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Riobel R23

Riobel R23 2-Way Type T/P Coaxial Valve Rough: Installation and User Manual

Model: R23 | Brand: Riobel

1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of the Riobel R23 2-Way Type T/P (Thermostatic/Pressure Balance) coaxial valve rough. This valve is designed to provide precise control over water temperature and pressure for a comfortable and safe showering experience. Please read these instructions thoroughly before installation and retain them for future reference.

2. SAFETY INFORMATION

- Installation should be performed by a qualified plumber or certified professional in accordance with local plumbing and building codes.
- Turn off the main water supply before beginning any installation or maintenance work.
- Wear appropriate personal protective equipment (PPE) such as safety glasses and gloves during installation.
- Ensure all connections are secure and watertight to prevent leaks.
- Do not overtighten connections, as this may damage the valve or piping.
- Verify that the water heater is set to a safe temperature to prevent scalding.

3. PACKAGE CONTENTS

The Riobel R23 package typically includes the following components:

- Riobel R23 2-Way Type T/P coaxial valve rough
- Service valves
- Protective cover (often red, as seen in images)
- Installation instructions (this manual)

Note: Trim kit (XX23XX) is required to complete the installation and is sold separately.

4. SPECIFICATIONS

Brand	Riobel
Model Number	R23
Material	Metal, Plastic (Brass exterior finish)
Product Dimensions (L x W x H)	5.74 x 4.72 x 4.17 inches
Item Weight	2.35 pounds
Inlet Connection Size	0.5 Inches
Inlet Connection Type	National Pipe Tapered (NPT) or Sweat
Outlet Connection Size	0.5 Inches
Outlet Connection Type	Male National Pipe Tapered (MNPT) or Sweat
Number of Ports	2
UPC	883186048505

5. INSTALLATION (SETUP)

The Riobel R23 valve rough is designed for concealed installation within a wall. Proper installation is crucial for optimal performance and longevity. It is highly recommended that installation be carried out by a licensed plumbing professional.

5.1 Pre-Installation Steps

- Review Local Codes:** Ensure all plumbing work complies with local building and plumbing codes.
- Gather Tools:** Have all necessary plumbing tools, sealants, and safety equipment ready.
- Turn Off Water Supply:** Locate and shut off the main water supply to the installation area.
- Inspect Components:** Verify that all parts listed in Section 3 are present and undamaged.

5.2 Mounting the Valve Rough

The valve rough must be securely mounted to a sturdy framing member within the wall. The depth of the valve in the wall is critical for the proper fit of the trim kit. Refer to the specific instructions provided with your chosen Riobel XX23XX trim kit for precise rough-in dimensions.

- Position the valve rough at the desired height, ensuring it is level and plumb.
- Secure the valve rough to the framing using appropriate fasteners.

5.3 Water Connections

The Riobel R23 valve features 1/2" inlet connections for hot and cold water supply and two 1/2" outlet connections for water distribution to shower components (e.g., showerhead, hand shower). These connections are compatible with male NPT or sweat fittings.

- Connect the hot water supply to the designated hot inlet (typically marked 'H' or red).
- Connect the cold water supply to the designated cold inlet (typically marked 'C' or blue).

- Connect the desired shower outlets to the two 1/2" outlet ports.
- Use appropriate plumbing techniques (soldering for sweat connections, thread sealant for NPT) to ensure leak-free connections.

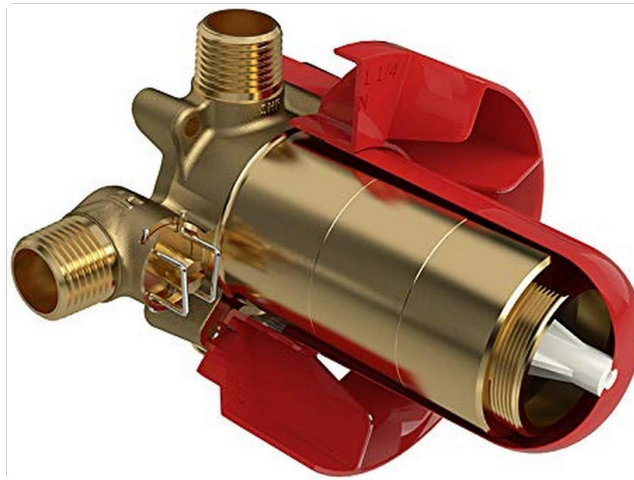


Figure 1: The Riobel R23 2-Way Type T/P coaxial valve rough. This image displays the brass valve body with threaded inlet and outlet connections, and a red protective cover over the internal cartridge area. The two 1/2" threaded inlets are visible on the left and top, and the two 1/2" threaded outlets are on the right.

5.4 Post-Installation Checks

1. **Leak Test:** Slowly turn on the main water supply and carefully inspect all connections for leaks. Address any leaks immediately.
2. **Flush Lines:** Flush the water lines to remove any debris before installing the trim kit.
3. **Install Trim Kit:** Once the rough-in valve is installed and tested, proceed with the installation of the compatible Riobel XX23XX trim kit according to its specific instructions.

6. OPERATION

The Riobel R23 is a thermostatic/pressure balance coaxial valve. This design ensures a consistent water temperature and pressure, even when other water-consuming appliances in the household are in use. The operation of the valve is controlled by the trim kit installed over the rough-in valve.

- **Temperature Control:** The thermostatic element within the valve automatically adjusts the mix of hot and cold water to maintain the desired temperature, preventing sudden temperature fluctuations.
- **Pressure Balance:** The pressure balance mechanism compensates for changes in hot or cold water supply pressure, ensuring a steady flow rate.
- **Flow Control:** The trim kit typically includes a handle to turn the water on/off and adjust the flow rate.
- **Diverter Function:** For 2-way valves, the trim kit will include a diverter to switch water flow between two outlets (e.g., showerhead and hand shower).

Refer to your specific Riobel trim kit manual for detailed instructions on operating the temperature and flow controls.

7. MAINTENANCE

The Riobel R23 valve rough is designed for durability and requires minimal maintenance. Regular inspection and proper care of the visible trim components will ensure long-lasting performance.

- **Cleaning:** Clean the visible trim components regularly with a soft cloth and mild soap. Avoid abrasive cleaners, harsh chemicals, or scouring pads, as these can damage the finish.

- **Leak Checks:** Periodically check for any signs of leaks around the valve or connections. Address any leaks promptly to prevent water damage.
- **Cartridge Maintenance:** If water flow or temperature control issues arise, the internal cartridge may need inspection or replacement. This typically requires removing the trim kit and should be performed by a qualified professional.
- **Service Valves:** The integrated service valves allow for easy shut-off of water to the valve for maintenance without affecting the entire household water supply.

8. TROUBLESHOOTING

If you experience issues with your Riobel R23 valve, consider the following common troubleshooting steps. For complex problems, consult a qualified plumber.

- **No Water Flow or Low Flow:**
 - Ensure the main water supply and the valve's service valves are fully open.
 - Check for blockages in the showerhead or other outlets.
 - Inspect the cartridge for debris or mineral buildup.
- **Inconsistent Water Temperature:**
 - Verify that the hot and cold water supplies are connected correctly.
 - Ensure the water heater is functioning properly and providing adequate hot water.
 - The thermostatic cartridge may require cleaning or replacement if it's not mixing water correctly.
- **Leaks:**
 - Turn off the water supply immediately.
 - Inspect all connections for tightness.
 - Check the O-rings and seals within the valve for damage or improper seating.

9. WARRANTY AND SUPPORT

The Riobel R23 2-Way Type T/P coaxial valve rough is backed by a **LIMITED LIFETIME WARRANTY**. For specific details regarding warranty coverage, terms, and conditions, please refer to the official Riobel warranty documentation or visit the Riobel website.

For technical assistance, replacement parts, or warranty claims, please contact Riobel customer support directly. Contact information can typically be found on the official Riobel website or product packaging.

Always ensure you have your product model number (R23) and proof of purchase available when contacting support.