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› Goodman 60K BTU 80% Efficiency Multi-Speed, Single-Stage Downflow Furnace (Model GD9S800603AN) User Manual

Goodman GD9S800603AN

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1. INTRODUCTION

This manual provides essential information for the safe and efficient operation, installation, and maintenance of your Goodman 60K BTU 80% AFUE Multi-Speed, Single-Stage Downflow Natural Gas Furnace, Model GD9S800603AN. Please read this manual thoroughly before attempting any installation, operation, or maintenance procedures. Retain this manual for future reference.



Image 1.1: Goodman 60K BTU 80% Efficiency Multi-Speed, Single-Stage Downflow Furnace. This image shows the general appearance of the furnace unit.

2. SAFETY INFORMATION

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

- Always ensure the furnace is installed by a qualified HVAC professional.
- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- Never operate the furnace without the access panels securely in place.
- Ensure adequate ventilation for combustion air and proper exhaust of flue gases.
- This furnace does not comply with the emissions regulations in California and therefore **CANNOT** be sold into or installed in California.

3. SETUP AND INSTALLATION

This furnace is designed for **downflow or horizontal installation only**. It **CANNOT** be installed as an upflow unit. For upflow applications, please refer to models beginning with "GR9". Installation must be performed by a certified HVAC technician in accordance with all local and national codes.

3.1 Key Features for Installation

- **Cabinet Size:** The furnace cabinet is 14 inches wide, designed for compact installations.
- **R32 Ready:** This unit is compatible with R32 refrigerant systems, offering flexibility for modern HVAC setups.
- **Multi-Speed ECM Motor:** Enhances overall efficiency through superior airflow control, contributing to improved heating performance and reduced operational noise.
- **Aluminized Steel Primary Heat Exchanger:** Provides durability and efficient heat transfer.

3.2 Required Accessories (Sold Separately)

Depending on your specific installation requirements, you may need to purchase additional accessories:

- Line sets
- LP (Liquid Propane) conversion kits (if converting from natural gas)
- Thermostat and wiring
- Ductwork and fittings

4. OPERATING INSTRUCTIONS

Once installed by a qualified technician, operating your furnace is straightforward. Always ensure the furnace is receiving power and gas supply before attempting to operate.

4.1 Initial Startup

1. Ensure all access panels are securely closed.
2. Turn on the electrical power to the furnace at the circuit breaker.
3. Open the manual gas shut-off valve to the furnace.
4. Set your thermostat to the "HEAT" mode and adjust the temperature setting above the current room temperature to initiate a heating cycle.
5. Observe the furnace for proper ignition and operation.

4.2 Normal Operation

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

- **Thermostat Settings:** Familiarize yourself with your thermostat's programming features for optimal energy savings and comfort.
- **Airflow:** Ensure return air grilles and supply registers are unobstructed for proper airflow.

5. MAINTENANCE

Regular maintenance is crucial for the longevity and efficient operation of your furnace. Always disconnect electrical power and turn off the gas supply before performing any maintenance.

5.1 Air Filter Replacement

The air filter should be checked monthly and replaced or cleaned as needed, typically every 1-3 months, depending on usage and household conditions (e.g., pets, allergies).

1. Locate the filter access panel on your furnace.
2. Remove the old filter, noting its direction of airflow.
3. Insert a new, clean filter of the correct size, ensuring the airflow arrow points towards the furnace blower.
4. Securely close the filter access panel.

5.2 Annual Professional Inspection

It is highly recommended to have your furnace inspected and serviced annually by a qualified HVAC technician. This ensures optimal performance, safety, and can identify potential issues before they become major problems.

6. TROUBLESHOOTING

Before calling for service, review the following common issues and their potential solutions. Always ensure safety precautions are followed.

Problem	Possible Cause	Solution
Furnace not heating	Thermostat set incorrectly, power off, gas valve closed, dirty air filter.	Check thermostat settings, ensure power is on, open gas valve, replace air filter.
Weak airflow	Dirty air filter, blocked vents.	Replace air filter, clear any obstructions from vents.
Unusual noises	Loose components, motor issues, ductwork problems.	Contact a qualified technician for inspection and repair.
Pilot light (if applicable) or igniter failure	Gas supply issue, dirty pilot/igniter.	Consult a qualified technician. Do not attempt to relight if you smell gas.

If these steps do not resolve the issue, or if you suspect a gas leak, immediately turn off the furnace and contact a qualified HVAC technician or your gas supplier.

7. SPECIFICATIONS

- **Model Number:** GD9S800603AN (Replaces GC9S800603AN, GCES800603AN, GDS80603AN)
- **BTU Output:** 60,000 BTU
- **AFUE Efficiency:** 80%
- **Motor Type:** Multi-Speed ECM
- **Heat Exchanger:** Aluminized Steel Primary
- **Installation Type:** Downflow/Horizontal
- **Cabinet Width:** 14 inches
- **Fuel Type:** Natural Gas (LP conversion kit sold separately)
- **Item Weight:** 175 pounds

8. WARRANTY INFORMATION

This Goodman furnace comes with a limited warranty. Please refer to the official warranty documentation provided with your unit for complete terms and conditions. Typically, Goodman furnaces include a 10-year limited parts warranty upon registration.



Image 8.1: Shield indicating a 10-Year Limited Warranty. This image represents the warranty coverage for the product.

For warranty claims or to register your product, please visit the official Goodman website or contact your authorized dealer.

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.

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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.

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