



EHP-001 USER MANUAL

V1.0

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PRODUCT INTRODUCTION

This Smart Wi-Fi Programmable Thermostat, Model: EHP-001, is designed to work with most of the standard 24V AC low voltage heating and cooling systems, such as gas and oil furnaces, heat pumps, and single or dual-stage systems.

FEATURES

- 4.8 inch large colorful display creates your colorful life
- Capacitive touch screen buttons for easy operation
- Wi-Fi thermostats for home with smart phone app
- Arbitrary control of indoor temperature Set the temperature range of the hot and cold zones
- In automatic system mode, cooling and heating range switches automatically without manual adjustment
- 5+2 programmable thermostat, supports device sharing, so you can set the temperature you need for your home anytime, anywhere
- Easy to install, follow the installation steps in the manual and be done within 30 minutes
- Connection: WIFI, 2.4GHz

TECHNICAL SPECIFICATION

Product size	W130 x D90 x H21.5mm
Power supply	24Volts
Power consumption	<1.5W
Temp. setting range	42~122°F(5~50°C)
Accuracy	±1°F
Temp. display range	42~210°F(5~99°C)
Environment temp./humidity	32~113°F(0~45°C) / 5~95RH
Storage temp.	23~113°F(-5~45°C)
Texture of material	PC + ABS + V0
Specific use of goods	Heat pump
Shape	Rectangle, 4.8inch screen

Connection Agreement	WIFI
Installation type	Wall hanging
Control method	Applications, remote, touch
Relay load	1A(Inductive); 3A(Resistive)
Sensor	NTC3950, 10K
IP class	IP20

DECLARATION OF CONFIRMITY

CE: Hereby, Zhuhai Edison Energy-saving Technology Co., Ltd, declares that the radio equipment with model EHP-001 is in compliance with Directive 2014/53/EU.

SAFETY INSTRUCTIONS

⚠ This thermostat works with common 24 volt systems such as forced air, hydronic, heat pump, oil, gas, and electric. It will not work with millivolt systems, such as a gas fireplace, or with 120/240 volt systems, such as baseboard electric heat.

⚠ **MERCURY NOTICE:** Do not place your old thermostat in the trash if it contains mercury in a sealed tube. Contact the Thermostat Recycling Corporation at www.thermostat-recycle.org for information on how and where to properly and safely dispose of your old thermostat.

⚠ **NOTICE:** To avoid possible compressor damage, do not run air conditioner if the outside temperature drops below 50°F (10°C).

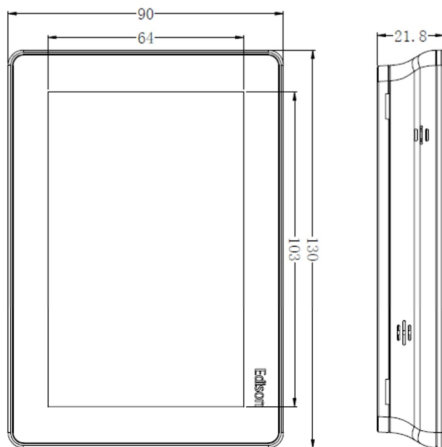
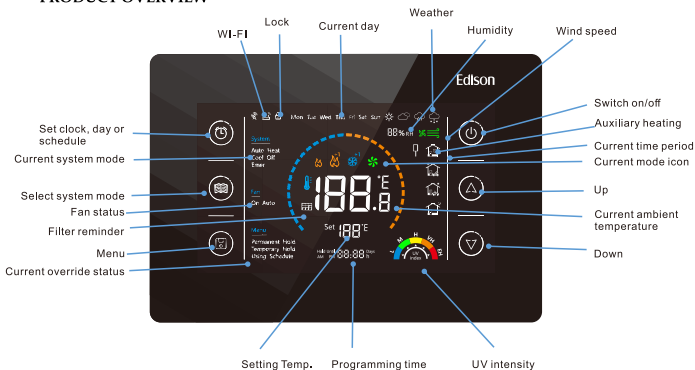
⚠ Do not leave packaging material lying around, as it can be dangerous in the hands of a child.

⚠ Do not open the device: it does not contain any components that can be serviced by the user. In the event of failure, please return the device to our service department.

PACKAGE CONTENTS :

- 1 x Smart Wi-Fi Thermostat
- 1 x User manual
- 2 x Screw sets
- 1 x Wire labels
- 1 x C wire (optional)

PRODUCT OVERVIEW



INSTALLATION

You might need the following tools to install this thermostat:

- No. 2 Phillips screwdriver
- Small pocket screwdriver
- Pencil
- Level(optional)
- Drill and bits (3/16" for drywall, 7/32" for plaster) (optional)
- Hammer(optional)
- Electrical tape(optional)

Compatibility section:

For conventional (gas/oil/propane/electric), Heat-pump, and Dual Fuel System.

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

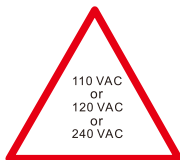
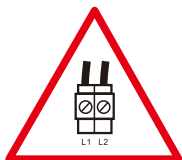
>Heat Pump with Auxiliary Heating and Emergency Heating

C-wire is required to power the thermostat.

Incompatible wiring and voltage

Please check the wall plate of your old thermostat to see if there's any indication as follows:

- 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.



Step 1 Switch off power

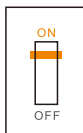
IMPORTANT as this protects you from blowing a fuse in your equipment. To make sure the

power is off, change the temperature with your current thermostat and wait for at least 5 minutes to be sure that the system is OFF.



Breaker Box

or

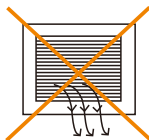


Switch

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.

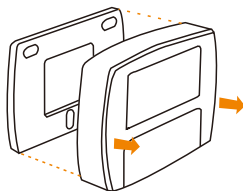
NOTE : If you have a digital thermostat that has a blank display, skip this step.



Step 3 Remove your old thermostat from the wall plate

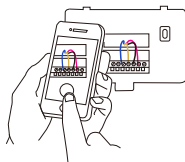
Most thermostats allow you to remove the main unit and provide access to a wall plate which holds the wiring terminals, you can take off the thermostat by grasping and gently pulling. Some thermostats may have screws, buttons, or clasps.

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



Step 4 Take a picture of the wiring

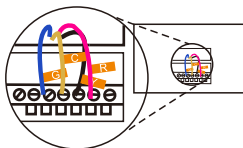
Take a clear picture of the wiring of your existing wall plate, make sure the wire terminal labels are clear enough to be read. This will be important reference for next step.



Step 5 Label the wires

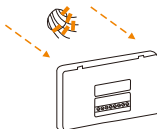
Label the old wall plate wires with the supplied sticky tags from our new thermostat box.

NOTE : If there's an Rc or Rh wire, attach the R label to it.



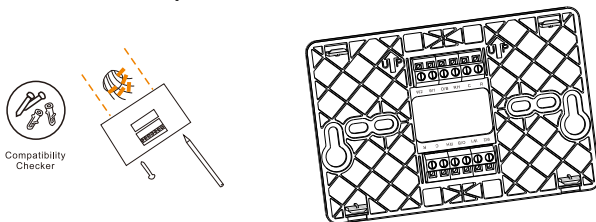
Step 6 Disconnect the wires and remove the old wall plate

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 screw set (screw & anchor) to mount the new wall plate. In most cases, the old mounting position can be used; if not, apply the new set. Be sure to check the alignment of the new wall plate before and after the wall plate installation.

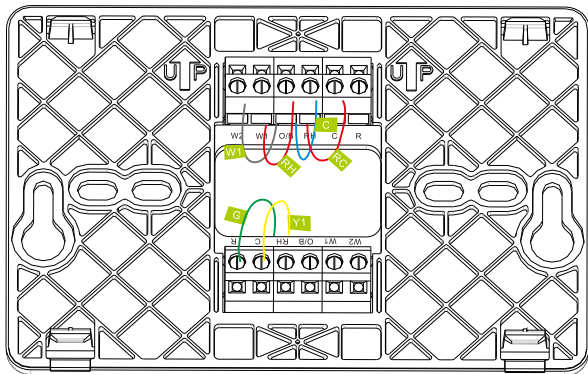


Use the picture you took before as reference to wire, the following chart is a wiring diagram for common systems, please make sure that a C-wire exists in your old thermostat system.

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
Y1		1st Stage Cool	1st outdoor Heat
Y2		2st Stage Cool	2st outdoor Heat
W1		1st Stage Heat	1st Stage Heat
W2		2st Stage Heat	2st Stage Heat
O/B		Changeover(reversing valve) Connection for heat pump	Changeover(reversing valve) Connection for heat pump
S		Optional wiring model terminal to combine Y and G, while reserve an extra in-wall wire to power on the thermostat	Optional wiring model terminal to combine Y and G, while reserve an extra in-wall wire to power on the thermostat

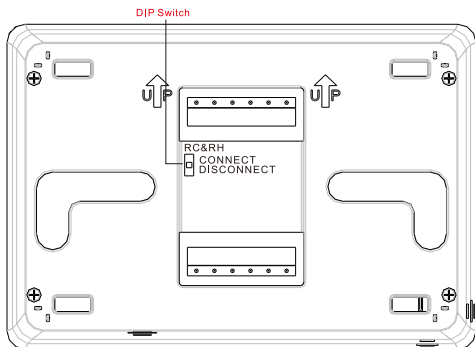
Step 8 Connect the wires to the new wall plate

Refer to the wiring diagram, insert all wires vertically from the open socket into the proper terminal. Ensure each wire is inserted into the matching terminal (Note: connect the R or RC wire into the RC terminal). Pull wires gently to ensure wires are securely fastened. When all wires are connected well, place excess part of the wires back to the wall.



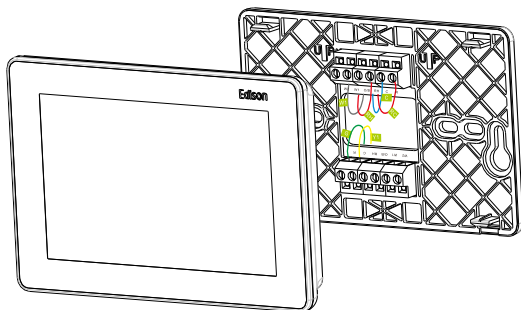
Step 9 DIP switch

If you have connected both the RC-wire and the RH-wire to the wall plate, adjust the DIP on the back of the thermostat to Disconnect, otherwise switch it to Connect.

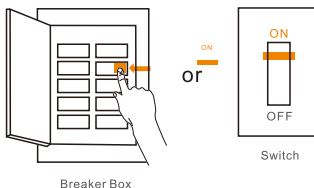


Step 10 Install the thermostat to the wall plate

First aim the two clips in upper part of the thermostat to the top of the wall plate, then gently push and fit the wiring pole to the terminals on the wall plate.

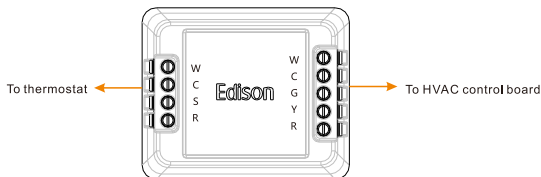
**Step 11 Power on and Enjoy**

Turn on the switch that controls your heating and cooling system, the thermostat will be powered on and prompt you to start the setup.



Important note:**If C-wire does not exist in your system:**

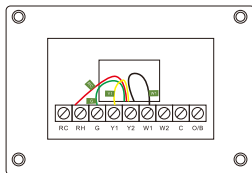
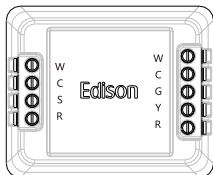
The C-wire is used to provide power to the thermostat. If C-wire does not exist in your system, you will need a power module to power your thermostat using the existing wires. There are 2 sides with connections. 4 terminals is for the thermostat, 5 terminals is for the control board connection.

**Power module requires your system to have the following wires:**

4 wires: W/W1, Y1/Y2, G, and R (or Rc or Rh)

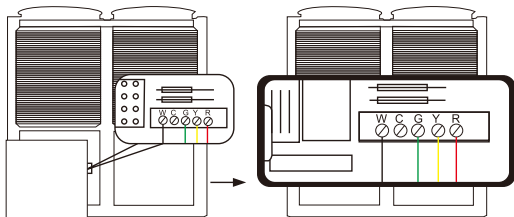
Or 3 wires: Y1/Y2, G, and R (or Rc or Rh)

If you don't have these wires, your system may not be compatible with the power module.

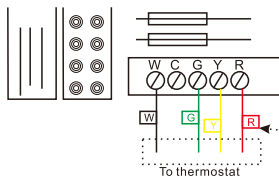


Check the instruction of power module below:

1. Find the HVAC terminals and take a picture of the wires connected to the terminals of your old thermostat, you may need to reference this photo later;



2. Label the wires. Only label the wires from the control board to the old thermostat;



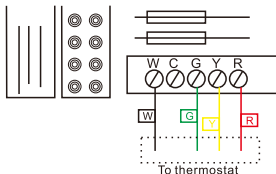
Before removing the wires from your old thermostat, use the wire labels to identify your existing thermostat wiring. Label the wires at your thermostat

C	C	R	R	G	G	0/0	0/0
Y	Y	RC	RC	W	W		
Y2	Y2	RH	RH	W2	W2		

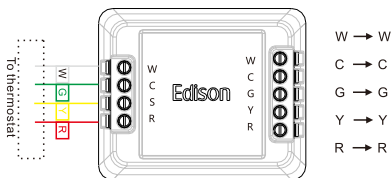
If you don't have a C-wire, you will need the labels below. Label the wires at your control board

RC	RC	R	R	G	G
C	C	RC	RC	W	W
S	S	RH	RH	V	V

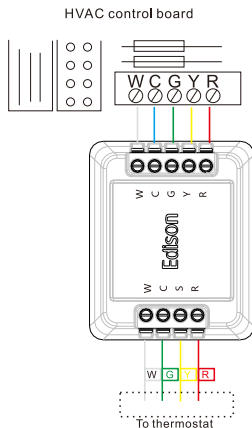
3. Disconnect wires of W/W1, Y/Y1, R to thermostat from control board;



4. Reconnect these wires to the 4-terminal side of the power module. The wires and corresponding terminals are show as below;

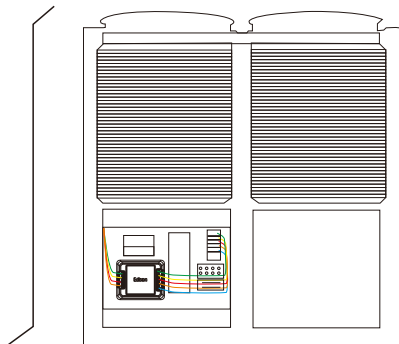
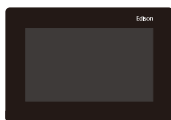


5. 5-terminal connect to HVAC control board side;



6. Position the wiring module.

The power module should be installed between your thermostat wiring and your control board. Install it at the right position then close the HVAC cover panel securely and return to your thermostat;



APPLICATION

1.1 Download App

Scan the QR code or simply download the Edison App for your mobile direct from App Store or Google Play.

Remark: Tuya Smart/Smart Life App also works.



1.2 How to add the EHP-001 device to the APP

Preparation before installation:

1. Confirm that the 2.4G WiFi signal is good
2. Connect your smart phone to WiFi

Note: This is very important. The user must confirm that the connection is successful, such as: the Progress bar

has been completed, or the prompt: connected the device. Otherwise, we cannot proceed to the next step.

Steps as following:

- Open Edison (Tuya Smart or Smart Life) App, use your phone number or email address to register and login.
- Tap + on the top right, Add the device.
- Choose Small home appliance - Thermostat(WiFi).
- Enter SSID and password, Click Next.
- Confirm the indicator blinking(When the thermostat is in off state, press and hold “” key for 8 seconds

till symbol  is blinking in pairing mode), Click.

- Click “blink slowly” .
- Click “Go to connect” .
- Choose Smart Thermostat_XXXXX.
- Enter the password: 1234567890. Within 5-10 seconds, the device will be connected to the phone.

Note: The 2.4G routers must be used. Most routers on the market currently support the 2.4G and 5G dual-band. When the two bands of the router are separated to use, the phone needs to be connected to the 2.4G network, and then add the device. If the router is set to converge 2.4G and 5G, there will be a certain probability that the device addition will fail.

- Click the return button to return to the Edison/Tuya/Smart Life app interface. The device will automatically connect to the Tuya cloud.

Note: Because different brands of phones have different ways of returning to the app, some phones require relicking on the Edison/Tuya/Smart Life app icon.

DEVICE INITIAL SETUP

1. Set clock to current day, time and week.

1.1 Press the  key till clock “Minute” is blinking, then press  or  to set minute;

1.2 Press the  key till clock “Hour” is blinking, then press  or  to set hour;

1.3 Press the  key till “Week” is blinking, then press  or  to select day of week;

2. Preset energy-saving schedules

This thermostat is pre-set with energy-saving program settings for four time periods. Using the default settings can reduce your heating/cooling expenses if used as directed. Savings may vary depending on geographic region and usage. See the below.

	Default Heating settings	Default Cooling settings
 WAKE 6:00 am	70°F	78°F
 LEAVE 8:00 am	62°F	85°F
 RETURN 5:30 pm	70°F	78°F
 SLEEP 9:30 pm	62°F	82°F

To change the settings, tap the  key for 4 times continuously, it will show “Mon” and “” press  or  to select current period of time. Tap the  key again to enter into the temperature setting, tap  or  key to modulate the setting value for this period of time. Repeat the same operation, you will be able to set time and temperature for the rest time periods (LEAVE, RETURN and SLEEP).

MODE SETUP

Tap the System Mode icon “” on the screen to select your system mode of thermostat between: Auto, Cool, Heat, Off or Emergency Heat(EMER).
Emergency Heat (EMER) mode is only available if you have selected Heat Pump as your Heat Type and enabled the Emergency Heat function in the setup menu.

The HVAC system settings depends on the type of system you use, common options are shown below:

Cool: Turn on cooling when the current temperature rises above the setpoint.

Heat: Turn on heating when the current temperature drops below the setpoint.

Auto: Activate the heating or cooling system as required to keep your home within the configured range of setpoint.

EMER: Use ONLY the Emergency Heat or backup heat source to maintain the heat setpoint. This option only appears if Emergency heat is configured in the Equipment menu. Compressor is off.

Off: Turn the system off. When the system is off, only the current temperature will be displayed on the home screen.

FAN SETUP

In the off state, press and hold  and  for 3 seconds to access the settings, select 01 Fan setting by using  or  to change the fan setting, Auto or On (default in Auto).

Auto: Fan runs only when the heating or cooling system is on. Auto is the most commonly used setting.

On: Fan is always on.

OVERRIDING SCHEDULES SETUP

Tap the  key to select “Permanent Hold”, “Temporary Hold”, “Using Schedule” or “Hold Until”.

Permanent Hold: Tap the  key to select “Permanent Hold”, this will permanently adjust the temperature and turn off the program schedule. Tap  or  to adjust the temperature setting. The temperature you set will be maintained 24 hours a day until you manually change it or cancel to resume the program schedule.

Temporary Hold: Tap the  key to select “Temporary Hold”, you can override the scheduled temperature immediately by tapping  or . The new temperature will be maintained only until the next programmed time period begins.

Using Schedule: Tap the  key to select “Using Schedule”, there are 4 period times per day can be re-set, 7 days per week can be programmed.

Holiday mode(Hold Until): Tap the  key to select “Hold Until”, it will be displayed with “Hold Until” and “Days” on the screen. The setpoint temperature can be modulated based on the days you set by tapping  or .

ADVANCED SETTING

In the off state, press and hold  and  for 3 seconds to access the advanced setting, tap 
or  to select the item numbers as below:

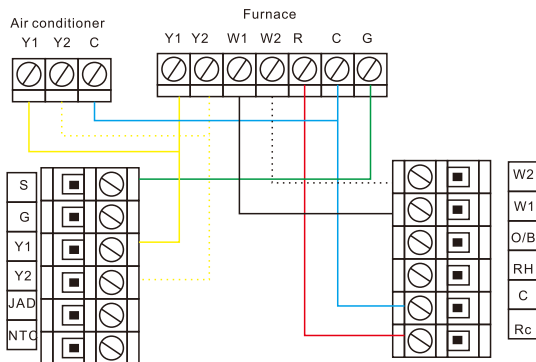
Item No.	Description	Setting Range	Definition	Default value
01	Fan On/Auto	0: Fan Auto; 1: Fan On	Auto: Fan runs only when the heating or cooling system is on. Auto is the most commonly used setting On: Fan is always on under Auto, Cooling or Heating mode	0
02	Offset temperature	-8°F~-8°F (-4°C~-4°C)	Calibrate the reading temperature of thermostat itself	0
03	Minimum downtime for the heat pump compressor	0~5 minutes	The imum time after the compressor is shutdown	1
04	O/B terminal output	0: Cooling O/B = 0; Heating O/B = 1 1: Cooling O/B = 1; Heating O/B = 0	Only for heat pump control, not for air conditioning control	1
05	Low temperature limitation	41°F ~59°F (5°C ~15°C)	-	41°F (5°C)
06	High temperature limitation	59°F ~113°F (15°C ~45°C)	-	113°F (45°C)
07	Time clock display	0: 12-hour clock 1: 24-hour clock	-	1
08	Determination value of AC and heating operation under heat pump auto mode	1°C~5°C (2°F ~10°F)	Setpoint temperature ≥ Indoor ambient temperature + Switch differential, auto mode works as heating mode; Setpoint temperature ≤ Indoor ambient temperature - Switch differential, auto mode works as cooling mode;	3°C
09	Filter cleaning reminder time	0~5 months	When the set value is 0, there is no filter cleaning reminder; And when the filter timing is greater than 0. In the unit of month, time the filter when the fan turns on with filter icon displayed on screen. To off the filter timing, press and hold the mode key for 5 seconds, the filter icon will disappear.	3
0A	Screen saver	1~99	Screen brightness in standby mode	20
0b	Celsius or Fahrenheit	0: °C 1: °F	-	1

0C	Y2 Switch differential (Deadband)	1°C~5°C (2°F ~10°F)	When Y2 is in off state, the temperature difference between setpoint temperature and indoor ambient temperature $\geq$ switch differential value, turn on the output of Y2; When Y2 is in on state, the temperature difference between setpoint temperature and indoor ambient temperature $\leq$ switch differential value-1°C, turn off the output of Y2; Under heating mode, when AUX. heating is off, the temperature difference between setpoint temperature and indoor ambient temperature $\geq$ switch differential value+1°C, turn on the output of AUX heating; When AUX. heating is on, the temperature difference between setpoint temperature and indoor ambient temperature $\leq$ switch differential value, turn off the output of AUX heating.	2°C
0d	Fan control under heating mode	0: Fan off 1: Fan on	-	1
0E	Changeover the heat pump and air conditioning system	0: Heat pump 1: Air Conditioning	When engaged in air conditioning, there is no output control to 0B. Under heating mode, there is no output control to Y1, Y2, only control W1, W2.	0
0F	Delay time on Y1 output	0~180s	Delay time to turn on Y1 output	30s
10	Delay time on Y2 output	0~180s	Delay time to turn on Y2 output if Y1 is on working and Y2 is all set.	30s
11	Fan delay	0~180s	When the fan is automatically controlled, the fan closing time will be delayed as requested in case of the closing condition is all set. It will turn off the fan delay immediately if the mode were changed or the thermostat were switched off.	30s
12	Factory reset	0: No 1: Yes	If it were set to 1, the thermostat will get all the setting value, mode and program time reset in default state	0
13	The output of Heat pump and AUX heating is simultaneously on	0: No 1: Yes	If it were set to 1, with heat pump model, y1, y2 outputs are working, and w1, w2 as the auxiliary heat outputs will also work when the temperature difference between W1 and W2 is large. If it were set to 0, only y1, y 2 outputs are working under the heat pump model.	1

Wiring Diagram

Below are the wiring diagrams for common HVAC equipment.

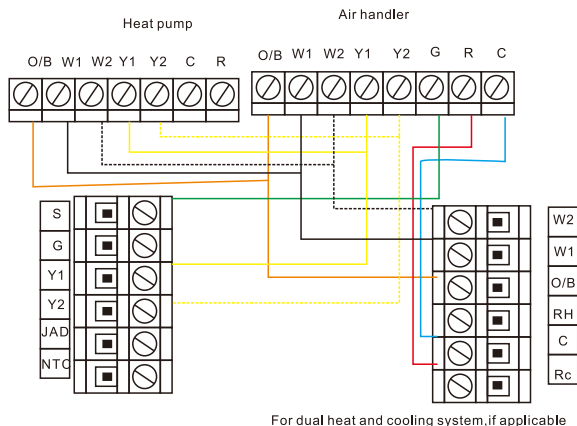
Conventional heating and cooling system



For dual heat and cooling system, if applicable

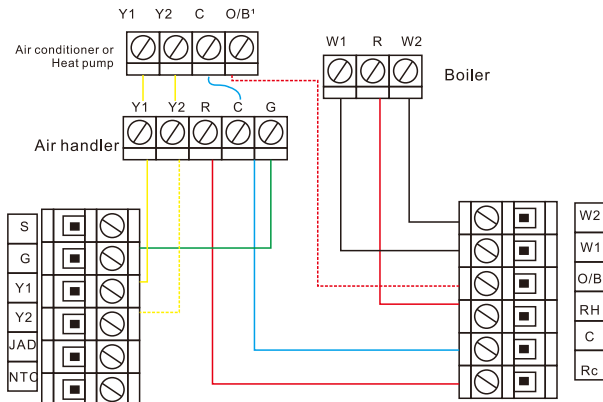
Remove the jumper between Rh, Rc or R terminals, adjust the DIP switch on the back of the thermostat to "Disconnect" if you have connected both RC-wire and RH-wire to the wallplate. If not, switch it to the "Connect" side.

Heat pump (air or geothermal) with auxiliary heat



Remove the jumper between Rh, Rc or R terminals, adjust the DIP switch on the back of the thermostat to “Disconnect” if you have connected both RC-wire and RH-wire to the wallplate. If not, switch it to the “Connect” side.

Boiler or radiant system with air handler and conventional cooling or heat pump



For dual heat and cooling system, if applicable
For heat pump only.

Remove the jumper between Rh, Rc or R terminals, adjust the DIP switch on the back of the thermostat to "Disconnect" if you have connected both RC-wire and RH-wire to the wallplate. If not, switch it to the "Connect" side.

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.

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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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