sensi
by **COPELAND**

SENSI TOUCH 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 smart thermostat packaging**

DOWNLOAD THE SENSI APP
The Sensi Touch 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.*
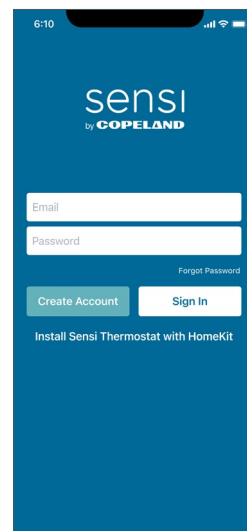
STEP 1
Add your thermostat to the Sensi app

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 Touch Smart Thermostat option is for the following model numbers:

– 1F95U-42WF series
– ST75 series
– NH-AWIFI, OH-AWIFI

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.*
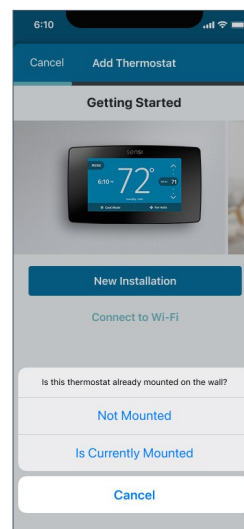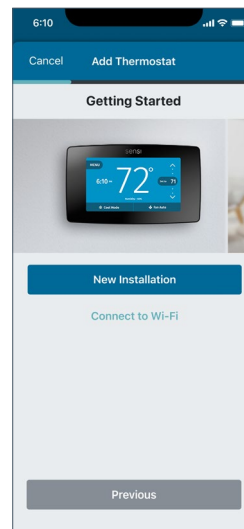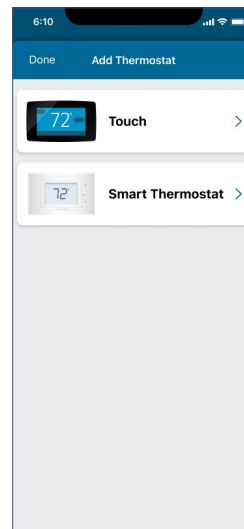
GATHER TOOLS AND PACKAGE CONTENTS
Gather all the necessary tools for installation.

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.

Sensi Touch requires a c-wire. For more information, visit sensi.copeland.com/en-us/support/c-wire.

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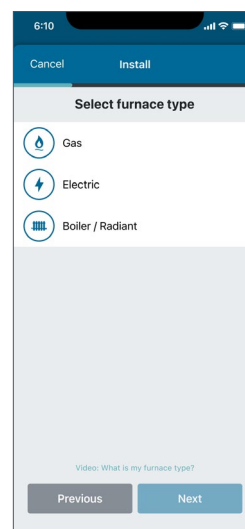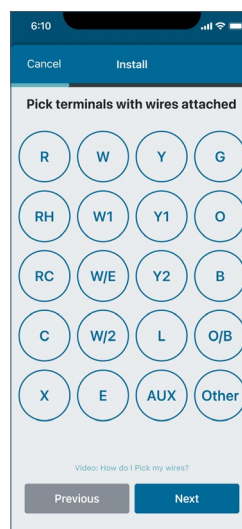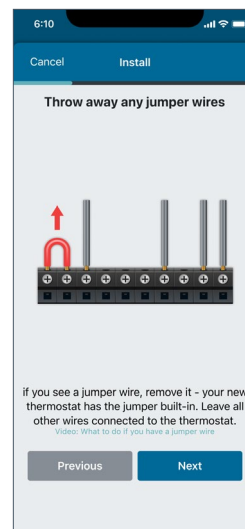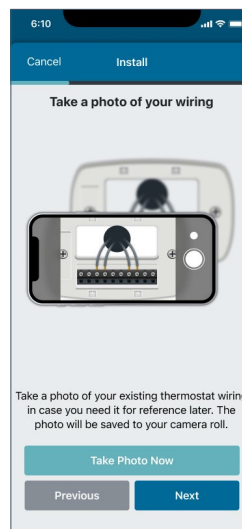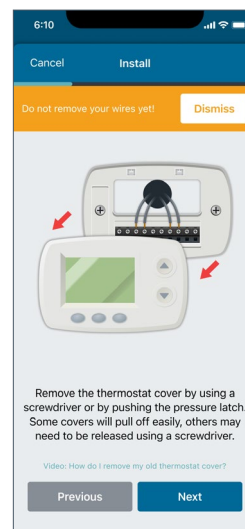
LABEL YOUR WIRES

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 corresponding terminal slots. If the paddle does not go down, the wire may not be secure. Tug on the wire gently to make sure it's in place.

ATTACH COVER

Push the front display onto the thermostat base. If you used the "Backlight" feature, please make sure the switch is turned "Off" so you can control it from the display.

TURN ON POWER

Turn the power to your system back on.
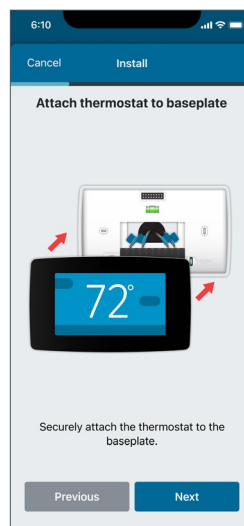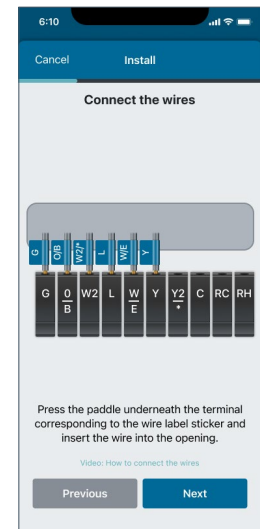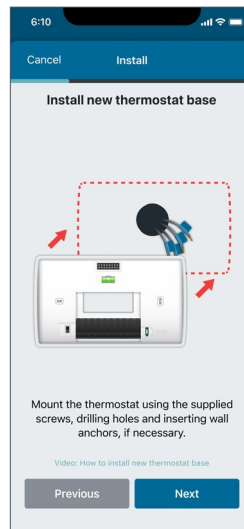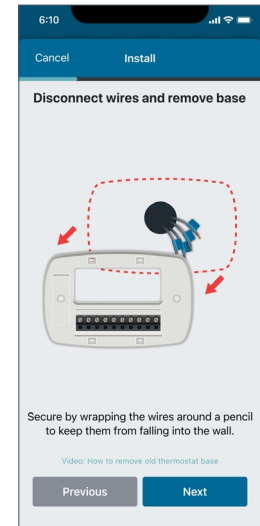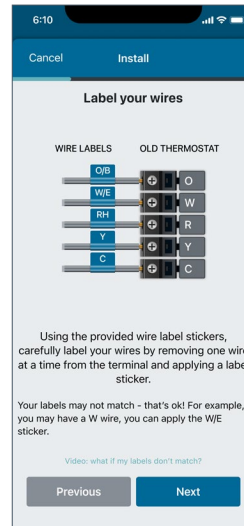
STEP 5b – IS CURRENTLY MOUNTED

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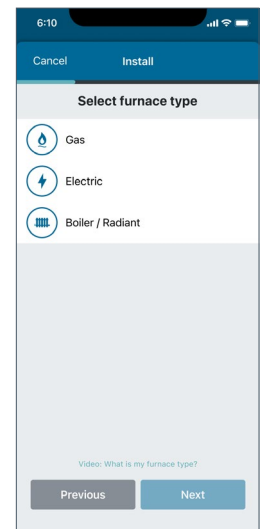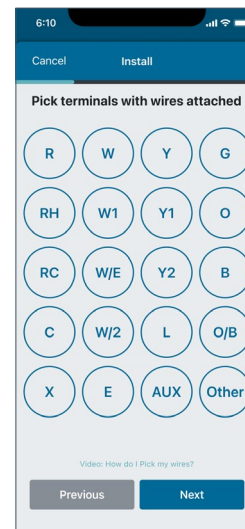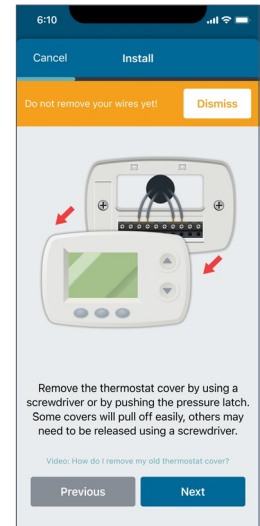After wiring and installing the thermostat, you're ready to connect to Wi-Fi.

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 of this guide for more information.
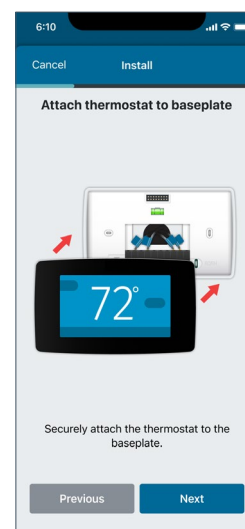
WI-FI SETUP
On the thermostat, tap **Menu**. Tap **Wi-Fi**.

IDENTIFY SENSI MODEL
Select which display option you see in your Sensi's Wi-Fi menu.

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.
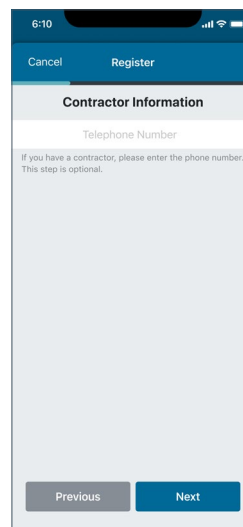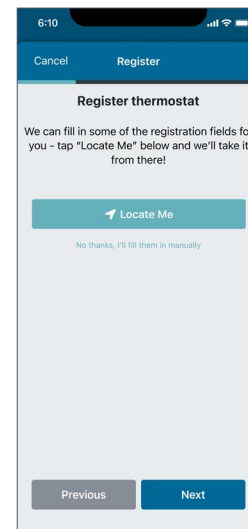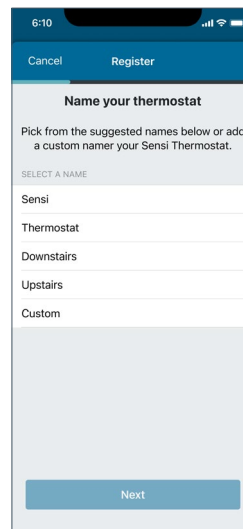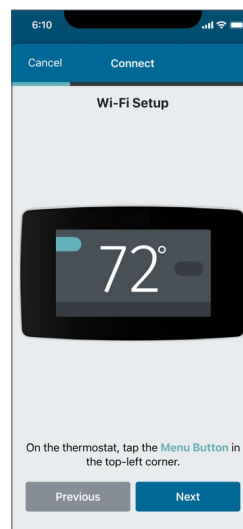
CONNECTING TO WI-FI TROUBLESHOOTING
If you're having trouble connecting to Wi-Fi, here are some tips to try:

· 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

BLANK OR FLASHING DISPLAY

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

Sensi Touch requires a "C" wire to power the thermostat. Sensi does have a battery powered light in the sub-base for installation, but that light will only last for about an hour, and is not an indicator that there is power to 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.copeland.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 sensi.copeland.com/en-us/support.

I HAVE A WIRE IN THE "C" TERMINAL.
1. 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 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.

2. 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.

3. 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 turned on already.

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: 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 the 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.
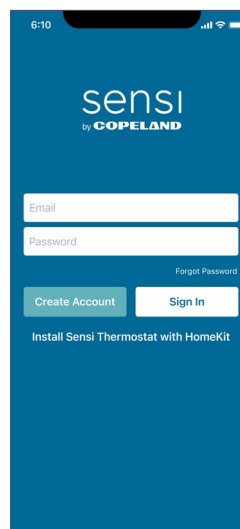
INSTALLING MULTIPLE THERMOSTATS

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.

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

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, 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

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

Thermostat

Terminal	Description
RC	Power for cooling (24V)
RH	Power for heating (24V)
C	Common wire (24V)
Y	1st-stage cool
Y2/*	Humidifier (if configured for humidification) / 2nd-stage cool
W/E	1st-stage heat
W2/*	Dehumidifier (if configured for dehumidification) / 2nd-stage heat
G	Indoor blower (fan) energized on call for fan, cool or electric heat
O/B	Heat pump changeover, zone panel or 3-wire hot water zone valve connection. (configurable as O, B or 6 in the installer menu)
L	Heat pump L terminal connection

System configuration:
- Single-stage (AC1, GA1, EL1)
- Multi-stage (AC2, GA2, EL2)

Dots indicate phased relationship

Heating transformer:
HOT 120 VAC NEUTRAL
NEUTRAL 24 VAC HOT

Cooling transformer:
NEUTRAL 24 VAC HOT
HOT 120 VAC NEUTRAL

Dots indicate phased relationship

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

HEAT PUMP SYSTEMS

Thermostat

Terminal	Description
RC	Power for cooling (24V)
RH	Power for heating (24V)
C ††	Common wire (24V)
Y	1st-stage heat and cool compressor
Y2/*	Humidifier (if configured for humidification) / 2nd-stage heat and cool compressor
W/E	1st-stage auxiliary/emergency heat (2nd-stage heat) / 2nd-stage auxiliary/emergency heat (3rd-stage heat)
W2/*	2nd-stage auxiliary/emergency heat (3rd-stage heat or dehumidifier) / 2nd-stage auxiliary/emergency heat (4th-stage heat or dehumidifier)
G	Indoor blower (fan) energized on call for fan, cool or heat
O/B	Heat pump changeover (reversing valve) connection (configure as O or B in the installer menu)
L	Heat pump L terminal connection

System configuration:
- Heat pump Single-stage HP1
- Heat pump Multi-stage HP2

Dots indicate phased relationship

NEUTRAL 24 VAC HOT
HOT 120 VAC NEUTRAL

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