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› Goodman GD9S800804BN Gas Furnace User Manual

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80,000 BTU, 80% AFUE Downflow/Horizontal Gas Furnace

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation, installation, and maintenance of your Goodman GD9S800804BN Gas Furnace. This unit is designed to provide reliable heating with an 80% AFUE efficiency rating. It features a single-stage design and a multi-speed ECM motor for optimized performance and energy consumption. Please read this manual thoroughly before attempting any installation, operation, or maintenance procedures.



Image 1: Front-side view of the Goodman GD9S800804BN Gas Furnace. The unit is gray with a red Goodman logo on the front panel, and warning labels are visible.

2. SAFETY INFORMATION

WARNING: Improper installation, adjustment, alteration, service, or maintenance can cause property damage, personal injury, or loss of life. Refer to this manual. For assistance or additional information, consult a qualified installer, service agency, or the gas supplier.

- **Professional Installation Required:** Installation and service must be performed by a qualified installer or service agency.
- **Electrical Hazard:** Disconnect all electrical power to the unit before servicing or performing maintenance. Failure to do so can result in electrical shock, injury, or death.

- **Gas Hazard:** Ensure all gas connections are properly sealed and tested for leaks. Natural gas and propane are flammable and explosive.
- **Carbon Monoxide Hazard:** This appliance can produce carbon monoxide, which has no odor. Using it in an enclosed space can kill you.
- **Hot Surfaces:** The furnace contains components that can become hot during operation. Avoid contact to prevent burns.

3. SETUP AND INSTALLATION

The Goodman GD9S800804BN furnace is designed for flexible installation in a downflow or horizontal configuration. Due to the complexity and safety requirements, installation must be performed by a certified HVAC professional.

3.1 Pre-Installation Checks

- Verify that the furnace model matches the installation requirements and local codes.
- Ensure adequate clearance for service and airflow around the unit.
- Confirm that the electrical supply and gas line meet the furnace specifications.

3.2 Installation Steps (Overview for Professionals)

1. Position the furnace in the desired downflow or horizontal orientation.
2. Connect the ductwork to the supply and return air openings.
3. Install the flue pipe for proper exhaust ventilation.
4. Connect the gas supply line, ensuring all connections are leak-free.
5. Wire the furnace to the electrical supply and thermostat according to the wiring diagram.
6. Install any necessary accessories, such as LP kits or linesets (sold separately).
7. Perform initial startup and operational checks as per manufacturer guidelines.



Image 2: Interior view of the Goodman GD9S800804BN Gas Furnace, showing internal components, wiring, and the blower motor. This view is relevant for professional installation and servicing.

4. OPERATING INSTRUCTIONS

Your Goodman GD9S800804BN furnace operates automatically based on your thermostat settings. This single-stage furnace provides consistent heat output to maintain your desired indoor temperature.

4.1 Initial Startup

1. Ensure all power and gas supplies are turned on.
2. Set your thermostat to the 'Heat' mode and adjust the temperature setting above the current room temperature.
3. The furnace will initiate a startup sequence, including a pre-purge cycle, ignition, and blower activation.
4. Allow the furnace to run through a complete heating cycle to confirm proper operation.

4.2 Normal Operation

- Maintain your desired temperature using the thermostat.
- The furnace will cycle on and off as needed to maintain the set temperature.
- The multi-speed ECM motor will adjust airflow for optimal comfort and efficiency.

4.3 Shutting Down the Furnace

- For temporary shutdown, set the thermostat to 'Off' or lower the temperature setting significantly.
- For extended periods or servicing, turn off the electrical power at the circuit breaker and close the manual gas shut-off valve.

5. MAINTENANCE

Regular maintenance is crucial for the longevity and efficient operation of your furnace. Some tasks can be performed by the homeowner, while others require a qualified technician.

5.1 Homeowner Maintenance

- **Air Filter Replacement:** Check the air filter monthly and replace it every 1-3 months, or more frequently if you have pets or allergies. A clean filter ensures proper airflow and efficiency.
- **Clear Vents:** Ensure all supply and return air vents in your home are unobstructed.
- **Keep Area Clear:** Maintain a clear area around the furnace, free from combustible materials, debris, and obstructions.

5.2 Professional Maintenance

It is recommended to have your furnace inspected and serviced annually by a qualified HVAC technician. This service typically includes:

- Cleaning and inspection of the heat exchanger.
- Checking and adjusting gas pressure.
- Lubricating moving parts (if applicable).
- Inspecting electrical connections and components.
- Testing safety controls and thermostat operation.
- Checking for proper combustion and exhaust.

6. TROUBLESHOOTING

Before calling for service, review the following common issues. Always ensure power and gas supplies are on and the thermostat is set correctly.

Problem	Possible Cause	Solution
Furnace not heating	Thermostat set incorrectly; Power off; Gas valve closed; Dirty air filter; Pilot light (if applicable) out.	Check thermostat settings; Verify power at breaker; Open gas valve; Replace filter; Consult professional for pilot light issues.

Problem	Possible Cause	Solution
Insufficient heat	Dirty air filter; Blocked vents; Undersized furnace; Duct leaks.	Replace filter; Clear vents; Consult professional for sizing or duct issues.
Unusual noises	Loose components; Blower motor issues; Ductwork expansion/contraction.	Contact a qualified technician for inspection.
Furnace cycles frequently	Dirty air filter; Thermostat location; Oversized furnace.	Replace filter; Ensure thermostat is away from drafts/heat sources; Consult professional.

If these steps do not resolve the issue, or if you suspect a gas leak or electrical problem, immediately shut down the furnace and contact a qualified HVAC technician for assistance.

7. SPECIFICATIONS

The following specifications apply to the Goodman GD9S800804BN Gas Furnace:

- Model Name:** GD9S800804BN
- Brand:** Goodman
- BTU Output:** 80,000 BTU
- AFUE Efficiency:** 80%
- Configuration:** Downflow/Horizontal
- Power Source:** Gas Powered
- Motor Type:** Multi-Speed ECM Motor
- Refrigerant Compatibility:** R32
- Product Dimensions (D x W x H):** 28" x 17.5" x 33.38"
- Special Features:** Advanced Heat Exchanger Design, Quiet Comfort, Secure Cabinet, Self-Diagnostic Control Board

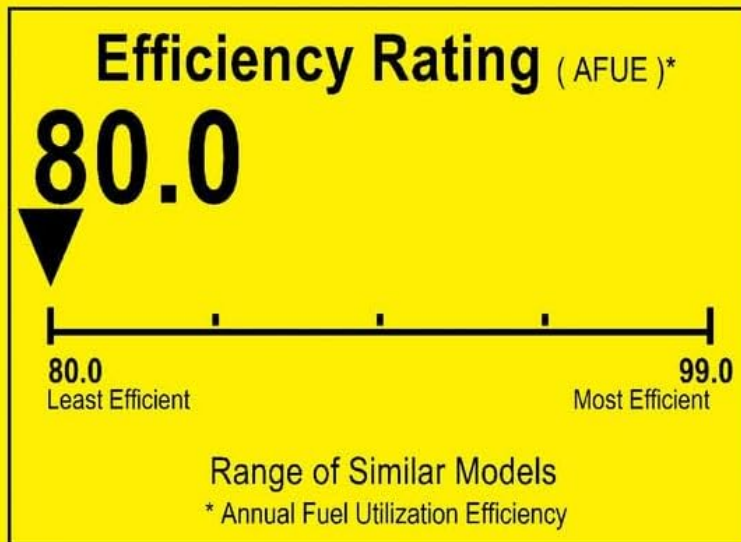
U.S. Government

Federal law prohibits removal of this label before consumer purchase.

ENERGYGUIDE

Furnace
Non-Weatherized
Natural Gas, Propane Gas

GOODMAN
Model GD9S800804BN



For energy cost info, visit
productinfo.energy.gov

Image 3: EnergyGuide label for the Goodman GD9S800804BN furnace, indicating an 80.0 AFUE efficiency rating.

8. WARRANTY AND SUPPORT

This Goodman GD9S800804BN Gas Furnace comes with a Limited Warranty. Specific warranty terms and conditions are provided with the product documentation at the time of purchase. Please retain your proof of purchase for warranty claims.

For technical support, service, or warranty inquiries, please contact your installing dealer or a qualified Goodman service provider. Do not attempt to repair the unit yourself, as this may void the warranty and pose safety risks.

You can also visit the official Goodman website for additional resources and to locate authorized service providers in your area.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question