

VENSTAR®

*Easy*STAT

**SINGLE DAY
PROGRAMMABLE**

**RESIDENTIAL
THERMOSTAT**

TSTATEZ

**WORLD'S EASIEST
PROGRAMMABLE THERMOSTAT**



**UP TO 2-HEAT
& 2-COOL**

- One for All™ - Can Control:
 - Gas / Electric
 - Heat Pump
 - Electric Heat
 - Hydronic Systems

- Non-Volatile Memory - Retains settings in the event of a power failure

- Outdoor Sensor Ready - Compatible with the optional wired, or wireless Outdoor Sensor



Use with most Air Conditioning & Heating Systems including: 1 or 2 Stage Electric Cooling & 2 Stage Gas Heating, Heat Pump, Electric or Hydronic Heat.

**INSTALLATION
INSTRUCTIONS**

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CAUTION

Follow *Installation Instructions* carefully.

DISCONNECT POWER TO THE HEATER -
AIR CONDITIONER BEFORE REMOVING
THE OLD THERMOSTAT AND INSTALLING
THE NEW THERMOSTAT.

**WARNING**

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P/N TSTAT1100EZ

This device 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.

STEP #1

PREPARATION



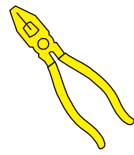
Proper installation of the thermostat will be accomplished by following these step by step instructions. If you are unsure about any of these steps, call a qualified technician for assistance.



These tools will be required:



*Flat Blade
Screwdriver*



*Wire cutter
& Stripper*



Make sure your Heater/Air Conditioner is working properly before beginning installation of the thermostat.



Carefully unpack the thermostat. Save the screws and instructions.



Turn off the power to the Heating/Air Conditioning system at the main fuse panel. Most residential systems have a separate breaker for disconnecting power to the furnace.

STEP #2 REMOVE & REPLACE OLD THERMOSTAT



Remove the cover of the old thermostat. If it does not come off easily check for screws.



Loosen the screws holding the thermostat base or subbase to the wall, and lift away.



Disconnect the wires from the old thermostat. Tape the ends of the wires as you disconnect them, and mark them with the letter of the terminal for easy reconnection to the new thermostat.



Keep the old thermostat for reference purposes, until your new thermostat is functioning properly.

STEP #3**WIRE CONNECTIONS**

If the terminal designations on your old thermostat do not match those on the new thermostat, ***refer to the chart below, or the wiring diagrams that follow.***

Wire from the old thermostat terminal marked	Function	Install on the new thermostat connector marked
G or F	Fan	G
Y1, Y or C	Cooling	Y1
W1, W or H	Heating	W1,O,B
Rh, R, M, Vr, A	Power	R
C	Common	C *
O/B	Rev. Valve	W1,O,B**
Y2	2nd Stage Cool	Y2
W2	2nd Stage Heat	W2
RS+5	Remote Sensor +5vdc	RS+5
RS	Remote Sensor Signal	RS
RS G	Remote Sensor Ground	GND

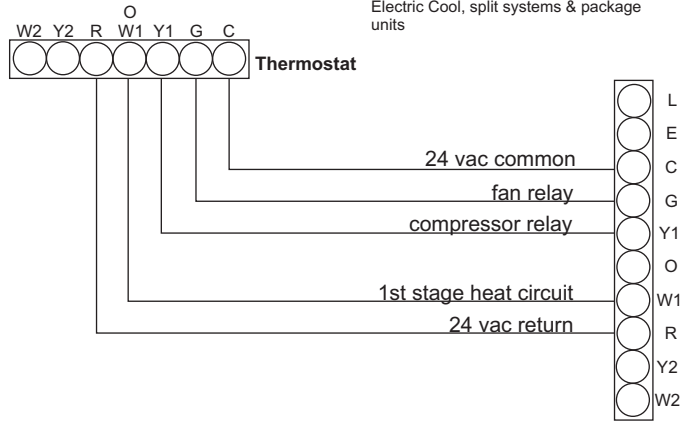
* C may not be used on all systems.

** O/B is used if your system is a Heat Pump.

Sample Wiring Diagrams

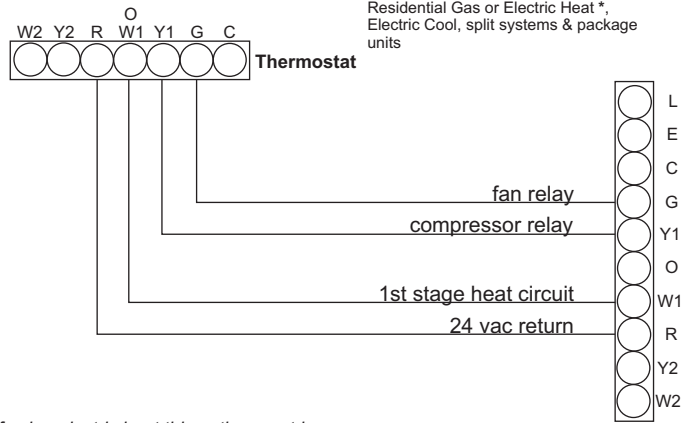
5 Wire, 1 Stage Cooling, 1 Stage Gas Heat

Residential Gas or Electric Heat *,
Electric Cool, split systems & package
units



4 Wire, 1 Stage Cooling, 1 Stage Gas Heat

Residential Gas or Electric Heat *,
Electric Cool, split systems & package
units

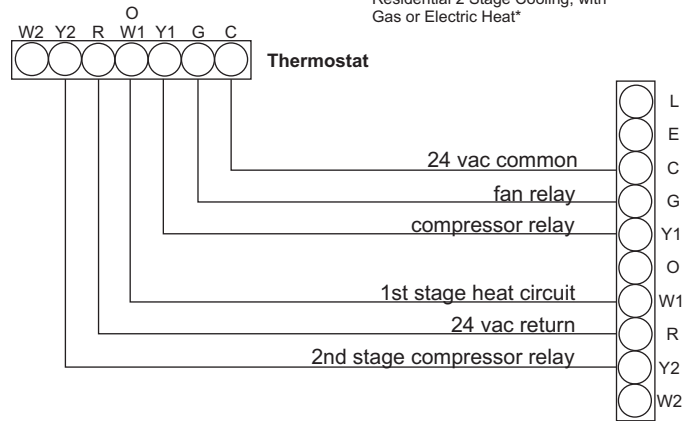


* If using electric heat this option must be
selected on during advanced setup.

Sample Wiring Diagrams

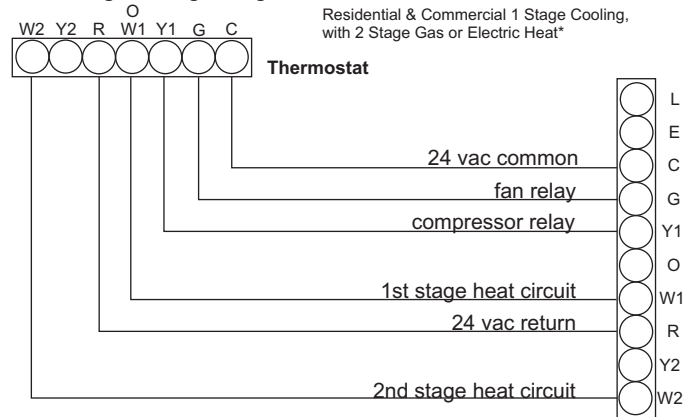
6 Wire, 2 Stage Cooling, 1 Stage Heat

Residential 2 Stage Cooling, with Gas or Electric Heat*



6 Wire, 1 Stage Cooling, 2 Stage Heat

Residential & Commercial 1 Stage Cooling, with 2 Stage Gas or Electric Heat*

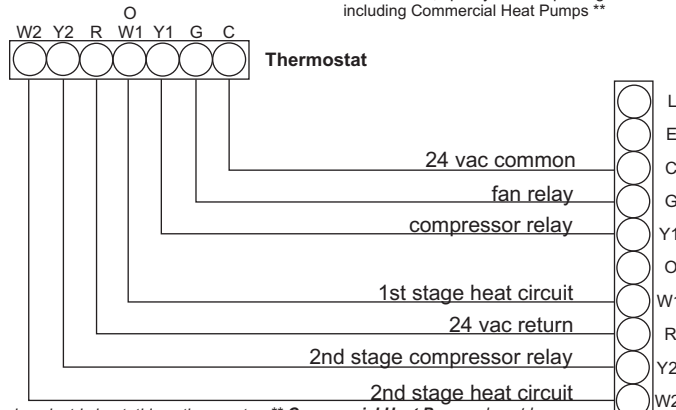


* If using electric heat this option must be selected on during advanced setup.

Sample Wiring Diagrams

7 Wire, 2 Stage Cooling, 2 Stage Heat

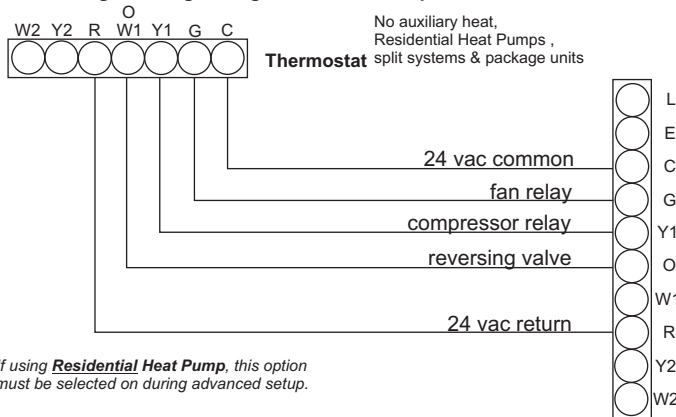
Commercial Gas or Electric Heat *,
Electric Cool, split systems & package units
including Commercial Heat Pumps **



* If using electric heat, this option must be selected on during advanced setup. ** **Commercial Heat Pumps** do not have the heat pump turned on in advanced setup.

5 Wire, 1 Stage Cooling, 1 Stage Heat - Heat Pump***

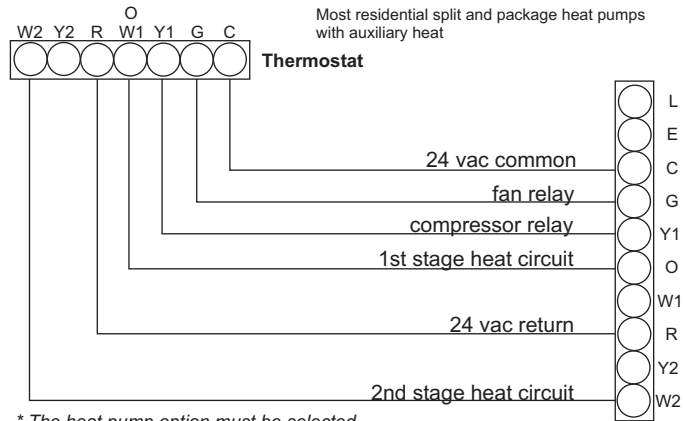
No auxiliary heat,
Residential Heat Pumps,
split systems & package units



*** If using **Residential Heat Pump**, this option must be selected on during advanced setup.

Sample Wiring Diagram

6 Wire, 1 Stage Cooling, 2 Stage Heat, Heat Pump *



* The heat pump option must be selected on during advanced setup.

STEP #4

TEST OPERATION



Turn the power on to the Heating/Air Conditioning system.



On the thermostat, press the MODE/NEXT button repeatedly until the **HEAT** icon appears on the display. Press the UP or DOWN button until the set temperature is 10 degrees above room temperature. The HVAC unit should energize in the heating mode. **Note: You may need to wait up to five minutes for heating to energize due to the compressor lockout feature.**



On the thermostat, press the MODE/NEXT button repeatedly until the **COOL** icon appears on the display. Press the UP or DOWN button until the set temperature is 10 degrees below room temperature. The HVAC unit should energize in the cooling mode. **Note: You may need to wait up to five minutes for cooling to energize due to the compressor lockout feature.**



Press the UP button until the setpoint is equal to the room temperature. Press the FAN button to **Fan On**. The fan should turn on and run continuously.

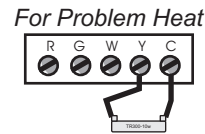
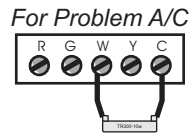
TROUBLESHOOTING



SYMPTOM: When using 4 wires (R, G, W, Y), the air conditioning equipment tries repeatedly to turn on, but cannot. At times the display dims or disappears.

CAUSE: There is not enough power available to "power share".

REMEDY: Connect a 270 ohm, 10 watt power resistor **at the furnace** as shown below.



SYMPTOM: The air conditioning does not attempt to turn on.

CAUSE: The compressor timer lockout may prevent the air conditioner from turning on, for a period of time.

REMEDY: See page 10 of the Owner's Manual and configure step 8 to defeat the 5-minute compressor lockout.



SYMPTOM: The display is blank.

CAUSE: Lack of proper power.

REMEDY: Make sure power is turned on to the furnace and there are 24vac between **R** & **W**. If **C** is used, there needs to be 24vac between **R** & **C**.

TROUBLESHOOTING



SYMPTOM: When controlling a Residential Heat Pump, cooling energizes with a demand for heat.

CAUSE: Heat pump is not selected "YES" in the Advanced Setup.

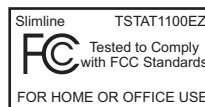
REMEDY: See page 9 of the Owner's Manual and configure step 4 to enable heat pump operation.



SYMPTOM: When calling for cooling, both the heat and cool come on.

CAUSE: The thermostat is configured to control a heat pump and the HVAC system is a "conventional" (non-heat pump) system.

REMEDY: See page 9 of the Owner's Manual and set step 4 to "NO" to enable gas electric operation.



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Rev. 1