Member of Morris Group International. Please visit [www.murdockmfg.com](http://www.murdockmfg.com) for most current specifications.

**COMPLIES WITH STANDARDS**



Federal Public Law 111-380 (No Lead)

Test rating conditions are compliant with ARI 1010.



Member of MORRIS GROUP INTERNATIONAL

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[www.murdockmfg.com](http://www.murdockmfg.com)



**PRIOR TO INSTALLATION:**

Important: some options may slightly alter installation. To ensure proper installation review the manual thoroughly and verify Rough-Ins before beginning 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.
- Inspect fixture and all parts for damages.

**IMPORTANT:**

1. Waste P-Trap, Water Supply Service Angle Stop Valve and 2" x 4" Electrical Plug-In Receptacle to be supplied by others in accordance with local codes. A P-Trap (by others) must be used for the Waste Connection.
2. Water supply is 3/8" Outside Diameter Copper Tube. Waste is 1-1/4" Outside Diameter.
3. Completely flush supply lines of all foreign debris before connecting to fixture. Drinking Fountain designed to not affect taste, odor, color, or sediment. Optional water filter (WF1) is available should any of these problems arise from the water supply.
4. If possible, limit exposure of the Drinking Fountain to direct sun light. The actual surface temperature of a Drinking Fountain in direct sunlight on a 90°F day, the Drinking Fountain would be about 140°F.
5. Do NOT solder Copper Tube when inserted into the Coupler as damage to the O-Ring will result.
6. All burrs must be removed from outside of cut Tubes before inserting into Coupler or other components.
7. **Warranty is voided** if installation is not made following current Murdock Mfg. installation instructions and if components are assembled to the fixture that is not approved by Murdock Mfg.
8. Fixture operates within water pressure range of 20 to 105 PSIG (138 to 724 kPa). Murdock Mfg. will not warranty fixtures damaged when connected to supply lines with flow pressure lower than 20 PSIG (138 kPa) or higher than 105 PSIG (724 kPa). A pressure regulator must be furnished by others on supply line if inlet pressure is greater than 105 PSIG (724 kPa).
9. **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.*

**INSTALLATION:**

1. Mount Hanger Bracket to wall horizontally level as shown in Roughing-In and Dimensional Drawing. **NOTE:** Adjust height of Bracket if Bubbler outlet height is required to vary from that shown /indicated. Hanger Bracket **MUST** be securely anchored to wall with fasteners sufficient to support 3 times the weight of Water Cooler.  
**NOTE:** *If wall cannot provide adequate support, order and install optional fixture support carrier.*  
**NOTE:** *If replacing a competitors Water Cooler you may be able to use existing mounting bracket.*
2. Remove the bottom cover from the drinking fountain and set aside in a safe place. Save the screws in a secure location for re-use in later stages of installation.
3. Hang the Drinking Fountain on the Hanger Bracket, ensuring the Bracket Tabs engage AND seat in the slots in the back of the drinking fountain. Verify Drinking Fountain is level, left to right AND front to back from bottom of unit.  
**NOTE:** The Bubbler Stream may be adversely affected if unit is not square and level. Bottom of unit and louvers should be used as reference to verify unit is square and plumb.
4. Anchor Drinking Fountain to wall at other mounting points in base. Shim lower rear mounting points to level unit if necessary.
5. Thoroughly flush the 3/8" O.D. Supply Line and then connect drinking fountain to water supply Angle Stop Valve (by others) with supplied 3/8" O.D. copper tube.
6. Make up 1-1/4" O.D. Waste Connection for P-Trap (by others) .
7. For outdoor installation, see outdoor installation instructions (Page 5)

**START UP:**

1. Before assembling bottom cover to the drinking fountain, but after thoroughly flushing the supply line and connecting it to the fixture, turn on building water supply and check all connections for leak.
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. Depress the pushbutton until steady water stream is achieved.
3. If water flow requires adjustment, insert a slotted narrow blade screwdriver through the hole centered on the pushbutton to the flow regulator. Turning clockwise will increase flow and turning counterclockwise will decrease flow.
4. Recheck all water and drain connections with water flowing through system.
5. Assemble bottom cover to drinking fountain with screws furnished.

**TROUBLE SHOOTING:**

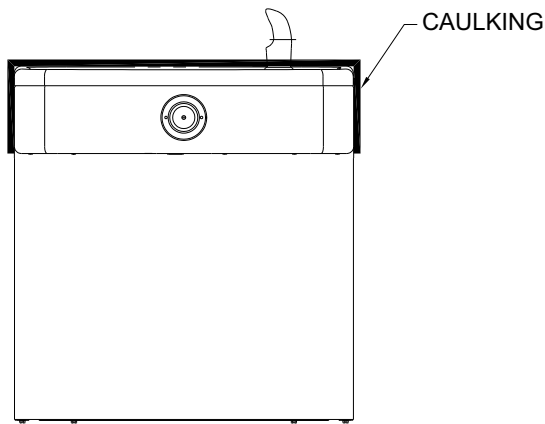
**IMPORTANT: BEFORE MAKING ANY OF THE REPAIRS LISTED, MAKE SURE THE DRINKING FOUNTAIN WATER SUPPLY VALVE IS SHUT OFF.**

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. 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 points, if necessary, to level fountain.
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 bubbler tubing.
  - d. Check the water inlet 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.  
**NOTE: STRAINER SCREEN MUST BE IN PLACE FOR WATER TO FLOW.**
  - 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.

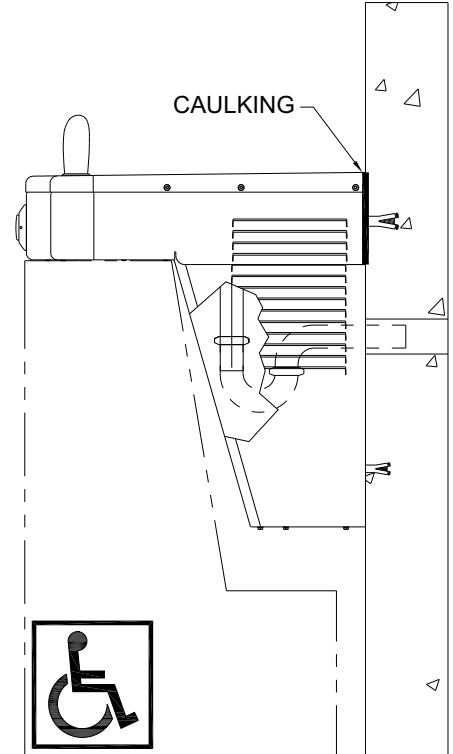
**OUTDOOR INSTALLATION INSTRUCTIONS A171-UG-VR ONLY:**

1. Caulk all around the basin where it contacts the wall and where apron contacts the wall as shown, to prevent rain water from leaking into the cabinet. **DO NOT CAULK THE REMOVABLE ACCESS COVER.**

**NOTE: THIS PROCEDURE NOT APPLICABLE FOR A171-UG OR A171-UG-SO, OR EITHER UNIT WITH -BF11 OR -BF12 BOTTLE FILLERS**

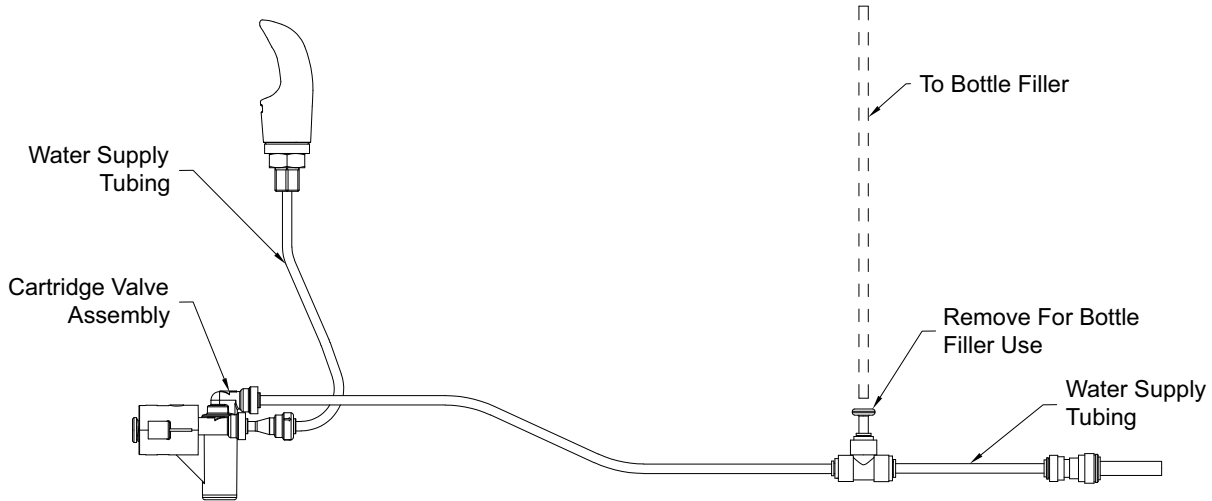


FRONT VIEW

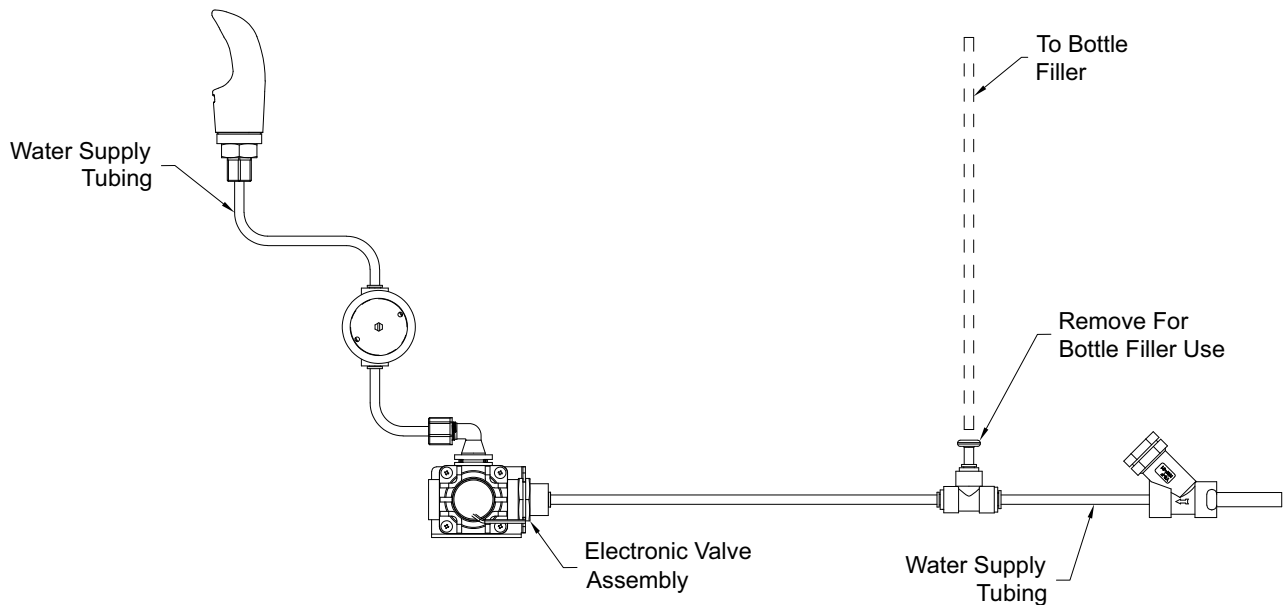


SIDE VIEW

**A171-UG & A171-VR-UG BI-LEVEL UNIT PIPING INSTALLATION (WITH -BF OPTIONS)**



**A171-UG-SO BI-LEVEL UNIT PIPING INSTALLATION**

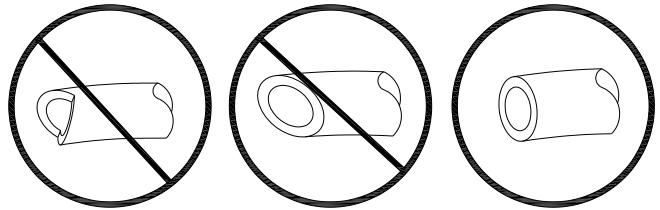


### PUSH-IN FITTING INSTALLATION

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

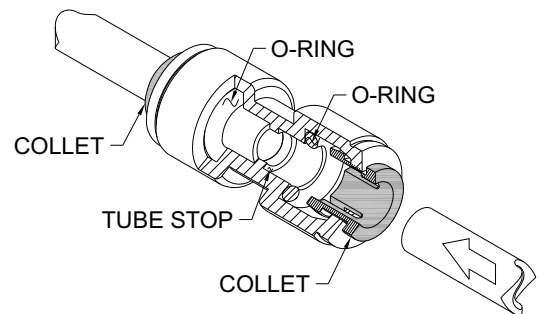
#### **TO CUT TUBE:**

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.

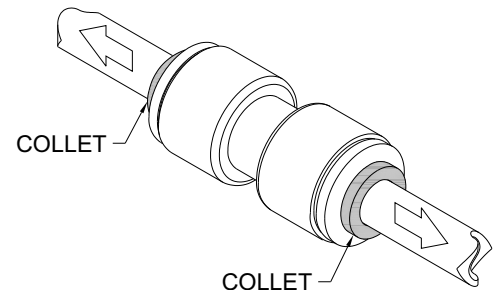


#### **INSERTING THE TUBE:**

1. Firmly and fully insert the tubing end into the push-in fitting up to the tube stop located approximately 1/2" deep.

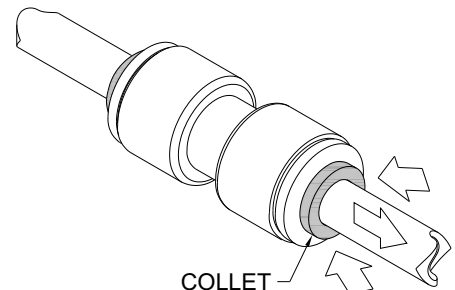


2. Pull on the fitted tubing to ensure it is secure. Tube should not come free from the fitting. Water test the connection assembly prior to leaving the site to ensure there are no leaks.



#### **DISCONNECTING THE TUBE:**

To disconnect 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.



**CLEANING & MAINTENANCE GUIDE:**

1. Periodically remove access panels and clean out in-line strainer.
2. Do NOT use harsh chemicals, abrasive or petroleum based cleaners. Use of these will void the Acorn warranty.
3. Exterior panels can be cleaned using mild household detergents or warm, soapy water. Extra care must be used cleaning chrome plated items and mirror finished stainless steel. They can scratch easily and should only be cleaned using a clean, soft cloth and mild soap with water or a mild glass cleaner.

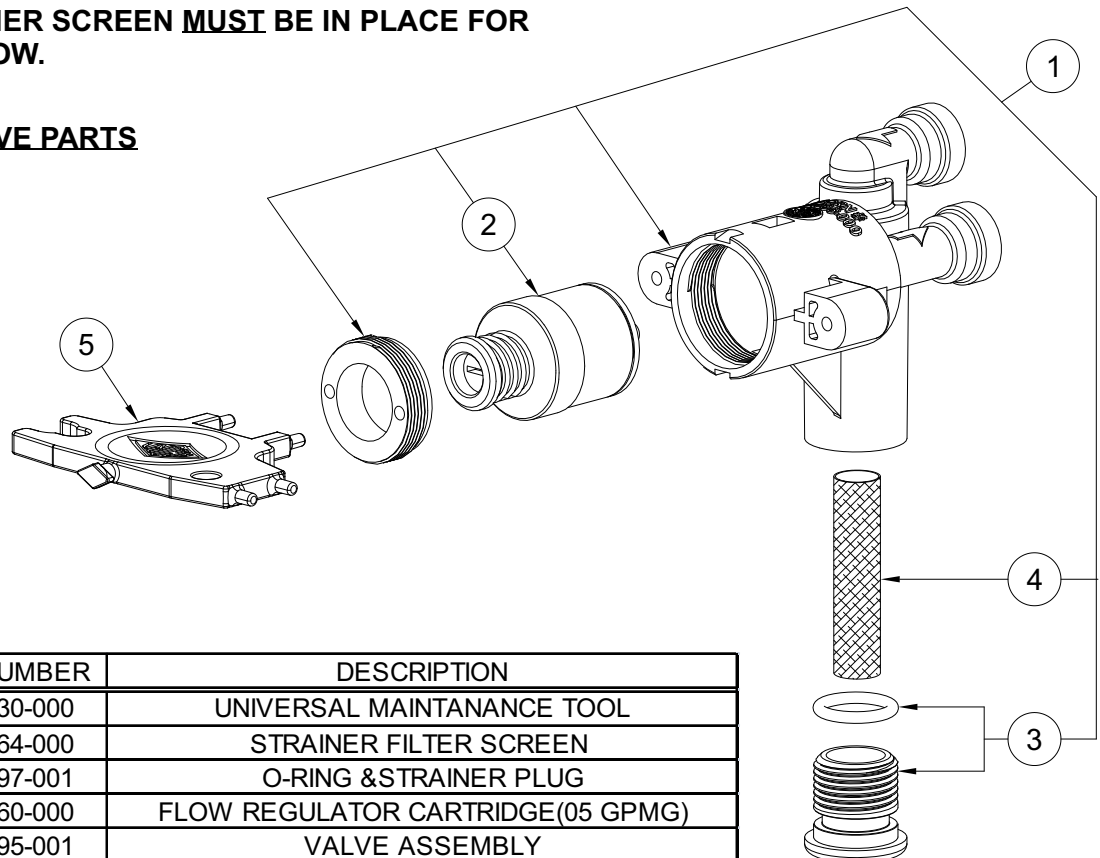
**CARTRIDGE REPLACEMENT/ STRAINER MAINTENANCE**

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 push button, 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**



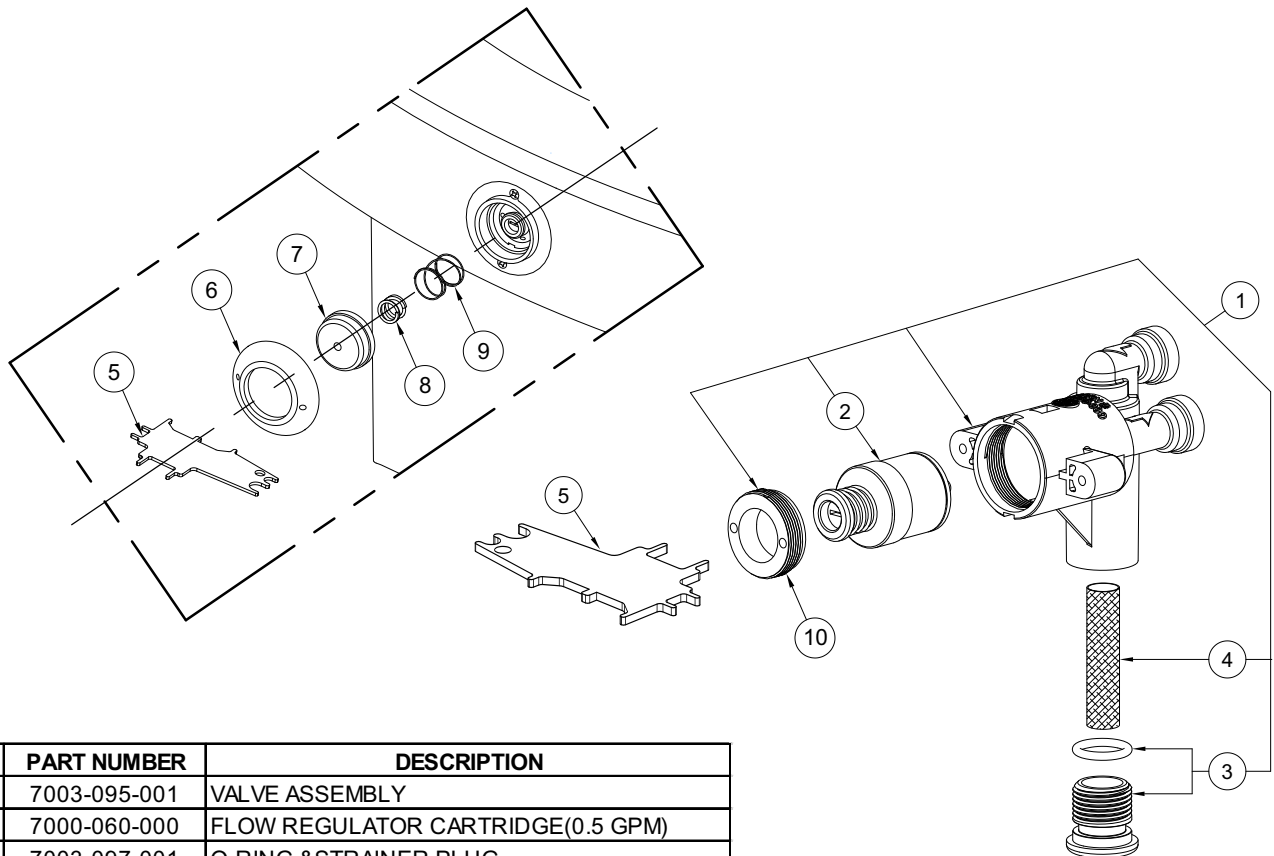
ITEM	PART NUMBER	DESCRIPTION
5	7003-830-000	UNIVERSAL MAINTANANCE TOOL
4	7003-864-000	STRAINER FILTER SCREEN
3	7003-097-001	O-RING &STRAINER PLUG
2	7000-060-000	FLOW REGULATOR CARTRIDGE(05 GPMG)
1	7003-095-001	VALVE ASSEMBLY



**-VR VANDAL RESISTANT CARTRIDGE REPLACEMENT/ STRAINER MAINTENANCE**

Note: Use the **-VR** maintenance tool to perform the following:

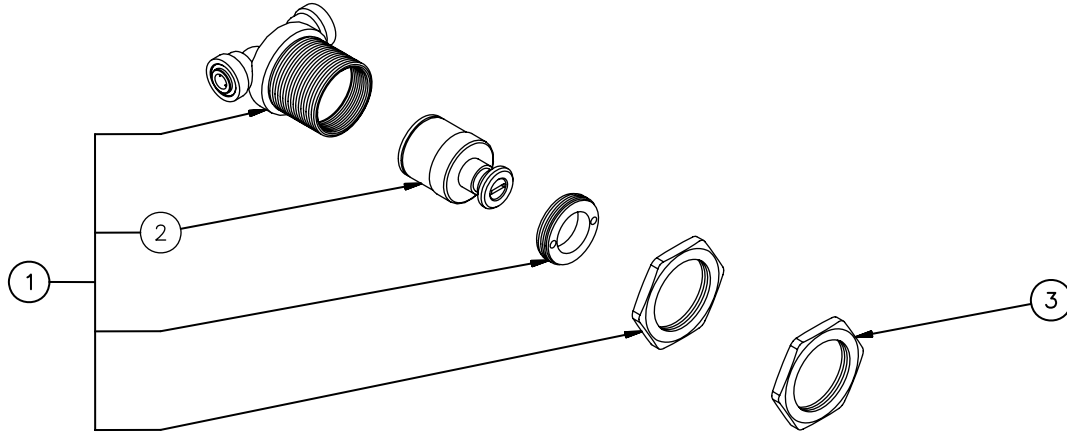
1. Strainer plug (4) **must** be removed before cartridge replacement and strainer maintenance (no need to turn the water off at the angle stop). Some residual water will drain during plug removal.
2. Clean strainer (4) as needed using clean water.
3. Cartridge replacement - Rotate and remove **-VR** pushbutton escutcheon (6) to release pushbutton (7) and springs (8) (9) to access cartridge.
4. Remove cartridge retaining nut (10) . Remove and replace cartridge (2). When replacing cartridge be sure to align the inlet and outlet ports on the cartridge with the ports in the valve body.
5. Install item (10) using maintenance tool (5) (Be careful not to over tighten)
6. Install button assembly items (6) (7) (8) (9) using maintenance tool (5). Insure springs are installed in button correctly.
7. Reinstall strainer (4) and plug (3) using maintenance tool (5).



ITEM	PART NUMBER	DESCRIPTION
1	7003-095-001	VALVE ASSEMBLY
2	7000-060-000	FLOW REGULATOR CARTRIDGE(0.5 GPM)
3	7003-097-001	O-RING & STRAINER PLUG
4	7003-864-000	STRAINER FILTER SCREEN
5	7003-194-199	(-VR) MAINTENANCE TOOL
6	7003-197-199	(-VR) PUSHBUTTON ESCUTCHEON, CHROME
7	7003-196-199	(-VR) PUSHBUTTON, CHROME
8	7003-195-000	(-VR) PUSHBUTTON OVERTRAVEL SPRING
9	7003-193-000	(-VR) PUSHBUTTON RETURN SPRING
10	7000-052-000	RETAINING NUT

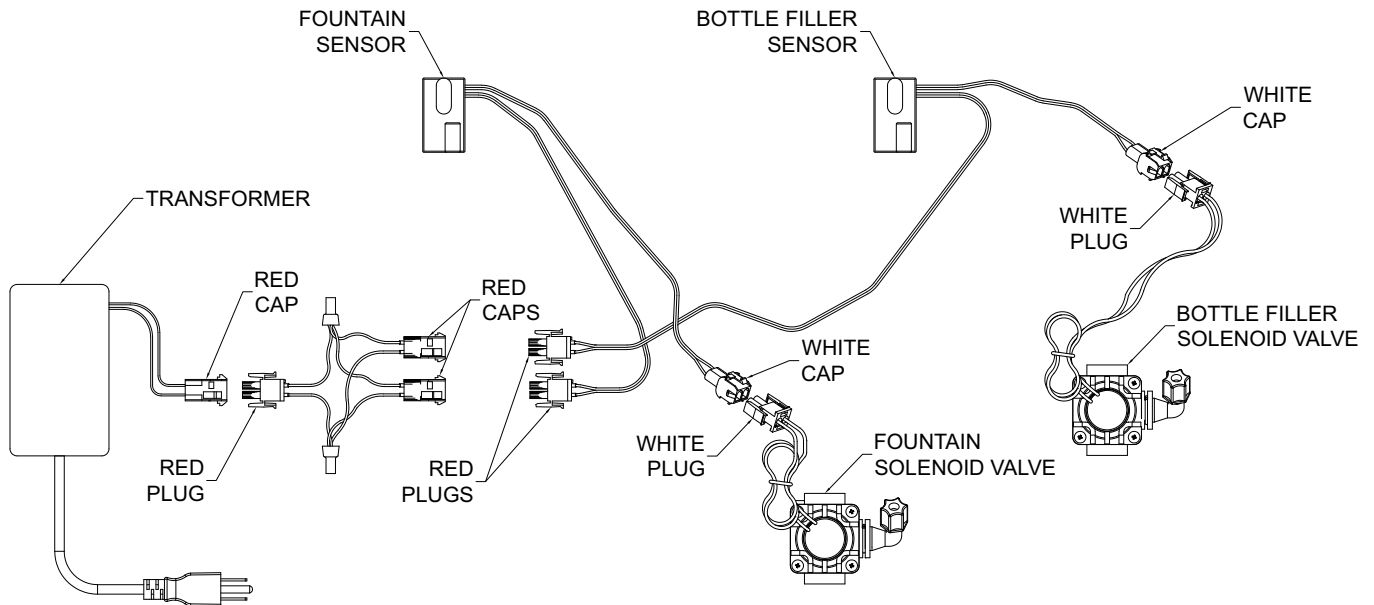
**NOTE: STRAINER FILTER SCREEN  
MUST BE IN PLACE FOR  
WATER TO FLOW.**

**-SO SENSOR OPERATED 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

**-SO SENSOR OPERATED WIRING DIAGRAM WITH -BF12**

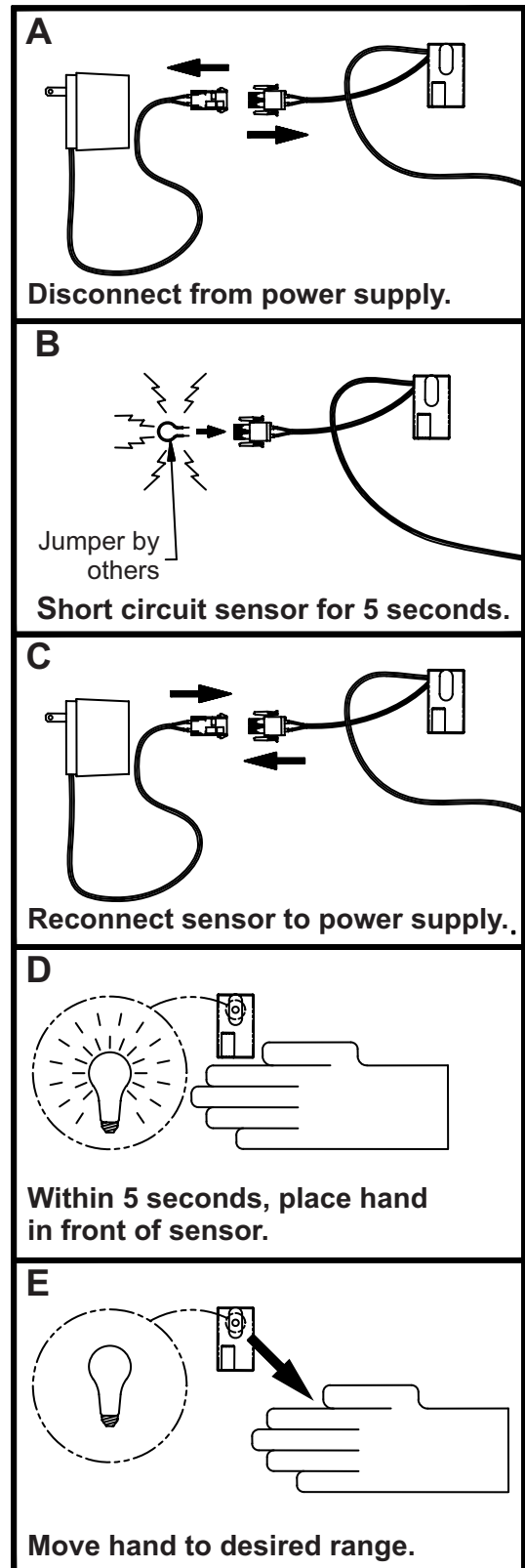


**FOR A171.8-UG-SO ONLY**

**SENSOR RANGE ADJUSTMENT**

- A. Disconnect sensor from power supply.
  
- B. Create a short circuit between the positive and negative connections on the sensor for five seconds. **WARNING: Do NOT create a short circuit on the power supply or while the sensor is connected to the power supply.**
  
- C. Reconnect the sensor to the power supply.
  
- D. Within 5 seconds of making the connection to the power supply, place and hold hand 2" to 4" in front of sensor.
  
- E. Once red light within sensor begins flashing quickly, move hand to preferred activation distance and hold there until light stops flashing.

Check sensor activation distance. If unsatisfactory, repeats steps A through E.

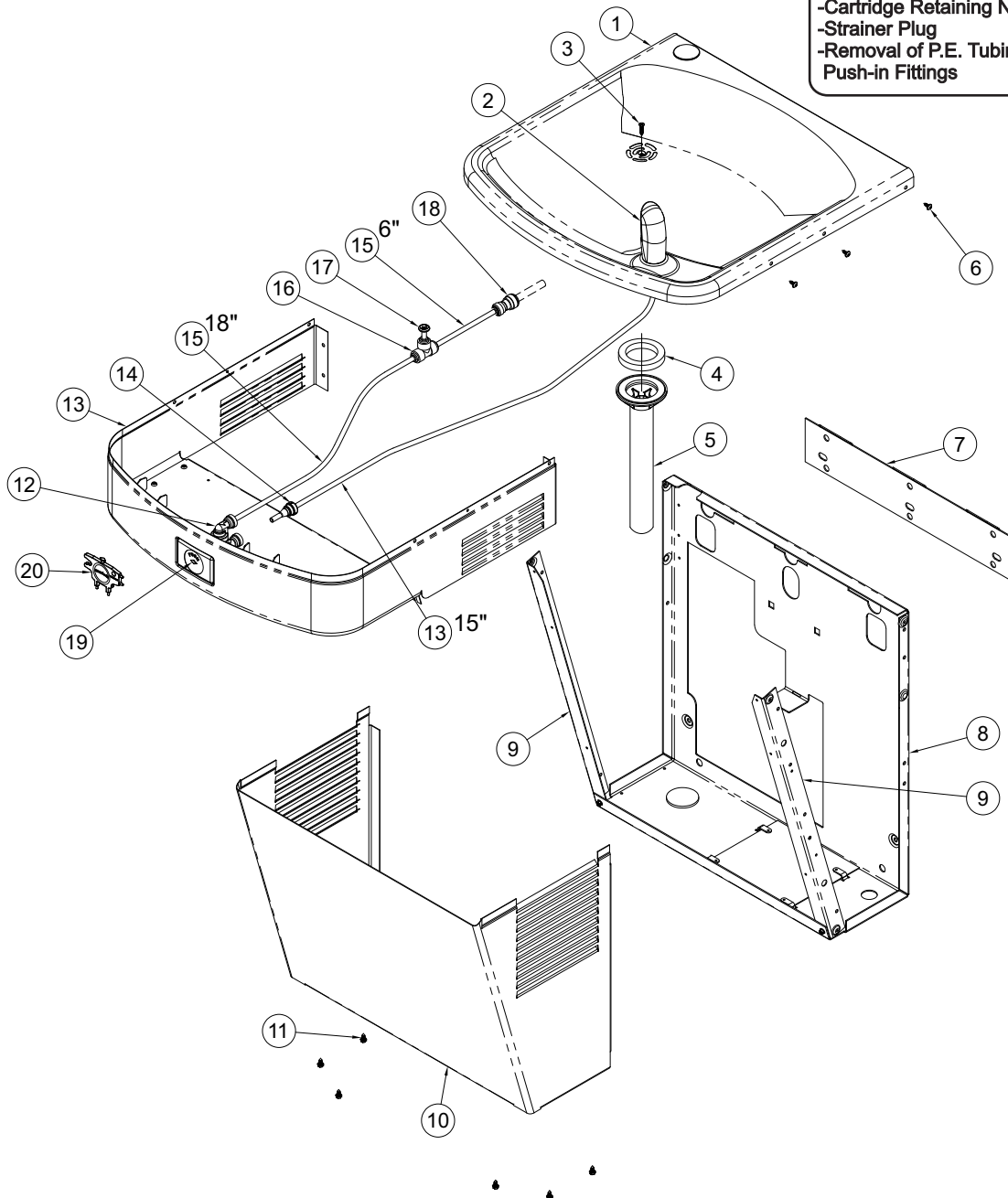
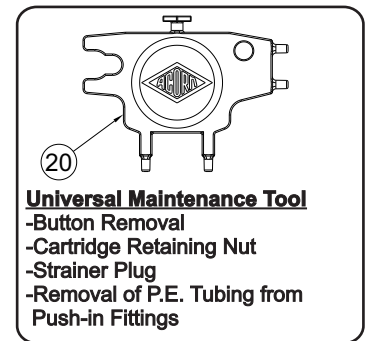


**A171-UG DRINKING FOUNTAIN PARTS BREAKDOWN**

**NOTE:** See page #10 for fixture drawing corresponding to table of parts below.

**NOTE:**

\*\* Flow Restrictor Only Available  
With Low Flow Bubbler.



**NOTE:** See next page for table of part numbers corresponding to drawing above.

**A171-UG DRINKING FOUNTAIN PARTS BREAKDOWN TABLE**

**NOTE:** See previous page (9) for fixture drawing corresponding to table of parts below.

<u>ITEM #</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	7003-161-001	BASIN TOP w/ PLUG
2	7000-099-002	STANDARD FLEXIBLE BUBBLER ASSEMBLY
	7000-012-001	LEAD -FREE STAINLESS STEEL BUBBLER ASSEMBLY
3	0124-008-000	#8 x 3/4" LG FLAT HD SELF TAPPING TORX C/R SCREW
4	7000-006-000	FLAT DRAIN GASKET
5	7003-180-000	DRAIN ADAPTER
6	0250-036-000	#8 x 1/2" LONG TORX ROUND HEAD C/R SCREW
7	7003-950-199	HANGER BRACKET
8	7003-900-199	BACK PANEL
9	7003-007-199	SUPPORT STRUT
13	7003-951-020	COVER - GRAY
	7003-035-299	COVER - STAINLESS STEEL
11	0124-031-000	#8x3/8" LONG SLOTTED HEX WASHER HEAD SCREW
12	7003-095-001	VALVE ASSEMBLY
13	7003-953-020	APRON ASSEMBLY - GRAY
	7003-826-001	APRON ASSEMBLY - STAINLESS STEEL
14	7003-093-001	FLOW RESTRICTOR - LOW-FLOW BUBBLER ONLY
15	2169-000-000	1/*4" O.D. PE TUBING (BLUE)
16	1895-710-000	1/4" x 3/8" O.D. TUBE UNION TEE (PUSH-IN)
17	1895-715-000	1/4" PLUG
18	1895-123-000	1/4" x 3/8" O.D. PUSH-IN SUPPLY INLET CONNECTION
19	7003-099-000	PUSHBUTTON
20	7003-830-000	UNIVERSAL MAINTENANCE TOOL

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.

**A171-UG-VR DRINKING FOUNTAIN PARTS BREAKDOWN**

**NOTE:** See page #12 for fixture drawing corresponding to table of parts below.

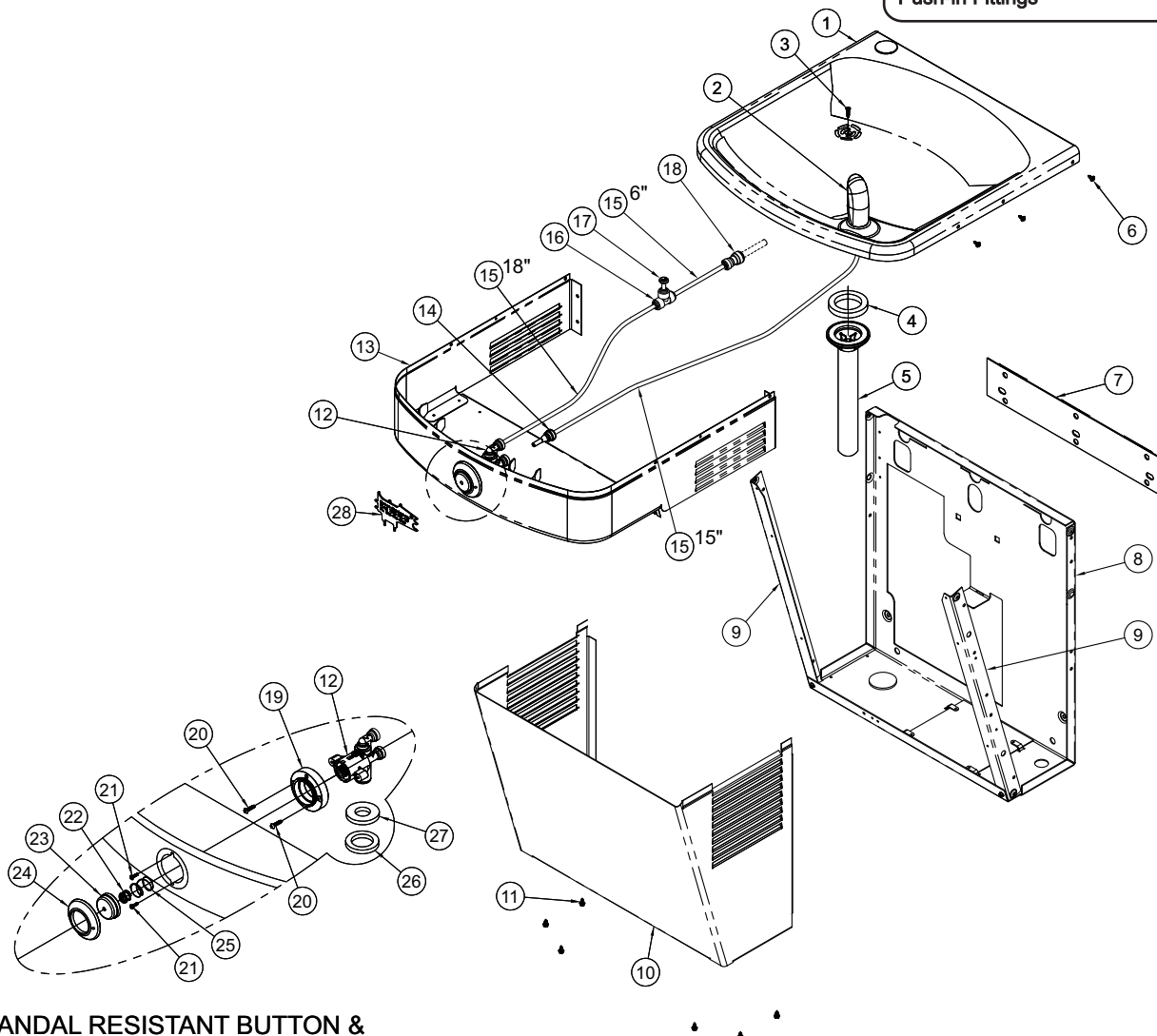
**NOTE:**

\*\* Flow Restrictor Only Available  
With Low Flow Bubbler.



**Universal Maintenance Tool**

- Button Removal
- Cartridge Retaining Nut
- Strainer Plug
- Removal of P.E. Tubing from Push-in Fittings



**VANDAL RESISTANT BUTTON &  
VALVE BREAKDOWN**  
NOT TO SCALE

**NOTE:** See next page for table of part numbers corresponding to drawing above.

**A171-UG-VR DRINKING FOUNTAIN PARTS BREAKDOWN TABLE**

**NOTE:** See previous page (11) for fixture drawing corresponding to table of parts below.

<u>ITEM#</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	7003-161-001	BASIN TOP w/ PLUG
2	7000-099-002	STANDARD FLEXIBLE BUBBLER ASSEMBLY
	7000-012-001	LEAD -FREE STAINLESS STEEL BUBBLER ASSEMBLY
3	0124-008-000	#8 x 3/4" LG FLAT HD SELF TAPPING TORX C/R SCREW
4	7000-006-000	FLAT DRAIN GASKET
5	7003-180-000	DRAIN ADAPTER
6	0124-036-000	#8 x 1/2" LONG TORX ROUND HEAD C/R SCREW
7	7003-950-199	HANGER BRACKET
8	7003-900-199	BACK PANEL
9	7003-007-199	SUPPORT STRUT
13	7003-951-020	COVER - GRAY
	7003-035-299	COVER - STAINLESS STEEL
11	0124-031-000	#8x3/8" LONG SLOTTED HEX WASHER HEAD SCREW
12	7003-095-001	VALVE ASSEMBLY
13	7003-952-020	APRON ASSEMBLY - GRAY
	7003-211-001	APRON ASSEMBLY - STAINLESS STEEL
14	7003-093-001	FLOW RESTRICTOR - LOW-FLOW BUBBLER ONLY
15	2169-000-000	1/4" O.D. PE TUBING (BLUE)
16	1895-710-000	1/4" x 3/8" O.D. TUBE UNION TEE (PUSH-IN)
17	1895-715-000	1/4" PLUG
18	1895-123-000	1/4" x 3/8" O.D. PUSH-IN SUPPLY INLET CONNECTION
19	7003-198-199	(-VR) PUSHBUTTON MOUNTING SLEEVE
20	0124-055-000	#8x3/4" PHILLIPS ROUND HEAD SCREW
21	0161-062-000	#6-32x1/2" S/S PHIL FLAT HEAD SCREW
22	7003-195-000	OVERTRAVEL SPRING
23	7003-196-199	(-VR) CHROME PLATED PUSHBUTTON
24	7003-197-199	(-VR) CHROME PLATED ESCUTCHEON
25	7003-193-000	PUSHBUTTON RETURN SPRING
26	7003-200-000	LOWER GASKET
27	7003-199-000	UPPER GASKET
28	7003-194-199	(-VR) UNIVERSAL MAINTENANCE TOOL

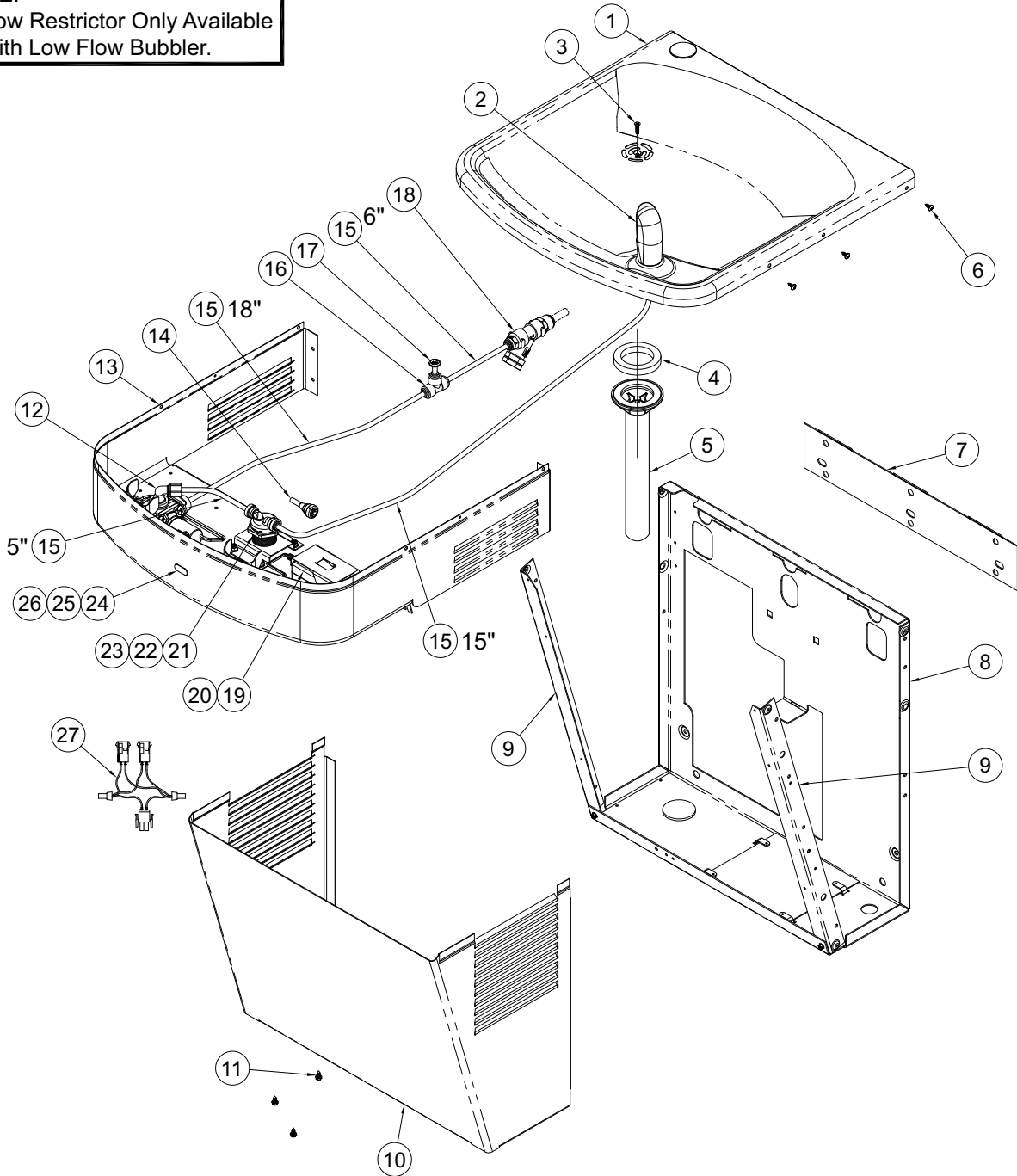
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**A171-UG-SO DRINKING FOUNTAIN PARTS BREAKDOWN**

**NOTE:** See page #14 for fixture drawing corresponding to table of parts below.

**NOTE:**

\*\* Flow Restrictor Only Available  
With Low Flow Bubbler.



**NOTE:** See next page for table of part numbers corresponding to drawing above.



**A171-UG-SO DRINKING FOUNTAIN PARTS BREAKDOWN TABLE**

**NOTE:** See previous page (13) for fixture drawing corresponding to table of parts below.

<u>ITEM#</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	7003-161-001	BASIN TOP w/ PLUG
2	7000-099-002	STANDARD FLEXIBLE BUBBLER ASSEMBLY
	7000-012-001	LEAD -FREE STAINLESS STEEL BUBBLER ASSEMBLY
3	0124-008-000	#8 x 3/4" LG FLAT HD SELF TAPPING TORX C/R SCREW
4	7000-006-000	FLAT DRAIN GASKET
5	7003-180-000	DRAIN ADAPTER
6	0124-036-000	#10 x 3/4" LONG TORX ROUND HEAD C/R SCREW
7	7003-950-199	HANGER BRACKET
8	7003-900-199	BACK PANEL
9	7003-007-199	SUPPORT STRUT
13	7003-951-020	COVER - GRAY
	7003-035-299	COVER - STAINLESS STEEL
11	0124-031-000	#8 x 3/8" LONG SLOTTED HEX WASHER HEAD SCREW
12	7001-200-001	SOLENOID VALVE ASSEMBLY
13	7003-922-020	APRON ASSEMBLY - GRAY
	7003-029-003	APRON ASSEMBLY - STAINLESS STEEL
14	7003-093-001	FLOW RESTRICTOR - LOW-FLOW BUBBLER ONLY
15	2169-000-000	1/4" O.D. PE TUBING (BLUE)
16	1895-710-000	1/4" x 3/8" O.D. TUBE UNION TEE (PUSH-IN)
17	1895-715-000	1/4" PLUG
18	7000-021-002	"Y" STRAINER ASSEMBLY 3/8" O.D. x 1/4" O.D.
19	0711-407-001	240VAC / 9VDC TRANSFORMER
20	7003-028-199	TRANSFORMER BRACKET
21	7000-050-001	VALVE CARTRIDGE ASSEMBLY
22	7000-060-000	FLOW REGULATOR CARTRIDGE (0.5 GPM)
23	7003-023-199	CARTRIDGE MOUNTING BRACKET (SENSOR OP)
24	2562-369-001	SENSOR ASSEMBLY, INFRARED, LATCHING
25	7003-027-199	SENSOR BRACKET
26	7001-200-199	SENSOR SPACER
27	0711-412-001	2 STATION 9VAC WIRING HARNESS

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