Watts 0063010

Watts 009M2 Reduced Pressure Zone Backflow Preventer (Model 0063010) Instruction Manual

For Models: 009M2, 009M2-QT

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of the Watts 009M2 Reduced Pressure Zone (RPZ) Backflow Preventer. This device is designed to protect potable water supplies from contamination due to backpressure or backsiphonage from non-potable sources. It is crucial to read and understand all instructions before installation and use to ensure proper function and safety.
The Watts 009M2 RPZ assembly features a compact, modular design for easy maintenance, with a single access cover for in-line repairs. It is suitable for continuous pressure piping applications and cross-connections identified as health hazards.

2. Important Safety Information

- **Proposition 65 Warning:** This product may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
- **Non-Potable Use Only:** This device does not conform to the Lead-Free Act. It is intended for non-potable water applications only, such as irrigation systems or fire sprinkler systems. **DO NOT USE FOR DRINKING WATER.**
- Installation must be performed by a qualified professional in accordance with all national and local plumbing codes and water authority requirements.
- Ensure the water supply is shut off and depressurized before attempting any installation or maintenance.
- Wear appropriate personal protective equipment (PPE) during installation and maintenance.
- Regular testing and maintenance are essential to ensure the continued proper function of the backflow preventer.

3. Product Overview and Components

The Watts 009M2 Reduced Pressure Zone Backflow Preventer is constructed with a durable bronze body and features NPT end connections. Key components include:

- **Bronze Body:** Provides durability and corrosion resistance.
- **Quarter-Turn Ball Valve Shutoffs:** Resilient seated with tee handles for easy operation.

- **Top-Mounted Test Cocks:** Screwdriver slotted for convenient testing.
- **In-line Independent Check Valves:** Two check valves for reliable backflow prevention.
- **Captured Springs:** For safe maintenance procedures.
- **Replaceable Check Seats:** Allows for economical repair and extended product life.
- **Internal Relief Valve:** Reduces installation clearances.
- **Single Access Cover:** Facilitates easy in-line repairs.

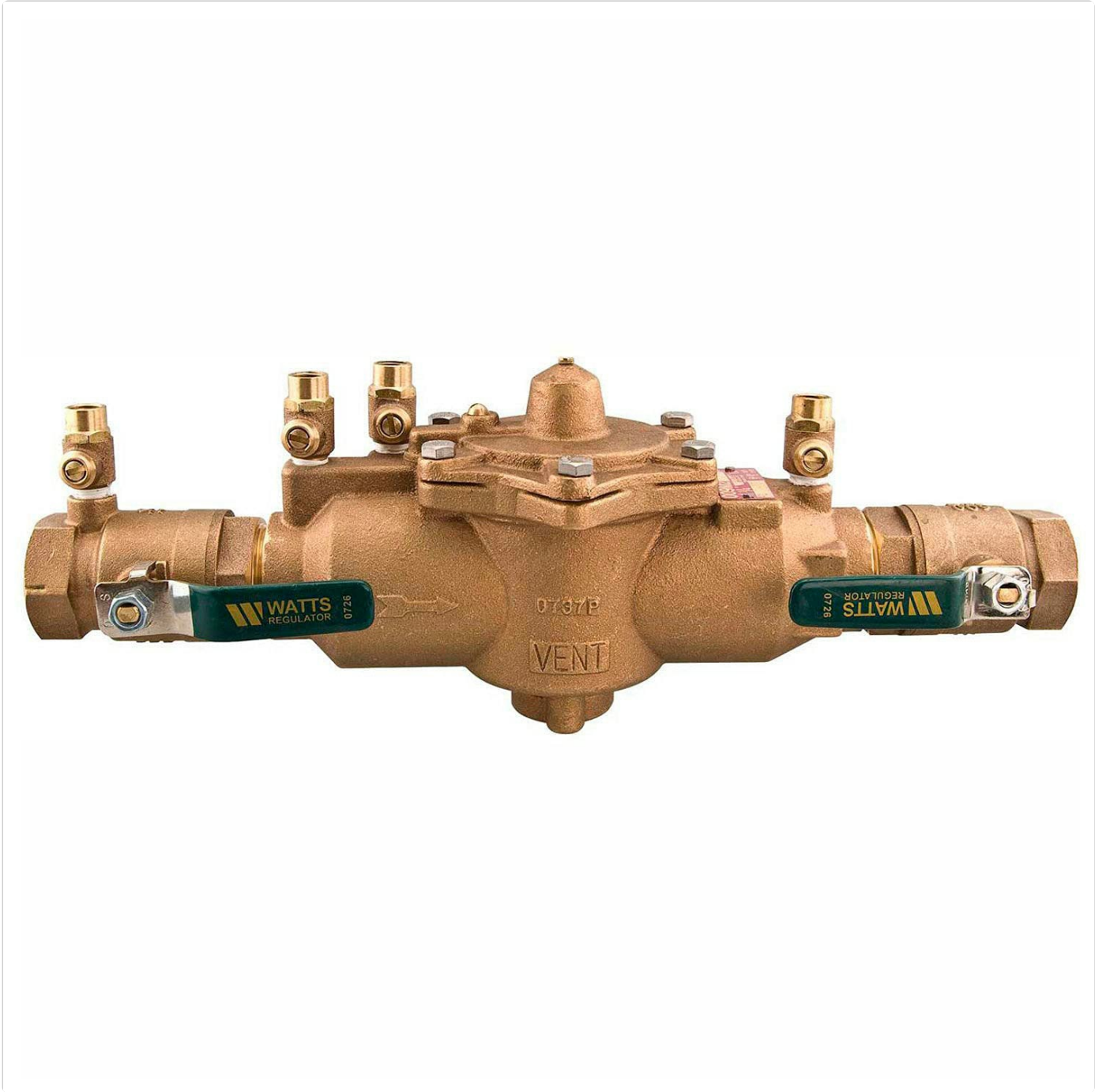

Figure 1: Watts 009M2 Reduced Pressure Zone Backflow Preventer. This image shows the bronze body, quarter-turn shutoff valves with green handles, and multiple test cocks on top.

4. Setup and Installation

1. **Pre-Installation Check:**
    - Verify that the product model (009M2) and size (2 inch) match your requirements.
    - Inspect the unit for any shipping damage.

- Ensure all necessary tools and materials for installation are available.

2. **Site Preparation:**
    - Choose an installation location that allows for easy access for testing and maintenance.
    - Ensure adequate drainage for the relief valve discharge.
    - The device should be installed horizontally, with the relief valve pointing downwards.
3. **Piping Connection:**
    - Flush the upstream piping thoroughly to remove any debris before connecting the backflow preventer.
    - Connect the inlet and outlet piping to the NPT connections on the device. Use appropriate thread sealant.
    - Avoid overtightening connections to prevent damage to the bronze body.
    - Ensure the flow arrow on the device body matches the direction of water flow.
4. **Relief Valve Drain:**
    - Connect a drain line to the relief valve outlet. The drain line must be adequately sized and sloped to allow for free discharge and prevent backpressure on the relief valve.
    - Ensure the drain line terminates in an air gap, preventing any possibility of cross-connection.
5. **Post-Installation Check:**
    - Slowly open the upstream shutoff valve, then the downstream shutoff valve, to gradually fill the system and prevent water hammer.
    - Inspect all connections for leaks.
    - Perform initial testing by a certified backflow prevention tester to ensure proper operation and compliance with local codes.

5. Operating Instructions

The Watts 009M2 is designed for continuous pressure operation. Normal operation involves the device being fully open, allowing water to flow through the system while providing backflow protection.

- **Shutoff Valves:** The quarter-turn ball valve shutoffs (with tee handles) are used to isolate the backflow preventer for maintenance or testing.
    - To open: Turn the handle parallel to the pipe.
    - To close: Turn the handle perpendicular to the pipe.
    - Always operate these valves slowly to prevent water hammer.
- **Test Cocks:** The top-mounted test cocks are used by certified backflow prevention testers to verify the proper function of the check valves and relief valve. These should only be operated by qualified personnel during testing procedures.

6. Maintenance

Regular maintenance is critical for the reliable performance of your backflow preventer. The modular design and single access cover simplify servicing.

- **Annual Testing:** The backflow preventer must be tested annually, or more frequently as required by local codes, by a certified backflow prevention tester.
- **Servicing Check Valves and Relief Valve:**
    - Isolate the unit by closing both upstream and downstream shutoff valves.
    - Depressurize the unit by opening the test cocks.

- Remove the single access cover to access the internal components.
- The check valves and relief valve feature captured springs for safe disassembly.
- Replaceable check seats allow for economical repair. Consult the Watts service manual or a qualified technician for detailed disassembly and reassembly procedures.
- No special tools are required for servicing the internal components.

- **Cleaning:** Periodically inspect and clean internal components to remove any debris or mineral deposits that could impede proper function.
- **Winterization:** In climates where freezing temperatures are a concern, the backflow preventer must be properly drained or protected from freezing to prevent damage.

7. Troubleshooting

Problem	Possible Cause	Solution
Water discharge from relief valve (continuous)	• Fouled first check valve • Damaged relief valve seat or disc • Excessive backpressure	• Clean or repair first check valve. • Inspect and replace relief valve components. • Identify and correct source of backpressure.
No water flow or reduced flow	• Shutoff valves closed • Debris obstructing flow • Fouled check valves	• Ensure shutoff valves are fully open. • Isolate and inspect for debris. • Clean or repair check valves.
Leaks from connections	• Improperly sealed threads • Damaged gaskets	• Re-apply thread sealant and tighten connections. • Inspect and replace gaskets.

For issues not listed or if troubleshooting steps do not resolve the problem, contact a certified plumbing professional or Watts technical support.

8. Specifications

Model Number	0063010 (009M2)
Backflow Preventer Type	Reduced Pressure Zone Assembly
Body Material	Bronze
Inlet/Outlet Connection Size	2 Inches (50 MM)
Inlet/Outlet Connection Type	Female Threaded NPT
Maximum Working Pressure	175 PSI (12.10 BAR)
Maximum Temperature	180°F (82°C)

Minimum Temperature	33°F (0.5°C)
Protection Type	Backpressure and Backsiphonage
Product Dimensions (L x W x H)	22 x 10 x 8 inches
Item Weight	27 Pounds
Lead Free Status	NO (For non-potable use only)

9. Warranty and Support

Specific warranty information for Watts products is typically provided with the product packaging or available on the official Watts website. Please refer to these resources for the most current warranty terms and conditions.

For technical support, replacement parts, or further assistance, please contact Watts customer service or visit their official website. Ensure you have your product model number (0063010) and serial number (if applicable) ready when contacting support.

Watts Official Website: www.watts.com