Goodman GPCH33631

Goodman 3 TON 13.4 SEER2 Horizontal AC Only Packaged Unit (GPCH33631)

Instruction Manual

Introduction

This manual provides essential information for the installation, operation, maintenance, and troubleshooting of your Goodman 3 TON 13.4 SEER2 Horizontal AC Only Packaged Unit, model GPCH33631. Please read this manual thoroughly before attempting any procedures to ensure safe and efficient use of your unit. This unit is designed to provide reliable cooling for your home or commercial space.

Product Overview

The Goodman GPCH33631 is a horizontal packaged air conditioning unit, meaning all primary components (compressor, condenser, evaporator, and blower) are contained within a single outdoor cabinet. This design simplifies installation and is commonly used for ground-level or rooftop applications.



Figure 1: Top-down view of the Goodman GPCH33631 packaged AC unit, showing the fan grille and side panels.



Figure 2: Side view of the Goodman GPCH33631 packaged AC unit, highlighting the air intake grilles and Goodman branding.



Figure 3: Internal view of the Goodman GPCH33631 unit, showing the evaporator coil and refrigerant lines.

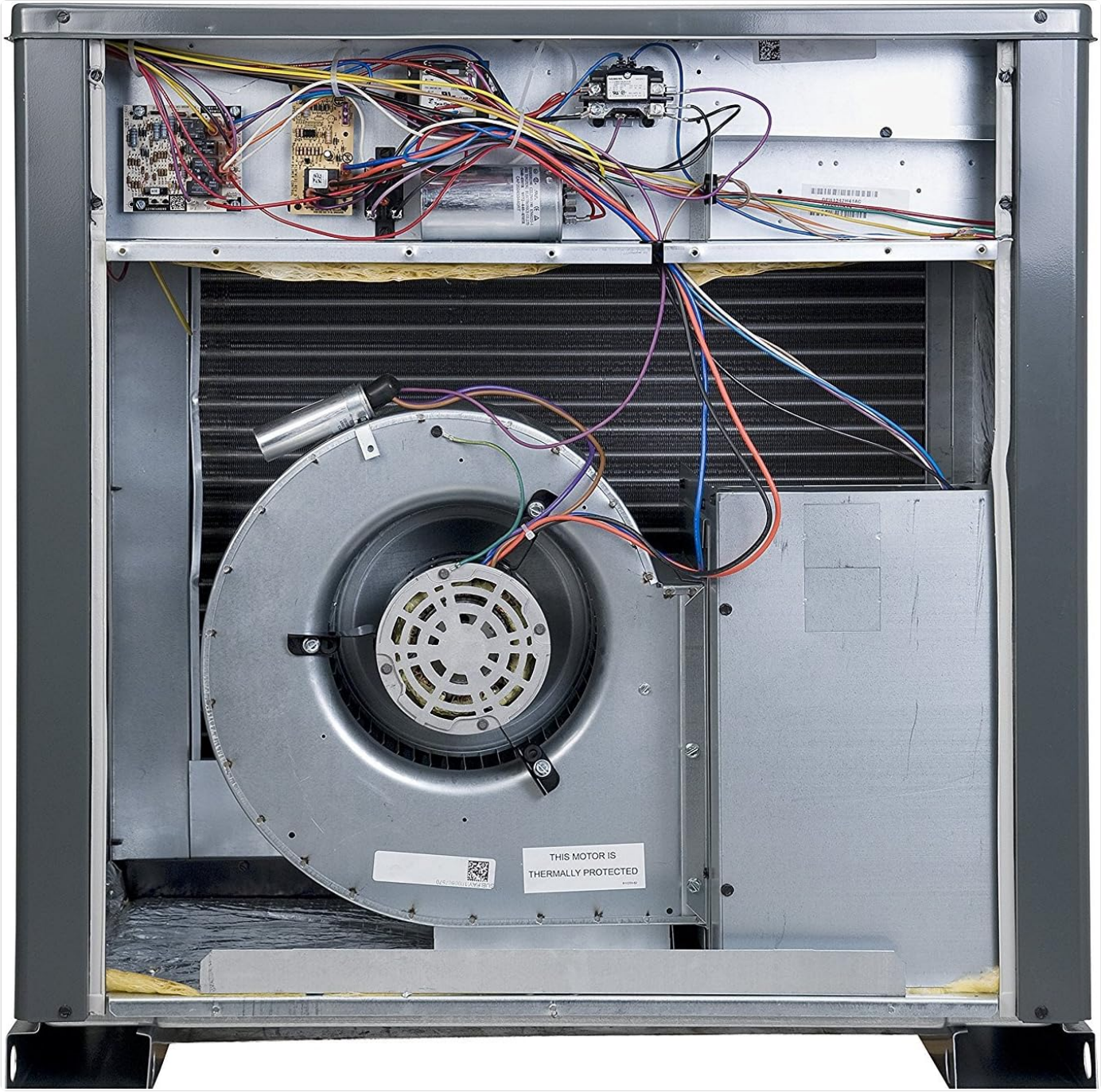


Figure 4: Internal view of the Goodman GPCH33631 unit, showing the blower motor and fan assembly.

Setup and Installation

Proper installation is crucial for the performance and longevity of your packaged AC unit. It is highly recommended that installation be performed by a licensed HVAC contractor. This section provides general guidelines.

Understanding Your HVAC System Type

Before installation, it's important to understand the type of HVAC system you have or are installing. Packaged units differ significantly from split systems.

Your browser does not support the video tag.

Video 1: An informational video from Superior Home Supplies explaining the differences between split systems and packaged units, which is essential for proper system identification and installation planning.

Placement Considerations

- **Location:** The unit can be installed on a concrete pad at ground level or on a suitable rooftop platform. Ensure the location allows for proper airflow and drainage.
- **Clearances:** Maintain adequate clearances around the unit for proper airflow and service access. Refer to the detailed installation manual for specific minimum clearances.
- **Level Surface:** The unit must be installed on a firm, level surface to ensure proper operation of the compressor and drainage.

Ductwork Connection

Connect the supply and return air ducts to the unit's designated openings. Ensure all connections are sealed to prevent air leaks, which can reduce efficiency.

Electrical Connections

All electrical wiring must comply with local codes and national electrical codes. Ensure the power supply matches the unit's requirements (230 Volts). A dedicated circuit and proper grounding are essential.

Refrigerant Charging

This unit comes pre-charged with R-32 refrigerant. Verify the charge according to the manufacturer's specifications, especially if line sets or ductwork lengths deviate from standard configurations. Only qualified technicians should handle refrigerant.

Operating Instructions

Once installed, operating your Goodman packaged AC unit is straightforward via your thermostat. Ensure your thermostat is compatible and properly wired.

Thermostat Settings

- **Mode Selection:** Set your thermostat to 'COOL' for air conditioning.
- **Temperature Setting:** Adjust the desired temperature. The unit will cycle on and off to maintain this setting.
- **Fan Setting:** Set the fan to 'AUTO' for normal operation (fan runs only when cooling) or 'ON' for continuous air circulation.

Initial Startup

After installation, allow the unit to run for at least 15-20 minutes to stabilize. Monitor for unusual noises or vibrations. If any issues arise, refer to the troubleshooting section or contact a qualified technician.

Maintenance

Regular maintenance ensures optimal performance, energy efficiency, and extends the lifespan of your unit. Always disconnect power to the unit before performing any maintenance.

Air Filter Replacement

- **Frequency:** Check and replace the air filter every 1-3 months, or more frequently if the unit is in constant use or in dusty environments.
- **Location:** The air filter is typically located in the return air ductwork or within the unit's filter rack.
- **Type:** Use the correct size and MERV rating filter as specified by Goodman.

Coil Cleaning

- **Condenser Coils:** Annually, clean the outdoor condenser coils to remove dirt, leaves, and debris. Use a soft brush

and water.

- **Evaporator Coils:** Evaporator coils (inside the unit) should be inspected and cleaned by a professional HVAC technician annually.

Drain Pan and Line

Periodically check the condensate drain pan for standing water and clear any blockages in the drain line to prevent overflow and water damage.

Professional Servicing

It is recommended to have your unit professionally serviced by a licensed HVAC technician at least once a year, preferably before the cooling season. This includes checking refrigerant levels, electrical connections, and overall system performance.

Troubleshooting

This section provides basic troubleshooting steps for common issues. For complex problems, contact a qualified HVAC technician.

Problem	Possible Cause	Solution
Unit not turning on	No power; tripped circuit breaker; thermostat issue.	Check power supply; reset breaker; verify thermostat settings and battery.
Insufficient cooling	Dirty air filter; blocked condenser coils; low refrigerant.	Replace filter; clean coils; contact technician for refrigerant check.
Unit making unusual noises	Loose parts; fan motor issue; compressor problem.	Inspect for loose panels; contact technician for internal component inspection.
Water leaking from unit	Clogged condensate drain line; cracked drain pan.	Clear drain line; inspect drain pan for damage.

Specifications

Key technical specifications for the Goodman GPCH33631 unit:

- **Brand:** Goodman
- **Model Number:** GPCH33631
- **Product Dimensions:** 34 x 66.5 x 35 inches
- **Item Weight:** 315 pounds
- **Capacity:** 3 Tons
- **Voltage:** 230 Volts
- **Cooling Power:** 36000 British Thermal Units (BTU)
- **Seasonal Energy Efficiency Ratio (SEER):** 13.4
- **Refrigerant:** R-32
- **Power Source:** Corded Electric
- **Form Factor:** Packaged Unit
- **Color:** Architectural Gray

Warranty Information

Your Goodman GPCH33631 unit comes with a manufacturer's warranty. Please review the following details:

- **Warranty Coverage:** Full parts warranty coverage is provided.
- **Installation Requirement:** Warranty coverage is valid only if the equipment is installed by a licensed HVAC contractor.
- **Exclusions:** Labor and refrigerant are not covered under the warranty.

For complete warranty terms and conditions, please refer to the warranty certificate included with your product or contact Goodman customer service.

Support

For further assistance, technical support, or to locate a licensed HVAC contractor, please contact Goodman customer service or visit their official website. Always provide your model number (GPCH33631) and serial number when seeking support.

Goodman Official Website: www.goodmanmfg.com

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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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