sensi

by **COPELAND**

SENSI SMART THERMOSTAT

Installation guide

Models: 1F87U-42WF, ST55
Version: November, 2024

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 smart thermostat packaging**

DOWNLOAD THE SENSI APP
The Sensi 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. The Sensi app requires
the following Operating System (OS) software to 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.

*Note that the "Install a device" option is only for installing to HomeKit.
You will lose available features without creating an account.*
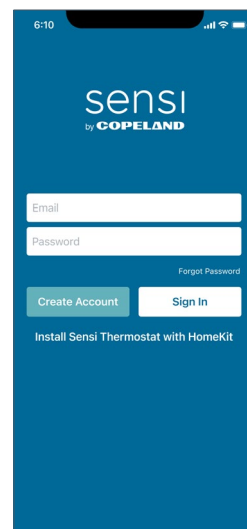
STEP 1
Add your thermostat to the Sensi app

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. Tap the **plus (+)** sign to add a thermostat.

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

– **1F87U-42WF series**
– **ST55 seriesI**

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 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 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 DIY'ing your installation, always choose Not Mounted to make sure your thermostat is wired and configured correctly.
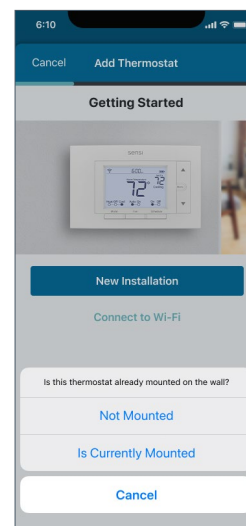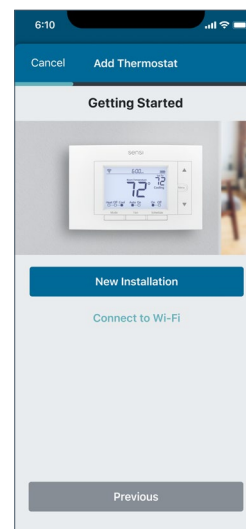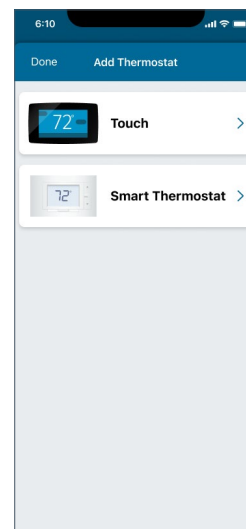
GATHER TOOLS AND PACKAGE CONTENTS
Gather all the necessary tools for installation.

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 here. 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.copeland.com/en-us/compatibility.

FURNACE TYPE
Select what type of system you have.
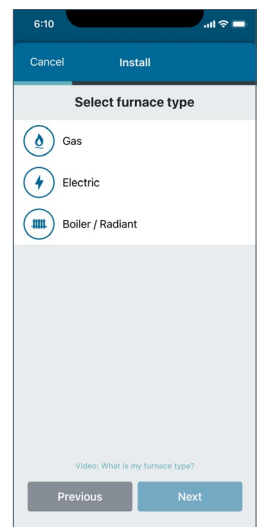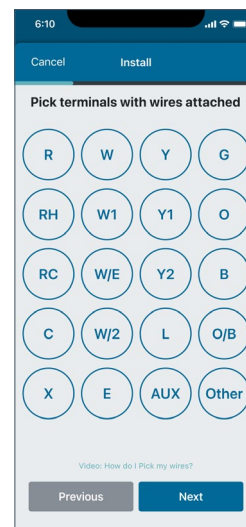
LABEL YOUR WIRES

Use the provided wire label stickers to label each wire as you remove them.

DISCONNECT WIRES AND REMOVE BASE

After all of your wires are labeled, remove the old thermostat base from the wall.
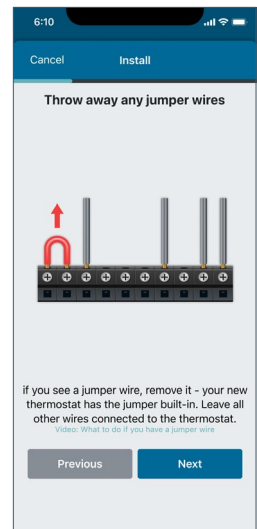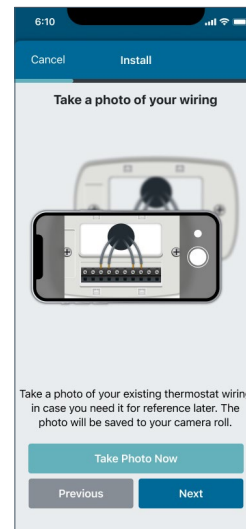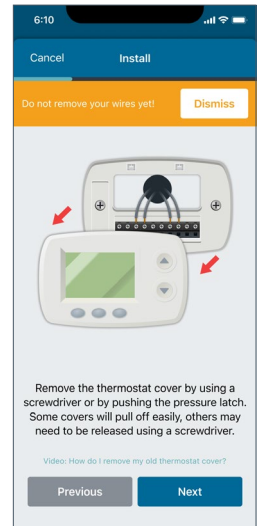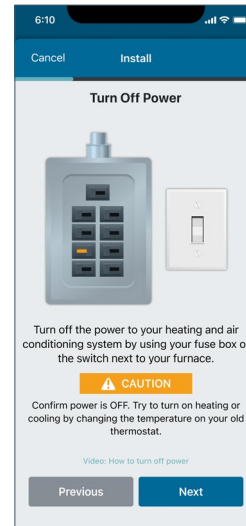
STEP 4

Secure your new thermostat base to the wall

INSTALL SENSI BASE

Use the provided mounting screws 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. Use a screwdriver to secure each wire in place

ATTACH COVER

Push the front display onto the thermostat base.

TURN ON POWER

Turn the power to your system back on.

Label your wires

Using the provided wire label stickers, carefully label your wires by removing one wire at a time from the terminal and applying a label sticker.

Your labels may not match – that's ok! For example, you may have a W wire, you can apply the W/E sticker.

Video: what if my labels don't match?

Disconnect wires and remove base

Secure by wrapping the wires around a pencil to keep them from falling into the wall.

Video: How to remove old thermostat base

Install new thermostat base

Mount the thermostat using the supplied screws, drilling holes and inserting wall anchors, if necessary.

Video: How to install new thermostat base

Connect the wires

Insert the wire into the corresponding terminal block, then tighten the screw.

Video: How to connect the wires

Attach thermostat to baseplate

Securely attach the thermostat to the baseplate.

Turn on power

Turn the power to the heating or air conditioning 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.

SELECT FURNACE TYPE

Identify which type of heating source you have.

ATTACH THERMOSTAT COVER

Push the thermostat cover onto the base.
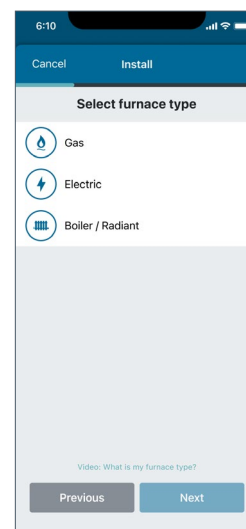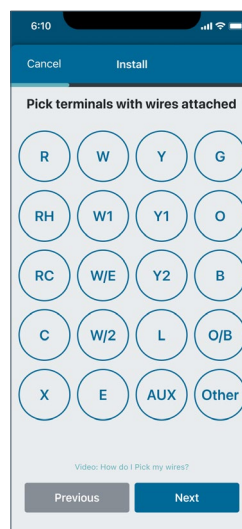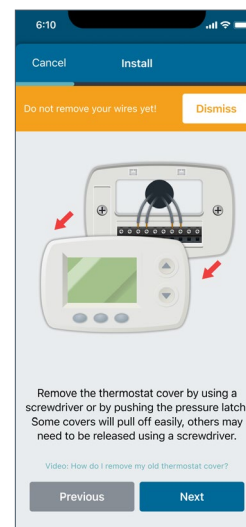
TURN ON POWER

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.

WI-FI SETUP

On the thermostat, press **Menu**, and then **Mode**.
The Wi-Fi icon in the upper left-hand corner will flash.

IDENTIFY SENSI MODEL

00, 11, or 22 will be displayed in the middle of the thermostat.
This determines what Sensi version you have

CONNECT YOUR SENSI THERMOSTAT TO YOUR
WI-FI NETWORK WITH THE SENSI APP

From here, follow the step-by-step instructions in the Sensi app.
The Wi-Fi connection process will be slightly different based
on your device's operating system (iOS/Android), Sensi app
version, and the version of Sensi thermostat that you have.

Pro Tip:

*If you're using an iPhone to connect and you're getting a
HomeKit related error, check the Sensi app permissions
to make sure it has access to Home Data.*

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 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.
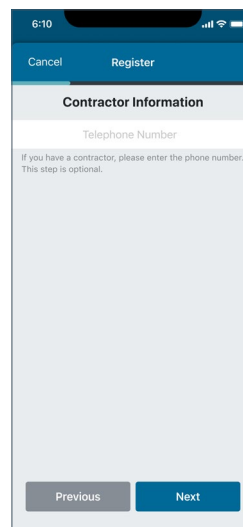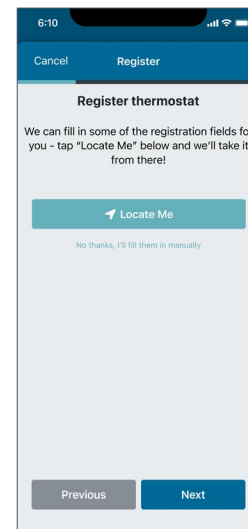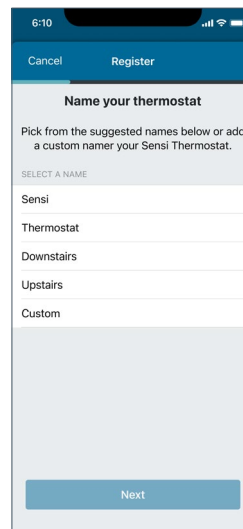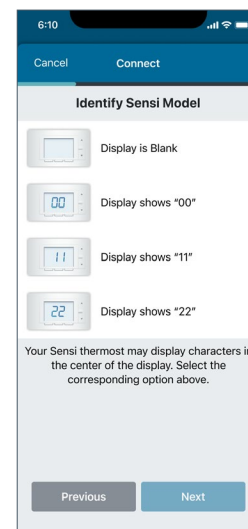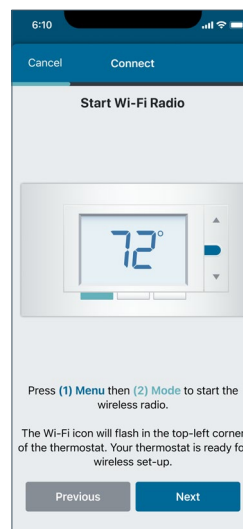
CONNECTING TO WI-FI TROUBLESHOOTING

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 smart phone.

· Reboot your router by unplugging it from the wall
  for a few minutes and then plugging it back in.

· Check Sensi app and phone permissions.

  – If you're on an iPhone, make sure
    Keychain is On, and Home Data is allowed
    for the Sensi app permissions.

  – Make sure Location services are turned
    On in your phone settings.

  – Make sure Location and Nearby Devices are
    allowed in the Sensi app permissions.

· If you're on an Android, go into your phone's Advanced
  Wi-Fi Settings and turn off the "Switch to mobile data"
  feature. (Depending on your Android, it may be called
  "Smart Network Switch" or "Avoid poor connections.")

  – It may be easier to just turn "Mobile
    Data" off completely for setup. You can
    find this in your Connection settings.

· Try another smart phone 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 is different depending on what
smart device you are using. Please see our support
article for more information on how to reconnect.

sensi.copeland.com/en-us/support/
reconnecting-sensi-thermostat-to-wifi

HVAC CONFIGURATION MENU

If you're experiencing a heating/cooling issue or you want to check your HVAC settings, you can check these on the physical thermostat. Learn more about how to properly configure your thermostat by checking out our support article: https://sensi.copeland.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 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 forgot 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 login.

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, change your account information and email address associated with your Sensi.

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

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

CONFIGURATION MENU ITEMS REFERENCE

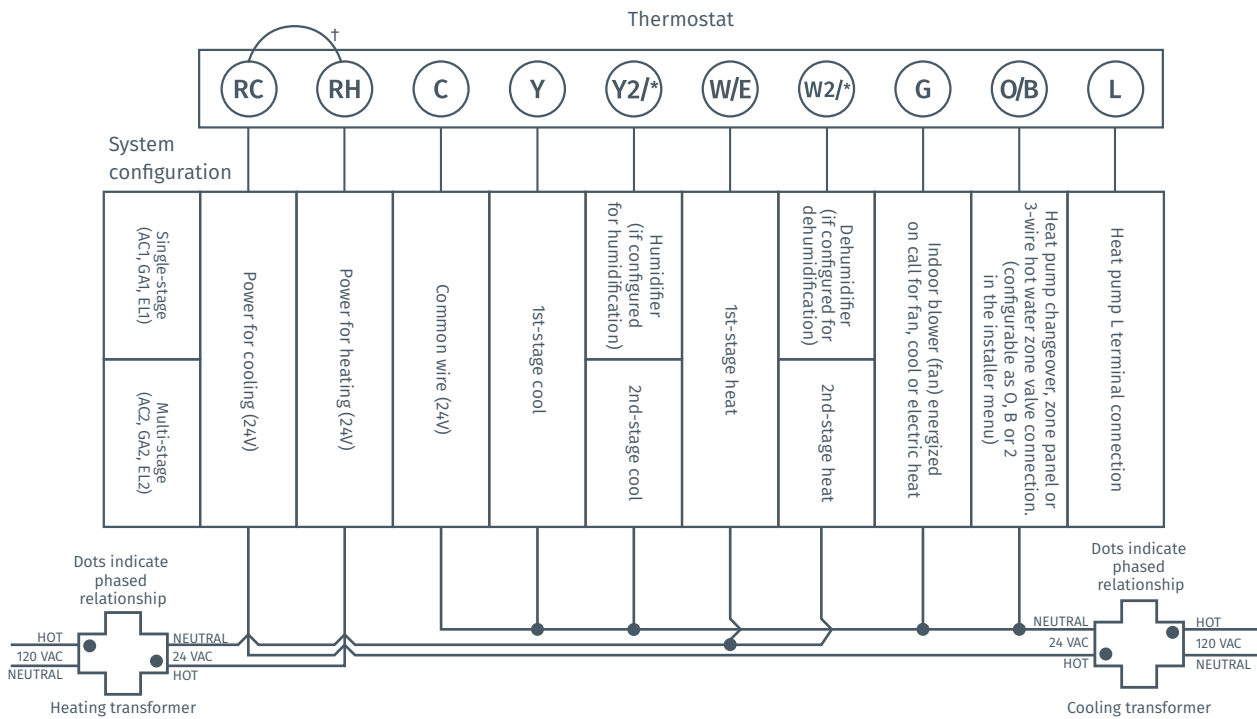| Display Code	Menu item	Default	Options	
	Wireless Setup Connects Thermostat to Wi-Fi network	—	Connect	
	Fahrenheit or Celsius	F	F C	
	Outdoor Equipment Configuration Cooling or heat pumps	AC2	AC1 –	Conventional Cooling 1 (Single Stage)
			AC2–	Conventional Cooling 2 (Two-Stage)
			HP1 –	Heat Pump 1 (Single Stage)
			HP2–	Heat Pump 2 (Two-Stage)
			AC0–	No Cooling
	Indoor Equipment Configuration For Gas or Electric Heat	EL2	EL1–	Electric 1 (Single Stage)
			EL2–	Electric 2 (Two-Stage)
			FAn	
			GA1	Gas 1 (Single Stage)
			GA2	Gas 2 (Two-Stage)
	Reversing Valve Position Selects "O" or "B" Setting For Heat Pumps Only	O	O B 2	
Fn	Circulating Fan	OFF	Off/10% – 100% (5% increments)	
H AA	Humidification Add Accessory	OFF	Off/On	
H SP	Humidification Set Point	OFF	Off/5% – 50% (5% increments)	
dH AA	Dehumidification Add Accessory	Od	Od/Oc Od – Optimal dehumidification (Overcool to dehumidify) Oc – Optimal comfort (Wired dehumidification)	
dH SP	Dehumidification Set Point	OFF	Off/40% – 95% (5% increments)	
	Wireless Radio Turns Wi-Fi Radio On/Off	ON	Off/On	

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 the features. We also have a support team available to help assist you.
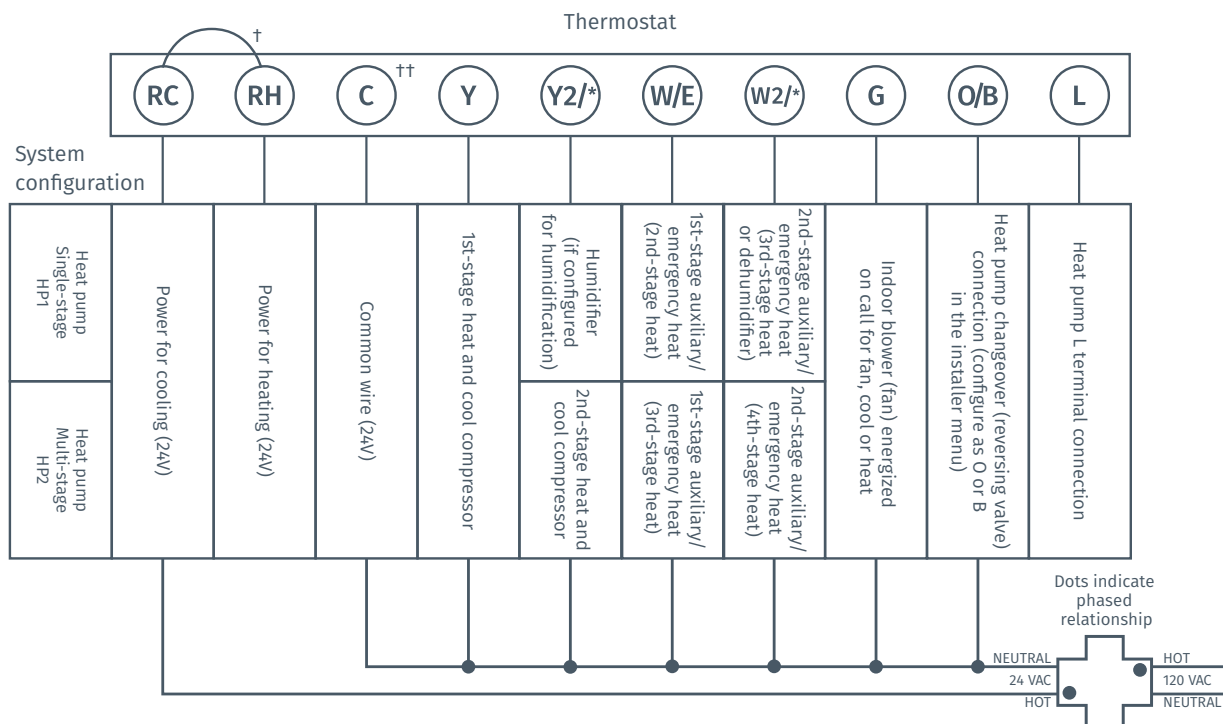
sensihelp.com

(888) 605.7131

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

Thermostat

RC — RH †

RC RH C Y Y2/* W/E W2/* G O/B L

System configuration

Single-stage (AC1, GA1, EL1)	Power for cooling (24V)	Power for heating (24V)	Common wire (24V)	1st-stage cool	Humidifier (if configured for humidification)	1st-stage heat	Indoor blower (fan) energized on call for fan, cool or electric heat	Heat pump changeover, zone panel or 3-wire hot water zone valve connection. (configurable as O, B or 2 in the installer menu)	Heat pump L terminal connection
Multi-stage (AC2, GA2, EL2)					2nd-stage cool	Dehumidifier (if configured for dehumidification)	2nd-stage heat			

Dots indicate phased relationship

HOT 120 VAC NEUTRAL / NEUTRAL 24 VAC HOT

Heating transformer

Dots indicate phased relationship

NEUTRAL 24 VAC HOT / HOT 120 VAC NEUTRAL

Cooling transformer

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

HEAT PUMP SYSTEMS

Thermostat

RC — RH †

RC RH C †† Y Y2/* W/E W2/* G O/B L

System configuration

Heat pump Single-stage HP1	Power for cooling (24V)	Power for heating (24V)	Common wire (24V)	1st-stage heat and cool compressor	Humidifier (if configured for humidification)	1st-stage auxiliary/ emergency heat (2nd-stage heat)	2nd-stage auxiliary/ emergency heat (3rd-stage heat or dehumidifier)	Indoor blower (fan) energized on call for fan, cool or heat	Heat pump changeover (reversing valve) connection (configure as O or B in the installer menu)	Heat pump L terminal connection
Heat pump Multi-stage HP2					2nd-stage heat and cool compressor	1st-stage auxiliary/ emergency heat (3rd-stage heat)	2nd-stage auxiliary/ emergency heat (4th-stage heat)			

Dots indicate phased relationship

NEUTRAL 24 VAC HOT / HOT 120 VAC NEUTRAL

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