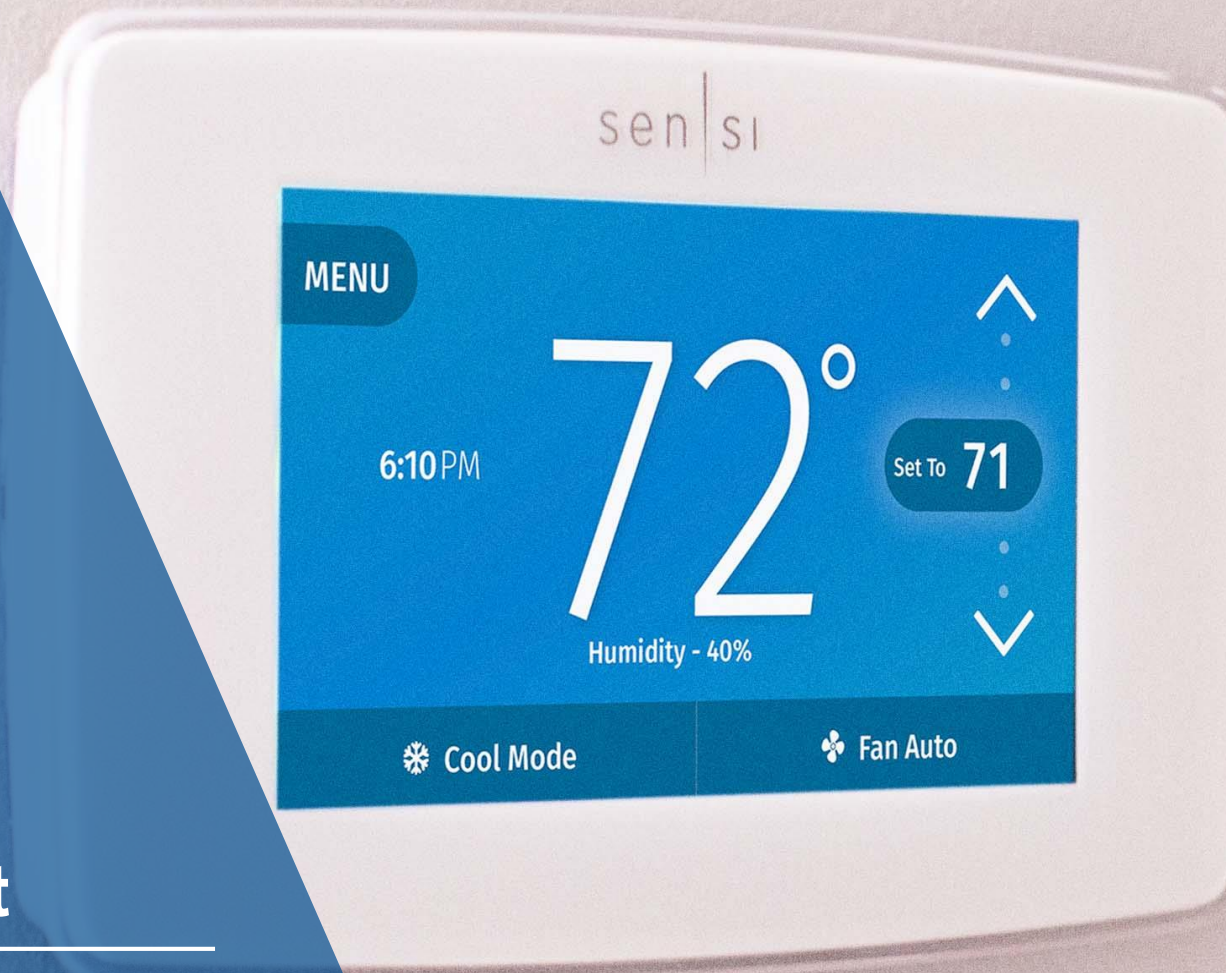


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# Sensi™ Touch Smart Thermostat

1F95U-42WF Installation Training



# Sensi Touch Smart Thermostat



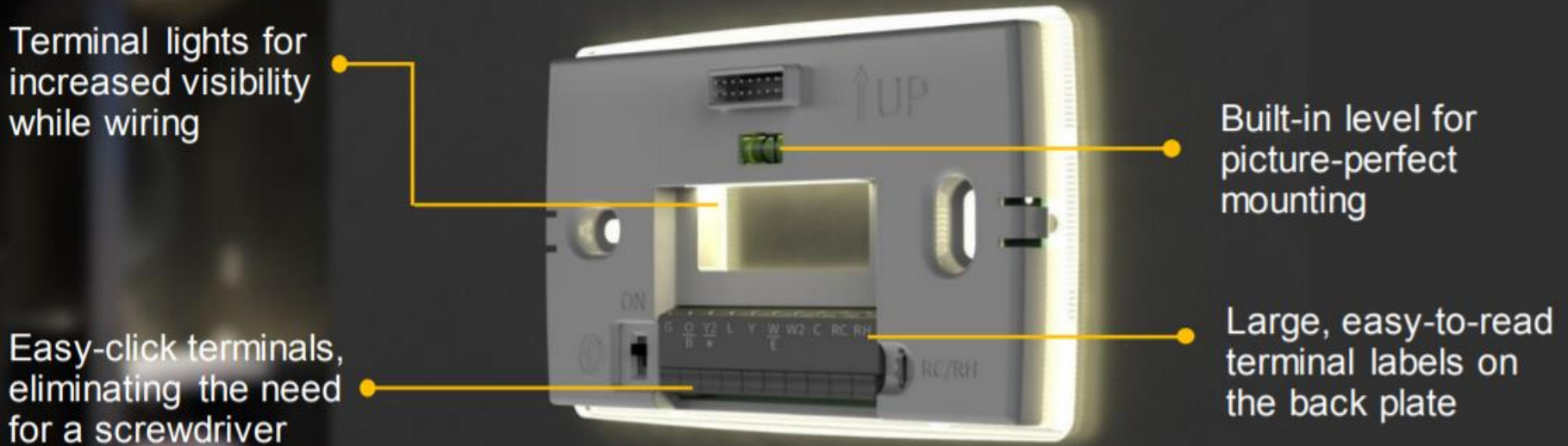
## Overview

- Home comfort control - Anytime. Anywhere.
- Customizable HD color touchscreen
- Distinct, clean design with a bold lens to fit the modern home
- Intuitive app and hardware design - validated by research
- Flexibility to select options and programs that fit your lifestyle

## Features

- Available in White or Black
- Color touch screen with unmatched clarity and usability
- Remote app control
- Geofencing smart feature and flexible scheduling options for energy savings
- High/Low temperature text alerts
- Extensive compatibility: heat, cool, heat pump, dual fuel
- Popular smart home platform integrations - Amazon Alexa, Google Assistant, Apple HomeKit, SmartThings and Wink
- Back glow with custom setting options
- Multi thermostat control capable for light commercial applications
- Auto changeover
- Humidity control







# Easy install. Designed with you in mind.



## Key Features

- Terminal lights for increased visibility while wiring
- Easy-click terminals eliminating the need for a screwdriver
- Large, easy-to-read terminal labels on the back plate
- Built-in level for picture-perfect mounting
- Size that covers the existing footprint of most thermostats.

# Sensi Smart Thermostat Comparison

THERMOSTAT FEATURE		
MSRP	\$169	\$129
Aesthetics	<b>Modern / Simple / Sleek</b>	<b>Traditional / Approachable</b>
Interface	<b>Capacitive Touchscreen</b>	<b>Buttons</b>
System Type	<b>Universal 4H/2C</b>	<b>Universal 4H/2C</b>
Contractor branding	<b>App only</b>	<b>Device &amp; App</b>
C-Wire Required	<b>Yes</b>	<b>No</b>
Humidity Control	✓	✓
Dual Fuel	✓	✓
Smart Feature - Geofencing	✓	✓
Keypad Lockout	✓	✓
 amazon alexa	✓	✓
 works with the Google Assistant	✓	✓
 Works with Apple HomeKit	✓	✓
 WORKS WITH SmartThings	✓	✓



# Compatibility and common wire (c-wire) requirement

## Common wire is required for

- Conventional heating and cooling systems
- Heat only or Cool only applications
- Heat pumps

## Not compatible with

- Millivolt systems

\*External 24 VAC transformer is an option.

- Communicating systems
- Line voltage systems

SYSTEM TYPE	COMPATIBILITY	MODIFICATIONS
Conventional heating and cooling <ul style="list-style-type: none"><li>• Gas furnace</li><li>• Air conditioner</li><li>• Electric furnace</li><li>• Boiler</li></ul>	Yes	Requires a common wire (c-wire)
Heat only <ul style="list-style-type: none"><li>• Gas furnace</li><li>• Electric furnace</li><li>• Boiler</li></ul>	Yes	Requires a common wire (c-wire)
Cool only <ul style="list-style-type: none"><li>• Air conditioner</li></ul>	Yes	Requires a common wire (c-wire)
Heat pump	Yes	Requires a common wire (c-wire)
Communicating proprietary systems	No	Needs standard HVAC wiring
Line voltage	No	Requires low voltage (20-30VAC)
Millivolt systems	No	Requires 20-30VAC

# Terminal outputs and common wire (c-wire) requirement

OLD THERMOSTAT	SENSI THERMOSTAT	CONVENTIONAL SYSTEM	HEAT PUMP SYSTEM
RH	RH <sup>†</sup>	Power for heating, 24V	
RC, R	RC <sup>†</sup>	Power for cooling, 24V	
C, X, B <sup>**</sup>	C	Common wire, 24V	
Y, Y1	Y	1st stage cool	1st outdoor stage heat
Y2	Y2/*	2nd stage cool or humidifier	2nd outdoor stage heat and cool or humidifier
W, W1, W/E, Aux/E, E	W/E	1st indoor stage heat	1st stage auxiliary/emergency heat
W2 <sup>†††</sup>	W2/*	2nd indoor stage heat or dehumidifier	2nd stage auxiliary/emergency heat or dehumidifier
G	G	Indoor blower (fan)	
O,B, <sup>††</sup> O/B	O/B	Changeover (reversing valve) connection for heat pump or zone panel systems	
L	L	no function	"L" terminal connection

The common wire could be labeled "C", "B" or "X" on the old thermostat. Please refer to the owner's manual of the old thermostat.

# What if I don't have a common wire (c-wire)?

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There are a few options if the application does not have or will not allow the pulling of a common wire (c-wire) through the wall.

1. Look for an unused wire in the thermostat cable bundle
  - [Video: Using an extra, unused wire as a common wire](#)
2. Use the “G” (Fan wire)
  - [Video: Using a g-wire \(fan wire\) as a common wire](#)
3. Install an Emerson Thermostat Common Wire Kit
  - [Video: Using an Emerson Thermostat Common Wire Kit](#)

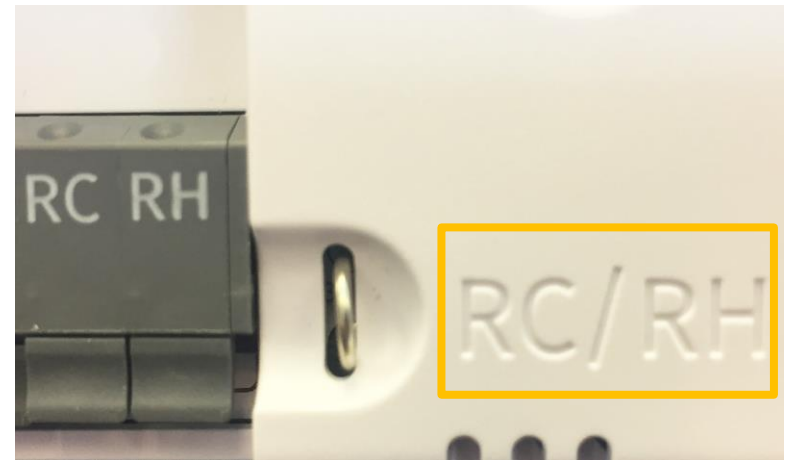
# Do I need a RC/RH jumper?

## No jumpers required

- Sensi Touch Smart Thermostat has a built in RC/RH jumper, no need to field install a jumper
- If you have separate wires to RC and RH terminals (two transformer systems)
  - Label the wires RC and RH separately and then clip the jumper wire on the Sensi back plate.

## RC/RH jumper location

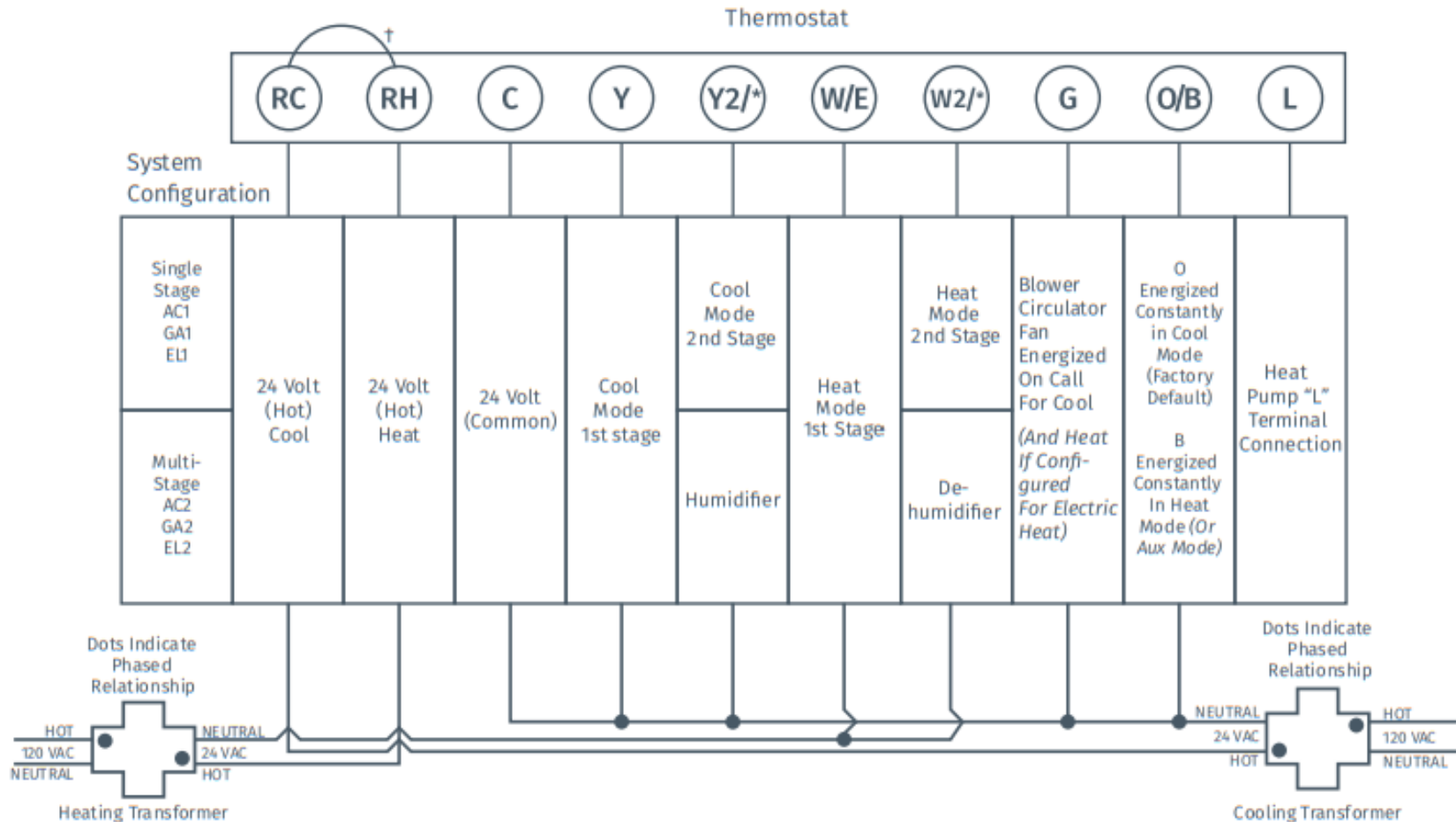
- RC/RH jumper built-in on the back of the thermostat



No jumpers are required when installing the Sensi Touch Smart Thermostat



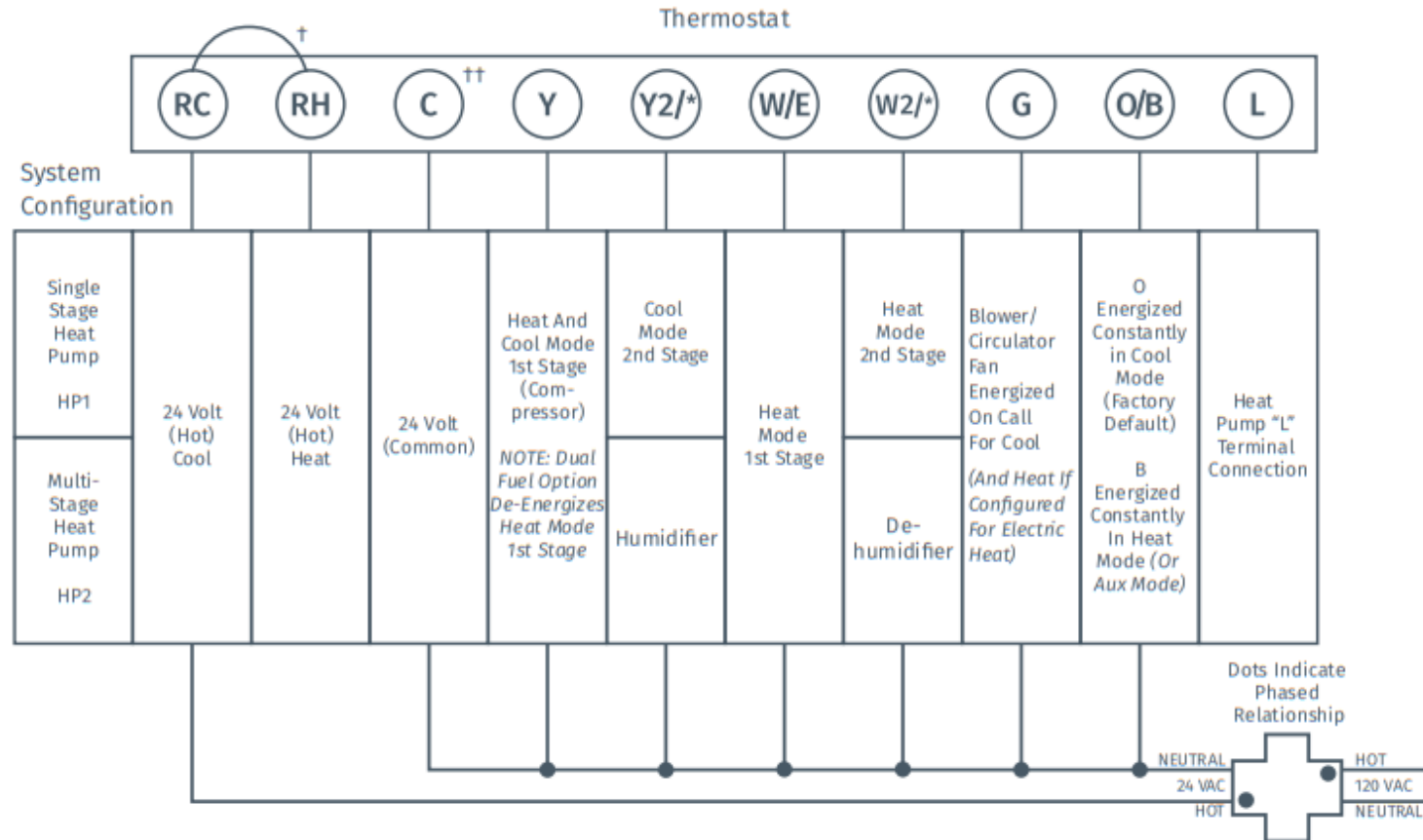
# Wiring - two transformer - conventional single stage or two stage systems



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

Quick tip: Thermostat wiring does not follow a standardized color code. Take a picture with your smart phone and label thermostat wires before removing old thermostat from the wall.

# Wiring - heat pumps single stage or multi-stage systems



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

\*\*Common connection required on Heat-only, Cool-only or Heat Pump systems.

Quick tip: Thermostat wiring does not follow a standardized color code. Take a picture with your smart phone and label thermostat wires before removing old thermostat from the wall.

# Heat pump wiring exceptions

## Separate W2 and E Wires

- Both wires will be labeled W/E and attached to the same terminal.

HEAT PUMPS WITH SEPARATE WIRES ON W2 AND E			
Old thermostat		Label wire from wall	
W2	Separate wire	W/E	Both wires will be attached to the W/E terminal
E	Separate wire	W/E	

## B Terminal Wires

- “B” terminal can be used for more than one. Here is the solution to cross.
  - If there is a wire on the “O” terminal, label the B wire C
  - If there is no wire on the “O” terminal, label the B wire O/B

B TERMINAL LABELING		
Old thermostat		Label wire from wall
B	Wire on “O” terminal	C
B	No wire on “O” terminal	O/B

# System configuration and system type setup

1. Sleep Mode
2. Backglow
3. Home Screen Content
4. Schedule
5. Wi-Fi
6. About Thermostat
7. Advanced Setup
8. Setup HVAC
9. Fan Mode Options
10. Humidify
11. Dehumidify

*Once configured, Sensi Touch Wi-Fi Thermostat operates like traditional thermostat until it is connected to Wi-Fi via a smartphone*

## CONFIGURATION MENU ITEMS REFERENCE

Menu item	Default	Options
Sleep Mode	Off	Turn sleep display mode on/off
Backglow	Off	Off / On
Home Screen Content	On	Indoor Humidity
	On	Time of Day
	°F	°F / °C
Schedule	-	5 / 2 Day Schedule
Wi-Fi	-	Connect to Wi-Fi
About Thermostat	-	Model Number/Reset
Advanced Setup	HVAC Equipment   Fan Mode Options	
Set Up HVAC Equipment	AC2 / EL2	
	AC2	Outdoor Setup AC1/AC2/HP1/HP2/None
	EL2	Indoor Setup GA1/GA2/EL1/EL2/Fan
	O	Reversing Valve Position O/B/6/None
	None	Additional Accessories None/Add
	No	Humidifier (wired to thermostat) Yes/No
	No	Dehumidifier (wired to thermostat) Yes/No
Fan Mode Options	Off	Circulating Fan Off/On 10% - 100% (5% increments)
Humidify	Off	Humidification Off/On
	40%	5%- 50% (5% increments)
Dehumidify	Off	Dehumidification Off/On
	50%	40% - 95% (5% increments)

# System Compatibility List – Humidity Control

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- **Heat only:** Humidifier only
- **Cool only:** Dehumidifier only
- **1 stage heat, 1 stage cool:** Humidifier and Dehumidifier
- **1 stage heat, 2 stage cool:** Dehumidifier only\*
- **2 stage heat, 1 stage cool:** Humidifier only\*
- **2 stage heat, 2 stage cool:** None\*

\* Note: if the staging on a 2 stage heat or 2 stage cool system can be handled by the furnace/air handler board, that will open up the Y2 or W2 terminal for hum/dehum use.

# How to Set Up Humidity Control on the Sensi Thermostat

## Installation

- Install humidifier/dehumidifier equipment
  - Wire the whole-house humidifier to the Y2/\* terminal
  - Wire the whole-house or standalone dehumidifier to the W2/\* terminal
- On Sensi Touch, go to Advanced Setup in the menu and select Additional Accessories
- Depending on installed equipment, select appropriate configuration





# Connecting to Wi-Fi in simple

1

## Identify Sensi Model



Display only shows "Set up new network"



Display shows two setup options

Previous

Next

5

## Connect to Wi-Fi

Successfully connected to Sensi.

To connect your Sensi, please enter the 8-digit PIN found on your security card.

PIN

2

## HomeKit Setup



Sensi can connect with Apple HomeKit so you can control and monitor your home through the Home app, Control Center, Siri, and Apple Watch.

[Find out more about HomeKit?](#)

If you have difficulty connecting using HomeKit, select "Skip for now"

Use HomeKit

Skip for Now

Previous

3

## Connect to Sensi Cloud



Tap "Manual Setup" to start the installation process.

Previous

Next

7

## Enter your network password

ENTER PASSWORD FOR "MobileTeam"

Password

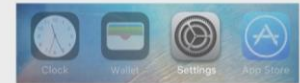
Verify Password

[Hide Password](#)

4

## Connect to Sensi

- 1 Tap your **Home Button** and open your **Settings**. Select **Wi-Fi**.



- 2 Connect to the Wi-Fi network that matches your Sensi thermostat. It will look like the example below.



- 3 Return to the app and press the Next button below when finished.

Previous

Next

8

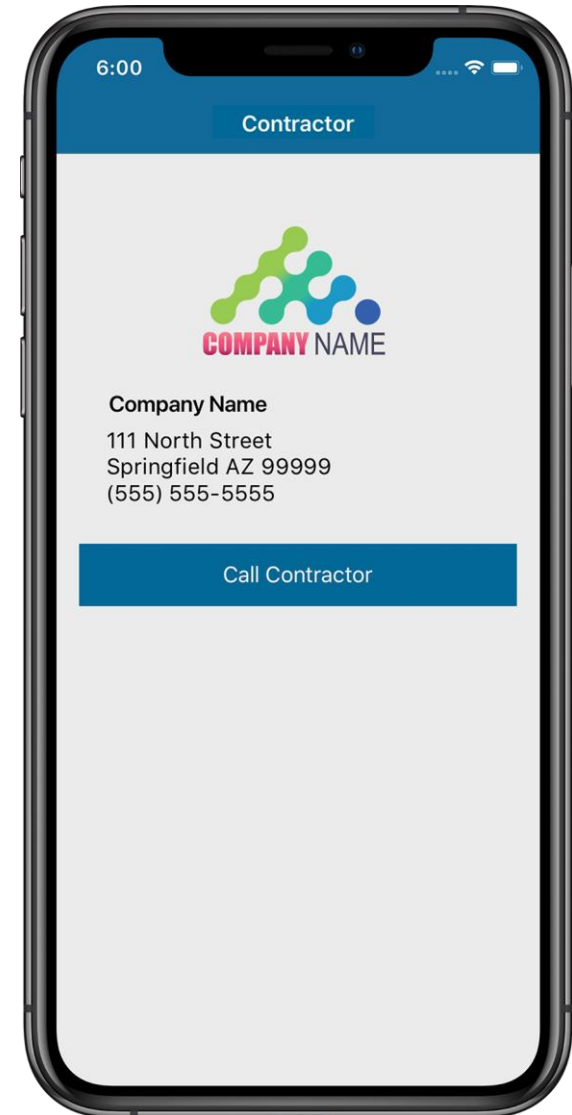
## Configuring Thermostat



Connecting to Wi-Fi router. Please wait, this may take a moment ...

# Connect with your customers – Anytime. Anywhere.

- Register your company at [www.SensiRegistration.com](http://www.SensiRegistration.com)
  - Upload your logo which will be displayed in your customer's phone
- During installation, enter your registered phone number in the Sensi app
  - The Sensi app stores your contact information in your customer's phone.
- When your customer needs service, you're just a tap away.
  - Also, if your customer receives a smart alert due to a system issue, your contact information will be included



# Grow your business with a light commercial solution from Sensi

Sensi Multiple Thermostat Manager offers a simple, affordable solution for property-wide comfort control, connected in one place.

Learn more and take a **FREE** test drive at [sensi.emerson.com/mtm](https://sensi.emerson.com/mtm)



## Total Comfort Control

Monitor multiple commercial thermostats from anywhere through the intuitive portal featuring drag-and-drop functionality.



## Keypad Lockout & Temperature Limits

Maintain total control of your thermostat settings by setting temperature limits or disabling changes made outside of the online control portal.



## Group Scheduling Monitor

Easily consolidate and customize settings across multiple thermostats by grouping and sorting.



## Energy Saving Features

Remote control and flexible batch scheduling can minimize energy waste and help you save money.



## Extensive Compatibility\*

Works with HVAC systems in most facilities. All you need are our highly-rated Sensi Smart Thermostats.



## Smart Alerts

Enable optional notifications that let you know when and where extreme temperature or humidity changes are detected in your building(s).



Learn more at [emerson.com/sensipro](https://emerson.com/sensipro)

# Sensi™ Touch Smart Thermostat

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