

Troubleshooting Poor Temperature Regulation

- This page lists problems that may affect the temperature performance of your LUX thermostat with suggested resolutions.
- For more detailed information please refer to the instructions that came with your thermostat.

Model	TX500U
Problem	Resolution
No fan function in heat mode	Move the switch or jumper on the circuit board to its ELECTRIC POSITION for electric heat, then confirm with Fan Test below.
Fan ON continuously	Move Fan switch from ON to Auto. Remove the "G" wire. If fan continues to run, then either the system is mis-wired, or the problem is in the system, not the thermostat.
Indicates incorrect room temperature	Refer to thermostat manual to verify that your set temperature is what you expect it to be. The set temperature is always visible with "SET" on the display. Refer to your thermostats manual for calibration. Use this feature to adjust the displayed temperature up to +5°F(3°C) or -5°F(3°C) degrees.
No second stage or AUX heating	The offset may be set to 0. This needs to be set to at least 1. Refer to the WIRING section to verify that it is wired correctly.
How do I set my thermostat to act as a manual thermostat? How do I remove the programming?	Different versions (a, b, c revisions) of this model have different ways to change setup options. Some are DIP switches on the circuit board and some are set using the front panel buttons in a menu. Refer to the user manual for your particular version for option settings.
Emergency heat does not turn on	Must be set from Furn to HP. Different versions (a, b, c revisions) of this model have different ways to change setup options. Some are DIP switches on the circuit board and some are set using the front panel buttons in a menu. Refer to the user manual for your particular version for option settings.
Heats or cools more than 5 degrees past its displayed set temperature	Remove thermostat body from the wall, leave the back plate in place. Verify that heating and cooling switch off within a few minutes. Replace the unit's batteries with fresh Duracell® or Energizer® alkaline batteries. Set unit to heat mode. Adjust set temperature to at least 5 degrees below room temperature. Then

No heat or cooling when expected

adjust set temperature upward one degree at a time. Listen carefully for a soft click from the thermostat. This click should be heard near room temperature.

Refer to your unit's manual to decrease the units swing setting to a narrower setting.

Verify that your unit's placement and mounting are optimum per the installation section of its manual.

Refer to the wiring troubleshooting guide to verify that your thermostat is wired correctly. Insure you are using the correct wiring diagram for your heating/cooling system.

Note that in Cool Mode the thermostat may not activate a cooling stage until its compressor protection time has elapsed this may be as long as 5 minutes.

Where the wires are coming out of the wall fill the hole with non-combustible insulation or putty to prevent drafts from affecting the thermostats performance.

Move the switch or jumper on the circuit board to its ELECTRIC POSITION for electric heat, then confirm with Fan Test below. Different versions (a, b, c revisions) of this model have different ways to change setup options. Some are DIP switches on the circuit board and some are set using the front panel buttons in a menu. Refer to the user manual for your particular version for option settings.

Refer to the thermostat manual to verify that your set temperature is what you expect it to be. The set temperature is always visible with "SET" on the display.

Replace the batteries with fresh Duracell® or Energizer® alkaline batteries. Press HW_RST on the back of the thermostat. It may be necessary to reconfigure some settings after a reset.

Set unit to heat mode. Adjust set temperature to at least 5 degrees below room temperature. Then adjust set temperature upward one degree at a time. Listen carefully for a soft click from the thermostat. This click should be heard near room temperature. Adjust set temperature down one degree at a time. Again listen carefully for a soft click from the thermostat near room temperature.

Refer to wiring to verify that it is wired correctly for your system.

<p>Fan Test</p>	<p>If your system is a low voltage system having 24VAC or less, and you are technically inclined, you may jump terminals as given below out to detect a malfunction in your system.</p> <p>With the power ON at the fuse box, touch the "G" wire to the "RH" terminal. The fan should come on immediately and stay on. The rush of air is usually heard.</p> <p>If the fan does not come on it is an indication that there is a problem with your system. Check any breaker or fuses that feed the 24VAC transformer that powers your system.</p>
<p>Heat Test</p>	<p>To test gas or oil heating systems, take the "W1" wire off its terminal. With the power ON at the fuse box, touch the "W1" wire to the "RH" terminal for a couple of minutes and the heater should come on and stay on until the wire is removed.</p>
<p>Cooling Test</p>	<p>To test cooling, remove the "G" and "Y" wires. Connect them together with the "RC" for several minutes to observe operation. The system should come on and stay on. If the cooling fails to come on, or comes on and off, the problem is in the system.</p>
<p>Heat Pump Test</p>	<p>To test a heat pump system with an "O" wire, three wires must be connected together with the power terminal. The power terminal is "RH". With the power ON at the fuse box, connect the "O" and "Y", and "G" wires to the "RH" terminal for a couple of minutes and the unit should provide cool air. Wait at least 5 minutes and repeat this test without the "O" wire. The unit should provide heat.</p> <p>To test a heat pump system with a "B" wire, three wires must be connected together with the power terminal. The power terminal is "RH". With the power ON at the fuse box, connect the "B" and "Y" and "G" wires to the "RH" terminal for a couple of minutes and the unit should provide warm air. Wait at least 5 minutes and repeat this test without the "B" wire. The unit should provide cool air.</p>
<p>Thermostat Emergency Heat Test</p>	<ol style="list-style-type: none"> 1. Set unit to EMER (heat) mode. 2. Adjust set temperature to at least 5 degrees below the room temperature. 3. Adjust set temperature upward one degree at a time. Wait for the Set temperature to be accepted and replaced by the room temperature. Listen carefully for a soft click from the thermostat. AUX will appear; and HEAT will flash when on.

4. Repeat step 3 until the click is heard or the set temperature is at least 1 degrees above the room temperature. Remember to wait for the Set Temperature to be accepted and replaced by the room temperature before, before making the next adjustment. The click should be heard near room temperature.
5. After the click is heard, adjust set temperature downward one degree at a time. Again listen for a soft click from the thermostat.
6. Repeat step 5 until a click is heard or the set temperature is again 1 degree below the room temperature.
7. Steps 2 through 6 may be repeated to be sure that a click is heard each time the set temperature passes the room temperature.
8. If no click can be heard the thermostat is not operating properly. It must not be used to control a HVAC system until the problem is remedied.

For further assistance:

Contact your HVAC service company or our Technical Assistance Line if not resolved.

Wiring Information and Troubleshooting

- This page provides general guidance for wiring your LUX 24VAC electronic thermostat. For more detailed information please refer to the instructions that came with your thermostat.
- Please make specific note regarding LOW VOLTAGE and LINE VOLTAGE directions. Do not install LINE VOLTAGE wires to a LOW VOLTAGE control. Improper installation of a "C" wire may cause damage to your system.
- Do not install a wire labeled "TC" from the previous thermostat to any of our controls. Installation of a "TC" wire may cause damage to your system.
- Do NOT wire by color of the wire, wire by the LETTER designation to which the wire was attached on the previous control.
- If there were no letter designations on your old thermostat, contact our Technical Assistance Department for assistance.

Model	TX500U
Problem	Resolution
ALL	Never connect a low voltage thermostat to line voltage.
If unsure how to connect your current wires	Contact our Technical Assistance Line or your HVAC service company.
Two wires control a heat only	Connect one wire to W1 and the other to RH leaving

system	in the factory installed jumper wire between RH and RC.
Two wires control a cool only system	Connect one wire to RC leaving in the factory installed jumper wire between RH and RC and the other to Y.
Two wires control heating AND cooling.	Currently no Lux controls are compatible with this system.
Three wires for forced air heat only system, where the previous thermostat did not have a clock or timer	The previous RH or RC wire is the 24-volt transformer wire. Connect it to RH. Leave jumper connecting RH to RC. Connect the forced air heat system to W1, and the fan wire to G.
Three wires for a heat only, forced water system that did NOT have a clock or timer	This system has a 3 wire zone valve. Connect the 24-volt power wire (usually R or RH) to RH and leave the factory installed jumper wire connecting RH to RC in place, the "valve close" wire to the A terminal and the "valve open" wire to the W1 terminal. The A terminal is powered on at all times when heat is not on.
Three wires control heating and cooling. One wire operates heat, one operates cooling and the third provides 24 VAC	Connect the 24-volt power wire to RH. Install a jumper connecting RH to RC. This jumper is usually pre-wired. Connect the heat wire to W1, and the cooling wire to Y.
Three wires control a cooling only system. One wire operates the compressor, one operates the fan and the third provides 24 VAC	Connect the 24-volt power wire to RC. Connect the cooling wire to Y and the fan wire to G.
Four wires control a heating and cooling, electric, gas or oil, forced air system that is NOT a heat pump	Connect the 24 VAC transformer wire to RH or RC. Install a jumper connecting RH to RC this jumper is often prewired. Connect the heat wire to W1, the cooling wire to Y and the fan wire to G.
Four wires control a Single Stage Heat Pump. They were labeled: G, Y, R or RH or RC, and either B or O was used	Do not connect wires to both B and O. Connect the reversing valve wire to B or O, just as the previous thermostat. Install a jumper wire from RH to RC if a jumper wire was not preinstalled. Connect the 24 VAC wire to RH. Install a second jumper wire from W1 to Y. Connect compressor wire to Y and the fan wire to G. Move dip switch #1 located on the back of the thermostat to the ON position. Set the GAS/ELECTRIC switch on the back of the thermostat to the ELECTRIC position. Once both of these changes have been made be sure to press the HW_RST button.
Six or seven wires control a Heat Pump with an auxiliary heat stage. They were labeled:	Do not connect wires to both B and O. Connect the reversing valve wire to O or B, just as the previous thermostat. Connect 24 VAC wire to RH and leave

<p>G, Y, R or RH or RC, and W or W2. Either B or O was used. And Emergency wire E is present</p> <p>For further assistance:</p>	<p>in the factory supplied jumper wire between RH and RC. Connect compressor wire to Y and fan wire to G. It is not necessary to wire the E or X2 terminal. Connect W or W2 to the W2 terminal and add a jumper wire from W1 to Y. If you have a C (common wire) connect it to the C terminal. Move dip switch #1 located on the back of the thermostat to the ON position. Set the GAS/ELECTRIC switch on the back of the thermostat to the ELECTRIC position. Once both of these changes have been made be sure to press the HW_RST button.</p> <p>Contact your HVAC service company or our Technical Assistance Line if not resolved.</p>
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Troubleshooting the Display

- Problems that may be identified from the display of your programmable thermostat are listed here with suggested resolutions.
- For more detailed information please refer to the instructions that came with your thermostat.

Model	TX500U
Problem	Resolution
Display will not change	Peel protective plastic label from display.
Display blurred and unreadable	Peel protective plastic label from display. Press the small round HW_RESET button on the rear of your unit
Blank or fading display	Replace thermostat batteries with fresh AA size Duracell® or Energizer® alkaline batteries. Be sure that they are installed with their polarity (+ and -) correct. Clean battery contacts with a pencil eraser and pry out the spring contact slightly to insure a clean, firm connection. Press the small round HW_RESET button on the rear of your unit
Display is locked or will not respond	Press the NEXT button 3 times then press the HOLD button once. This button sequence locks and unlocks the thermostat.
Displays reads "LO BATT"	Replace thermostat batteries with fresh AA size Duracell® or Energizer® alkaline batteries. Be sure that they are installed with their polarity (+ and -) correct. Clean battery contacts with a pencil eraser and pry out the spring contact slightly to insure a clean, firm

Display reads "STG. 2" or "AUX"	connection. "STG. 2" is displayed when the thermostat is turning on the first and second stages of a conventional heating system. "AUX" is displayed when the thermostat is turning on the first and auxiliary heating stages on a heat pump.
How do I set my thermostat to act as a manual thermostat? How do I remove the programming?	Different versions (a, b, c revisions) of this model have different ways to change setup options. Some are DIP switches on the circuit board and some are set using the front panel buttons in a menu. Refer to the user manual for your particular version for option settings.
Display reads "OVERRIDE"	"Override" appears on the display when the set temp is raised or lowered from the program temperature. Overrides are terminated at the next scheduled program period when the unit will revert to the program temperature and the "Override" indicator will be extinguished.
What is the EMER button	The EMER setting is used with heat pump systems that have an emergency heat heating element. This feature disables the heat pump and allows only the emergency heat feature to operate.
Displays wrong room temperature.	See Temperature Regulation.
You want to change the displayed temperature scale from °F to °C or from °C to °F	Different versions (a, b, c revisions) of this model have different ways to change setup options. Some are DIP switches on the circuit board and some are set using the front panel buttons in a menu. Refer to the user manual for your particular version for option settings.
Shows "8888" on display	Slide the SET switch to DAY/TIME; then set the day and time.
Shows "HI" or "LO"	This means Out of Limit. The sensor is reading outside the thermostats display limit. Room temperature will reappear when the temperature returns to normal range. If actual room temp is not below freezing or above 99F/32C degrees, there may be a malfunction. Press the HW RESET button on the circuit board to reset.
For further assistance:	Contact your HVAC service company or our Technical Assistance Line if not resolved.