Dual/Triple Manifold Water Filtration Systems Instruction Manual

High Flow Series Water Filtration Systems

Installer: Please leave this manual with owner/operator.
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 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.

EXPLANATION OF SIGNAL WORD CONSEQUENCES

<table>
<thead>
<tr>
<th>SIGNAL</th>
<th>CONSEQUENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>WARNING</td>
<td>Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury and/or property damage.</td>
</tr>
<tr>
<td>CAUTION</td>
<td>Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury and/or property damage.</td>
</tr>
<tr>
<td>CAUTION</td>
<td>Indicates a potentially hazardous situation, which, if not avoided, may result in property damage.</td>
</tr>
</tbody>
</table>

**WARNING**

To reduce the risk associated with choking:
- Do not allow children under 3 years of age to have access to small parts during the installation of this product.

To reduce the risk associated with the ingestion of contaminants:
- Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Systems certified for cyst reduction may be used on disinfected water that may contain filterable cysts. EPA Establishment #10350-MN-007 and/or #070595-CT-001.

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:
- Do not install near electric wiring or piping which may be in path of a drilling tool when selecting the position to mount the filter bracket.

To reduce the risk of physical injury:
- Depressurize system as shown in manual prior to cartridge removal.

To reduce the risk associated with back strain:
- Follow safe lifting procedures.
### 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, at the rated capacity or sooner if a noticeable reduction in flow rate occurs.

### IMPORTANT NOTES

- Failure to follow instructions will 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.

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**Inlet and Outlet Connections**

The water inlet is on the left side rear and the outlet is on the right side front and are identified with labels. The fitting size is ¾” NPT (Male). A built-in check valve (non-return) is incorporated into the outlet.
Dual Manifold Filtration System
Product Dimensions

HF9X Series Cartridge
24 1/16" (63.66 cm)

HF6X Series Cartridge
18 1/16" (45.9 cm)

HF4X Series Cartridge
15 1/16" (38.3 cm)

To Remove Cartridge
3 in (7.62 cm) Minimum

Triple Manifold Filtration System
Product Dimensions

HF9X Series Cartridge
24 1/16" (63.66 cm)

HF6X Series Cartridge
18 1/16" (45.9 cm)

HF4X Series Cartridge
15 1/16" (38.3 cm)

To Remove Cartridge
3 in (7.62 cm) Minimum
**How to Use “Push-in” Connectors**

This product is 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 a problem with tubing.

**To Fix:**

1. Relieve pressure
2. Release tubing
3. Cut off at least 1/4" from end
4. Reattach tubing
5. Confirm connection is leak free

**How to Use the Inlet/Outlet Fitting and 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 interfaces 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**

<table>
<thead>
<tr>
<th>CAUTION</th>
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<tbody>
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<td>• Do not install near water pipes which will be in path of a drilling tool when selecting the position to mount the system</td>
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<td>• Mount filter in such a position as to prevent it from being struck by other items used in the area of installation.</td>
</tr>
<tr>
<td>• Ensure that the location and fasteners will support the weight of the system when installed.</td>
</tr>
<tr>
<td>• Ensure all tubing and fittings are secure and free of leaks.</td>
</tr>
</tbody>
</table>
Both manifolds may be used with metal or non-metallic piping systems.

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

1. Shut off incoming cold water supply.
2. Select the installation location.
   
   **WARNING:** 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 when full of water.

4. Mount the manifold/filter system to a wall or 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 \( \frac{1}{8} \)-\( \frac{1}{6} \) in (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 (right front) fittings to the manifold. The inlet kit includes the fitting, a ball valve and a \( \frac{3}{4} \) in nipple. The outlet is a fitting only. The instructions for the retention clips are on page 4.
6. Remove the sanitary caps from the cartridges, and apply a light coat of water or food-grade lubricant to the o-rings on each of the cartridges.
7. One at a time, 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 locations.
8. Turn the cartridge to the right until a clicking sound is heard. Repeat for all cartridges; the clicking sound indicates the cartridge is properly engaged.

**Equipment Start-up Procedure**

1. Turn on incoming water to system.
2. Pressurize system by slowly rotating the inlet water ball valve \( \frac{1}{4} \) turn to the left (counterclockwise) to the “ON” position.
3. Check for leaks.
4. Use vent to remove trapped air.
5. Flush system in accordance with performance data sheet supplied with the cartridges.
6. System is now ready for use.
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.

Cartridges will need to be changed every 12 months or when low pressure in indicated on the manifold outlet 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. Rotate inlet water shut-off valve on manifold to the “OFF” position by rotating to the left (counterclockwise).
2. Install plastic tubing into vent valve on manifold and direct to drain.
3. Depressurize system.
4. Push tab to release cartridge locking mechanism while simultaneously rotating cartridge slightly to the left.
5. Using both hands and holding cartridge from the bottom, rotate the cartridge a quarter turn to the left and gently pull down.

**CAUTION:** A small amount of water will drain from manifold as cartridge is removed.
6. Remove sanitary cap from new cartridge. Install cartridge with a quarter turn to the right until cartridge comes to a complete stop.

**IMPORTANT NOTE:** Cartridges are keyed to fit proper location only.

7. Slowly turn the valve on the manifold to the “ON” position and check for leaks.
8. Flush per the performance data sheet. System is now ready for use.

### Troubleshooting

<table>
<thead>
<tr>
<th>No water flow through system</th>
<th>Inlet valve closed</th>
<th>Check shut-off valve position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filters clogged</td>
<td></td>
<td>Replace cartridges</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Not enough water to downstream application</th>
<th>Low incoming water pressure</th>
<th>Check source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filters clogged</td>
<td></td>
<td>Replace cartridges</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Short filter life</th>
<th>Temporarily dirty water</th>
<th>Change cartridges or install an additional upstream Pre-Filter</th>
</tr>
</thead>
</table>
Double Manifold Replacement Parts Listing

<table>
<thead>
<tr>
<th>Item</th>
<th>Part no.</th>
<th>Description</th>
<th>Qty*</th>
<th>Micron Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6228405</td>
<td>Dual Manifold Assembly</td>
<td>1</td>
<td>Assembly, complete</td>
</tr>
<tr>
<td>2</td>
<td>60-2333700</td>
<td>Vent Valve (not shown)</td>
<td>1</td>
<td>Release trapped air</td>
</tr>
<tr>
<td>3</td>
<td>See catalog</td>
<td>Replacement Cartridges</td>
<td>1</td>
<td>Water filtration</td>
</tr>
<tr>
<td>4</td>
<td>85005-49</td>
<td>Pressure gauge</td>
<td>1</td>
<td>Monitor outlet water pressure</td>
</tr>
<tr>
<td>5</td>
<td>85-8528</td>
<td>Clip</td>
<td>1</td>
<td>Retain inlet/outlet fittings</td>
</tr>
<tr>
<td>6</td>
<td>63597320</td>
<td>o-ring</td>
<td>1</td>
<td>Seal inlet/outlet fittings</td>
</tr>
<tr>
<td>7</td>
<td>6220505</td>
<td>Inlet fitting kit</td>
<td>1</td>
<td>Inlet fitting with ball valve</td>
</tr>
<tr>
<td>8</td>
<td>6220506</td>
<td>Outlet fitting kit</td>
<td>2</td>
<td>Outlet fitting</td>
</tr>
<tr>
<td>9</td>
<td>60-235380</td>
<td>¾” x ¾” ball valve</td>
<td>1</td>
<td>Inlet water shut-off</td>
</tr>
<tr>
<td>10</td>
<td>85005-49</td>
<td>Pressure Gauge (optional)</td>
<td>1</td>
<td>Monitor inlet water pressure</td>
</tr>
<tr>
<td>11</td>
<td>Inquire</td>
<td>Retainer Kit</td>
<td>1</td>
<td>Secure Cartridges</td>
</tr>
</tbody>
</table>

*Per part number, not per system or assembly.
## Triple Manifold Replacement Parts Listing

<table>
<thead>
<tr>
<th>Item</th>
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<tr>
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<td>6228405</td>
<td>Triple Manifold Assembly</td>
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<td>Assembly, complete</td>
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<td>2</td>
<td>60-2333700</td>
<td>Vent Valve</td>
<td>1</td>
<td>Release trapped air</td>
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<tr>
<td>3</td>
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<td>63597320</td>
<td>o-ring</td>
<td>1</td>
<td>Seal inlet/outlet fittings</td>
</tr>
<tr>
<td>7</td>
<td>6220505</td>
<td>Inlet fitting kit – left rear</td>
<td>1</td>
<td>Inlet fitting with ball valve</td>
</tr>
<tr>
<td>9</td>
<td>6220507</td>
<td>Outlet fitting kit – right front</td>
<td>1</td>
<td>outlet fitting</td>
</tr>
<tr>
<td>10</td>
<td>60-235380</td>
<td>Pressure Gauge (optional)</td>
<td>1</td>
<td>Inlet water shut-off</td>
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<td>85005-49</td>
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<td>Monitor inlet water pressure</td>
</tr>
<tr>
<td>12</td>
<td>Inquire</td>
<td>Retainer Kit</td>
<td>1</td>
<td>Secure cartridges</td>
</tr>
</tbody>
</table>

*Per part number, not per system or assembly.

![Diagram of Triple Manifold Replacement Parts](image-url)
**Limited Warranty**

3M Purification Inc. warrants Dual/Triple manifold water filtration systems only to be free from defects in material and workmanship for one (1) year from the date of purchase. The disposable filter cartridge is warranted from defects in material and workmanship for a period of one (1) year from the date of purchase. This warranty does not cover failures resulting from abuse, misuse, alterations or damage not caused by 3M Purification Inc. or failure to follow installation and use instructions. No warranty is given as to the service life of any filter cartridge or membrane as it will vary with local water conditions and consumption. **3M PURIFICATION INC. MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOMER OR USAGE OF TRADE.** If the Product fails to satisfy this Limited Warranty during the warranty period, 3M Purification Inc., at its option, will replace the Product or refund your Product purchase price. **This warranty does not cover labor. The remedy stated in this paragraph is Customer's sole remedy and 3M Purification Inc.'s exclusive obligation.**

This warranty gives you specific legal rights, and you may have other rights which may vary from state to state, or country to country.

For any warranty questions, please call 866.990.9785 or mail your request to: Warranty Claims, 3M Purification Inc., 400 Research Parkway, Meriden, CT 06450. Proof of purchase (original sales receipt) must accompany the warranty claim, along with a complete description of the Product, model number and alleged defect.

**Limitation of Liability:** 3M Purification Inc. will not be liable for any loss or damage arising from this 3M Purification Inc. product, whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability. Some states and countries do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.