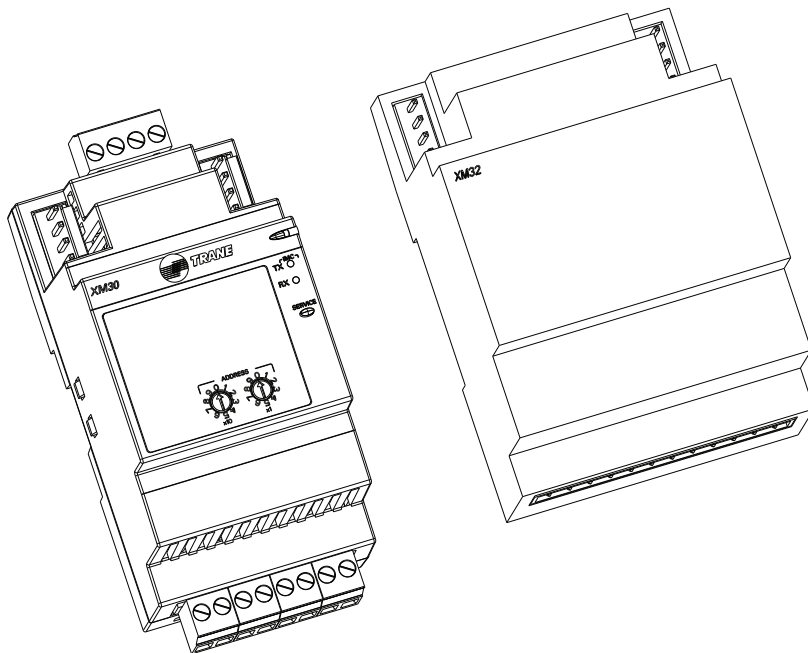


## Installation Guide

# Expansion Module Kits

Odyssey™ Symbio™ Split System Cooling  
5 to 25 Tons



Model Numbers: BAYMODU002, BAYMODU004

### **▲ 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.

**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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**Inspection**

Remove the contents of the kit from the shipping package and inspect for possible damage. If the accessory has been damaged, it should be reported to and claims made against the transportation company immediately. Any missing parts should be immediately reported to your supplier and replaced with authorized parts only.

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# Pre-Installation

## General Information

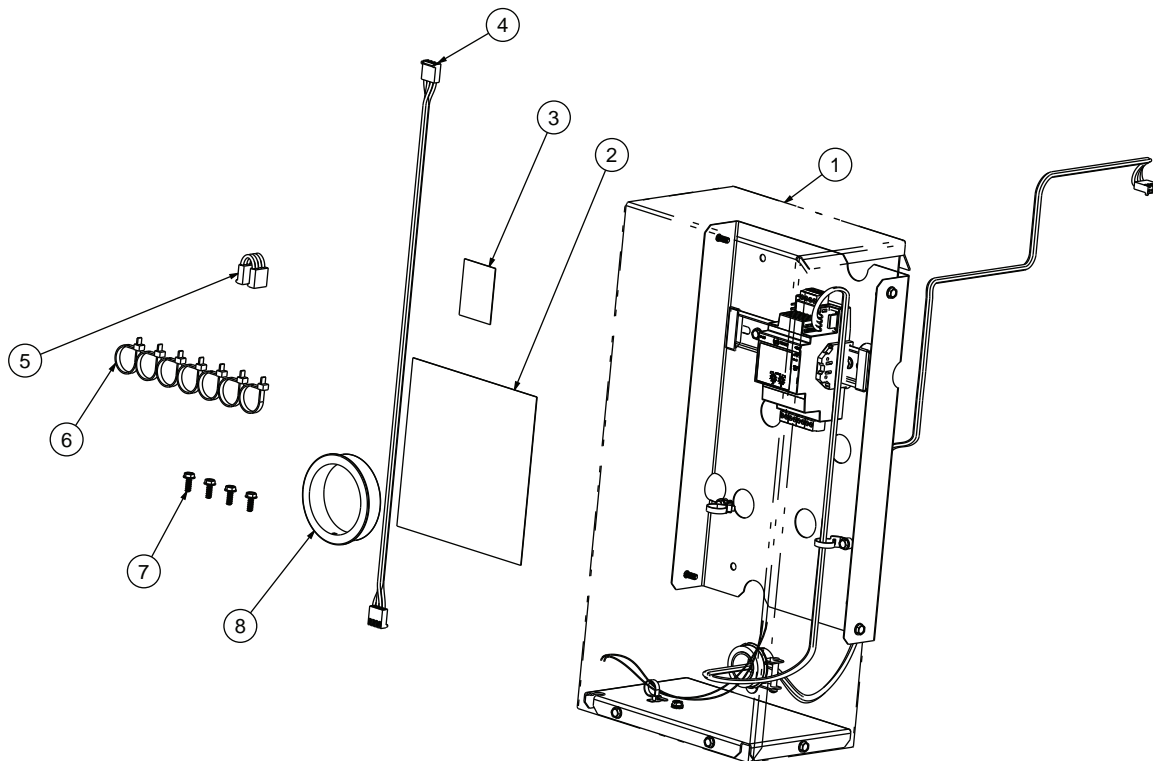
The Tracer XM30 or XM32 expansion module provides additional points when needed for Tracer UC applications. Each expansion module has a total of 4 points that can be configured using any combination of inputs/outputs. Up to two expansion modules may be

used in various combinations on a given unit as shown in the following table:

Expansion Module	Combinations permitted on any one Odyssey split system				
XM30	1	0	1	2	0
XM32	0	1	1	0	2

## Parts List

Figure 1. Kit contents



Item Number	Quantity	Description
1	1	Control box assembly
2	1	Wiring diagram
3	1	Information label
4	1	Wire harness 20 inch
5	1	Jumper cable
6	7	Wire tie
7	4	Screw
8	1	Snap bushing

### Notes:

1. A single expansion module is included in each kit along with the parts listed above. When two expansion modules are required, remove the second expansion module from its control box and re-install it to the DIN rail alongside the first expansion module in the other control box.
2. Some components in the kit may not be used depending on unit configuration.

# Installation

**Important:** When model number digit 21= 0 (no communication option), no communication options are enabled. In this case, the expansion mod kit will not be supported because the Symbio 700 would not be licensed for it, and the Symbio 700 must be replaced with a communication licensed Symbio 700 through service parts while installing the expansion mod kit.

## For Single Outdoor Fan Unit (No Low Ambient Kit)

### **⚠ WARNING**

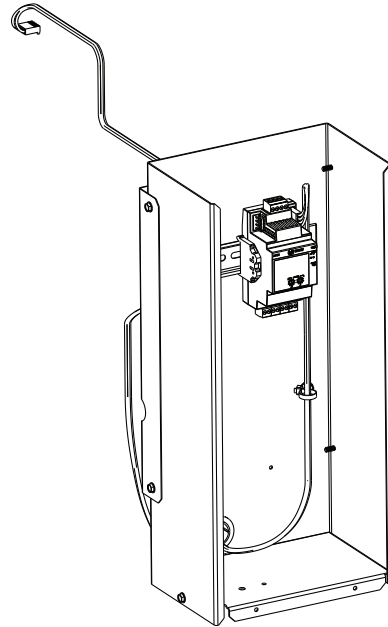
#### **Hazardous Voltage w/Capacitors!**

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. For variable frequency drives or other energy storing components provided by Trane or others, refer to the appropriate manufacturer's literature for allowable waiting periods for discharge of capacitors. Verify with a CAT III or IV voltmeter rated per NFPA 70E that all capacitors have discharged.

For additional information regarding the safe discharge of capacitors, see PROD-SVB06\*-EN.

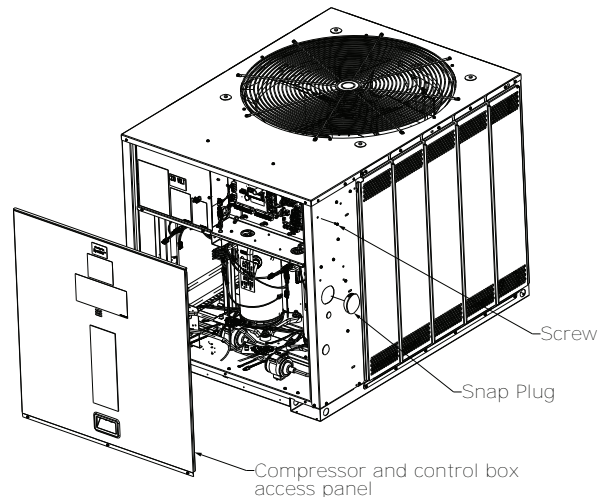
**Figure 2. Control box assembly without access panel**



**Note:** A single expansion module is included in each kit along with the parts listed on [Figure 1, p. 5](#).

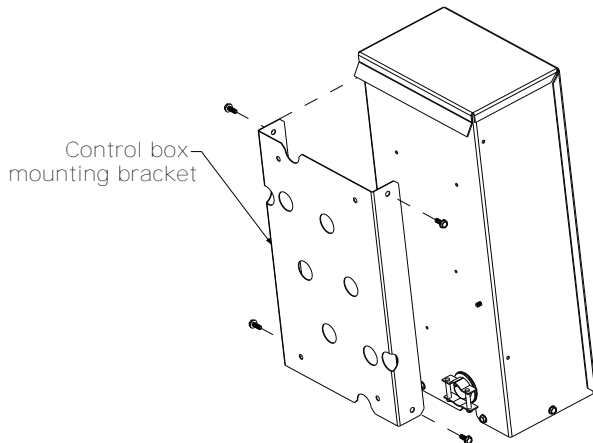
1. Disconnect and lock out all power from the unit.
2. Remove the compressor access panel, snap plug and screw from the unit corner post on the right side of the unit. See [Figure 3, p. 6](#).

**Figure 3. Remove compressor access panel**



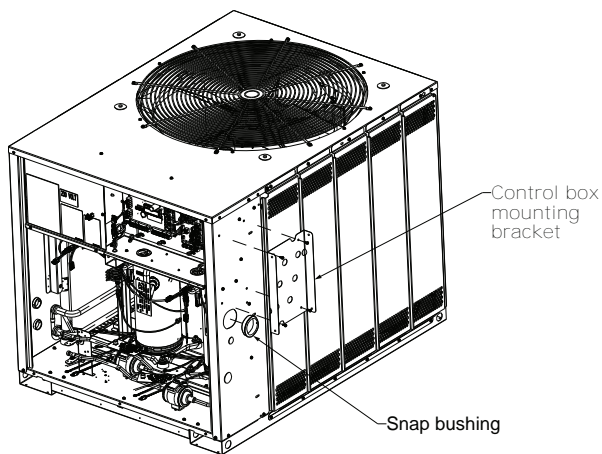
3. Remove the four screws that secure the control box-mounting bracket to the kit control box. Set the control box and mounting bracket to the side. See [Figure 4, p. 7](#).

**Figure 4. Remove the mounting bracket from the control box**



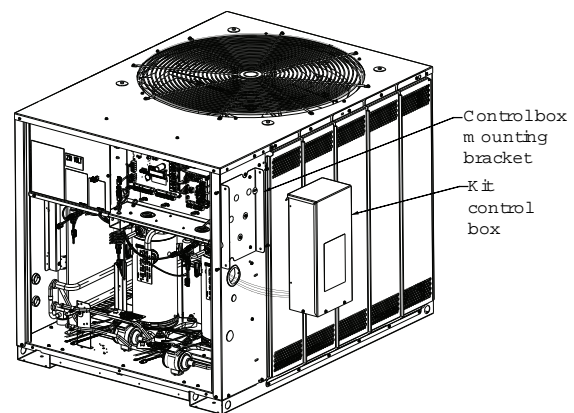
4. Insert the snap bushing (provided in the kit) into the hole on the corner post. Use the four screws provided in the kit to secure the control box-mounting bracket to the corner post. See [Figure 5, p. 7](#).

**Figure 5. Install the control box mounting bracket to the post**



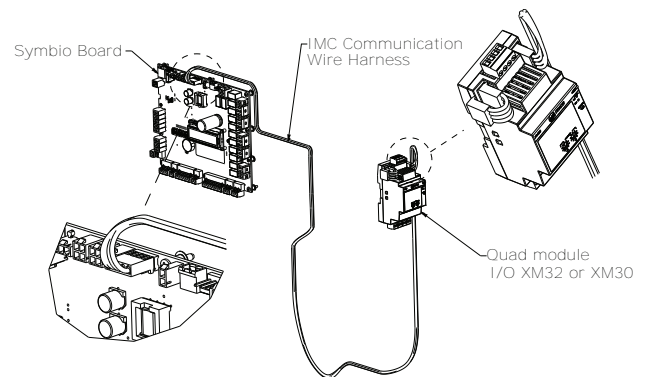
5. Feed the expansion module wire harness through the snap bushing on the corner post and secure the kit control box to the mounting bracket using the screws removed earlier. See the [Figure 6, p. 7](#).

**Figure 6. Feed the wire harness through snap bushing**



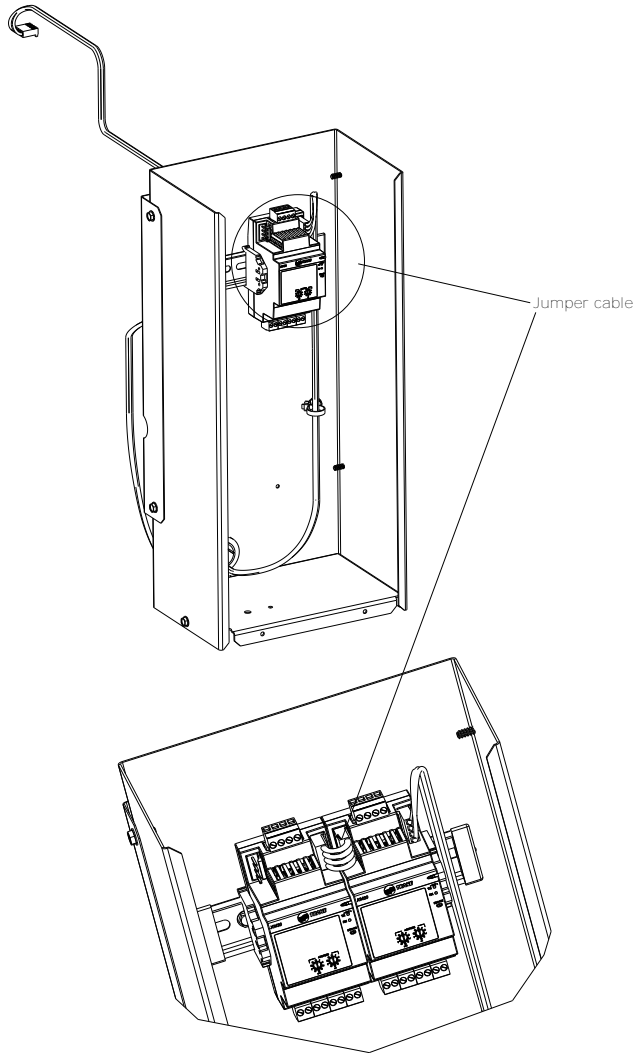
6. Connect the expansion module wire harness to the Symbio board per the kit diagram. See [Figure 7, p. 7](#).

**Figure 7. Connect the wire harness to the symbio board**



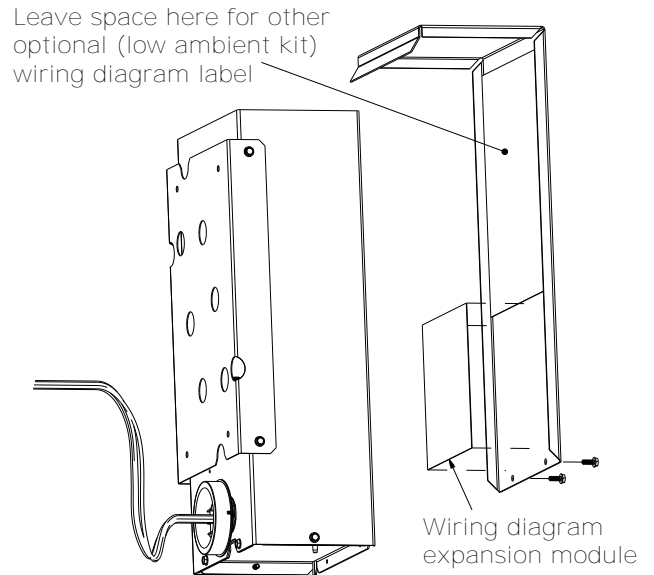
7. When two expansion modules are required, remove the second expansion module from its control box and reinstall it to the DIN rail alongside the first expansion module in the other kit control box. Connect the jumper cable (supplied in the kit) between the two expansion modules as shown in [Figure 8, p. 8](#).

**Figure 8. Install two expansion modules in the control box kit**



8. Place the wiring diagram inside the kit control box cover as shown in [Figure 9, p. 8](#).

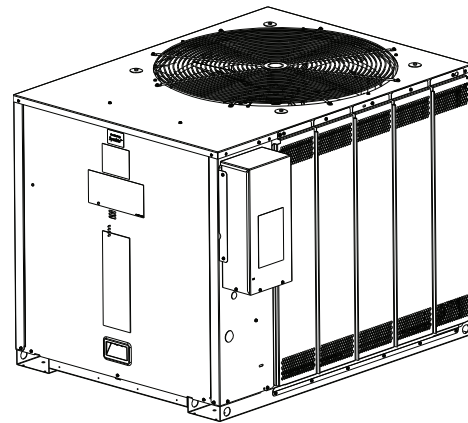
**Figure 9. Place wiring diagram inside the kit control box**



9. Using the wire ties provided in kit, bundle and dress any excess wires away from sharp edges, moving parts, or hot tubes.

10. Reassemble compressor and control box access panels and secure with screws removed in previous steps. See the [Figure 10, p. 8](#).

**Figure 10. Reassemble compressor and control box access panels**



11. Place information label(s) next to unit nameplate.
12. Reconnect all power to the unit. Refer to the Installation Guide's Troubleshooting section, if needed. The remainder of the components from the second expansion module kit (if used) — including the control box — are not needed and can be discarded.

## For Single Outdoor Fan Units (with a Low Ambient Kit)

### ⚠ WARNING

#### Hazardous Voltage w/Capacitors!

Failure to disconnect power and discharge capacitors before servicing could result in death or serious injury.

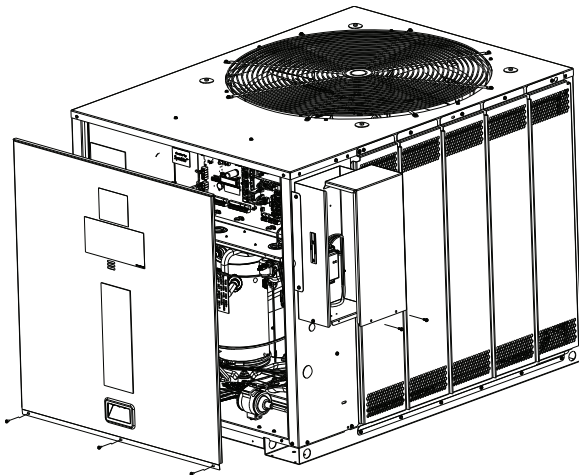
Disconnect all electric power, including remote disconnects and discharge all motor start/run capacitors before servicing. Follow proper lockout/tagout procedures to ensure the power cannot be inadvertently energized. For variable frequency drives or other energy storing components provided by Trane or others, refer to the appropriate manufacturer's literature for allowable waiting periods for discharge of capacitors. Verify with a CAT III or IV voltmeter rated per NFPA 70E that all capacitors have discharged.

*For additional information regarding the safe discharge of capacitors, see PROD-SVB06\*-EN.*

**Note:** A single expansion module is included in each kit along with the parts listed on [Figure 1, p. 5](#)

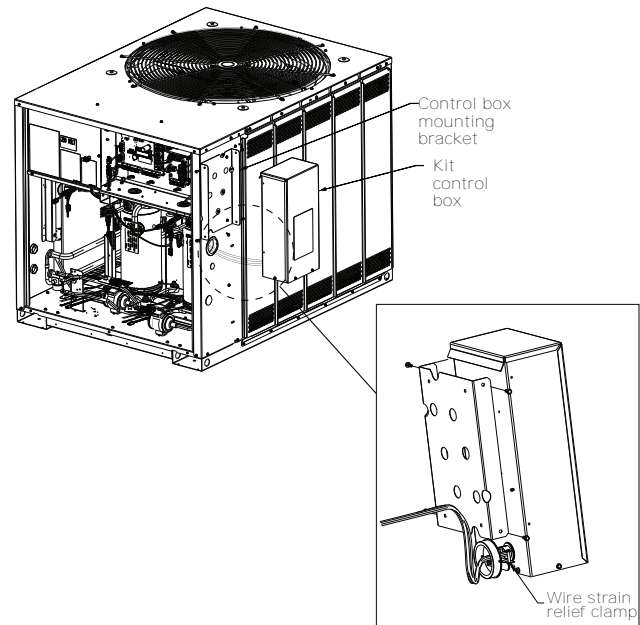
1. Disconnect and lockout all power from the unit.
2. Remove the compressor access panel and low ambient kit control box cover. See [Figure 11, p. 9](#).

**Figure 11. Remove the compressor access panel and control box cover**



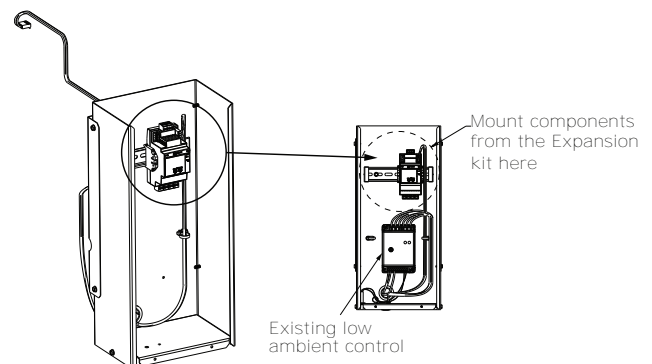
3. Unfasten the low ambient control box from the mounting bracket and loosen the wire strain relief clamp. See [Figure 12, p. 9](#).

**Figure 12. Unfasten the control box from the mounting bracket**



4. Remove the XM30 or XM32 module, DIN rail, and wire harness from the control box supplied in the kit. Install the module, din rail, and wire harness in the existing low ambient kit control box as shown in [Figure 13, p. 9](#).
5. Feed the module wire harness through the wire strain relief clamp for the kit control box. Route wires alongside the low ambient wire harness, in the unit, to the low voltage section of the unit control box. See [Figure 13, p. 9](#).

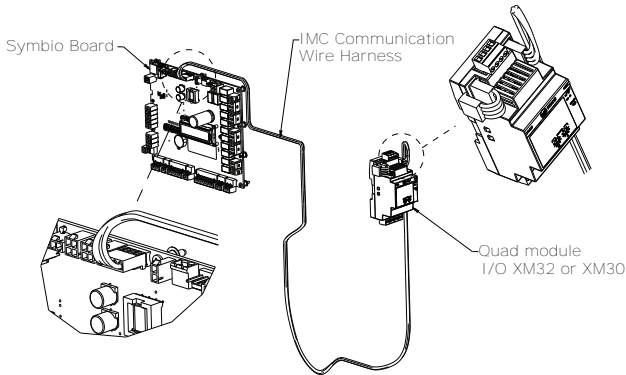
**Figure 13. Install the module, din rail, and wire harness in the low ambient kit**



6. Connect the longer expansion module harness between the expansion module and the Symbio unit controller as shown. See the [Figure 14, p. 10](#).

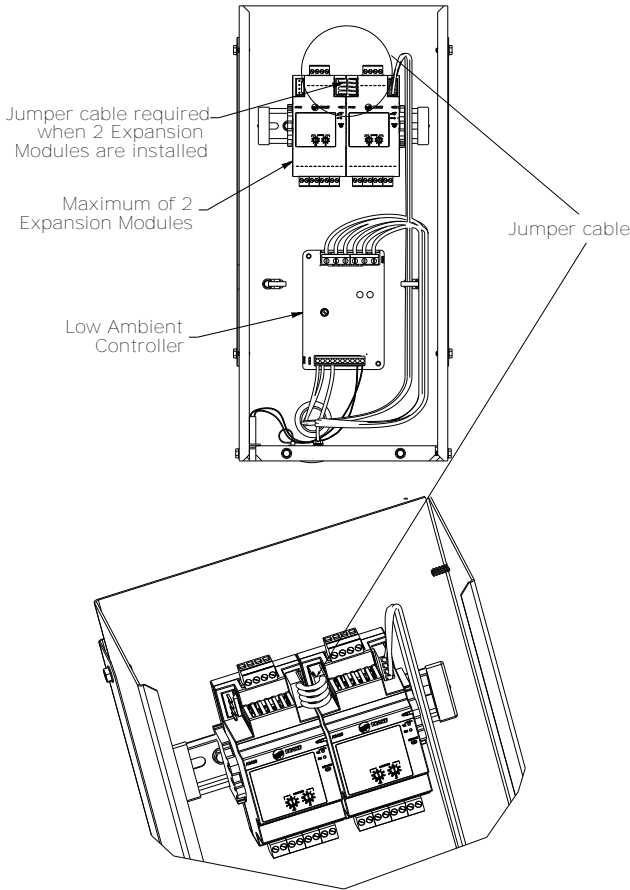
# Installation

**Figure 14. Connect the harness between expansion module and the symbio unit controller**



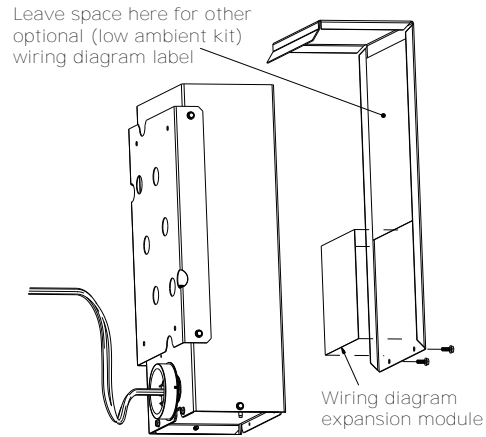
- When two expansion modules are required, remove the second expansion module from its control box and reinstall it to the DIN rail alongside the first expansion module in the kit control box. Connect the jumper cable (supplied in the kit) between the two expansion modules as shown. See [Figure 15, p. 10](#).

**Figure 15. Install two expansion modules in the control box**



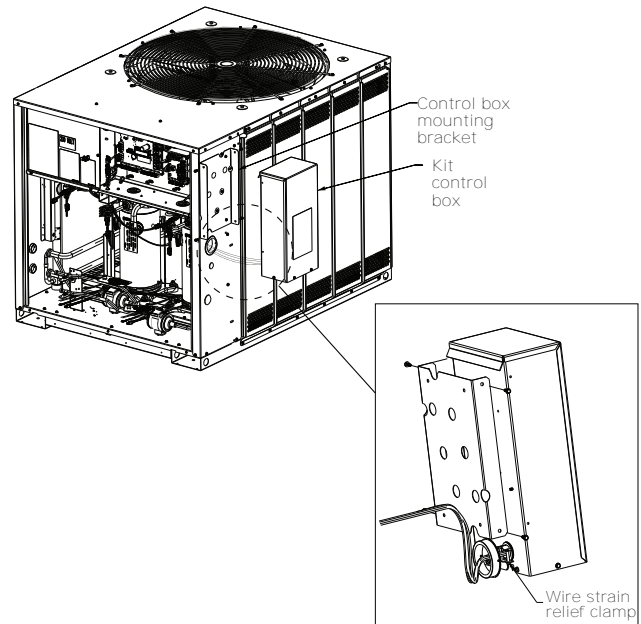
- Place wiring diagram inside the kit control box cover as shown. See [Figure 16, p. 10](#).

**Figure 16. Place wiring diagram inside the kit control box**



- Tighten the wire-strain relief clamp and re-fasten the control box to the mounting bracket. See [Figure 17, p. 10](#).

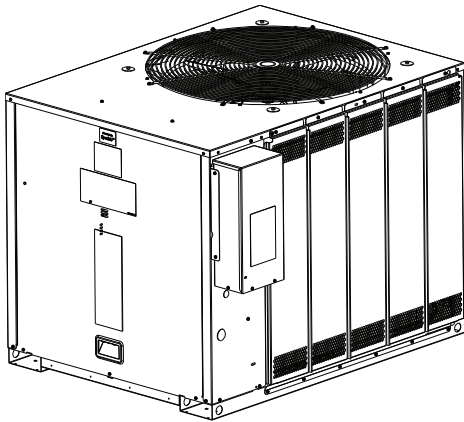
**Figure 17. Tighten the wire strain relief clamp and re-fasten the control box to the mounting bracket**



- Using wire ties provided in kit, bundle and dress any excess wires away from sharp edges, moving parts, or hot tubes.
- Reinstall compressor and control box access panels and secure with screws removed in previous steps. See [Figure 18, p. 11](#).



**Figure 18. Reinstall the compressor and control box access panel**



12. Place information label(s) next to unit nameplate.
13. Reconnect all power to the unit. Refer to the Installation Guide's Troubleshooting section, if needed. The remainder of the components from the expansion module kit(s) — including the control box(es) — are not needed and can be discarded.

## For Dual Outdoor Fan Units

### ⚠ WARNING

#### Hazardous Voltage w/Capacitors!

Failure to disconnect power and discharge capacitors before servicing could result in death or serious injury.

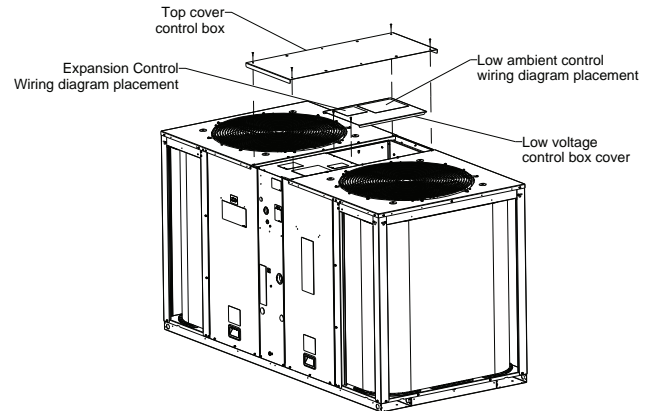
Disconnect all electric power, including remote disconnects and discharge all motor start/run capacitors before servicing. Follow proper lockout/tagout procedures to ensure the power cannot be inadvertently energized. For variable frequency drives or other energy storing components provided by Trane or others, refer to the appropriate manufacturer's literature for allowable waiting periods for discharge of capacitors. Verify with a CAT III or IV voltmeter rated per NFPA 70E that all capacitors have discharged.

*For additional information regarding the safe discharge of capacitors, see PROD-SVB06\*-EN.*

**Note:** A single expansion module is included in each kit along with the parts listed on [Figure 1, p. 5](#).

1. Disconnect and lock out all power from the unit.
2. Remove the control box top cover and low voltage control box cover. See [Figure 19, p. 11](#).

**Figure 19. Remove the control box top cover and low voltage control box cover**

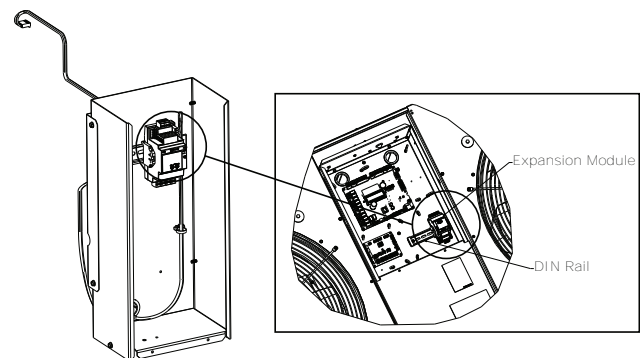


3. In the kit control box assembly, disconnect the harness from the module and remove the XM30 or XM32 module with the DIN rail.

**Note:** The longer wire harness installed in the kit control box will not be used.

4. Install the DIN rail (with end caps) and module in the low voltage section of the unit control box. See [Figure 20, p. 11](#).

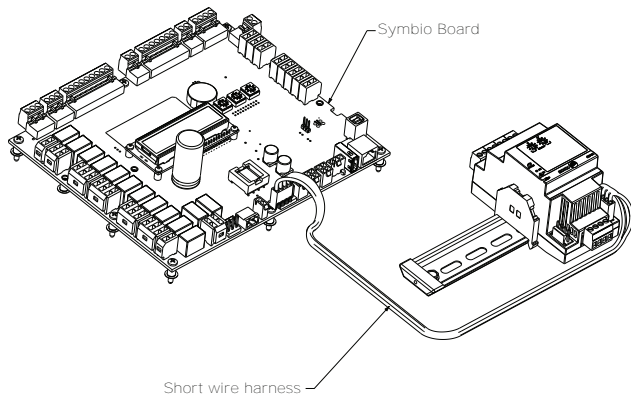
**Figure 20. Install the expansion module and the DIN rail to the control box**



5. Connect the shorter expansion module harness (supplied in the kit) between the expansion module and the Symbio unit controller as shown. See [Figure 21, p. 12](#).

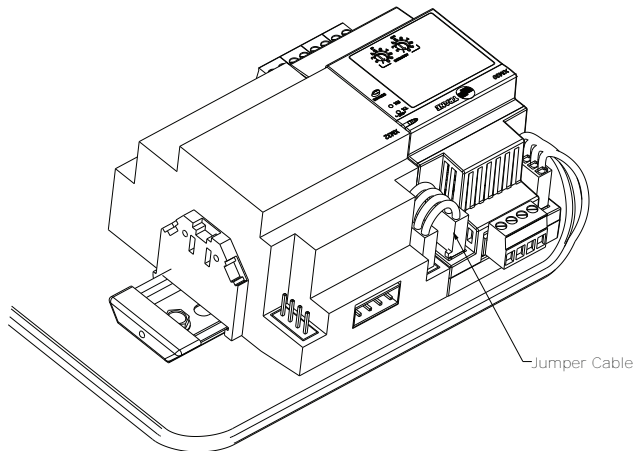
## Installation

**Figure 21. Connect the harness between the expansion module and the symbio unit**



6. When two expansion modules are required, remove the second expansion module from its kit control box and reinstall it to the DIN rail alongside the first expansion module in the unit control box. Connect the jumper cable (supplied in the kit) between the two expansion modules as shown. See [Figure 22, p. 12](#).

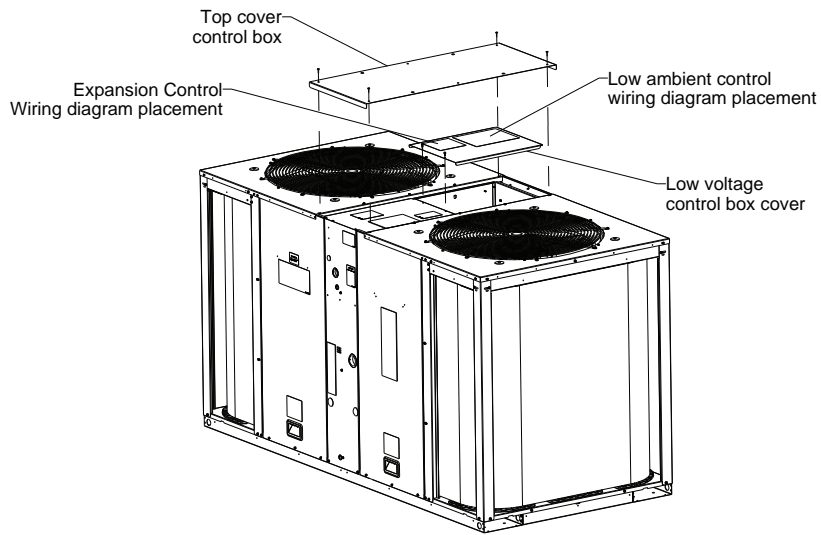
**Figure 22. Connect the jumper cable between the two expansion modules**



7. Using wire ties (supplied in the kit) bundle and dress any excess wires away from sharp edges.
8. Place the wiring diagram on the low-voltage control box cover. Reinstall control box access panels and secure with screws removed in previous steps. See the [Figure 23, p. 13](#).
9. Place information label next to unit nameplate.
10. Reconnect all power to the unit. Refer to the Installation Guide's Troubleshooting section, if needed. The remainder of the components from the expansion module kit(s) — including the control box(es) — are not needed and can be discarded.

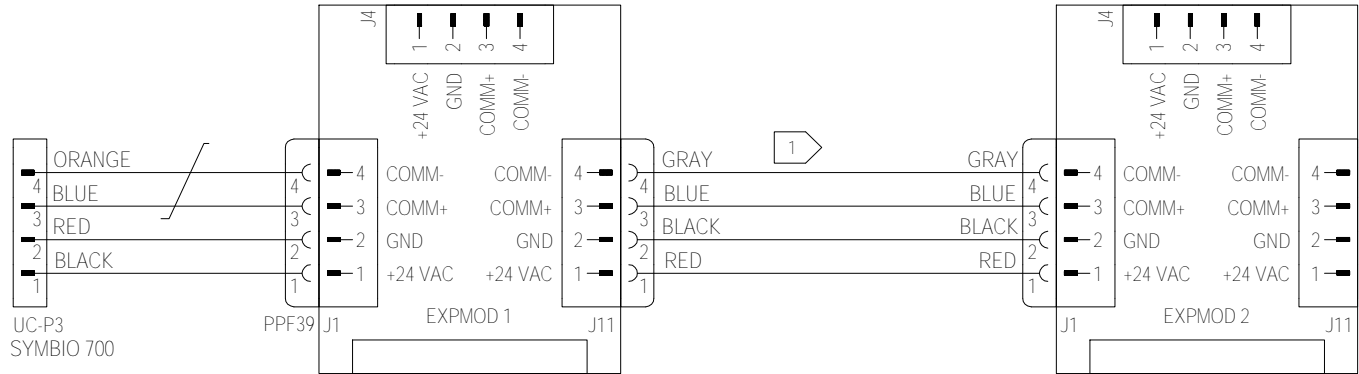


**Figure 23. Reinstall the control box access panels**



# Wiring Diagram

Figure 24. Expansion module supplementary wiring diagram



NOTES:

1 THE JUMPER IS PROVIDED WITH THE KIT AND TO BE INSTALLED WHEN 2 MODULES ARE NEEDED

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