



# Installation Instructions Symbio™ 700 Controller

**Part Number:**  
MOD03107 Symbio 700 Basic controller  
MOD03103 Symbio 700 Advanced controller

**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.

December 2023 **BAS-SVN235A-EN** ©2023 Trane

## 1 Warnings, Cautions, and Notices

Read this manual thoroughly before operating or servicing this unit. 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.

## 2

**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.

## 3

**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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**Required Tools and Accessories**

- USB storage device

**Important:** Confirm the USB storage device is formatted as FAT or FAT32. Any other formatting is not compatible with the Symbio 700 controller.

- Firmware file for the Symbio 700 controller
- Symbio Service and Installation App or Tracer TU

## 4 Replacing the Symbio 700 Controller

**Important:** Before loading the backup of the controller or manually configuring a Symbio 700 controller, confirm the latest available firmware is installed in the new controller.

**Download Firmware**

- Visit Trane.com and download the latest Symbio 700 firmware. Scan the QR code for quick access to the download page.



**Notes:**

- The preferred method for upgrading the firmware, restoring a controller backup, and configuring the Symbio 700 controller is by using the Symbio Service and Installation App.
- Tracer TU can also be used to perform these tasks.
- This document describes replacing the Symbio 700 controller using the Symbio Service and Installation App.

- Copy the firmware to the USB storage device. Save the firmware in the root folder of the USB drive and not in a subfolder. The Symbio 700 controller can only read a file in the root folder.

**Remove the Original Controller**

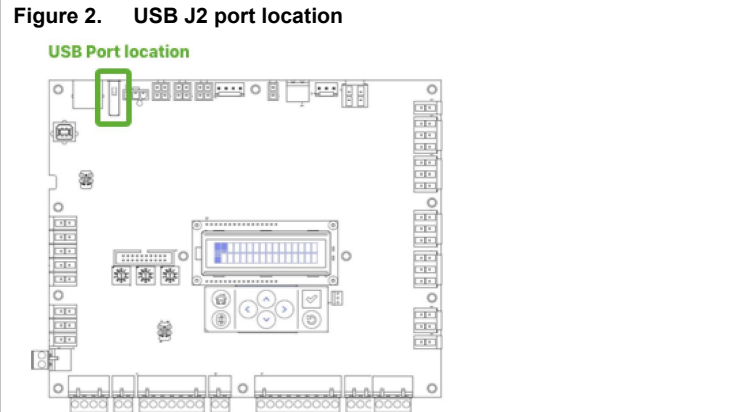
- Turn off and lock out power to the unit and the controller.
- Note the point of connection for each terminal connection.
- With the unit powered down, disconnect all factory Molex-style connectors on both sides and top of the board and the field terminals Phoenix-style connectors at the bottom of the original Symbio 700 controller board.

## 5 Install the New Controller

- With the unit still powered down, install the new Symbio 700 board in the exact same location where the original board was mounted.
- Reconnect the Molex-style connectors. Factory connectors are color coded. Match the color between wire harness and board connectors.
- Reconnect the field terminals Phoenix-style connectors at the bottom of the controller.
- Carefully inspect and confirm that ALL terminals are connected back to the new control board.

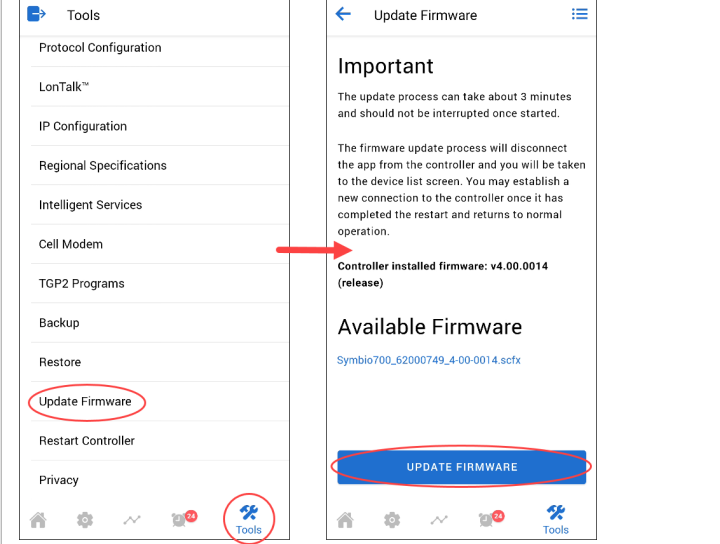
### Update the New Controller Firmware

- With the unit and the controller powered, insert the USB storage device with the latest firmware into the Symbio 700 USB port J2 (see Figure 2).



- Using the Symbio Service and Installation App, connect to the new controller.
- Navigate to **Tools > Update Firmware** and perform a firmware update to the new controller (see Figure 3).

## 6 Figure 3. Update Firmware screens

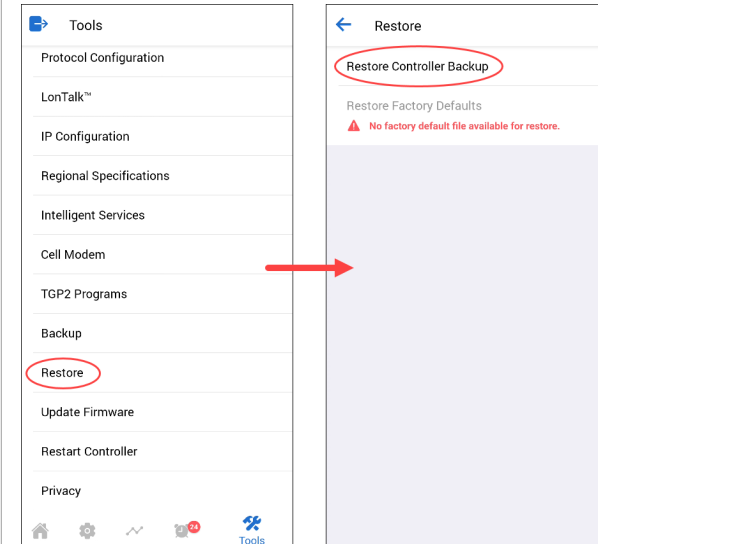


**Note:** Updating the controller firmware may take up to five minutes. During this time, the Bluetooth connection is lost and unavailable. Please follow the update on the Symbio 700 onboard user interface.

### Restore Controller Backup (if applicable)

- Copy the controller backup to the USB storage device. Confirm that the file is in the root folder of the USB drive.
- Insert the USB storage device into the Symbio 700 USB port J2.
- Using the Symbio Service and Installation App, connect to the new Symbio 700 board.
- Navigate to **Tools > Restore**.
- Select **Restore Controller Backup** option, as shown in Figure 4.

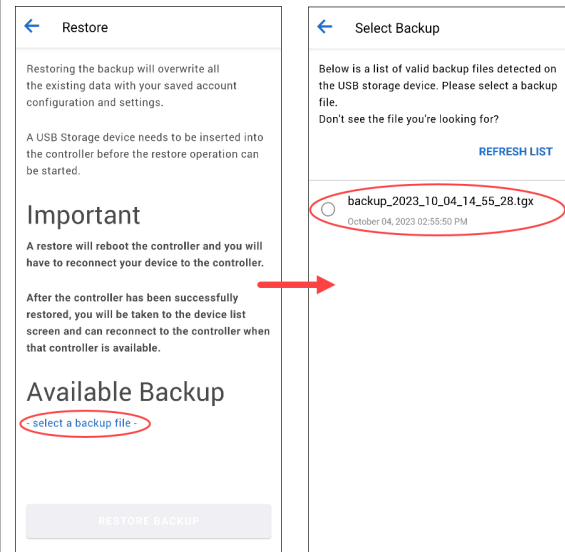
## 7 Figure 4. Restore from backup



- Under **Available Backup**, select the option **select a backup file**.
- Choose the backup file to restore, as shown in Figure 5

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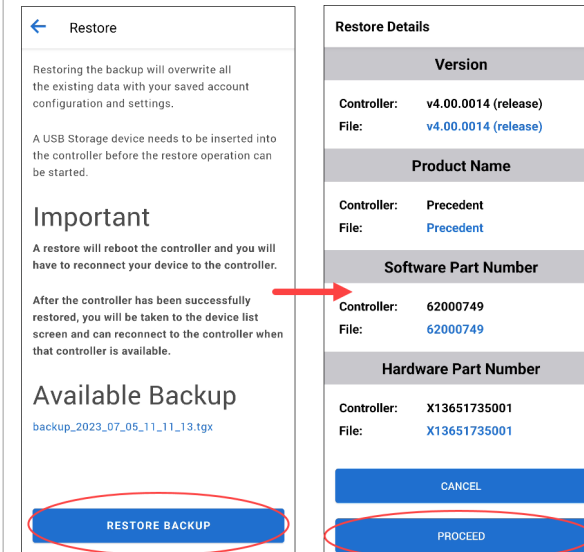
**Figure 5. Select backup file**



8. Tap **RESTORE BACKUP** to proceed with restoring the backup. See [Figure 6](#).
9. The **Restore Details** screen displays a comparison between the backup file and the new controller. Select **PROCEED** to continue the backup operation.

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**Figure 6. Restore backup**



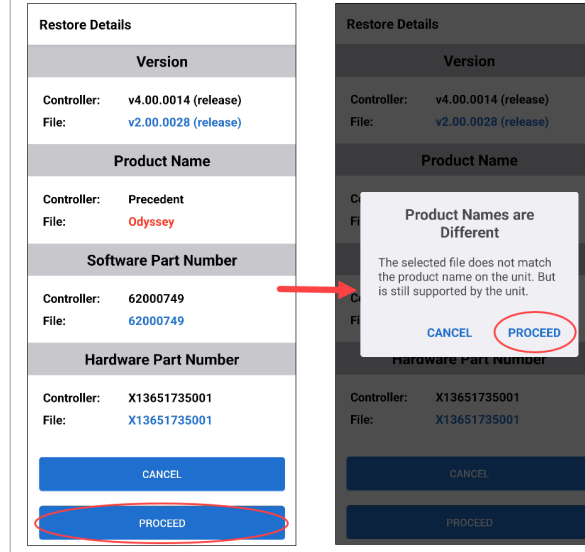
**Change Product Type**

**Important:** All Symbio 700 boards are factory pre-configured as Precedent by default. Follow these steps to change the product type to a different piece of equipment (if appropriate).

1. Verify the Product Name and tap **PROCEED**. See [Figure 7](#).

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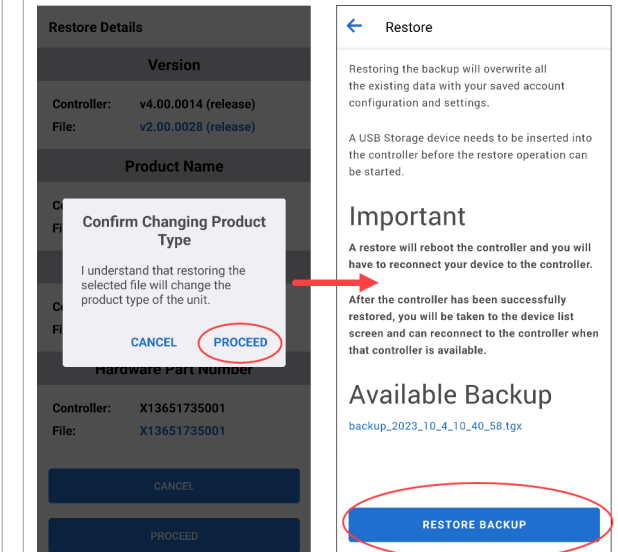
**Figure 7. Confirm product type change**



2. Tap **RESTORE BACKUP**. See [Figure 8](#).

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**Figure 8. Product type change warning**



**Configure the New Symbio 700 Controller**

If a controller backup is available when replacing the Symbio 700 board, skip this section. When the backup is restored, the unit is fully configured and no manual configuration is required.

**Important:** The latest available firmware and unit specific setup must be loaded and configured correctly for this service replacement controller. Failure to do so will result in unit damage.

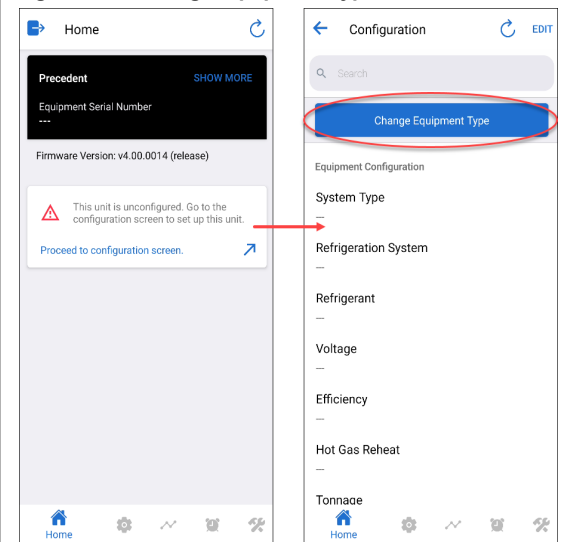
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**Configure Equipment Type**

If a controller backup is not available when replacing the Symbio 700 controller, the new controller must be manually configured according to the unit type and unit specific features.

1. Connect to the new controller using the Symbio Service and Installation App.
2. The app will display the following message on the home screen: "Unit is unconfigured. Go to the configuration screen to set up this unit."
3. Tap **Proceed to the configuration screen**.
4. On the configuration screen, select **Change Equipment Type**. See [Figure 9](#).

**Figure 9. Change equipment type**



**Note:** The process of changing equipment type may take up to five minutes. During this time, the Bluetooth connection is lost and unavailable. Please follow the update on the Symbio 700 onboard user interface.

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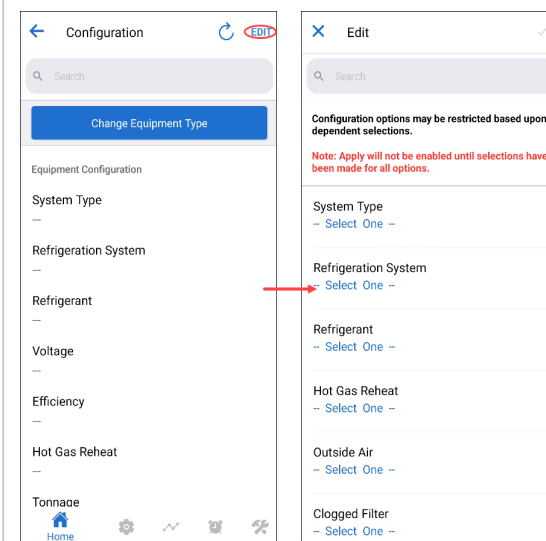
**Edit Equipment Configuration**

With the correct equipment type configured, the next step is to edit equipment configuration based on the equipment-specific features.

1. Connect to the new controller using the Symbio Service and Installation App.
2. The app will display the following message on the home screen: "Unit is unconfigured. Go to the configuration screen to set up this unit."
3. Tap **Proceed to the configuration screen**.
4. Tap **Edit** in the upper right corner of the screen. See [Figure 10](#).
5. Select the appropriate configuration options.

**Important:** Selection of configuration options must be based on the unit-specific features. Failure to correctly configure the Symbio 700 controller could result in unit damage.

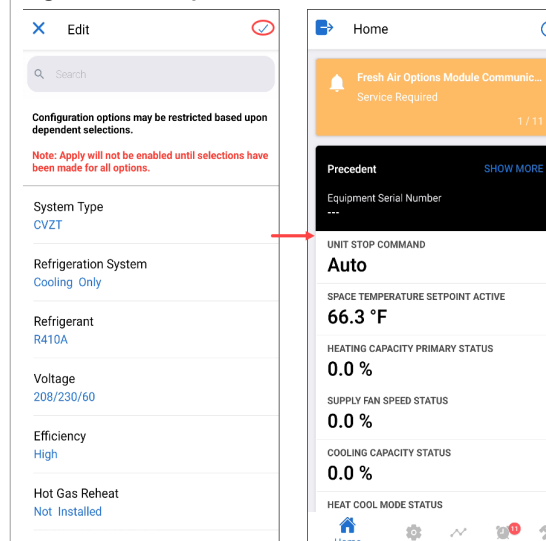
**Figure 10. Edit equipment configuration**



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6. Once all selections are complete, apply the changes by tapping the check mark in the upper right corner. See [Figure 10](#).

**Figure 11. Complete selections**



**Note:** For additional information on editing configurations, visit the video referenced in [Figure 12](#).

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**Figure 12. Editing configurations video QR code**



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