

# Series W-RTF2200/2400

## Room Thermostat

### ◆ Application

W-RTF Series Room Thermostats are designed to control the room temperature in air-conditioning fan coil unit system or dust pipe channel system. W-RTF series thermostats with microprocessor and big LCD display.

### ◆ Features

- Microprocessor and big LCD display
- Room temperature setting
- Manual or auto 3-speed changeover
- Defrost (low temperature protection)
- White back light
- Auto-restart

### ◆ LCD Display

- Working Status: Cooling❄️, Heating🔥or Ventilation🌀
- Fan Speed ( Low📊, Med📊, High📊or AUTO)
- FCU valve status🔒
- Room temperature display
- Temperature setting display

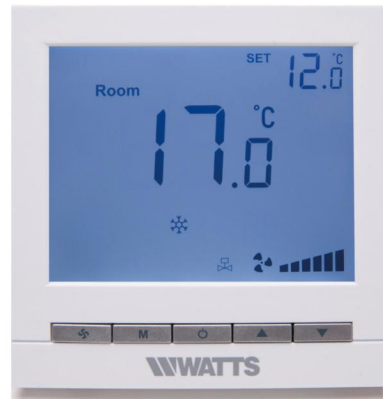
### ◆ Technical Specification

- Sensing element: NTC
- Accuracy:  $\pm 1^\circ\text{C}$
- Set-point range:  $5 \sim 35^\circ\text{C}$
- Display range:  $0 \sim 55^\circ\text{C}$
- Operation environment:  $0 \sim 45^\circ\text{C}$
- Operating Humidity:  $5 \sim 95\%$  RH(non-condensing)
- Key: Soft touch
- Rated Power: 1W
- Power supply: AC 85 ~ 260V, 50/60Hz
- Wirings: Accepting  $2 \times 1.5 \text{ mm}^2$  or  $1 \times 2.5 \text{ mm}^2$  wires
- Switch current rating: Resistive: 2 A, Inductive: 1 A
- Housing: PC + ABS Fire Retardant
- Dimensions:  $86.6 \times 86.6 \times 15.5 \text{ mm}$  ( W×H×D )
- Hole pitch: 60 mm (Standard)
- Protection Class: IP20

### ◆ Installation

#### Operation

- On/Off: Press “⏻” to turn on, press “⏻” again to turn off thermostat and its output.
  - Setting temperature: Press “▼” to reduce set–point, press “▲” to raise set–point, and  $0.5^\circ\text{C}$  changed once.
  - Mode Selection: Press “ ” to change system working in cooling “❄️”, heating “🔥” or ventilation “🌀” mode, the related icon will flash.
  - Fan Speed Selection: Press “🌀” to change fan speed among 📊(Hi), 📊(Med), 📊(Low) or AUTO.
- Under auto fan speed “AUTO”, the fan–speed will be changed automatically. Auto LOW–speed When the difference between room–temperature and set–point is  $1^\circ\text{C}$ ; Auto MED–speed When difference is  $2^\circ\text{C}$ ; Auto Hi–speed When difference is  $3^\circ\text{C}$ .
- Control Motorized Valve under 2–pipe configuration (W–RTF2200): If the differential temperature between room temperature and set–point exceed  $1^\circ\text{C}$ , FCU valve will be open; if room temperature and set–point are equal, will close the FCU valve with the fan still running.



### ◆ Technical Parameters

#### Product Type


Type	Description	EDP Code
W-RTF2200	Two pipe type	61816049
W-RTF2400	Four pipe type	61816050

#### Coding Rules


W	WATTS	W-	RTF	2200
RTF	Room thermostat for FCU			
2200	Two–pipe type			
2400	Four–pipe type			

- Control FCU Valve under 4-pipe configuration (W-RTF2400): In cooling, when the room temperature is higher than set-point, the cooling Valve will be opened. Otherwise it will be closed. Heating valve is always closed. In heating, When the room temperature is lower than set-point, the heating valve will be opened. Otherwise it will be closed. Cooling valve is always closed.

### Keyboard Lock Function

- Keypad Lock: its keypad would be automatically locked in 30 seconds in case that no one uses the thermostat, so as to prohibit other persons from operating the thermostat.
- Keypad Unlock: Press “” for 5 seconds to unlock ( In case that no one uses the thermostat, its keypad would be automatically locked in 30 seconds ) .

### Low Temperature Protection Function

- Turn off: When the room temperature is lower than 5°C , the thermostat would automatically turn on the fan and valve with “” showing, When the room temperature reaches to 7°C , the thermostat will automatically close the output.

### Low Temperature Protection Setting

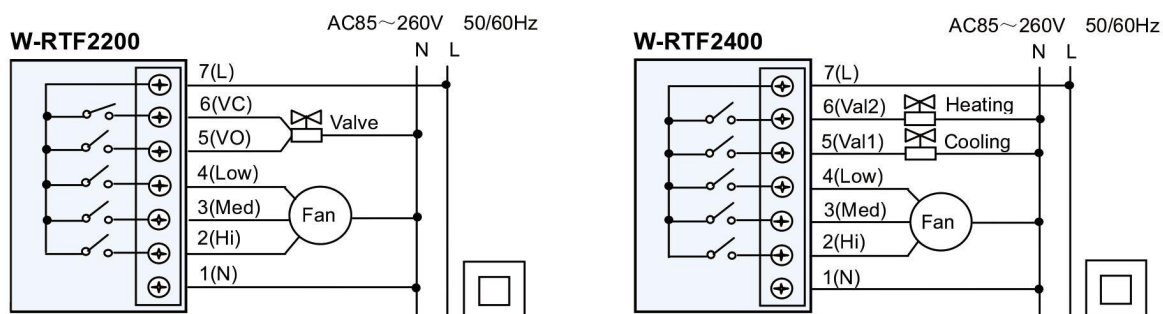
- Turn off the thermostat, press “M” and hold for 3 seconds, it will display “OF” or “ON”, press “▲” or “▼” key to adjust. “OF” indicates low temperature protection invalid, “ON” indicates low temperature protection function valid. The default is “OF” .

### Temperature Adjustment

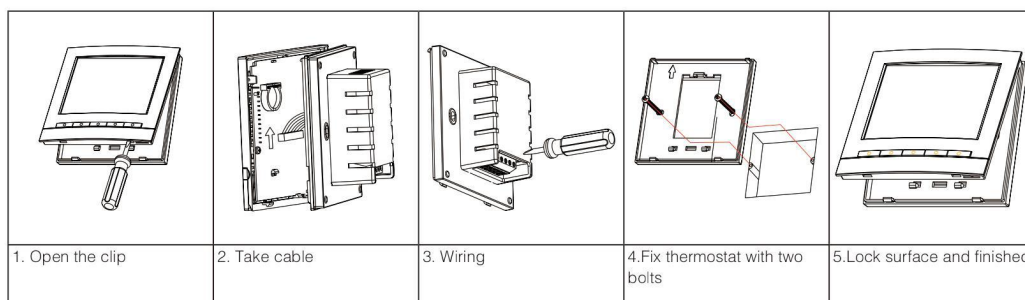
Temperature adjustment ( $\pm 5^{\circ}\text{C}$ ) can be done by following step:

- Turn off the thermostat, press “▲” and “▼” hold for 3 seconds, it will display “XX °C” ( not displaying the thermostat model ) , press “▲” or “▼” to adjust the temperature value, it will be automatically confirmed after 6 second.

## Wiring Diagram



## Installation Diagram



Note: Be sure to connect all the wires as per the wiring diagrams and keep it away from water, mud and other material so as to prevent the unit being spoiled!