

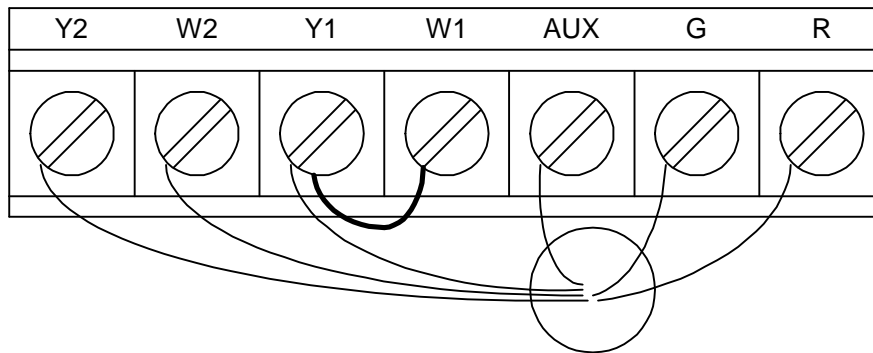
# Lightstat® TMD Questions and Answers

## 1. How many stages does the TMD support?

The TMD thermostat will support up to two stages of heat and two stages of cooling. The thermostat is also compatible with heat pump systems.

## 2. How do I hook up the thermostat to a heat pump?

Some Heat Pumps only have a single compressor wire. This wire is used for both heating and cooling. The Lightstat requires both a Y1 and a W1 wire. You may have to add a jumper to the Lightstat to work properly with your Heat Pump.



- (1) If there are two wires coming from the compressor, one should be hooked up to the “Y1” terminal and the second to the “W1” terminal.
- (2) If there is only one compressor wire, hook it to the “Y1” terminal, and place a jumper wire (shown above) between the “Y1” and the “W1” terminal. This way the compressor gets energized on both a call for heat and cooling, and “AUX” setting determines whether it will be heating or cooling.
- (3) Set the “AUX” switch on the back of the Lightstat to energize the reversing valve either for heating or cooling as required by your equipment.
- (4) Attach the wire for the Reversing Valve to the terminal labeled “AUX” on the Lightstat.

## 3. The heating or air conditioning does not turn on. The “R” light and the green night setback are both on.

The thermostat is in night setback or “unoccupied” mode. The thermostat perceives that the store is empty and maintains “unoccupied” temperatures which are usually 60°F maximum for heating and 85°F minimum for cooling. Adjust the light adjustment slide towards “DIM” until the setback light turns off. Replace the cover. If the stat goes into setback with the cover on, continue adjusting the lights adjustment slide until the stat stays in the day or “occupied” mode.

## 4. The red output lights on the thermostat are dim.

The thermostat is in low power mode. This is a normal state when the thermostat is not getting enough power, the thermostat will still operate properly. If the relays are chattering then the stat is being starved and cannot operate properly. The VA on the transformer may be too low or there may be a problem with how the thermostat is wired.

## 5. Is it necessary to use shielded cable?

stat Standard 18AWG thermostat wire can be used from the stat to the roof top unit. If the being used is a remote sensor model, the wire to the rooftop can still be 18AWG wire, but the wire from the thermostat to the sensor **MUST** be 2 conductor 18AWG wire with a foil shield. Failure to use shielded cable can cause erratic behavior with the thermostat.

6. **The lights for heating are on but there is no fan light and the fan does not come on.**

The “heat fan” switch on the back of the thermostat is set in the “gas heat” position. Remove the thermostat from its sub-base and move the switch so that the Lightstat controls the fan in heating if you have a heat pump or electric heat.

7. **Will sunlight affect the thermostat?**

As with most thermostats the Lightstat should not be placed in the path of direct sunlight or the room temperature cannot be correctly monitored. The Lightstat is also light sensitive, so direct sunlight can also affect the night setback if it is not adjusted properly.

8. **The lights for heating and fan are on, but the room is getting colder.  
The lights for cooling and fan are on, but the room is getting hotter.**

There may be a problem with the rooftop unit.

9. **The yellow lights are alternately flashing at different times during the day.**

The power to the stat is getting interrupted or the stat may be in a location which causes it to go in and out of night setback. i.e. Under a shelf and as people walk by their shadow causes the thermostat to go into setback.

10. **What does it mean limit or lockout lights is on?**

The temperature at the sensor is at the limit for that model and will not turn on the outputs.

11. **Should the fan switch be in the “ON” or “AUTO” position?**

The fan switch should be in the “AUTO” position during the heating season, so that the fan will not blow cool air when there is no call for heat. The fan switch should be in the “ON” position during the summer season, to allow more air circulation that may be required to reduce the affects of conditions such as humidity.

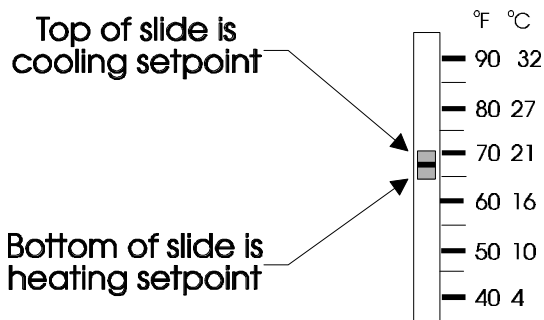
12. **The store is not warm/cool upon arrival in the morning.**

The precondition selection may be wrong, i.e. Set at the wrong time or the time was set based on when the store closes instead of when the lights actually get turned off, when the last person leaves. The cleaning crew may be taking more than two hours.

13. **The thermostat does not go into night setback.**

The light adjustment needs to be readjusted so that when the room lights go out, the Setback Led turns on. The thermostat may be in a bad location, i.e. under the security lights.

14. **How do I read the temperature slide.**



## ***TMD SWITCHES***

### **AUX Switch:**

Used to control reversing valve on heat pumps.

### **Heat Fan Switch:**

Usually set to position where Lightstat is in control.

Heatpump---Lightstat in control

Gas RTU--- Lightstat not in control

### **Time Delay Switch:**

Only effects fan in the “Cooling Mode”.

“No” Position-- 15 second time delay for *cooling*.

“Yes” Position-- 3 minute time delay for *cooling* and 3 minutes for *fan* (Total 6 minute lockout)

15 Second time delay for heating no matter where the switch is set.

1.5° between stages of “Cooling” Example: TMD-AVU: Temp is 71.5° the Lightstat calls for cooling, stage one(Y1) will come on, however, this is not enough to cool the space down and the temperature continues to rise to 73.0°, stage two(Y2) cooling is now turned on. It will remain on until the temperature drop to 70.0°F.

Heat to Cool Deadband is 5°F.

*Top of slide cooling reference.*

*Bottom of slide heating reference.*