Goodman GR9T960803BN

Goodman GR9T960803BN 96% AFUE Natural Gas Furnace User Manual

Model: GR9T960803BN

1. Introduction

This manual provides essential information for the safe and efficient operation, installation, and maintenance of your Goodman GR9T960803BN 96% AFUE Two-Stage Natural Gas Furnace. This unit is designed for upflow or horizontal configurations and features an 80,000 BTU capacity with low NOx emissions. Please read this manual thoroughly before installation or operation.

Figure 1: Front view of the Goodman GR9T960803BN Natural Gas Furnace.

2. Safety Information

WARNING: Improper installation, adjustment, alteration, service, or maintenance can cause property damage, personal injury, or loss of life. Installation and service must be performed by a qualified installer, service agency, or the gas supplier.

- Always disconnect power before servicing the unit.

- Ensure proper ventilation and combustion air supply.
- Do not store flammable materials near the furnace.
- Install carbon monoxide detectors in your home.
- Never operate the furnace if any part has been submerged in water.
- This appliance uses natural gas. Ensure all gas connections are leak-free.

3. Setup and Installation

Installation of this furnace must be performed by a qualified HVAC professional. The unit is designed for upflow or horizontal installation. Refer to local codes and the complete installation manual provided with the unit for detailed instructions.

3.1 Pre-Installation Checks

- Verify that the furnace model matches the required specifications for your home.
- Ensure adequate space for installation and future servicing.
- Confirm that the electrical supply (115V) and natural gas line are available and correctly sized.

3.2 Unit Placement

The furnace can be installed in an upflow or horizontal position. Proper clearances from combustible materials must be maintained as per local codes and manufacturer guidelines. The unit dimensions are approximately 34.5"D x 17.5"W x 34.5"H.

Figure 2: Dimensions of the Goodman GR9T960803BN Natural Gas Furnace.

3.3 Connections

- **Ductwork:** Connect supply and return air ducts securely.
- **Gas Line:** Connect the natural gas supply line to the furnace gas valve. Ensure all connections are tested for leaks.
- **Electrical:** Wire the furnace to a dedicated 115V circuit as per wiring diagrams.
- **Ventilation:** Install proper venting for combustion byproducts.
- **Condensate Drain:** Connect the condensate drain line to an appropriate drainage system.

Figure 3: Internal components of the furnace, including the burner assembly and control board.

4. Operating Instructions

Once installed by a qualified professional, your Goodman furnace operates automatically based on your thermostat settings.

4.1 Starting the Furnace

1. Ensure the gas supply valve to the furnace is open.
2. Turn on the electrical power to the furnace.
3. Set your thermostat to the "Heat" mode and adjust the temperature setting above the current room temperature.

4. The furnace will initiate its start-up sequence, which includes a pre-purge, ignition, and main burner operation.

4.2 Two-Stage Operation

This furnace features two-stage heating. In mild weather, it will operate at a lower capacity (first stage) for longer periods, providing more consistent temperatures and greater efficiency. During colder periods, or if the thermostat calls for more heat, it will switch to full capacity (second stage) to quickly reach the desired temperature.

4.3 Shutting Down the Furnace

1. Set your thermostat to the "Off" mode or lower the temperature setting below the current room temperature.
2. For extended shutdowns (e.g., summer), turn off the electrical power to the furnace and close the manual gas shut-off valve.

5. Maintenance

Regular maintenance ensures the longevity and efficiency of your furnace. Some tasks can be performed by the homeowner, while others require a qualified HVAC 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 dirty filter restricts airflow and reduces efficiency.
- **Clear Area Around Furnace:** Ensure the area around the furnace is clear of obstructions, especially combustible materials, to allow for proper airflow and safe operation.
- **Condensate Drain:** Periodically check the condensate drain line for blockages.

5.2 Professional Maintenance

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

- Checking and cleaning the heat exchanger.
- Inspecting the burner assembly and igniter.
- Verifying gas pressure and connections.
- Testing safety controls and electrical components.
- Lubricating moving parts (if applicable).
- Checking flue and ventilation systems.

Figure 4: Top internal view showing the heat exchanger tubes. Regular inspection of these components is part of professional maintenance.

6. Troubleshooting

Before calling for service, review the following common issues and solutions. For complex problems, contact a qualified HVAC technician.

Problem	Possible Cause	Solution
Furnace not heating	Thermostat set incorrectly, power off, gas valve closed, dirty air filter, pilot light/igniter issue.	Check thermostat settings, ensure power is on, open gas valve, replace air filter. If igniter issue, contact technician.
Noisy operation	Loose panels, dirty blower wheel, motor issues.	Ensure all access panels are secured. If noise persists, contact technician.
Blower runs continuously	Thermostat fan setting on "ON", faulty thermostat, control board issue.	Set thermostat fan to "AUTO". If issue persists, contact technician.
Weak airflow	Dirty air filter, blocked return air vents, duct leaks.	Replace air filter, clear vents. Inspect ductwork for leaks.

7. Specifications

Key specifications for the Goodman GR9T960803BN Natural Gas Furnace:

Feature	Detail
Model Number	GR9T960803BN
Brand	Goodman
AFUE Efficiency	96%
Stages	Two-Stage
BTU Capacity	80,000 BTU
Fuel Type	Natural Gas
NOx Emissions	Low NOx
Configuration	Upflow/Horizontal
Motor Type	Multi-speed blower
Voltage	115V
Dimensions (D x W x H)	34.5" x 17.5" x 34.5"
Heat Exchanger	Heavy-duty aluminized-steel tubular (primary), Stainless-steel (secondary)
Igniter	Durable silicon nitride

8. Warranty Information

This Goodman furnace comes with a **10-year parts limited warranty**. To qualify for this warranty, the unit must be installed by a qualified installer and registered online within 60 days of installation. Failure to register the product within this timeframe may result in a shorter warranty period. Please retain your proof of purchase and installation records.

9. Support and Service

For technical assistance, service, or warranty claims, please contact a qualified HVAC professional or the Goodman customer support. Do not attempt to service the unit yourself beyond the basic homeowner maintenance described in this manual.

You can find more information and locate authorized service providers on the official Goodman website: www.goodmanmfg.com