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› Goodman GPHH56041 5 Ton Horizontal Packaged Heat Pump Instruction Manual

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Model: GPHH56041

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation, installation, and maintenance of your Goodman GPHH56041 5 Ton Horizontal Packaged Heat Pump. Please read all instructions carefully before proceeding with installation or use. This unit is designed to provide both heating and cooling for optimal year-long indoor comfort.



Figure 1: Goodman GPHH56041 5 Ton Horizontal Packaged Heat Pump, front view.

2. KEY FEATURES

The Goodman GPHH56041 Packaged Heat Pump is engineered with several features to ensure reliable and efficient performance:

- **High-Efficiency Scroll Compressor:** Designed for quiet operation and enhanced energy efficiency.
- **Multi-Speed ECM Indoor Blower Motor:** Provides consistent airflow and improved comfort.
- **Convertible Airflow:** Supports both horizontal and downflow applications for flexible installation.
- **All-Aluminum Evaporator Coil:** A single metal solution designed for enhanced durability and performance.
- **Copper Tube/Aluminum Fin Condenser Coil:** Optimized for efficient heat transfer.
- **Totally Enclosed, Permanently Lubricated Condenser Fan Motor:** Ensures long-lasting, low-maintenance operation.
- **Cabinet Air Leakage:** Less than 2.0%, contributing to HVAC performance and efficiency.
- **Refrigerant:** Utilizes R-410A refrigerant.
- **Efficiency Rating:** 15.2 SEER2 (Seasonal Energy Efficiency Ratio 2) for cooling and 6.7 HSPF2 (Heating Seasonal Performance Factor 2) for heating.
- **Tonnage:** 5 Ton capacity.
- **AHRI Certified; ETL Listed:** Meets industry standards for performance and safety.



Figure 2: Internal view of the Goodman GPHH56041, highlighting the scroll compressor and coils.

3. SPECIFICATIONS

Feature	Detail
Model Number	GPHH56041
Cooling Capacity	57,250 BTU/h (5 Ton)
Heating Capacity	54,500 BTU/h
SEER2 Rating	15.2
HSPF2 Rating	6.7

Compressor Type	High-Efficiency Scroll Compressor
Refrigerant	R-410A
Indoor Blower Motor	Multi-Speed ECM
Airflow Configuration	Convertible (Horizontal or Downflow)
Evaporator Coil Material	All-Aluminum
Condenser Coil Material	Copper Tube/Aluminum Fin
Cabinet Material	Steel
Maximum Voltage	240 V
Control Method	Remote (Thermostat)
Product Shipping Weight	688 lbs

4. SETUP AND INSTALLATION

Installation of the Goodman GPHH56041 Packaged Heat Pump should only be performed by qualified HVAC technicians. Improper installation can lead to equipment damage, personal injury, or voiding of the warranty. Ensure all local and national codes are followed.

4.1 Pre-Installation Checks

- Verify the unit's specifications match the installation requirements.
- Inspect the unit for any shipping damage.
- Ensure adequate space for installation, maintenance, and airflow around the unit.
- Confirm electrical supply meets the unit's voltage and amperage requirements (240V).

4.2 Unit Placement

This horizontal packaged unit can be installed on a rooftop or at ground level. Ensure the mounting surface is level and capable of supporting the unit's weight. Maintain proper clearances from walls, other equipment, and vegetation for optimal performance and serviceability.

4.3 Ductwork Connection

Connect the supply and return air ducts to the unit. The convertible airflow design allows for either horizontal or downflow applications. Ensure all duct connections are sealed to prevent air leakage, which can reduce efficiency.

4.4 Electrical Wiring

Connect the unit to the main electrical supply and the thermostat wiring. All wiring must comply with national and local electrical codes. A dedicated circuit breaker is required.

4.5 Refrigerant Lines

The unit comes pre-charged with R-410A refrigerant. Any additional charging or adjustments should be performed by a certified technician.

Your browser does not support the video tag.

Video 1: An overview of Goodman packaged units, including their types and features, which can aid in understanding the installation context.

5. OPERATING INSTRUCTIONS

Your Goodman GPHH56041 heat pump is controlled by a remote thermostat. Familiarize yourself with your thermostat's operation manual for specific programming and settings.

5.1 Thermostat Settings

- **Mode Selection:** Select between "Heat", "Cool", "Auto", or "Off".
- **Temperature Setting:** Adjust the desired temperature for your comfort.
- **Fan Control:** Set the fan to "Auto" (runs only when heating/cooling) or "On" (runs continuously).

5.2 Initial Startup

- After installation, ensure all power disconnects are in the "ON" position.
- Set the thermostat to your desired mode and temperature.
- Allow the system to run for at least 24 hours to stabilize and ensure proper operation.

5.3 Heat Pump Operation

Heat pumps operate by transferring heat rather than generating it. In heating mode, they extract heat from the outside air and transfer it indoors. In cooling mode, they extract heat from indoors and release it outside. This process makes them highly energy-efficient.

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Video 2: Explanation of how heat pumps work compared to straight cool air conditioners, providing insight into the unit's operational principles.

6. MAINTENANCE

Regular maintenance is crucial for the longevity and efficiency of your Goodman GPHH56041 heat pump. Some tasks can be performed by the homeowner, while others require a qualified technician.

6.1 Homeowner Maintenance

- **Filter Replacement:** Check and replace air filters monthly, or as recommended by the filter manufacturer. Dirty filters restrict airflow and reduce efficiency.
- **Clear Debris:** Keep the area around the outdoor unit clear of leaves, grass clippings, and other debris to ensure proper airflow.
- **Coil Cleaning (Exterior):** Gently rinse the outdoor coil with a garden hose to remove dirt and dust. Avoid high-pressure sprays.

6.2 Professional Maintenance (Annual)

Schedule annual maintenance with a qualified HVAC technician to ensure optimal performance and prevent potential issues. This typically includes:

- Checking refrigerant levels and pressure.
- Cleaning and inspecting indoor and outdoor coils.
- Lubricating moving parts (if applicable).
- Inspecting electrical connections and components.
- Checking thermostat calibration.
- Inspecting ductwork for leaks.
- Verifying proper operation of all safety controls.

7. TROUBLESHOOTING

Before calling for service, review the following common issues and their potential solutions:

Problem	Possible Cause	Solution
Unit Not Turning On	No power, thermostat setting incorrect, tripped breaker.	Check power supply, ensure thermostat is in "Heat" or "Cool" mode and set to desired temperature, reset circuit breaker.
Insufficient Heating/Cooling	Dirty air filter, blocked outdoor unit, low refrigerant, leaky ductwork.	Replace air filter, clear debris from outdoor unit, contact technician for refrigerant check and duct inspection.
Unusual Noises	Loose parts, motor issues, refrigerant line vibration.	Turn off unit and inspect for loose panels. If noise persists, contact a qualified technician.
Unit Freezing Up	Dirty air filter, low refrigerant, restricted airflow.	Replace air filter, ensure vents are open. If freezing continues, contact a technician.

For issues not listed above or if solutions do not resolve the problem, contact a qualified HVAC service technician.

8. WARRANTY AND SUPPORT

The Goodman GPHH56041 Packaged Heat Pump typically comes with a **10-year limited parts warranty**. Specific warranty terms and conditions may vary. Please refer to the warranty documentation included with your product for full details and registration requirements.

8.1 Contacting Support

For technical support, warranty claims, or to schedule service, please contact your authorized Goodman dealer or the customer support line provided in your product documentation.

9. REFRIGERANT INFORMATION (R-410A)

This unit uses R-410A refrigerant. While R-410A is a common refrigerant, the industry is transitioning to newer, lower Global Warming Potential (GWP) refrigerants like R-32. For more information on refrigerants and their environmental impact, consult industry resources.

Your browser does not support the video tag.

Video 3: A short video discussing R-32 refrigerant, its facts versus fiction, and its global usage by various manufacturers.

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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.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

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