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**Goodman GLXS3BN2410CAPTA3022A3GC9S800603AN**

# Goodman 2 TON 13.8 SEER2 Downflow R-32 AC System Instruction Manual

Models: GLXS3BN2410 (Condenser), GC9S800603AN (Furnace), CAPTA3022A3 (Coil)

## 1. SYSTEM OVERVIEW

This manual provides essential information for the installation, operation, and maintenance of your Goodman 2 TON 13.8 SEER2 Downflow R-32 AC System. This complete system includes the GLXS3BN2410 Air Conditioner, the GC9S800603AN Furnace, and the CAPTA3022A3 Coil. It is designed to provide efficient cooling and consistent heating for your home.

This system is certified by AHRI under certificate number 215323252.

# Goodman

GLXS3BN2410, GC9S800603AN, CAPTA3022A3



Tonnage

2

Efficiency

13.8 SEER2

Type

AC + Furnace

Region

North\*

Flow

Downflow

AHRI

215323252

**AHRI** CERTIFIED®  
www.ahridirectory.org

**10** PARTS  
LIMITED  
YEAR WARRANTY\*

**R32**

\* - Due to Federal Guidelines this unit can NOT be sold in the following states:  
AL, AR, AZ, CA, DE, FL, GA, KY, LA, MD, MS, NC, NM, NV, OK, SC, TN, TX, and VA  
Please contact us if you have questions

Figure 1: Overview of the Goodman 2 TON 13.8 SEER2 Downflow R-32 AC System, showing the outdoor condenser, indoor furnace, and evaporator coil.

## 1.1 Key Components

- **GLXS3BN2410 Air Conditioner (Condenser):** The outdoor unit responsible for cooling. Features 13.8 SEER2 efficiency, service valves, gauge ports, and inspection points. Pre-charged for 15' of tubing.
- **GC9S800603AN Gas Furnace:** The indoor unit providing heating. An 80% AFUE, 60k BTU single-stage multi-speed ECM gas furnace. Features a stainless-steel heat exchanger and silicon nitride igniter.
- **CAPTA3022A3 Downflow R-32 Coil:** The indoor evaporator coil, constructed with corrosion-resistant

aluminum and grooved tubing for enhanced heat transfer. Designed for downflow applications and is the same width as the furnace.

## 1.2 Important Considerations

This system does not comply with Federal regulations for the following States and cannot be shipped to or installed in: AL, AR, AZ, CA, DE, FL, GA, KY, LA, MD, MS, NC, NM, NV, OK, SC, TN, TX, and VA. Please verify local regulations before purchase and installation.

Your browser does not support the video tag.

Video: An overview of AC with Furnace Systems, explaining the main components and their functions within a complete HVAC setup.

Your browser does not support the video tag.

Video: Explanation of different HVAC system types, including split systems, ductless systems, and packaged units, and how to identify your system's configuration (upflow, downflow, horizontal).

## 2. SETUP AND INSTALLATION

Installation of this HVAC system must be performed by a qualified and licensed HVAC technician. Improper installation can lead to system malfunction, safety hazards, and void the warranty.

### 2.1 Pre-Installation Checks

- Verify that the system components (condenser, furnace, coil) match the model numbers specified for your installation.
- Ensure the installation site complies with all local building codes and regulations, especially regarding refrigerant and furnace types.
- Confirm the correct airflow configuration (downflow) for your home's ductwork.
- For natural gas furnaces, ensure the gas supply is compatible. If using liquid propane (LP), a separate LP conversion kit is required.

### 2.2 Component Placement

The outdoor condenser (GLXS3BN2410) should be placed on a level pad, ensuring adequate clearance for airflow and maintenance. The indoor furnace (GC9S800603AN) and coil (CAPTA3022A3) are designed for downflow applications and should be installed in a configuration that allows air to enter from the top and be pushed out the bottom into the ductwork.

# Goodman GLXS3BN2410



Tonnage

2

Efficiency

13.4 SEER2

Type

AC Only

Dimensions

26 x 26 x 27.5

Weight

114

Lineset

3/8" x 3/4"

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**10** PARTS  
YEAR LIMITED  
WARRANTY\*

**R32**

Figure 2: The Goodman GLXS3BN2410 Condenser Unit, an outdoor component of the AC system.

# Goodman GC9S800603AN



Efficiency

80%

Heating (BTU)

60k

Flow

Down/Counter

Stages

One

Dimensions

14 x 28 x 33.5

Weight

94

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**10** PARTS  
LIMITED  
YEAR WARRANTY\*

This furnace does not comply with emissions regulations in CA.  
Please contact us if you have questions

Figure 3: The Goodman GC9S800603AN Furnace Unit, an indoor component for heating.

# Goodman CAPTA3022A3



Tonnage

2.0 - 2.5

Connections

3/8" x 3/4"

Dimensions

14 x 21 x 22

Weight

37

Orientation

Vertical

**10** PARTS  
LIMITED  
YEAR WARRANTY\*

**R32**

Figure 4: The Goodman CAPTA3022A3 Downflow Coil Unit, designed to sit atop the furnace for efficient cooling.

## 2.3 Refrigerant (R-32) Information

This system uses R-32 refrigerant. R-32 is a more energy-efficient and environmentally friendly refrigerant compared to older types. It requires specific handling procedures due to its slight flammability. Ensure your installer is trained and equipped for R-32 systems.

Your browser does not support the video tag.

Video: Information regarding R-32 refrigerant regulations and its properties, including efficiency and safety considerations.

Your browser does not support the video tag.

Video: A short clip discussing facts versus fiction about R-32 refrigerant, highlighting its widespread use and environmental benefits.

## 3. OPERATING INSTRUCTIONS

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Your Goodman HVAC system is controlled by a thermostat. Refer to your thermostat's user manual for specific programming and operation details.

### 3.1 Cooling Operation

- Set your thermostat to "Cool" mode.
- Adjust the desired temperature. The system will automatically cycle on and off to maintain the set temperature.
- Ensure all vents are open and unobstructed for optimal airflow.

### 3.2 Heating Operation

- Set your thermostat to "Heat" mode.
- Adjust the desired temperature. The furnace will ignite and operate to warm your home.
- If your furnace is connected to an LP conversion kit, ensure the LP tank has sufficient fuel.

### 3.3 Fan Operation

- The fan can be set to "Auto" (runs only when heating or cooling) or "On" (runs continuously). "Auto" is generally recommended for energy efficiency.

## 4. MAINTENANCE

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Regular maintenance is crucial for the efficiency, longevity, and safe operation of your HVAC system. It is recommended to have a qualified technician perform annual inspections and tune-ups.

### 4.1 Air Filter Replacement

- Check your air filter monthly and replace it every 1-3 months, or more frequently if you have pets or allergies. A dirty filter restricts airflow and reduces efficiency.
- Locate the filter slot in your furnace or air handler. Note the size and type of filter for replacement.

### 4.2 Outdoor Unit (Condenser) Maintenance

- Keep the area around the outdoor unit clear of debris, leaves, and vegetation to ensure proper airflow.
- Gently clean the condenser coils with a soft brush or hose to remove dirt and dust. Avoid bending the fins.

### 4.3 Professional Servicing

- Schedule professional maintenance annually, ideally before the heating and cooling seasons.
- A technician will inspect electrical connections, refrigerant levels, coil cleanliness, and overall system performance.

## 5. TROUBLESHOOTING

Before calling for service, check the following common issues:

Problem	Possible Cause	Solution
System not cooling/heating	Thermostat set incorrectly, dirty air filter, tripped circuit breaker, clogged condensate drain.	Check thermostat settings, replace filter, reset breaker, clear drain.
No power to unit	Tripped circuit breaker, emergency shut-off switch engaged.	Check electrical panel, ensure all switches are in the "On" position.
Unusual noises	Loose parts, debris in fan, motor issues.	Turn off unit and inspect for visible obstructions. If noise persists, contact a technician.
Water leakage	Clogged condensate drain, frozen evaporator coil.	Clear condensate drain. If coil is frozen, turn off AC and allow to thaw, then check airflow.

If troubleshooting steps do not resolve the issue, contact a qualified HVAC technician for assistance.

## 6. SPECIFICATIONS

### 6.1 General System Specifications

- **Brand:** Goodman
- **System Type:** 2 TON 13.8 SEER2 Downflow R-32 AC System with 80% AFUE 60k BTU Furnace
- **AHRI Certificate Number:** 215323252
- **Total System Weight:** Approximately 191 pounds

### 6.2 GLXS3BN2410 Condenser Specifications

U.S. Government

Federal law prohibits removal of this label before consumer purchase.

# ENERGYGUIDE

Central Air Conditioner  
Cooling Only  
Split System

GOODMAN  
Model GLXS3BN2410A\*



For energy cost info, visit  
[productinfo.energy.gov](http://productinfo.energy.gov)

\* Your air conditioner's efficiency rating may be better depending on the coil your contractor installs.

## Notice

Federal law allows this unit to be installed **only in:**

AK, CO, CT, ID, IL, IA, IN, KS, MA,  
ME, MI, MN, MO, MT, ND, NE, NH,  
NJ, NY, OH, OR, PA, RI, SD, UT, VT,  
WA, WV, WI, WY, and U.S. territories.



Federal law prohibits installation of this unit in other states.

**Energy Efficiency Ratio 2 (EER2):** The installed system's minimum EER2 is 10.50.

Figure 5: EnergyGuide label for the Goodman GLXS3BN2410 Central Air Conditioner, showing an efficiency rating of 13.40 SEER2.

- **Model Number:** GLXS3BN2410
- **Tonnage:** 2 Ton
- **Efficiency:** 13.8 SEER2 (Cooling Only)
- **Refrigerant:** R-32
- **Dimensions:** Refer to product documentation for exact dimensions.

## 6.3 GC9S800603AN Furnace Specifications

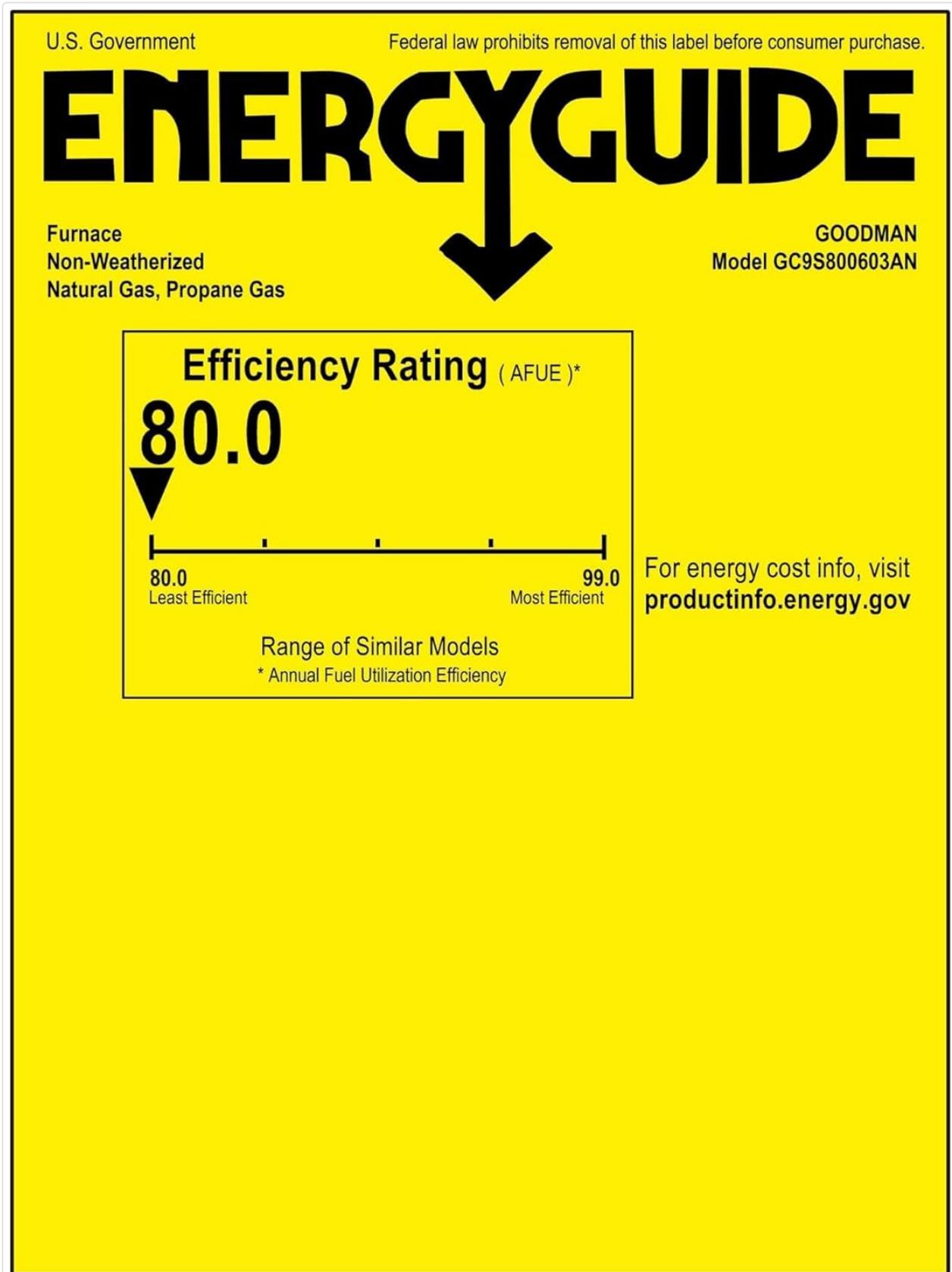


Figure 6: EnergyGuide label for the Goodman GC9S800603AN Furnace, indicating an efficiency rating of 80.0 AFUE.

- **Model Number:** GC9S800603AN
- **Fuel Type:** Natural Gas (LP conversion kit required for Liquid Propane)
- **Efficiency:** 80% AFUE
- **Heating BTU:** 60,000 BTU

- **Airflow:** Downflow/Counterflow
- **Stages:** One Stage
- **Dimensions:** Refer to product documentation for exact dimensions.

## 6.4 CAPTA3022A3 Coil Specifications

- **Model Number:** CAPTA3022A3
- **Tonnage:** 2.0 - 2.5 Ton
- **Refrigerant:** R-32 only
- **Connections:** 3/8" x 3/4"
- **Orientation:** Vertical
- **Dimensions:** Refer to product documentation for exact dimensions.

Your browser does not support the video tag.

Video: Explanation of SEER2 regulations and how they impact HVAC system efficiency ratings, effective January 1, 2023.

## 7. WARRANTY INFORMATION

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



Figure 7: A shield icon indicating a 10-year limited warranty for the product.

For complete warranty details and terms, please refer to the warranty documentation included with your product or contact Goodman customer support.

## 8. CUSTOMER SUPPORT

For technical assistance, warranty claims, or any questions regarding your Goodman HVAC system, please contact Superior Home Supplies or an authorized Goodman service provider.

- **Superior Home Supplies:** Refer to your purchase documentation for contact information.
- **Goodman Official Website:** [www.goodmanmfg.com](http://www.goodmanmfg.com)

When contacting support, please have your model numbers (GLXS3BN2410, GC9S800603AN, CAPTA3022A3) and serial numbers readily available.

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This manual is subject to change without notice. Please refer to the latest version available on the manufacturer's website.