Installation Instructions Barometric Relief Damper

Foundation™ Packaged Rooftop Units 15 to 25 Tons

Model Number: Used With:

BAYBARO300* E/GCC180-300

E/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.

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.

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.

A 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.

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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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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.

Foundation™ Parts List

Table 1. Foundation™ Parts List

Qty	Description	Item
1	Damper assembly	1
1	Intermediate block-off panel	3
1	Carrier block-off panel	4
1	Carrier block-off panel	5
1	Block-off panel	6
1	Block-off panel	7
1	Insulated, horizontal block-off panel	10
1	Roll of gasket	21

Table 2. Installation Bag Contents

Qty	Description	Item
1	Installation guide	12
1	Kit installed label (field installed kit only)	11
2	1-in. x 1-in. x 6-in. gasket	9
35	(#10 screws) ¾ in. long	

Figure 1. Parts (field installed kit)

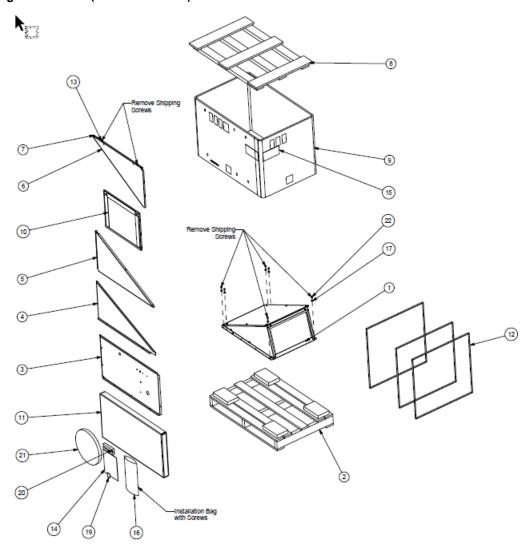
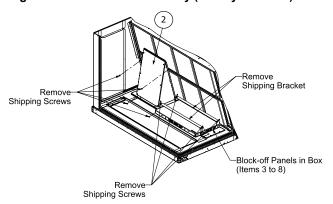


Figure 2. Barometric assembly (factory installed)



Installation

A WARNING

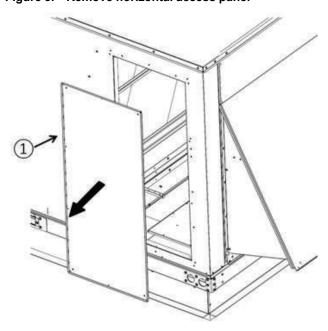
Hazardous Service Procedures!

Failure to follow all precautions in this manual and on the tags, stickers, and labels 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 following instructions: Unless specified otherwise, disconnect all electrical power including remote disconnect and discharge all energy storing devices such as capacitors before servicing. Follow proper lockout/tagout procedures to ensure the power can not be inadvertently energized. When necessary to work with live electrical components, have a qualified licensed electrician or other individual who has been trained in handling live electrical components perform these tasks.

1. Remove horizontal access panel (item 1) from the unit.

Figure 3. Remove horizontal access panel

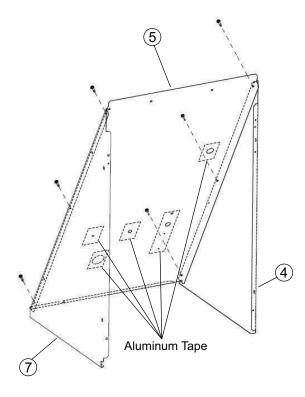


- 2. Prepare Barometric Relief Kit::
 - a. Field installed kits: Remove packaging material and all shipping screws from parts. Remove parts from box.
 - Shipped with unit: Remove shipping screws from damper assembly and shipping brackets. Discard shipping brackets. Remove parts from box and packaging material.

Installation — Foundation™

- 1. Assemble block-off panel:
 - a. When using duct opening furthest from evaporator coil: Attach 4, 5 and 7 using six screws.

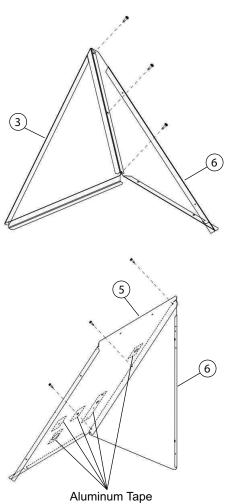
Figure 4. When using duct opening furthest from evaporator coil



Note: The intermediate block off panel has been made transparent for visual representation of tape. The intermediate block off panel will be shipped with tape covering the hole. Remove tape from the hole as per the option provided for the unit. Tape will not be visible in subsequent images.

b. When using duct opening closest to evaporator coil: Attach 4 and 5 using three screws to build right block-off. Attach 3 and 6 using three screws to build left block-off.

Figure 5. When using duct opening closest to evaporator coil

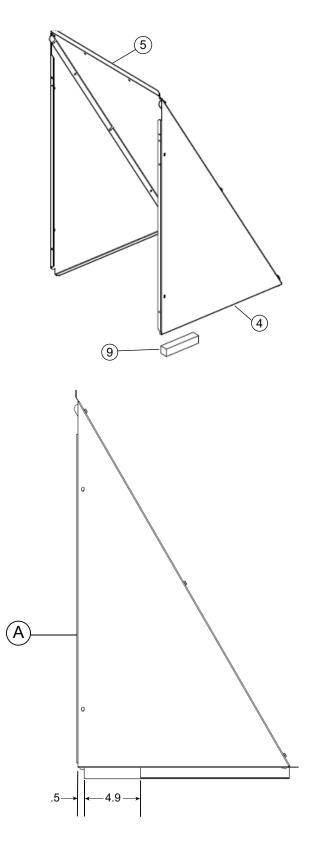


Note: The intermediate block off panel has been made transparent for visual representation of tape. The intermediate block off panel will be shipped with tape covering the hole. Remove tape from the hole as per the option provided for the unit. Tape will not be visible in subsequent images.

 Cut one piece of gasket (item 9) to a length of 4.3 inches. Attach to the bottom of the side block-off panel (item 4) leaving a 0.5 inch gap from surface A.

Note: Applicable to both return duct opening configurations.

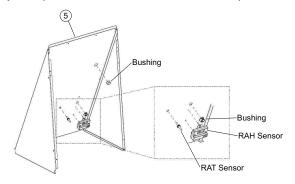
Figure 6. Attach gasket to side block-off panel



a. Standard and low leak economizer: If comparative enthalpy is installed, attach the return air humidity (RAH) and return air temperature (RAT) sensors to intermediate block-off panel (item 5) and insert bushing into hole provided on block-off panel. Connect RAH wire harness onto RAH sensor and route wires through bushing.

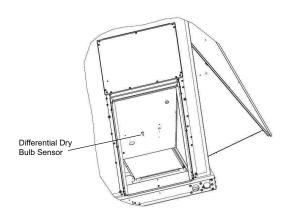
Note: See the Comparative Enthalpy Installation Instructions (ACC-SVN310*-EN) for further details.

Figure 7. Attach RAH & RAT sensors to block-off panel (standard and low leak economizer)



b. If differential dry bulb is installed, insert the rubber grommet to intermediate block off panel and then assemble the return air temperature (RAT) sensors to into the grommet. Connect RAT wire harness onto RAT sensor. Same as assembly of RAT for comparative enthalpy

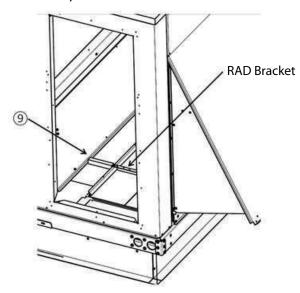
Figure 8. Differential Dry Bulb Sensor



Note: See the Differential Dry Bulb Installation Instructions for Low Leak Economizers (ACC-SVN296*-EN) for further details.

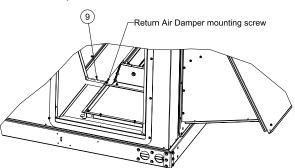
- 3. Attach one piece of gasket (item 9) to the base:
 - a. **Standard Economizer**: Align gasket with the return air damper (RAD) bracket.

Figure 9. Attach gasket to base (standard economizer)



b. **Low Leak Economizers**: Align gasket so it is centered with the screw that secures the return air damper to the return opening flange.

Figure 10. Attach gasket to base (low leak economizer)



- 4. Secure barometric block-off:
 - a. Secure barometric block-off assembly to side flanges of return opening using four screws.

Figure 11. Secure barometric block-off to side flanges

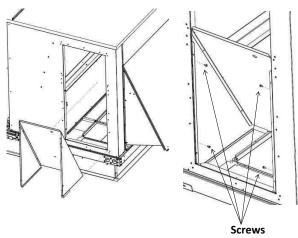
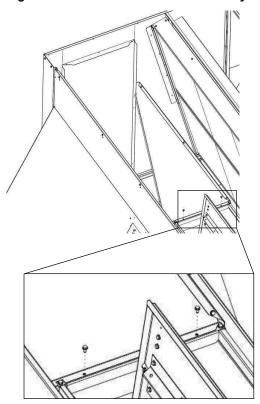
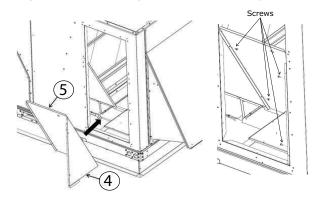


Figure 12. Secure left block-off assembly



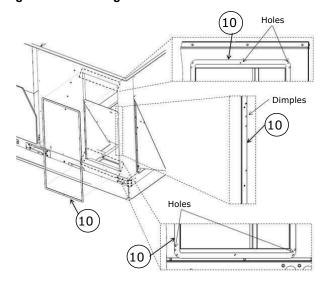
 Using four screws, secure right block-off assembly parts 4 and 5 to side flanges of return opening and left block-off assembly (item 6).

Figure 13. Secure right block-off assembly



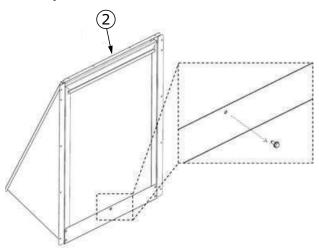
5. Attach gasket to unit back panel. Start gasket below the return horizontal duct opening, centered on the opening and aligned with the flange at the base rail. Route gasket to cover holes and dimples along sides and top of the duct opening. Gasket should be one continuous piece overlapping 1-inch at bottom center.

Figure 14. Attach gasket to unit



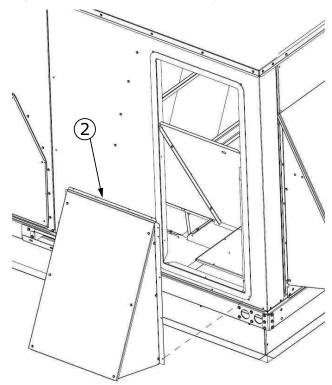
6. Remove shipping screw from damper assembly (item 2).

Figure 15. Remove shipping screw from damper assembly



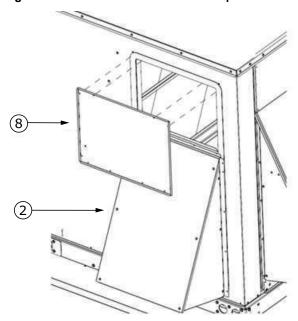
7. Attach damper assembly (item 2) to unit using ten screws.

Figure 16. Attach damper assembly to unit



8. Using 10 screws, attach horizontal block-off panel (item 8) to the unit rear panel and damper assembly (item 2).

Figure 17. Attach horizontal block-off panel



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