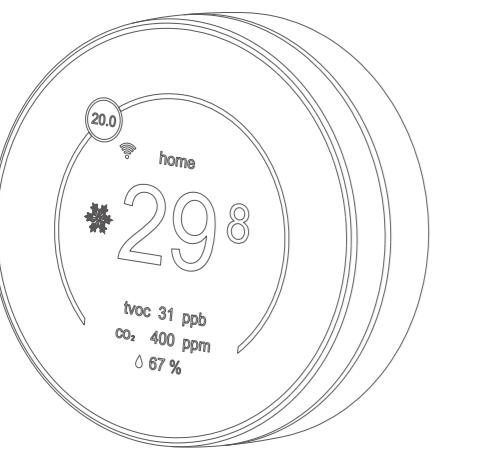


Smart thermostat FC660

Data sheet

Subject to technical alteration

Issue date: 17.12.2024

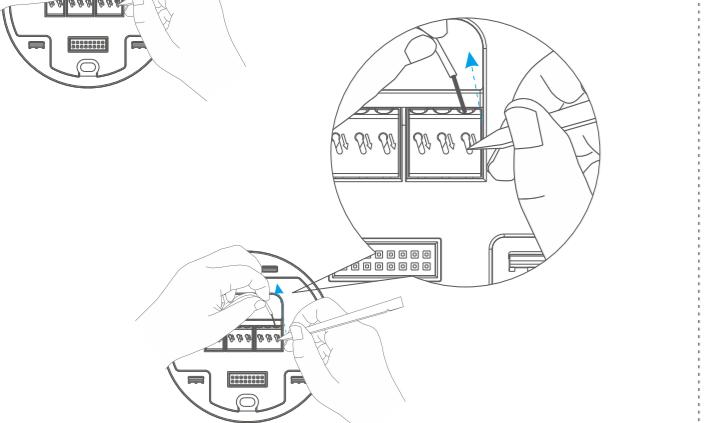
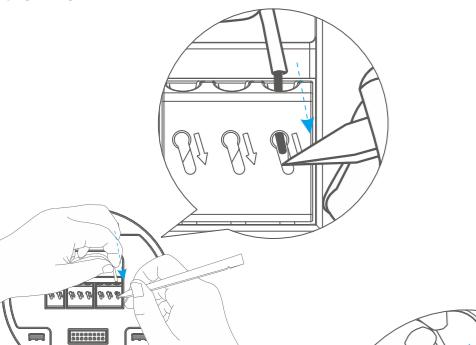


Application

FC 660 smart thermostat is a device for indoor temperature control. It is mainly applied to conventional system or heat pump system for heating/cooling, with 3 modes easily switchable: Holiday, Away and Home. The device is of high reliability and practicability, and it can support up to 3H/2C system.

-1-

Connection wires: Use the disassembly tool to push the terminal down according to the arrow on the base and insert the wire into the terminal at the same time. If need remove the wire from terminal, use the installation tool to push the terminal down in the arrow direction and pull out the wire.



-7-

Compatibility

The Smart Thermostat works with most 24V systems, including gas fuel, electric fuel, oil fuel, heat pump and radiant. It can control:

- Heating: one and two stages (W1, W2)
- Cooling: one and two stages (Y1, Y2)
- Heat pump: with auxiliary (O/B, AUX)
- Fan (G)
- Power (C, RH, RC)

Security Advice – Caution

The installation and assembly of electrical equipment should only be performed by authorized personnel.

The product should only be used for the intended application. Unauthorized modifications are prohibited! The product must not be used in relation with any equipment that in case of a failure may threaten, directly or indirectly, human health or life or result in danger to human beings, animals or assets. Ensure all power is disconnected before installing. Do not connect to live/operating equipment.

CAUTION! Risk of electric shock due to live components within the enclosure, especially devices with mains voltage supply.

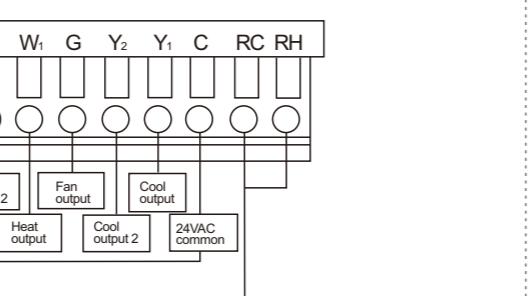
Please comply with

- Local laws, health & safety regulations, technical standards and regulations
- Condition of the device at the time of installation, to ensure safe installation
- This data sheet and installation manual

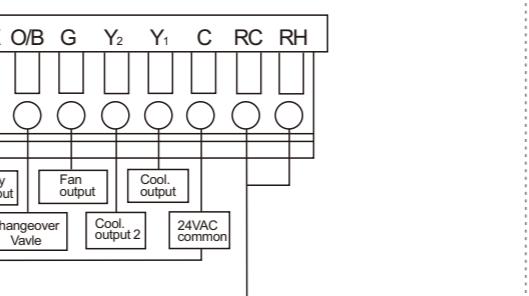
-2-

Terminal Connection wiring diagram

Wiring diagram Conventional system



Wiring diagram Heat Pump system



-8-

Compatibility

As a component of a large-scale fixed installation, Manufacturer products are intended to be used permanently as part of a building or a structure at a pre-defined and dedicated location, hence the Waste Electrical and Electronic Act (WEEE) is not applicable. However, most of the products may contain valuable materials that should be recycled and not disposed of as domestic waste. Please note the relevant regulations for local disposal.

Technical Data

Power supply	AC 24V 50/60Hz
Network technology	WIFI 2.4G communication
Measuring range temp.	0~+50°C
Control functions	Set point adjustment 0~50°C (default +16~+30°C)
Display	TFT Resolution 480*480 Colorful display
Enclosure	Aluminum alloy, tempered glass, fire proof PC & ABS
Protection	IP20 according to EN60529
Cable entry	Rear entry
Ambient condition	-10~+50°C, max. 95%RH non-condensing
Mounting	Surface mounted
Display size	86*86*33.8mm
Base size	86*86*4.5mm

-3-

CE power and frequency band information are as follows:

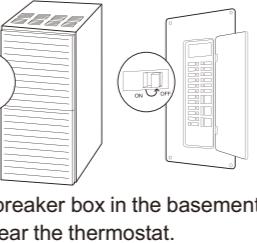
Transmitter Frequency: 2.4G Wi-Fi: 2412-2472MHz

Receiver Frequency: 2.4G Wi-Fi: 2412-2472MHz

RF-Output Power: 2.4G Wi-Fi: 17.95dBm

Installation Description

Step 1: Power off your Heating, Ventilation, and Air Conditioning (HVAC) system by using the master switch or circuit breaker box. This is important for your safety.

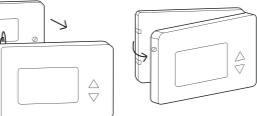


Tip: Look for your master switch or circuit breaker box in the basement, attic, utility closet, or behind a wall panel near the thermostat.

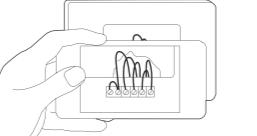
STEP 2: Confirm your system is off by turning on your heat (during winter) or your AC (during summer). Wait a few minutes—you should not feel air coming from your vents.



Tip: If you have a boiler, check to see that the main flame is extinguished. Step 3: Remove your old thermostat cover from the wall.



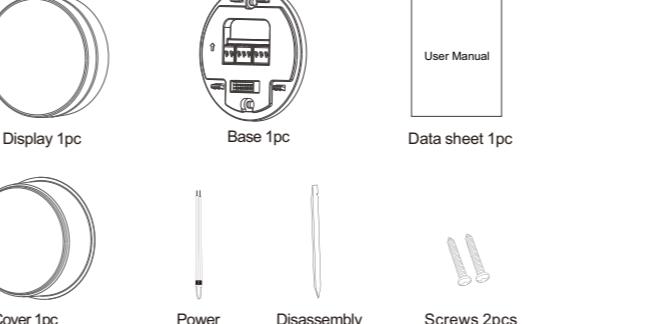
Tip: Many thermostats simply pop off or unclip from the base, while others may have screws that you will need to remove.



Step 4: Take a picture of the wires connected to the terminals of your old thermostat. You may need to reference this photo later.

WARNING: this thermostat is designed for 24VAC with a 0.5A maximum current. Do not connect it to line (high) voltage or millivolt systems.

-4-

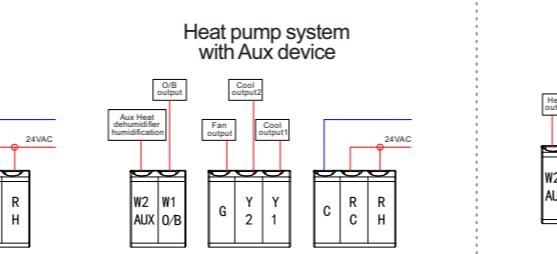


-5-

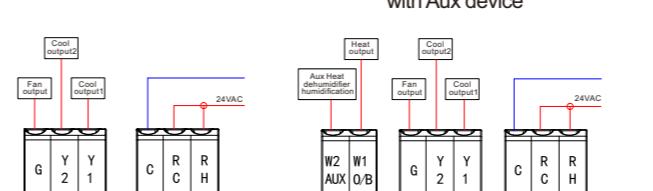
Terminals Explanation

RH	Power for heating, AC24V
RC	Power for cooling, AC24V
C	Common wire, AC24V
Y1	First outdoor stage cooling on conventional systems or first heat and cool on heat pump systems
Y2	Second outdoor stage cooling on conventional systems or second heat and cool on two stage heat pump systems
G	Indoor blower (fan)
W1	First indoor stage heat on conventional systems or first stage auxiliary on heat pump systems
W2	Second indoor stage heat on conventional systems or second stage auxiliary heat on heat pump systems
O/B	Changeover (reversing valve) connection for heat pump or zone panel systems
AUX	Auxiliary output

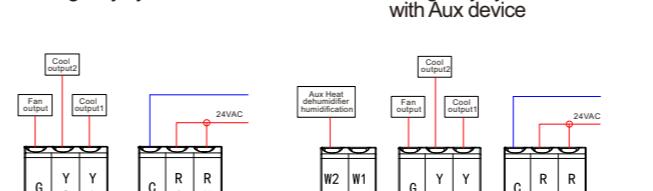
Wiring Instructions



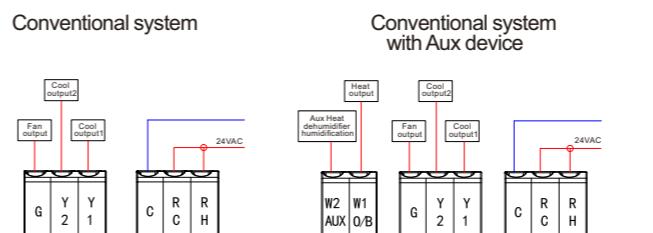
Conventional system



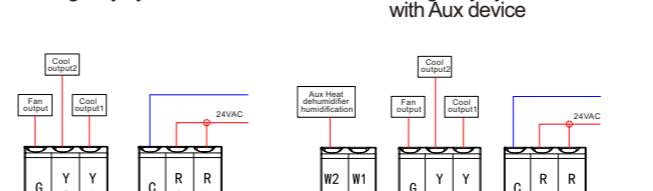
Cooling only system



Conventional system with Aux device

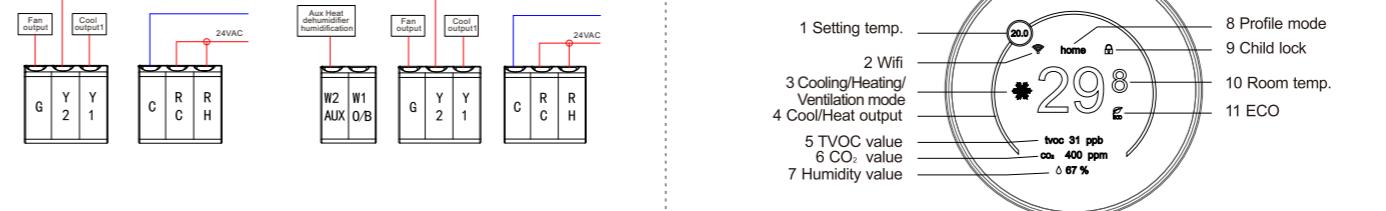


Cooling only system with Aux device

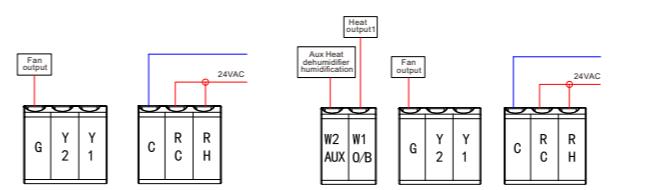


Display panel

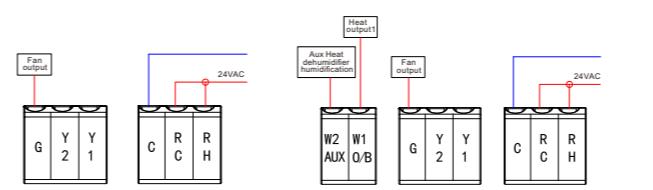
Main interface:



Heating only system



Heating only system with Aux device

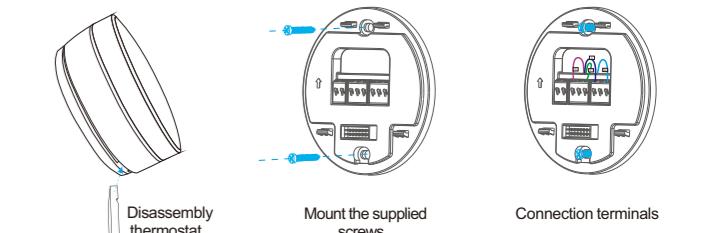


Heating only system with Aux device

-6-

Step 5: Separate the base from thermostat by disassembling, pull the control wires through the large opening in the thermostat base.

Next, level and mount the base on the wall using the supplied screws. Do not over tighten the mounting screws as the thermostat base may warp causing an improper seating of the thermostat connecting pins to the terminal blocks. Use a properly sized installation tool to indicate the connection terminal according to the arrow of the base before connecting each wire to its dedicated terminal.



When the user selects ventilation mode, only the fan start signal is output, the cooling and the heating outputs are kept off.

4 Cooling & Heating output
Circle color showed blue—the thermostat is running cooling output
Circle color showed red—the thermostat is running heating output
Circle color showed white—the thermostat without any output

5 TVOC display – Room air quality
6 CO2 display – Room air quality
7 Humidity display – Relative room humidity

8 Profile mode – Support holiday/home/away mode adjustment
(Holiday mode will only display when the user set this holiday mode in Parameter Setting)

9 Lock – Local thermostat will not be workable when this symbol indicated unless it is released by APP on smart phone or input the thermostat password (Factory default password "987", and the user can set the password, if the user forgot the revised password "999" to restore the factory default password "987").

10 Temperature display – The thermostat displays room temperature. (Factory default: °C display), the user can switch to Fahrenheit (°F) by APP

11 ECO mode – In ECO mode it will show the leaf and the word ECO in the display

In ECO mode, factory default cooling temperature is 28°C, heating temperature is 19°C. (The user can revised the ECO temperature in Parameter Setting)

Communication

Wifi communication:
Download APP:
1.1 Search for "Smart Life" or "Tuya Smart" in iOS/Android App store, download, or scan the relevant QR code here.

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