

Installation Instructions

Comparative Enthalpy Kit

Foundation™ Packaged Rooftop Units
15 to 25 Tons

Model Number:
BAYENTH306*

Used With:
E/GDK180-300

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.

September 2024

ACC-SVN310A-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:

- ⚠ WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
- ⚠ CAUTION** 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.
- NOTICE** 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 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.**

⚠ 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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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
2	Sensors; Humidity
2	Harness; Controls, Economizer, Comparative Enthalpy ^(a)
1	Coil Temp Sensor Circuit 1 Return Air Sensor
6	Wire Ties
1	Grommet
4	#6-32 UNC x 3/4 in.(22.2 mm) Mounting Screws
1	Plate
2	Bush

(a) WIRCUN009205 for Standard economizer and WIRCUN009206 - for Low Leak economizer.

Installation

⚠ WARNING

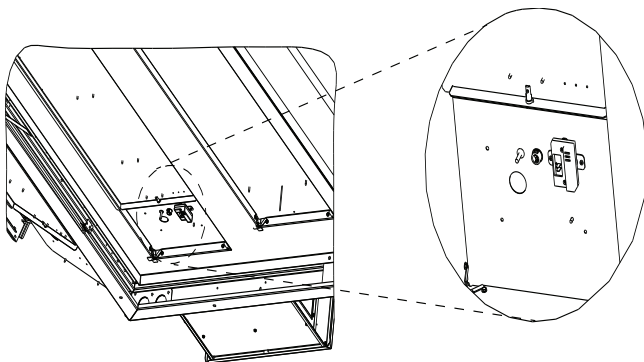
Hazardous Voltage w/Capacitors!

Failure to disconnect power and discharge capacitors before servicing could result in death or serious injury. Disconnect all electric power, including remote disconnects and discharge all motor start/run capacitors before servicing. Follow proper lockout/tagout procedures to ensure the power cannot be inadvertently energized. Verify with a CAT III or IV voltmeter rated per NFPA 70E that all capacitors have discharged.

Outdoor Humidity Sensor

1. Remove filter access panel.
2. Connect wire R to the positive terminal on the humidity sensor.
Connect wire Y to the remaining terminal on the humidity sensor.
3. Insert bush in the hole on the plate.
4. Attach OAH sensor to the plate using two screws. See [Figure 1](#).
5. Attach plate assembly to economizer panel using one screw. See [Figure 1](#).
6. Route sensor wires through star bushing.
7. Connect J9 from harness to P9 of fresh air options module (located in return enclosure).
8. Secure wires with wire tie as shown in [Figure 1](#). After installation is complete, Symbio™ 700 UC unit configuration will need to be updated to reflected installed option.

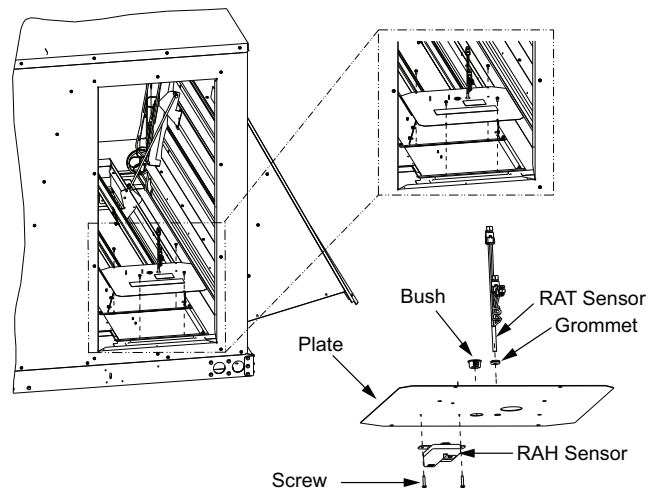
Figure 1. Route sensor wires



Return Air Humidity Sensor and Return Air Temperature Sensor

1. Connect the wire BK to the positive terminal on the humidity sensor. Connect wire O to the remaining terminal on the humidity sensor.
2. Connect PPF62 To temperature sensor.
3. Install return air humidity sensor and secure with two screws. Refer to [Figure 1](#).
4. Route return air humidity sensor through grommet.
5. Insert bush and grommet in the hole on the plate. Refer to [Figure 2](#).
6. Attach RAH sensor to plate using two screws. Refer to [Figure 2](#).
7. Insert RAT sensor through the grommet keeping half an inch out on the other side of the plate. Refer to [Figure 2](#).
8. Attach plate assembly to return air duct flange using four screws. Refer to [Figure 2](#).
9. Secure wiring harnesses with wire ties.
10. Replace the filter access panel.

Figure 2. Install plate assembly



Installation

Figure 3. Outdoor air sensor location for standard economizer

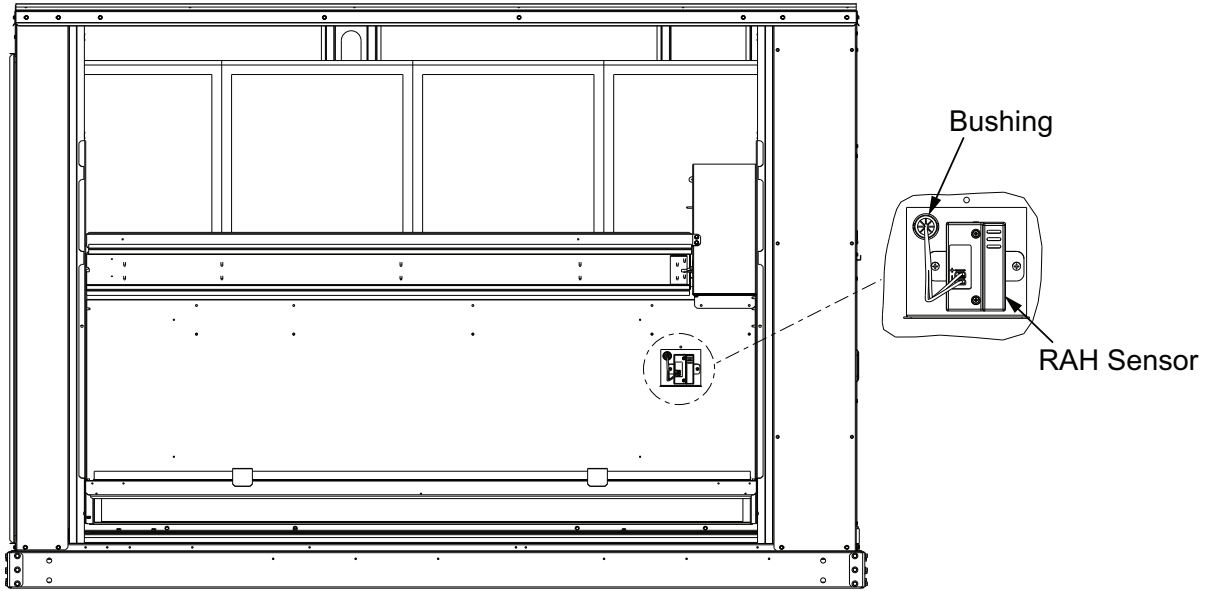


Figure 4. Return air sensor location for standard economizer

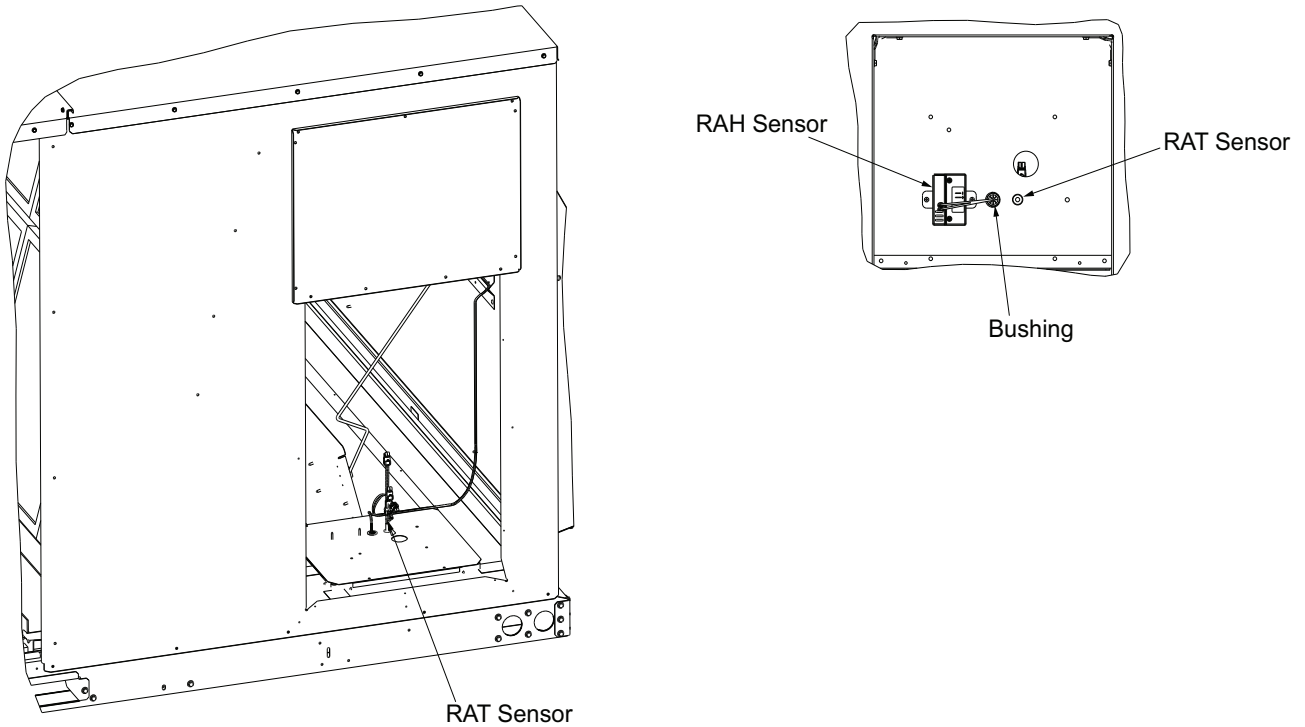


Figure 5. Return air sensor location for standard economizer – horizontal configuration

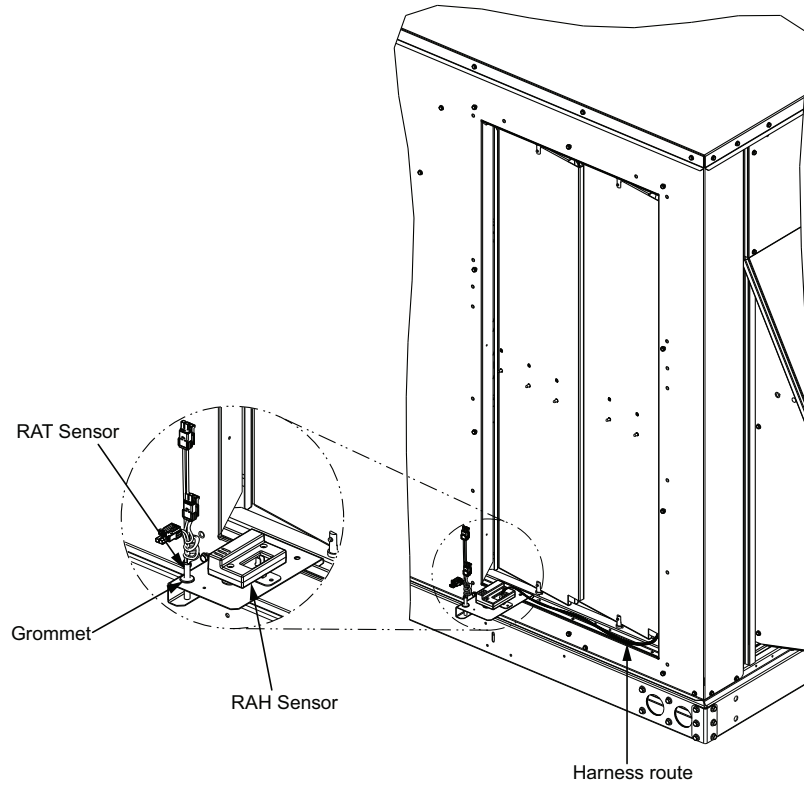
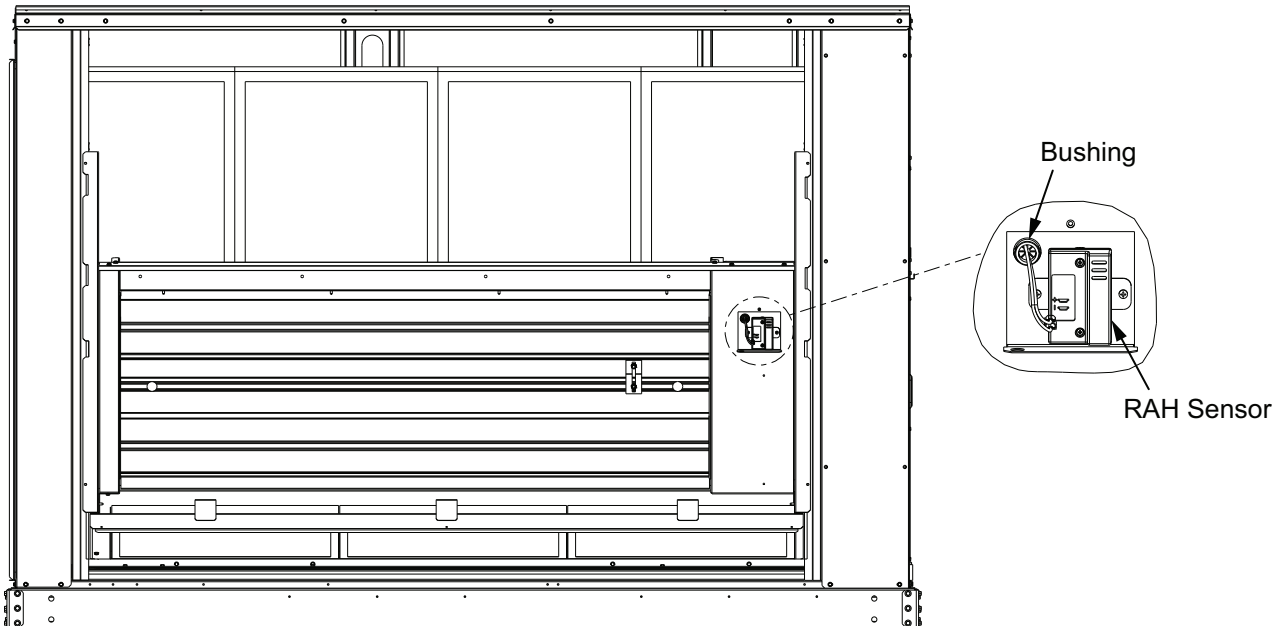


Figure 6. Outdoor air sensor location for low leak economizer



Installation

Figure 7. Return air sensors location for low leak economizer - horizontal

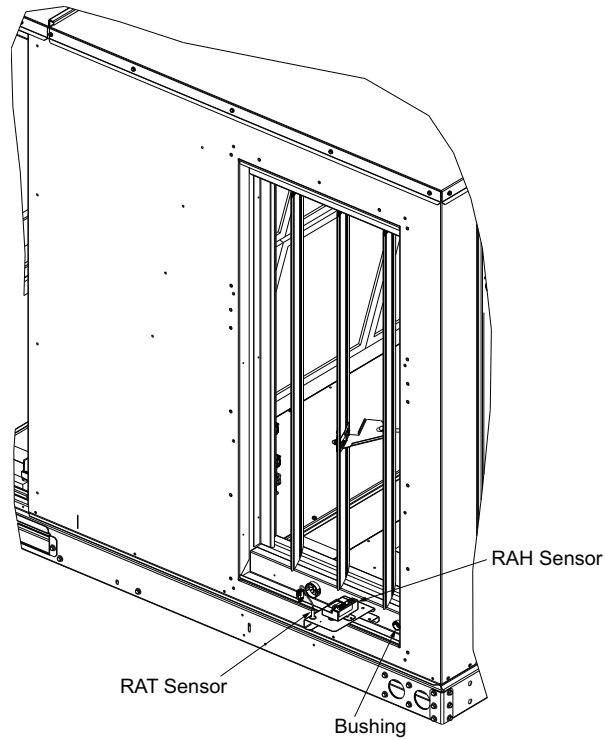


Figure 8. Return air sensors location for low leak economizer – downflow with barometric relief

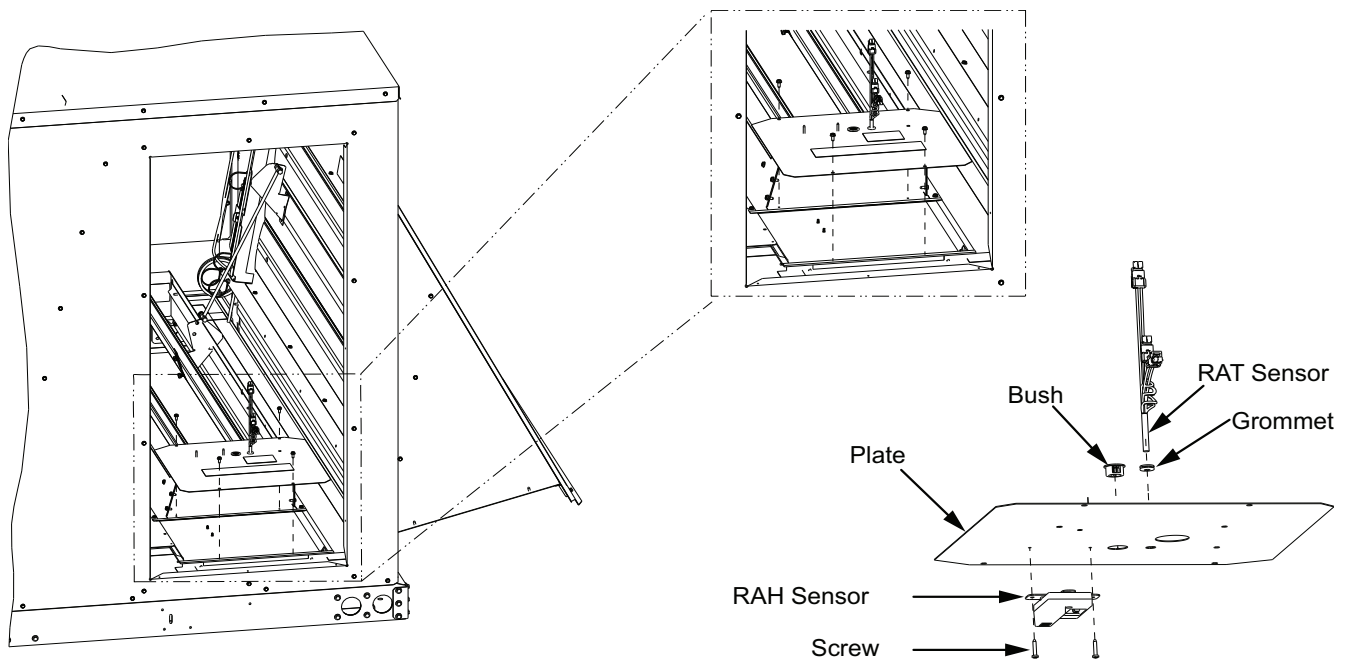
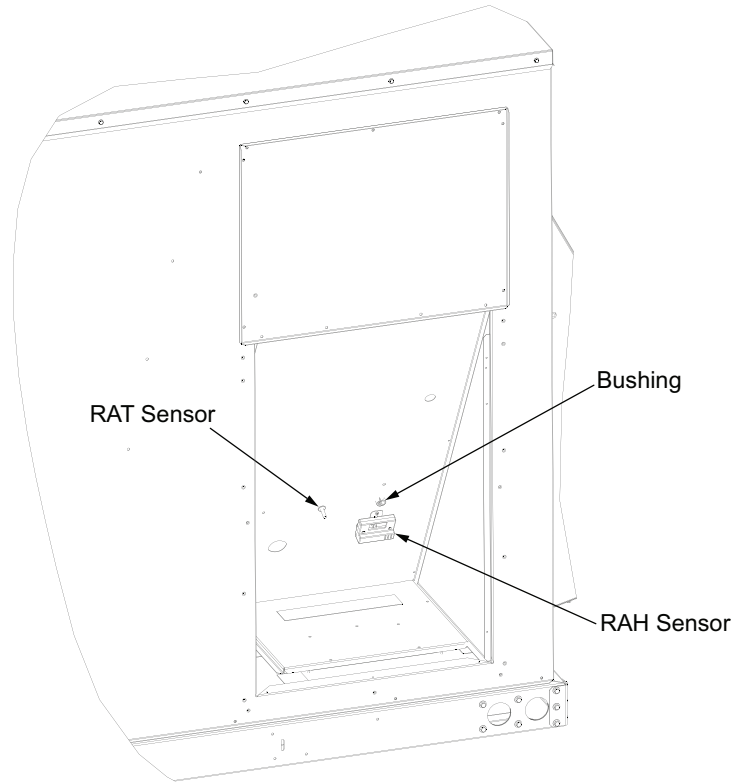


Figure 9. Return air sensor location for low leak economizer – downflow without barometric



Notes

Trane and American Standard create comfortable, energy efficient indoor environments for commercial and residential applications. For more information, please visit trane.com or americanstandardair.com.

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.