

Goodman GPGM33606031

Goodman GPGM3-3.0 Ton Packaged Gas/Electric Central Air System User Manual

Model: GPGM33606031

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation, maintenance, and troubleshooting of your Goodman GPGM3-3.0 Ton Packaged Gas/Electric Central Air System. This unit is an all-in-one comfort solution designed for residential applications, combining a gas-fired furnace, air conditioning condenser, evaporator coil, and a multi-speed ECM blower into a single unit.

The GPGM3 features a heavy-duty aluminized-steel heat exchanger for efficient heat transfer and an advanced coil design with aluminum fins and copper tubing for optimal efficiency. It utilizes a single-stage scroll compressor for reliable operation and an R-32 refrigerant for improved environmental performance. The unit is equipped for both downflow and horizontal airflow configurations.



Image 1.1: Goodman GPGM3 Packaged Gas/Electric Central Air System. This image shows the exterior of the packaged unit, typically a rectangular outdoor cabinet housing all components.

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 or service agency.

- Always disconnect power to the unit before performing any service or maintenance.
- Ensure proper grounding to prevent electrical shock.
- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- This appliance contains R-32 refrigerant. Only qualified personnel should handle refrigerant.
- Keep the area around the unit clear of obstructions to ensure proper airflow.

3. SETUP AND INSTALLATION

Installation of this packaged gas/electric central air system requires specialized knowledge and tools. It is strongly recommended that installation be performed by a qualified HVAC professional.

3.1 Pre-Installation Checks

- Verify that the unit model (GPGM33606031) matches the installation requirements.
- Ensure the installation site provides adequate clearance for airflow and service access.
- Confirm electrical supply (208-230V, 1 Ph) and gas supply meet local codes and unit specifications.

3.2 Unit Placement and Airflow

The GPGM3 unit is designed for flexible installation, supporting both downflow and horizontal airflow configurations. The installer must ensure the unit is properly leveled and secured on a suitable pad or support structure.

3.3 Connections

All electrical, gas, and ductwork connections must be made by a qualified technician in accordance with local and national codes. The unit features access panels to expedite installation and maintenance procedures.

4. OPERATING INSTRUCTIONS

Your Goodman GPGM3 system provides both heating and cooling functions, automatically adjusting to maintain your desired indoor temperature. The multi-speed ECM blower motor ensures efficient air circulation throughout your home.

4.1 Thermostat Operation

The system is controlled by a compatible thermostat. Refer to your thermostat's user manual for specific programming and operation instructions. Generally, you will select your desired mode (Heat, Cool, Auto) and set the temperature.

- **Cooling Mode:** The system will operate as an air conditioner, using the R-32 refrigerant to remove heat from your home.
- **Heating Mode:** The system will operate as a gas furnace, providing warmth to your home.
- **Fan Mode:** The multi-speed ECM blower can be set to run continuously or only when heating/cooling is active.

4.2 Initial Startup

After installation, a qualified technician will perform the initial startup and system checks to ensure proper operation and safety.

5. MAINTENANCE

Regular maintenance is crucial for the longevity and efficient operation of your Goodman GPGM3 system. While some tasks can be performed by the homeowner, annual professional maintenance is highly recommended.

5.1 Air Filter Replacement

Check and replace the air filter monthly, or more frequently if the unit is in constant use or if you have pets. A dirty filter restricts airflow and reduces efficiency.

5.2 Outdoor Coil Cleaning

Keep the outdoor coil free of dirt, leaves, and other debris. Use a soft brush or vacuum to gently clean the coil fins. Ensure power is disconnected before cleaning.

5.3 Professional Annual Service

Schedule an annual inspection and tune-up by a qualified HVAC technician. This service typically includes:

- Checking refrigerant levels and pressures.
- Inspecting electrical connections and components.
- Cleaning and inspecting the heat exchanger.
- Lubricating moving parts (if applicable).
- Verifying proper thermostat operation.

6. TROUBLESHOOTING

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

6.1 No Heating or Cooling

- Check the thermostat settings to ensure it is in the correct mode (Heat/Cool) and the temperature is set appropriately.
- Verify that the circuit breaker for the unit has not tripped.
- Ensure the outdoor unit has power.

6.2 Insufficient Heating or Cooling

- Check and replace dirty air filters.
- Ensure outdoor unit coils are clean and free of obstructions.
- Verify that all supply and return air vents are open and unobstructed.

6.3 Unusual Noises

Minor operational noises are normal. However, if you hear loud grinding, squealing, or banging noises, turn off the unit immediately and contact a service technician.

7. SPECIFICATIONS

The following table details the technical specifications for the Goodman GPGM3-3.0 Ton Packaged Gas/Electric Central Air System (Model: GPGM33606031).

Specification	Value
Brand Name	Goodman
Model Info	GPGM33606031
Item Weight	370 pounds
Product Dimensions	51 x 47 x 35 inches
Efficiency	Moderately Efficient
Capacity	3 Tons
Annual Energy Consumption	2540 Kilowatt Hours Per Year
Noise Level	76 Decibels
Installation Type	Packaged
Form Factor	Packaged
Special Features	Ultra Low NOx (Nitrogen Oxide) Emissions
Color	Black
Voltage	230 Volts
Wattage	2000 watts
Included Components	Multi-speed ECM (Electronically Commutated Motor) blower motor
Cooling Power	22800 British Thermal Units
Seasonal Energy Efficiency Ratio (SEER2)	13.4
AFUE	0.81 %
Refrigerant Type	R-32
Heating Capacity Nominal	60000 Btu/H
Cooling Capacity Nominal	33800 Btu/H

8. R-32 REFRIGERANT INFORMATION

This Goodman GPGM3 unit utilizes R-32 refrigerant, a next-generation refrigerant with a lower Global Warming Potential (GWP) compared to older refrigerants. R-32 is an efficient and environmentally responsible choice for modern HVAC systems.

Your browser does not support the video tag.

Video 8.1: R-32 Fact vs Fiction. This video provides information about R-32 refrigerant, addressing common misconceptions and highlighting its benefits and widespread use in HVAC systems globally. It clarifies that R-32 is used by over 50 manufacturers in over 130 countries.

9. WARRANTY AND SUPPORT

Goodman offers a 10-year limited parts warranty with product registration. Please refer to the warranty documentation provided with your unit for full terms and conditions. Product registration is essential to activate your warranty. For technical support, service, or warranty claims, please contact your installing dealer or a qualified Goodman service provider. You can also visit the official Goodman website for more information and to locate a service professional in your area.

Visit the [Goodman Store](#) for additional product information.

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.

Submit question