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Henny Penny 7000 BDER-S7A Gas Valve Instruction Manual

Model: 7000 BDER-S7A | Brand: Henny Penny

1. INTRODUCTION

This manual provides essential instructions for the safe and effective installation, operation, and maintenance of the Henny Penny 7000 BDER-S7A Gas Valve. This valve is designed for natural gas applications in commercial cooking equipment. Please read this manual thoroughly before installation or use to ensure proper function and safety.

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.
- Ensure all gas and electrical connections comply with local codes and regulations.
- Always shut off the main gas supply and electrical power before performing any service or maintenance.
- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- Check for gas leaks using a non-corrosive leak detection solution after installation or service. Never use an open flame.

3. PRODUCT DESCRIPTION AND FEATURES

The Henny Penny 7000 BDER-S7A is a robust gas valve designed for reliable control of natural gas flow in commercial appliances. Key features include:

- **Fuel Type:** Natural Gas (for LP conversion, a specific LP kit #51-1184 is required).
- **Inlet/Outlet Size:** 1/2 inch FPT (Female Pipe Thread).
- **Pilot Output:** 1/4 inch CCT (Compression Connection Tube).

- **Ignition Types:** Compatible with Intermittent Pilot, Direct Spark, and Hot Surface ignition systems.
- **Electrical Rating:** 24 VAC, 0.55 Total Amp, 60Hz.
- **Pressure Rating:** Maximum 1/2 PSI.
- **Material:** Constructed from durable aluminum.



Figure 1: Henny Penny 7000 BDER-S7A Gas Valve. This image displays the main body of the gas valve, made of aluminum, with the control knob visible on the top-front. Electrical terminals are located at the top, and threaded gas connections are visible on the sides. A label with "ROBERTSHAW 7000 BDER-S7A" and specifications is affixed to the front.

This valve is commonly used as a replacement part for various commercial fryers and furnaces, including:

- **Frymaster Fryers:** H50, H52, Mach52, MJH50. (Note: For 0-second delay, use OEM #826-1120; for 11-second delay, use Mod #807-0918).
- **Henny Penny Fryers:** Model 680 (with serial #FH0111B and above).
- **Pitco Fryers:** Replaces Pitco #PP10593.
- **Vulcan Hart Fryer Series:** GRD with DE electronic ignition, Furnace SG4C, SG4D, SG6C, SG6D, VC4GC, VC4GD, VC4GS, VC6GC, VC6GD, VC6GS.

This valve replaces OEM part numbers such as Henny Penny 38276, Pitco PP10770, Vulcan Hart 410841-18, Vulcan Hart 410841-28, Frymaster 8070869, Frymaster 8070870, and Frymaster 8071033.

4. SETUP AND INSTALLATION

Installation of the gas valve should only be performed by a qualified and licensed technician in accordance with all applicable local and national codes and regulations.

1. **Preparation:** Ensure the main gas supply and electrical power to the appliance are completely shut off.
2. **Removal of Old Valve:** Carefully disconnect the gas lines and electrical wiring from the existing valve. Note the orientation and connections for proper reinstallation.
3. **Mounting:** Mount the new 7000 BDER-S7A gas valve in the correct orientation, ensuring it is securely

fastened.

4. **Gas Connections:** Connect the 1/2" FPT gas inlet and outlet lines. Use appropriate thread sealant (e.g., PTFE heavy-duty thread sealant) on all threaded connections to prevent leaks. Ensure the 1/4" CCT pilot out line is also securely connected.
5. **Electrical Connections:** Connect the 24 VAC electrical wiring to the designated terminals on the valve. Refer to the appliance's wiring diagram for correct connections.
6. **Leak Test:** After all connections are made, slowly turn on the main gas supply. Apply a non-corrosive leak detection solution to all gas connections to check for leaks. Bubbles indicate a leak, which must be corrected immediately.
7. **Pressure Check:** Verify gas pressure settings as per appliance manufacturer specifications.

Note: The use of proper tools, such as a tube cutter (1/8 to 5/8 inch) and tube bender (3/16 to 3/8 inch), may be necessary for gas line adjustments.

5. OPERATING INSTRUCTIONS

This gas valve operates in conjunction with the appliance's control system. The valve itself does not have user-adjustable operating controls beyond the ON/OFF/PILOT knob, if present and accessible.

1. **Initial Startup:** After installation and leak testing, restore electrical power to the appliance.
2. **Pilot Lighting (if applicable):** If the appliance uses an intermittent pilot, follow the appliance manufacturer's instructions for lighting the pilot. This typically involves turning a knob to a "PILOT" position, pressing it in, and igniting the pilot flame, then holding until the thermocouple heats up.
3. **Main Burner Operation:** Once the pilot is established (or with direct spark/hot surface ignition), the appliance's thermostat or control system will signal the gas valve to open, allowing gas to flow to the main burners.
4. **Shutdown:** To shut down the appliance, turn off the appliance's main power switch and, if necessary, turn the gas valve knob to the "OFF" position. For extended periods of non-use, it is recommended to shut off the main gas supply to the appliance.

6. MAINTENANCE

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

- **Annual Inspection:** Have the gas valve and associated gas lines inspected annually for signs of wear, corrosion, or leaks.
- **Cleaning:** Keep the exterior of the valve clean and free from dust, grease, and debris. Do not use harsh chemicals that could damage the valve's components.
- **Pilot Assembly Check:** If applicable, inspect the pilot assembly for proper flame characteristics and ensure the thermocouple/thermopile is clean and correctly positioned.
- **Functional Check:** Verify that the valve opens and closes smoothly and that the appliance ignites and operates correctly.

CAUTION: Do not attempt to repair a faulty gas valve. If a malfunction is detected, the valve should be replaced by a qualified service technician.

7. TROUBLESHOOTING

Before troubleshooting, ensure the main gas supply is on and the appliance has electrical power. If you are unsure about any step, contact a qualified service technician.

Problem	Possible Cause	Solution
No gas flow to pilot or main burner.	Main gas supply off. Valve knob in "OFF" position. Electrical power issue (24 VAC). Faulty thermostat or control board. Obstructed pilot tube.	Verify main gas supply is open. Turn valve knob to "ON" or "PILOT" position. Check electrical connections and power supply. Consult appliance manual or technician. Clean pilot tube (by technician).
Pilot lights but main burner does not ignite.	Faulty thermocouple/thermopile. Main burner orifice clogged. Incorrect gas pressure.	Inspect and replace thermocouple/thermopile. Clean main burner orifice (by technician). Verify and adjust gas pressure (by technician).
Gas odor detected.	Gas leak.	Immediately shut off main gas supply and ventilate the area. Do not operate any electrical switches. Contact a qualified gas technician or emergency services.

8. SPECIFICATIONS

Model Number	7000 BDER-S7A
Brand	Henny Penny
Fuel Type	Natural Gas (LP conversion kit available separately)
Inlet Connection Type	1/2 inch FPT (National Pipe Tapered)
Outlet Connection Size	0.5 Inches (1/2 inch FPT)
Pilot Output	1/4 inch CCT
Electrical Rating	24 VAC, 0.55 Total Amp, 60Hz
Maximum Pressure	1/2 PSI
Material	Aluminum
Product Dimensions (L x W x H)	7.5 x 5 x 4.5 inches
ASIN	B00GLBGSUI
UPC	046843777228, 205410870544
Manufacturer	Henny Penny

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the original purchase documentation or contact the seller directly. It is recommended to retain your proof of purchase for any warranty claims.

For service or replacement parts, always use genuine Henny Penny parts or approved equivalents to ensure

compatibility and maintain safety standards.