Riello MG569 BWZG

Riello MG569 BWZG Control Unit Instruction Manual

Model: MG569 BWZG | Brand: Riello

1. Product Overview

The Riello MG569 BWZG is a sophisticated control unit designed for reliable and efficient operation of Riello gas burners. This unit manages the ignition, flame supervision, and safety functions of the burner, ensuring optimal performance and adherence to safety standards. It is a direct replacement for several older models, offering enhanced functionality and compatibility.

1.1 Compatibility

This control unit is compatible with the following Riello burner series:

- BS1-911T1, BS1D-915T1
- BS2-912T1, BS2D-916T1
- BS3-913T1, BS3D-917T1
- BS4-914T1, BS4D-918T1

It also replaces previous control unit models including 3002949, 3002967, 569SE, 568SE, 566SE rev3, 566SE rev2, 566SE rev1, and 525SE/G.

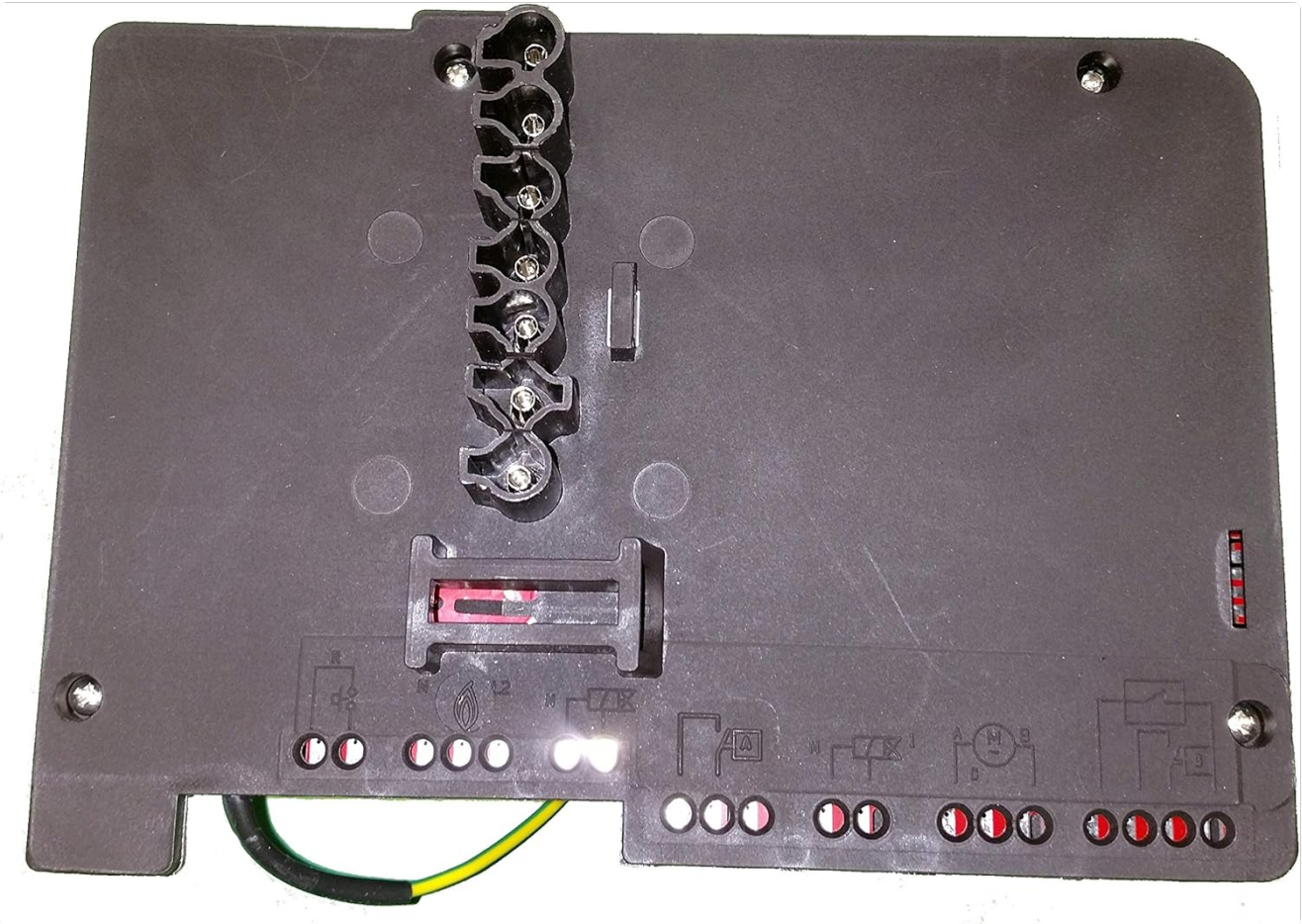

Figure 1: Top view of the Riello MG569 BWZG Control Unit, illustrating the various terminal connections for power, ignition, and burner components.

2. Setup and Installation

Installation of the Riello MG569 BWZG control unit requires specialized knowledge of electrical systems and burner operation. It is strongly recommended that installation be performed by a qualified and certified technician to ensure safety and proper functionality.

2.1 Safety Precautions

- **Disconnect Power:** Always ensure the main power supply to the burner system is disconnected before beginning any installation or maintenance work.
- **Verify Compatibility:** Confirm that the MG569 BWZG unit is the correct replacement or component for your specific Riello burner model.
- **Follow Wiring Diagrams:** Refer to the specific wiring diagrams provided with your burner system and the control unit for accurate connections. Incorrect wiring can lead to damage or hazardous conditions.
- **Environmental Conditions:** Install the unit in a dry, protected environment, away from excessive heat, moisture, or corrosive substances.

2.2 Installation Steps (General)

1. **Remove Old Unit:** Carefully disconnect and remove the existing control unit, noting all wiring connections.
2. **Mount New Unit:** Securely mount the Riello MG569 BWZG control unit in the designated position.
3. **Connect Wiring:** Connect all electrical wires according to the burner's wiring diagram. This typically includes connections for power supply (L1, N), ignition transformer, flame sensor, motor, and fuel valve. Ensure all connections are tight and secure.

4. **Grounding:** Verify that the unit and burner system are properly grounded to prevent electrical hazards.
5. **Initial Checks:** Before restoring power, double-check all connections for correctness and security.
6. **Restore Power:** Carefully restore power to the burner system.
7. **Test Operation:** Initiate a test firing sequence to ensure the burner ignites and operates correctly, and that all safety features are functioning.

Figure 2: Another view of the Riello MG569 BWZG Control Unit, highlighting the terminal block for electrical connections and mounting screw locations.

3. Operating Instructions

The Riello MG569 BWZG control unit operates automatically once installed and powered. Its primary function is to manage the burner's ignition sequence, flame supervision, and shutdown procedures in case of malfunction.

3.1 Normal Operation Sequence

1. **Start-up:** Upon receiving a call for heat, the control unit initiates a pre-purge cycle to clear the combustion chamber.
2. **Ignition:** After pre-purge, the ignition transformer is activated, creating a spark, and the fuel valve opens to allow fuel into the combustion chamber.
3. **Flame Detection:** The flame sensor (e.g., photocell or ionization probe) detects the presence of a flame. If a flame is established within the safety time, the ignition spark is cut off, and the burner continues to operate.
4. **Running:** The burner operates under the supervision of the control unit, which continuously monitors the flame.
5. **Shutdown:** When the call for heat ends, the fuel valve closes, and the burner shuts down. A post-purge cycle may follow.

3.2 Indicator Lights

The control unit may feature indicator lights (LEDs) to signal its operational status or fault conditions. Consult your burner's specific documentation for a detailed explanation of these indicators. Typically, a steady green light indicates normal operation, while a flashing or red light signifies a fault.

4. Maintenance

Regular maintenance is crucial for the longevity and safe operation of your burner system and its control unit. All maintenance should be performed by a qualified service technician.

4.1 Recommended Maintenance Schedule

- **Annual Inspection:** Have a qualified technician inspect the entire burner system, including the control unit, flame sensor, ignition electrodes, and fuel lines, at least once a year.
- **Cleaning:** Ensure the control unit and its connections are free from dust, dirt, and moisture. Do not use abrasive cleaners or solvents.
- **Connection Checks:** Periodically, a technician should verify that all electrical connections to the control unit are secure and free from corrosion.

Note: *The control unit itself is a sealed component and is not user-serviceable. Any internal issues require replacement of the unit.*

5. Troubleshooting

This section provides general guidance for common issues. For detailed diagnostics, consult a qualified technician.

Problem	Possible Cause	Action
Burner does not start / No ignition	• No power supply to the control unit. • Safety lockout (fault condition). • Faulty ignition transformer or electrodes. • No fuel supply.	• Check main power switch and circuit breaker. • Press the reset button on the control unit (if present). If it locks out again, do not repeatedly reset. • Verify fuel supply valve is open. • Contact a qualified technician.
Burner ignites but immediately shuts down (flame failure)	• Dirty or faulty flame sensor. • Insufficient combustion air. • Low fuel pressure. • Faulty control unit.	• Inspect and clean flame sensor (if accessible and safe). • Ensure air intakes are clear. • Contact a qualified technician for fuel pressure and control unit diagnostics.

Problem	Possible Cause	Action
Control unit shows a fault code/light	• Specific fault detected by the unit.	• Refer to your burner's specific manual for fault code interpretation. • Attempt a single reset. If the fault persists, contact a qualified technician.

6. Technical Specifications

Figure 3: Side view of the Riello MG569 BWZG Control Unit, displaying the product label with key technical specifications.

Feature	Detail
Model Number	MG569 BWZG
Manufacturer	Riello
Voltage	210-230V ~ 50/60Hz
Fuse	T4A 250V~
Ignition Voltage	18kVpk
Current	11mArms
UPC	748810822879
Compatibility	Riello BS1, BS2, BS3D, BS4D series burners
Replaces Models	3002949, 3002967, 569SE, 568SE, 566SE rev3, 566SE rev2, 566SE rev1, 525SE/G

7. Warranty Information

Specific warranty terms for the Riello MG569 BWZG control unit are typically provided by the seller or manufacturer at the time of purchase. Please retain your proof of purchase for warranty claims.
Information regarding the availability of spare parts is currently unavailable. For any spare part inquiries, please contact your supplier or an authorized Riello service center.

8. Customer Support

For technical assistance, service, or further information regarding the Riello MG569 BWZG control unit, please contact:

- Your authorized Riello dealer or installer.
- An authorized Riello service center.
- The manufacturer directly via their official website or contact channels.

When contacting support, please have your product model number (MG569 BWZG) and any relevant purchase details ready.