



## USER MANUAL

# Aura™ Smart Thermostat

**Model:** LTM-A401S-WUS



## Questions or Concerns?

Please contact us Mon–Fri, 9:00 am–5:00 pm PST/PDT

[support@levoit.com](mailto:support@levoit.com) or at (888) 726-8520.



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## Package Contents

<b>1 x</b>	Aura Smart Thermostat
<b>1 x</b>	Backplate
<b>1 x</b>	Power Extender Kit
<b>4 x</b>	Screw
<b>4 x</b>	Wall Anchor
<b>1 x</b>	User Manual
<b>1 x</b>	Wire Tag Set

## Specifications

Power Supply	AC 24V, 60Hz
Rated Power	3W
Dimensions	4.68 x 3.49 x 0.98 in / 11.88 x 8.86 x 2.50 cm
Weight	0.37 lb / 0.17 kg
Connectivity	2.4GHz Wi-Fi (802.11 b/g/n), Zigbee 3.0 (for room sensors)
Temperature Range	Setting Range: 32°–99°F / 0°–37°C Display Range: 32°–104°F / 0°–40°C  <b>Note:</b> The thermostat settings are limited to 99°F. However, the thermostat can read up to 104°F.

## SPECIFICATIONS (CONT.)

Temperature Increments	1°F / 0.5°C
Relative Humidity (RH) Display Range	0–99%
Relative Humidity (RH) Increments	1%
Operating Conditions	<b>Temperature:</b> 32°–122°F / 0°–50°C  <b>Relative Humidity:</b> 5–95% (non-condensing)
Storage Conditions	<b>Temperature:</b> -4°–140°F / -20°–60°C  <b>Relative Humidity:</b> 5–95% (non-condensing)

## SPECIFICATIONS (CONT.)

### Compatibility

- 2H/2C Conventional Systems
- 4H/2C Heat Pump Systems or Dual Fuel Systems
- Systems with Rc and Rh Terminals (for separate heating and cooling power supplies)

**Note:** To access additional smart functions, download the free VeSync app (see page 45).

### Important:



This user manual only includes installation and simple setup instructions. For the extended digital manual, which includes full operating instructions and a user guide, scan the QR code.

You can also type the following link into a web browser:

**[www.levoit.com/ltms401swus/downloads](http://www.levoit.com/ltms401swus/downloads)**

# READ AND SAVE THESE INSTRUCTIONS

## SAFETY INFORMATION

Please read and follow all instructions and safety guidelines in this manual.

### Installation

- Before installing and wiring, **TURN OFF** your HVAC system by turning off the appropriate switch or locking the appropriate circuit breaker in the OFF position.
- **Only** install the thermostat if you are comfortable with electrical work. If not, contact a qualified electrician. Improper installation will increase risk of fire, electric shock, and other injuries.
- The thermostat must be installed and used in accordance with the National Electric Code (NEC) or your local electrical code.
- **Do not** install the thermostat with wet hands.

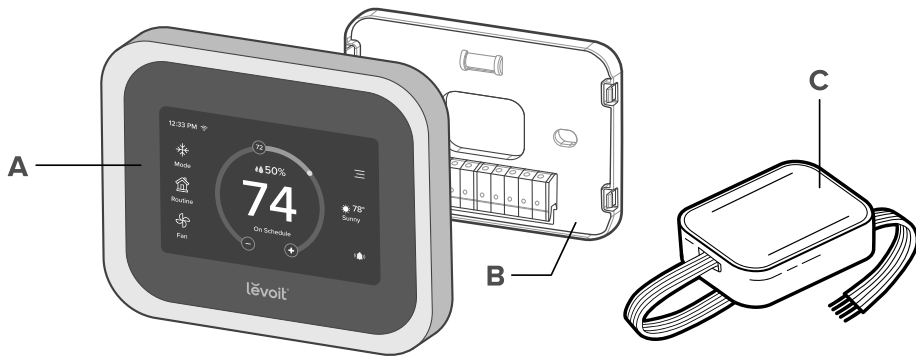
**Note:** *Levoit cannot guarantee the quality of installation, and cannot cover associated costs.*

### General Safety

- **Only** install and use the thermostat indoors, in a dry location, and avoiding extreme heat and freezing temperatures.
- **Do not** modify the thermostat hardware or software.
- Not for commercial use. Household use **only**.

## Function Diagram

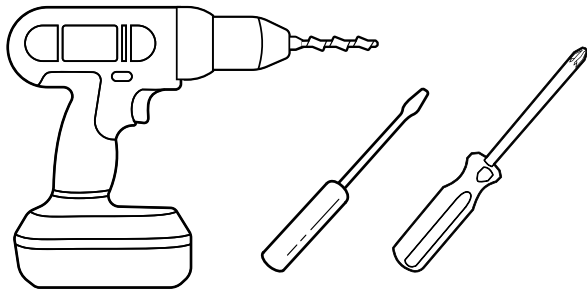
- A. Smart Thermostat
- B. Backplate
- C. Power Extender Kit (PEK)



# INSTALLATION GUIDE

## What You'll Need

- Electric drill
- 3/16-inch drill bit
- Small flat head screwdriver
- Philips head screwdriver





# Removing Your Old Thermostat

1. Turn off your HVAC system

**WARNING:** For your safety, you must turn off your HVAC system before removing your old thermostat.

Every HVAC system is different, but usually you turn off a master switch or switch the system off in your home's breaker box. **[Figure 1.1]**

**Note:** The master switch or breaker box is often found in your basement, attic, garage, or utility closet.

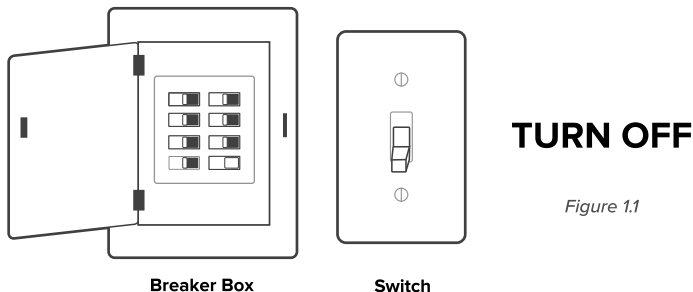


Figure 1.1

Confirm that the HVAC system is turned off by adjusting the temperature on the thermostat, waiting a few minutes, and making sure that the HVAC does not turn on.

## REMOVING YOUR OLD THERMOSTAT (CONT.)

### 2. Remove your old thermostat

Remove your old thermostat from the wall. Every thermostat is different, but usually you will need to push a tab on the edge of the thermostat and separate the thermostat from the backplate. **[Figure 1.2]**

**Note:** Only remove the old thermostat. **Do not** remove the backplate from the wall yet.

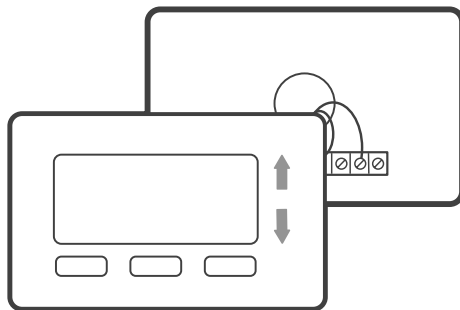


Figure 1.2

## REMOVING YOUR OLD THERMOSTAT (CONT.)

### 3. Check for compatibility

Inspect the wires leading into the backplate.

If you find thick wires with wire nuts, or if the voltage of your HVAC system is 120V or higher, then your system is **not compatible** with this smart thermostat. **[Figure 1.3]**

Contact **Customer Support** (see page 57).

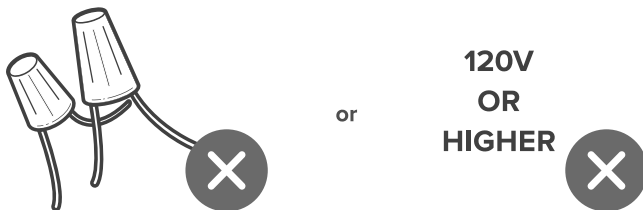


Figure 1.3

## REMOVING YOUR OLD THERMOSTAT (CONT.)

### 4. Take a photo

Before removing wires, take a picture of how the wires connect to the terminal of your old thermostat. **[Figure 1.4]**  
**You may need to reference this photo later.**

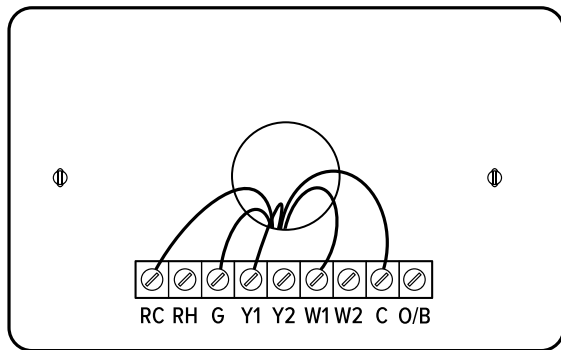


Figure 1.4

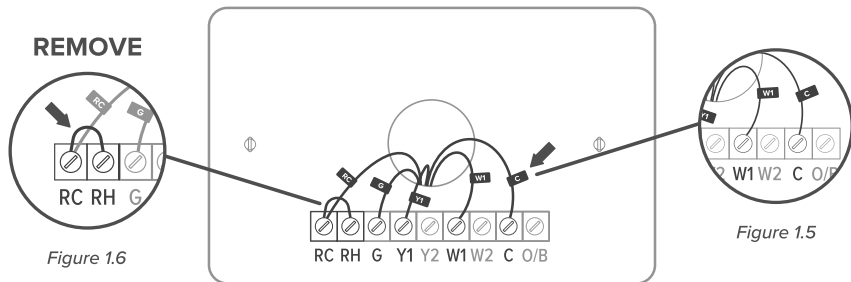
## REMOVING YOUR OLD THERMOSTAT (CONT.)

- Find the Thermostat Labels in the included wire tag set. Label the wires according to the corresponding terminals. **[Figure 1.5]**

If there are any jumper wires (wires connecting different terminals together), **do not** label these wires. **[Figure 1.6]**  
Remove them and store them with your old thermostat.

The terminals on your old thermostat may already have 2 different sets of labeling—one set for a conventional HVAC system and one set for a heat pump system. If your system has a heat pump, make sure to follow the heat pump labeling.

**Note:** If you are unsure whether your system has a heat pump, we recommend that you research your HVAC system online or contact **Customer Support** (see page 57).



## REMOVING YOUR OLD THERMOSTAT (CONT.)

6. Carefully disconnect the wires. Each thermostat is different, but usually you use a Philips head screwdriver to loosen a screw or press a release button to remove the wire.

### Important:

- Check if you have a C wire connected to your old thermostat. The C wire is used to provide power to the thermostat. **[Figure 1.7]**
- If you have a C wire, go to **Installing Thermostat with a C Wire** (page 15).
- If you **do not** have a C wire, go to **Installing Thermostat without a C Wire** (page 22).

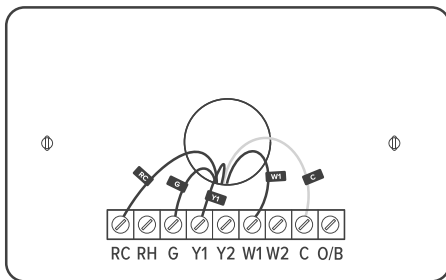


Figure 1.7

## Installing Thermostat with a C Wire:

**Note:** If your system has a C wire, you **do not** need to install the power extender kit (PEK). The thermostat will use the C wire for power.

1. Remove the old backplate

Unscrew the old backplate from the wall. **[Figure 2.1]** Hold the wires and carefully pull the backplate from the wall, making sure the wires do not fall into the wall.

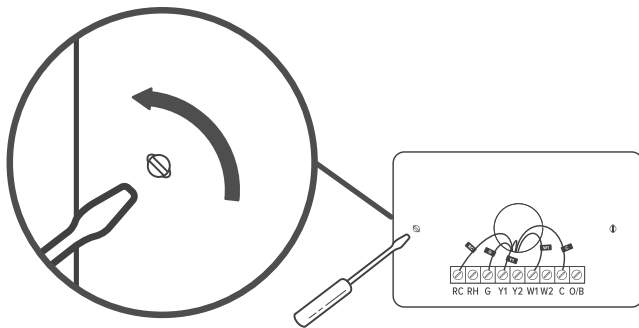


Figure 2.1

## INSTALLING THERMOSTAT WITH A C WIRE (CONT.)

### 2. Attach the new backplate

Insert the wires through the hole in the new backplate. Use an electric drill to attach the backplate to the wall with the provided wall anchors and screws. **[Figure 2.2]**

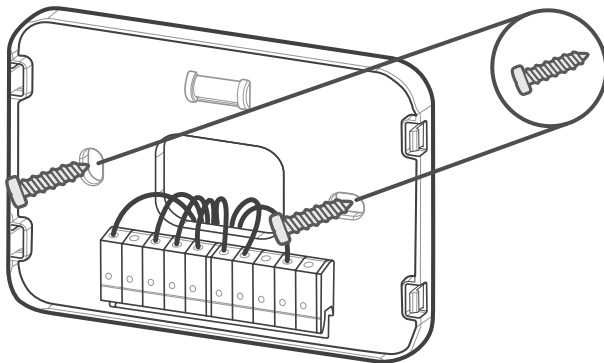


Figure 2.2



## INSTALLING THERMOSTAT WITH A C WIRE (CONT.)

### 3. Connect the wires

Connect the wires to the corresponding terminals on the backplate (see **Wiring Diagrams**, page 36). **[Figure 2.3]**  
When you are finished, take a picture.

**You may need to refer to the connections in this photo while setting up the thermostat.**

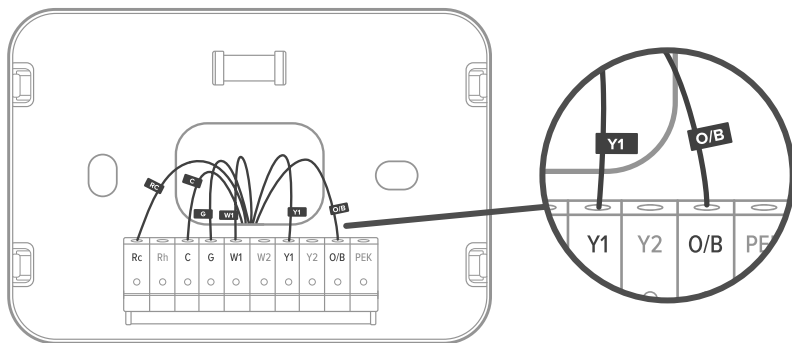


Figure 2.3

## INSTALLING THERMOSTAT WITH A C WIRE (CONT.)

### About R Wires:

- If you have more than one R wire (R wires include R, Rc, and Rh):
  - Connect the R or Rc wire to the Rc terminal, and connect the Rh wire to the Rh terminal.
- If you only have one R wire (R wires include R, Rc, and Rh):
  - Connect the R wire—R, Rc, or Rh—to the Rc terminal.

## INSTALLING THERMOSTAT WITH A C WIRE (CONT.)

### 4. Adjust the jumper (DIP switch)

Turn the thermostat over. Adjust the jumper switch as follows **[Figure 2.4]**:

- If you have connected wires to both the Rc and Rh terminals on the backplate, then adjust the jumper switch to OFF.
- If not, then adjust the jumper switch to ON.

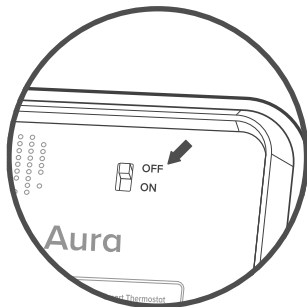


Figure 2.4

## INSTALLING THERMOSTAT WITH A C WIRE (CONT.)

### 5. Place the thermostat

Make sure all wiring is pushed inside the wall. Carefully press the thermostat into the backplate until it clicks securely into place. **[Figure 2.5]**

**Note:** Cover any gaps in the wall around the thermostat. Airflow from holes may affect temperature readings.

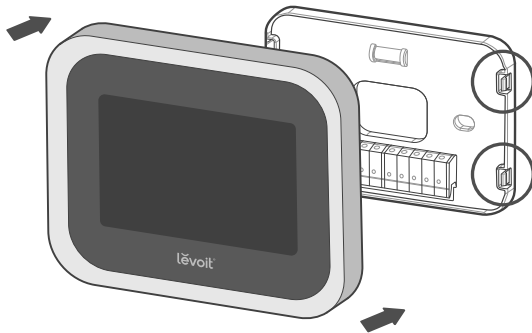


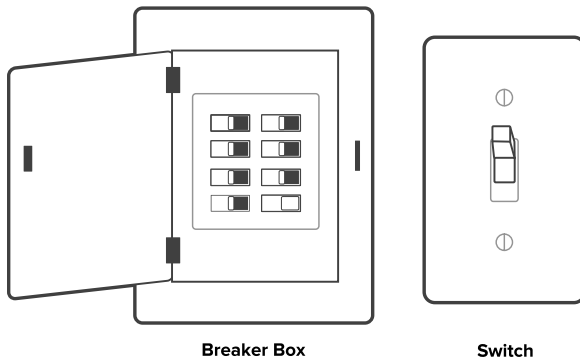
Figure 2.5

## INSTALLING THERMOSTAT WITH A C WIRE (CONT.)

6. Turn on your HVAC system

Turn your HVAC system back on. **[Figure 2.6]** If installation was successful, the thermostat display screen will turn on. You are now ready to set up your thermostat (see **Getting Started**, page 41).

**Note:** If the thermostat display does not turn on, please see **Troubleshooting**, page 47.



**TURN ON**

*Figure 2.6*

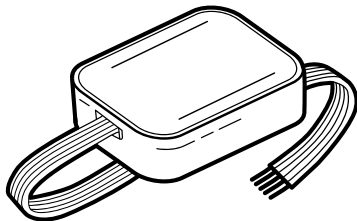
## Installing Thermostat without a C Wire

If your system does not have a C wire, you must install the power extender kit (PEK). The PEK connects to your thermostat wires to create a circuit that provides power to your thermostat.

### Power Extender Kit (PEK)

The PEK has 4 terminals on one side and 5 terminals on the other side.

- The side with 4 terminals is not pre-wired. Connect the thermostat wires to the terminals.
- The side with 5 terminals is pre-wired to connect to your HVAC control board.



## INSTALLING THERMOSTAT WITHOUT A C WIRE (CONT.)

### Compatibility

The power extender kit (PEK) requires that your HVAC system has one of the following sets of wires:

**4 Wires:** W/W1, Y/Y1, G, and R (including Rc or Rh)

or

**3 Wires:** Y/Y1, G, and R (including Rc or Rh)

If your HVAC does not have these wires, your system may not be compatible with the PEK.

## INSTALLING THERMOSTAT WITHOUT A C WIRE (CONT.)

1. Identify the thermostat terminals on your HVAC

Find the control board of your HVAC system (typically, there is a cover you can pull off to reveal the control board). **[Figure 3.1]**

Take a picture of the wires connected to the terminals that control your thermostat.  
**You may need to reference this photo later.**

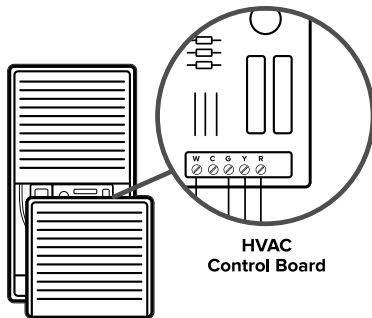


Figure 3.1



## INSTALLING THERMOSTAT WITHOUT A C WIRE (CONT.)

### 2. Label the thermostat wires

Find the PEK Labels in the included wire tag set. Use these to label the wires on the HVAC's control board according to the corresponding terminals. **[Figure 3.2]**

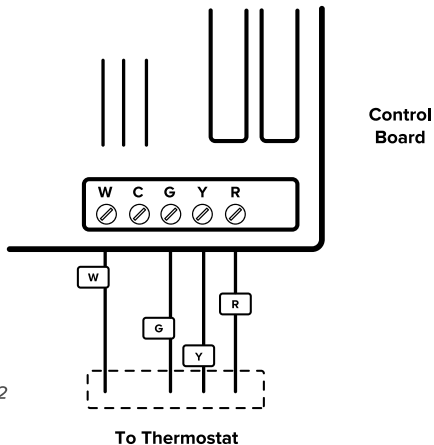


Figure 3.2

## INSTALLING THERMOSTAT WITHOUT A C WIRE (CONT.)

3. Disconnect the thermostat wires

If you're using 4 wires, carefully disconnect the W/W1, G, Y/Y1, and R wires from the control board terminals. **[Figure 3.3]**

**Note:** If you're only using 3 wires, you will only need to disconnect the G, Y/Y1, and R wires.

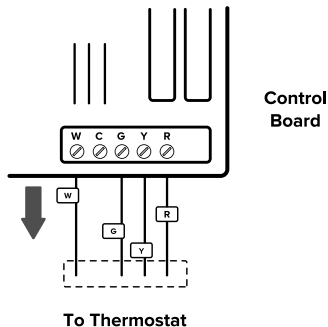


Figure 3.3

## INSTALLING THERMOSTAT WITHOUT A C WIRE (CONT.)

4. Connect the thermostat wires to the PEK

Connect the thermostat wires from the control board to the corresponding terminals on the PEK. **[Figure 3.4]**

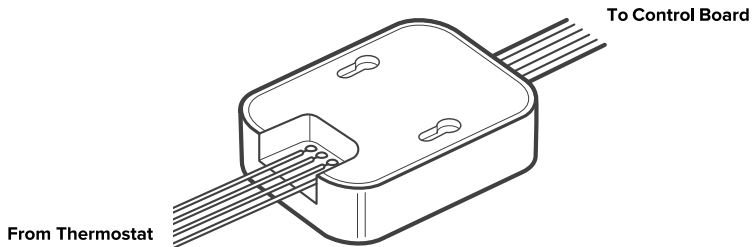


Figure 3.4

## INSTALLING THERMOSTAT WITHOUT A C WIRE (CONT.)

5. Connect the PEK wires to the control board

Connect the wires on the pre-wired side of the PEK (W, C, G, Y, and R wires) to the corresponding 5 terminals on the control board. **[Figure 3.5]**

Take a picture of the wires connected to the PEK and the terminals on the control board.  
**You may need to reference this photo later.**

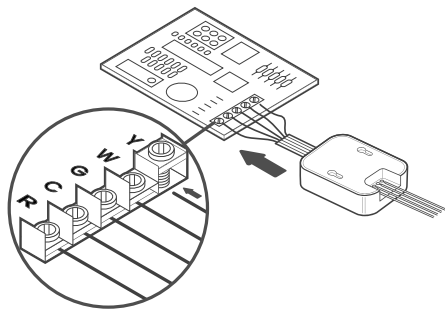


Figure 3.5

## INSTALLING THERMOSTAT WITHOUT A C WIRE (CONT.)

### 6. Position the PEK

The PEK should be securely placed between the thermostat wiring and the control board. **[Figure 3.6]**

Replace the cover on your HVAC system, then return to your thermostat.

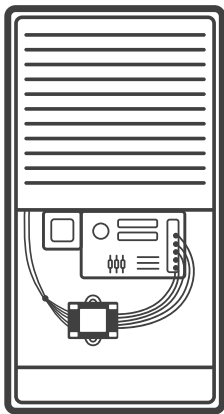


Figure 3.6

## INSTALLING THERMOSTAT WITHOUT A C WIRE (CONT.)

### 7. Remove the old backplate

Unscrew the old backplate from the wall. **[Figure 3.7]** Hold the wires and carefully pull the backplate from the wall, making sure the wires do not fall into the wall.

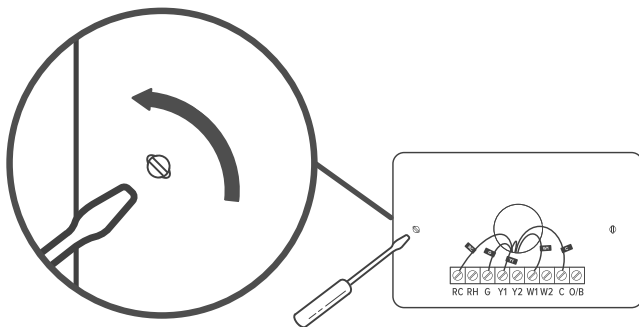


Figure 3.7