

VENSTAR®

**2 or 4
PIPE**



**FAN COIL
CONTROL**

FAN COIL THERMOSTAT

models **T2100 / T2150**

EXPLORER Mini

with
Wi-Fi
and local
API



**Quick start
and setup guide**

Thank You

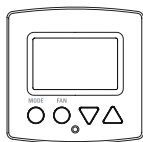
Congratulations and thank you for purchasing your new Venstar Fan Coil thermostat. This guide is intended to help you install and setup the basic features of your thermostat. For a full owner's manual and installation guide, visit Venstar.com.



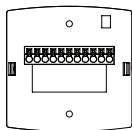
Compatibility

Your Venstar EXPLORER Mini® fan coil thermostat is designed to work with 24V fancoils, both 2 pipe or 4 pipe. For 2 pipe units with automatic changeover between heating and cooling based on water supply, you will need to obtain a H2O changeover switch, ACC-SENFEC. The thermostat controls 3 speed fans and can control to a remote temperature sensor.

Contents



Thermostat



Thermostat
Base



Drywall Anchors
and Screws



This Quick Start
Manual

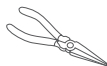
Necessary Tools



Smart Phone



Level



Pliers



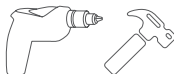
WiFi Network
& Password



Screw Driver



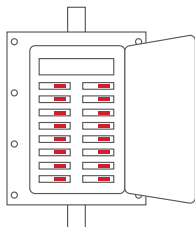
Pencil



Drill or Hammer
(3/16" or 7/32" drill bits)

Step 1 - Power Off Current System

- 1) All power must be disconnected before any installation or service is attempted. More than one power source may be supplied to a unit. Power to remote mounted control devices may not be supplied through the unit.
- 2) To confirm power is off, adjust the temperature on your current thermostat.

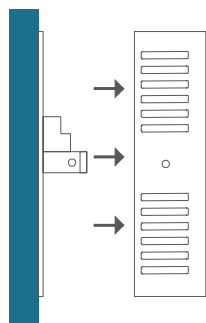


WARNING: Failure to follow this step can result in personal injury and/or death from shock and electrocution.

Step 2 - Remove Faceplate

Remove the faceplate of current system. Most faceplates snap-off or feature small screws that will need to be removed.

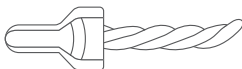
Wall Thermostat



Side View



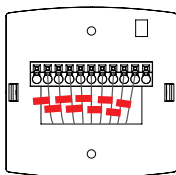
WARNING: If you see large thick electrical wires, wire nuts, or if your system is labeled 120V, 240V, or 277V DO NOT PROCEED. THIS THERMOSTAT IS NOT COMPATIBLE WITH THESE SYSTEMS



WARNING: Failure to follow this step can result in personal injury and/or death from shock and electrocution.

Step 3 - Label & Disconnect Wires

- 1) One by one, apply a label designated to each wire you disconnect from your current thermostat.



TIP: Before disconnecting any wires, take a photo of your current wire configuration with your mobile device.



Wire from the old thermostat terminal marked	Function	Install on the new thermostat connector marked	Wire Color
G1, GL	Low Fan Speed	G	
G2, GM	Middle Fan Speed	G2	
G3, GH	High Fan Speed	G3	
Y, Y1	chilled water valve (4 pipe) or hot/chilled water valve (2 pipe)	Y1	
W, W1	hot water valve (4 pipe) or strip heat (2 pipe)	W1	
H/C, WATER	2 pipe water temp sensor (open = hot, closed = chilled)	H20	
SWITCH	Dry contact for condensate overflow, occupancy sensor, door switch	CK1	
REMOTE	wired remote 10K thermistor	RS	
R, Rh, M, Vr, A	power (24v)	R	
C	common	C	

Step 4 - Remove Current Backplate

Unscrew the current backplate and remove it from the wall. Be careful not to let the wires fall into the wall.

TIP: If needed, wrap the wires around a pencil or pen to keep them from falling inside the wall.



Step 5 - Mount New Base

- 1) Gently separate the display from the base by pulling first from one side, then the other until the two pieces unsnap. A small screwdriver may be used, very carefully, to start separating the two pieces.

- 2) Position the base against your wall, and determine if wall anchors from current thermostat align with screw locations of new base.

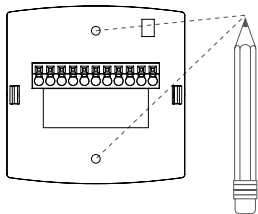
- 3) If base does not align with existing anchor holes, mark new screw locations with a pencil.

Drywall: Drill 3/16" hole for the anchor

Plaster: Drill 7/32" hole for the anchor

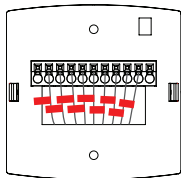
- 4) Pull wires through opening in base and secure to the wall using provided screws.

TIP: Use a level to ensure thermostat is properly aligned before marking screw locations.



Step 6 - Connect Wires

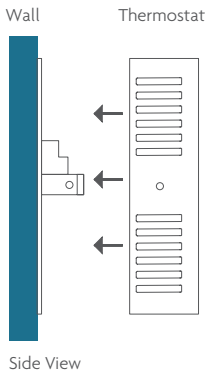
- 1) Match your previous wire configuration to the new base. One by one, connect each wire by inserting the metal end into the corresponding slot and tightening the screw.



TIP: Use pliers to straighten wire before inserting into new base. Be sure to cut any excess wire so that the insulation extends to the terminal block. When the wire is installed properly to the terminal block, there should be no copper exposed.

Step 7 - Attach Thermostat

- 1) Align the pins on the thermostat circuit board with the corresponding holes below the wiring connectors and push the top and the bottom of the plastic housing enclosing the display until it clicks into place, top and bottom.



Front of thermostat should click into place easily. If you encounter resistance do not apply excess force – remove, check that the pins are straight and ensure there are no wires in the way and retry.

Step 8 - Switch Power/Circuit Breakers Back On

Turn your fancoil back on.

Step 9 - Set Up Wi-Fi Connection

Overview

At minimum, the first 3 tasks below must be completed to access your thermostat remotely from a browser. The 4th step is optional (highly recommended) and only is needed to access your thermostat(s) from a mobile device.

These steps are:

1. Successful connection to a local Wi-Fi Access Point with internet access.
2. Confirm receipt of a Skyport generated verification email (this only occurs once during the Skyport account setup).
3. A 6-digit code obtained from the thermostat is successfully entered into a Skyport account.
4. Successfully download and install the Venstar Skyport app on your mobile device(s).

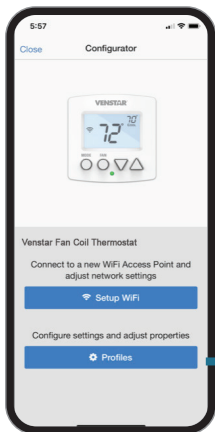
Your thermostat operates on the 2.4 Ghz, Wi-Fi b/g/n band.

TABLE OF BUTTON PRESSES TO ENTER MENUS

TO ENTER MENUS	BUTTON PRESS
Setup Steps.....	MODE & FAN for 5 seconds
Time Schedule.....	MODE & Up for 2 seconds
Emergency Heat.....	Up & FAN for 2 seconds
Lockout Buttons.....	MODE, Up & Down for 2 seconds
Calibration	MODE & Down for 2 seconds, then MODE
Wireless Setup.....	FAN for 5 Seconds

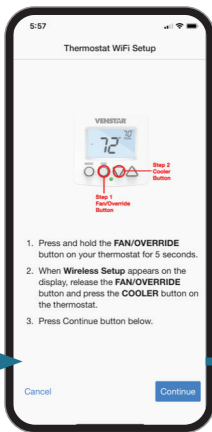
Quick Start - Connect to Wi-Fi

The Explorer thermostats are joined to a Wi-Fi network with the help of the **Venstar Configurator App**. This app may be downloaded from your mobile device's app store. Once the thermostat is installed and powered, the Configurator App will facilitate connection to the access point in 6 steps as outlined below.



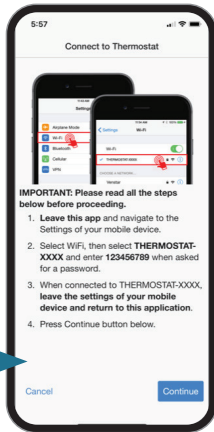
1

Select "Setup Wi-Fi" on the Configurator App.



2

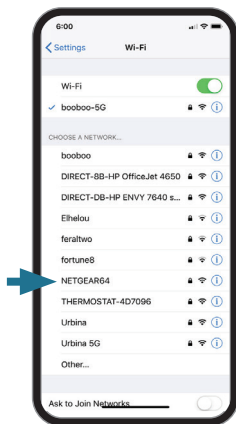
Press and hold the FAN button for 5 seconds. When "Wireless Setup" appears on the display, release the FAN button. Then press the COOLER button on the thermostat to configure Wi-Fi settings. Select "continue" on the Configurator App.



3

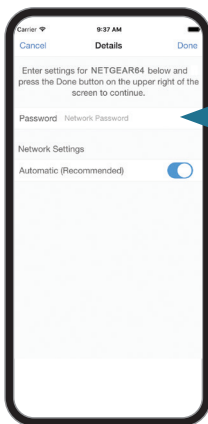
Go to the settings of the mobile device. Select Wi-Fi, then select the Venstar thermostat (THERMOSTAT-XXXX). Enter the password: 123456789 when prompted. Return to the Configurator App and select "Continue".

Quick Start - Connect to Wi-Fi (continued)



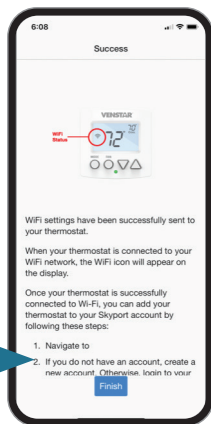
4

Select the access point of your building or home to join.




5

Enter the network password and select “Done”. Then press “Continue” in the lower right corner to complete setup.



6

When completed, the full Wi-Fi symbol  will appear on the display.

T2100



Scan with mobile device for additional information

T2150



Quick Start - Connect to Skyport

Although there is more than one way to create a Skyport account, the steps below illustrate account creation from a browser. To create a Skyport account a thermostat must be joined to the account.

If the thermostat is connected to the local Wi-Fi Access Point, but you do not have a Skyport account, you may create an account and join the thermostat to the account by doing the following:

1. Open your browser to: <http://venstar.skyportcloud.com>
2. Select "Create account now"



Create Account Now

3. Follow on screen instructions to create an account and add a thermostat to the Skyport account.

If the thermostat is connected to the local Wi-Fi access point but not yet joined to an existing Skyport account, you may join the thermostat to the account by doing the following:

1. Log in to your Skyport account.
2. Select the "Location" you want to add a thermostat into.
3. Select the "Thermostat tab".
4. Select "+ Add Thermostat". A screen will 'pop-up' asking for a six digit code.
5. Press and hold the fan button on the thermostat for 5 seconds.
6. Press the Up button on the thermostat.
7. A six digit code will appear on the thermostat's display.
8. Enter the six digit code into your Skyport account.

Skyport will maintain the correct time and day on your thermostat.

If you would like to set up a program/schedule to maintain the desired temperature at various times of the day, you can do this manually at the thermostat or use the Skyport website to enter a time period schedule.

The complete manual is available at venstar.com.

It is much easier to setup the time period program/schedule on the Skyport Web App. To make these adjustments and more to your thermostat from Skyport follow these steps:

1. Login to your Skyport account
2. Choose the location where your thermostat is installed (the left column)

You may now control the basic functions of the thermostat like MODE, setpoints or fan speed.

You can also press on the upper right section of the panel in order to customize the settings.

A quick summary of the settings is as follows:

Thermostat info – allows you to name the thermostat, view software revision

Permissions – as the owner of this thermostat, you can grant access to other users

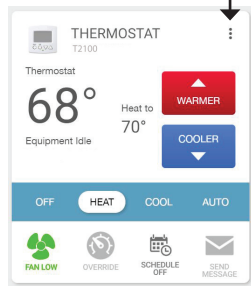
Runtimes – view the two week heat or cool runtime of this specific thermostat

Sensors – view the current and daily min/max values from the internal temperature and any linked wireless sensors

Alerts – view and edit this thermostat's alerts and setup email notifications

Schedule – view/edit the time period schedule for this thermostat

Settings – view/edit all settings within the thermostat (fancoil type, setpoint limits, etc)



Troubleshooting

Use the following troubleshooting guide to diagnose common problems.

Problem	Possible Cause	Solution
Display won't turn on	Lack of proper power	Make sure that the fancoil unit is powered. Check for 24 VAC between R and C at backplate
Cooling won't turn on	The cool setpoint is set too high	Lower the cool setpoint, minimum setpoint limit or reduce deadband
Heating won't turn on	The heat setpoint is set too low	Raise the heat setpoint, maximum setpoint limit or reduce deadband
Two pipe auto changeover fancoil shows heat with chilled water or cool with hot water	Water changeover switch not installed or incorrect type	Contact Venstar for proper changeover switch (closed below 60F, open above 75F)
2 pipe water valve won't open in heat or cool	Valve not wired to Y1 terminal	Check wiring
4 pipe hot water valve open with no heat demand	Valve might be 'power to close' type	Check with fancoil manufacturer before altering 'Hot Water Valve Type' setting

(continued)

Troubleshooting *(continued)*

Problem	Possible Cause	Solution
The thermostat won't connect to the access point	Wrong password	Enter the correct password
	Access point offline	Bring access point online
Can't connect to Skyport	No internet connection on access point	Restore internet
	Firewall restrictions	Check firewall settings
Can't get a 6 digit pairing code	Thermostat already in account	Factory default thermostat, remove from Skyport account
	No internet connection on access point	Restore internet
	Firewall restrictions	Check firewall settings

For additional support, contact Technical Support at thermostatsupport@venstar.com.

Warranty

One-Year Warranty - This Product is warranted to be free from defects in material and workmanship. If it appears within one year from the date of original installation, whether or not actual use begins on that date, that the product does not meet this warranty, a new or remanufactured part, at the manufacturer's sole option to replace any defective part, will be provided without charge for the part itself provided the defective part is returned to the distributor through a qualified servicing dealer.

THIS WARRANTY DOES NOT INCLUDE LABOR OR OTHER COSTS incurred for diagnosing, repairing, removing, installing, shipping, servicing or handling of either defective parts or replacement parts. Such costs may be covered by a separate warranty provided by the installer.

THIS WARRANTY APPLIES ONLY TO PRODUCTS IN THEIR ORIGINAL INSTALLATION LOCATION AND BECOMES VOID UPON REINSTALLATION.

LIMITATIONS OF WARRANTIES – ALL IMPLIED WARRANTIES (INCLUDING IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY) ARE HEREBY LIMITED IN DURATION TO THE PERIOD FOR WHICH THE LIMITED WARRANTY IS GIVEN. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE MAY NOT APPLY TO YOU. THE EXPRESSED WARRANTIES MADE IN THIS WARRANTY ARE EXCLUSIVE AND MAY NOT BE ALTERED, ENLARGED, OR CHANGED BY ANY DISTRIBUTOR, DEALER, OR OTHER PERSON WHATSOEVER.

ALL WORK UNDER THE TERMS OF THIS WARRANTY SHALL BE PERFORMED DURING NORMAL WORKING HOURS. ALL REPLACEMENT PARTS, WHETHER NEW OR REMANUFACTURED, ASSUME AS THEIR WARRANTY PERIOD ONLY THE REMAINING TIME PERIOD OF THIS WARRANTY.

THE MANUFACTURER WILL NOT BE RESPONSIBLE FOR:

1. Normal maintenance as outlined in the installation and servicing instructions or owner's manual, including filter cleaning and/or replacement and lubrication.
2. Damage or repairs required as a consequence of faulty installation, misapplication, abuse, improper servicing, unauthorized alteration or improper operation.
3. Failure to start due to voltage conditions, blown fuses, open circuit breakers or other damages due to the inadequacy or interruption of electrical service.
4. Damage as a result of floods, winds, fires, lightning, accidents, corrosive environments or other conditions beyond the control of the Manufacturer.
5. Parts not supplied or designated by the Manufacturer, or damages resulting from their use.
6. Manufacturer products installed outside the continental U.S.A., Alaska, Hawaii, and Canada.
7. Electricity or fuel costs or increases in electricity or fuel costs for any reason whatsoever including additional or unusual use of supplemental electric heat.
8. ANY SPECIAL INDIRECT OR CONSEQUENTIAL PROPERTY OR COMMERCIAL DAMAGE OF ANY NATURE WHATSOEVER. Some states do not allow the exclusion of incidental or consequential damages, so the above may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

FCC Compliance Statement

This equipment has been tested and found to comply with the limits for an intentional radiator, pursuant to Part 15, subpart C of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference in radio communications. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that of the receiver.
- Consult the dealer or an experienced radio or TV technician for help.

Notice: Only peripherals complying with FCC limits may be attached to this equipment. Operation with noncompliant peripherals or peripherals not recommended by Venstar, is likely to result in interference to radio and TV reception. Changes or modifications to the product, not expressly approved by Venstar could void the user's authority to operate the equipment.

FCC - INDOOR Mobile Radio Information:

To comply with FCC/IC RF exposure limits for general population / uncontrolled exposure, the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

This Device complies with Industry Canada License-exempt RSS standard(s). Operation is subject to the following two conditions: 1) this device may not cause interference, and 2) this device must accept any interference, including interference that may cause undesired operation of the device.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication. *Cet appareil est conforme avec Industrie Canada, exempts de licence standard RSS(s). Son fonctionnement est soumis aux deux conditions suivantes: 1) ce dispositif ne doit pas causer d'interférences, et 2) ce dispositif doit accepter toute interférence, y compris les interférences qui peuvent causer un mauvais fonctionnement de l'appareil.*

En vertu des règlements d'Industrie Canada, cet émetteur de radio ne peut fonctionner en utilisant une antenne d'un type et maximale (ou moins) Gain approuvé pour l'émetteur par Industrie Canada. Pour réduire les interférences radio potentielles aux autres utilisateurs, le type d'antenne et son gain doivent être choisis afin que la puissance isotrope rayonnée équivalente (PIRE) ne est pas plus de ce qui est nécessaire pour une communication réussie.

We, Venstar, declare under our sole responsibility that the device to which this declaration relates: Complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC ID: MUH-SKYPORT8

IC: 12547A-SKYPORT8



Innovation, Science and Economic Development Canada
ICES-003 Compliance Label: CAN ICES-3 (B)/NMB-3(B)

Patents Issued & Pending
P/N 88-1366 rev. 1 01/20

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