

## Welcome To

# **THERMOSTAT**

**INSTALLATION GUIDE** 

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#### Introduction

From removing your old thermostat, to installing your new iDevices® Thermostat, this easy-to-follow guide will take you through the process, step by step.

If at any time you require assistance, please contact our Customer Experience Team.

**\** Call: 888.313.7019

■ Email: Support@iDevicesinc.com

▼ Visit: iDevicesinc.com/Support

Please visit iDevicesinc.com/Compatibility to see if your HVAC system is compatible.

#### In The Box

- iDevices® Thermostat
- Mounting Hardware

## Requires

- Home Wi-Fi® Network
- Free iDevices® Connected App
- 24VAC Common Wire\*
- Compatible Mobile Device (Visit iDevicesinc.com/ Compatibility)

#### **Tools**

- Phillips Screwdriver
- Drill With 3/16" Bit











#### \*Don't have a 24V C-wire?

No problem. The iDevices® Wire Adapter Kit may be your solution. Please contact our Customer Experience team to learn more.

## Getting to Know the iDevices Thermostat

System Mode

- 7 Fan Mode
- 2 Ambient Temperature
- 8 Settings/Select
- 3 Desired Temperature
- Back

4 HVAC State

Temp/Navigate UpTemp/Navigate Down

- Button Lock
- **6** Connection Status



#### **Before You Start**

- Read through this Installation Guide in its entirety before starting installation of your iDevices® Thermostat or removal of your old thermostat. Incorrect installation can be dangerous and can damage your iDevices® Thermostat and HVAC system. If you're not comfortable performing the installation, contact a local HVAC contractor.
- 2. Turn the power to your HVAC system and old thermostat OFF!
- Ensure you do not have electric baseboard heating. The iDevices® Thermostat is not compatible with these systems.
- Check that your mobile device is compatible with the iDevices® Thermostat at iDevicesinc.com/Compatibility.
- 5. If this is a new installation, you will need to install the iDevices® Thermostat 4 5 feet above the floor, in accordance with applicable building codes. It should be installed in an area with good airflow. Avoid areas behind doors, near corners, heating or cooling vents, heat generating devices or direct sunlight.

#### Installation Overview

- 1. Turn the power to your HVAC system OFF!
- Remove the faceplate of your old thermostat and photograph the existing wiring configuration.
- 3. Disconnect your old thermostat's wall plate and secure the wires.
- Mount your iDevices® Thermostat mounting plate and attach wires to match your system's configuration.
- 5. Attach your iDevices® Thermostat to the mounting plate.
- 6. Turn the power back ON.
- 7. Download the free iDevices® Connected app.
- Connect your iDevices® Thermostat to your home network and pair it to your iDevices® Connected app.
- Set up and customize your iDevices<sup>®</sup> Thermostat within the iDevices<sup>®</sup> Connected app.

#### **Professional Assistance**

Your safety comes first! If you don't feel comfortable installing your iDevices® Thermostat, contact a local HVAC contractor.

#### **Abbreviations**

HVAC: Heating, Ventilation and Air Conditioning system

HP: Heat Pump System. This type of HVAC system uses a compressor with a reversing valve to provide both heating and cooling capability.

HE: Electrically heated central heating system. This system uses an electric heating element along with a fan and ducting. Sometimes used as AUX/Emergency heat with a heat pump system. Electric baseboard heaters are not included in this system type.

HG: Fuel-fired central heating system. This system uses a gas or oil burner along with a fan and ducting or a hot water baseboard system. Can be used as a standalone heating system or as AUX/ Emergency heat with a heat pump system.

O/B: This option selects the type of reversing valve for heat pump systems. An "O" reversing valve is energized when cooling and a "B" reversing valve is energized when heating. Most systems use an O type reversing valve. Rheem and Ruud typically use a B type reversing valve. If you are unsure, contact your Heat Pump manufacturer.

## **Terminal Assignments**

For reference, standard wiring assignments for typical HVAC systems are provided below.

typical 1177 to systems are provided below.			
Terminal (HP)	Terminal (Non-HP)	Heat Pump System (HP)	Conventional System (Non-HP)
С	С	24VAC common for control circuit and thermostat power input	
L	L	System monitor	Not used
G	G	Fan	
Y1	Y1	1st stage compressor	1st stage cooling
Y2	Y2	2nd stage compressor	2nd stage cooling
RC	RC	24VAC power supply for cooling side	
RH	RH	24VAC power supply for heating side	
О/В	W1	Changeover valve	1st stage heating
E	W2	AUX/ Emergency heat	2nd stage heating

#### **Installation Details**

 Gather the tools you will need and check that your iDevices® Thermostat came with the necessary components (see page 4).

#### Warnings And Safety Information

Do not select COOL mode if the outside temperature is below 50°F (10°C). This could damage the cooling system.

- Test your existing system. Using your old thermostat, turn on the heating/cooling functions (if applicable) to verify everything is functioning normally.
- If you have a heat pump system, check the settings on your old thermostat and make a note whether you have an "O" or "B" type reversing valve.
- Turn the power to your HVAC system OFF at the breaker box or the main switch controlling your heating/cooling system.
- Confirm that the power is OFF by adjusting the temperature on your old thermostat and waiting to ensure your system doesn't turn on.
- 6. Carefully remove the faceplate of your old thermostat.
- 7. Take a picture of your old thermostat's wire arrangement to reference later on.
- 8. Make note of the current locations of each

colored wire by filling out the Wiring Chart below. Note: If you see any of the following wires, please contact our Customer Experience Team to check system compatibility: A. X or P

A, A OI I

## Wiring Chart

Label	Old Thermostat	Typical Wire Color	Description
HUM			Humidifier
NC	Not used		
W2/E		Brown	2nd stage heat
W1/ O/B		White/ Orange/ Blue	1st stage heat/HP reversing valves
RH		Red	Power from heat, 24VAC transformer
RC		Red	Power from cooling, 24VAC transformer
Y2		Gray	Stage 2 compressor relay
Y1		Yellow	Stage 1 compressor relay

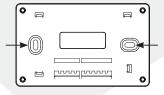
Label	Old Thermostat	Typical Wire Color	Description
G		Green	Fan relay
L			System monitor
С		Black/Blue	Common of 24VAC transformer
AUX			Auxiliary Heat
W3			3rd Stage Heat

 Make sure you don't have any 120/240V wires (look for thick black wires with wire nuts.) If you do, the iDevices® Thermostat is not compatible with your system. If you are not sure, call us at 888.313.7019.



- Record the locations of any jumpers and note whether there is a wire connected to RC and/or RH.
- 11. Disconnect the wires from the existing mounting plate (ensure the wires don't fall back into the wall by gently wrapping them around a pen). Remove the mounting plate

- from the wall.
- 12. Line up the iDevices® Thermostat mounting plate on the wall in the desired location. Check that it is level and the wires are in a position to fit through the hole on the mounting plate. Use a pencil to mark anchor locations on the wall.
- 13. Set the mounting plate aside. Drill two holes (3/16" diameter) at the locations you have marked.



- 14. Install the provided anchors into the wall, line up the mounting plate to the holes and install with the provided screws.
- 15. Head to the Wiring Configuration section, starting on page 18, to find the configuration that is closest to your old thermostat and note which system you have for later reference.
- 16. Connect the wires to the mounting plate

12 13

- based on the information you gathered in the chart on pages 11-12, photos you took earlier and wiring configuration you noted for step 15.
- 17. To prevent electrical shorts and damage to your iDevices® Thermostat or home, ensure all of the wire connections are secure and there are no bare wires in contact with another. Insulate bare wires with electrical tape as necessary. Push any excess wire back into the wall cavity.
- 18. Attach your iDevices® Thermostat to the mounting plate.
- Turn your power on at the breaker box or switch that controls your heating/cooling system.
- 20. Your iDevices® Thermostat will automatically turn on and display the "Connecting Thermostat to Network" screen.
  Note: The Thermostat will stay in the connection mode for 30 minutes before timing out. You can manually enter this mode from the Settings > Setup > Connect menu.

## Connecting To The App And Wi-Fi® Network

1. Download and launch the free iDevices® Connected app on your mobile device.

- From the iDevices® Connected app, add the Thermostat by tapping on the menu bar in the upper right-hand corner.
- 3. Follow the instructions in the app to complete the connection process.

## Configuring The Thermostat For Your HVAC System

- 1. Refer to Thermostat Settings for your system configuration, starting on page 8.
- 2. Press the the button on your iDevices® Thermostat.
- 3. Use the  $\diamondsuit$  buttons to scroll to 'Setup' and press the  $\diamondsuit$  button to select.
- 4. Use the  $\diamondsuit$  buttons to scroll to 'HVAC TYPE' and press the  $\clubsuit$  button to select.
- Using the buttons to scroll and the button to select, set the Stage and Type for your system configuration (A through D).
- 6. If you have a heat pump, set O/B Type to what you recorded earlier.
- 7. Your iDevices® Thermostat is now configured.

## **Configuring the HUM Relay**

The Terminal labeled "HUM" serves as multipurpose relay to allow for Humidification,

Dehumidification, W3 (3rd Stage Heat) or AUX heat (for heat pumps). If your home uses one of these options, follow these steps to set up your system:

- 1. Press the the button on your iDevices® Thermostat.
- 2. Use the  $\diamondsuit$  buttons to scroll to 'Setup' and press the  $\diamondsuit$  button to select.
- 3. Use the  $\diamondsuit$  buttons to scroll to 'Relay' and press the  $\spadesuit$  button to select.
- 4. Set the 'Type' for your system configuration.

## **Set In-App Preferences**

In your iDevices® Connected app, select the Thermostat on the home screen. Tap the 'Menu' button in the upper left-hand corner. From here, you can edit the details of your iDevices® Thermostat organize it into a 'Room' and 'Zone', set schedules and create 'Scenes'.

## Warnings And Safety Information

Do not short across terminals on the gas valve or at the heating or cooling system control board to test the thermostat installation. This could damage the thermostat and void the warranty.

Do not select COOL mode if the outside temperature is below 50°F (10°C). This could damage the cooling system.

#### **Testing Your System**

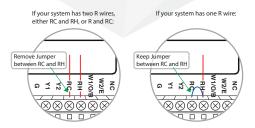
- Set your iDevices® Thermostat to HEAT mode. Adjust the temperature set point above the ambient temperature in the room, and verify that the heat turns on.
- Set your iDevices® Thermostat to COOL mode (if outside temperature is above 50°F). Adjust the temperature set point below the ambient temperature in the room, and verify that the cooling turns on.
- 3. If your system has dual fuel sources (heat pump plus electric or fuel-fired emergency heat), set your iDevices® Thermostat to EMERGENCY HEAT mode. Adjust the temperature set point above the ambient temperature in the room and verify that the heat turns on.
- 4. Note: If you have a heat pump or air conditioner, the iDevices® Thermostat is designed to prevent damage to your compressor by waiting 5 minutes between restarts of your air conditioner or heat pump. If you are testing the operation of your air conditioner or heat pump, wait at least 5 minutes after changing the temperature setting for the system to turn on.

5. If all of the available system modes function properly, the test is complete.

## Wiring Configurations

The following section provides the various wiring configurations compatible with the iDevices® Thermostat. Find the configuration that matches closely to your old thermostat and note which system type you have for later reference.

Check your old thermostat to see if it has one or two Red/R wires. If you have one R wire, connect it to RH and leave the jumper in place. If you have two, connect RC to RC and R/RH to RH and remove the jumper.

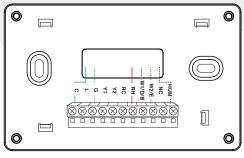


## A. Heat (One, Two or Three Stages)

#### **HVAC Type**

**Stage:** Non-HP | **Type:** HE for electric, HG for gas/oil systems | Fan wire G optional for HG type

G wire is not required for hot-water baseboard or steam radiator systems. If G wire is not connected for a warm air heating system, Fan On mode will not be available. Connect W2 wire (2nd Stage Heat) if available. The HUM relay can be used for Humidification, Dehumidification or as a W3 (3rd Stage Heat) relay. See page 15 for more information.

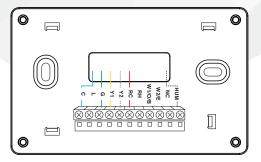


Dotted lines indicate an optional wire.

## B. Cool Only (One or Two Stages)

**HVAC Type** Stage: Non-HP | Type: HE

Connect Y2 wire (2nd Stage Cooling) is optional if available. The HUM relay can be used for Humidification. Dehumidification or as a W3 (3rd Stage Heat) relay. See page 15 for more information.



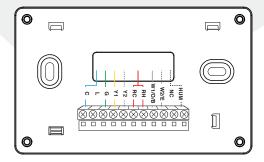
Dotted lines indicate an optional wire.

## C. Heat (One, Two or Three Stages) and Cool (One or Two Stages)

**HVAC Type** Stage: Non-HP | Type: HE for electric, HG for gas/oil systems

Connect Y2 wire (2nd Stage Cooling) is optional if available. Connect W2 wire (2nd Stage Heating) is optional if available. The HUM relay can be used for Humidification,

Dehumidification or as a W3 (3rd Stage Heat) relay. See page 15 for more information.



Dotted lines indicate an optional wire.

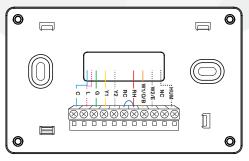
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## D. Heat Pump (One or Two Stages with AUX/ Emergency Heat)

#### **HVAC Type**

**Stage:** HP | **Type:** HE for electric, HG for gas/oil systems | **O/B Type:** According to previous thermostat setting

Connect system Indicator (L), 2nd Stage (Y2) and Emergency Heat (E) are optional if available. The HUM relay can be used for Humidification, Dehumidification or as an Aux (Auxiliary Heat) relay. See page 15 for more information.



Dotted lines indicate an optional wire.

## **Troubleshooting & Support**

For a full list of troubleshooting articles, visit iDevicesinc.com/Support

Call or email the iDevices® Customer Experience Team with questions.

- **Call:** 888.313.7019
- Email: Support@iDevicesinc.com
- ▼ Visit: iDevicesinc.com/Support

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