

Installation Instructions

0 to 50% Motorized Outside Air Damper

Precedent™ Packaged Rooftop Units
3 to 25 Tons

Model Numbers:

FIADMPR101*

FIADMPR102*

FIADMPR103*

Used With:

Precedent A cabinet (Digit 39 = A)

Precedent B and C cabinet (Digit 39 = B, C)

Precedent D cabinet (Digit 39 = D)

 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.

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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Revision History

- Used with model number information updated.
- Installation - FIADMPR101*/102* chapter updated.
- Installation - FIADMPR103* chapter updated.

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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. Verify required options board (FIAOPTN002*) is installed.

Parts List

Table 1. FIADMPR101*/102*

Qty	Description
1	Motorized OA Damper Assembly
10	Screws (FIADMPR101*)
12	Screws (FIADMPR102*)
1	Block-off Bottom
1	Actuator Control Harness
1	Mist Eliminator

Table 2. FIADMPR103*

Qty	Description
1	Motorized OA Damper Assembly
10	Screws
1	Block-off Bottom

Installation – FIADMPR101*/102*

Carefully review installation instructions for field-installed motorized damper.

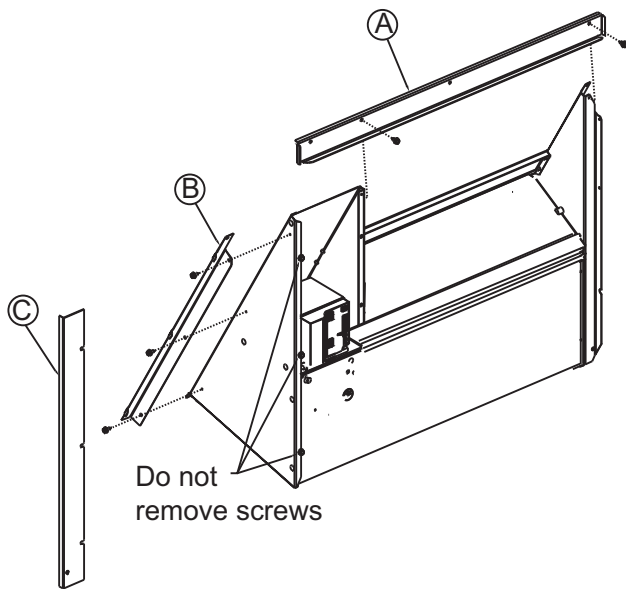
- FIADMPR101* for A cabinet (Digit 39 = A)
- FIADMPR102* for B and C cabinet (Digit 39 = B, C)

Unpack Damper

See [Figure 1](#).

1. Uncrate the damper and locate all parts. Each damper ships with items damper bottom block-off (A), damper side bracket (B), and adapter backing plate (C) attached.
2. Remove screws completely from items (A) and (B). Retain them for reassembly.
3. Remove item (C) by loosening the three screws but do not remove them.

Figure 1. Unpacking the damper

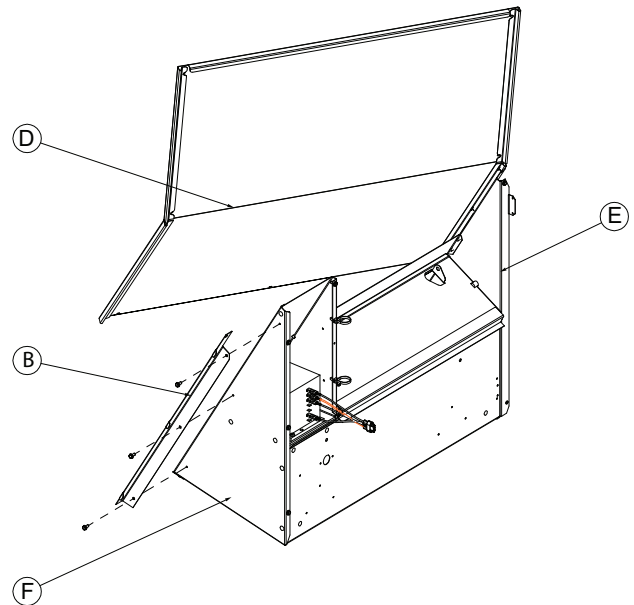


Assembling End Panel

See [Figure 2](#).

1. Remove unit end damper panel (D), retain the screws removed from the top and the bottom of panel for later use.
2. Align three slots in (D) with three tabs on damper side panel (E).
3. Pivot (D) into place.
4. Align three tabs on (B) with three slots in (D).
5. Pivot (B) into place.
6. Secure (B) with three screws to the damper side panel (F).

Figure 2. Assembling the end panel

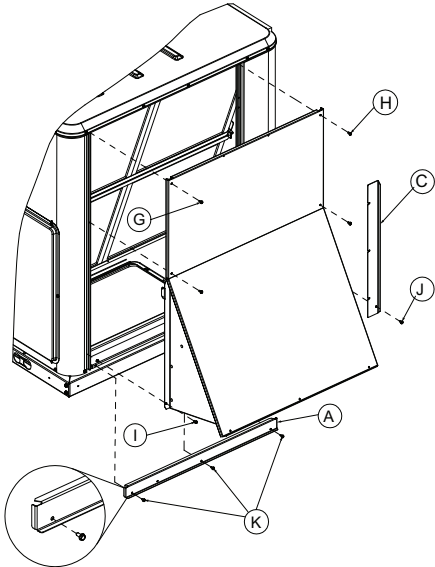


Install Damper into Rooftop Unit

See [Figure 3](#) and [Figure 4](#).

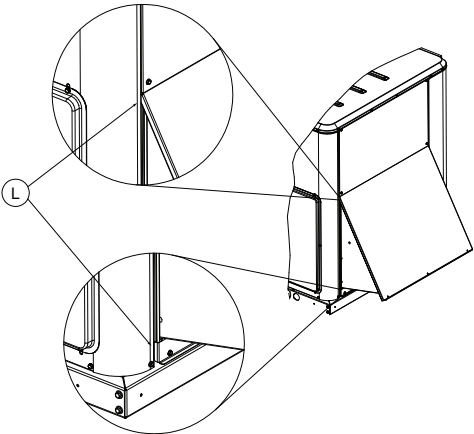
1. Lift the assembled damper into position.
2. Fit the upper left-hand corner around the channel in the cabinet post.
3. Pivot the damper into the opening in the cabinet.
4. Once the damper is in place, lift the damper and panel assembly to align the upper screw holes.
5. Secure the top left and top right with screws (G) and (H) respectively.

Figure 3. Installation of damper assembly



6. Pull out the bottom of the damper and secure bottom left with screw (I).
7. Remove the filter access panel.
8. Position (C) inside the filter section. Adapter backing plate (C) will slip over the three screws that were loosened in Figure 1.
9. Align the engagement screw hole in (C), with the screw clearance hole at the bottom of the right corner post.
10. Secure the bottom right side of the damper with a screw (J).
11. Install (A) and secure it with three screws (K).
12. Using field supplied silicone, apply sealant around damper hood (L).

Figure 4. Sealing and seams



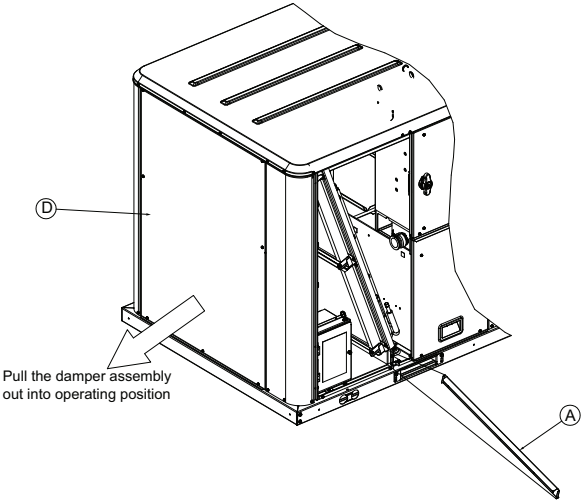
Factory Installed Damper Setup

This section covers setup of factory installed motorized damper in the rooftop unit.

See Figure 4, Figure 5, and Figure 6.

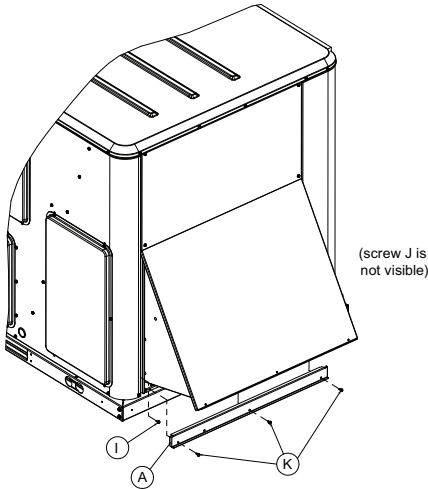
1. Remove filter access panel.
2. Remove the screw that holds bottom block-off (A) in place and remove bottom block-off (A), from its shipping location.

Figure 5. Remove bottom block-off



3. Remove the bottom three screws (K) from the damper panel (D).
4. Pull the damper assembly out into operating position.
5. Secure the damper assembly with two screws (I) and (J) at the bottom of the corner posts.
6. Install bottom block-off (A) and secure with three screws (K).
7. Using field supplied silicone, apply sealant around damper hood (L).

Figure 6. Fastening the damper and bottom block-off



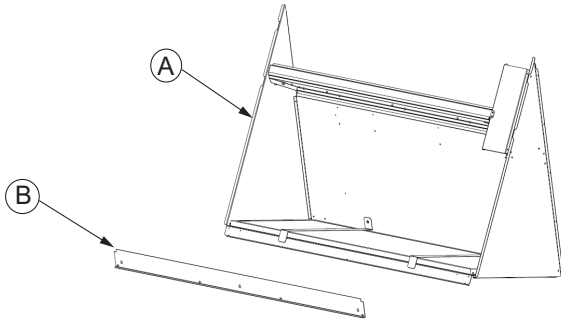
Installation – FIADMPR103*

Carefully review installation instructions for FIADMPR103* - D cabinet (Digit 39 = D).

Field Installed Damper

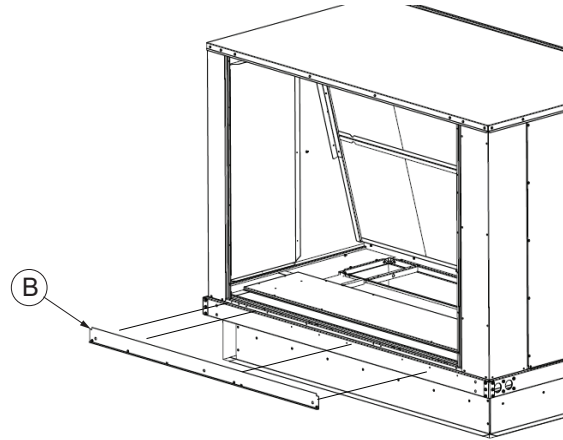
1. Uncrate the damper and locate all parts shown in [Figure 7](#).

Figure 7. Damper contents



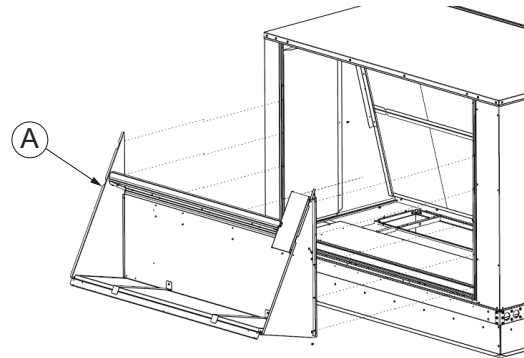
3. Attach block-off (B) to unit by using four screws.

Figure 9. Install block-off



4. Secure economizer assembly (A) to unit using ten screws.

Figure 10. Install economizer assembly



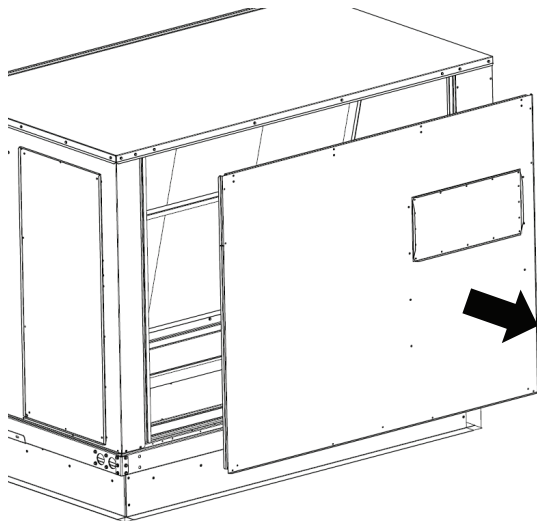
⚠ WARNING

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.

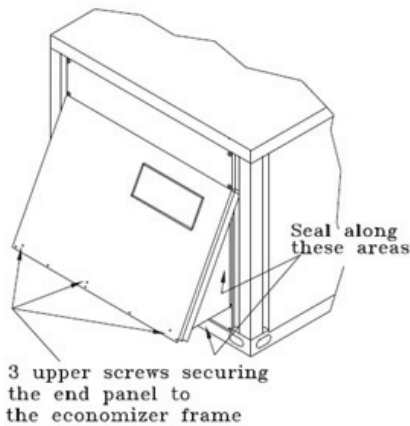
2. Remove unit end panel, retain the screws for later use.

Figure 8. Remove end panel



5. Attach end panel back to unit using the screws removed in Step 2 and seal indicated areas in [Figure 11](#) with field supplied silicone sealant. Place the thermostat selector switch to the **OFF** position.

Figure 11. Reinstall end panel



Factory Installed Damper (Field Setup)

Downflow Configuration

To position damper for downflow operation, complete the following steps:

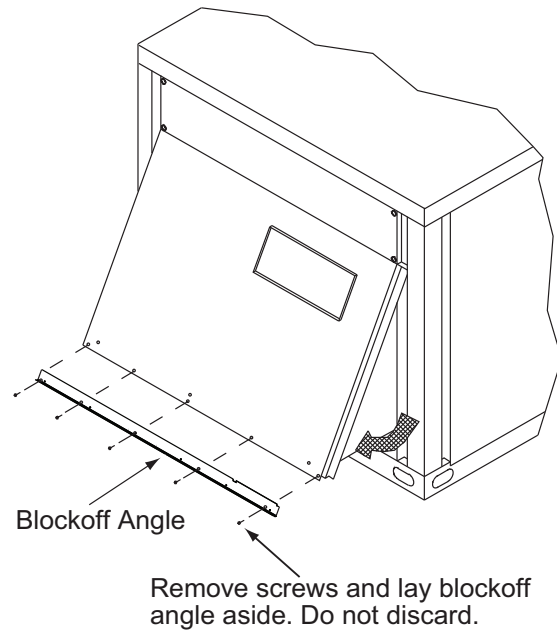
⚠ WARNING

Hazardous Voltage!

Failure to disconnect power before servicing could result in death or serious injury. Disconnect all electric power, including remote disconnects before servicing. Follow proper lockout/tagout procedures to ensure the power can not be inadvertently energized. Verify that no power is present with a voltmeter.

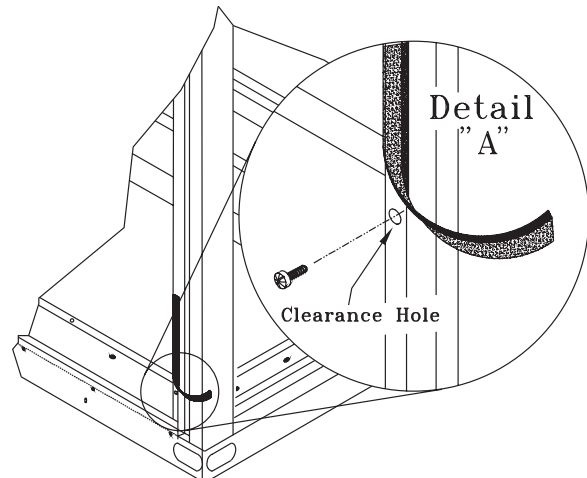
1. Remove filter access panel.
2. Remove the lower screws in the end panel. See [Figure 12](#). Lay block-off angle aside for later installation.

Figure 12. Remove lower screws



3. Do not remove the screws in the upper row of the end panel.
4. Grasp the bottom of the end panel and pull the economizer assembly outward into the operating position. See [Figure 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 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 13](#).

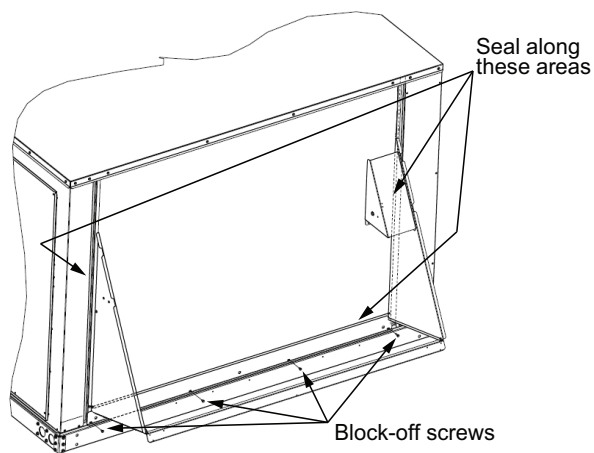
Figure 13. Remove gasket material



Installation – FIADMPR103*

7. Install the block-off angle underneath the economizer. The block-off angle is designed to close the opening created, between the economizer and the base, when the economizer assembly is in its operating position.
 - a. Holding the block-off angle with the holes at the bottom and the bottom angle outward, tilt the top forward and insert it into the opening between the economizer and the unit base.
 - b. Press the bottom of the block-off angle against the unit and line up the holes. Using the provided screws, secure it into place.

Figure 14. Block-off installation



Wiring – FIADMPR101*/102*/103*

1. Using the supplied harness connect PPF87 to the actuator connector.
2. Route harness to fresh air options module located in the return section and connect to blue connector to P11 and black connector to P8. See [Figure 15](#) and [Figure 16](#).
3. After installation is complete, Symbio™ 700 UC unit configuration will need to be updated to reflect installed option.

Figure 15. Wire harness to fresh air options module

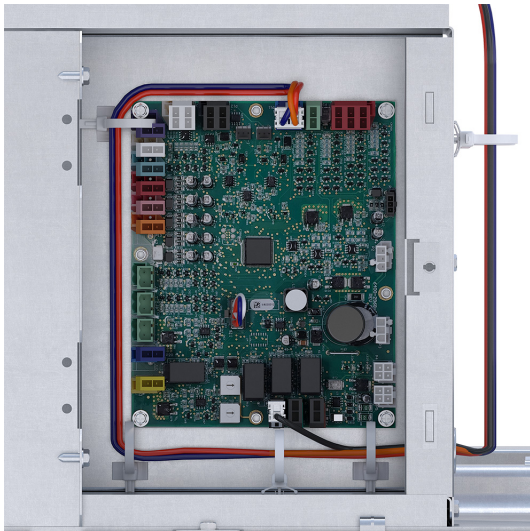
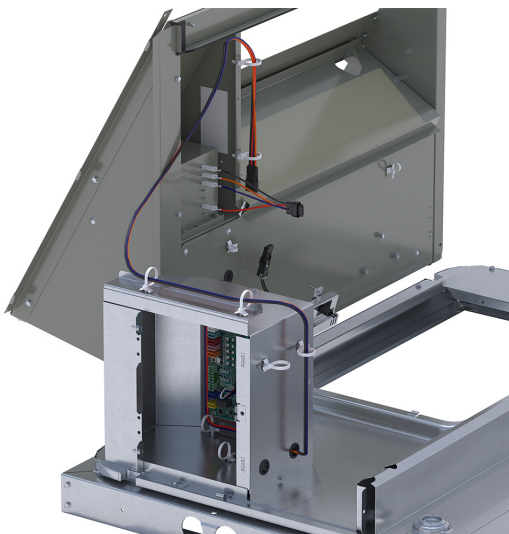
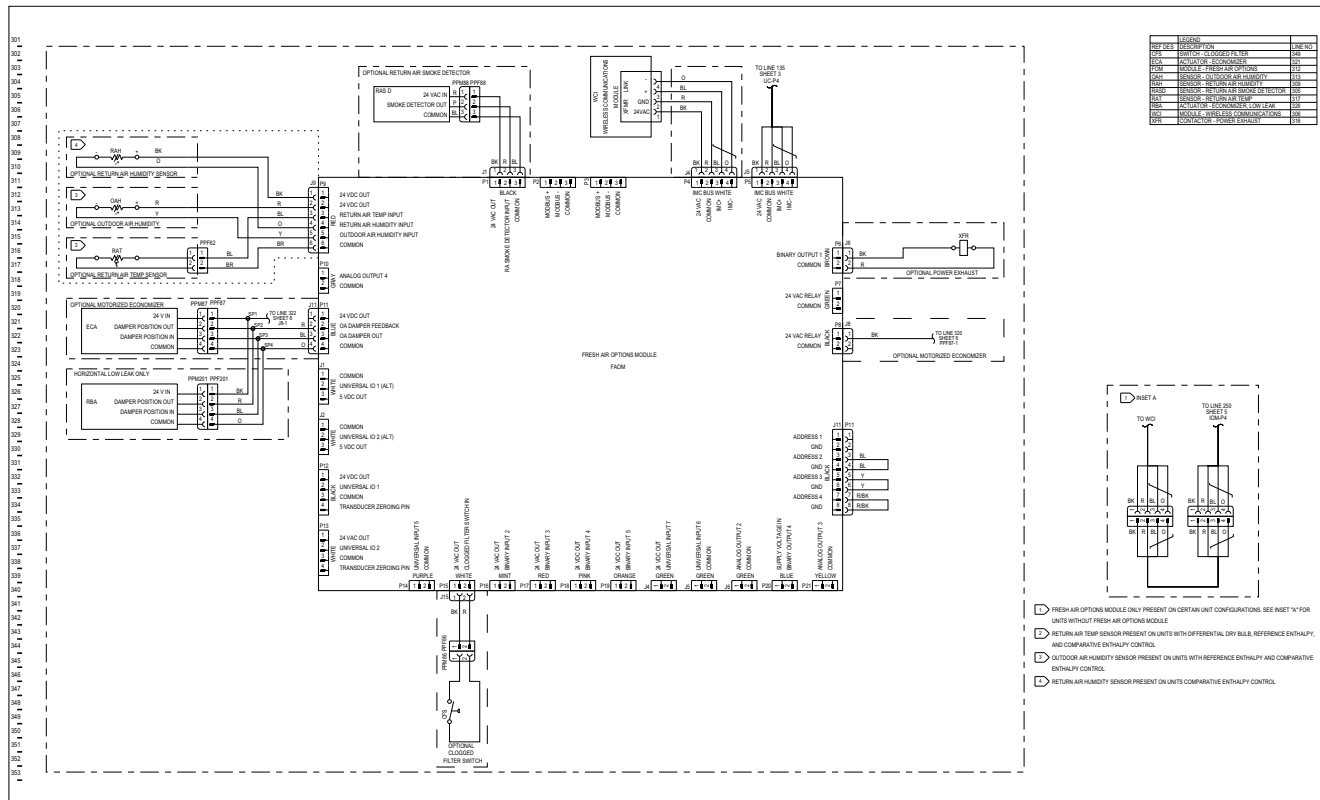


Figure 16. Actuator harness routing to fresh air options module



Wiring – FIADMPR101*/102*/103*

Figure 17. Fresh air options module



Minimum Position Setting – FIADMPR101*/102*/103*

To adjust the minimum position setting and check out the economizer, the power must be connected.

1. Close the unit disconnect and place the zone sensor fan selector in the fan **ON** position and the heat/cool selector in the **OFF** position. This will place the damper in the minimum ventilation position.
2. To adjust the minimum position setting for the required ventilation air, use the Symbio service and installation mobile app or Symbio™ 700 on-board UI to adjust the economizer minimum position setpoint BAS in the fresh/return air settings menu. The damper will open to this setting each time the blower circuit is energized.

When adjusting minimum position, the damper may move to the new setting in several small steps. Once the damper has remained in position for 10 to 15 seconds without movement, it can be assumed it is at the new position.

3. Replace the filter access panel.

The damper will close when the blower circuit is de-energized.

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.