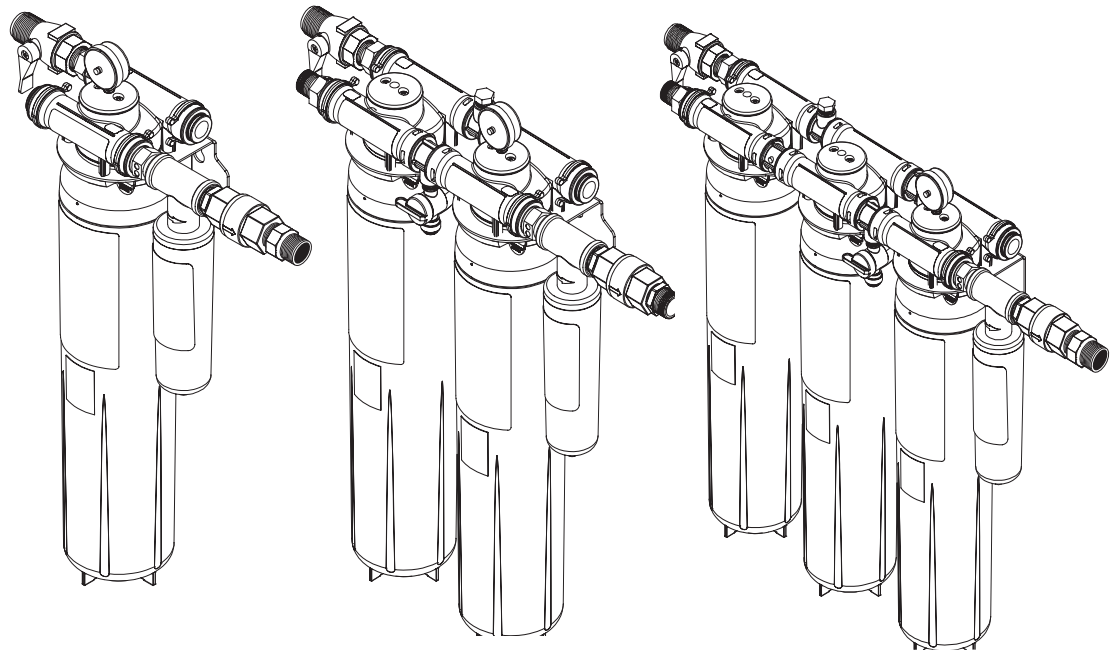


## Dual Port Manifold Water Filtration Systems Instruction Manual



### For DP1XX, DP2XX and DP3XX High Flow Series Water Filtration Systems

Installer: Please leave this manual with owner/operator.

# 3M™ Water Filtration Products

## Table of Contents

Safety Information .....	2
Warning Statements .....	2
Caution/Important Notes .....	3
Dual Port Manifolds and Systems .....	3
Product Dimensions .....	4
Inlet and Outlet Connections .....	5
How to Use “Push-in” Connectors .....	5
How to Use “Inlet/Outlet” Fitting Retention Clips.....	5
Equipment Installation .....	5
Equipment Start-up Procedure .....	6
Cartridge Change-out Procedure .....	7
Troubleshooting .....	7
Parts Listing .....	8
Warranty.....	11

## ***SAFETY INFORMATION***

Read, understand, and follow all safety information contained in these instructions prior to installation. Retain these instructions for future reference.

### **Intended Use:**

The Dual Port Manifolds and Water Filtration Systems are intended for use in filtering potable water in the foodservice industry and have not been evaluated for other uses. These systems are installed at the point of use and must be installed as specified in the installation instructions.

<b>EXPLANATION OF SIGNAL WORD CONSEQUENCES</b>	
<b>⚠ WARNING</b>	Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury and/or property damage.
<b>⚠ CAUTION</b>	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury and/or property damage.
<b>CAUTION</b>	Indicates a potentially hazardous situation, which, if not avoided, may result in property damage.

<b>⚠ WARNING</b>	
<b>To reduce the risk associated with choking:</b>	
<ul style="list-style-type: none"> <li>• <b>Do not</b> allow children under 3 years of age to have access to small parts during the installation of this product.</li> </ul>	
<b>To reduce the risk associated with the ingestion of contaminants:</b>	
<ul style="list-style-type: none"> <li>• <b>Do not</b> use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.</li> </ul>	
<b>To reduce the risk associated with hazardous voltage due to an installer drilling through existing electric wiring or water pipes in the area of installation:</b>	
<ul style="list-style-type: none"> <li>• <b>Do not</b> install near electric wiring or piping which may be in path of a drilling tool when selecting the position to mount the filter bracket.</li> </ul>	
<b>To reduce the risk of physical injury:</b>	
<ul style="list-style-type: none"> <li>• Depressurize system as shown in manual prior to cartridge removal.</li> </ul>	
<b>To reduce the risk associated with back strain:</b>	
<ul style="list-style-type: none"> <li>• Follow safe lifting procedures.</li> </ul>	

## CAUTION

### To reduce the risk associated with property damage due to water leakage:

- **Read and follow** Use Instructions before installation and use of this system.
- Installation and Use **MUST** comply with all state and local plumbing codes.
- **Protect from freezing**, remove filter cartridge when temperatures are expected to drop below 40°F (4.4°C);
- **Do not install** on hot water supply lines. The maximum operating water temperature of this filter system is 100°F (37.8°C).
- **Do not install** if water pressure exceeds 125 psi (862 kPa). If your water pressure exceeds 80 psi (552 kPa), you must install a pressure limiting valve. Contact a plumbing professional if you are uncertain how to check your water pressure.
- **Do not install** where water hammer conditions may occur. If water hammer conditions exist, you must install a water hammer arrester. Contact a plumbing professional if you are uncertain how to check for this condition.
- **Do not** use a torch or other high temperature sources near filter system, cartridges, plastic fittings or plastic plumbing.
- On plastic fittings, never use pipe sealant or pipe dope. Use PTFE thread tape **only**, pipe dope properties may deteriorate plastic.
- Take care when using pliers or pipe wrenches to tighten plastic fittings, as damage may occur if overtightening occurs.
- **Do not** install in direct sunlight or outdoors.
- **Do not** install near water pipes which will be in path of a drilling tool when selecting the position to mount the bracket.
- Mount filter in such a position as to prevent it from being struck by other items used in the area of installation.
- Ensure that the location and fasteners will support the weight of the system when installed.
- Ensure all tubing and fittings are secure and free of leaks.
- The disposable filter cartridge **MUST** be replaced every 12 months or at the rated capacity or if a noticeable reduction in flow rate occurs.
- Any non-metallic fittings used in the installations must be of adequate rating for the line pressure.

## IMPORTANT NOTES

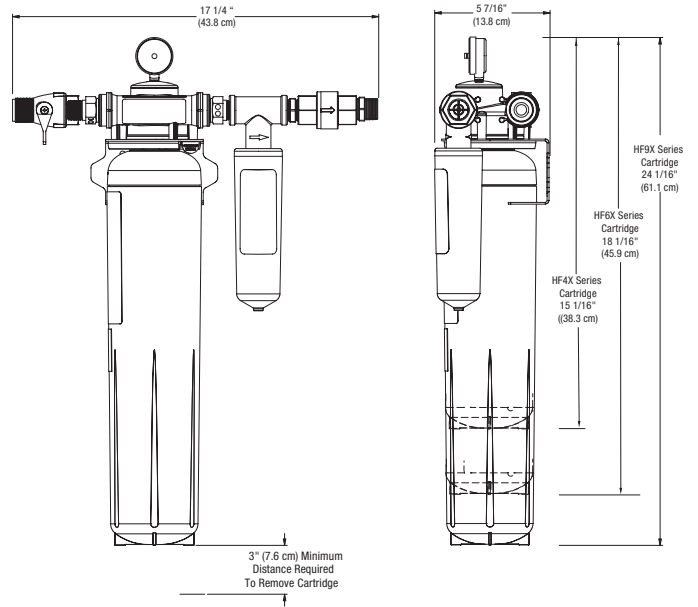
- Failure to follow instructions may void warranty.
- Allow a minimum of 3" (7.6 cm) clear space under filter to facilitate cartridge change.
- Install with the inlet and outlet ports as labeled. Make sure not to reverse connections.
- Some local codes may require the use of a licensed plumber or certified installer when disrupting a potable water line.

### DP Manifolds and Systems

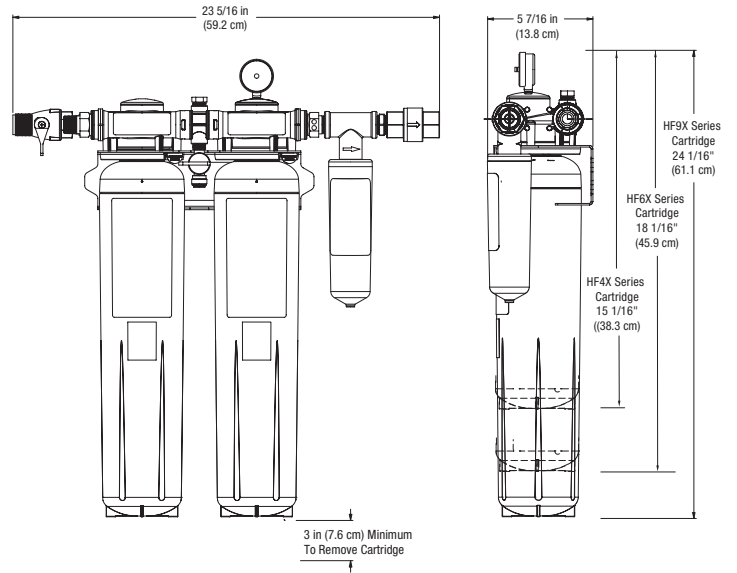
The DP High Flow Series Water Filtration Systems help provide consistent high quality water for multiple applications of cold beverages, ice, and coffee. The inlet water enters the manifolds on the left rear side and flows through 1, 2, or 3 cartridge filters in parallel (depending upon which manifold is installed). Two separate streams exit the manifold. One stream (on the right front side) has scale-inhibition media added from a dedicated cartridge to reduce the ability of calcium and magnesium to precipitate as hard scale in ice machines and coffee brewers. The other stream exits on the left side front. It supplies cold beverage dispensers and includes no scale inhibitor. The capacity of the system is equal to the total combined flow rate and capacity ratings for the number of

**Product Dimensions**

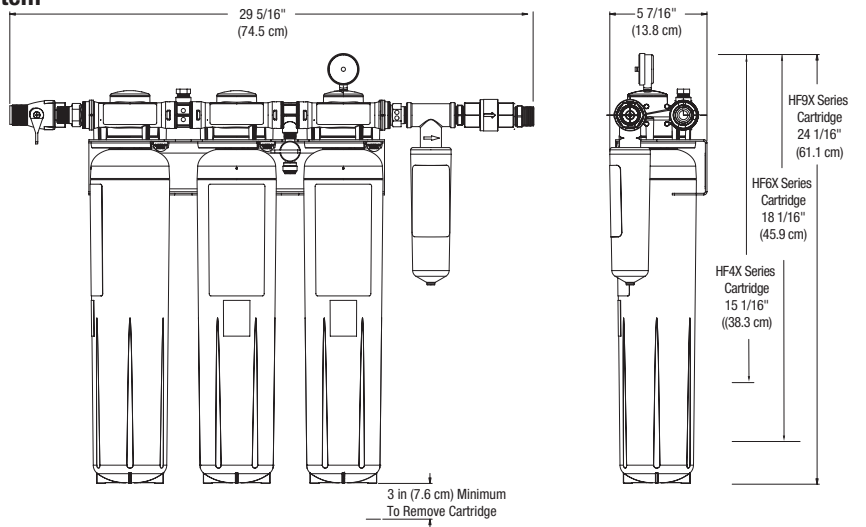
**DP1XX Water Filtration System**



**DP2XX Water Filtration System**



**DP3XX Water Filtration System**



## Inlet and Outlet Connections

The water inlet is on the left side rear and the outlets are on both sides and are identified with labels. The fitting size is 3/4" NPT (Male). Built-in check valves (non-return) are incorporated into both outlets.

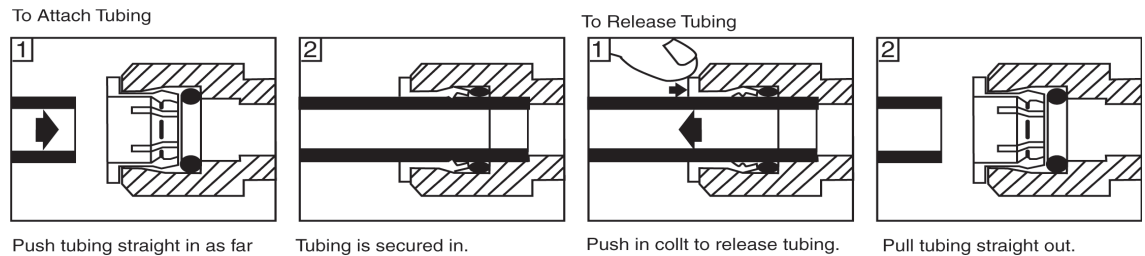
## How to Use "Push-in" Connectors

### CAUTION

#### To reduce the risk associated with property damage due to water leakage:

- Do not install unit if collet is missing. Contact your Sales Representative if collets are missing

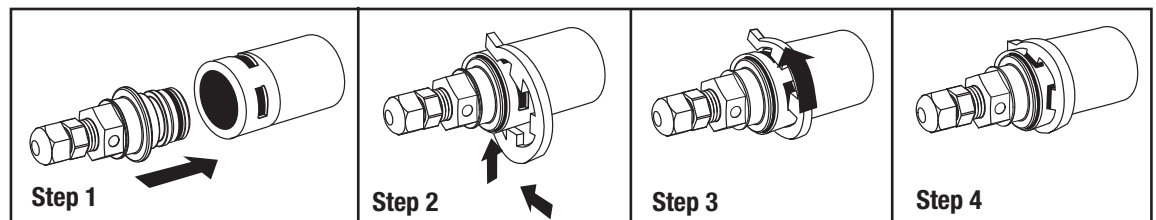
Some manifolds are outfitted with a user friendly 'Push In' connector at the vent valve. Proper use of the connectors is shown in the figure below. It is most important that the tubing selected for use with these connectors be of high quality, exact size and roundness, and with no surface nicks or scratches. If it is necessary to cut the tubing, use a plastic tubing cutter or sharp razor knife. Make a clean square cut. Should a leak occur at a "Push-In" connector, the cause is usually defective tubing.



## How to Use the Inlet/Outlet Fitting Retention Clips

This product is outfitted with inlet/outlet fittings. The fittings can be attached or removed from the system without tools. Retention clips are semi-circular in shape with three internal tabs, bottom, center and top. Tab interlaces with windows in the manifold head near each connection port. clip is flexible and easily assembled following these instruction and illustrations.

1. Insert fitting into manifold.
2. With fitting inserted into manifold port, snap clip into place beginning at the bottom window
3. Push center tab into center window.
4. Finally push top tab into top window.



## Equipment Installation

### CAUTION

#### To reduce the risk associated with property damage due to water leakage:

- Do not use a torch or other high temperature sources near filter system, cartridges, plastic fittings or plastic plumbing.
- On plastic fittings, never use pipe sealant or pipe dope. Use PTFE thread tape only, pipe dope properties may deteriorate plastic.
- Take care when using pliers or pipe wrenches to tighten plastic fittings, as damage may occur if overtightening occurs.
- Do not install near water pipes which will be in path of a drilling tool when selecting the position to mount the system.
- Mount filter in such a position as to prevent it from being struck by other items used in the area of installation.
- Ensure that the location and fasteners will support the weight of the system when installed.
- Ensure all tubing and fittings are secure and free of leaks.

### IMPORTANT NOTES

- Failure to follow instructions may void warranty.
- Allow a minimum of 3 in. (7.6 cm) clear space under filter to facilitate cartridge change.
- Install with the inlet and outlet ports as labeled. Make sure not to reverse connections.
- Some local codes may require the use of a licensed plumber or certified installer when disrupting a potable water line.

### CAUTION

#### To reduce the risk associated with property damage due to water leakage:

- Any non-metallic fittings used in the installations must be of adequate rating for the line pressure.

Manifolds may be used with metal or non-metallic piping systems.

1. Shut off incoming cold water supply.
2. Select the installation location.

**IMPORTANT NOTE:** Allow a minimum of 3 in (7.6 cm) of space below the cartridges for change-outs.

3. Select fasteners (not included) and tools appropriate for the installation location (wall, support structure mounted to wall studs, concrete, etc.)

### CAUTION

#### To reduce the risk associated with property damage due to water leakage:

- Ensure that the location and fasteners will support the weight of the system when installed and full of water.

4. Mount the manifold/filter system to a wall using the mounting holes provided on the back plate of the metal bracket.
  - It is recommended to first draw a level line on the mounting surface at the height of the fasteners.
  - Mark the location of the fasteners using the bracket as a template or by measuring the distance between the mounting holes.
  - Install the fasteners and allow 1/4" - 3/8" (6-10 mm) of each fastener to protrude from the surface.
  - Install the manifold onto the fasteners.
  - Tighten the fasteners.
5. Install inlet (left rear) and outlet fittings (right front to ice/coffee and left front to beverage) to the manifold. All connections terminate with a 3/4" NPT (male) fitting. The inlet kit includes a fitting and a ball valve. The left front outlet is a fitting only. The kit for the right side outlet to ice includes the fitting, a stainless-steel filter head, (2) nipples and a check valve. The instructions for the installation clips are on page 5 (PTFE tape is not included).  
**IMPORTANT NOTES:** Be sure install the stainless steel fitting head with the flow arrow.
6. Remove the sanitary caps from the water filter cartridges, and apply a light coat of water or food-grade lubricant to the o-rings on each of the cartridges.
7. Align the tabs of the cartridge with the slots in the retaining plate and insert the cartridge into the manifold. Be certain to place the correct cartridges into the correct location.
8. Turn the cartridge to the right until a clicking sound is heard. Repeat for the remaining cartridges; the clicking sound indicates the cartridge is properly engaged.
9. Install the smaller scale inhibitor cartridge by engaging the threads in the stainless steel tee and rotating to the right (clockwise) until snug, regardless of final label orientation.

### Equipment Start-up Procedure

1. Turn on incoming water to system.
2. Pressurize system by rotating the inlet ball valve handle on the manifold to the right (counterclockwise) to the "ON" position.
3. Check for leaks.
4. Flush system in accordance with performance data sheet supplied with the water filtration cartridges.

## Cartridge Change-out Procedure

### CAUTION

**To reduce the risk associated with property damage due to water leakage:**

- **Read and follow** Use Instructions before installation and use of this system.
- The disposable filter cartridge **MUST** be replaced every 12 months or at the rated capacity or if a noticeable reduction in flow rate occurs.

The water filter cartridges will need to be changed every 6-12 months or when low pressure is indicated on the manifold's pressure gauge, whichever occurs first. Depending on local water quality, you may need to change the cartridges prior to the recommended change-out. The loss of flow to carbonators or improper fill at the ice maker are also indicators that the cartridges will need to be replaced.

1. Shut off the inlet water by rotating inlet ball valve 1/4 turn to the left (clockwise) on manifold to the "OFF" position.
2. Depressurize system. Use plastic tubing and vent valve for DP2XX and DP3XX manifolds. There is no vent valve on DP1XX manifold.
4. Push tab to release cartridge locking mechanism while simultaneously rotating cartridge slightly to the left.

### WARNING

**To reduce the risk associated with back strain:**

- Follow safe lifting procedures.

5. Using both hands and holding cartridge from the bottom, rotate the cartridge a quarter turn to the left and gently pull down.

**IMPORTANT NOTE:** A small amount of water will drain from manifold as cartridge is removed.

6. Remove sanitary cap from new cartridge. Install water filter cartridge with a quarter turn to the right until cartridge comes to a complete stop. Repeat for remaining filter cartridges.
7. Slowly turn the inlet water ball valve on the manifold to the left (counterclockwise) to the LON position, and check for leaks.
8. Flush system in accordance with performance data sheet supplied with the water filtration cartridges.

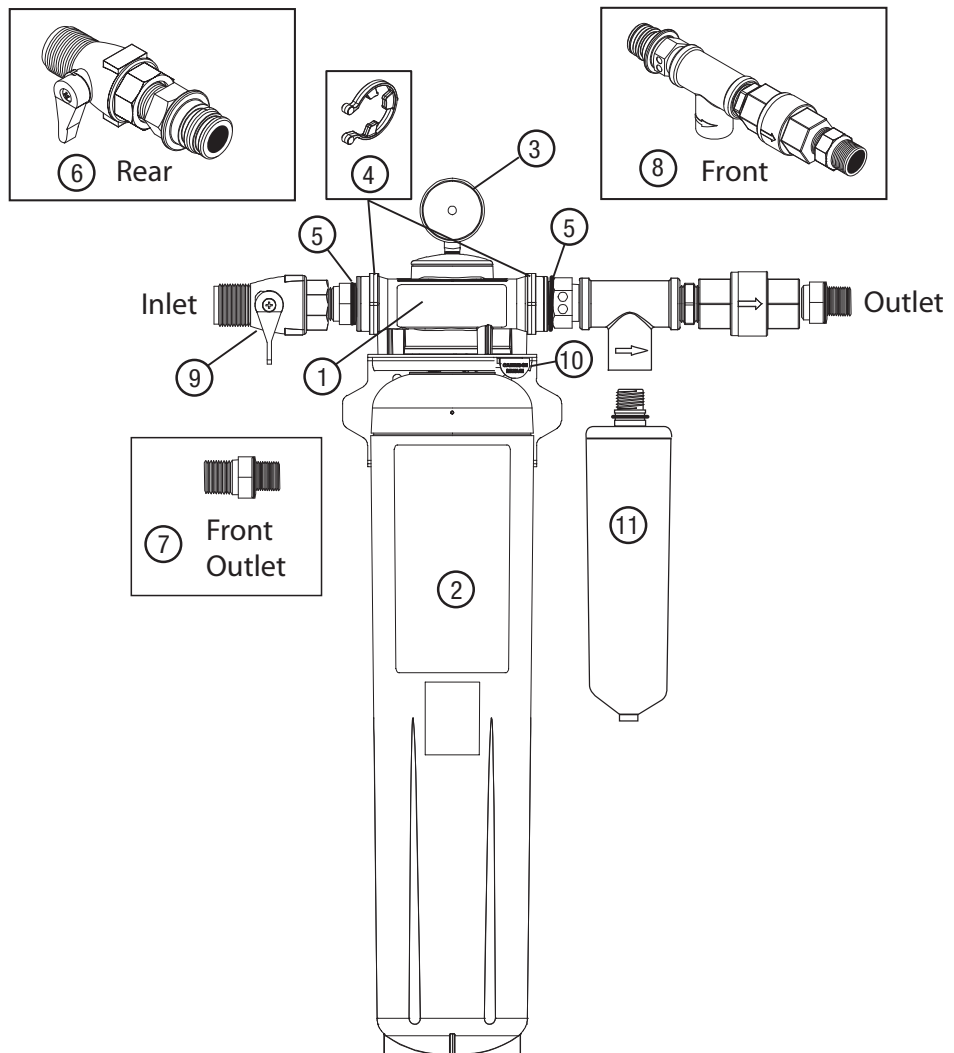
## Troubleshooting

No water flow through system	Inlet valve closed	Check shut-off valve position
	Filters clogged	Replace filter cartridge(s)
Not enough water to downstream application	Low incoming water pressure	Check source
	Filters clogged	Replace filter cartridge(s)
Short filter life	Temporarily dirty water	Change cartridges or install an additional upstream pre-filter

## DP1XX Replacement Parts Listing

Item	Part no.	Description	Qty*	Function
1	6228603	DP1XX Single Manifold	1	Assembly, complete
2	See catalog	Replacement Cartridge	1	Water filtration
3	8500549	Pressure gauge	1	Monitor outlet water pressure
4	85-8528	Clip	1	Retain inlet/outlet fittings
5	63597320	o-ring	1	Seal inlet/outlet fittings
6	6225005	Inlet fitting kit –left rear	1	Inlet fitting with ball valve
7	6225006	Outlet fitting kit – left front	1	Beverage outlet fitting
8	6225007	Outlet fitting kit – right front	1	Ice/Coffee outlet fitting
9	60-235380	¾" MNTP x ¾" FMPT ball valve	1	Inlet water shut-off
10	Inquire	Retainer kit	1	Secure cartridges
11	5582106	HF8-S Replacement Cartridge	1	Scale inhibitor

\*Per part number, not per system or assembly.

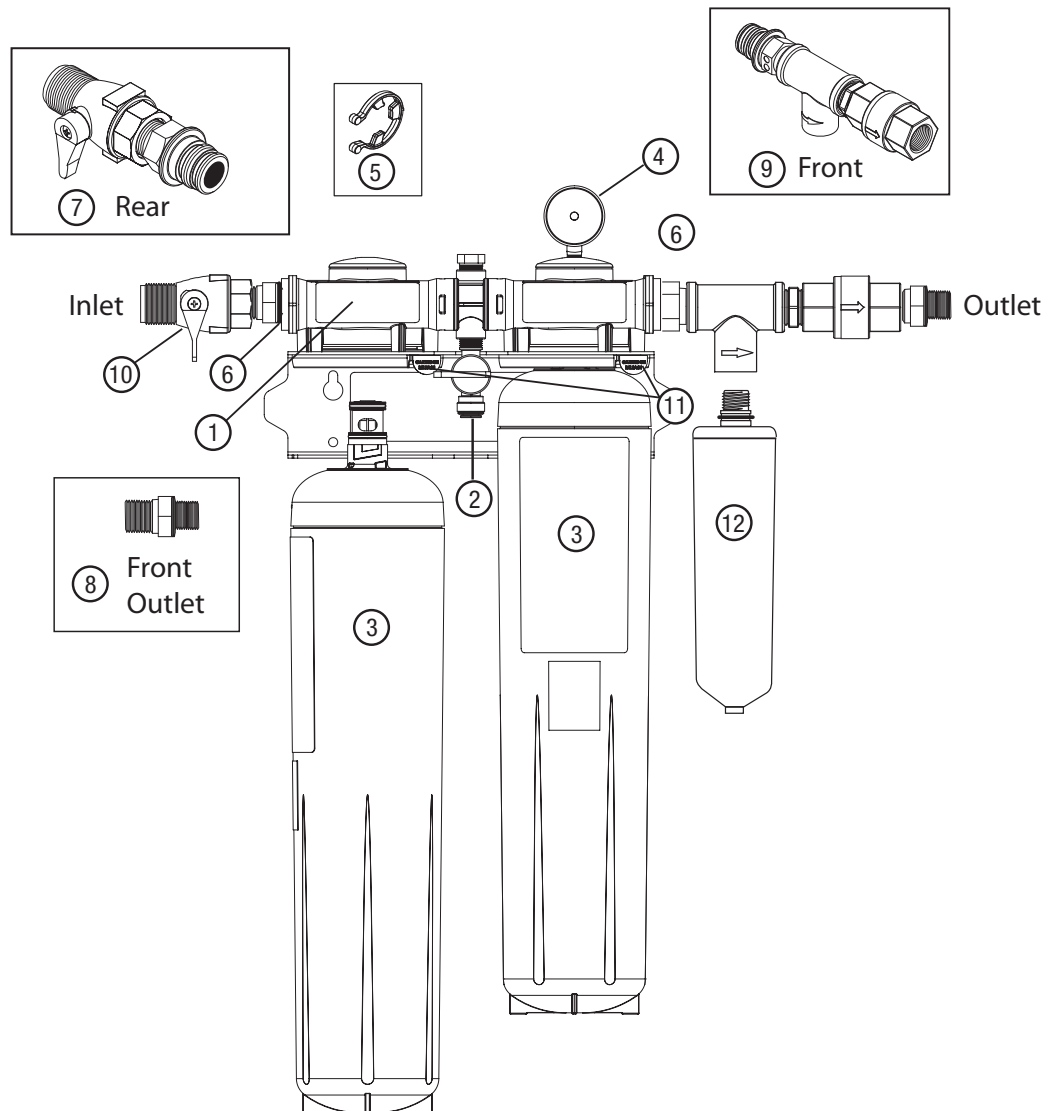




## DP2XX Replacement Parts Listing

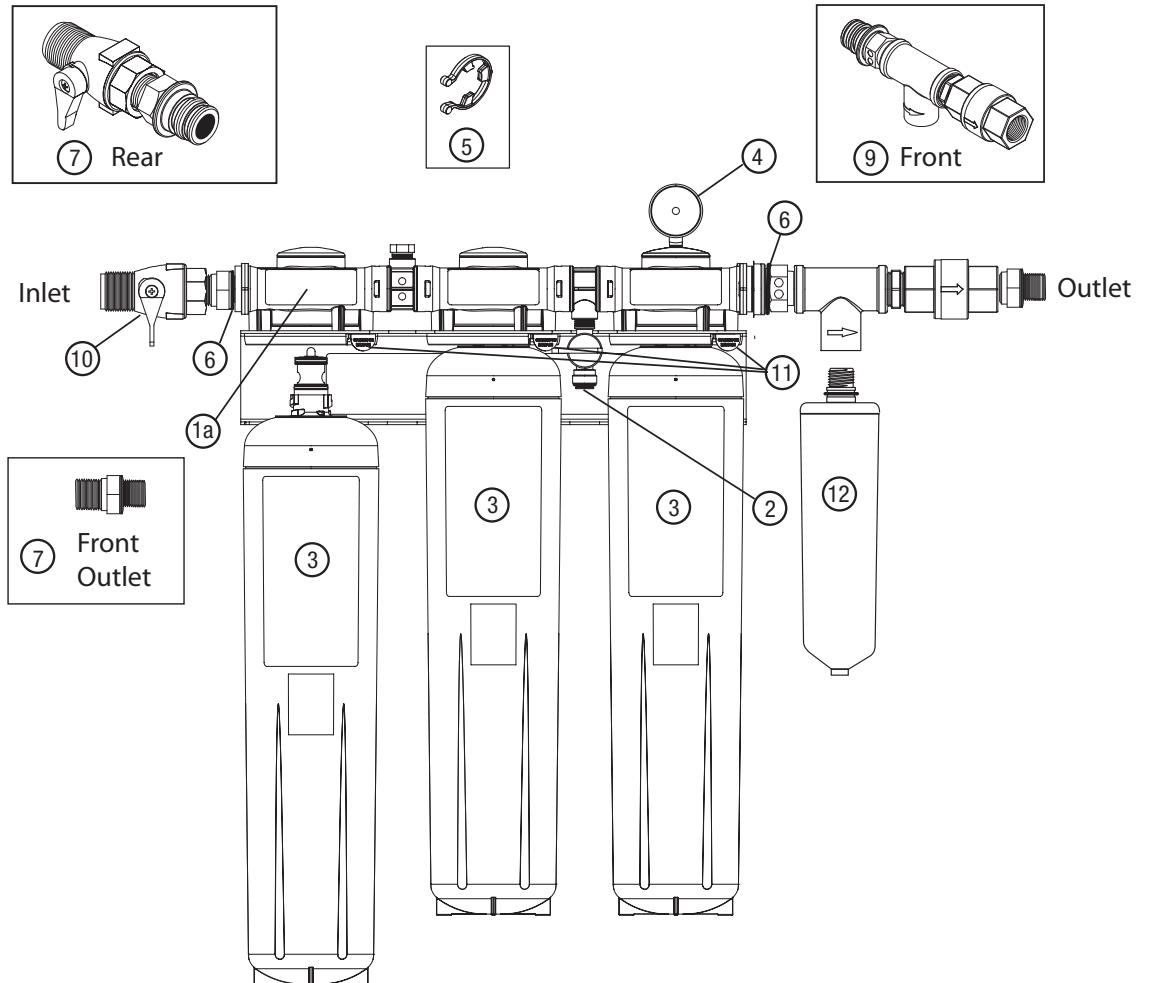
Item	Part no.	Description	Qty*	Function
1	6228503	DP2XX Twin Manifold	1	Assembly, complete
2	60-2333700	Vent Valve	1	Release trapped air
3	See catalog	Replacement Cartridges	1	Water filtration
4	8500549	Pressure gauge	1	Monitor outlet water pressure
5	85-8528	Clip	1	Retain inlet/outlet fittings
6	63597320	o-ring	1	Seal inlet/outlet fittings
7	6225005	Inlet fitting kit –left rear	1	Inlet fitting with ball valve
8	6225006	Outlet fitting kit –left front	1	Beverage outlet fitting
9	6225007	Outlet fitting kit – right front	1	Ice/Coffee outlet fitting
10	60-235380	¾" MNTF x ¾" FMPT ball valve	1	Inlet water shut-off
11	Inquire	Retainer kit	1	Secure cartridges
12	5582106	HF8-S Replacement Cartridge	1	Scale inhibitor

\*Per part number, not per system or assembly.



Item	Part no.	Description	Qty*	Function
1	6228403	DP3XX Triple Manifold	1	Assembly, complete
2	60-2333700	Vent Valve	1	Release trapped air
3	See catalog	Replacement Cartridges	1	Water filtration
4	8500549	Pressure gauge	1	Monitor outlet water pressure
5	85-8528	Clip	1	Retain inlet/outlet fittings
6	63597320	o-ring	1	Seal inlet/outlet fittings
7	6225005	Inlet fitting kit –left rear	1	Inlet fitting with ball valve
8	6225006	Outlet fitting kit – left front	1	Beverage outlet fitting
9	6225007	Outlet fitting kit – right front	1	Ice/Coffee outlet fitting
10	60-235380	$\frac{3}{4}$ " x $\frac{3}{4}$ " ball valve	1	Inlet water shut-off
11	Inquire	Retainer kit	1	Secure cartridges;
12	5582106	HF8-S Replacement Cartridge	1	Scale inhibitor

\*Per part number, not per system or assembly.



**Limited Warranty**

Seller warrants its equipment against defects in workmanship and material for a period of 12 months from date of shipment from the factory under normal use and service and otherwise when such equipment is used in accordance with instructions furnished by Seller and for purposes disclosed in writing at the time of purchase, if any. Any unauthorized alteration or modification of the equipment by Buyer will void this warranty. Seller's liability under this warranty shall be limited to the replacement or repair, F.O.B. point of manufacture, of any defective equipment or part which, having been returned to the factory, transportation charges prepaid, has been inspected and determined by the Seller to be defective. THIS WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EITHER EXPRESSED OR IMPLIED, AS TO DESCRIPTION, QUALITY, MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE OR USE, OR ANY OTHER MATTER. Under no circumstances shall Seller be liable to Buyer or any third party for any loss of profits or other direct or indirect costs, expenses, losses or consequential damages arising out of or as a result of any defects in or failure of its products or any part or parts thereof or arising out of or as a result of parts or components incorporated in Seller's equipment but not supplied

