

Installation Instructions

# Through-the-Base Electrical Utility/ Unit Mounted Disconnect

Foundation™ Packaged Rooftop Units  
15 to 25 Tons

Model Number: See [Table 1 on page 5](#)

## 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-SVN151F-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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## Revision History

- Used with information updated to meet A2L standards.
- Included installation procedure and images for new large foundation A2L design.

# Table of Contents

General Information .....	5
Inspection .....	5
Parts List .....	5
Installation .....	7
Access Location .....	7
Install the Enclosure .....	7
Wiring .....	10
For Units With Electric Heat (E/GCC) .....	11
For Units With Electric Heat (E/GDK) .....	12
For Units With no Heat/Gas Heat .....	13
Installing Flip Switch Cover for Disconnect .	14
For Units With no Internal Disconnect .....	15

# General Information

Carefully review installation instructions.

This manual describes the procedures required to properly install the unit mounted disconnect switch/through-the-base electrical utility.

**Note:** Please ensure that disconnect switch Baykit should be accompanied with Through-the-base electrical utility kit.

**Table 1. Model numbers**

Model Number	Used With
<b>Unit Mounted Disconnect - Model E/GCC</b>	
BAYDSCF300*	E/GCC180-300, 4/W, No Heat/Gas Heat
BAYDSCF301*	E/GCC180-300, 3, No Heat/Gas Heat
BAYDSCF302*	E/GCC180, 3/4/W, 18kW Electric Heat E/GCC180-300, 4/W, 36kW/54kW Electric Heat E/GCC210-300, W, 72kW Electric Heat
BAYDSCF303*	E/GCC180-300, 3, 36kW Electric Heat E/GCC210-300, 4, 72kW Electric Heat
<b>Unit Mounted Disconnect - Model E/GDK</b>	
BAYDSCF305*	E/GDK180-300, 4/W, No Heat/Gas Heat
BAYDSCF306*	E/GDK180-300, 3, No Heat/Gas Heat
BAYDSCF307*	E/GDK180, 3/4/W, 18kW Electric Heat E/GDK180-300, 4/W, 36kW/54kW Electric Heat E/GDK210-300, W, 72kW Electric Heat
BAYDSCF308*	E/GDK180-240, 3, 36kW Electric Heat E/GDK210-300, 4, 72kW Electric Heat
BAYDSCF309*	E/GDK180-300, 3, 54kW Electric Heat E/GDK210-300, 3, 72kW Electric Heat E/GDK300, 3, 36kW Electric Heat
<b>Through-the-Base Utility - Model E/GCC</b>	
BAYTBUE300*	E/GCC180-300*, 4/W, 18kW/36kW/54kW/72kW Electric Heat
<b>Through-the-Base Utility - Model E/GDK</b>	
BAYTBUE301*	E/GDK180-300*, 4/W, 18kW/36kW/54kW/72kW Electric Heat

## Inspection

1. Unpack all the components of the kit.
2. Check carefully for shipping damage. If any damage is found, report it immediately, and file a claim with the transportation company.

## Parts List

**Table 2. Parts list - E/GCC**

Qty	Description
1	TBUE Assembly
1	Installation Instructions
1	Disconnect Switch Flip Cover
2	Gasket
1	Mounting Bracket
2	Screw 6-32 <sup>(a)</sup>
10	Screw 10-16
1	TBUE Installed Label
1	Label Unit Disconnect Switch <sup>(a)</sup>
2	Straight Wire Tie
1	Conduit Mounting Plate (number of plates varies with size of the disconnect)
1	Pop-in Wire Tie (number of wire ties varies between electric heat and non-electric heat kits)

(a) Only included with BAYDSCF kits.

## General Information

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**Table 3. Parts list - E/GDK (TBUE baykit)**

Qty	Description
1	TBUE Assembly
1	Installation Instructions
1	Plate for Tube Covering
1	Plug Mounting Hole
4	Conduit Mounting Plate (the number of plates varies depending on the size of the disconnect)
2	Straight Wire Tie
8	Pop-in Wire Tie
4	Screw 10-16 x 1/2 inch
2	Mounting Hole Bushing
2	Hex-Head Screw 10-24 x 1/2 inch
1	TBUE Label Information
1	Accessory Shipping Label

**Table 4. Parts list - E/GDK (disconnect switch baykit)**

Qty	Description
1	Installation Instructions
1	Disconnect Switch Flip Cover
1	Mounting Bracket
2	Screw 6-32
4	Screw 10-16
1	Unit Disconnect Switch Label
2	Straight Wire Tie
1	Pop-in Wire Tie (the number of wire ties varies between electric heat and non-electric heat kits)
1	Lock Latch Catch
1	Bracket Lock Latch
3	Rivet
1	Nylon Washer
1	Outdoor Lighting Cover
1	Load Line Label
2	Mounting Hole Plug

# Installation

## **⚠ WARNING**

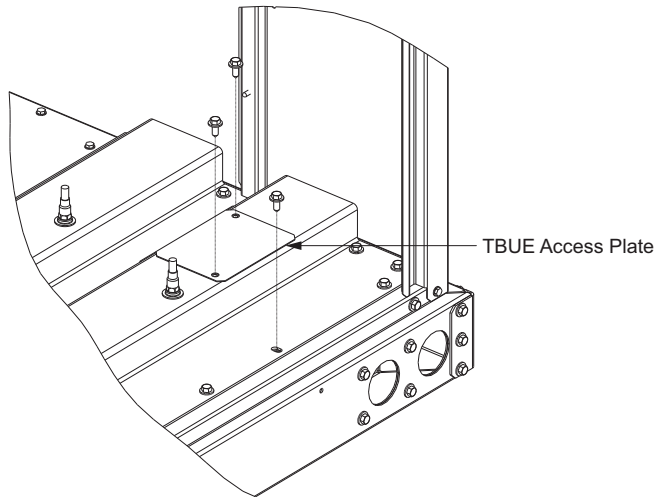
### **Hazardous Voltage!**

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.

## Access Location

1. Remove the compressor access panel.
2. Remove the through-the-base electrical (TBUE) access plate and 1/4-inch screw located on the compressor rail in the front corner of the unit and discard. See [Figure 1](#).
3. Cut out the foam insert and pull the power and thermostat wires up through the TBUE access hole.

**Figure 1. Remove the TBUE access plate**



## Install the Enclosure

1. Using three screws (10-16) install the supplied bracket on the corner post. See [Figure 2](#).
2. Install the two gaskets on the compressor rail where the enclosure will sit. See [Figure 3](#).
3. Remove TBUE access panel and set aside.
4. Install the enclosure and confirm contact is made with the gasket.
5. Reinstall the 1/4-inch screw in the same location from where it was removed.
6. Using three screws (10-16) attach the enclosure to the previously installed bracket. See [Figure 4](#) and [Figure 5](#).
7. Remove label (kit installed) from kit bag and place label next to unit nameplate.

## Installation

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Figure 2. Install bracket on corner post

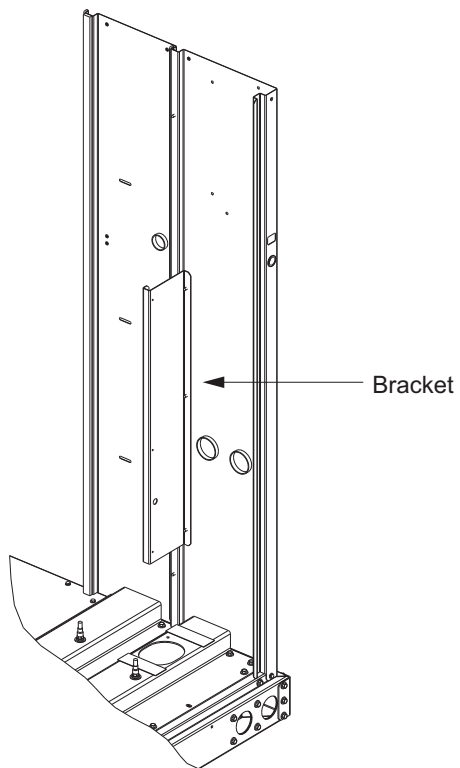


Figure 3. Install gaskets on the compressor rail

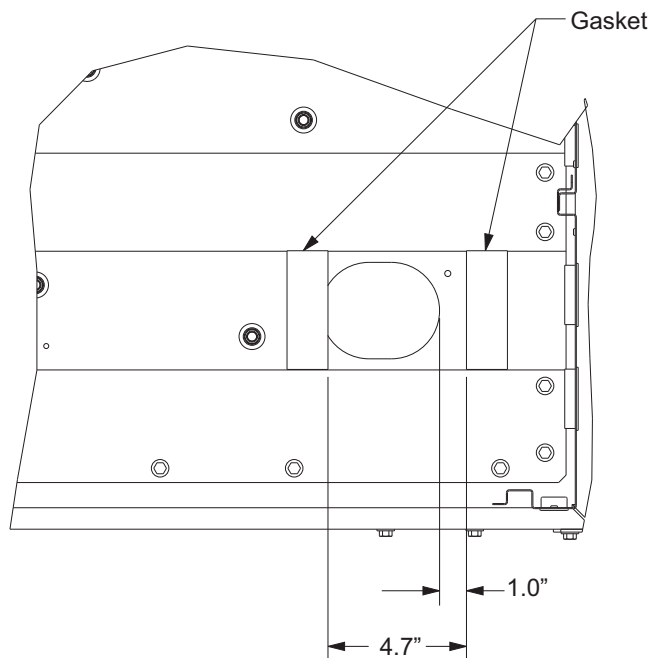




Figure 4. Attach enclose to bracket - E/GCC

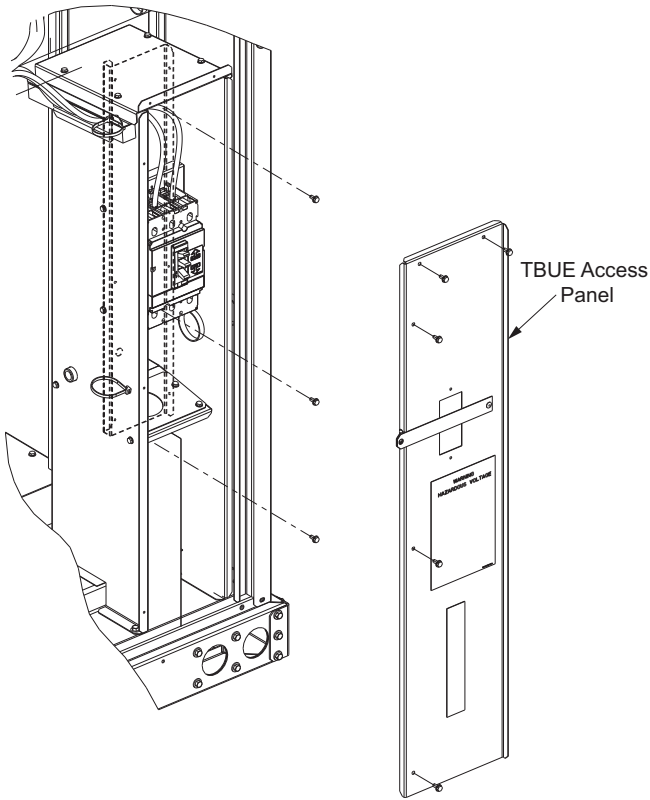
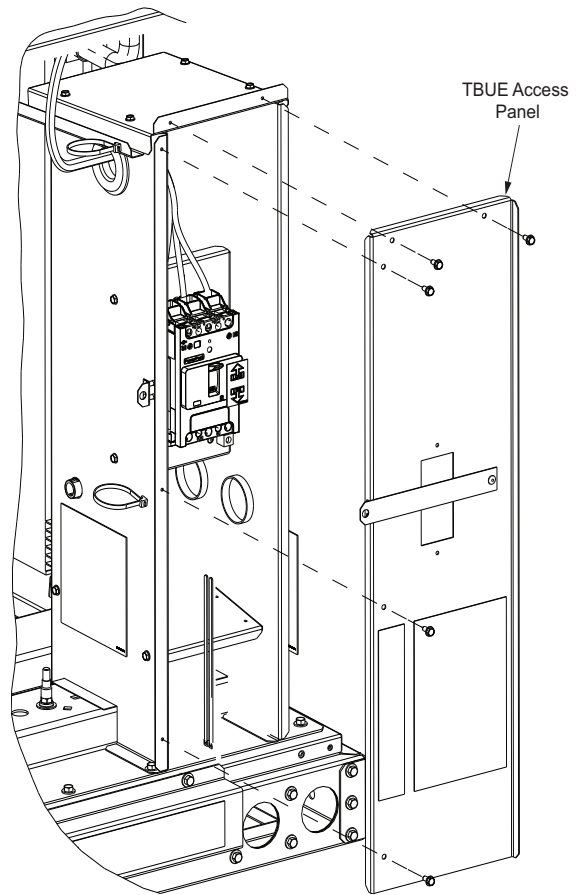


Figure 5. Attach enclose to bracket - E/GDK



# Wiring

## ⚠ WARNING

### Hazardous Voltage!

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.

1. Determine if the hole size provided in mounting plate for the power wire conduit is the correct size per conduit connector. If hole is too big, install one of the mounting plates provided, per power conduit connection size, using four screws (10-16).
2. Route the power and thermostat conduits to the mounting plate located inside the TBUE enclosure and secure.
3. Insert the power wires into the line side of the disconnect and ground lug, paying attention to proper phasing. See [Figure 6](#) and [Figure 7](#).
4. Route the thermostat wire up the side of the enclosure, securing the wire with the wire ties attached. Connect thermostat to the terminal strip on the front of the control box.

Figure 6. Insert wires into the disconnect - E/GCC

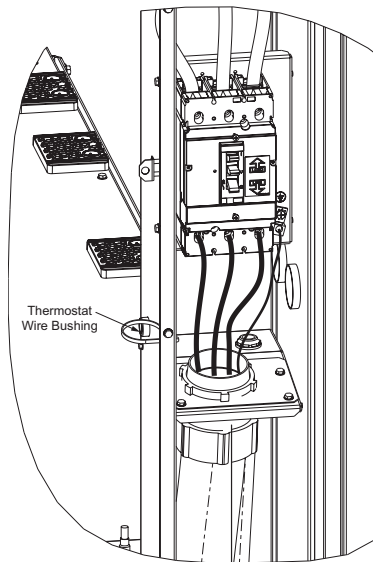
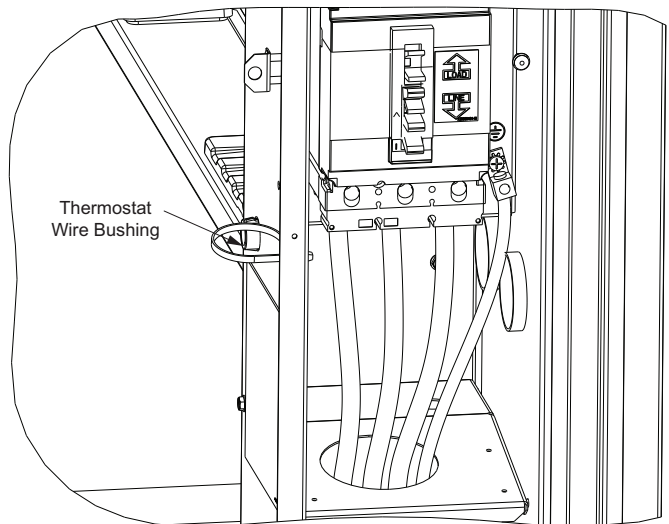


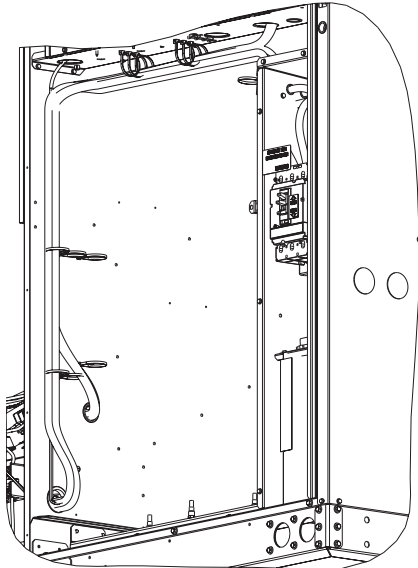
Figure 7. Insert wires into the disconnect - E/GDK



## For Units With Electric Heat (E/GCC)

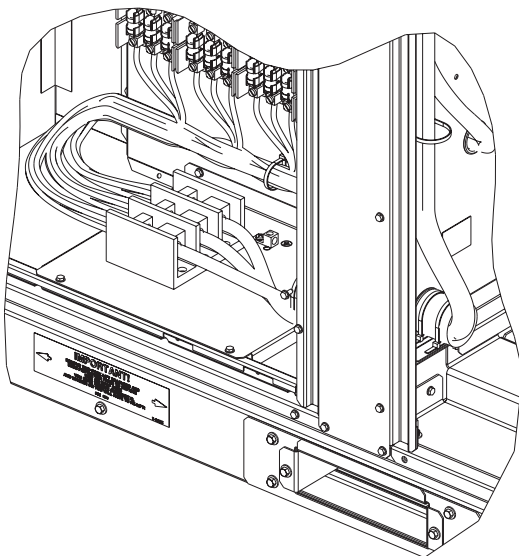
1. Place six pop-in wire ties into the two sets of three holes provided on the bottom of the control box. Cut and replace the two pop-in wire ties on bulkhead wall that are closest to access opening. Cut wire ties around the gasket that pass through the big hole in bulkhead wall, remove gasket, and set aside.
2. Route each disconnect wire through one of the pop-in wire ties at both locations and then down the bulkhead wall using pop-in wire ties and into the electric heat compartment as shown in [Figure 8](#).

**Figure 8. Route disconnect wire into the electric heat compartment - E/GCC**



3. Create a drip loop at the TBUE enclosure when routing these wires.
4. Terminate the wire in the distribution block located in the electric heat section per unit wiring diagram. See [Figure 9](#).
5. Place gasket around wires on compressor side of bulkhead wall and secure with two wire ties.

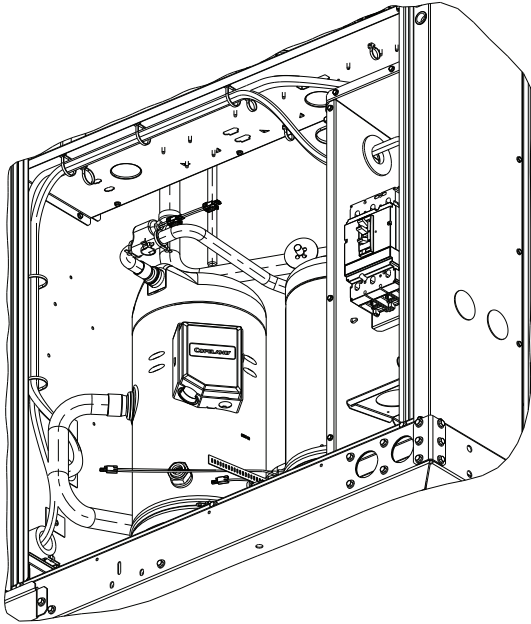
**Figure 9. Distribution block - E/GCC**



### For Units With Electric Heat (E/GDK)

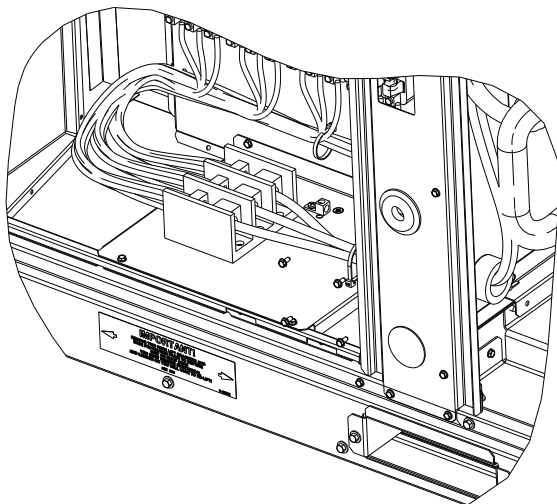
1. Place three pop-in wire ties into the three holes provided on the bottom of the control box. Cut and replace the two pop-in wire ties on bulkhead wall that are closest to access opening. Cut wire ties around the gasket that pass through the big hole in bulkhead wall, remove gasket, and set aside.
2. Route each disconnect wire through three pop-in wire ties and then down the bulkhead wall using pop-in wire ties and into the electric heat compartment as shown in [Figure 10](#).

**Figure 10. Route disconnect wire into the electric heat compartment - E/GDK**



3. Create a drip loop at the TBUE enclosure when routing these wires.
4. Terminate the wire in the distribution block located in the electric heat section per unit wiring diagram. See [Figure 11](#).
5. Place gasket around wires on compressor side of bulkhead wall and secure with two wire ties.

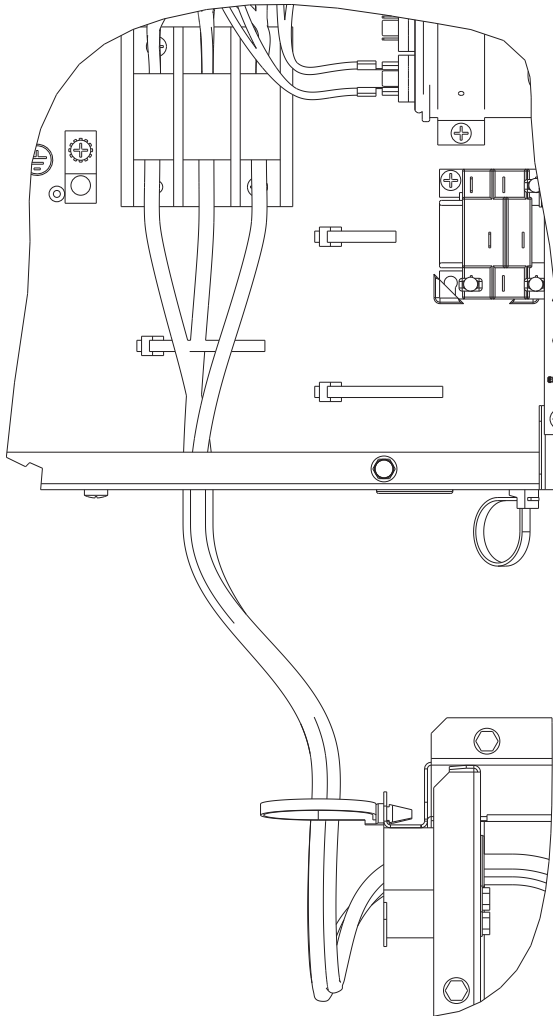
**Figure 11. Distribution block - E/GDK**



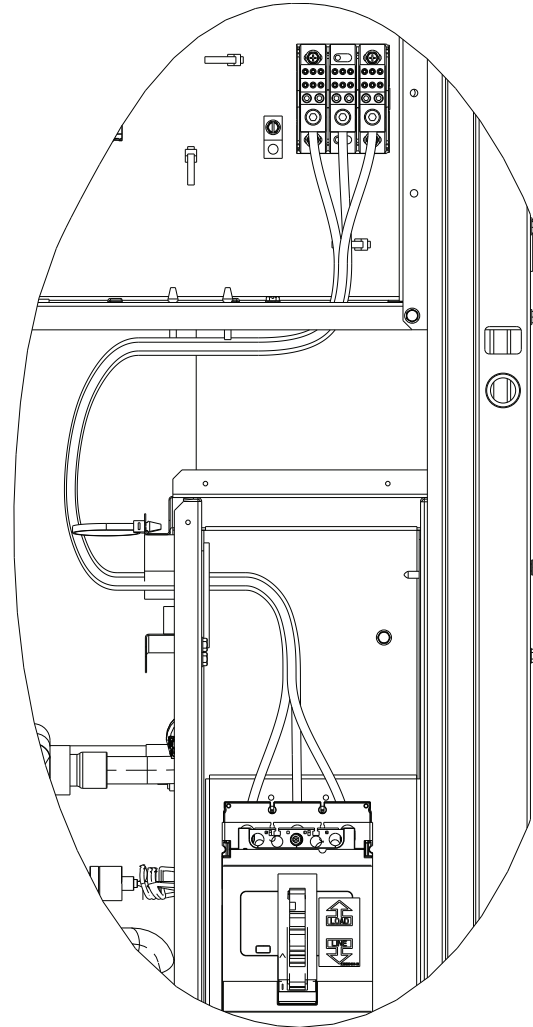
## For Units With no Heat/Gas Heat

1. Route wire from disconnect into the control box as shown in [Figure 12](#) and [Figure 13](#).
2. Create a drip loop at the TBUE enclosure when routing these wires.
3. Terminate the wire in the distribution block located in the control box per unit wiring diagram. See [Figure 12](#) and [Figure 13](#).
4. Secure the wire with a pop-in wire tie in the control box.

**Figure 12. Route wire into the control box - E/GCC**



**Figure 13. Route wire into the control box - E/GDK**



### Installing Flip Switch Cover for Disconnect

1. On unit access panel, pop-out knockout using flat head screw driver.
2. Remove flip switch cover from packaging and pop out gasket seal per instructions on cover packaging.
3. Using the two screws (6-32) provided in the kit bag, secure flip switch cover to front access panel as shown in [Figure 14](#) and [Figure 15](#).
4. Place label *unit disconnect switch located behind this cover* above flip switch cover on unit access panel as shown in [Figure 14](#) and [Figure 15](#).

Figure 14. Install flip switch cover - E/GCC

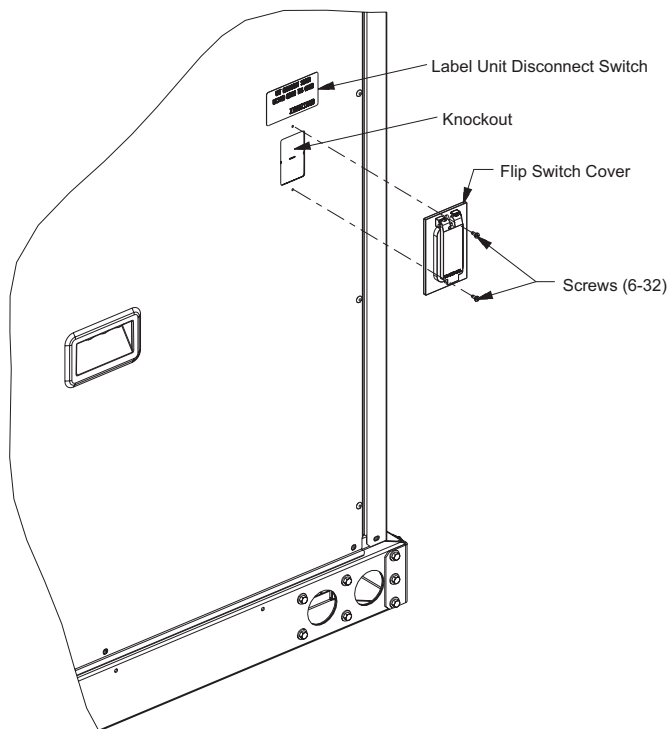
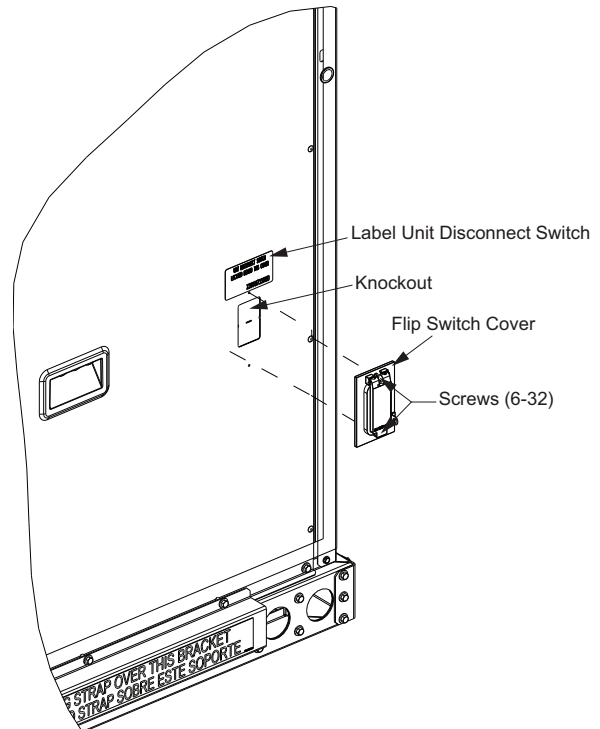


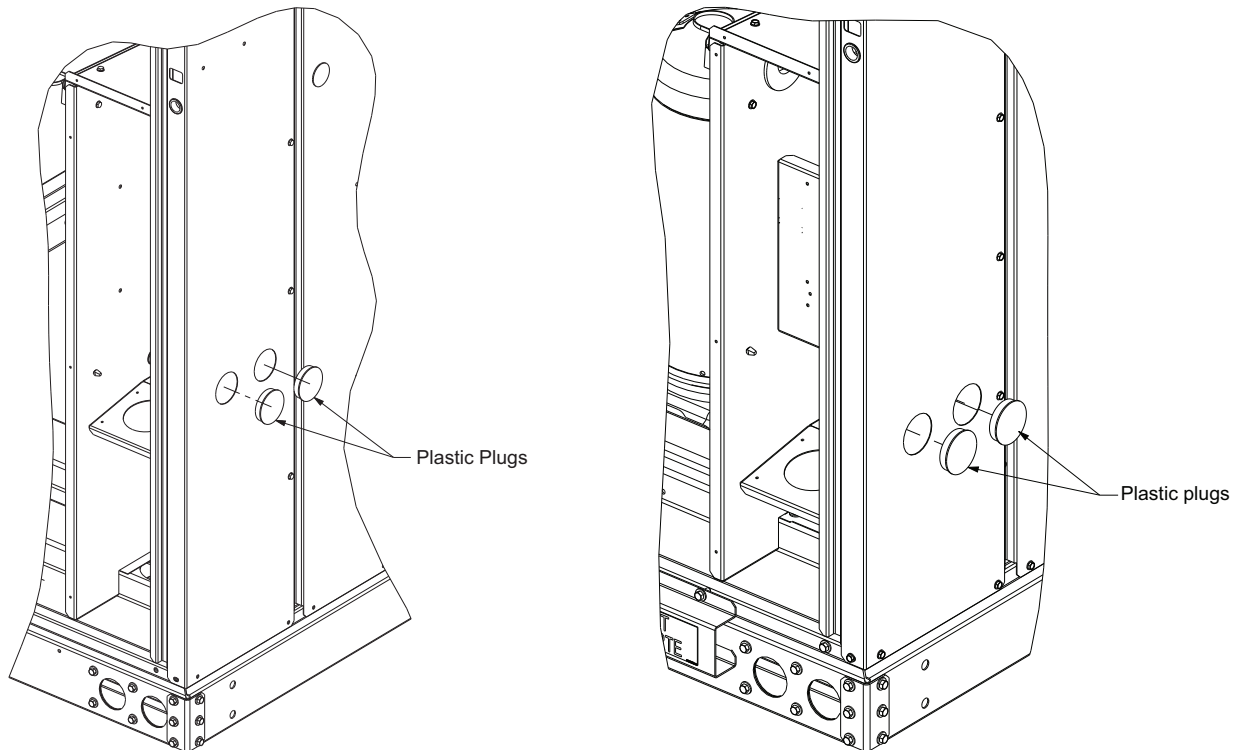
Figure 15. Install flip switch cover - E/GDK



## For Units With no Internal Disconnect

1. Remove plastic plugs from corner post.
2. Install the enclosure as stated in [“Install the Enclosure,”](#) p. 7.
3. Use the holes provided in the corner post to route wires to and from the external disconnect. See [Figure 16](#) and [Figure 17](#).

**Figure 16. Route wires to and from external disconnect - E/GCC**      **Figure 17. Route wires to and from external disconnect - E/GDK**



4.
  - a. Remove the bottom bracket with the gasket on it and route wires through the three holes for E/GCC. See [Figure 18](#).
  - b. Remove the bottom bracket with the gasket on it and route wires through the hole for E/GDK. See [Figure 19](#).
5. Reinstall the bracket and gasket.
6. Route wires through unit as stated in [“For Units With Electric Heat \(E/GCC\),”](#) p. 11 and [“For Units With Electric Heat \(E/GDK\),”](#) p. 12 or [“For Units With no Heat/Gas Heat,”](#) p. 13 depending on unit heat configuration.

## Wiring

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Figure 18. Route wires through the three hole - E/GCC

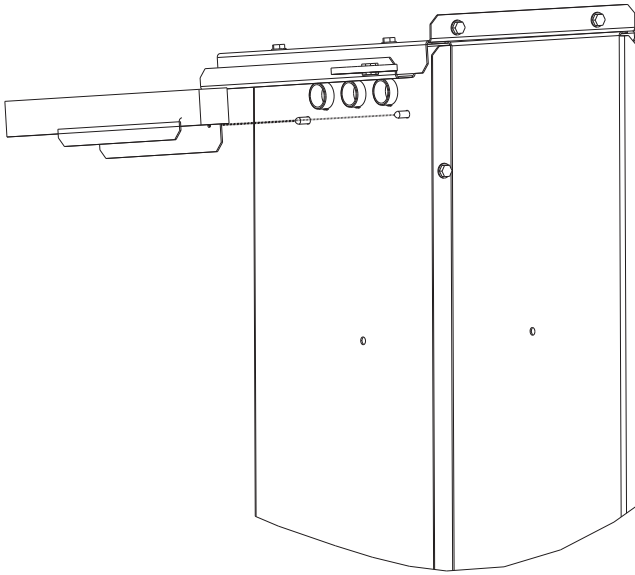
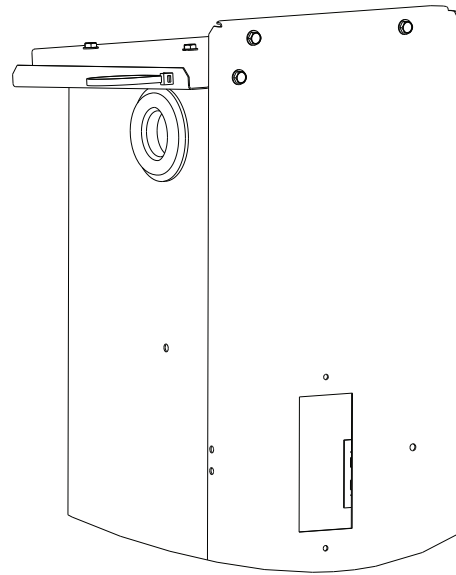


Figure 19. Route wires through the hole - E/GDK







## Notes

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