

Honeywell

THERMOSTAT

WTS8 and WTS9 series



User Manual

Operation Guide

Power

Tap "Power" to power on/off the product.
Shutdown timer function: When the system is powered up, long touch "Power" to enter the shutdown timer setting screen. Tap "+" or "-" to set the timer ranged from 0.5 to 12 hours (adjusted in 0.5 hour increments), and tap "Power" again to save the change. If there is no operation in 5 seconds, the system will exit automatically without saving settings.

Temperature Setting

In Heating, Cooling, Automatic mode,
Tap "+" and "-" at the same time for 5 seconds display "LC" to lock buttons and tap "+" and "-" at the same time for 5 seconds to unlock the buttons.

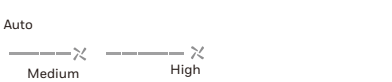
Operation Guide

Operating Mode

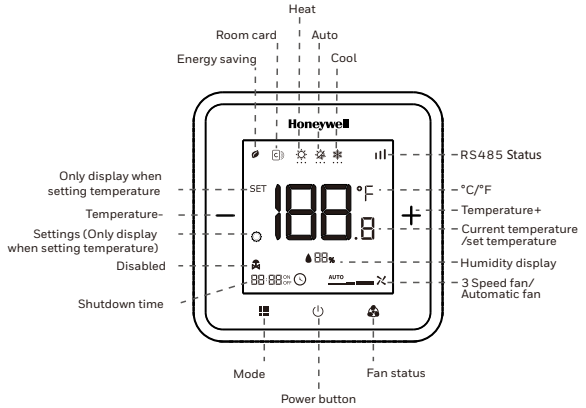


Touch "Menu" for 3 seconds to enter the energy saver mode (only when the value is set to 3, the energy saver mode can be activated.). Tap any button to exit. Or link to the remote room card to enter the energy saver mode. Short press "Menu" to cycle switch heating, cooling, automatic, ventilation mode.
Note: No automatic mode in two-pipe system.

Switching Fan Speed



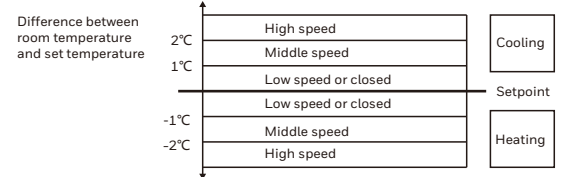
Display



The screen display "LC" means the buttons are locked, and tap "+" and "-" at the same time for 5 seconds to unlock the buttons.

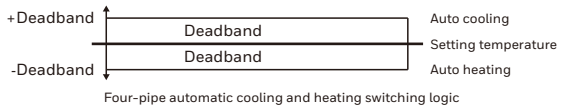
Fan operation

The fan operation mode can choose manual 3 speed control or automatic speed control. In the automatic fan speed mode, the fan speed depends on the difference between the set point and the actual room temperature.



Four pipe automatic mode description

Four-pipe automatic cooling and heating change over, the automatic adjustment range can be set in Configuration Menu Index 20 (Deadband setting). In automatic heating mode, when the current temperature reach setting temperature + deadband set point temperature, it will automatically change over to automatic cooling mode. In the automatic cooling mode, when the current temperature reach setting temperature - deadband set point temperature, it will automatically change over to the automatic heating mode.



Auto change Over heating / cooling, the the status of the deadband is determined by the last control mode.

Trouble shooting

Abnormal	Solution
Not activated	• Tap "Menu" to set the operating mode to "Heating" (heating mode). • To check if the setting temperature is higher than the current room temperature. • To check if the valve status "Closed" is displayed. • 5 minutes later, please check if the heating system is responsive.
Not activated	• Tap "Menu" to set the operating mode to "Cooling" (cooling mode). • To check if the setting temperature is lower than the current room temperature. • To check if the valve status "Open" is displayed. • 5 minutes later, please check if the cooling system is responsive.
Disabled	• To check if the key is locked. • To check if the mode is power OFF.
Disabled	• To check if the key is locked. • To check if the mode is ventilation mode. • To check if the mode is power OFF.

Installation Instructions

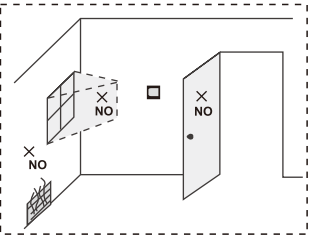
The product should be installed by a trained, experienced technical person.

- Please read this manual carefully before installation. Failure to follow them could damage the product or cause a hazardous condition.
- Check the ratings given in the instructions and on the product to make sure it is suitable for your application.
- Always conduct a thorough checkout after installation.

Note: Disconnect power supply before wire connection to prevent electrical shock and equipment damage.

Installation

- It is suitable for the installation with standard 86 junction box 75*75*50mm or junction box 70*70*50mm.
- The standard height to install this product is 1.5 meter from the floor with good air circulation.

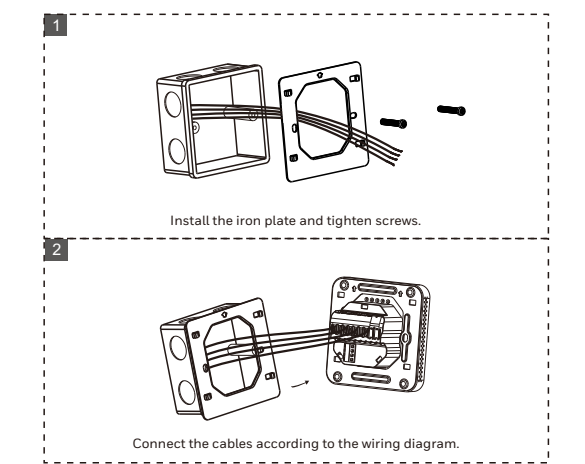


Do not install the thermostat at the locations below:

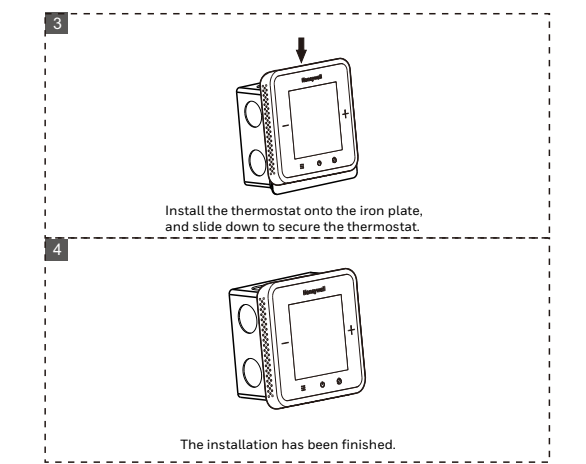
- Unventilated locations such as the places behind the door or in corners
- Locations close to heating or cooling pipes
- Locations exposed to sunlight or close to heat sources
- Other locations where the indoor temperature is low or high, such as walls connected to the outside.

Wiring and Installation

Please follow below drawings to do wiring and ensure the connection is reliable.
Ensure to tighten the terminal screws to prevent the wire from falling off.



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Ensure to tighten the terminal screws to prevent the wire from falling off.



Honeywell Environmental and Combustion Controls (Tianjin) Co., Ltd.
Address: No. 158 Nanhai Road, Tianjin, 300457, P.R.C

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version B
01/2024

封面
成品尺寸：整体尺寸：860*89mm,成品尺寸86*89mm，105g铜版纸，风琴折，黑白印刷

封底

Terminal Description

No.	On / Off (3-speed, On/Off valve)	
	Symbol	Description
1	L or R	Live wire(220VAC/24VAC)
2	N or C	Neutral wire or OV
3	FL	Low fan speed
4	FM	Medium fan speed
5	FH	High fan speed
6	VC1	Cooling valve on / Heating valve on
7	VC2	Cooling valve on / Heating valve on Heat valve on (Four pipe only)
8	(D+/A)/NC	RS485 A+ / Standby
9	(D-/B)/NC	RS485 B- / Standby
10	RSB	Room card signal/external sensor(NTC20K B4200, RVVP 2 x 0.75mm ² cable type, recommended maximum length of sensor is no more than 50m)
11	GND	Room card/sensor common terminal. not RS485 common terminal.

Note:

- Input voltage: 100~240VAC(18~30VAC)50/60Hz, the thermostat must be equipped with overload protection.
- Communication cable: RVSP2*1.0mm², connected no more than 32 thermostats in one RS485 loop.
- Don't route signal / communication cables with high voltage cables in a same conduit. Refer to Electrical Wiring Safety Regulations.
- All device in the same RS485 loop, not mix connect R and C cable. Otherwise, it may lead to device damage.
- Recommended Modbus Gateway Configuration: Response timeout≥1s, retry count≥2, single read /write register, Max Rx Inter Character Delay≥500ms.
- Recommended to connect only the same type of thermostat on a rs485 bus.

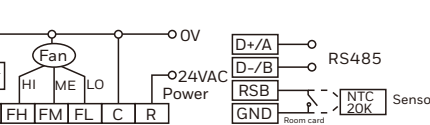
Security Instructions

This section lists the few security guidelines and tips that you must follow for the Honeywell Touch Screen Thermostat.

- Ensure the physical security of the device. Only authorized personnel can access the device and bus.
- Ensure the security of equipment installation, operation and maintenance management.
- Ensure that the device is on an isolated internal network.
- Do not open the device or damage the appearance, resulting in internal exposure.

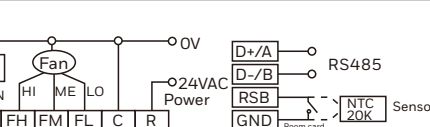
Note: These are the tips that Honeywell recommends. But is not limited to. If you find any security vulnerability. Report it to security@honeywell.com

4-Pipe, 2-Wire valve, 3-Speed fan, 24VAC power supply



18~30VAC 50/60Hz

2-Pipe, 3-Wire valve, 3-Speed fan, 24VAC power supply

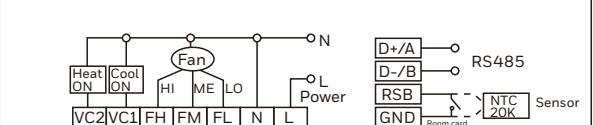


18~30VAC 50/60Hz

The Wiring diagram applicable models: WTS9E4XXXX WTS8E4XXXX

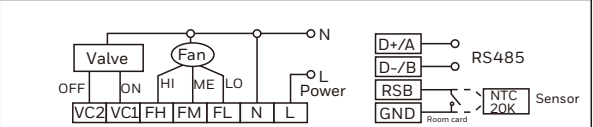
Note: WTS8 series does not support RS485 communication

4-Pipe, 2-Wire valve, 3-Speed fan, 220VAC power supply



100~240VAC 50/60Hz

2-Pipe, 3-Wire valve, 3-Speed fan, 24VAC power supply



100~240VAC 50/60Hz

The Wiring diagram applicable models: WTS9B4XXXX WTS8B4XXXX

Note: WTS8 series does not support RS485 communication

Configuration Menu Setting

After shutting down, tap " " for 5 seconds to enter the parameter setting screen with " " displayed. You can tap "+", "-", to switch the menu number, and tap " " to enter the corresponding screen. (The icon " " disappears.) Tap " " again to display " ", and tap "+", "-", to set the relevant function. After the setting is completed, tap " " to save settings and exit. In parameter setting screen, touch " " for 5 seconds will display " DEF " and flash 3 times, configuration menu will restore the factory setting. During setup, if no button is tapped in 10 seconds, the system will exit the parameter setting screen without saving current settings.

Freezing protection mode:

If freezing protection is enabled and thermostat is in OFF mode while the room temperature is below 5 °C, the thermostat will open heating device before the temperature rises to 8°C. (It is not available in cool only application).

Index	Description	Option
00	Modbus address (default 1) Only for WTS9 series models (This setting is invalid for WTS8 series)	1-64
01	Temperature Compensation (default 0°C)	When it is Celsius, the setting range will be from -2°C to 2°C adjusted in 0.5°C increments When it is Fahrenheit, the setting range will be from -4°F to 4°F adjusted in 1°F increments
02	Fahrenheit /Celsius (default °C)	°C: Celsius, °F: Fahrenheit
03	Temperature display (default 1)	1: When selecting "1"(the default setting), the room temperature is displayed by default. (It will display setting temperature when you touch up/down in this state, and exit after 5 seconds. 2: When selecting "2", the setting temperature is displayed by default. (It will display room temperature when you touch fan status button in this state, and exit after 5 seconds.

Index	Description	Option
04	Humidity display (default 1) (This setting is invalid for without humidity type)	1: Display the humidity (for example: 50%) 2: No display
05	Fan coil control mode setting after reaching to the setting temperature (default 1)	1: Turn off the fan coil when the temperature reaches the set point. 2: Fan coil keep working when the temperature reaches the set point.
06	Freezing protection mode (default 1)	1: Enable freezing protection function 2: Disable freezing protection function
07	Setting the upper temperature limit (default 32 °C)	When it is Celsius, the setting range will be from 10°C to 32°C adjusted in 0.5°C increments When it is Fahrenheit, the setting range will be from 50°F to 90°F adjusted in 1°F increments
08	Setting the lower temperature limit (default 10 °C)	When it is Celsius, the setting range will be from 10°C to 32°C adjusted in 0.5°C increments When it is Fahrenheit, the setting range will be from 50°F to 90°F adjusted in 1°F increments

Index	Description	Option
09	Selecting operating mode (default 6)	1: Only cooling mode is available. 2: Only heating mode is available. 3: Only cooling and ventilation modes are available. 4: Only heating and ventilation modes are available. 5: Cooling, heating and ventilation modes are available. 6: Auto, Cooling, Heating, Ventilation modes are available. No automatic mode in two-pipe system.
10	Two-pipe/four-pipe system working setting (default 2)	2: Two-pipe system working 4: Four-pipe system working
11	Energy saver mode activated (default 3)	1: Room key card normally open 2: Room key card normally closed 3: Button (long touch operating mode button for 3 seconds)
12	Heating temperature setting in energy saver mode (default 18°C or 64°F)	Range: 10~21°C in 0.5°C increments/ 50~70°F in 1°F increments
13	Cooling temperature setting in energy saver mode (default is 26°C or 79°F)	Range: 22~32°C in 0.5°C increments / 72~90°F in 1°F increments

Index	Description	Option
14	Fan speed setting in energy saver mode (default 2)	1: Low speed 2: Auto speed
15	External / Internal sensor (default 2)	1: External sensor. 2: Internal sensor.
16	Room card or external sensor (NTC 20K) selection (default 1)	1: Room card access 2: External sensor access
17	Modbus Baud rate (default 2) Only for WTS9 series models	0: baud rate 38400 bps 1: baud rate 19200 bps 2: baud rate 9600 bps 3: baud rate 4800 bps
18	Keypad lock mode (default 4) Factory settings: All buttons are not locked	1: System button is locked 2: Fan and system button are locked 3: All buttons are locked except power button 4: All buttons are locked
19	Power recovery status (default 1)	1: Keep previous status 2: Off
20	4-Pipe auto change over heating and cooling – dead band (default 3)	2- 1°C (2°F) 3- 1.5°C (3°F) 4- 2°C (4°F) 5- 3°C (5°F)