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Goodman GLZS4BA2410

Goodman 2 Ton 14.3 SEER2 Heat Pump Condenser

Model: GLZS4BA2410

Brand: Goodman

1. Introduction

This manual provides essential information for the safe and efficient operation, installation, and maintenance of your Goodman 2 Ton 14.3 SEER2 Heat Pump Condenser. Please read this manual thoroughly before installation or use and retain it for future reference. This unit is designed to provide both efficient heating and cooling for year-round comfort.

2. Product Overview

The Goodman 2 Ton 14.3 SEER2 Heat Pump Condenser is a versatile unit offering efficient heating and cooling. With a 14.3 SEER2 rating, it provides standard efficiency and potential energy savings. It is built with a durable, hurricane-resistant finish and includes a bi-flow filter drier for long-lasting performance. This unit is an ideal replacement for older Goodman models such as GSZ140241 and GSZB402410, offering enhanced performance and efficiency.

Key Features:

- **Year-Round Comfort:** Provides both efficient heating and cooling from a single unit.
- **Standard Efficiency:** 14.3 SEER2 rating for energy savings compared to older units.
- **Durable Construction:** Features a 500-hour salt spray-approved finish and meets 2010 Florida building code for hurricane conditions when anchored.
- **Refrigerant Protection:** Built-in bi-flow filter drier protects against refrigerant impurities.
- **R32 Refrigerant Compliant:** Utilizes R32 refrigerant, pre-charged for convenience.

Product Visuals:

Figure 1: Goodman 2 Ton 14.3 SEER2 Heat Pump Condenser. This image displays the outdoor unit of the heat pump system.

Figure 2: Dimensions of the Goodman Heat Pump Condenser. The unit measures 29 inches deep, 29 inches wide, and 32.5 inches high.

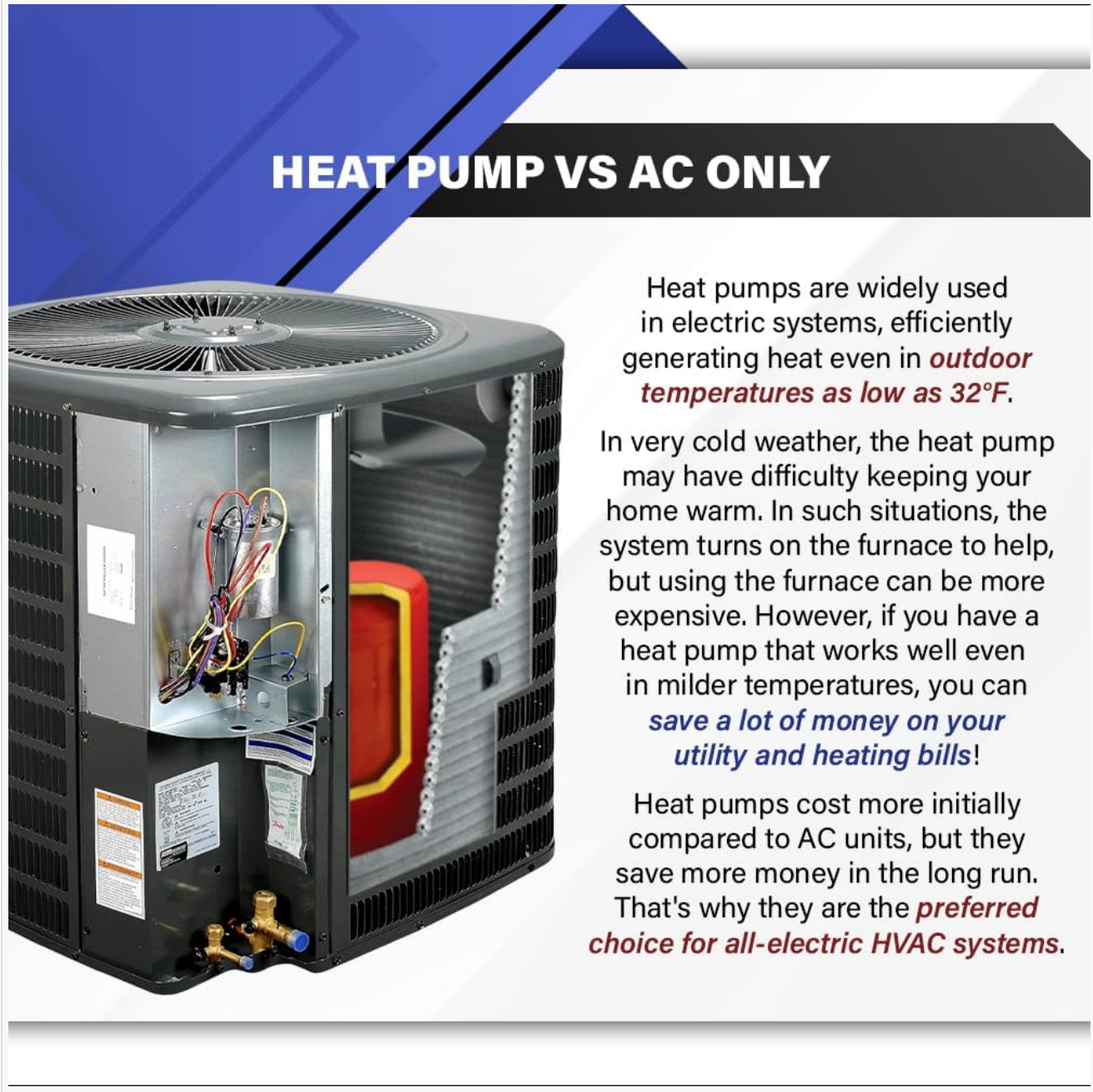

Figure 3: Illustrates the difference between a heat pump and an AC-only system, highlighting the heat pump's ability to provide both heating and cooling.

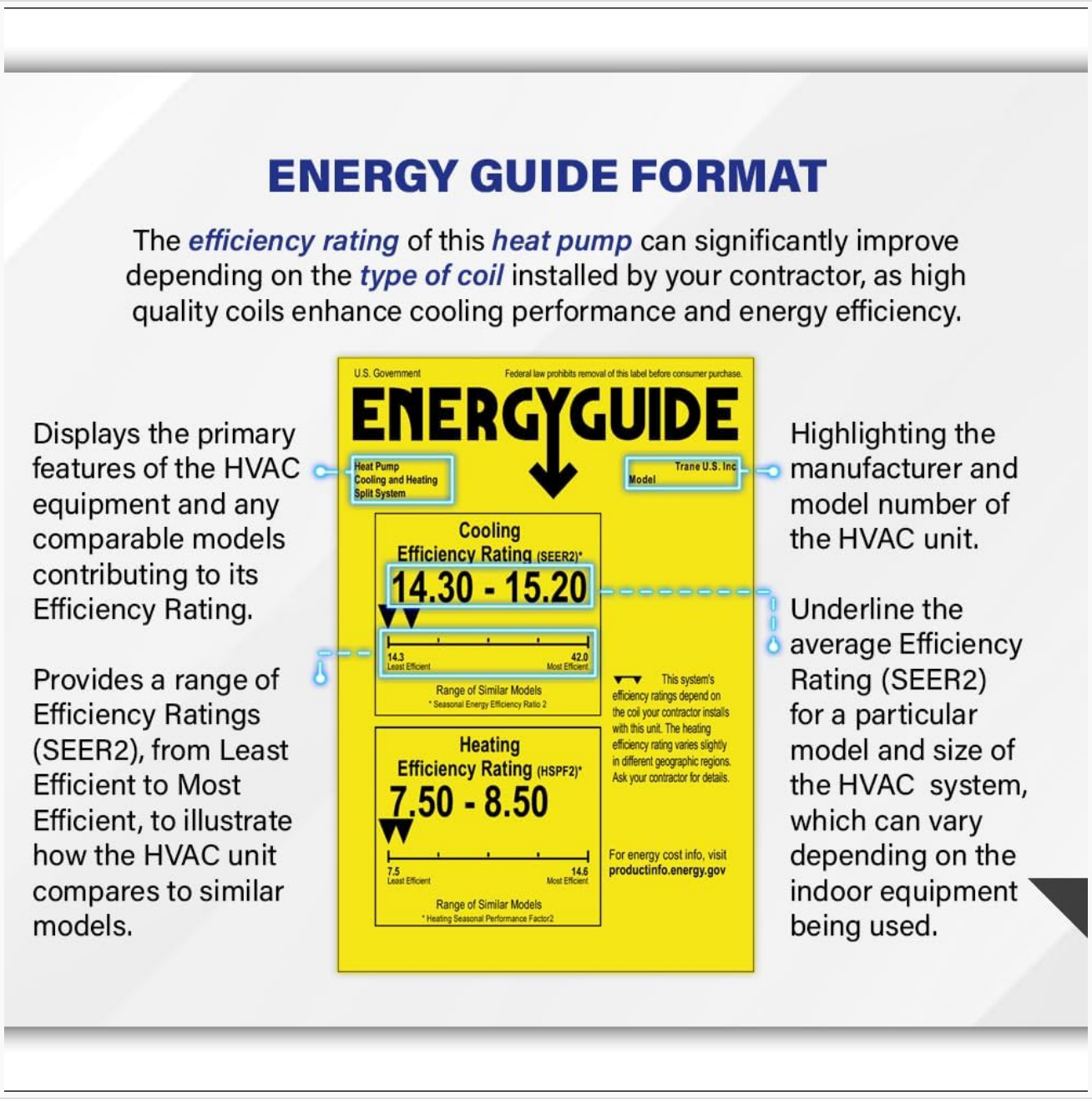

Figure 4: Explains the components and interpretation of a typical Energy Guide label for HVAC equipment, including SEER2 and HSPF2 ratings.

Figure 5: Shows multiple Goodman heat pump condenser units installed outdoors, demonstrating their compact and robust design.

3. Specifications

Feature	Detail
Model Info	GLZS4BA2410
Capacity	2 Tons (24,000 Btu/h)
SEER2 Rating	14.3
Refrigerant	R32
Compressor Type	Rotary Type
Stage	Single Stage
Electrical Information	208/230 voltage, 1 Phase, 60 Hz

Sound Operation	74.0 (dBA)
Product Dimensions	29 x 29 x 32.5 inches (D x W x H)
Equipment Weight	150 lbs
Refrigerant Line Size	Liquid Line 3/8" (9.52 mm) OD, Suction Line 3/4" (19.05 mm) OD
Refrigerant Connection Size	Liquid Valve 3/8" (9.52 mm) OD, Suction Valve 3/4" (19.05 mm) OD
Installation Type	Split System
Power Source	Electric
Control Method	Remote
Inverter Type	No Inverter

4. Setup and Installation

Installation of this heat pump condenser requires specialized knowledge and tools. It is strongly recommended that installation be performed by a qualified HVAC technician to ensure proper function, safety, and warranty validity. The unit is designed for outdoor use and floor mounting. Ensure adequate clearance around the unit for proper airflow and maintenance access.

The unit comes pre-charged with R32 refrigerant sufficient for the condenser, a coil, and 15 feet of line set. Proper sizing and connection of refrigerant lines are crucial for optimal performance.

Important Considerations:

- **Location:** Choose a level, stable surface for installation, away from obstructions that could impede airflow.
- **Electrical Connections:** Ensure all electrical wiring complies with local codes and the unit's specifications (208/230V, 1 Phase, 60 Hz).
- **Refrigerant Lines:** Proper evacuation and charging procedures must be followed by a certified technician.
- **Drainage:** Ensure proper condensate drainage to prevent water accumulation.

5. Operating Instructions

Once professionally installed, your Goodman Heat Pump Condenser operates automatically based on your thermostat settings. This unit provides both cooling and heating capabilities.

Basic Operation:

1. **Thermostat Control:** Use your indoor thermostat to set the desired temperature and select the operating mode (Cool, Heat, Auto, Off).
2. **Cooling Mode:** When the indoor temperature rises above the set point in cooling mode, the unit will activate to remove heat from your home.
3. **Heating Mode:** When the indoor temperature falls below the set point in heating mode, the unit will activate to transfer heat into your home.
4. **Fan Operation:** The fan can typically be set to 'Auto' (runs only when heating/cooling) or 'On' (runs continuously).

Understanding Heat Pump Operation:

Heat pumps work by moving heat rather than generating it. In cooling mode, they move heat from inside your home

to the outside. In heating mode, they extract heat from the outside air (even in cold temperatures) and transfer it indoors. For extremely cold climates, a supplemental heating source (like a furnace or electric heat strips) may be integrated to assist the heat pump.

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Video 1: Overview of Heat Pump Systems. This video explains the general principles and benefits of heat pump technology for both heating and cooling.

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Video 2: Straight Cool vs. Heat Pump Systems. This video details the differences between traditional AC-only systems and heat pump systems, emphasizing the dual functionality of heat pumps.

6. Maintenance

Regular maintenance is crucial for the longevity and efficient operation of your heat pump condenser. It is recommended to schedule annual professional maintenance checks.

User Maintenance Tasks:

- **Keep Unit Clear:** Ensure the outdoor unit is free from leaves, grass clippings, dirt, and other debris. Maintain at least 2 feet of clearance around the unit.
- **Clean Coils:** Periodically inspect the outdoor coil for dirt buildup. If dirty, gently clean with a soft brush or hose. Avoid high-pressure washing.
- **Check Drain Pan/Line:** Ensure the condensate drain pan and line (if accessible) are clear and free of blockages.
- **Air Filter Replacement:** Regularly check and replace the air filter in your indoor air handler/furnace according to the manufacturer's recommendations (typically every 1-3 months).

Professional Maintenance:

A qualified technician should perform comprehensive checks including refrigerant levels, electrical connections, fan motor operation, and overall system performance.

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Video 3: Condenser with Coil Combination. This video provides insights into the components and maintenance aspects of condenser and coil units, which are integral to your heat pump system.

7. Troubleshooting

Before contacting a service technician, review the following common issues and solutions:

Problem	Possible Cause	Solution
Unit not turning on	Power outage, tripped breaker, thermostat off/incorrect setting	Check power supply, reset breaker, verify thermostat settings.
Insufficient heating/cooling	Dirty air filter, blocked outdoor unit, low refrigerant, thermostat issue	Replace air filter, clear debris from outdoor unit, contact technician for refrigerant check or thermostat repair.
Unusual noises	Loose parts, debris in fan, motor issues	Inspect for loose panels or debris. If noise persists, contact a technician.
Unit constantly running	Thermostat setting too low/high, undersized unit, refrigerant leak	Adjust thermostat, ensure proper insulation, contact technician for inspection.

For any issues not resolved by the above steps, or for complex problems, please contact a certified HVAC technician. Do not attempt repairs beyond your technical expertise.

8. Warranty and Support

This Goodman Heat Pump Condenser comes with a**10-year parts warranty** when installed by a qualified technician and registered online with the manufacturer. Registration is typically required within a specific timeframe after installation to activate the full warranty.

For warranty claims, technical support, or to locate a certified service provider, please refer to the manufacturer's official website or contact their customer service department. Keep your proof of purchase and installation records handy.

Note: Improper installation or maintenance by unqualified personnel may void the product warranty.

Related Documents - GLZS4BA2410

	Goodman GPCH3 Series Packaged Air Conditioner - Specifications and Data Comprehensive guide to the Goodman GPCH3 series packaged air conditioners, detailing specifications, nomenclature, airflow, electrical data, dimensions, and accessories for units ranging from 2 to 5 tons with 13.4 SEER2 efficiency.
	Goodman GPHH5 Packaged Heat Pumps: Specifications and Features Comprehensive overview of the Goodman GPHH5 Series Packaged Heat Pumps, detailing standard and cabinet features, model nomenclature, key specifications including SEER2 ratings, cooling/heating capacities, airflow data, electrical requirements, dimensions, available accessories, and warranty information.
	Goodman GMES96/GCES96 Single-Stage Multi-Speed Gas Furnace Technical Specifications Comprehensive technical specifications, features, dimensions, airflow data, and wiring diagrams for the Goodman GMES96 and GCES96 series of single-stage, multi-speed gas furnaces, designed for efficient heating with up to 96% AFUE.

	[Goodman GSX16 Energy-Efficient Split System Air Conditioner Specifications] Detailed specifications, features, and performance data for the Goodman GSX16 series energy-efficient split system air conditioner, offering up to 16 SEER cooling capacity from 1 to 5 tons. Includes model nomenclature, electrical data, dimensions, and accessory information.
	[Goodman APG/GPG 14 SEER Gas Electric Package Units Service Instructions] Comprehensive service instructions for Goodman and Amana APG/GPG 14 SEER Gas Electric Package Units with R-410A refrigerant. Includes product identification, system operation, accessories, troubleshooting, and maintenance procedures for qualified HVAC technicians.
	[Goodman GLZS4B R-32 Split System Heat Pump Specifications and Data] Detailed specifications, performance data, dimensions, and accessories for the Goodman GLZS4B R-32 Split System Heat Pump, offering energy efficiency with SEER2 up to 15.2 and HSPF2 up to 7.8. Includes features, nomenclature, and technical data.