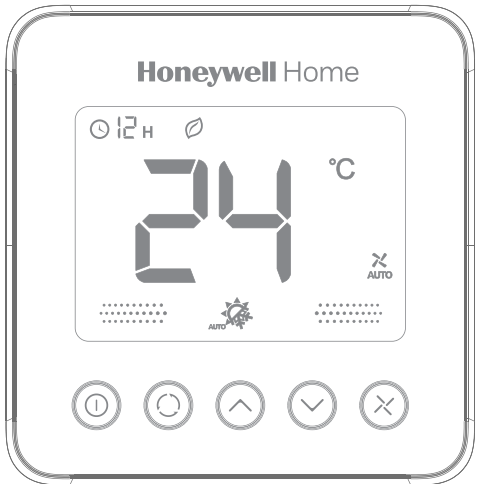




Thermostat Appearance



Operating Your Thermostat

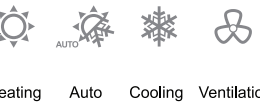
① Power On/Off Time-off

- Press ① to switch on/off thermostat. When in off mode, OFF icon and indoor temperature will display.
- Press ① could set the automatical turn off time when the thermostat is working. Press ① and hold for more than 3s. After timer icon flashes, press ^ or v to set turn off time, then press ① button to exit.

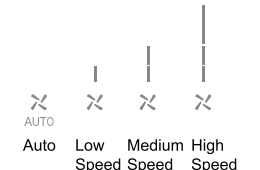
^ v Temperature Setting

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

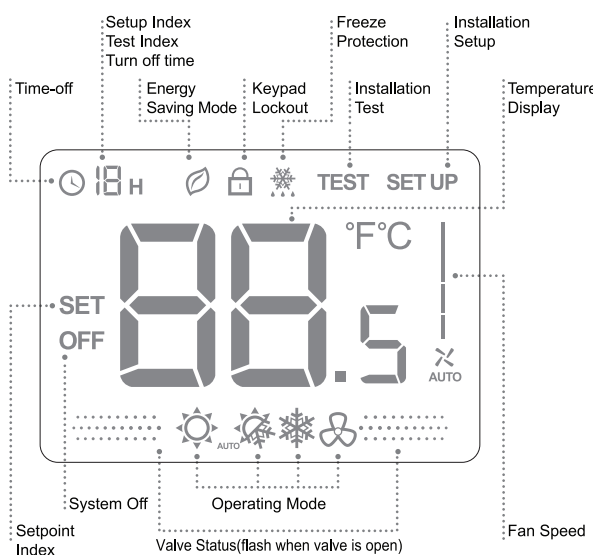
⌚ Operating Mode



⌘ Fan Speed Setting



LCD Display



Trouble Shooting Tips

If....	Then....
Doesn't work	<ul style="list-style-type: none">• Set the mode to (heating mode) by press • Make sure the temperature is set above the room temperature• Check that the valve open icon is flashing• Wait 5 minutes for the system to respond
Doesn't work	<ul style="list-style-type: none">• Set the mode to (cooling mode) by press • Make sure the temperature is set below the room temperature• Check that the valve open icon is flashing• Wait 5 minutes for the system to respond
Doesn't work	<ul style="list-style-type: none">• Make sure keypad is unlocked• Check that the thermostat is on
^ Doesn't work	<ul style="list-style-type: none">• Make sure keypad is unlocked• Make sure the system isn't in mode• Check that the thermostat is on
The system turns off automatically	<ul style="list-style-type: none">• Make sure the memorized time off value isn't set to "0"
Time-off doesn't work	<ul style="list-style-type: none">• 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

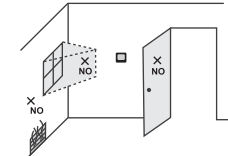
- Must be installed by a trained and experienced installer**
- Read instruction carefully. Failure to follow instruction will damage the product or cause a hazardous condition.
 - Check the ratings in this booklet to verify that this product is suitable for your application.
 - Always test for proper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

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

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Installation Tips

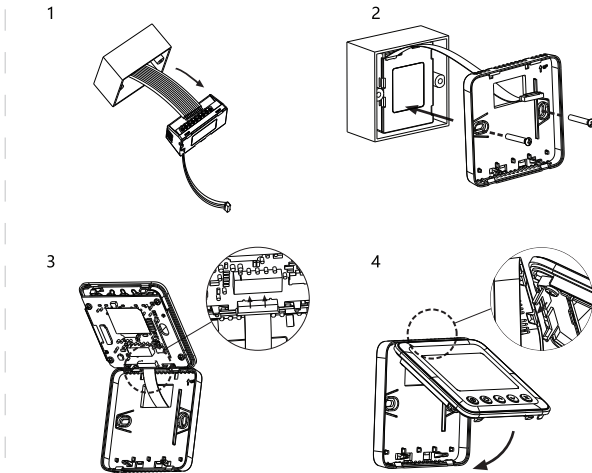
TF428 Series is designed for standard 75x75x50mm wall mounting box installation. Install the thermostat about 5 feet (1.5m) above the floor in an area with good air circulation at average temperature.



- 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

Wiring and Installation

- !** The screw must be locked tightly to avoid wire break off from the terminal.



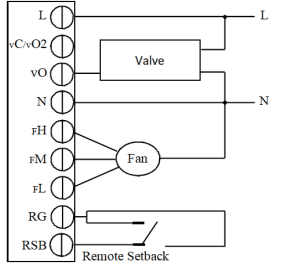
Terminal Designations

Terminal	Description
L	Live wire
VC/ vO2	Heating valve close/Cooling valve close, 2 pipes only Cooling valve open, 4 pipes (VC/VN 4013) only
vO	Heating valve open/Cooling valve open, 2 pipes only Heating valve open, 4 pipes (VC/VN 4013) only
N	Neutral wire
FH	High speed fan
FM	Medium speed fan
FL	Low speed fan
RG	Ground for remote setback
RSB	Remote setback

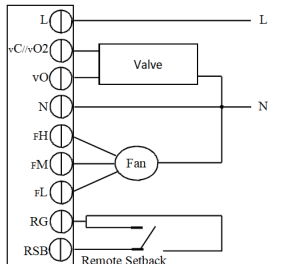
* The temperature of mounting box and wall should be in the operating temperature range.

Two pipe application

Wiring Diagram 1
VC4013
VN4013 Wiring

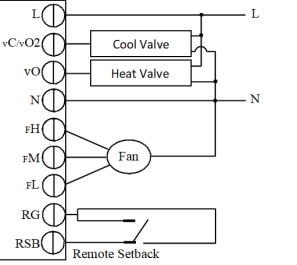


Wiring Diagram 2
VC6013
VN6013 Wiring

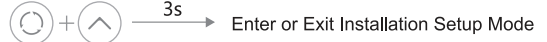


Four pipe application

Wiring Diagram 1
VC4013
VN4013 Wiring



Installation Setup



ISU Code	Description	Possible Options
1	System Type	0 Heat only 1 Cool only 2 Two pipes heating/cooling (Default) 4 Four pipes manual 5 Four pipes auto
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) (3 speed: Low->Med->High-> Auto-> Low)

ISU Code	Description	Possible Options
5	Switching differential for 4 pipe auto changeover with single setpoint	1°C (2°F) 1.5°C (3°F) (Default) 2°C (4°F) 3°C (5°F)
6	CPH value For Heat	1-12 4 (Default)
7	CPH value For Cool	1-6 3 (Default)
8	Display Temperature adjustment	-2 °C- 2 °C, 0.5 °C, Default 0 °C (-4 °F- 4 °F, 1 °F, Default 0 °F)
9	Temperature Display mode	0 Display room temperature (Default) 1 Display set point
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 button Locked out

ISU Code	Description	Possible Options
		3 All button locked out except power button 4 All buttons are locked
13	Remote setback enable method	0 Hotel card NO 1 Hotel Card NC 2 Button (Default)
14	Remote setback Heating setpoint	Range 10-21°C Default : 18 °C (Range 50-70°F Default : 64 °F)
15	Remote setback cooling setpoint	Range 22-32°C Default : 26 °C (Range 72-90 °F Default : 79 °F)
16	Freeze Protection	0 Disabled 1 Enabled (Default)
17	Power Recovery Status	0 OFF 1 Previous status (Default)
19	Fan mode in ES mode	0 Run as Auto fan speed when ISU_4=2 (Default) 1 Run as Low fan speed when ISU_4=2