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	TX500E
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 temperature set point is what you expect it to be.
	Replace unit.
Heats or cools more than 5 degrees past its displayed set temperature	Refer to thermostat manual to verify that your temperature set point is what you expect it to be.
	Remove thermostat body from the wall, leave the backplate in place. Verify that Heating and cooling switch off within a few minutes.
	If the thermostat is battery powered only, replace its 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 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.
No heat or cooling when expected	Note that in Cool Mode the thermostat may not activate a cooling stage until its compressor protection time has elapsed this may be a long as 5

	minutes.
	Refer to thermostat manual to verify that your temperature set point is what you expect it to be.
	Replace the batteries with fresh Duracell® or Energizer® alkaline batteries. Press reset with small Phillips screw driver. 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.
	The brass contacts in your thermostat may need to be cleaned and/or tightened. Each contact is comprised of a pin protruding from the rear of the thermostats circuit board, and two V shaped contacts on its wall plate. These contacts are located above each screw terminal. Insert a small regular screw driver at one side of the "V" contact. Turn the screw driver to slightly bend the top of each "V" contact toward it's mate.
	Refer to wiring to verify that it is according to the wiring diagram applicable to your system.
Advanced Trouble Shooting	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.
Fan Test	FAN TEST: If your system has a fan, test it first.
	If the system is Heat only, or if there is a jumper between the "RH" and "RC" terminal of your thermostat, then 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 easily heard.
	If the system is Cool only, or if the system is Heat and Cool and there are separate wires to "RH" and "RC", and there is no jumper between them: then with the power ON at the fuse box, touch the "G" wire to the "RC" terminal. The fan should come on immediately and stay on.
	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 supply the 24VAC transformer that powers your system.

	If problem persists, contact qualified service personnel for aid in determining the fault.
Heat Test	To test gas or oil heating systems, take the "W" wire off its terminal. With the power ON at the fuse box, touch the "W" wire to the "RH" terminal for a couple of minutes and the heater should come on and stay on until the wire is removed.
Cooling Test	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.
Heat Pump Test	To test a heat pump system with an "O" wire, three wires must be connected together with the power terminal. The power terminal is "R". "RH" and "RC" with a jumper between them may also be consider to be a single "R" terminal. With the power ON at the fuse box, connect the "O" and "Y" or "Y1" and "G" wires to the "R" 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. To test a heat pump system with a "B" wire, three wires must be connected together with the power terminal. The power terminal is "R". "RH" and "RC" with a jumper between them may also be consider to be a single "R" terminal. With the power ON at the fuse box, connect the "B" and "Y" or "Y1" and "G" wires to the "R" 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.
For further assistance:	Contact your HVAC service company or our Technical Assistance Line if not resolved.

Wiring Information and Troubleshooting

- 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 no 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	TX500E
Problem	Resolution
ALL	Never connect a LOW voltage thermostat to LINE voltage.
Two wires control a heat only system	Connect one wire to W and the other to RH.
Two wires control a cool only system	Connect one wire to RC and the other to Y.
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 W, 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. The TX500E does not support 3 wire zone valves. Please use our TX500U, TX1500U, TX9100U, TX9600TS, or TX9100E models for this heating system.
Three wires control a heat only, forced water system that DID have a clock or timer	Tape off and do NOT install any clock or timer wire. Often they are labeled C or TC. Install the remaining two wires, one to RH and the other to W.
Four wires control a heat only system, and two of the wires operate clock or timer. The other two wires operate the heater	Tape off and do NOT install any clock or timer wire. Often they are labeled C or TC. Install the remaining two wires, one to RH and the other to W. The jumper connecting RH to RC may remain or be removed.
Two wires control heating AND cooling.	Currently no Lux controls are compatible with this system.
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 W, 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 W, 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. Connect 24 VAC wire to RH too. Install a second jumper wire from W to Y. Connect compressor wire

	to Y and the fan wire to G.
More than 4 wires are connected to the old thermostat	Contact our Technical Assistance Line.
For further assistance:	Contact your HVAC service company or our Technical Assistance Line if not resolved.

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	TX500E
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 inset RESET button behind the door of your unit using a small Philips screw driver. Reconfigure and reprogram as necessary.
No backlight on display	The TX500E does not come with a backlight.
Blank or fading display	If the thermostat is battery powered only, replace its 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 inset RESET button behind the door of your unit using a small Philips screw driver. Reconfigure and reprogram as necessary.
Thermostat is locked or cant adjust display	Press the NEXT button three times then press the HOLD button once, this key sequence locks and unlocks your thermostat.
Displays "LO BATT", "REPLACE", or battery symbol	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.

Displays wrong room temperature	See Temperature Regulation
You want to change the displayed temperature scale from °F to °C or from °C to °F	U5 on back of the unit contains three small OPTION SWITCHES that control its settings. Switch 2 controls the TX500E displayed temperature scale. Place this switch to its OFF position to use the Fahrenheit scale. Use the alternate position (marked ON) to use the Celsius scale. Press the small white HW RESET button on the circuit board to effect the change.
You want to change clock format from 12Hr Standard Time to 24Hr Military Time or from 24Hr Military to 12Hr Standard Time	U5 on your units circuit board contains three small switches that control its settings. Switch 1 controls the TX500E displayed time format. Place this switch to its OFF position to use the 12Hr format. Place this switch to its alternate position (marked ON) to use 24Hr military time format. Press the small white HW RESET button on the circuit board to effect the change.
Displays wrong day or time	Rotate the Speed Dial® to "SET DAY/TIME". The day will flash, use UP key to correct day. Press NEXT. The time will flash. Use UP and DOWN keys to go to correct time. Rotate dial back to RUN.
Displays no set temperature	The system switch must be in the HEAT or COOL position. Then if no program temperature is visible, Press RESET using a small Philips screw driver. Reconfigure and reprogram.
Shows "888" on display	Press RESET using a small Philips screw driver. Reconfigure and reprogram.
Shows "OL"	"OL" means Out of Limits. The sensor is reading outside the thermostats display limit of 32°F to 95°F. When the temperature returns to within these limits the temperature display will reappear. If actual room temp is not outside these limits, there may be a malfunction. Press RESET using a small Philips screw driver. Reconfigure and reprogram.
Displays "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.
For further assistance:	Contact your HVAC service company or our Technical Assistance Line if not resolved.