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› Goodman 3.5-5.0 TON Vertical Coil (R-32 only) User Manual

Goodman CAPF4961C6

Goodman 3.5-5.0 TON Vertical Coil (R-32 only) User Manual

Model: CAPF4961C6

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your Goodman 3.5-5.0 TON Vertical Coil. This unit is designed for use in residential and light commercial HVAC systems and is specifically engineered for compatibility with R-32 refrigerant only. Adhering to the guidelines in this manual will ensure optimal performance and longevity of your coil.



Image 1.1: The Goodman 3.5-5.0 TON Vertical Coil, showcasing its robust construction and design for efficient heat exchange within an HVAC system.

2. IMPORTANT SAFETY INFORMATION

Please read all safety warnings and instructions carefully before installing or operating this unit. Failure to follow these instructions can result in property damage, personal injury, or death.

- **Professional Installation Required:** This unit must be installed by a qualified HVAC technician. Improper

installation can lead to system malfunction, safety hazards, and void the product warranty.

- **R-32 Refrigerant ONLY:** This coil is designed exclusively for use with R-32 refrigerant. Using any other type of refrigerant will cause severe damage to the unit, compromise system efficiency, and immediately void the manufacturer's warranty.
- **Electrical Safety:** Ensure all electrical connections are made in accordance with local and national electrical codes. Disconnect power before servicing the unit.
- **Refrigerant Handling:** R-32 refrigerant must be handled by certified professionals. Improper handling can lead to refrigerant leaks, environmental damage, and personal injury.
- **Sharp Edges:** Exercise caution during installation and maintenance as the unit may contain sharp edges. Wear appropriate protective gear, including gloves.

3. SETUP AND INSTALLATION

The Goodman Vertical Coil is designed for upflow/downflow applications. Proper installation is critical for the unit's performance and longevity. Always refer to the complete installation instructions provided with the outdoor unit and furnace/air handler for detailed wiring and piping diagrams.

3.1 Pre-Installation Checks

- Verify that the coil model is compatible with your existing or new outdoor unit and furnace/air handler, especially regarding tonnage and refrigerant type (R-32).
- Inspect the unit for any shipping damage. Report any damage to your supplier immediately.
- Ensure adequate space is available for installation, considering the unit's dimensions and required clearances for airflow and service access.

3.2 Installation Steps (Overview)

This is a general overview. A qualified technician will follow detailed procedures including:

1. **Positioning:** Place the coil in the designated location within the ductwork, ensuring proper orientation (vertical, upflow/downflow).
2. **Ductwork Connection:** Securely connect the coil to the supply and return air ducts, ensuring airtight seals to prevent air leakage.
3. **Refrigerant Line Connection:** Connect the liquid and suction refrigerant lines from the outdoor unit to the coil. Ensure proper brazing techniques are used to prevent leaks.
4. **Drain Pan and Condensate Drain:** Install the condensate drain pan and connect the drain line to a suitable drainage system, ensuring proper slope for gravity drainage.
5. **Leak Testing and Evacuation:** Perform a thorough leak test on all refrigerant connections. Evacuate the system to a deep vacuum to remove all non-condensable gases and moisture.
6. **Refrigerant Charging:** Charge the system with the correct amount of R-32 refrigerant according to the manufacturer's specifications for the outdoor unit.
7. **Electrical Connections:** Complete any necessary low-voltage electrical connections for thermostat control and safety devices.

Goodman

CAPFA6030C3



Tonnage

3.5 - 5.0

Connections

3/8" x 7/8"

Dimensions

21 x 21 x 30

Weight

66

Orientation

Vertical

10 PARTS
YEAR LIMITED
WARRANTY*

R32

Please contact us if you have questions

Image 3.1: Visual representation of key specifications for the Goodman coil, including tonnage range (3.5-5.0), connection sizes (3/8" x 7/8"), dimensions (21 x 21 x 30 inches), weight (66 lbs), and vertical orientation, along with R-32 compatibility and 10-year warranty information.

4. OPERATING INSTRUCTIONS

As an indoor coil, this unit operates in conjunction with an outdoor condensing unit and an indoor air handler or furnace. Its function is to facilitate heat exchange as part of the complete refrigeration cycle. There are no direct user controls on the coil itself.

- **System Activation:** The coil begins operation when the thermostat calls for cooling, activating the outdoor unit and indoor fan.
- **Refrigerant Flow:** Liquid R-32 refrigerant flows into the coil, where it absorbs heat from the indoor air, turning into a low-pressure gas.
- **Airflow:** The indoor fan circulates warm indoor air over the cold coil surface, removing heat and humidity from the air.
- **Condensate Drainage:** As air passes over the cold coil, moisture condenses on its surface and drains away through the condensate pan and drain line.
- **System Control:** All operational settings, such as temperature and fan speed, are managed via your system's thermostat.

5. MAINTENANCE

Regular maintenance is crucial for the efficient and reliable operation of your Goodman coil. It is recommended that a qualified HVAC technician perform annual professional maintenance.

5.1 User Maintenance (Monthly/Quarterly)

- **Air Filter Replacement/Cleaning:** Regularly check and replace or clean the air filter in your furnace or air handler. A dirty filter restricts airflow, reduces efficiency, and can lead to coil freeze-up.
- **Condensate Drain Line Check:** Periodically inspect the condensate drain line for clogs (e.g., algae, debris). Clear any blockages to ensure proper drainage and prevent water overflow.

5.2 Professional Maintenance (Annually)

- **Coil Cleaning:** The technician will inspect and clean the evaporator coil to remove dirt, dust, and debris that can accumulate and hinder heat transfer.
- **Refrigerant Level Check:** Verify the correct R-32 refrigerant charge. Low refrigerant levels can indicate a leak and reduce system efficiency.
- **Drain Pan and Line Cleaning:** Thoroughly clean the condensate pan and flush the drain line to prevent blockages.
- **Airflow Inspection:** Check for proper airflow across the coil and through the ductwork.
- **Electrical Connections:** Inspect all electrical connections for tightness and signs of wear.

6. TROUBLESHOOTING

This section provides general guidance for common issues. For complex problems or issues requiring refrigerant handling, always contact a qualified HVAC technician.

Problem	Possible Cause	Solution
Insufficient Cooling	Dirty air filter Low refrigerant charge Blocked coil fins Improper airflow	Replace/clean air filter Contact technician to check for leaks and recharge R-32 Contact technician for coil cleaning Ensure vents are open and not blocked

Problem	Possible Cause	Solution
Water Leaking from Unit	Clogged condensate drain line Cracked drain pan Coil freezing up	Clear drain line blockage Contact technician for pan replacement Check air filter; contact technician for airflow or refrigerant issues
Unusual Noises	Loose components Airflow obstruction	Contact technician for inspection Check for obstructions in ductwork or near unit
Unit Not Operating	No power to system Thermostat setting incorrect Safety switch tripped	Check circuit breaker Verify thermostat is set to 'Cool' and desired temperature Contact technician to diagnose and reset

7. SPECIFICATIONS

Key technical specifications for the Goodman 3.5-5.0 TON Vertical Coil (Model CAPF4961C6).

Specification	Value
Brand	Goodman
Model Number	CAPF4961C6
Capacity	3.5 - 5.0 Tons
Refrigerant Compatibility	R-32 ONLY
Product Dimensions (L x W x H)	26 x 23.5 x 32.75 inches
Item Weight	71 pounds
Installation Type	Split System
Form Factor	Cased
Material Type	Copper
Color	Black
Wattage (System Dependent)	17585 watts (approximate, system dependent)

8. WARRANTY INFORMATION

This Goodman coil comes with a **10-year parts only limited warranty**. To qualify for the full warranty, the unit must be installed by a qualified installer and registered online within 60 days of installation. Online registration is not required in California.



Image 8.1: The 10-Year Limited Warranty shield, signifying the manufacturer's commitment to product quality and durability.

Please retain your proof of purchase and installation records. For complete warranty details, including terms, conditions, and exclusions, please refer to the warranty certificate included with your product or contact Goodman customer support.

9. CUSTOMER SUPPORT

If you have any questions regarding your Goodman 3.5-5.0 TON Vertical Coil, require technical assistance, or need to inquire about warranty claims, please contact Goodman customer support or your authorized Goodman dealer.

For the most up-to-date contact information, please visit the official Goodman website or refer to the documentation provided with your complete HVAC system.

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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

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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

