

## Durablow DV970A-NG

# Durablow DV970A-NG Millivolt Gas Valve Instruction Manual

Model: DV970A-NG

## INTRODUCTION

This manual provides essential information for the safe and proper installation, operation, and maintenance of the Durablow DV970A-NG Millivolt Gas Valve. This valve is designed for use with natural gas (NG) systems in various fireplace and heating applications. Please read these instructions thoroughly before installation or use.

## IMPORTANT SAFETY INFORMATION

- **Professional Installation Required:** Installation, adjustment, service, or repairs must be performed by a qualified service person or gas installer. Improper installation, adjustment, alteration, service, or maintenance can cause injury or property damage.
- **Gas Type:** This valve is designed for **Natural Gas (NG) only**. Do not use with Liquefied Petroleum Gas (LPG) or any other fuel type.
- **Gas Leaks:** Immediately shut off the gas supply and ventilate the area if you smell gas. Do not operate any electrical switches or appliances. Contact a qualified service technician.
- **Electrical Safety:** Ensure all electrical connections are secure and conform to local codes. The valve operates on a millivolt system (250mV to 750mV).
- **CSA Certified:** This product is CSA certified. Ensure all installations comply with local codes and regulations.
- **Temperature Rating:** Rated for a maximum temperature of 225°F.

## PRODUCT OVERVIEW

The Durablow DV970A-NG is a millivolt gas valve replacement designed for various natural gas fireplace and heating systems. It features a manual cock dial for OFF-PILOT-ON operation and standard NEMA terminals for electrical connections.



**Figure 1:** Front view of the Durablow DV970A-NG Millivolt Gas Valve. This image displays the main body of the valve, including the gas inlet and outlet ports, and the manual control knob.

## KEY FEATURES

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- Designed for Natural Gas (NG) systems only.
- CSA certified for safety and quality.
- Rated for a maximum operating temperature of 225°F.
- Compact dimensions: 3-13/16"H x 4-21/32"L x 1-29/32"W.
- Gas inlet and outlet sizes: 3/8" NPT, with filtered screens.
- Electrical rating: 250mV to 750mV.
- Equipped with standard NEMA terminals (TH, TH/TP, TP).

- Manual cock dial with clear OFF-PILOT-ON markings.
- Capacity: 40,000 BTU/Hr.

## COMPATIBILITY

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This Durablow DV970A-NG millivolt gas valve is compatible with a wide range of fireplace and heating appliance brands and models. It serves as a replacement for various OEM parts. Always consult your appliance's owner's manual for specific part numbers or wiring diagrams to ensure proper fit and function.

**Compatible Brands include:** Dexen, Dexin, Robertshaw, HHT, American Hearth (Empire), Archgard, Astria (IHP), FMI, Desa, Heatilator, Heat-N-Glo, Lennox, Majestic, Insta-Flame, Majco, Mendota, Montigo, Napoleon, Regency (FPI), RH Peterson, Real Fyre, Superior (IHP), Travis Industries (Avalon - Fireplace Xtordinair - Lopi), Valor, White Mountain Hearth (Empire).

**Cross-Reference / Competitors' Parts #:** R8380, G-522A, WS725-13, 060-500, 200 MVLRC-N, H2299, H4260, 9737, 009737, 75-29-109, 7529109, RGC1011, SV6, 200-D, GM970, 6003, 710-502, B-67.

## SETUP AND INSTALLATION

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**Warning:** Gas appliance installation should only be performed by a qualified professional. Failure to follow these instructions can result in fire, explosion, or carbon monoxide poisoning.

### 1. Preparation:

- Ensure the main gas supply to the appliance is turned off.
- Disconnect all electrical power to the appliance.
- Allow the appliance to cool completely if it has been in operation.
- Verify that the replacement valve (DV970A-NG) is the correct type for your natural gas system.

### 2. Removing the Old Valve:

- Carefully disconnect the gas lines from the old valve. Be prepared for residual gas in the lines.
- Disconnect all electrical wiring from the old valve's terminals. Note the wiring configuration for re-connection.
- Remove the mounting screws or brackets securing the old valve.

### 3. Installing the New Valve:

- Position the Durablow DV970A-NG valve in the appliance, ensuring proper alignment with gas lines and mounting points.
- Secure the valve using appropriate screws or brackets.
- Connect the gas lines to the 3/8" NPT inlet and outlet ports. Use gas-rated thread sealant on all pipe connections.
- Connect the electrical wiring to the standard NEMA terminals (TH, TH/TP, TP) as per your appliance's wiring diagram.

### 4. Leak Testing:

- Slowly turn on the main gas supply.
- Apply a non-corrosive leak detection solution (e.g., soapy water) to all gas connections.
- Bubbles indicate a gas leak. If a leak is detected, immediately turn off the gas supply, tighten the connection, and re-test. Do not proceed until all leaks are eliminated.

### 5. Final Checks:

- Ensure all connections are secure and no tools or debris are left inside the appliance.

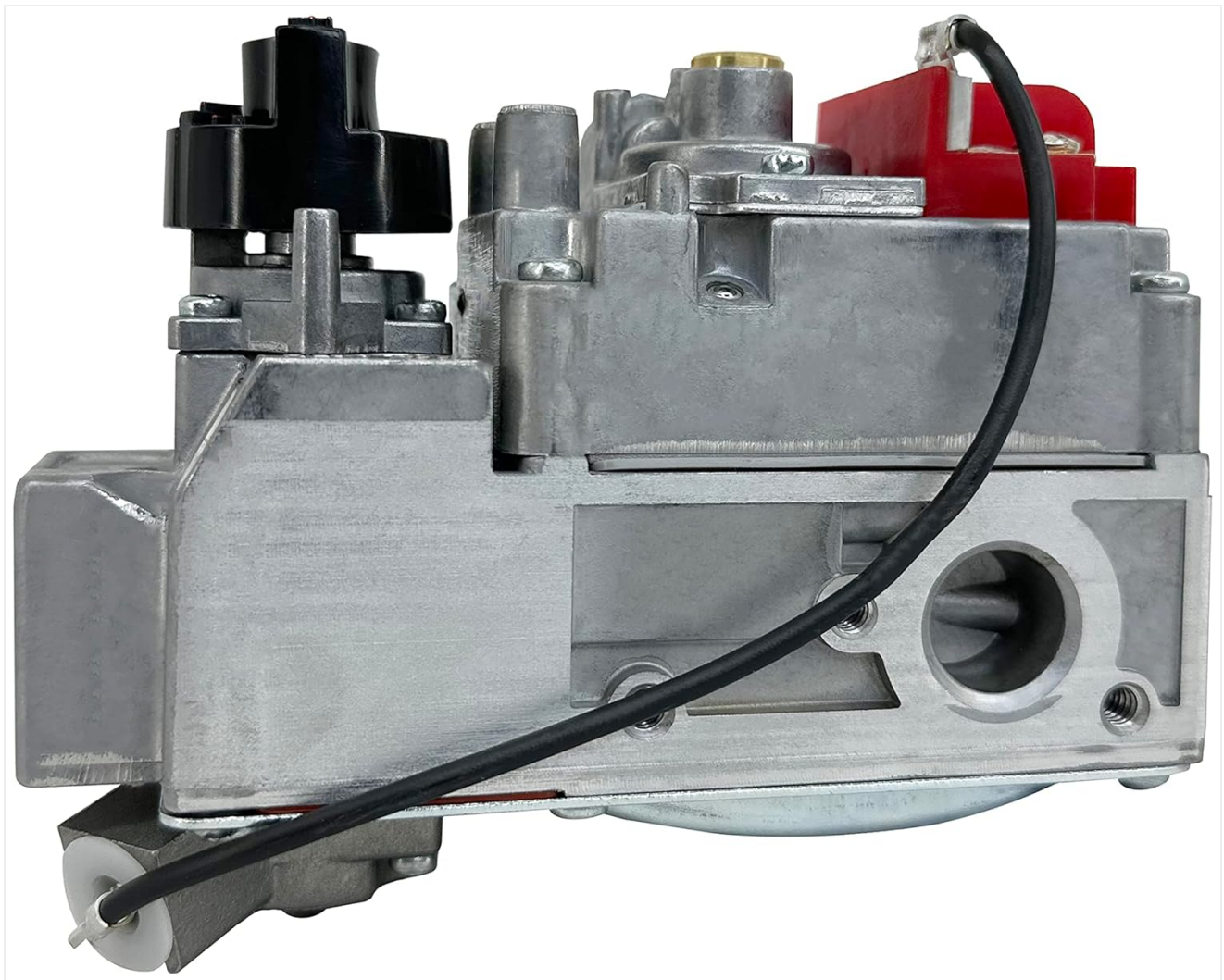
- Restore electrical power to the appliance.







**Figure 2:** Top view of the gas valve, showing the "IN" and "OUT" gas ports, the manual control dial, and the electrical terminals (TH, TH/TP, TP).



**Figure 3:** Side view of the gas valve, illustrating the overall dimensions and connection points for gas lines and electrical components.

## OPERATION

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The Durablow DV970A-NG valve features a manual control dial with three positions:

- **OFF:** In this position, the gas supply to both the pilot and main burner is completely shut off.
- **PILOT:** This position allows gas to flow only to the pilot burner. Use this setting for lighting the pilot. Once the pilot is lit and established, hold the dial in this position for a short period (refer to your appliance's manual for exact timing) to allow the thermopile to generate sufficient millivoltage.

- **ON:** Once the pilot is lit and the thermopile is generating adequate power, turn the dial to the "ON" position. This allows gas to flow to the main burner when called for by the thermostat or remote control system.

For detailed instructions on lighting your specific appliance, refer to its owner's manual.

## MAINTENANCE

Regular maintenance ensures the longevity and safe operation of your gas valve. All maintenance should be performed by a qualified service technician.

- **Annual Inspection:** Have a qualified technician inspect the gas valve and all gas connections annually for signs of wear, corrosion, or leaks.
- **Cleaning:** Keep the area around the gas valve clean and free from dust, debris, and obstructions. Do not use harsh chemicals or abrasive cleaners on the valve.
- **Pilot Assembly:** Ensure the pilot assembly is clean and the pilot flame is strong and blue. A weak or yellow pilot flame may indicate a problem with the gas supply or pilot orifice.

## TROUBLESHOOTING

If you experience issues with your gas appliance, consult this section. For complex problems, contact a qualified service technician.

Problem	Possible Cause	Solution
Pilot light will not stay lit.	<ul style="list-style-type: none"><li>◦ Insufficient millivoltage from thermopile.</li><li>◦ Dirty pilot orifice.</li><li>◦ Loose electrical connections to thermopile.</li></ul>	<ul style="list-style-type: none"><li>◦ Ensure pilot flame engulfs thermopile.</li><li>◦ Clean pilot orifice (professional service recommended).</li><li>◦ Check and tighten thermopile connections.</li></ul>
Main burner does not ignite.	<ul style="list-style-type: none"><li>◦ Gas valve control dial not in "ON" position.</li><li>◦ No call for heat from thermostat/remote.</li><li>◦ Insufficient millivoltage.</li><li>◦ Main gas supply off.</li></ul>	<ul style="list-style-type: none"><li>◦ Turn control dial to "ON".</li><li>◦ Check thermostat/remote settings.</li><li>◦ Verify pilot operation and thermopile output.</li><li>◦ Ensure main gas supply is open.</li></ul>
Smell of gas.	<ul style="list-style-type: none"><li>◦ Gas leak.</li></ul>	<ul style="list-style-type: none"><li>◦ <b>Immediately shut off gas supply. Ventilate area. Do not operate electrical switches. Contact a qualified technician.</b></li></ul>

## SPECIFICATIONS

- **Model:** DV970A-NG
- **Gas Type:** Natural Gas (NG)
- **Certification:** CSA
- **Temperature Rating:** 225°F (Maximum)
- **Dimensions (H x L x W):** 3-13/16" x 4-21/32" x 1-29/32"
- **Item Weight:** 1.39 pounds
- **Gas Inlet/Outlet Size:** 3/8" NPT

- **Electrical Rating:** 250mV to 750mV
- **Terminals:** Standard NEMA (TH, TH/TP, TP)
- **Capacity:** 40,000 BTU/Hr
- **Manufacturer:** DV970A (Durablow)
- **Origin:** Made in TAIWAN

## RELATED DURABLOW ACCESSORIES (OPTIONAL)

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The Durablow DV970A-NG millivolt gas valve can be integrated with various Durablow control systems for enhanced functionality. These accessories are sold separately.

- **RF Remote Controls:** TR1001, TR1003, TR1004
- **Smart Home Remote Controls:** SH3001, SH3002, SH4001, SH4002
- **IPI Control Module:** 593-592
- **IPI Harness:** 2166-304



**Figure 4:** Example of a Durablow RF Remote Control, compatible with the DV970A-NG valve for remote operation.



**Figure 5:** Example of a Durablow IPI Control Module, which can be used with the DV970A-NG valve for intermittent pilot ignition systems.



**Figure 6:** Example of a Durablow IPI Harness, used for connecting the IPI control module to the gas valve and other components.

For further assistance or technical support, please visit the [Durablow Store](#) or contact a qualified service professional.

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## Related Documents - DV970A-NG

	<a href="#">Durablow Smart Home WiFi Fireplace Remote Control User Manual (SH3001/SH3001-RH)</a> Comprehensive user manual for Durablow SH3001 and SH3001-RH smart home WiFi fireplace remote controls. Covers installation, setup, pairing, wiring, troubleshooting, and warranty information.
	<a href="#">Durablow Smart Home Series Gas Valve Control Installation and User Manual</a> Comprehensive guide for installing and using the Durablow Smart Home Series Gas Valve Control, including app setup, device pairing, wiring instructions, troubleshooting, and FAQs.
	<a href="#">Durablow TR1001 Remote Control System Installation and Operating Instructions</a> Comprehensive guide for installing and operating the Durablow TR1001 remote control system for gas fireplaces, including setup, wiring, troubleshooting, and warranty information.
	<a href="#">Durablow SH3001/SH3001-RH Wi-Fi Gas Valve Remote Control: Installation &amp; User Guide</a> Comprehensive guide for the Durablow Smart Home Series SH3001 and SH3001-RH Wi-Fi Gas Valve Remote Control. Learn about app setup, wiring, troubleshooting, and warranty.
	<a href="#">Durablow Remote Control System TR2003 TR2004 Installation and Operating Instructions</a> Comprehensive installation and operating guide for the Durablow TR2003, TR2004, T1003, T1004, and RR12 remote control system for gas fireplaces, covering setup, modes, wiring, and troubleshooting.
	<a href="#">Durablow TR1001 Fireplace Remote Control System Installation and Operation Manual</a> Comprehensive installation and operating instructions for the Durablow TR1001 remote control system, including setup, wiring, troubleshooting, and warranty information for gas fireplaces.



