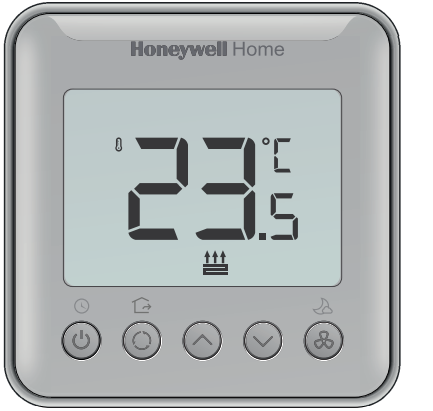




User Manual

TH428WPN-C Digital Thermostat

Thermostat Appearance



Operating Your Thermostat

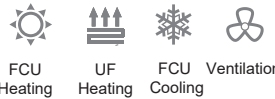
Power On/Off Time-off

- Press to switch on/off thermostat. When in off mode, OFF icon and indoor temperature will display.
- Press could set the automatical turn off time when the thermostat is working.
- Press and hold for more than 3s. After timer icon flashes, press or to set turn off time, then press button to exit.

Temperature Setting

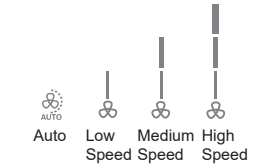
In , or mode, press or to set the target room temperature.

Operating/Away Mode



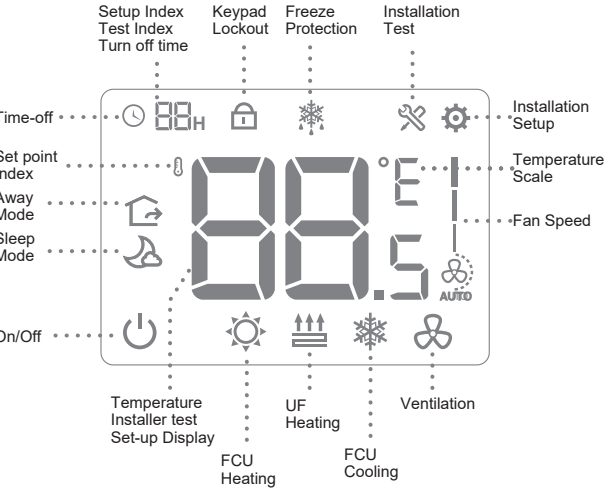
- Press and hold for 3s to enter Away Mode when in ON mode.

Fan Speed/Sleep Mode



- Press and hold for 3s to enter Sleep Mode when in UFH mode.

LCD Display



Trouble Shooting Tips

If....	Then....
Doesn't work	- Set the mode to (heating mode) by press . - Make sure the temperature is set above the room temperature - Wait 5 minutes for the system to respond
Doesn't work	- Set the mode to (heating mode) by press . - Make sure the temperature is set above the room temperature - Wait 5 minutes for the system to respond
Doesn't work	- Set the mode to (cooling mode) by press . - Make sure the temperature is set below the room temperature - Wait 5 minutes for the system to respond
Doesn't work	- Make sure keypad is unlocked - Check that the thermostat is on
Doesn't work	- Make sure keypad is unlocked - Make sure the system isn't in mode - Check that the thermostat is on
The system turns off automatically	Make sure the memorized time off value isn't set to "0"
Time-off doesn't work	- Make sure the button is unlocked - Make sure the turn off time is not 0 - Make sure the thermostat is not in ISU - Make sure the thermostat is not off

Installation Guide

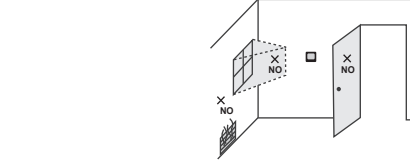
- Must be installed by a trained and experienced installer**
- Read instruction carefully. Failure to follow instruction will damage the product or cause a hazardous condition.
 - Check the ratings in this booklet to verify that this product is suitable for your application.
 - Always test for proper operation after installation.

Caution: ELECTRICAL HAZARD can cause electrical shock or equipment damage. Disconnect power before installation, reparation and detachment.

The manual interpretation is owned by Resideo Technologies, Inc. and its affiliates, we retain the rights that improve the products described in this manual without prior notice.

Installation Tips

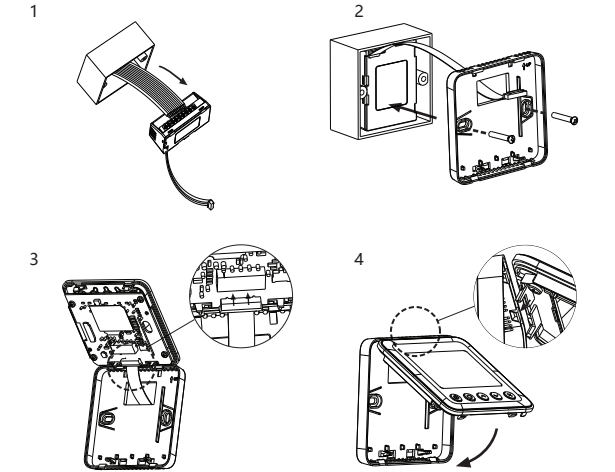
TH428WPN-C is designed for standard 75x75x50mm wall mounting box installation. Install the thermostat about 5 feet (1.5m) above the floor in an area with good air circulation at average temperature.



- Do not install in locations where the thermostat can be affected by:**
- Dead spots behind doors and in corners
 - Hot or cold air from ducts
 - Sunlight or radiant heat from appliances
 - Concealed pipes or chimneys
 - The temperature of mounting box and wall should be in the operating temperature range.

Wiring and Installation

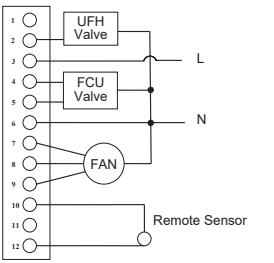
- !** The screw must be locked tightly to avoid wire break off from the terminal. The wire should not be tangled and stucked between front case assembly and back case.



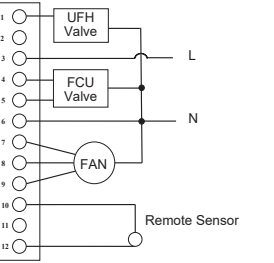
Terminal Designations

Terminal		Description
1	vC2	UFH Valve Close
2	vO2	UFH Valve Open
3	L	Line
4	vC	FCU Valve Close
5	vO	FCU Valve Open
6	N	Neutral
7	FH	High Speed Fan On
8	FM	Medium Speed Fan On
9	FL	Low Speed Fan On
10	Sc	Ground for remote sensor
11		
12	Rs	Remote sensor

Wiring Diagram

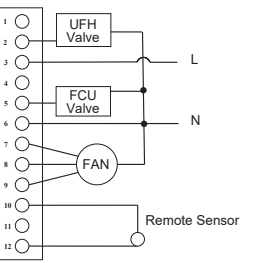


Application 1: Typical wiring for FCU ON/OFF control(VC6013)+UFH NC Mode

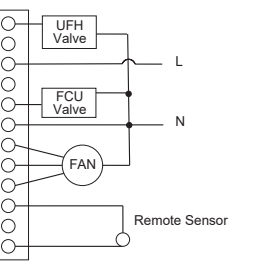


Application 2: Typical wiring for FCU ON/OFF control(VC6013)+UFH NO Mode

Wiring Diagram

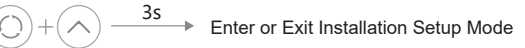


Application 3: Typical wiring for FCU ON/OFF control(VC4013)+UFH NC Mode



Application 4: Typical wiring for FCU ON/OFF control(VC4013)+UFH NO Mode

Installation Setup



ISU Code	Description	Possible Options
2	Remote Sensor	0 Onboard Sensor (Default) 1 Remote sensor (NTC20K)
3	Temperature Scale	0 °F 1 °C (Default)
4	Fan Control Type	0 Auto only Auto has fan ramping algorithm 1 Manual only (3 speed: Low->Med->High-> Low) 2 User can choose Auto or Manual (Default) (Low->Med->High->Auto-> Low)
8	Display Temperature Adjustment	-4.5 °C- 4.5 °C, step 0.5 °C, Default 0 °C (-9 °F- 9 °F, step 1 °F, Default 0 °F)
9	Temperature Display Mode	0 Display room temperature (Default) 1 Display setpoint

ISU Code	Description	Possible Options
10	Heating Range Stops	10-32 °C Default 32 °C (50-90°F Default 90 °F)
11	Cooling Range Stops	10-32°C Default 10 °C (50-90°F Default 50 °F)
12	Keypad Lockout	0 All keys are available (Default) 1 System button locked out 2 Fan and System buttons locked out 3 All buttons locked out except power button 4 All buttons are locked
14	Away Mode Heating Set Point	Range 10-21°C Default : 14 °C (Range 50-70°F Default : 57 °F)
15	Away Mode Cooling Set Point	Range 22-32°C Default : 26 °C (Range 72-90 °F Default : 79 °F)
16	Freeze Protection	0 Disabled 1 Enabled (Default)

ISU Code	Description	Possible Options
17	Power Recovery Status	0 OFF 1 Previous status (Default)
19	Fan Mode In Away Mode	0 Run as Auto fan speed when ISU_4=2 (Default) 1 Run as Low fan speed when ISU_4=2



WEEE Directive 2012/19/EU Waste of Electrical and Electronic Equipment Directive
Disposal Information-
Do not dispose this device and contained batteries with the general household waste.For proper treatment, recovery and recycling, please take the device and contained batteries to designated collection points. Disposing of this device and of contained batteries correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling.