Honeywell VR8204A2076

Honeywell VR8204A2076 Electronic Gas Valve

INSTRUCTION MANUAL

Introduction Safety Information Setup Operating Maintenance Troubleshooting Specifications Warranty Support

1. Introduction

This manual provides essential instructions for the proper installation, operation, and maintenance of the Honeywell VR8204A2076 Electronic Gas Valve. This valve is designed for use in gas-fired, 24 Vac, intermittent pilot appliances with capacities ranging from 20-200 cfh. Please read this manual thoroughly before proceeding with any installation or service.

Image of the Honeywell VR8204A2076 Electronic Gas Valve, showing its compact design and connection points. This valve is a critical component for controlling gas flow in heating systems.

2. Safety Information

WARNING: Improper installation, adjustment, alteration, service, or maintenance can cause property damage, injury, or death. Read the installation, operating, and maintenance instructions thoroughly before installing or servicing this equipment.

- Installation and service must be performed by a qualified installer, service agency, or gas supplier.
- Disconnect power supply before wiring to prevent electrical shock or equipment damage.
- Perform a gas leak test after installation or service.
- Do not use this valve for applications other than those specified in this manual.
- Ensure all local codes and ordinances are followed during installation.

3. Setup (Installation)

The Honeywell VR8204A2076 gas valve is designed for straightforward installation, but it requires adherence to specific procedures to ensure safe and efficient operation. Always consult local codes and regulations.

3.1 Pre-Installation Checks

- Verify that the gas type (natural gas or LP gas) matches the valve's configuration. This model includes an LP kit for conversion if needed.
- Ensure the appliance's capacity is within the valve's specified range (20-200 cfh).
- Confirm that the electrical supply is 24 Vac.
- Inspect the valve for any signs of damage from shipping.

3.2 Mounting the Valve

1. Mount the valve with the valve body in any position from vertical to 90 degrees in either direction from the vertical. Do not mount with the valve body more than 90 degrees from the vertical.
2. Ensure adequate clearance for wiring and service.

3.3 Gas Piping

1. Install a sediment trap in the gas supply line to the valve.
2. Use pipe compound resistant to LP gas if applicable. Do not apply compound to the first two pipe threads.
3. Connect the gas supply line to the 1/2" inlet and the appliance manifold to the 1/2" outlet.
4. Tighten all pipe connections securely.

3.4 Wiring

1. Follow the appliance manufacturer's wiring diagrams.
2. Connect the 24 Vac power supply to the appropriate terminals on the valve.
3. Ensure all wiring connections are tight and secure.

3.5 Leak Test

1. After all connections are made, open the main gas supply.
2. Check all gas connections with a soap solution for leaks. Bubbles indicate a leak.
3. If a leak is detected, tighten the connection or replace the component. Never use a flame to check for gas leaks.

4. Operating Instructions

The Honeywell VR8204A2076 is an electronic gas valve designed for intermittent pilot ignition systems. Its operation is typically controlled by a thermostat and an ignition control module.

4.1 Normal Operation Sequence

1. When the thermostat calls for heat, the ignition control module receives a signal.
2. The ignition control module then sends 24 Vac to the pilot solenoid of the gas valve, opening the pilot gas port.
3. Simultaneously, the ignition control module initiates a spark to ignite the pilot flame.
4. Once the pilot flame is established and proven by the flame sensor, the ignition control module energizes the main valve solenoid.
5. The main valve opens, allowing gas to flow to the main burners, which are then ignited by the pilot

flame.
6. When the thermostat is satisfied, the ignition control module de-energizes the main and pilot solenoids, closing the gas valve and shutting off the burners.

This valve features a standard opening and a 3.5" wc pressure regulator setting, ensuring consistent gas flow to the appliance.

5. Maintenance

The Honeywell VR8204A2076 Electronic Gas Valve is designed for reliable operation and generally requires minimal maintenance. However, periodic inspection by a qualified service technician is recommended to ensure continued safe and efficient performance.

- **Annual Inspection:** Have a qualified technician inspect the gas valve and the entire heating system annually. This inspection should include checking for gas leaks, proper operation of the pilot and main burners, and verifying correct gas pressure.
- **Cleaning:** Do not attempt to clean the internal components of the gas valve. If debris is suspected, the valve should be replaced by a qualified technician.
- **Replacement:** If the valve shows signs of malfunction, such as inconsistent ignition, gas leaks, or failure to open/close, it should be replaced immediately by a qualified professional. Do not attempt to repair the valve.

Always disconnect the power supply to the appliance before any maintenance or inspection procedures.

6. Troubleshooting

This section provides guidance for common issues. For complex problems or if you are unsure, contact a qualified service technician.

Problem	Possible Cause	Solution
No heat / Burners do not ignite	• No power to the appliance/valve • Thermostat not calling for heat • Pilot light not igniting or proving • Gas supply off • Faulty ignition control module	• Check circuit breaker/fuse. • Adjust thermostat setting. • Inspect pilot assembly and flame sensor. • Ensure main gas valve is open. • Consult a qualified technician.
Pilot ignites, but main burners do not	• Pilot flame not strong enough to prove • Faulty main valve solenoid • Low gas pressure	• Clean pilot orifice. • Consult a qualified technician for valve replacement. • Contact gas supplier or technician to check pressure.

Problem	Possible Cause	Solution
Gas odor detected	• Gas leak	• **Immediately shut off gas supply.** Open windows. Do not operate electrical switches. Contact gas supplier and a qualified technician.

7. Specifications

Key technical specifications for the Honeywell VR8204A2076 Electronic Gas Valve:

Feature	Detail
Model Number	VR8204A2076
Manufacturer	Honeywell
Voltage	24 Vac
Valve Type	Electronic Gas Valve, Intermittent Pilot
Inlet/Outlet Size	1/2" x 1/2"
Pressure Regulator Setting	3.5" wc (water column)
Opening Type	Standard
Included Components	L.P. Kit
Item Weight	2.04 pounds
Product Dimensions	5.75 x 4.72 x 3.31 inches
Certification	UL Listed

8. Warranty Information

According to product information, there is no specific warranty description provided for the Honeywell VR8204A2076 Electronic Gas Valve. Please refer to your point of purchase or Honeywell's official website for any applicable warranty terms and conditions that may apply at the time of purchase.

9. Customer Support

For technical assistance, troubleshooting beyond this manual, or to locate a qualified service professional, please contact Honeywell customer support or visit their official website. When contacting support, please have your product model number (VR8204A2076) readily available.
Honeywell Official Website: www.honeywell.com