Installation Instructions

# **High Altitude Conversion Kit**

Foundation™ Packaged Rooftop Units 15 to 25 Tons

Model Number: Used With:
BAYHAKT300\* GCC/GDK180-300

#### A SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.

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### **General Information**

- · Carefully review installation instructions.
- The content includes converting gas package unit models from sea level operation to high altitude operation.

Important: This is a critical conversion procedure

# Inspection

- 1. Unpack all components of the kit.
- Check carefully for shipping damage. If any damage is found, report it immediately, and file a claim against the transportation company.
   This kit contains the correct orifices for high altitude conversion. See below for the parts list.

#### **Parts List**

#### Table 1. Parts list

| Qty. | Description               |
|------|---------------------------|
| 8    | 0.120 inch dia Drill #31  |
| 8    | 0.116 inch dia. Drill #32 |
| 8    | 0.111 inch dia. Drill #34 |
| 8    | 0.126 inch dia. 3.2 MM    |

# Warnings, Cautions, and Notices

Read this manual thoroughly before operating or servicing this unit. Safety advisories appear throughout this manual as required. Your personal safety and the proper operation of this machine depend upon the strict observance of these precautions.

The three types of advisories are defined as follows:

▲ WARNING

NOTICE

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury. Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It could also be used to alert against unsafe practices. Indicates a situation that could result in equipment or property-damage only accidents.

#### **Important Environmental Concerns**

Scientific research has shown that certain man-made chemicals can affect the earth's naturally occurring stratospheric ozone layer when released to the atmosphere. In particular, several of the identified chemicals that may affect the ozone layer are refrigerants that contain Chlorine, Fluorine and Carbon (CFCs) and those containing Hydrogen, Chlorine, Fluorine and Carbon (HCFCs). Not all refrigerants containing these compounds have the same potential impact to the environment. Trane advocates the responsible handling of all refrigerants.

# Important Responsible Refrigerant Practices

High altitude conversion label

GCC/GDK180A (3,4,W) E/S (L or X)

GCC/GDK180A (3,4,W) E/S (M or Y)

GCC/GDK180A (3,4,W) E/S (H or Z)

GCC/GDK210A (3,4,W) E/S (L or X)

GCC/GDK210A (3,4,W) E/S (M or Y)

GCC/GDK210A (3,4,W) E/S (H or Z)-DF

GCC/GDK210A (3,4,W) E/S (H or Z)-HZ

GCC/GDK240A (3,4,W) E/S (L or X)

GCC/GDK240A (3,4,W) E/S (M or Y)

GCC/GDK240A (3,4,W) E/S (H or Z)

GCC/GDK300A (3,4,W) E/S (L or X)

GCC/GDK300A (3,4,W) E/S (M or Y)

GCC/GDK300A (3,4,W) E/S (H or Z)

2. Open the unit electrical disconnect switch

**Conversion Procedure** 

Installation

Table 2.

Trane believes that responsible refrigerant practices are important to the environment, our customers, and the air conditioning industry. All technicians who handle refrigerants must be certified according to local rules. For the USA, the Federal Clean Air Act (Section 608) sets forth the requirements for handling, reclaiming, recovering and recycling of certain refrigerants and the equipment that is used in these service procedures. In addition, some states or municipalities may have additional requirements that must also be adhered to for responsible management of refrigerants. Know the applicable laws and follow them.

Gas heat input rating

240

320

350

240

320

380

350

240

320

380

240

320

380

Note: Conversion should be made prior to installation of equipment at the job site.

1. Place the thermostat selector switch to the **OFF** position.

Orifice size

#32

#34

#31

#32

#34

#31

#31

#32

#34

#31

#32

#34

#31

# **A** WARNING

#### Proper Field Wiring and Grounding Required!

Failure to follow code could result in death or serious injury. All field wiring MUST be performed by qualified personnel. Improperly installed and grounded field wiring poses FIRE and ELECTROCUTION hazards. To avoid these hazards, you MUST follow requirements for field wiring installation and grounding as described in NEC and your local/state/national electrical codes.

## **WARNING**

#### Personal Protective Equipment (PPE) Required!

Failure to wear proper PPE for the job being undertaken could result in death or serious injury. Technicians, in order to protect themselves from potential electrical, mechanical, and chemical hazards, MUST follow precautions in this manual and on the tags, stickers, and labels, as well as the instructions below

- Before installing/servicing this unit, technicians MUST put on all PPE required for the work being undertaken (Examples; cut resistant gloves/sleeves, butyl gloves, safety glasses, hard hat/bump cap, fall protection, electrical PPE and arc flash clothing). ALWAYS refer to appropriate Safety Data Sheets (SDS) and OSHA guidelines for proper PPE.
- When working with or around hazardous chemicals, ALWAYS refer to the appropriate SDS and OSHA/GHS (Global Harmonized System of Classification and Labeling of Chemicals) guidelines for information on allowable personal exposure levels, proper respiratory protection and handling instructions.
- If there is a risk of energized electrical contact, arc, or flash, technicians MUST put on all PPE in accordance with OSHA, NFPA 70E, or other country-specific requirements for arc flash protection, PRIOR to servicing the unit. NEVER PERFORM ANY SWITCHING, DISCONNECTING, OR VOLTAGE TESTING WITHOUT PROPER ELECTRICAL PPE AND ARC FLASH CLOTHING. ENSURE ELECTRICAL METERS AND EQUIPMENT ARE PROPERLY RATED FOR INTENDED VOLTAGE.

#### **A** WARNING

#### **Follow EHS Policies!**

Failure to follow instructions below could result in death or serious injury.

- All Trane personnel must follow the company's Environmental, Health and Safety (EHS) policies when performing work such as hot work, electrical, fall protection, lockout/tagout, refrigerant handling, etc. Where local regulations are more stringent than these policies, those regulations supersede these policies.
- Non-Trane personnel should always follow local regulations.

#### **A** WARNING

#### R-454B Flammable A2L Refrigerant!

Failure to use proper equipment or components as described below could result in equipment failure, and possibly fire, which could result in death, serious injury, or equipment damage.

The equipment described in this manual uses R-454B refrigerant which is flammable (A2L). Use ONLY R-454B rated service equipment and components. For specific handling concerns with R-454B, contact your local representative.

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# **Revision History**

- Used with information updated to meet A2L standards.
- · Table 2 content updated.

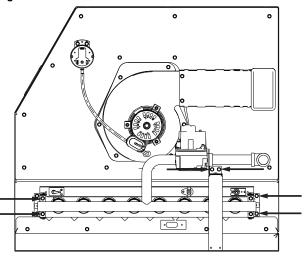
# Hazardous Voltage and Gas!

Failure to turn off gas or disconnect power before servicing could result in an explosion or electrocution which could result in death or serious injury. Turn off the gas supply and disconnect all electric power, including remote disconnects, before servicing the unit. Follow proper lockout/tagout procedures to ensure the power can not be inadvertently energized..

**A** WARNING

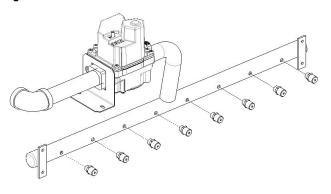
- 3. Shut-off gas supply to the unit.
- 4. Remove gas valve access panel.
- 5. Break pipe union.
- 6. Remove pipe from street elbow.
- 7. Remove six screws from manifold bracket. See Figure 1.

Figure 1. Remove screws from bracket



8. Remove natural gas orifices from manifold. See Figure 2.

#### Figure 2. Remove orifices from manifold



- Install the high altitude orifices listed in Table 2 for the unit being converted by engaging threads of manifold and tightening orifice three and one half turns.
- 10. With the high altitude orifices in place, reverse the disassembly procedure and secure all components in their respective position.
- 11. Attach the nameplate and label supplied with the conversion kit below the unit nameplate.
- 12.Check all piping joints and electrical connections for tightness.
- 13. Turn on the gas supply to unit.
- 14. Measure the gas pressure. If the pressure exceeds 14 inches water column, reset the regulator at the gas supply.
- 15.Restore unit power.
- 16.Place the thermostat selector switch to the **HEAT** position and adjust the setpoint indicator to its highest setting. The burners should light.
- 17.If required, adjust the unit manifold pressure to the value listed on the unit nameplate.
- 18.Install the access panel.

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