Installation Instructions

0-100% Low Leak Economizer - Downflow/Horizontal

Foundation™ Packaged Rooftop Units
15 to 25 Tons

Model Numbers:	**Used With:**
BAYECON358*	E/GDK180-300 Downflow
BAYECON359*	E/GDK180-300 Horizontal Flow

⚠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-SVN311A-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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Trademarks

Table of Contents

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. Economizer - Field installed option

Item	Description	Qty
1	Outside Air Damper Assembly	–
2	Longer Connecting Rod Assembly (for the Return Opening Closest to the Evaporator Coil)[(a)]	–
3	Return Air Damper Assembly	–
4	Shorter Connecting Rod Assembly (for the Return Opening Farthest from the Evaporator Coil)[(a)]	–
5	Outside Air Block-off Panel	–
6	Return Air Block-off Panel (Downflow kits only)	–
7	Rain Block-off Panel	–
8	Plastic Bag Containing	–
	• 34 #10-32 Screws	–
	• 1/2-inch wide x 1/8-inch 3 thick Gasket Roll	1
	• 2-inch wide x 2-inch long Aluminum Tape	3
	• 2-inch wide x 9-inch long Aluminum Tape	1
	• Installation Instructions	1
	• Pop-in Wire Ties	12
	• Wire Ties 11-inch Long	9
	• Label	1
	• Adhesive Backed Wire Tie Mounting Base	2
	• Black Wire Ties	7
	• Control Harness	1

(a) Kits for horizontal low leak economizer come with one rod only.

Figure 1. Economizer - field installed components

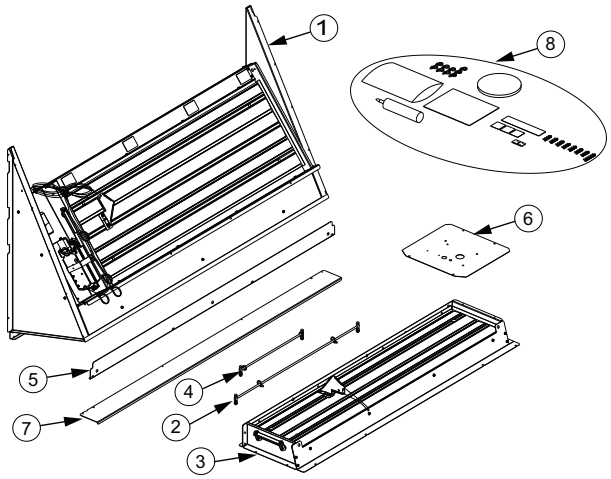
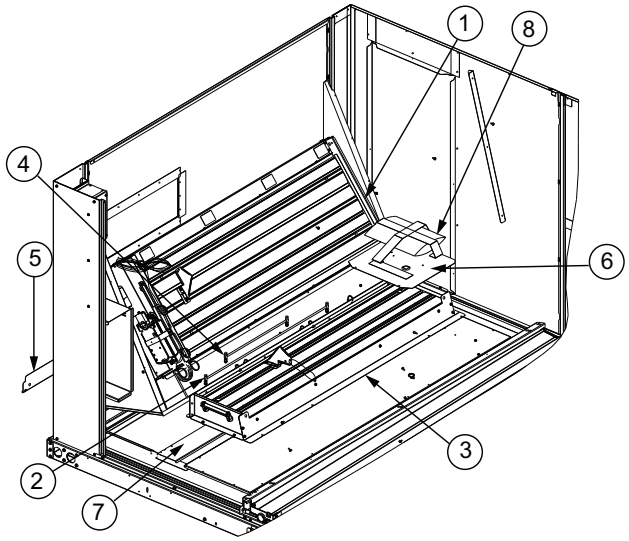


Table 2 Economizer - Factory installed option (downflow only)

Item	Description	Qty
1	Outside Air Damper Assembly	–
2	Longer Connecting Rod Assembly (for the Return Opening Closest to the Evaporator Coil)	–
3	Return Air Damper Assembly	–
4	Shorter Connecting Rod Assembly (for the Return Opening Farthest from the Evaporator Coil)	–
5	Outside Air Block-off Panel (Attached to Outside Econ wall)	–
6	Return Block-off Panel (Shipping Position)	–
7	Rain Block-off Panel	–
8	Plastic Bag Containing	–
	• 34 #10-32 Screws	–
	• 1/2-inch wide x 1/8-inch thick Gasket Roll	1
	• 2-inch wide x 2-inch long Aluminum Tape	3
	• 2-inch wide x 9-inch long Aluminum Tape	1
	• Installation Instructions	1

Figure 2. Economizer - factor installed components (downflow only)



Field Supplied Part

NOTICE

Corrosion Damage!

Failure to use recommended caulking/sealant could cause corrosion related failures to refrigerant components.

Table 3. Economizer - Field supplied part

Qty	Description
1	Tube Sealant - Trane recommends Sikaflex 221 (SEL00439)

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.

⚠CAUTION

Heavy Object!

Failure to follow instructions below could result in severe injury and equipment damage.
Economizer weighs over 50 pounds and should be installed by two people.

Field Installed Option

⚠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.

NOTICE

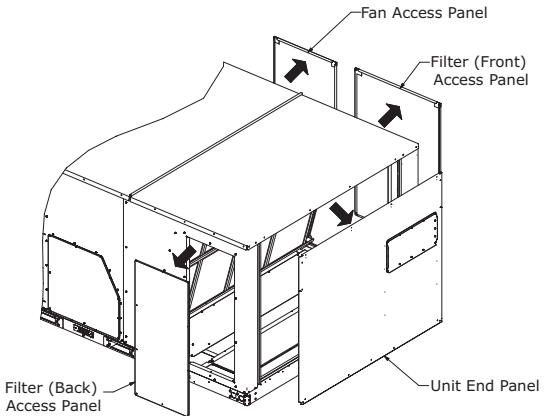
Equipment Damage!

Forcibly turning the motor shaft can damage the gear train and motor beyond repair.
Never turn the motor shaft by hand or with a wrench.

1. Remove the filter/fan compartment access panels and the unit end panel (evaporator end). See Figure 3, p. 7.

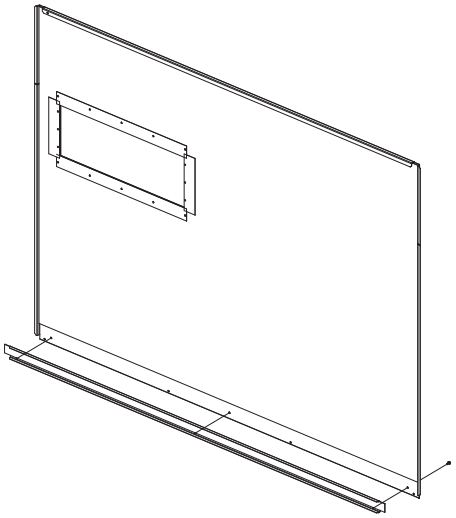
Note: *The unit economizer control wire harness is attached to the top flange with a pop-in wire tie. Cut the wire tie to remove the panel.*

Figure 3. Remove panels



2. Remove C channel from bottom of unit end panel and discard. See Figure 4, p. 7.

Figure 4. Remove channel from unit end panel



3. Install return damper - downflow configuration only (for horizontal configuration skip to Step 4):

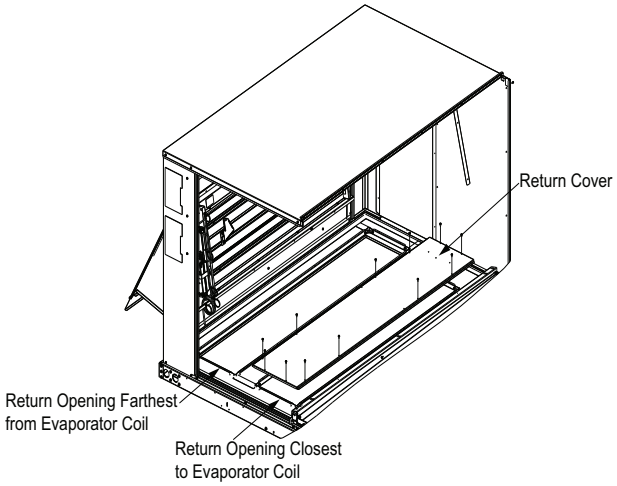
Note: *Cut the wire tie that secures the return damper blades. This wire tie goes through the hole on the bracket attached to the blade and through another hole in the return damper side.*

   a. The unit is shipped configured for the return opening that is farthest from the evaporator coil (with the return opening that is closest to the evaporator coil covered). Skip Step b to use the return opening farthest from the evaporator coil. See Figure 5, p. 8.

   b. To use the return opening closest to the evaporator coil, remove the screws that secure the return cover and place the return cover on the return opening farthest from the evaporator coil, then secure return cover using the previous screws. See Figure 5, p. 8.

Note: *The return opening not being used must have the return cover secured to this return opening.*

Figure 5. Swapping return cover

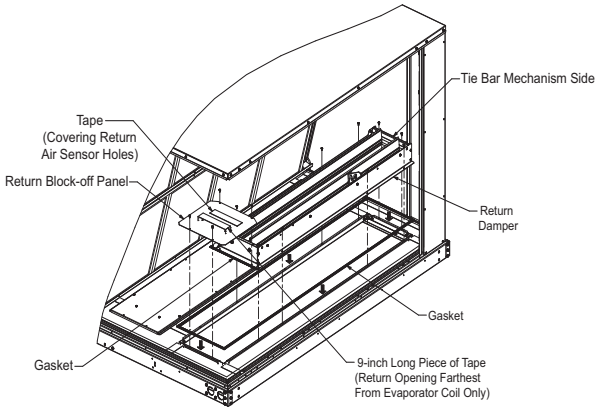


c. Using the gasket provided in the kit, place the gasket on the four return duct opening flanges.

d. Outline the return duct opening keeping the gasket as one piece, and cut off excess gasket.

e. Set the remaining gasket to the side. See Figure 6, p. 8.

Figure 6. Install return damper and gasket



f. Place return damper on the return opening with the slanted side of the damper facing the evaporator coil and tie bar mechanism end towards the front access panel.

g. With the screws provided, secure the return damper to the return duct opening flanges as illustrated in Figure 6, p. 8.

h. Using the remainder of the gasket, place gasket on the top of the return damper flange (tie bar mechanism end) aligning with the edge of the flange and running the full width of the damper. See Figure 6, p. 8.

i. If barometric relief or power exhaust is not installed, install the return block-off panel to seal off the remainder of the return duct opening. See Figure 6, p. 8.

j. Place block-off on top of the return damper flange and return duct opening flanges. Using four screws provided, secure return block-off to the return damper flange and return duct opening flanges as illustrated in Figure 6, p. 8.

k. When using the return opening farthest from the evaporator coil, place the 9-inch long piece of aluminum tape over the holes in the return block-off panel that would be used to secure the return block-off panel to the return opening closest to the evaporator coil.

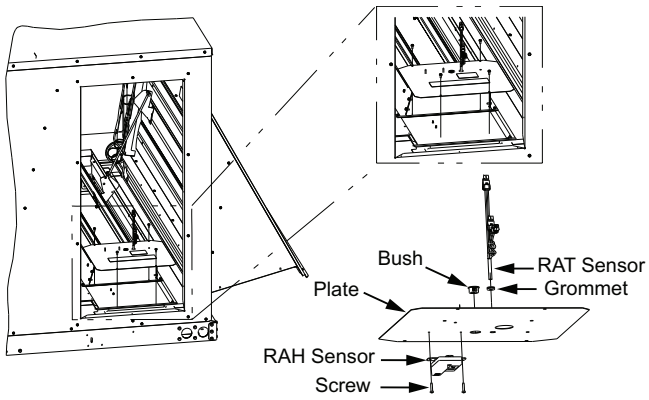
NOTICE

Equipment Damage!

Electrostatic discharge can short equipment circuitry. Ensure that you are properly grounded before handling sensitive electronic equipment.

Note: *If using optional comparative enthalpy, secure return air humidity sensor to the bottom of the return block-off plate, insert bushing, and connect/route return air wire harness and insert grommet and then Insert RAT sensor in the grommet keeping half an inch out on the other side of the plate before securing the return block-off plate to the return damper and return duct opening. See Figure 7*

Figure 7. Comparative enthalpy



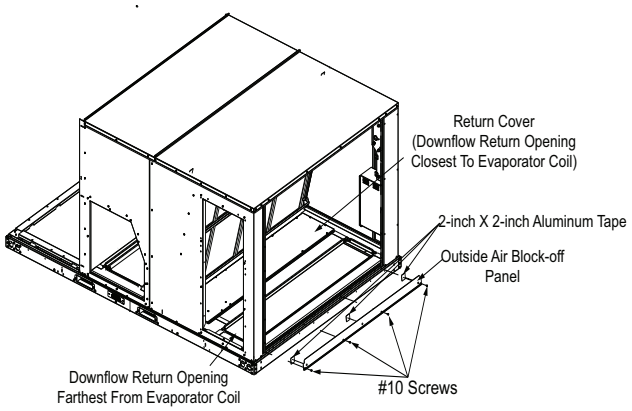
4. Install outside air damper assembly:

   a. Using the three pre-cut pieces of the 2-inch x 2-inch aluminum tape, place one piece over each one of the three big holes in the outside air block-off.

   b. Attach outside air block off to unit using four screws as illustrated in Figure 8, p. 9.

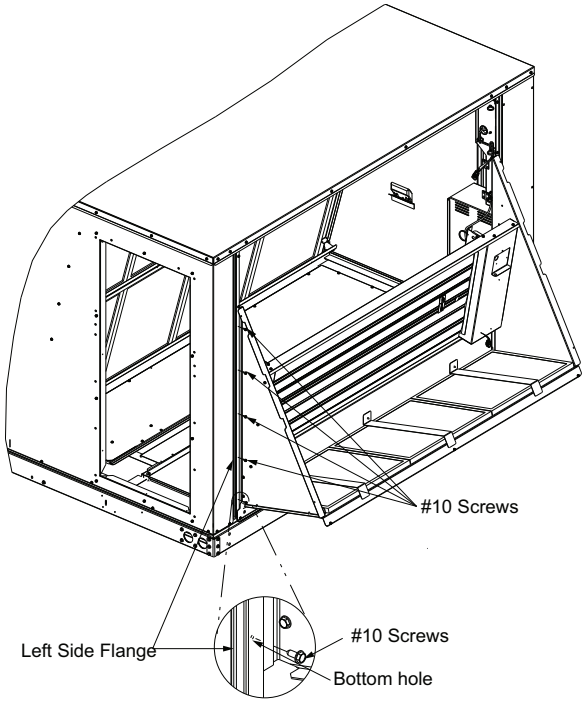
Note: *The block-off is designed to close the opening created between the economizer and the base, when the economizer assembly is in its operating position.*

Figure 8. Install outside air block-off



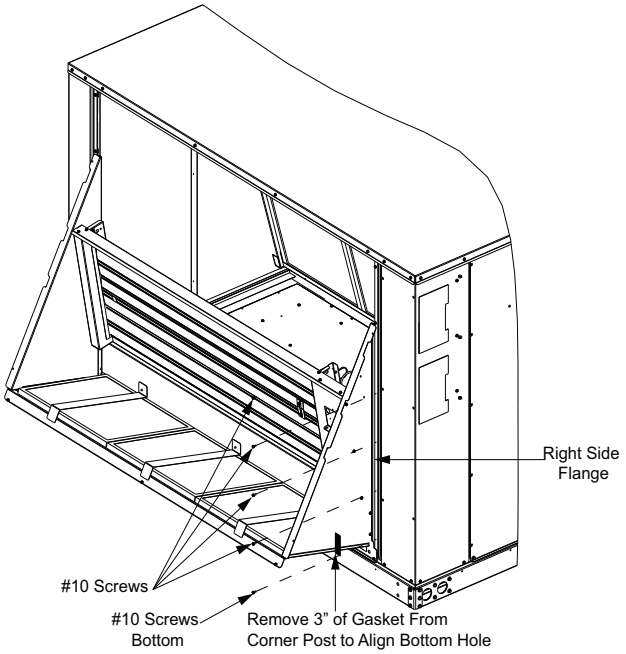
c. Position the left side flange (side with no actuator) on the outside air damper in front of the corner post flange. This outside air damper flange would be on the outside of the unit. See Figure 9, p. 9.

Figure 9. Install left side of outside air damper



d. Position the right side flange (side with actuator) on the outside air damper in back of the corner post flange. This outside air damper flange would be on the inside of the unit. See Figure 10, p. 9.

Figure 10. Install right side flange of outside air damper



e. With the screws provided, use one screw to secure the bottom left side of the economizer assembly by inserting the screw through the clearance hole in the economizer assembly and into the engagement hole of the corner post. See Figure 9, p. 9.

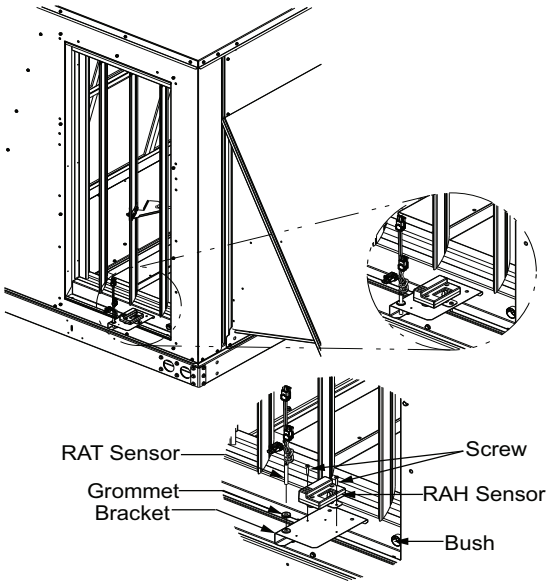
f. Pull up gasket on the bottom of the corner post flange for the outside air damper right side flange to locate clearance holes on corner post.

g. Using one screw, secure the bottom right hand side of the economizer assembly by inserting the screw through the clearance hole in the corner post and into the engagement hole in the economizer assembly. See Figure 10, p. 9.

h. Using four screws per side, secure the left hand side and right hand side of the outside air damper as illustrated in Figure 9, p. 9 and Figure 10, p. 9.

Note: *Horizontal Configuration Only: If using optional comparative enthalpy, secure return air temperature and humidity sensor to the provided plate on the horizontal damper connect/route sensor wire harness.*

Figure 11. Comparative enthalpy horizontal



5. Install Return Damper - horizontal configuration only (for downflow configuration, skip to Step 6):

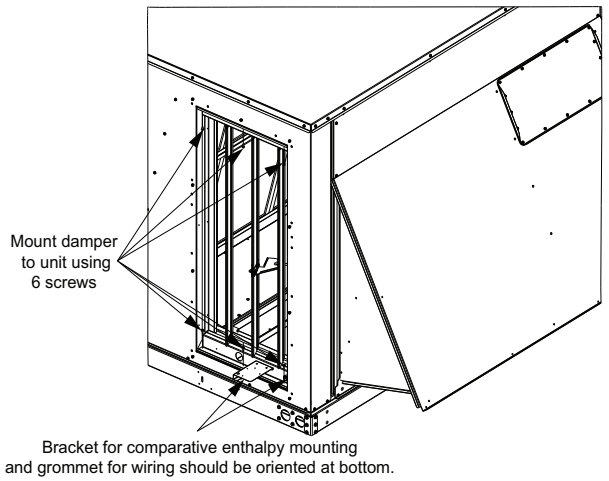
Note: *Cut the wire tie that secures the return damper blades. This wire tie goes through the hole on the bracket attached to the blade. Both of the downflow return openings should be covered using the unit horizontal conversion kit.*

a. Place the gasket provided in kit on the top and bottom duct opening keeping the gasket as one piece, and cut off excess gasket.

b. Secure the return damper with the six screws provided to the return duct opening flanges as illustrated in Figure 12, p. 10.

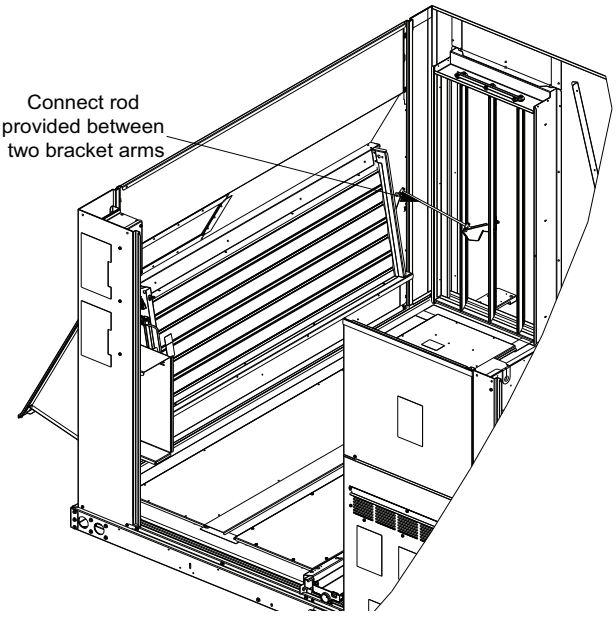
Note: *This damper can be installed from either inside or outside the unit. This can be done before or after the duct installation.*

Figure 12. Secure return damper



c. Secure the connecting rod between the return and fresh air assemblies as shown in Figure 13, p. 10. Torque to 80 to 100 in-lbs.

Figure 13. Secure connecting rod



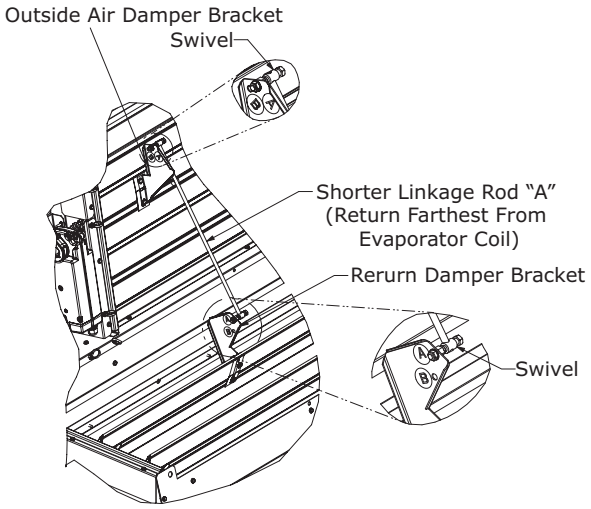
6. Attach connecting rod to dampers - downflow configuration only:

Notes:

- *Connecting rods are secured to the side of the return damper with wire ties for shipping. Cut and remove wire ties.*
- *The length of the rod in relation to the swivel is set to the required length needed to achieve a damper blade opening angle of 70 degrees on the outdoor air damper and a damper blade opening angle of 75 degrees on the return air damper.*

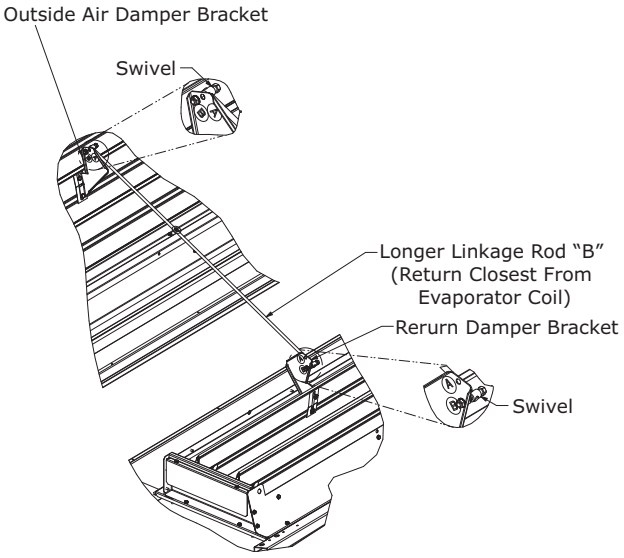
a. For the downflow return opening farthest from the evaporator coil: Assemble the shorter connecting rod labeled A to bracket on return damper. Remove nut from end of swivel on connecting rod and place in hole on return bracket labeled A. Secure nut back on to swivel (torque nut to 80 to 100 in-lbs). See Figure 14, p. 11.

Figure 14. Attach connecting rod (return opening farthest from evaporator coil)



b. For the downflow return opening closest to the evaporator coil: Assemble the longer connecting rod labeled B to bracket on return damper. Remove nut from end of swivel on connecting rod and place in hole on return bracket labeled B. Secure nut back on to swivel (torque nut to 80 to 100 in-lbs). See Figure 15, p. 11.

Figure 15. Attach connecting rod (return opening closest to evaporator coil)



c. For the return opening farthest from the evaporator coil: Assemble the other end of the shorter connecting rod labeled A to the bracket on the outdoor air damper. Remove the nut from the end of swivel on connecting rod and place in hole on outdoor air damper bracket labeled A. Secure nut back on to swivel (torque nut to 80 to 100 in-lbs). See Figure 14, p. 11.

d. For the return opening closest to the evaporator coil: Assemble the other end of the longer connecting rod labeled B to the bracket on the outdoor air damper. Remove the nut from the end of swivel on connecting rod and place in hole on outdoor air damper bracket labeled B. Secure nut back on to swivel (torque nut to 80 to 100 in-lbs). See Figure 15, p. 11.

7. Place end panel on to the outdoor air damper with the top of the panel behind the unit roof. Using three screws (provided) secure the end panel to the outdoor air damper. Using the previous screws (from Step 1) secure the end panel to the corner posts on both sides and the unit roof as illustrated in Figure 17, p. 12.
8. Place rain block-off panel with flange pointing towards unit, on the inside of the unit end panel and secure with four screws passing through the clearance holes on the unit end panel into the engaging holes on rain block-off. See Figure 17, p. 12.
9. Route the controls harness from the actuator to the fresh air options module located in the return enclosure using the wire ties. Confirm the harness is away from all moving parts of the damper assemblies. Connect harness J11 to fresh air options module P11. Confirm the harness has a secure connection.

Figure 16. LLE horizontal units

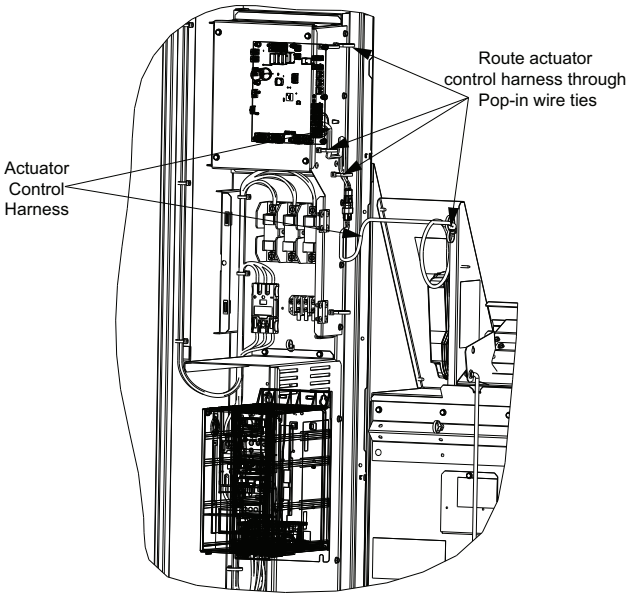
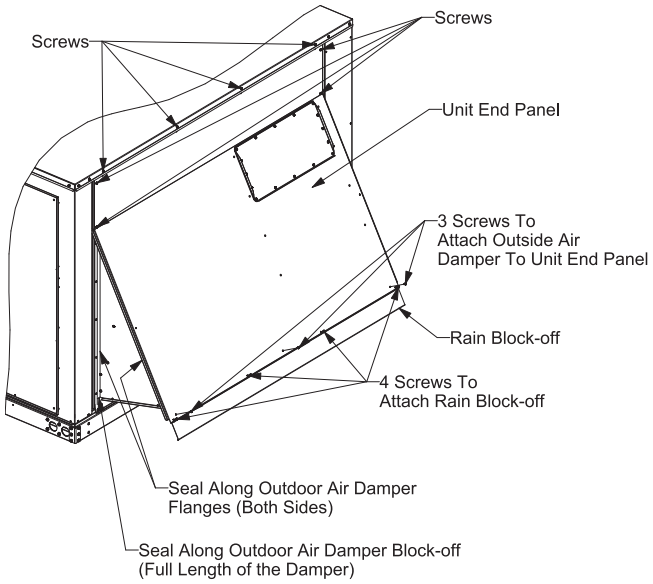


Figure 17. End panel install and sealing



10. Using field supplied silicone sealant, seal all seams, cracks and gaps as illustrated in Figure 17, p. 12.

NOTICE

Equipment Damage!

Electrostatic discharge can short equipment circuitry. Ensure that you are properly grounded before handling sensitive electronic equipment.

a. After mounting and powering the thermostat, configure the thermostat to display a fault message (e.g., economizer fault) whenever the dry contact input goes high. Consult thermostat's user manual for detailed instructions.

b. Configure the thermostat's Wi-Fi for connection to the internet. Consult thermostat's user manual for detailed instructions.

Factory Installed Option (Field Setup, Downflow Only)

⚠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.

NOTICE

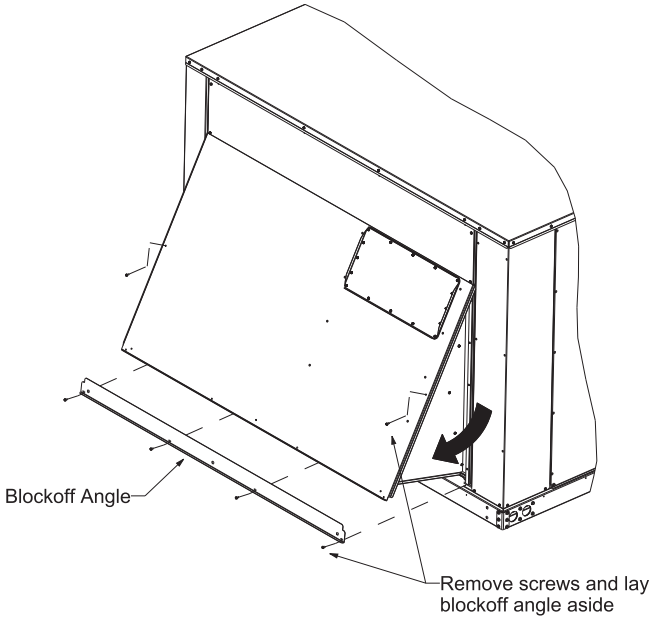
Equipment Damage!

Forcibly turning the motor shaft can damage the gear train and motor beyond repair.
Never turn the motor shaft by hand or with a wrench.

Each economizer ships inside the unit and requires partial assembling and setup in the field.

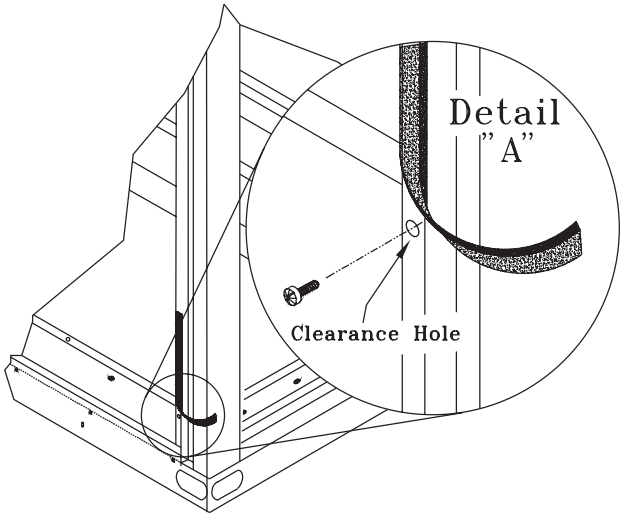
1. Remove the front and back filter compartment access panels.
2. Remove the lower row of screws and the two screws in the middle of the unit end panel. See Figure 18, p. 12. Lay block-off angle aside for later installation.

Figure 18. Pull economizer assembly outward



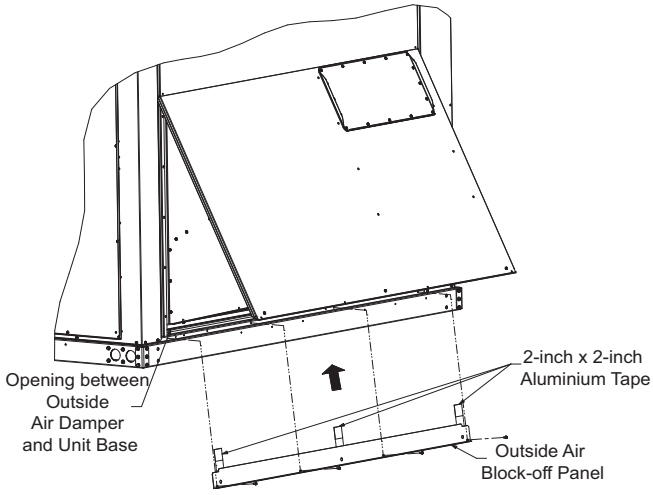
3. Do not remove the four screws in the upper rows of the end panel.
4. Grasp the bottom of the end panel and pull the economizer assembly outward into the operating position. See Figure 18, p. 12.
5. Remove approximately 3 inches of gasket material from the bottom of each corner post to expose the holes used to attach the economizer assembly to the unit. See Figure 19, p. 13.
6. With the screws provided, secure each side of the economizer assembly by inserting a screw through the clearance hole in the bottom of the corner post and into the engagement hole in the economizer assembly. Refer to Figure 19, p. 13.

Figure 19. Remove gasket material



7. Install the outside air block-off panel underneath the outside air damper. Refer to Figure 20, p. 13. The blockoff angle is designed to close the opening created between the outside air damper and the base when the economizer assembly is in its operating position.
   a. Using the three pre-cut pieces of the 2-inch x 2-inch aluminum tape (from installers bag), place one piece over each one of the three big holes in the outside air block off panel.
   b. Holding the outside air block-off panel with the holes at the bottom and the bottom flange outward, tilt the top forward and insert it into the opening between the economizer and the unit base.
   c. Press the bottom of the outside air block-off panel against the unit base and line up the holes. Using the provided screws, secure it into place.

Figure 20. Outside air block-off installation



8. Install the rain block-off panel on to the unit end panel.
   a. Remove the screws that are securing the rain block-off from it's shipping position within the unit to the return duct opening flanges. See Figure 2, p. 5.
   b. Place rain block-off panel with flange pointing towards the unit, on the inside of the unit end panel and secure with four screws passing through the clearance holes on the unit end panel into the engaging holes on rain block-off. See Figure 17, p. 12.
9. Install return damper:

   Note: *Cut the wire tie that secures the return damper blades. (This wire tie goes through the hole on the bracket attached to the blade and through another hole in the damper side.)*

   a. The unit is shipped with the return damper secured to the top of the return cover (return opening closest to the evaporator coil).
   b. Remove the screws that secured the return damper. Cut three wire ties that secured the return block-off panel to the top of the return damper and set the block-off panel to the side.
   c. The unit is shipped configured for the return opening that is farthest from the evaporator coil (with the return opening that is closest to the evaporator coil covered). Skip Step d to use return opening farthest from the evaporator coil.
   d. To use the return opening closest to the evaporator coil, remove the screws that secure the return cover and place the return cover on the return opening farthest from the evaporator coil, then secure return cover using the previous screws. See Figure 5, p. 8.

   Note: *The return opening that is not being used must have the return cover secured to the return opening.*

   e. Using the gasket provided (in the shipping bag item 7), place the gasket on the four return duct opening flanges, out line the return duct opening keeping the gasket as one piece, and cut off excess gasket. Set the remainder of the gasket to the side. See Figure 6, p. 8.
   f. Place return damper on the return opening with the slanted side of the damper facing the evaporator coil and the tie bar mechanism end towards the front access panel.
   g. With the screws provided, secure the return damper to the return flanges as illustrated in Figure 6, p. 8.
   h. Using the remainder of the gasket, place gasket on the top of the return damper flange (non tie bar mechanism end) aligning with the edge of the flange and running the full width of the damper. See Figure 6, p. 8.
   i. If barometric relief or power exhaust is not installed then install the return block-off panel to seal off the remainder of the return duct opening. Figure 6, p. 8.

j. Place block-off on top of the return damper flange and return duct opening flanges. Using four screws provided, secure return block-off to the return damper flange and return duct opening flanges as illustrated in Figure 6, p. 8.

NOTICE

Equipment Damage!

Electrostatic discharge can short equipment circuitry. Ensure that you are properly grounded before handling sensitive electronic equipment.

Note: *If unit has optional comparative enthalpy installed, route return air humidity sensor wire harness through bushing and connect to sensor. Insert grommet and then Insert RAT sensor in the grommet keeping half an inch out on the other side of the plate before securing the return block-off plate to the return damper and return duct opening flanges.*

10. Attach connecting rod to dampers:

Notes:

- *Connecting rods are secured to the side of the return damper with wire ties for shipping. Cut and remove wire ties.*
- *The length of the rod in relation to the swivel is set to the required length needed to achieve a damper blade opening angle of 70 degrees on the outdoor air damper and a damper blade opening angle of 75 degrees on the return air damper.*

a. For the return opening farthest from the evaporator coil: Assemble the shorter connecting rod labeled A to bracket on Return damper. Remove nut from end of swivel on connecting rod and place in hole on return bracket labeled A. Secure nut back on to swivel (torque nut to 80 to100 in-lbs). See Figure 14, p. 11.

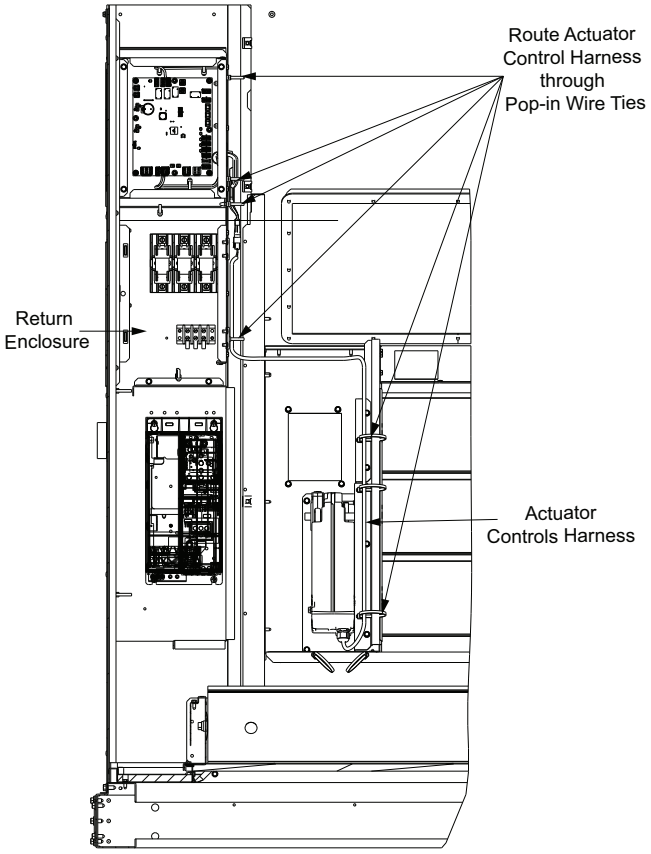
b. For the return opening closest to the evaporator coil: Assemble the longer connecting rod labeled B to bracket on Return damper. Remove nut from end of swivel on connecting rod and place in hole on return bracket labeled B. Secure nut back on to swivel (torque nut to 80 to100 in-lbs). See Figure 15, p. 11.

c. For the return opening farthest from the evaporator coil: Assemble the other end of the shorter connecting rod labeled A to the bracket on the outdoor air damper. Remove the nut from the end of swivel on connecting rod and place in hole on outdoor air damper bracket labeled A. Secure nut back on to swivel (torque nut to 80 to100 in-lbs). See Figure 14, p. 11.

d. For the return opening closest to the evaporator coil: Assemble the other end of the longer connecting rod labeled B to the bracket on the outdoor air damper. Remove the nut from the end of swivel on connecting rod and place in hole on outdoor air damper bracket labeled B. Secure nut back on to swivel (torque nut to 80 to 100 in-lbs). See Figure 15, p. 11.

11. Using field supplied silicone sealant, seal all seams, cracks and gaps around the outdoor air damper as illustrated in Figure 17, p. 12.
12. Place back filter access panel on to unit and secure using previous screws.
13. Route the controls harness from the actuator to the fresh air options module located in the return enclosure using the wire ties. Be sure the harness is away from all moving parts of the damper assemblies. Connect harness J11 to fresh air options module P11. Confirm the harness has a secure connection.

Figure 21. LLE downflow units



Mist Eliminator Servicing

NOTICE

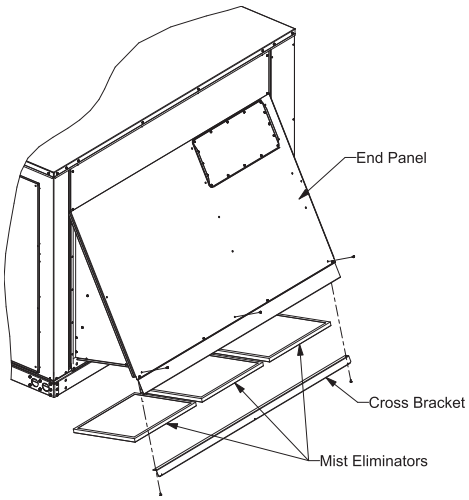
Equipment Damage!

Failure to follow instructions below could result in equipment damage.
Do not attempt to clean mist eliminators with the screws still installed in the outside damper.

1. Remove the three screws from the bottom of the end panel that secure the bottom cross bracket on the outdoor air damper.

2. Remove one screw from each side on the bottom of the outdoor air damper to remove the cross bracket.
3. Set bracket to the side and remove mist eliminators.
4. Clean mist eliminators.
5. Insert mist eliminators and reinstall the cross bracket.
6. Secure cross bracket with a screw on each side from the bottom and the three screws for the end panel.

Figure 22. Mist eliminator removal



Minimum Position Setting for One Speed Indoor Fan

1. Apply power to the unit.
2. Place the zone sensor fan selector in the fan ON position and the heat/cool selector in the OFF position to place the damper in the minimum ventilation position.
3. Minimum Position (on the rooftop economizer) can be adjusted using the Symbio™ 700 or mobile app. In the Settings > Fresh/Return Air menu, the minimum position can be adjusted between 0-50%.
4. Wait at least 30 seconds for the damper to settle at the new position.
5. Replace the filter access panel. The damper will close when the blower circuit is no longer energized.

Minimum Position Setting

1. Apply power to the unit.
2. Using Service Test mode through the Symbio™ 700 or mobile app, set the unit to Service Test step Ventilation Low Fan Speed.
3. Navigate to the Settings > Fresh/Return Air menu. Set the Design Minimum OA Damper Position at Min Fan Capacity to the desired value.
4. Wait at least 30 seconds for the damper to settle at the new position. Range of damper for this setting is 0-100%.
5. Using Service Test mode through the Symbio 700 or mobile app, set the unit to Service Test step Ventilation Low Fan Speed.
6. Navigate to the Settings > Fresh/Return Air menu. Set the Design Minimum OA Damper Position at Mid Fan Capacity to the desired value.
7. Wait at least 30 seconds for the damper to settle at the new position. Range of damper for this setting is 0-100%.
8. Using Service Test mode through the Symbio 700 or mobile app, set the unit to Service Test step Ventilation Low Fan Speed.
9. Navigate to the Settings > Fresh/Return Air menu. Set the Design Minimum OA Damper Position at Full Fan Capacity to the desired value.
10. Wait at least 30 seconds for the damper to settle at the new position. Range of damper for this setting is 0-100%.
11. Replace the filter access panel. The damper will close when the blower circuit is de-energized.

Reference Enthalpy Settings

Economizer enthalpy changeover is field selectable and has a range of 50ºF to 140°F. The default is 60°F. This selection can be made using the Symbio™ service and installation mobile app or Symbio 700 on-board UI.

Dry Bulb Settings

Economizer dry bulb changeover is field selectable and has a range of 50ºF to 140ºF.

Foundation Economizer Control Options

Table 4. Foundation economizer control options

Control Options	Enable Conditions	Option Sensor Required
Comparative Enthalpy	Outside Air Enthalpy < Return Air Enthalpy – Econ Enthalpy Offset and Outside Air Temperature < Economizer Drybulb Setpoint – Econ DryBulb Offset	Outdoor Air Temperature Sensor Outdoor Air Humidity Sensor Return Air Temperature Sensor Return Air Humidity Sensor
Reference Enthalpy	Outside Air Enthalpy < Reference Enthalpy Setpoint – Econ Enthalpy Offset and Outside Air Temperature < Economizer Drybulb Setpoint - Econ DryBulb Offset	Outdoor Air Temperature Sensor Outdoor Air Humidity Sensor
Dry Bulb	OA Temp < [Economizer Outdoor Air Enable Setpoint BAS - Economizer Dry Bulb Enable Offset]	Outdoor Air Temperature Sensor
Differential Dry Bulb	OA Temp < RA Temp - Economizer Dry Bulb Enable Offset - Economizer Dry Bulb Disable Return Air Offset	Outdoor Air Temperature Sensor Return Air Temperature Sensor

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