

Installation Instructions

High Altitude Kit

Foundation™ Packaged Rooftop Units

7.5 to 12.5 Tons

Model Numbers: BAYHAKT310A, BAYHAKT311A

▲ 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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ACC-SVN324A-EN

Introduction

Read this manual thoroughly before operating or servicing this unit.

Warnings, Cautions, and Notices

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:



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

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.

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 Labelling 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.**

⚠ 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.

⚠ 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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General Information

Inspection

1. Unpack all components of the kit.
2. Check carefully for shipping damage. If any damage is found, report it immediately, and file a claim against the transportation company.

Parts List

Table 1. Parts list

Qty	Description
6	Copper Nozzle

Copper Nozzle Selection

The relevant parameters and selection of copper nozzles are shown in [Table 2, p. 4](#) and [Table 3, p. 4](#) below.

Table 2. Natural gas copper nozzle selection

Total Furnace Rating Plate Input (Btu/h)	Number of Copper Nozzle Choice	Natural Gas				
		Heating Valve 1075 Btu/Cu.ft				
		Specific Aravity 0.65/Manifold Pressure @3.5"W.C.				
		Elevation 0 to 2000' (USA/ CANADA)	Elevation 4000' (USA Only)	Elevation 6000' (USA Only)	Elevation 8000' (USA Only)	Elevation 2000 to 4500' (USA Only)
125000	3	30#	33#	35#	36#	30#
180000	5	35#	37#	38#	39#	36#
225000	6	32#	36#	37#	38#	32#
250000	6	30#	33#	35#	36#	30#

Table 3. Propane gas copper nozzle selection

Total Furnace Rating Plate Input (Btu/h)	Number of Copper Nozzle Choice	Propane Gas				
		Heating Valve 2500 Btu/Cu.ft				
		Specific Aravity 0.65/Manifold Pressure @3.5"W.C.				
		Elevation 0 to 2000' (USA/ CANADA)	Elevation 4000' (USA Only)	Elevation 6000' (USA Only)	Elevation 8000' (USA Only)	Elevation 2000 to 4500' (USA Only)
125000	3	50#	52#	53#	54#	51#
180000	5	51#	52#	53#	54#	51#
225000	6	50#	52#	53#	54#	51#
250000	6	50#	52#	53#	54#	51#

Installation

⚠ WARNING

Hazardous Voltage and Gas!

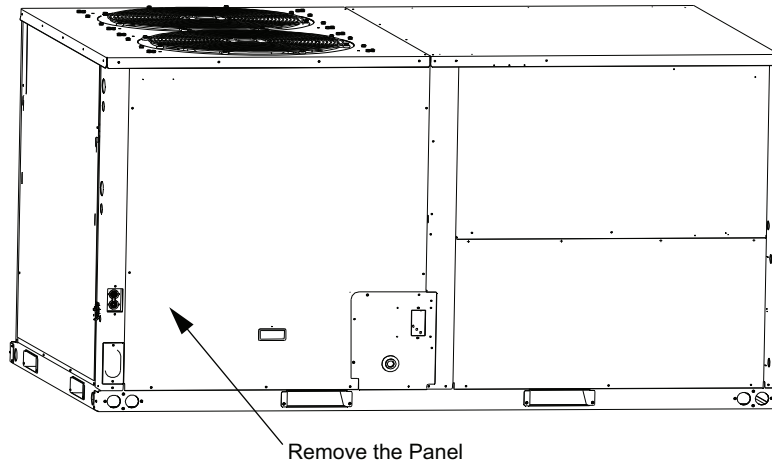
Failure to turn off gas or disconnect power before servicing could result in an explosion or electrocution which could result in death or serious injury.

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.

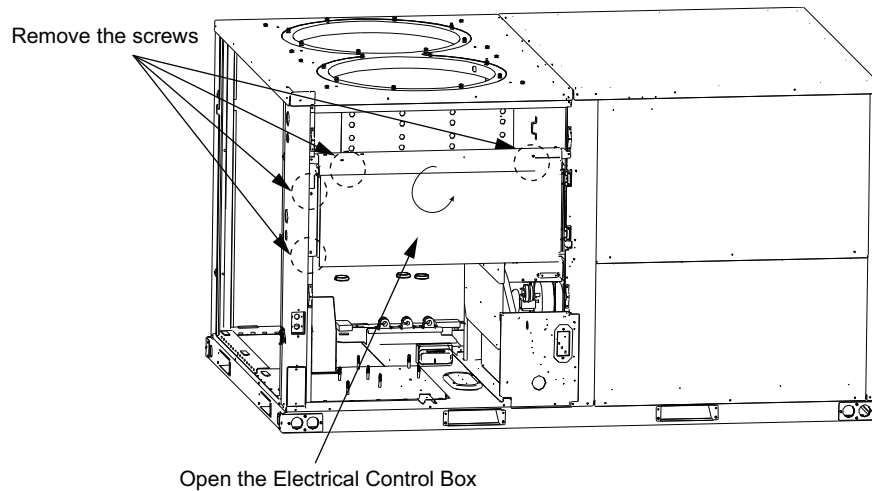
Important: Turn off power to unit. Follow proper lockout/tagout procedures to confirm power cannot inadvertently be energized.

Perform the following steps to replace the nozzles.

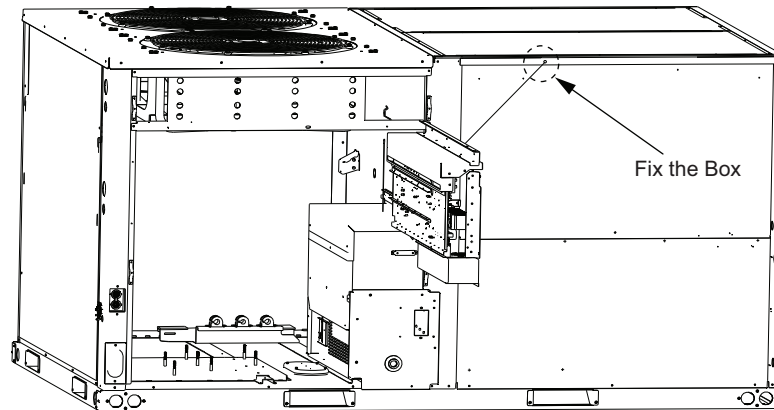
1. Remove access panel.



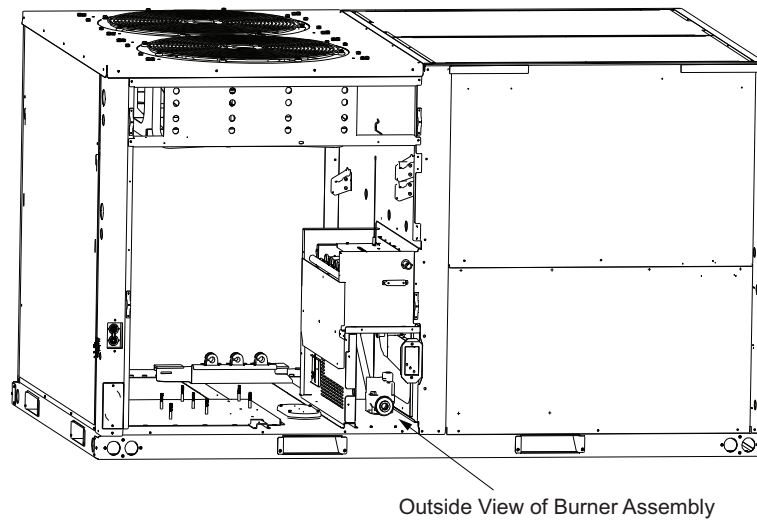
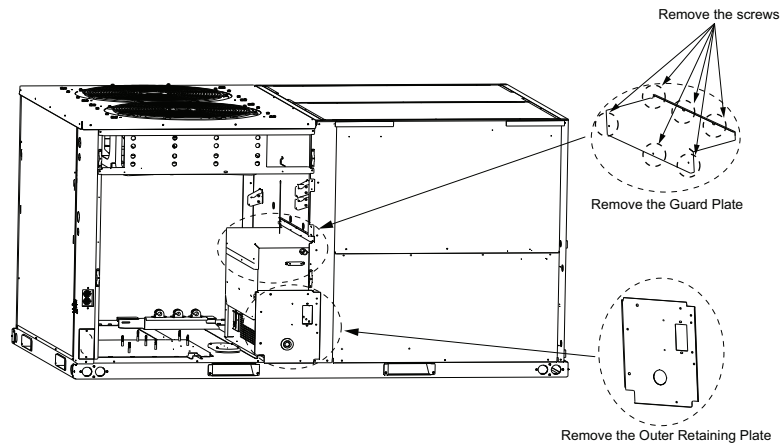
2. Remove the screws to open the electrical control box.



3. Fix the box.

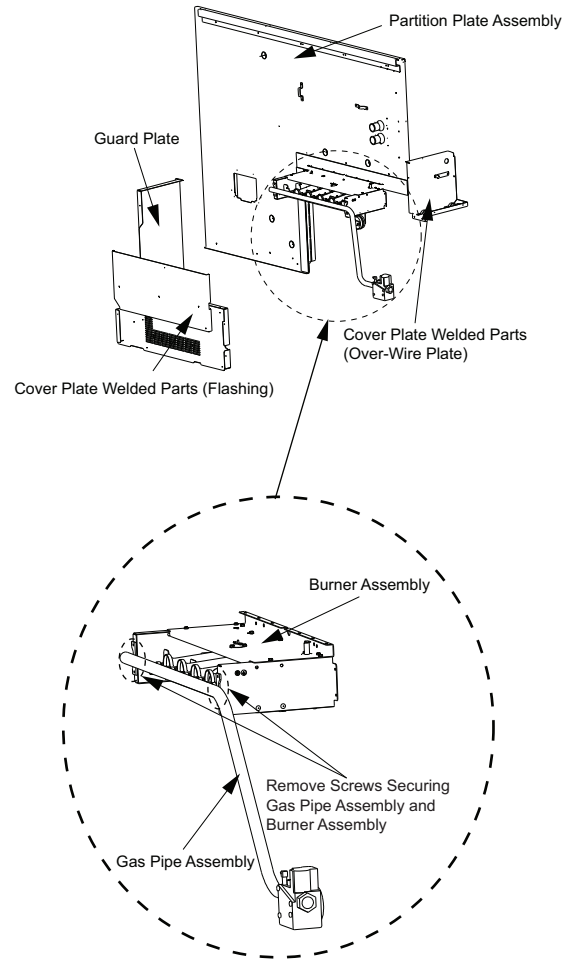


4. Remove the guard plate.



Important: The wiring on the upper side of the guard is complex. Wiring harness must be cut off when removing the guard.

5. Remove the fixed sheet metal (guard plate, cover plate welded parts) around the burner assembly. Retain screws for future use.



Note: Keep the wiring harness next to the burner assembly in order, so that the wiring harness can be rearranged when installing and resetting the burner.

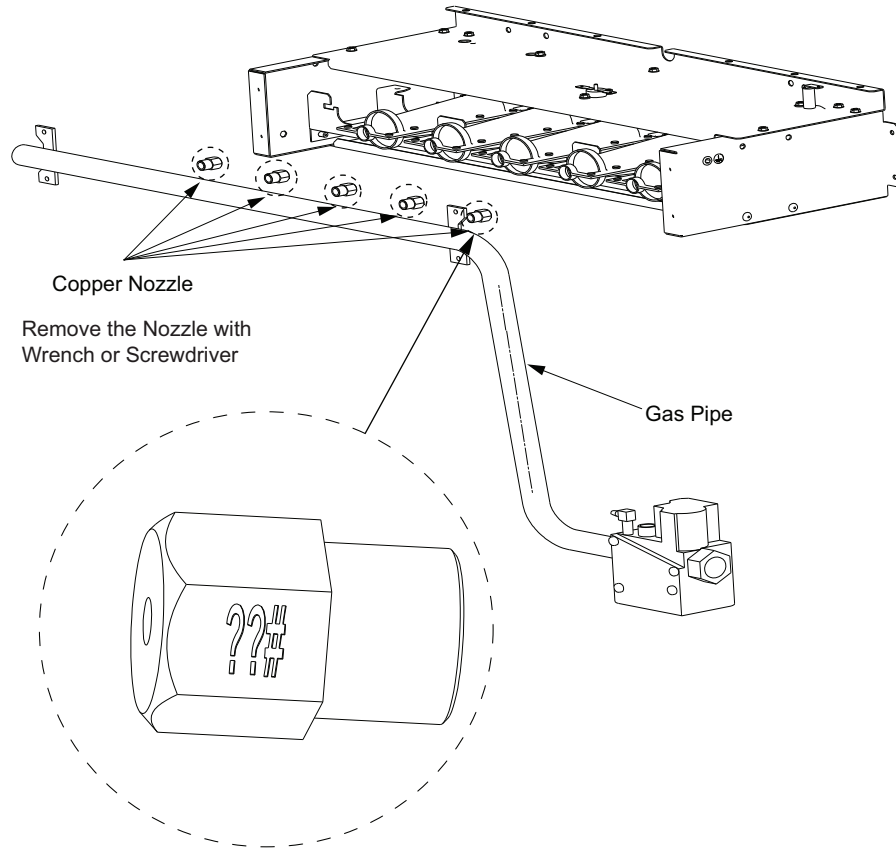
NOTICE

Equipment Damage!

Failure to follow instructions below could result in equipment damage.

Ensure that the replacement nozzle meets the requirements.

6. Disassemble the four screws of the gas pipe assembly.
7. Remove the original copper nozzles with an adjustable wrench or electric screwdriver.



8. Replace with new nozzles. By adjusting the nozzle size of the model, the use conditions at different altitudes can be achieved.

Important: During installation, be cautious of foreign particles that could obstruct the opening.

9. Restore the machine state after completing all adjustments.
 - a. After replacing the nozzles, restore each part to its original state to confirm that the screws are completely confined.
 - b. After reinstalling the sheet metal, tighten the loose wiring harnesses with straps to prevent loose distribution.

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Trane and American Standard have a policy of continuous product and product data improvement and reserve the right to change design and specifications without notice. We are committed to using environmentally conscious print practices.

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Supersedes (New)

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