

# Installation Instructions

# **Barometric Relief Damper**

## Packaged Rooftop Units

## 12.5 to 25 Tons

**Model Number:**

BAYBARO300\*

FIABARM003\*

**Used With:**

E/GCC180-300

T/YS\*180-300, T/H\*180-300, T/YZ\*150-300

W/D/G\*\*150-300

### **▲ 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.

# 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-including industry replacements for CFCs and HCFCs such as saturated or unsaturated HFCs and HCFCs.

## 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.

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## Revision History

Updated the Model Number for FIABARM003\*.

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# General Information

## Unit Inspection

To protect against loss due to damage incurred in transit, perform inspection immediately upon receipt of the unit.

## Exterior Inspection

If the job site inspection reveals damage or material shortages, file a claim with the carrier immediately. Specify the type and extent of the damage on the bill of lading before signing. Notify the appropriate sales representative.

**Important:** Do not proceed with installation of a damaged unit without sales representative's approval.

- Visually inspect the complete exterior for signs of shipping damages to unit or packing material.
- Verify that the nameplate data matches the sales order and bill of lading.
- Verify that the unit is properly equipped and there are no material shortages.
- Verify that the power supply complies with the unit nameplate specifications.

## Inspection for Concealed Damage

Visually inspect the components for concealed damage as soon as possible after delivery and before it is stored.

If concealed damage is discovered:

- Notify the carrier's terminal of the damage immediately by phone and by mail.
- Concealed damage must be reported within 15 days.
- Request an immediate, joint inspection of the damage with the carrier and consignee.
- Stop unpacking the unit.
- Do not remove damaged material from receiving location.
- Take photos of the damage, if possible.
- The owner must provide reasonable evidence that the damage did not occur after delivery.

## Foundation™ Parts List

Item	Description	Qty
2	Damper assembly	1
3	Left side block-off panel: Only for units using the duct opening closest to the evaporator coil.	1
4	Right side block-off panel	1
5	Intermediate block-off panel	1
6	Extension block-off panel: Only for units using the duct opening closest to the evaporator coil.	1
7	Left side block-off panel: Only for units using the duct opening furthest from the evaporator coil.	1
8	Insulated, horizontal block-off panel	1
10	Roll of gasket	1
Installation bag containing:		1
12	Installation guide	1
11	Kit installed label (field installed kit only)	1
9	1-in. x 1-in. x 6-in. gasket	2
-	(#10 screws) ¼ in. long	35

Figure 1. Parts (field installed kit)

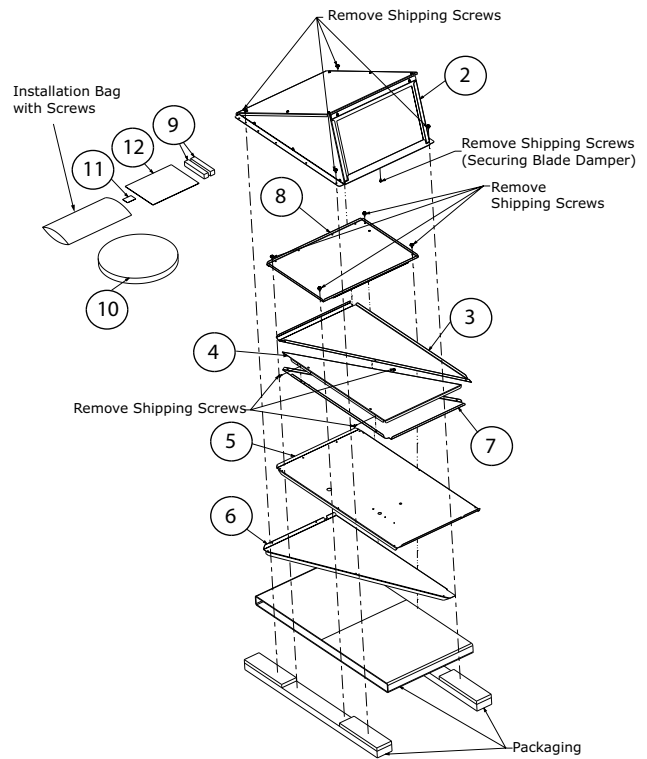


Figure 2. Barometric assembly (factory installed)

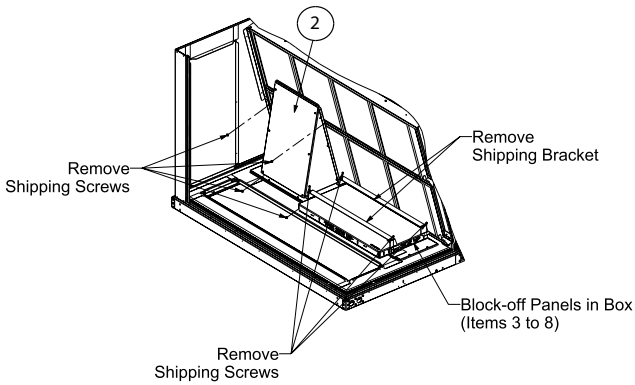
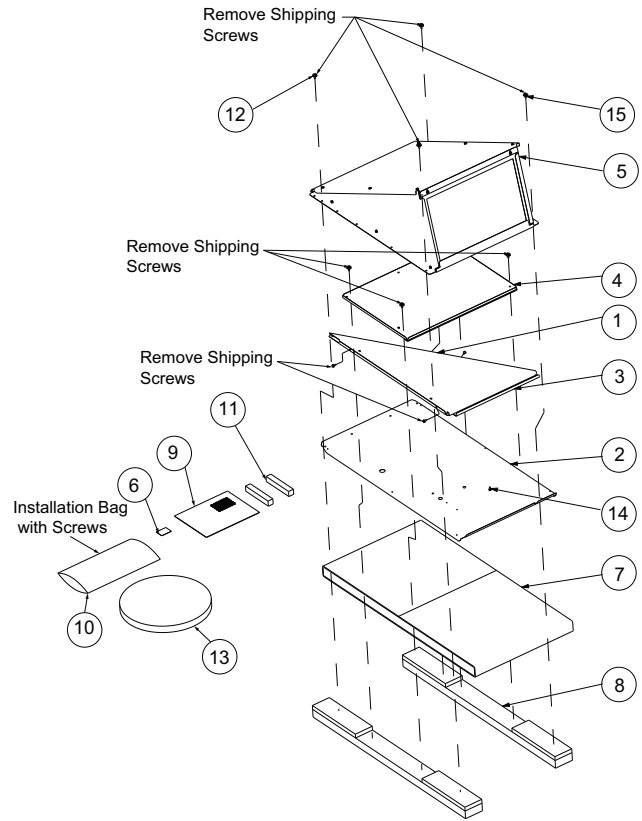


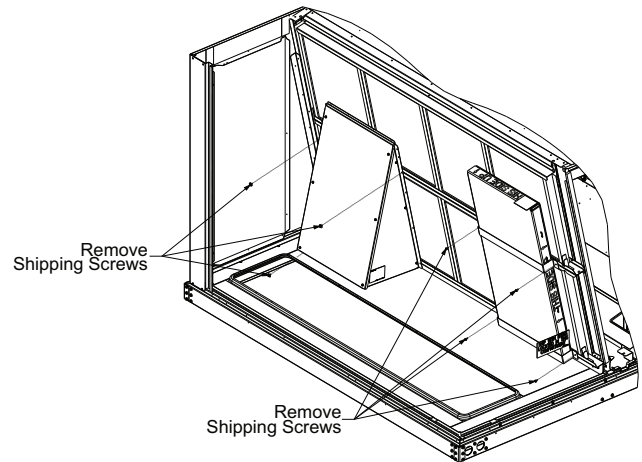
Figure 3. Parts (field installed kit)



Precedent™ Parts List

Item	Description	Qty
1	Right-side barometric relief block-off	1
2	Intermediate block-off panel	1
3	Left-side barometric relief block-off	1
4	Block-off horizontal return assembly	1
5	Barometric relief assembly	1
6	FIABARM003* - Information label	1
7	Cardboard pad package	1
8	Shipping lumber	2
9	Installation guide	1
10	Plastic bag 10.00 in. x 15.00 in.	1
11	Fabricated insulation 1.00T x 1.00 in. x 6.00 in.	2
12	Washer-bonded 0.250 in. x 0.750 in.	8
13	Gasket	1
14	Screws 10-16 UNC x ½ in.	4
15	Screws 10-16 UNC x ¾ in.	43

Figure 4. Barometric assembly (factory installed)



# Installation

## ⚠ WARNING

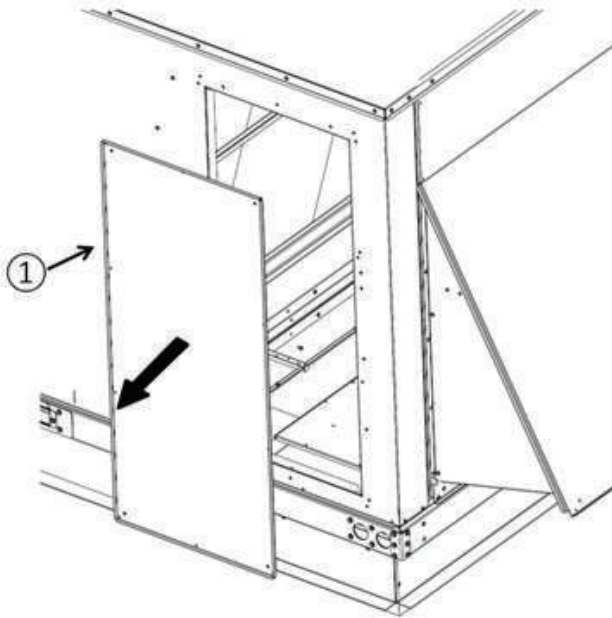
### Hazardous Service Procedures!

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 5. Remove horizontal access panel

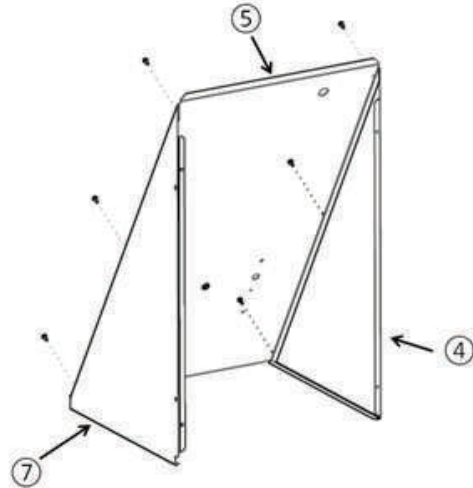


2. Prepare Barometric Relief Kit:
  - a. **Field installed kits:** Remove packaging material and all shipping screws from parts. Remove parts from box.
  - b. **Shipped with unit:** Remove shipping screws from damper assembly and shipping brackets. Discard shipping brackets. Remove parts from box and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

## Installation — Foundation™

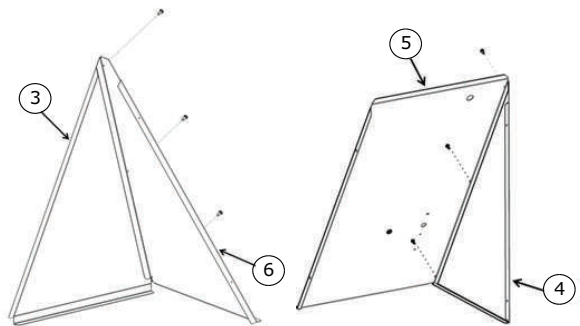
1. Assemble block-off panel:
  - a. **When using duct opening furthest from evaporator coil:** Attach 4, 5 and 7 using six screws.

Figure 6. When using duct opening furthest from evaporator coil.



- 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.

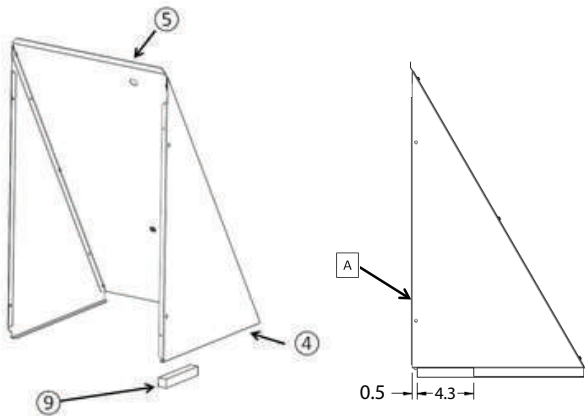
Figure 7. When using duct opening closest to evaporator coil



2. 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.

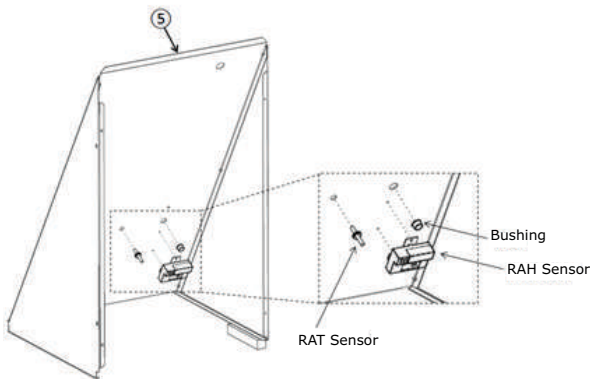
**Figure 8. Attach gasket to side block-off panel**



- a. **Standard 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-SVN172\*-EN)* for further details.

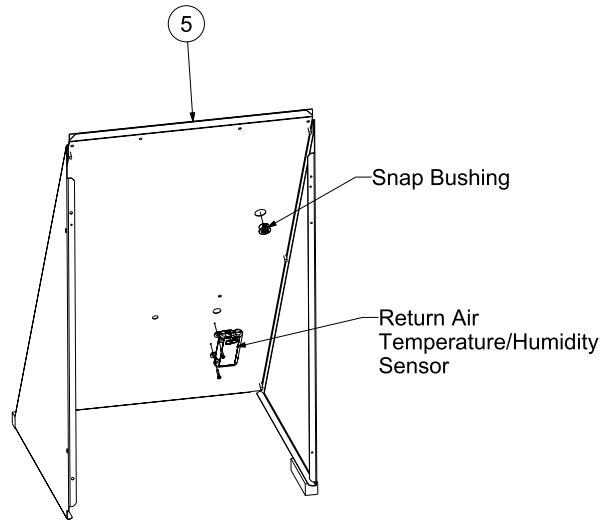
**Figure 9. Attach RAH & RAT sensors to block-off panel (standard economizer)**



- b. **Low Leak Economizer:** If comparative enthalpy is installed only one sensor is required. Attach return air temperature/humidity (RAE) sensor to intermediate block-off panel (item 5) and insert bushing into hole provided in intermediate block-off panel. Connect RAE sensor harness to sensor and route through bushing.

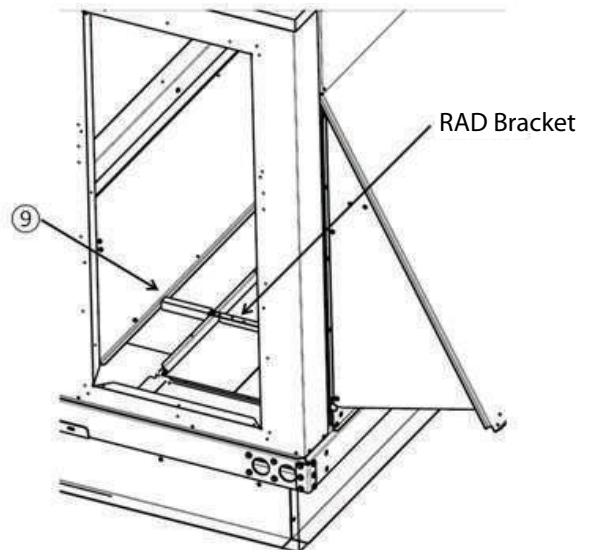
**Note:** See the *Comparative Enthalpy Installation Instructions for Low Leak Economizers (ACC-SVN180\*-EN)* for further details.

**Figure 10. Attach RAE sensor to block-off panel (low leak economizer)**



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

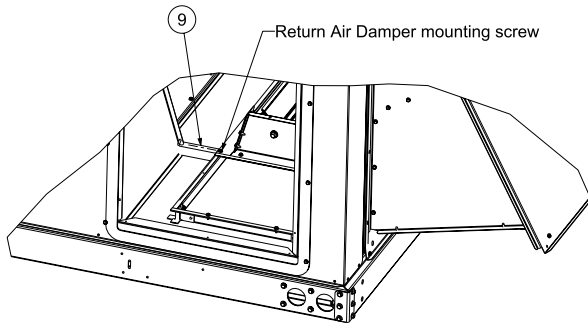
**Figure 11. Attach gasket to base (standard economizer)**



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

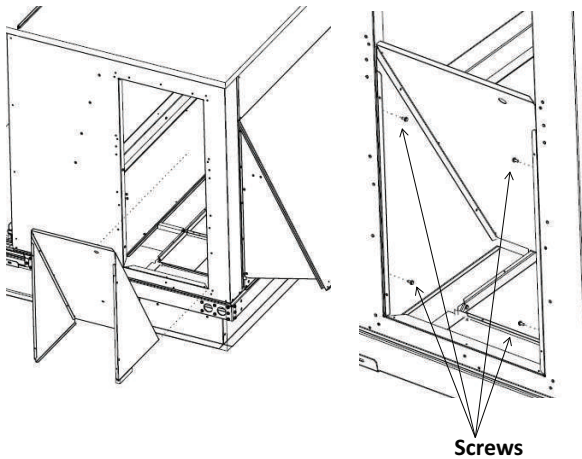


**Figure 12. Attach gasket to base (low leak economizer)**

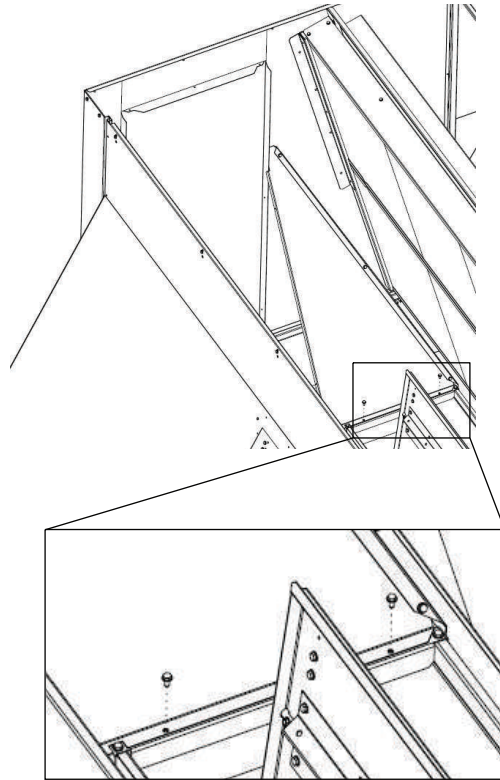


4. Secure barometric block-off:
  - a. Secure barometric block-off assembly to side flanges of return opening using four screws.

**Figure 13. Secure barometric block-off to side flanges**

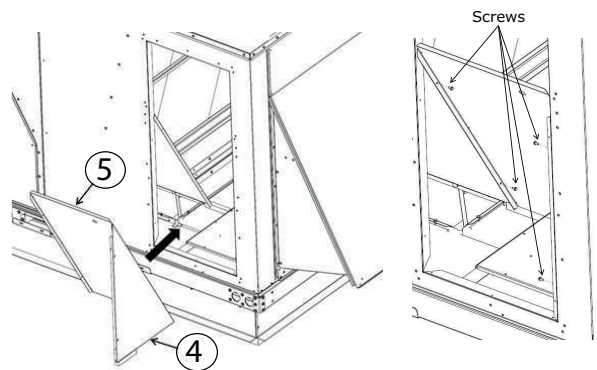


**Figure 14. Secure left block-off assembly**



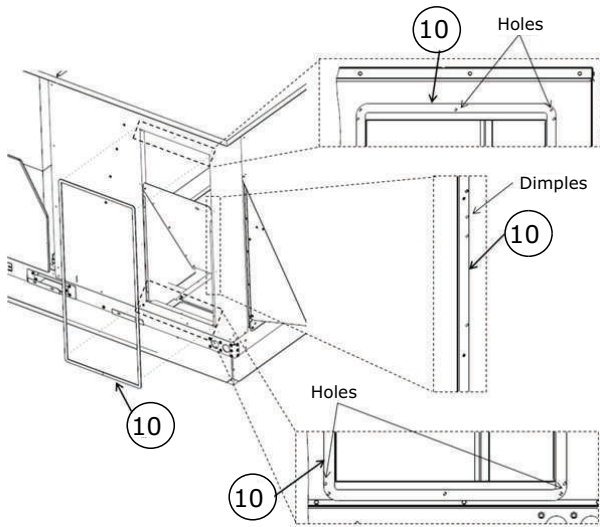
- b. Using four screws, secure right block-off assembly - parts 4 and 5 to side flanges of return opening and left block-off assembly (item 6).

**Figure 15. Secure right block-off assembly**



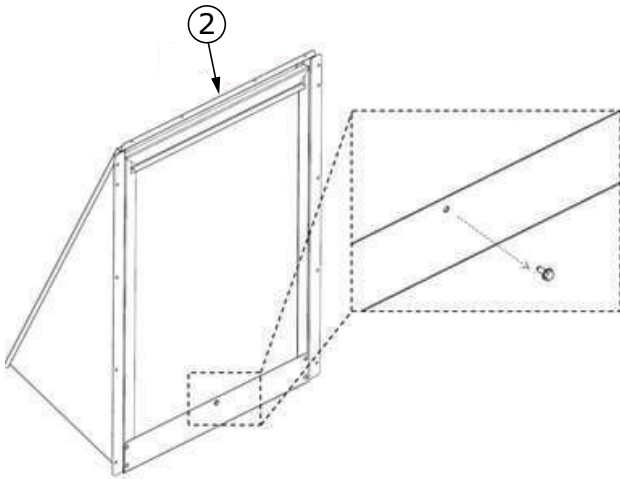
5. Attach gasket to unit back panel. Start gasket below the return horizontal duct opening, centered on the opening and aligned with the flange at the base rail. Route gasket to cover holes and dimples along sides and top of the duct opening. Gasket should be one continuous piece overlapping 1-inch at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

**Figure 16. Attach gasket to unit**



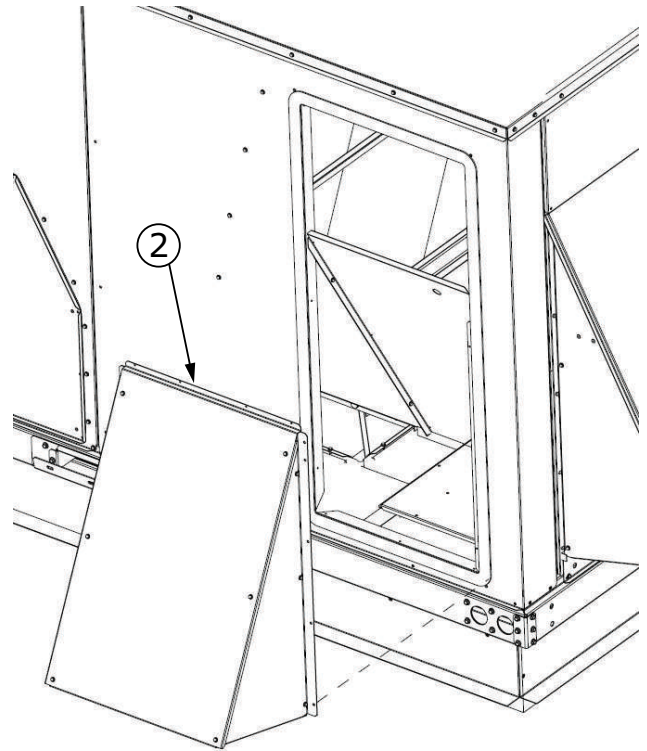
6. Remove shipping screw from damper assembly (item 2).

**Figure 17. Remove shipping screw from damper assembly**



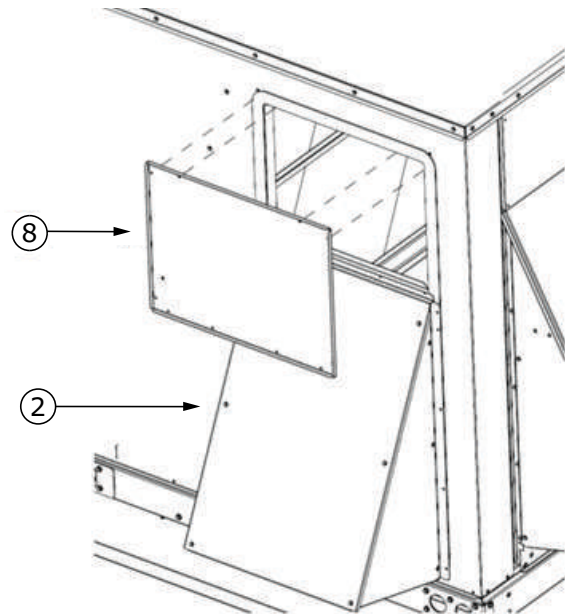
7. Attach damper assembly (item 2) to unit using ten screws.

**Figure 18. 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).

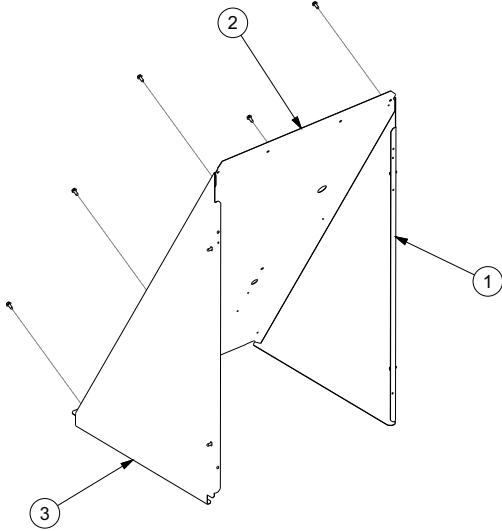
**Figure 19. Attach horizontal block-off panel**



## Installation — Precedent™

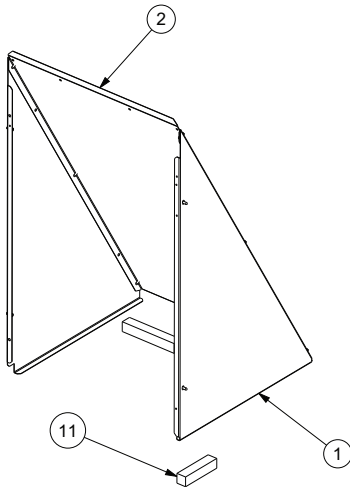
1. Assemble block-off panel. Attach 1, 2 and 3 using six screws.

Figure 20. Block-off panels



2. Cut one piece of gasket (item 11) to a length of 4.3 inches. Attach to the bottom of the side block-off panel (item 1) leaving a 0.5 inch gap from surface A.

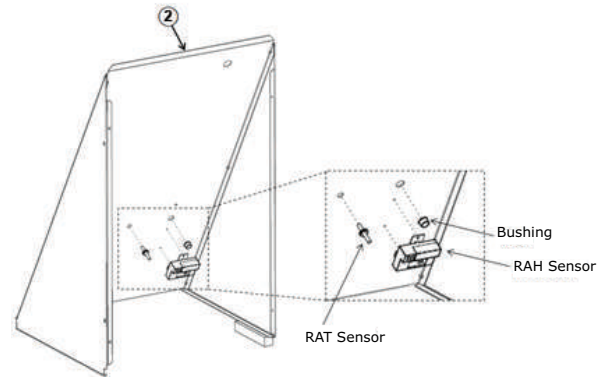
Figure 21. Attach gasket to side block-off panel



- 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 2) and insert bushing into hole provided on block-off panel. Connect RAH wire harness onto RAH sensor and route wires through bushing.

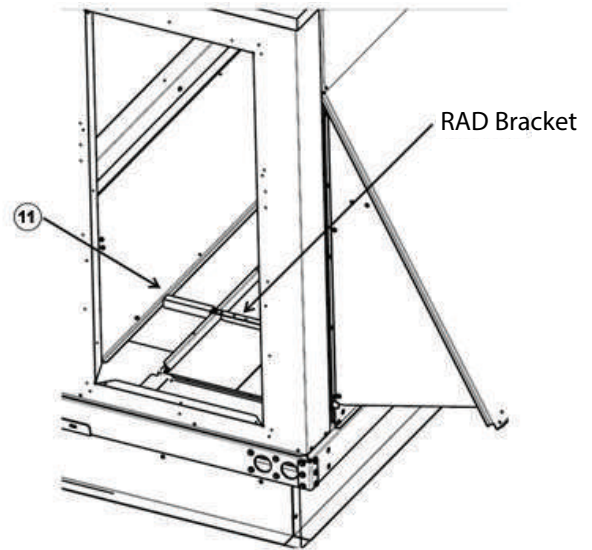
**Note:** See the *Comparative Enthalpy Installation Instructions (ACC-SVN235\*-EN)* for further details.

Figure 22. Attach RAH & RAT sensors to block-off panel



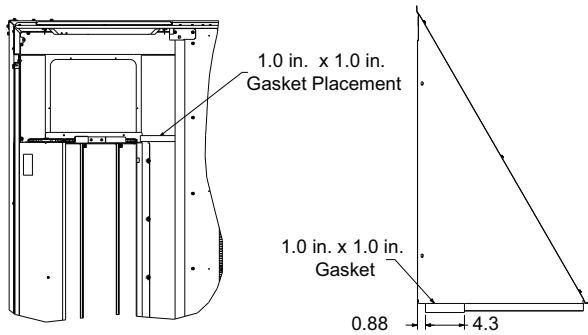
3. Attach one piece of gasket (item 11) to the base:
  - a. **Standard Economizer:** Align gasket with the return air damper (RAD) bracket.

Figure 23. Attach gasket to base (standard economizer)



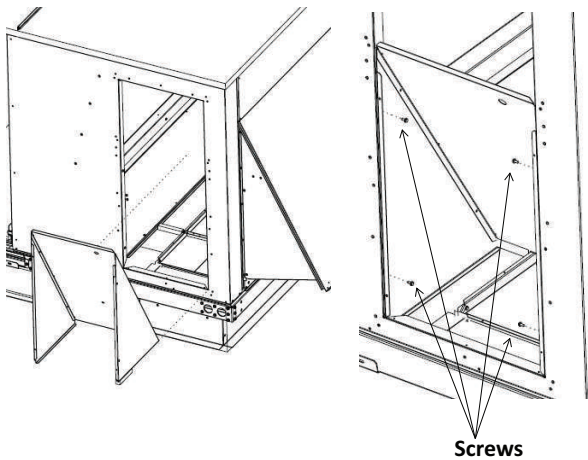
- b. **Low Leak Economizers:** Align gasket with the return air damper flange as shown in [Figure 24, p. 12](#).

**Figure 24. Attach gasket to base (low leak economizer)**

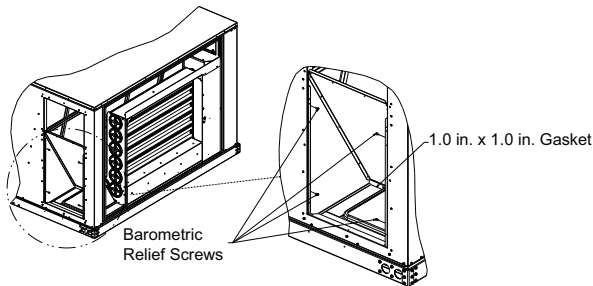


4. Secure barometric block-off:
  - a. Secure barometric block-off assembly to side flanges of return opening using four screws.

**Figure 25. Secure barometric block-off to side flanges (standard economizer)**



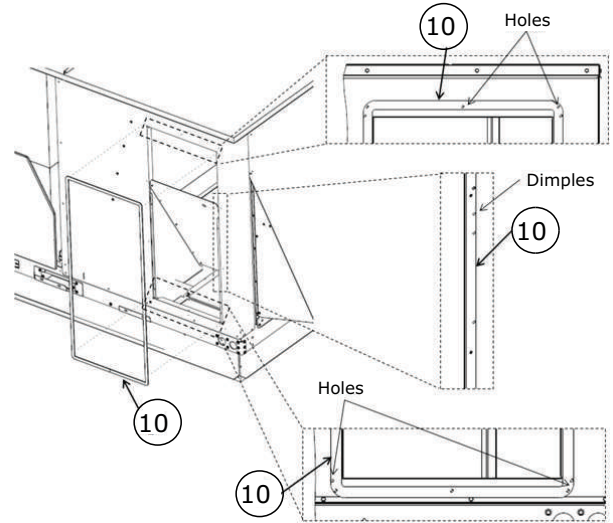
**Figure 26. Secure barometric block-off to side flanges (low leak economizer)**



5. Attach gasket to unit back panel. Start gasket below the

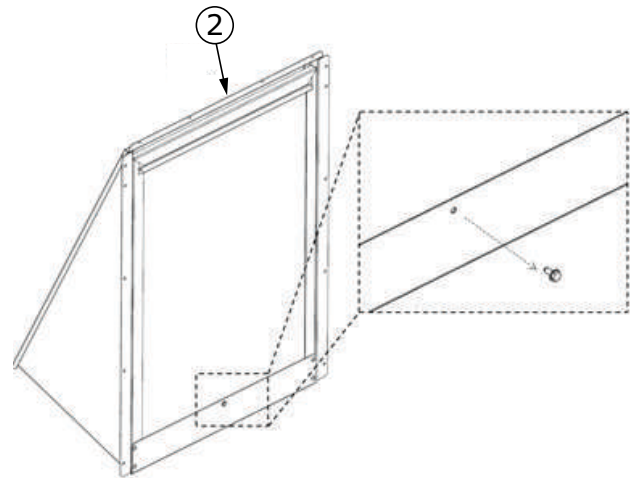
return horizontal duct opening, centered on the opening and aligned with the flange at the base rail. Route gasket to cover holes and dimples along sides and top of the duct opening. Gasket should be one continuous piece overlapping 1-inch at bottom center.

**Figure 27. Attach gasket to unit**



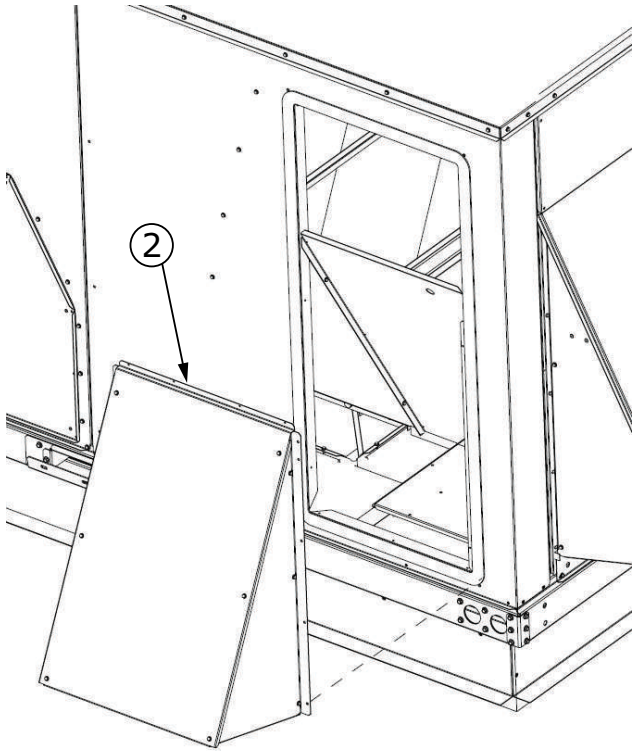
6. Remove shipping screw from damper assembly (item 2).

**Figure 28. Remove shipping screw from damper assembly**



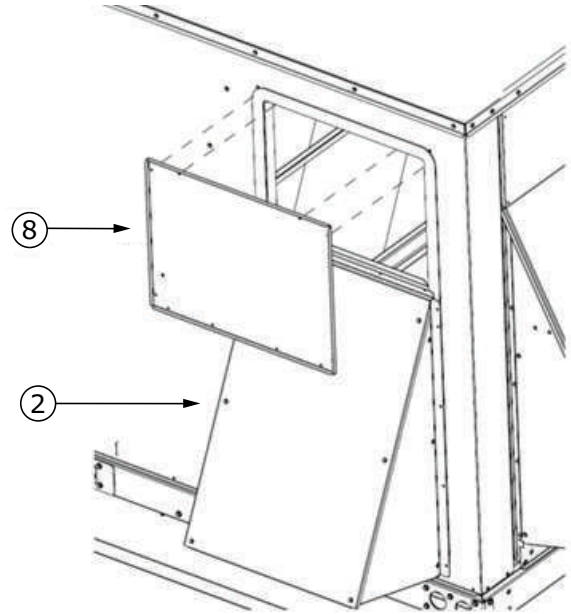
7. Attach damper assembly (item 2) to unit using ten screws.

**Figure 29. 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 30. Attach horizontal block-off panel**







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