

sen | si™ Connect  
to Comfort



**SENSI™ TOUCH 2 SMART THERMOSTAT**  
Installation guide

### YOU WILL NEED

Gather this information before you begin installation for a smoother walk through.

- **Wi-Fi Network Name/SSID (Make sure this is a 2.4GHz network)**
- **Wi-Fi Network Password**
- **Screwdriver**
- **Hardware in Sensi Touch 2 Smart Thermostat packaging**

### DOWNLOAD THE SENSI APP

The Sensi Touch 2 Smart Thermostat is a Wi-Fi enabled device. To install and configure your thermostat correctly, you must use the Sensi app. To start the installation process, download the Sensi app to your smart phone or tablet. It is a free download.



*Scan the QR code to download the Sensi app*

### CREATE AN ACCOUNT

When you download the Sensi app, you will be prompted to create an account. This is required to access your thermostat remotely and use all the features Sensi offers. Use a valid email address and a password of your choosing to create an account. Remember this email address and password. Your Sensi thermostat will be linked to this email address once it is registered.

## STEP 1

Add your thermostat to the Sensi app

### INSTALLATION

Once you have downloaded the Sensi app and have created an account, you are ready to install the thermostat to your wall and connect it to Wi-Fi. If there are no registered thermostats, tap the **plus (+) sign** to add a thermostat.

First, choose which thermostat you purchased. The Sensi Touch 2 smart thermostat option is for the following model numbers:

- **1F96U-42WF series**
- **ST76 series**

*Note: You can check your model number on the back of the thermostat cover.*

## STEP 2

Is your Sensi thermostat already on your wall?

### NEW INSTALLATION

After choosing your Sensi model, tap **New Installation**. Next, select whether your thermostat **Is Currently Mounted** or **Not Mounted** on the wall.

### NOT MOUNTED

This option walks you through a full step-by-step installation process. You will identify which wires are on your original thermostat, how to label them for Sensi, how to connect your wires and how to connect to Wi-Fi.

If you did not have this thermostat professionally installed, choose this option. It will ensure that your thermostat is properly wired and configured to work with your HVAC system

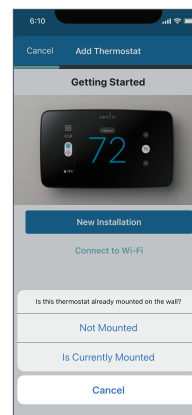
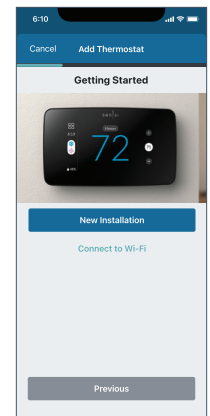
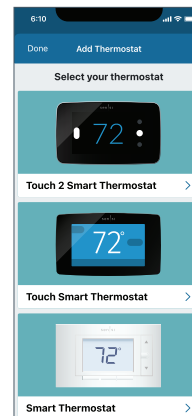
### IS CURRENTLY MOUNTED

This option asks you to identify the wires already installed on your Sensi Touch 2 to ensure that your HVAC settings are correct and connects you to Wi-Fi.

If you had a professional technician install your thermostat, choose this option and skip to **STEP 5b**.

### Pro Tip:

*If you are DIYing your installation, always choose **Not Mounted** to make sure your thermostat is wired and configured correctly.*



## GATHER TOOLS AND PACKAGE CONTENTS

Gather all the necessary tools for installation.

## TURN OFF POWER

Turn off the power to your heating and air conditioning system before handling your thermostat wires.

## STEP 3

### Remove the old thermostat from your wall

## REMOVE OLD THERMOSTAT COVER

Remove the cover using a screwdriver or by pushing the pressure latch. Some covers pull off while others need to be released using a screwdriver.

## PHOTOGRAPH YOUR WIRING

**THIS IS IMPORTANT.** The Sensi app will prompt you to take a picture of your existing thermostat and old wiring in case you need it later.

This can be helpful for troubleshooting with our technical support team, if necessary. The picture you take will be saved to your camera roll or photo gallery.

## THROW AWAY ANY JUMPER WIRES

Sensi has a jumper wire built into it, and you will not need any jumper wires from your old unit.

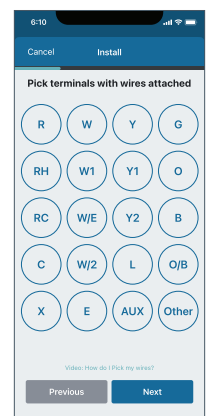
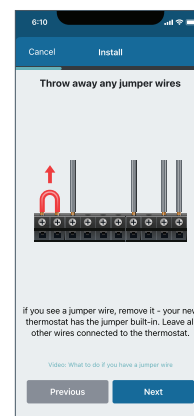
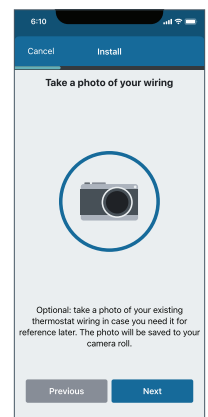
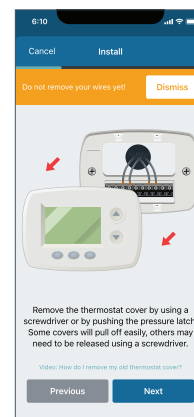
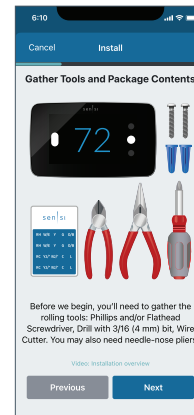
## CHOOSE WIRE TERMINALS

Choose the terminal labels that have wires attached to them on your old thermostat. The app will tell you if you have a valid configuration.

If you are getting an invalid configuration message you can learn more about compatibility at [sensi.emerson.com/system](https://sensi.emerson.com/system).

Sensi Touch 2 requires a c-wire.

For more information, visit [sensi.emerson.com/en-us/support/c-wire](https://sensi.emerson.com/en-us/support/c-wire).



# INSTALLING THE SENSI THERMOSTAT

## FURNACE TYPE

Select what type of system you have.

## LABEL YOUR WIRES

Before you disconnect your wires, label your wires using the label stickers provided one wire at a time. .

## DISCONNECT WIRES AND REMOVE BASE

After all of your wires are labeled, remove the old thermostat base from the wall.

## STEP 4

Secure your new thermostat base to the wall

## INSTALL SENSI BASE

Use the mounting screws provided and secure the Sensi base to the wall.

## STEP 5a – NOT MOUNTED

Connect the wiring and thermostat cover

## CONNECT THE WIRES

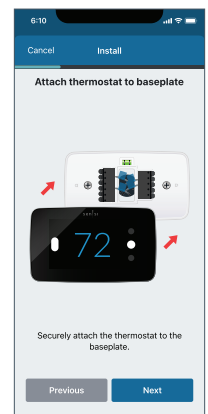
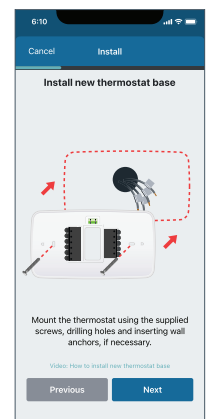
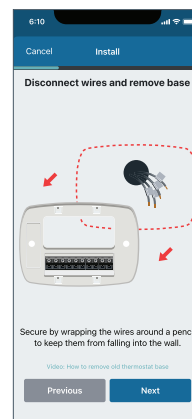
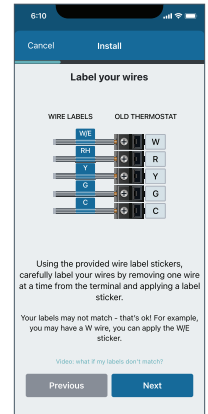
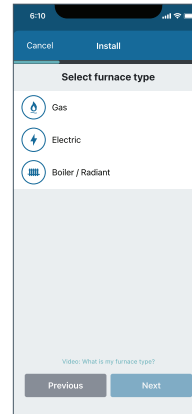
Once the Sensi base is mounted and secured on the wall, insert the wires into the terminals. Simply push the wires into the terminal slots.

## ATTACH THERMOSTAT COVER

Push the thermostat cover onto the base.

## TURN ON POWER

Turn the power to your system back on.



## STEP 5b – IS CURRENTLY MOUNTED

Identify the wires already installed to correctly configure the thermostat for your system type

### TURN OFF POWER

Turn off power to your heating and air conditioning system before handling your thermostat wires.

### REMOVE THERMOSTAT COVER

Grab the thermostat with both hands and pull straight toward you. The cover will detach from the base.

### IDENTIFY WIRES

Choose the labels on your thermostat base that have wires attached to them.

The Sensi Touch 2 requires a c-wire, so make sure one is installed.

### SELECT FURNACE TYPE

Identify which type of heating source you have.

### ATTACH THERMOSTAT COVER

Push the thermostat cover onto the base.

### TURN ON POWER

Turn the power to your system back on.

## STEP 6

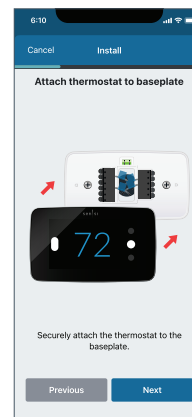
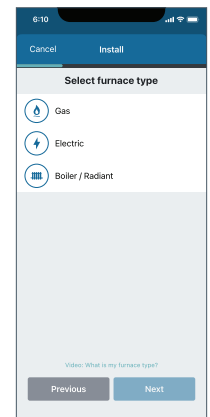
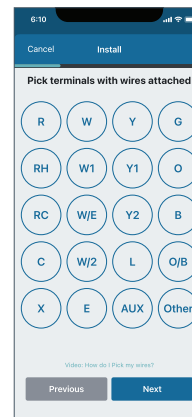
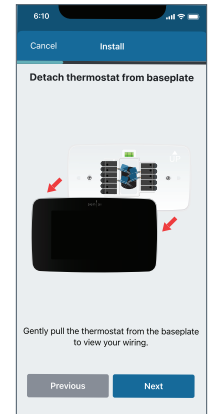
Connecting to Wi-Fi and registering your thermostat

### CONNECTING TO WI-FI

After wiring and installing the thermostat, you're ready to connect to Wi-Fi.

#### Pro Tip:

If the thermostat screen is not turning on after wiring installation, you may have an issue with your c-wire connection. The c-wire powers the thermostat, and it won't turn on without it. See the troubleshooting section on pg. 9 for more information.



# INSTALLING THE SENSI THERMOSTAT

## WI-FI SETUP

On the thermostat, press **Menu** in the top left corner and then **Wi-Fi**. Tap **Connect**.

## SCAN QR CODE

In the app, scan the QR code on your Sensi Touch 2 screen. Bluetooth technology will help you connect to Wi-Fi. This will require Bluetooth permissions on your phone. You can turn on Bluetooth in your phone's settings.

If you're having trouble scanning, tap **Use Security PIN** to manually enter the code on your touchscreen.

## SELECT YOUR WI-FI NETWORK

In the list of available networks, select your home Wi-Fi network and then enter your home Wi-Fi network password.

### Pro Tip:

Sensi is only compatible with 2.4GHz networks. If your network does not show up in the list, it is either hidden or not compatible with Sensi.

## NAME THERMOSTAT

You can select a name or choose a custom name for your thermostat. Press **Next** to continue.

## REGISTER THERMOSTAT

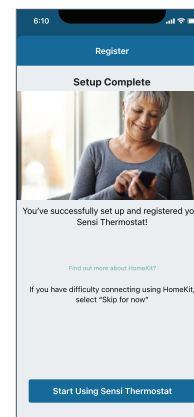
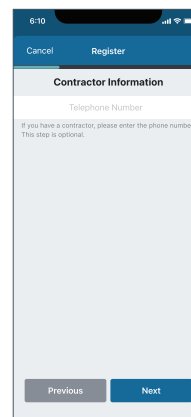
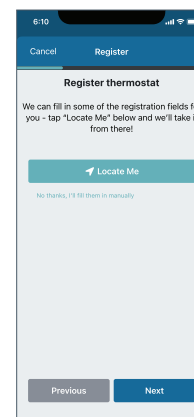
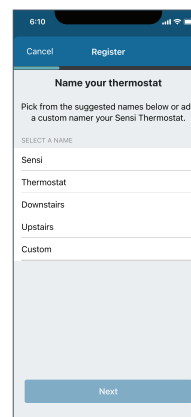
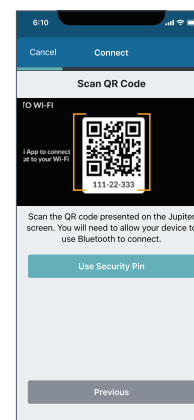
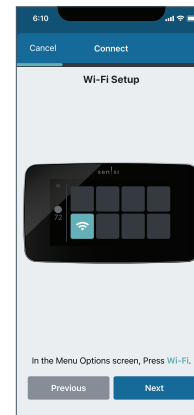
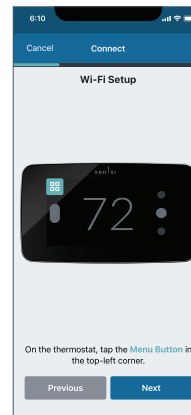
After successfully connecting Sensi, the app will prompt you to register the thermostat. You can either choose the **Locate Me** option or fill in your street address, city, state, ZIP code, country and time zone manually. Press **Next** to continue.

## CONTRACTOR INFORMATION (OPTIONAL)

If a contractor professionally installed your thermostat and is registered as a Sensi partner, they have the option to input their phone number here. If there is not a registered number available, simply hit **Next** to continue.

## START USING SENSI

Congratulations on successfully installing Sensi. Press **Start Using Sensi** to open the main screen of the app.



### Why isn't my heating/cooling turning on?

- Ensure that there is power to your HVAC system and there is no error code on your control board indicating a system issue.
  - If there is an error code or no power to your system, contact an HVAC professional to service your equipment.
- Reset breakers.
- Make sure the furnace/air handler door compartments are securely screwed down and closed. If the door panels are not secure, the system will not start.
- Secure wire connections.
  - If you pull on a wire, it should not come out. Make sure the wire is all the way down and seated in the thermostat terminals. If you aren't sure, push the paddle down and pull the wire out. Then, try to push it back into the terminal for a better fit.
- Ensure the thermostat is wired correctly by following the instructions in the Sensi app.
  - You can also try to reinstall your original thermostat to make sure there is not an HVAC system issue that is preventing the system from turning on. If your heating/cooling doesn't come on with the original thermostat, you may need to contact a professional technician to service your equipment.

### Connecting to Wi-Fi troubleshooting

If you're having trouble connecting to Wi-Fi, here are some tips to try:

- Make sure the Sensi app is up-to-date and running the latest version available in your app store.
- Reboot your smartphone.
- Reboot your router by unplugging it from the wall for a few minutes and then plugging it back in.
- Make sure Bluetooth is turned on in your phone settings and is allowed in the Sensi app permissions.
- Make sure Location access is turned on in your phone settings and is allowed in the Sensi app permissions.
- Try another smartphone or tablet. Simply download the Sensi app and sign into the app using the email address and password you used when you created your account.

### Reconnecting to Wi-Fi

If you replaced your router or changed your Wi-Fi network password, you will need to reconnect your thermostat to Wi-Fi. This process is different depending on what smart device you are using. Please see our support article for more information on how to reconnect.

[sensi.emerson.com/en-us/support/reconnecting-sensi-thermostat-to-wifi](https://sensi.emerson.com/en-us/support/reconnecting-sensi-thermostat-to-wifi)



## Blank or flashing display

If you installed a Sensi Touch 2 smart thermostat, but the touchscreen is still blank or only flashes after completing all the steps in the Sensi app, then the thermostat is most likely not receiving enough power from your system to turn on or stay on continuously.

Sensi Touch 2 requires a c-wire to power the thermostat.

### **I DON'T HAVE A WIRE IN THE "C" TERMINAL.**

Sensi requires a c-wire. If you don't have a wire in the "C" terminal, check out our c-wire videos for DIY installation at [sensi.emerson.com/en-us/c-wire](https://sensi.emerson.com/en-us/c-wire).

If you are installing Sensi to a heat-only system, you may be able to install an external transformer. Learn more about that option by searching "external transformer" on our support site at [sensihelp.com](https://sensihelp.com).

### **I HAVE A WIRE IN THE "C" TERMINAL.**

Did you DIY this c-wire connection? If so, make sure that this wire is connected to "C" terminal at the thermostat and at your system.

1. Go down to your indoor HVAC unit furnace/air handler, reveal your system's control board and trace the c-wire at the thermostat to ensure that it is securely connected to the "C" terminal at the system control board. If you haven't already, it may help to watch one of the c-wire videos to see how to access the control board.
2. Gently tug the c-wire at the system control board to ensure that it is screwed into the terminal securely.
3. Gently tug all the wires at the thermostat to ensure that they are secure in the terminal block on the sub-base.
4. Do you have a voltmeter? Set your voltmeter to AC and measure the voltage between RH (or RC) and C at the thermostat to ensure that you have between 20–30VAC at the thermostat. If you have less than 20VAC, the thermostat will not turn on.
5. Are your breakers on? You turned your power off for installation. Make sure the power is turned on. You may want to try resetting them if they're already turned on.

## HVAC configuration menu

If you want to check that your thermostat’s HVAC settings were configured correctly or you’re experiencing a system issue, refer to the chart for equipment descriptions and options. Learn more about how to properly configure your thermostat here:

[sensi.emerson.com/en-us/support/how-do-i-configure-my-thermostat](https://sensi.emerson.com/en-us/support/how-do-i-configure-my-thermostat)

## Accessing your Sensi thermostat from other devices

When you log into your Sensi account with your email address and password, the app will be able to control all the thermostats registered to your Sensi account.

If you give someone else your email address and the password to your Sensi account, they will be able to log in and control any thermostats registered to that account. You can change your email address and password from inside the app. Be aware of this when giving out your information. There is no limit to the number of devices that can access the thermostat.

## Forgot password

If you forget the password to your Sensi account, click on **Forgot Password** on the login screen of the Sensi app. A temporary password will be sent to the email address that you use to log in.

CONFIGURATION MENU ITEMS REFERENCE		
Menu item	Description	Options
Outdoor Equipment	Select AC or Heat Pump equipment, as well as the number of stages. Set this to AC1 for single-stage systems or HP1 or HP2 for single or multi-stage heat pumps	AC1/AC2/HP1/HP2/None
Indoor Equipment	Select whether the equipment is an electric or gas furnace or fan only. Set this to EL1 for single-stage electric or GA1 or GA2 for single or multi-stage gas systems.	GA1/GA2/EL1/EL2/Fan
Reversing Valve Position	When configured for O, the reversing valve is energized in cooling. This will cover most applications. Some manufacturers, such as Rheem or Rhudd, use the B terminal, which would energize in heating. For three-wire zone hydronic systems, set this to Z.	O/B/6/None
Additional Accessories		
Humidifier (wired to thermostat)	If a humidifier is wired to the thermostat, change the Humidifier setting to YES.	Yes/No
Dehumidifier (wired to thermostat)	If a dehumidifier is wired to the thermostat, change the Dehumidifier setting to YES.	Yes/No

### Installing multiple thermostats

If you are installing more than one thermostat, follow the same installation process in the Sensi app. Once you have one thermostat installed, open the Sensi app on your phone. At the main screen, press the + sign to add another thermostat to your account.

### Accessing account information

You can use the Account area to access your email preferences and change your account information and the email address associated with your Sensi.

For iOS: Tap the person icon in the upper right corner.

For Android: Tap the three dots in the upper right corner.

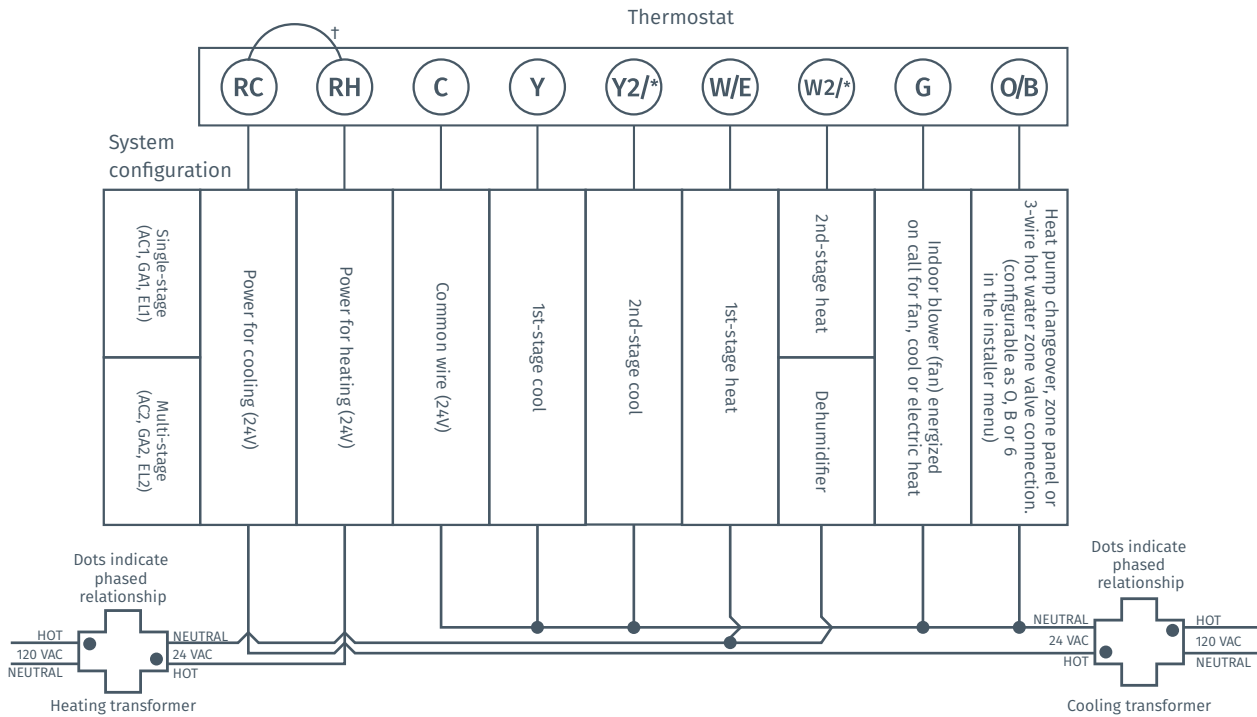
### Technical support

For problems installing your Sensi thermostat, visit our support site. We have a vast collection of troubleshooting articles aimed at helping you install Sensi and using its features. We also have a support team available to help assist you.

[sensihelp.com](https://sensihelp.com)

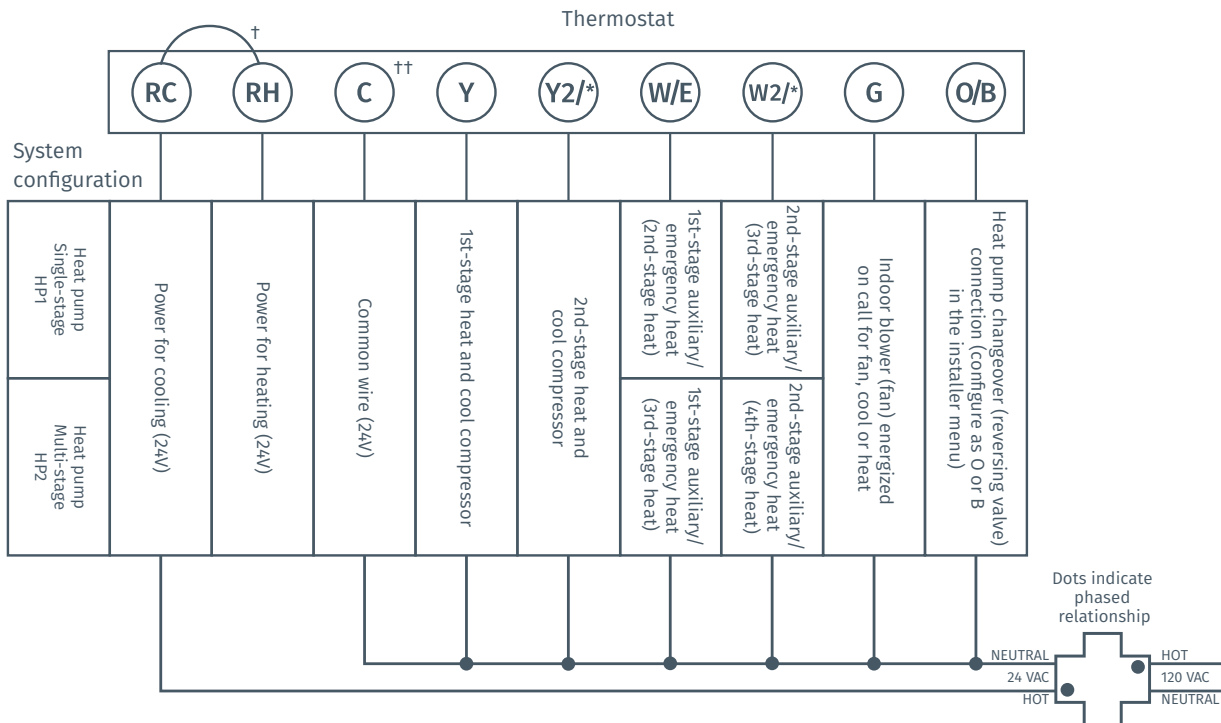
(888) 605.7131

CONVENTIONAL SINGLE-STAGE OR MULTI-STAGE SYSTEMS (NO HEAT PUMP)



\*Two transformers systems (separate RC and RH wires), clip internal RC/RH jumper, located on back of thermostat.

HEAT PUMP SYSTEMS



†Internal jumper between RC and RH, located on back of thermostat.

ACCESSORY DEVICE

**2-Wire accessory**

Device has its own power source to turn the unit on. Set switch on the back of the thermostat to "Accessory."



**1-Wire accessory**

Device pulls power from the HVAC system. Set switch on the back of the thermostat to "System."

