ARIZE Smart Thermostat

AST110

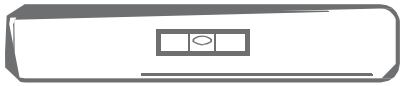
User Manual

First things first. Here's what you'll find in the box

- Wi-Fi Thermostat
- Two screws and anchors
- Wire labels
- Jumper wire

You may also need these tools:

Phillips screwdriver



Level

Pencil

Home Wi-Fi Password

Compatibility Section

For conventional (gas / oil / propane / electric) heat-pump and dual fuel systems.

> 2-Heat & 2-Cool >1-Heat & 1Cool >Heat Only >Cool Only

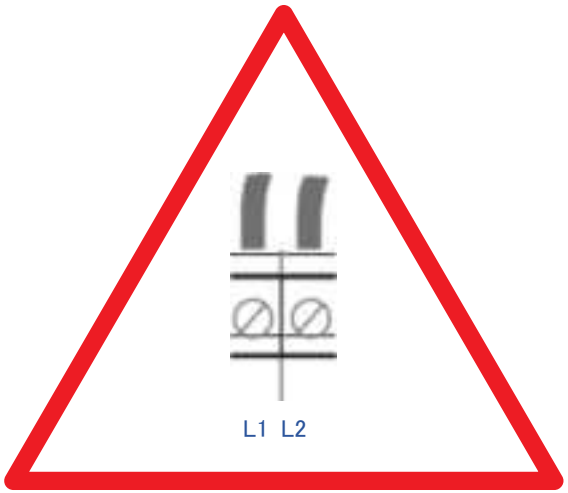
>Heat Pump with Auxiliary Heating and Emergency Heating C-Wire

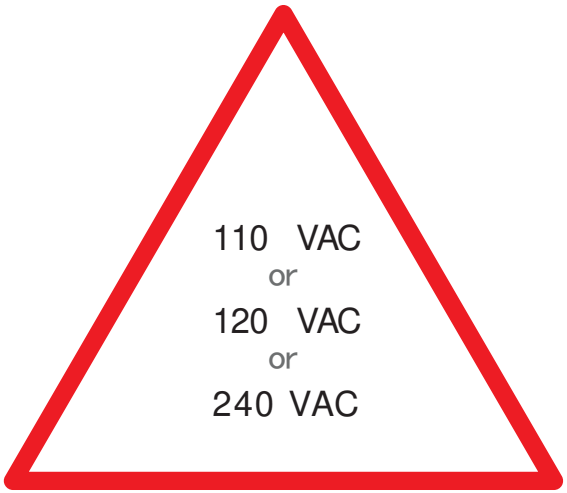
required to power the thermostat

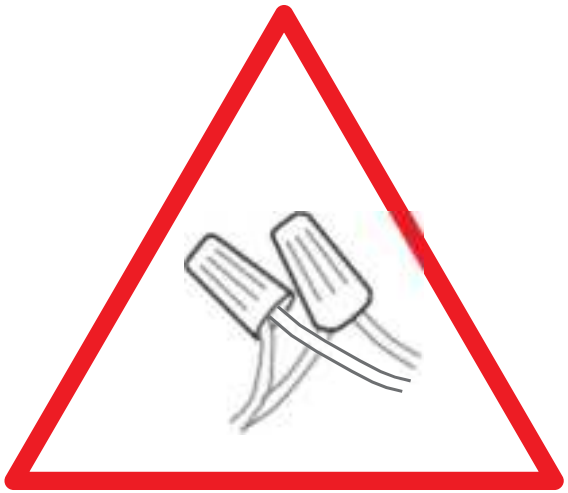
Incompatible wiring and voltage

Please check your old thermostat’s wall plate have any below indicators?

- Does not work with electric baseboard heat (110VAC~240VAC)
- Does not work with millivolt systems
- Does not support S terminals for indoors and outdoors sensors.

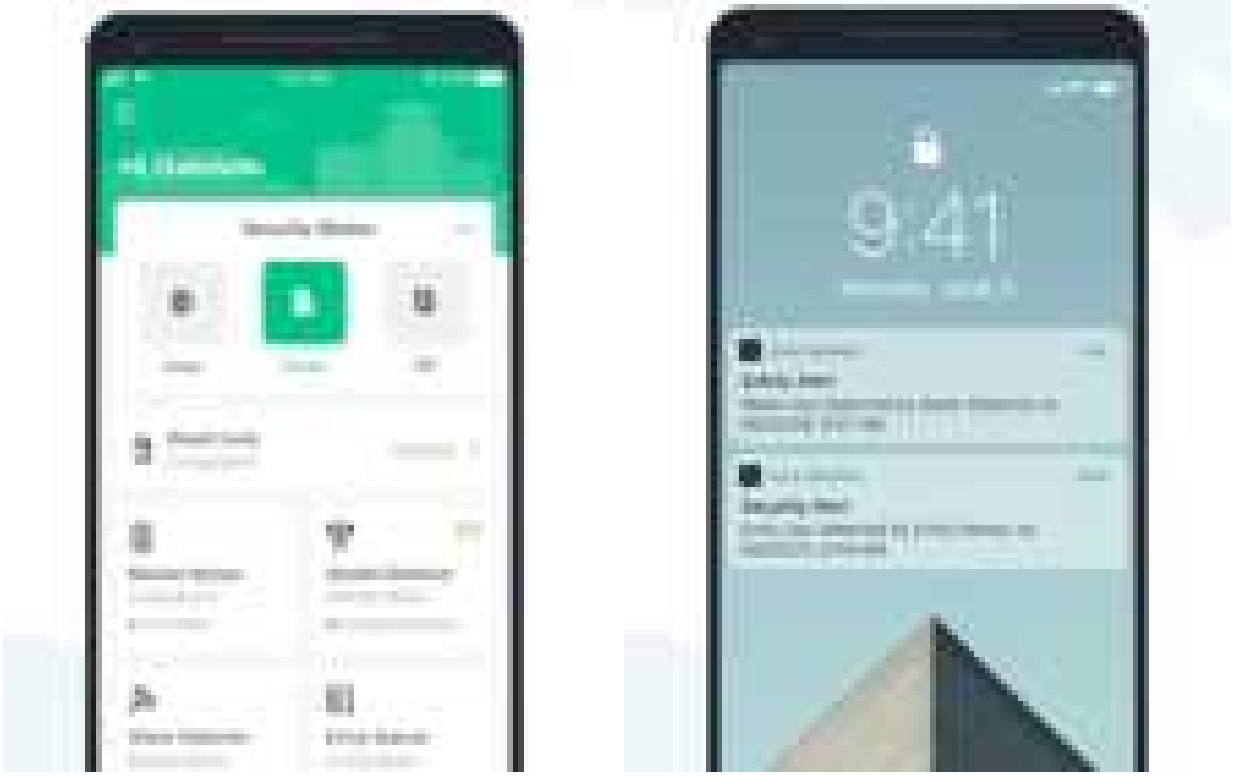






Download the App

Search Arize Resident in the App Store or Google Play Store,then download

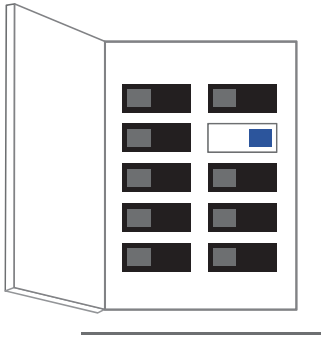


Installation

This AST110 thermostat is designed to work on most 24V–AC ow voltage heating and cooling systems such as gas and oil furnaces, heat pumps, and single or dual–stage systems.

Step 1 Switch off power

This protects you and avoids blowing a fuse in your equipment. To make sure the power is off, change the temperature with your current thermostat and wait at least five minutes to be sure that your system doesn’t turn on.



Breaker Box

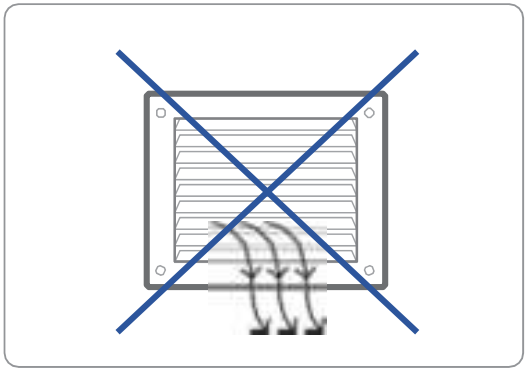
or

Switch

Step 2 Check that your system is off

Confirm your system is off by turning on your heat (during winter) or your AC (during summer). Wait a few minutes—you should not feel air coming from your vents.

NOTE : If you have a digital thermostat with a blank display, skip this step.



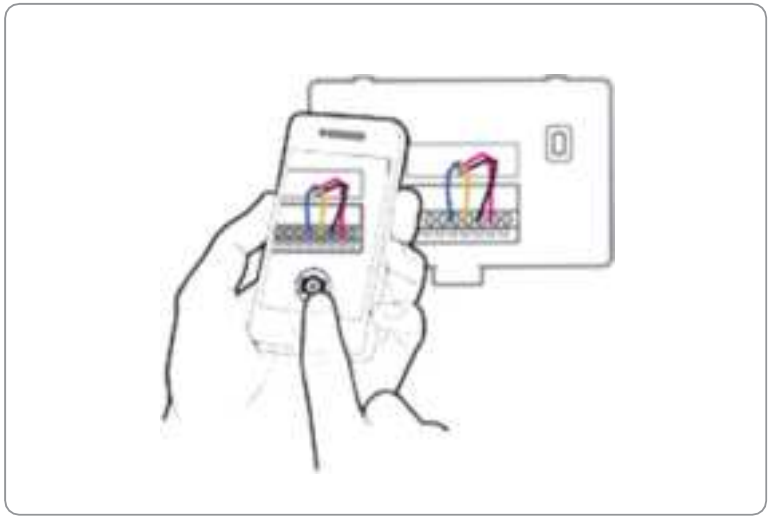
Step 3 Remove your old thermostat from the wall plate

Most thermostats allow you to remove the main unit and provide access to a wall plate which holds the wiring terminals, you can take off the thermostat by grasping and gently pulling. Some thermostats may have screws, buttons, or clasps.

NOTE : Do not remove any wires from your thermostat at this time!

Step 4 Take a picture of the wires

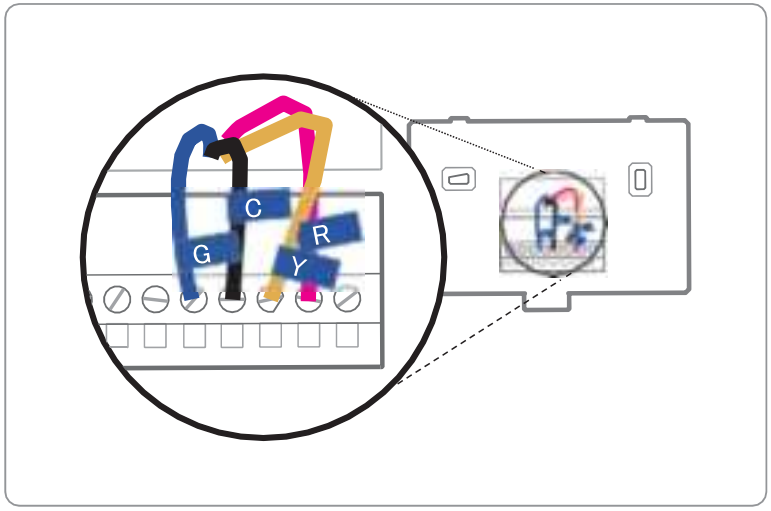
Take a picture of your existing wall plate's wiring and save it for reference. Make sure you can read the wire terminal labels.



Step 5 Label the wires

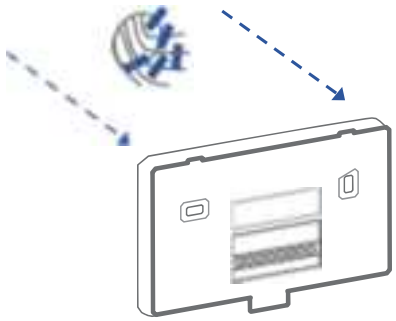
Use the wire label provided with your new thermostat to label each wire on your old wall plate.

NOTE : If you have an Rc or Rh wire, put the R label on it.



Step 6 Disconnect the wires and remove the old wall plate

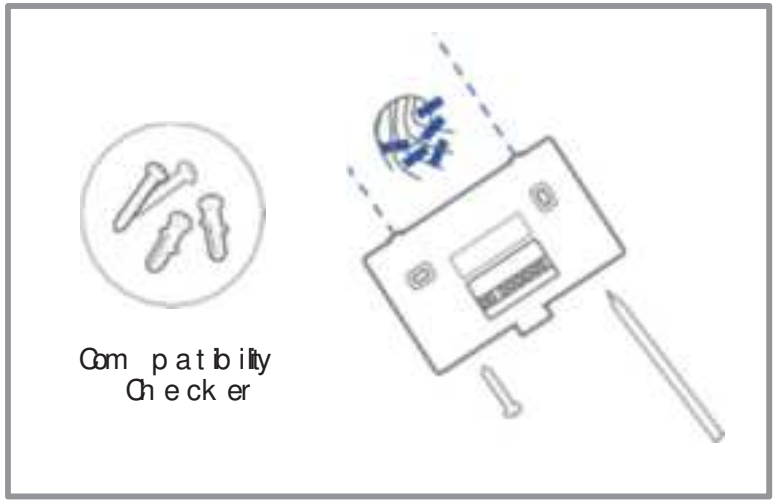
Disconnect the wires from the old thermostat one by one, you may need a screwdriver to release wires from terminals.



NOTE : Wrap the wires around a pen or pencil so they don't fall back into the hole in the wall.

Step 7 Mount the New Wall Plate

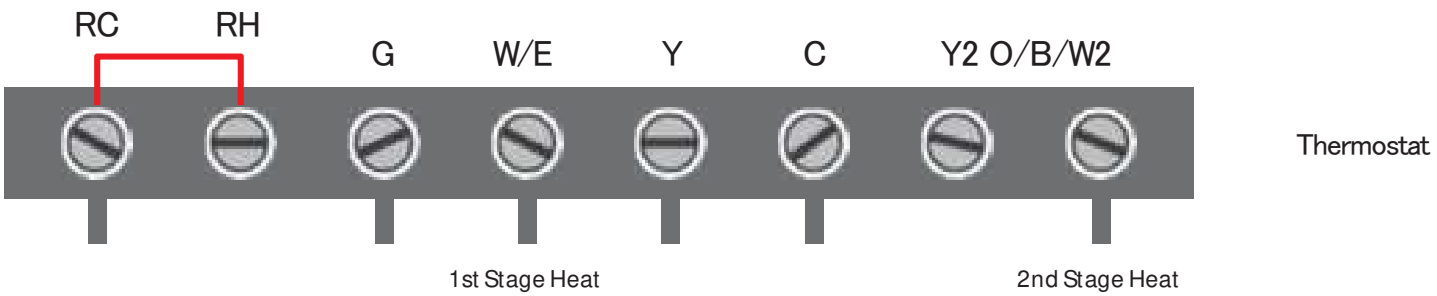
Use the enclosed screws and anchors to mount the new wall plate. In most cases, you can utilize the same mounting position of your old thermostat. Be sure to check the alignment of your wall plate pre and post installation of the thermostat unit.



Look at the thermostat wiring photo you took. The following are wiring diagrams for common systems, please confirm you have a C connected to your old thermostat.

Terminal	Conventional System	Heat Pump System
RC	Power for cooling, 24V	Power for cooling, 24V
RH	Power for heating, 24V	Power for heating, 24V
C	Common wire, 24V	Common wire, 24V
G	Fan	Fan
Y	1st Stage Cool	1st outdoor Stage Heat
Y2	2nd Stage Cool	2nd outdoor Stage Heat
W/E	1st Stage Heat	1st Stage Auxiliary/Emergency Heat
O/B/W2	2nd Stage Heat	Changeover (reversing valve) connection for heat pump

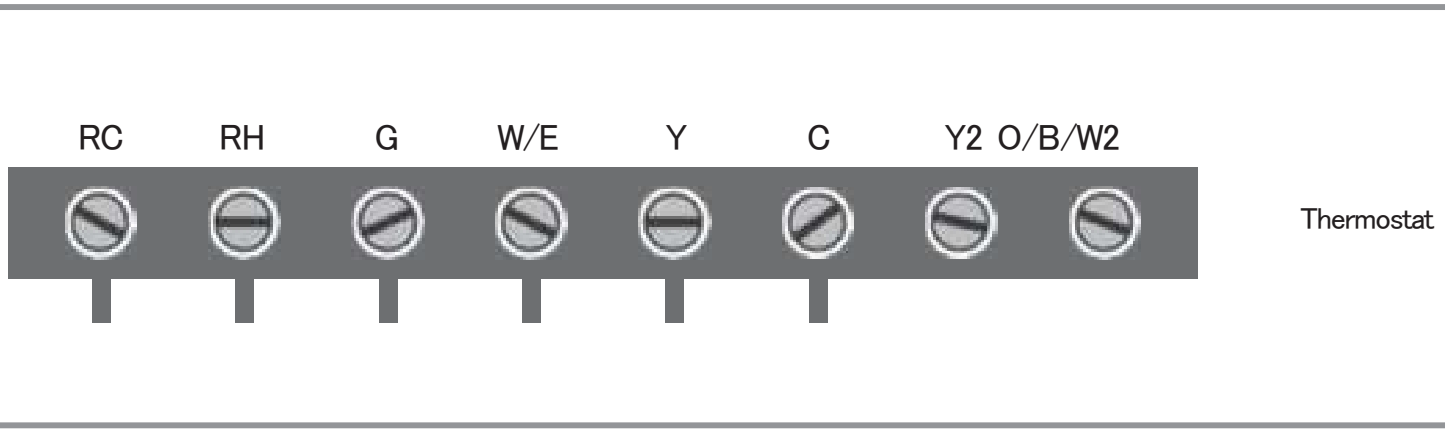
Single Stage Heat / Two Stage Heat– Furnace / Boiler with C wire



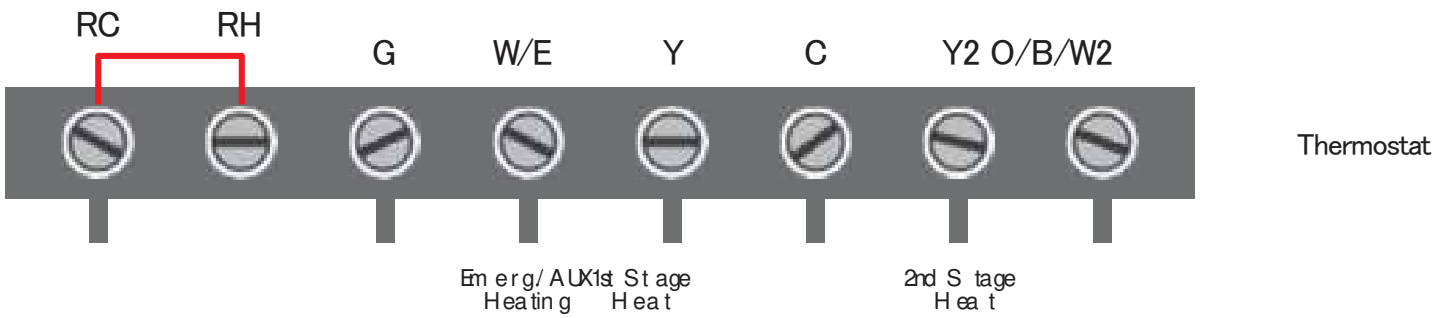
Combined Single Stage Heat and Single Cool Stage with C wire

(Remove Pre-installed Jumper)

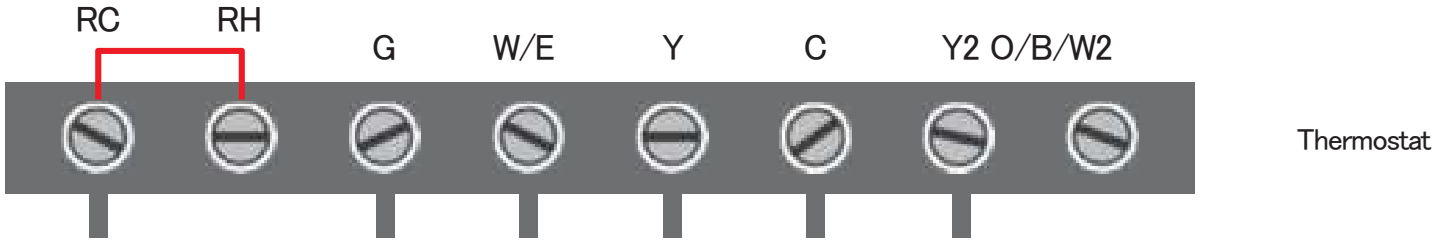
Cool Furnace and Air Conditioner



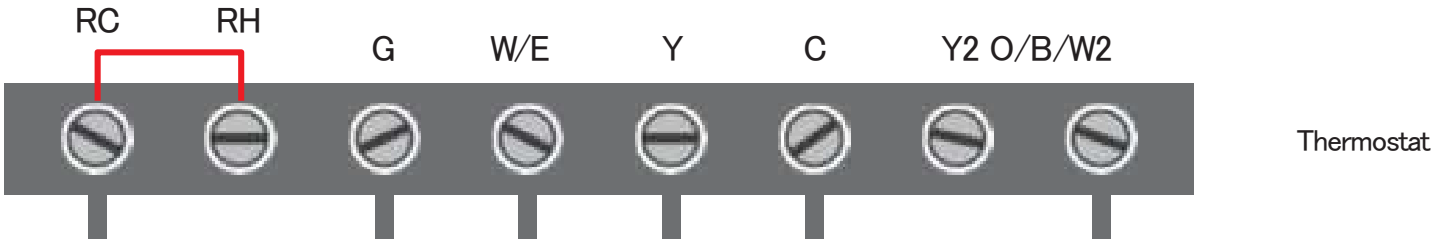
Single Stage / Two Stage Heat Pump with Emergency Heat and Auxiliary Heat with C wire



Single Stage Cool / Two Stage Cool–Air conditioner



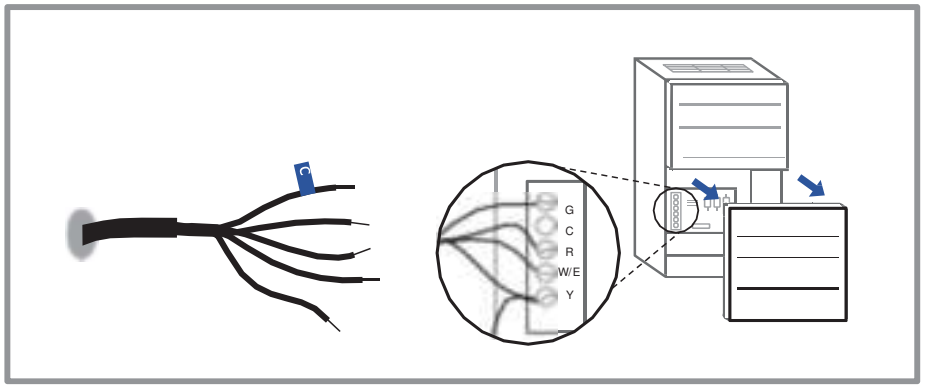
Dual Fuel System–Combined Single Stage Heat Pump and Single Stage Furnace with C wire

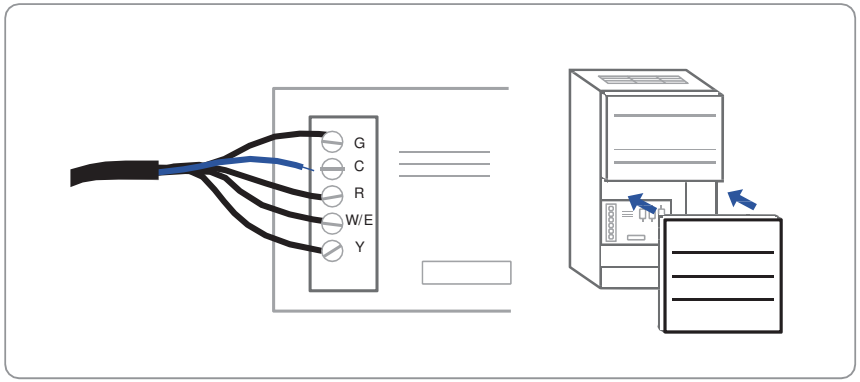


If you do not have a C-wire connected to your old thermostat, please check below wiring diagram.

Do you have a spare wire? Yes.

1. Check for spare wire behind your wall plate or old thermostat, if you have a spare wire, connect it to the C terminal on the new wall plate.
2. Remove cover from furnace or heating system, open the heating and cooling system's cover to find the control board. You should see the same terminal labels that are on your thermostat.
3. Find the other end of the unused wire, locate the bundle of wire that are the same as the ones at your thermostat.
4. Connect the unused wire to the C-terminal.
5. Close the cover to the furnace or heating system.

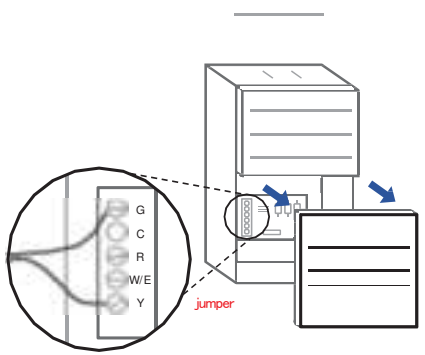




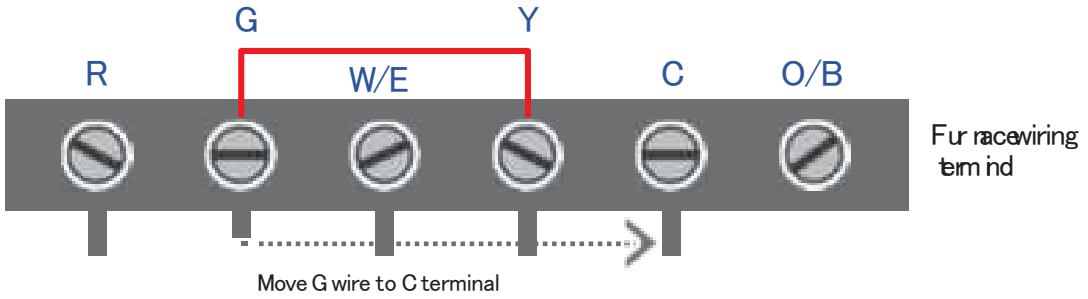
Conventional system without the C wire (also commonly called a 4-wire system)

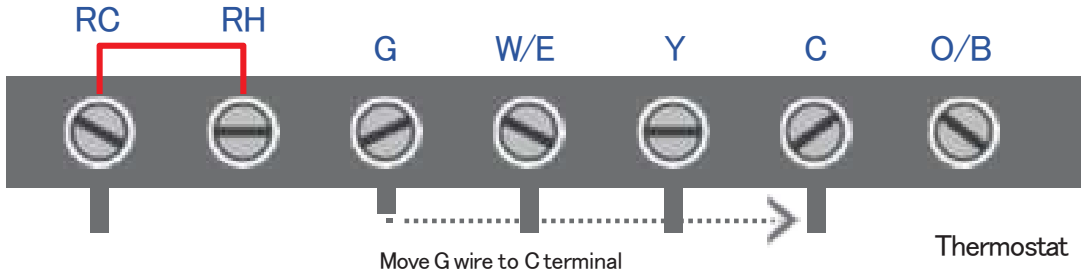
1. Remove cover from furnace or heating system, open the heating and cooling system's cover to find the control board. You should see the same terminal labels that are on your thermostat, move the G wire to the C terminal, then use the included jumper wire to connect G with Y.
2. At the thermostat, connect C with the G wire;
3. With this configuration the thermostat will have no fan control.

NOTE : You may need to unscrew the cover. The control board may be at the top or bottom.



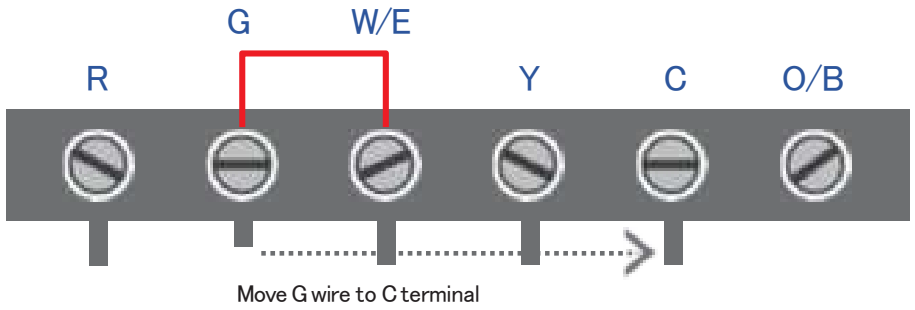
Furnace



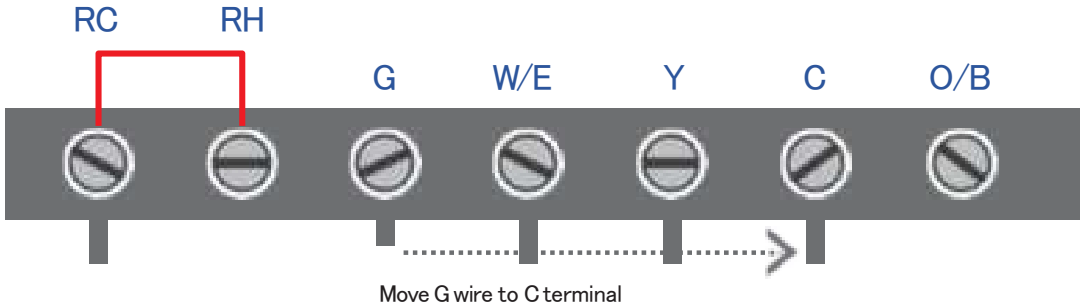


Thermostat

Heat only 3–Wire system

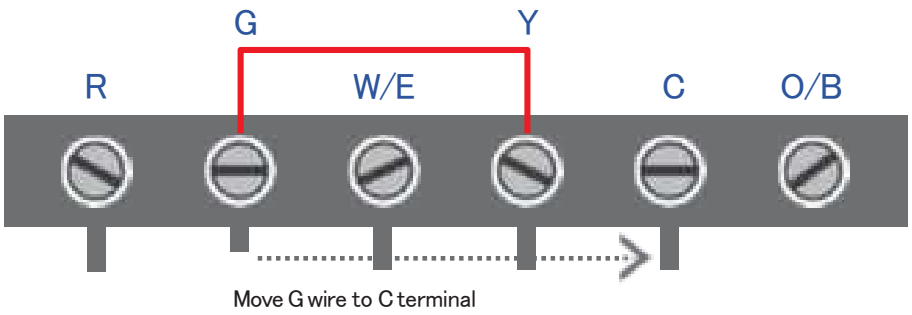


Heating wiring terminal

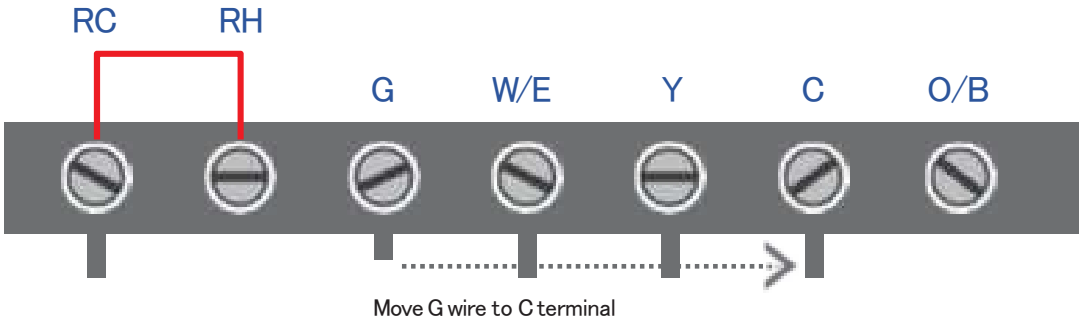


Thermostat

Cool only 3–Wire system



A/C wiring terminal

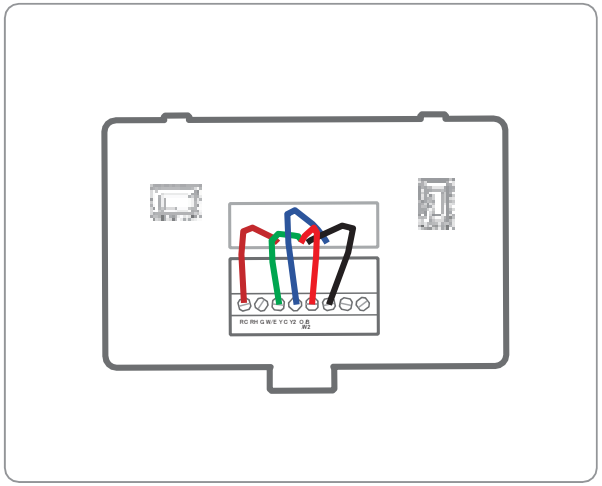


Thermostat

Step 8 Connect the wires to the new wall plate

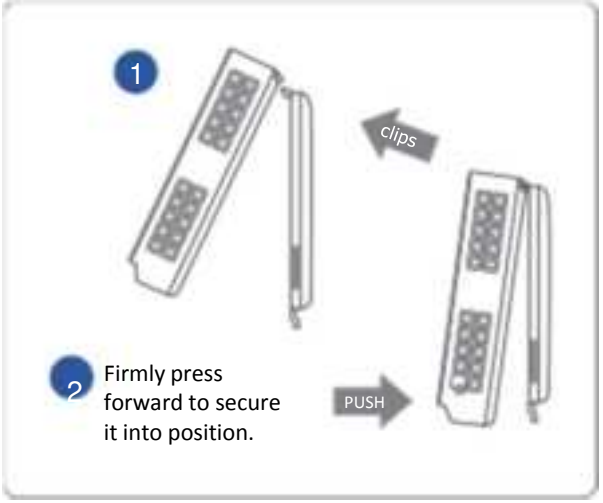
Refer to the above wiring diagram, insert all wires vertically from the open socket into the proper terminal. Ensure each wire is inserted into the matching terminal (refer to the photo taken previously if needed). Pull wires gently to ensure wires are securely fastened.

When all wire connections have been ompleted, place any excess wire back inside the wall.



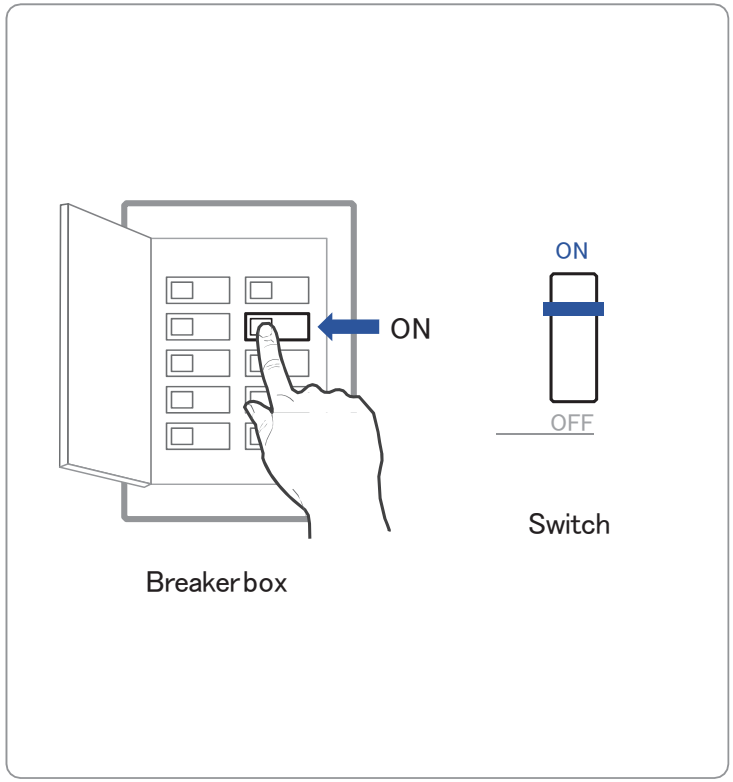
Step 9 Attach Thermostat to the Wall

First align the two clips on the back of the AST110 into the corresponding slots on the top of the wall plate.



Step 10 Power on and Enjoy

Turn on the switch that controls your heating and cooling system, th thermostat will power on and prompt you to start the setup. If you are having trouble, please refer to our help guide.



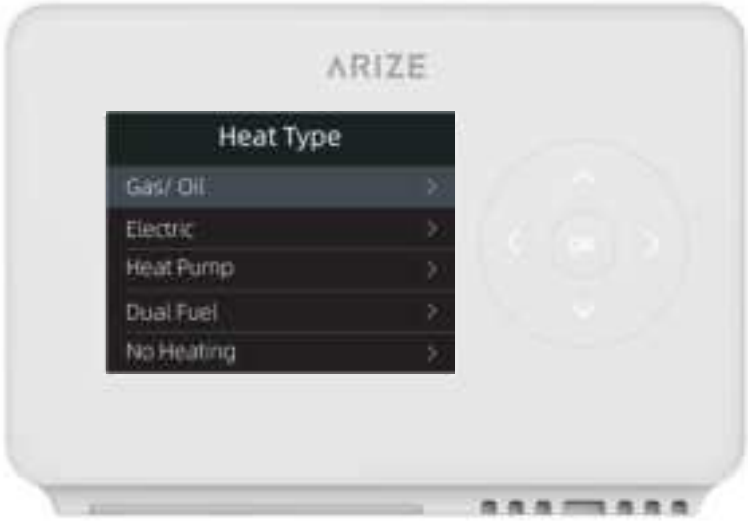
Initial Setup

Step 1 Device Initial Setup

For a quick and easy way to begin using your new smart thermostat, the device will automatically direct you to the Initialization Setup process once it's turned on for the first time.

1. Heat Type Select your home's heating type from the options available:

   Heat Pump, Gas/Oil, Electric, Dual Fuel, or No Heating, select your Heat Type according to the heating appliance located in your home.



Below is a list of helpful tips that may guide you to selecting the correct option for your home.

If you have a furnace or boiler :

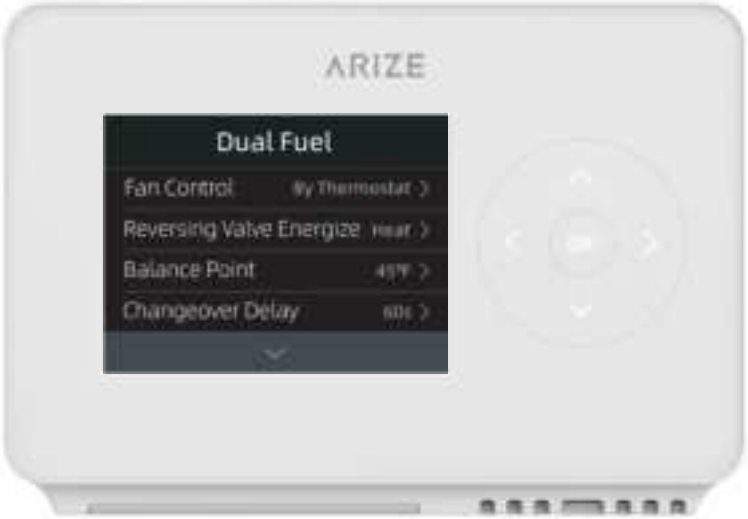
1. Select Gas/ Oil.
2. Touch OK button to continue.
3. Then select Appliance or Thermostat depending on your personal preferences for fan control.

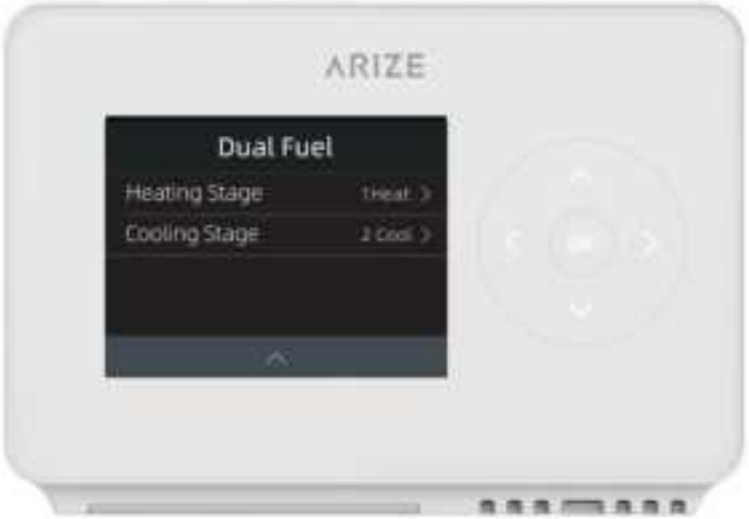
If you have a heat pump :

1. Select Heat Pump and touch OK to next step.
2. Specify what the heat Pump runs when the O/B Reversing Valve is engaged: On Cool runs cooling when O/B engages, Or On Heat runs he runs heating when O/B engages.
3. Touch OK to next step.

If you have a Dual fuel system :

1. Select Dual Fuel and touch OK to next step,
2. Then follow the on-screen instructions to configure the fossil fuel heating appliance settings,
3.Click Next at the button of the screen to continue to configure the heat pump heating appliance settings.





2 Wi-Fi Setup

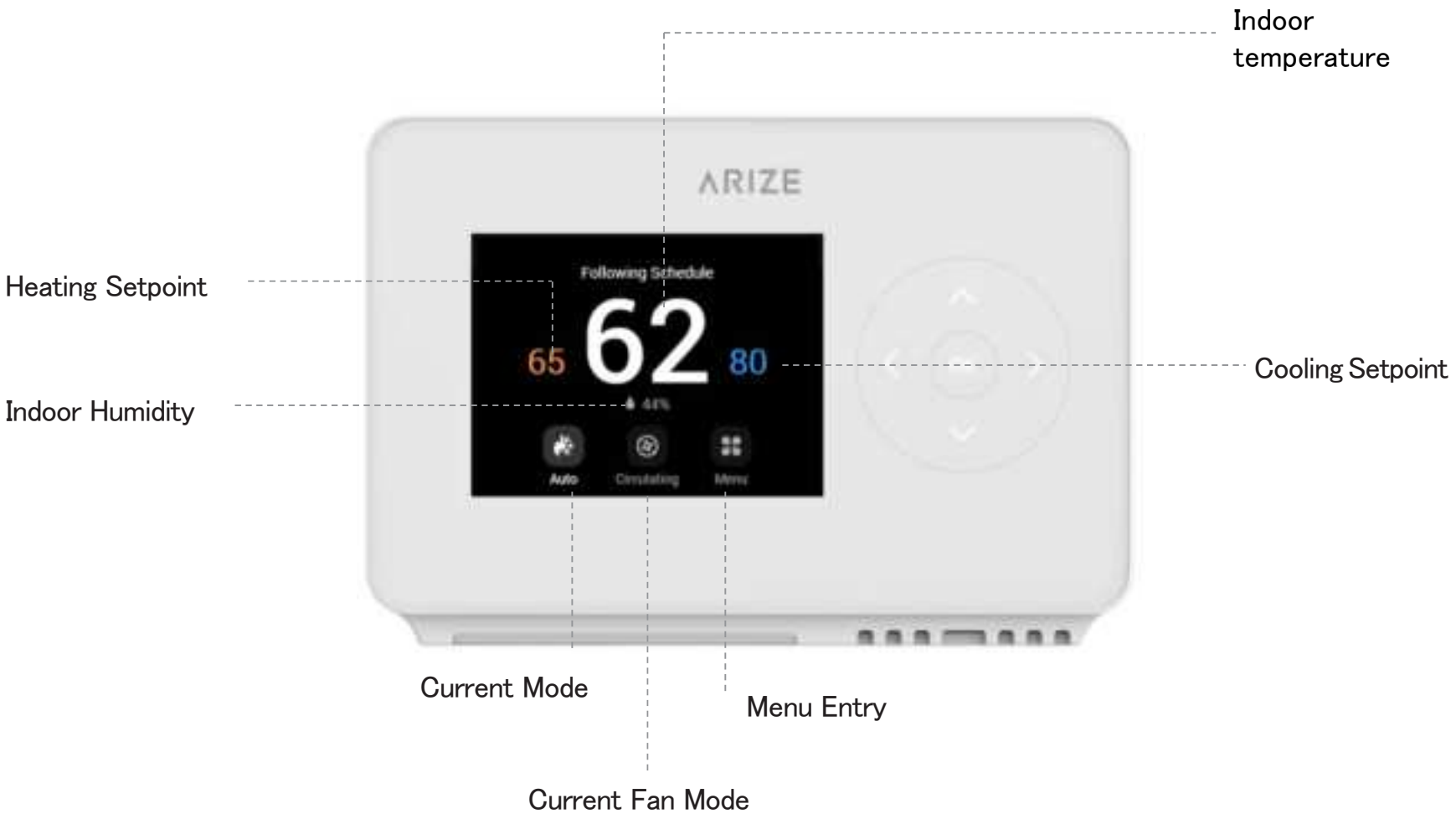
A reliable Wi-Fi connection is required in order to access smart features such as remote access, weather forecast and more. Please follow on-screen instructions to complete the Wi-Fi setup.

Step 2

Add Device to your Account

You can ask the property manager to assign the thermostat to your account

Main Screen


Indoor temperature
Heating Setpoint
Indoor Humidity
Cooling Setpoint
Current Mode
Menu Entry
Current Fan Mode
ARIZE
Following Schedule
65
62
80
44%
Auto
Circulating
Menu

Advanced Setting:

To access the Equipment Setup, click on a setting and use the scroll wheel to modify the default value by following steps: Menu– Setting– Advanced setting.

Terminal	Default	Max	Min	Description
Deadband	1℉	2℉	0.5℉	A temperature range between the current temperature and the heating setpoint, where heating or cooling is not engaged.
Fan Delay	60s	120s	30s	The time fan continues after mode turn off.
Min Run time	180s	300s	60s	The min. time system on after engaging.
Cycle time	180s	300s	60s	Waiting time between heating and cooling.
Runtime	/	/	/	View system runtime, Heating, Cooling, Air Filter.
Sensor Calibration	0℉	10℉	−10℉	Ability to adjust temperature readings to improve sensor accuracy as the thermostat nears the end of its lifecycle after years of use.

FCC STATEMENT

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.
2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.
Increase the separation between the equipment and receiver.
Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body