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## Goodman GMS81205DX

# Goodman GMS81205DX Gas Furnace User Manual

Model: GMS81205DX

## 1. INTRODUCTION

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This manual provides essential information for the safe and efficient operation, installation, and maintenance of your Goodman GMS81205DX Gas Furnace. Please read all instructions carefully before attempting to install, operate, or service this unit. Retain this manual for future reference.

## 2. SAFETY INFORMATION

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**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 gas supplier.

- **Carbon Monoxide Hazard:** This furnace can produce carbon monoxide, which is odorless and can cause severe injury or death. Ensure proper ventilation and regularly check for leaks.
- **Electrical Shock Hazard:** Disconnect all electrical power to the unit before performing any service or maintenance.
- **Fire Hazard:** Do not store flammable materials near the furnace. Ensure proper clearances are maintained.
- **Gas Leak Hazard:** If you smell gas, follow the safety instructions provided by your gas supplier immediately. Do not operate electrical switches or phones.

## 3. SETUP AND INSTALLATION

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Installation of the Goodman GMS81205DX Gas Furnace must be performed by a qualified HVAC technician in accordance with all local and national codes and regulations.



**Figure 1:** Goodman GMS81205DX Gas Furnace. This image displays the exterior of the Goodman GMS81205DX gas furnace, a gray rectangular unit with the red 'Goodman' logo on the lower front panel. Vents are visible on the upper section, and a circular exhaust port is on the top surface.

### 3.1 Pre-Installation Checks

- Verify that the furnace model matches the installation requirements.
- Inspect the unit for any shipping damage.
- Ensure adequate space and clearances for installation and service.

### 3.2 Key Installation Steps (Overview)

1. **Location:** Position the furnace on a level surface, ensuring proper airflow and access for maintenance. This unit supports upflow and horizontal configurations.
2. **Ductwork Connection:** Connect supply and return air ducts securely to the furnace.
3. **Venting:** Install the flue pipe according to manufacturer specifications and local codes to ensure proper exhaust of combustion gases.
4. **Gas Piping:** Connect the gas supply line to the furnace, ensuring all connections are leak-free and properly sized.
5. **Electrical Wiring:** Connect the furnace to the appropriate power supply and thermostat wiring. Ensure proper grounding.
6. **Condensate Drain:** Install the condensate drain line, ensuring it slopes correctly for proper drainage.

## 4. OPERATING INSTRUCTIONS

## 4.1 Initial Startup

1. Ensure all installation steps are complete and verified by a qualified technician.
2. Open the manual gas shut-off valve to the furnace.
3. Restore electrical power to the furnace.
4. Set your thermostat to the desired temperature and heating mode. The furnace will initiate its startup sequence, which typically includes a pre-purge, ignition, and then blower activation.

## 4.2 Normal Operation

The furnace operates automatically based on your thermostat settings. When the thermostat calls for heat, the furnace will cycle on, heat the air, and distribute it through your home's ductwork. Once the desired temperature is reached, the furnace will cycle off.

## 4.3 Shutting Down the Furnace

- For temporary shutdown: Set the thermostat to the 'OFF' position or lower the temperature setting significantly.
- For extended shutdown (e.g., summer): Turn off the electrical power to the furnace at the service switch or circuit breaker, and close the manual gas shut-off valve.

# 5. MAINTENANCE

Regular maintenance is crucial for the efficient and safe operation of your furnace. Always disconnect electrical power before performing any maintenance.

## 5.1 Air Filter Replacement/Cleaning (Monthly)

Check the air filter monthly and replace or clean it as needed. A dirty filter restricts airflow, reducing efficiency and potentially damaging the unit.

## 5.2 Annual Professional Inspection

It is highly recommended to have a qualified HVAC technician inspect and service your furnace annually. This includes checking:

- Heat exchanger for cracks or corrosion.
- Burners for proper ignition and flame characteristics.
- Flue pipe for obstructions or leaks.
- Electrical connections and components.
- Blower motor and fan.
- Gas pressure and connections.

# 6. TROUBLESHOOTING

Before calling for service, review the following common issues. For complex problems or if you are unsure, contact a qualified technician.

Problem	Possible Cause	Solution
No Heat	Thermostat setting too low; Power off; Gas supply off; Dirty air filter; Safety lockout.	Check thermostat setting; Ensure power is on; Open gas valve; Replace/clean filter; Reset furnace (turn power off for 30 seconds, then on).

Problem	Possible Cause	Solution
Blower Not Working	Power off; Blower motor issue; Thermostat fan setting.	Check power; Ensure thermostat fan is set to 'AUTO' or 'ON'; Contact technician for motor issues.
Unusual Noises	Loose components; Blower motor issues; Ductwork issues.	Inspect for loose panels; Contact technician for internal component inspection.
Furnace Cycles On/Off Frequently	Dirty air filter; Oversized furnace; Thermostat location.	Replace/clean air filter; Consult technician for sizing or thermostat relocation advice.

## 7. SPECIFICATIONS

Key technical specifications for the Goodman GMS81205DX Gas Furnace:

- **Model:** GMS81205DX
- **Brand:** Goodman
- **BTU Input:** 120,000 BTU
- **AFUE (Annual Fuel Utilization Efficiency):** 80%
- **Burner Type:** Single-Stage
- **Blower Type:** Multi-Speed
- **Mounting Type:** Upflow/Horizontal
- **Low NOx:** Yes
- **Item Weight:** Approximately 150 pounds

## 8. WARRANTY INFORMATION

Goodman provides a limited warranty for this product. Specific warranty terms and conditions, including coverage duration and registration requirements, are detailed in the separate warranty certificate included with your furnace. Please register your product to ensure full warranty coverage. Keep your proof of purchase.

## 9. SUPPORT AND CONTACT

For technical assistance, service, or to locate an authorized Goodman dealer, please refer to the contact information provided in your product documentation or visit the official Goodman website. Always provide your model and serial number when contacting support.