

CALIBRATING A ROOM SENSOR

SZ and UbiquiSTAT Series Thermostats

SZ Series Thermostats

Determine if the SZ model thermostat is using the built-in or a remote room sensor wired to the T-1 terminal block:

1.) To Calibrate a Remote Room Sensor

- Take a reading at the remote room sensor.
 - Use a properly calibrated hand-held device that measures room temperature, not a thermal device that measures surface temperature.
 - Let the device and its sensor acclimate to the room.
 - Take a reading at the sensor, making sure that there are no other influences on the reading (i.e. airflow, breathing on the sensor, body temperature) and compare it to the value on the thermostat.
 - NOTE: If the temperature on your meter is within 1 degree of the thermostat, do not change calibration as these temps are within the tolerance range of both the thermostat and most commercial meters.
- If calibration is required, go to the Ubiquity programming page for that device
 - Under the “Analog Input” section, locate “Zone Temperature - Calibration Offset”
 - Enter the number of degrees the reading needs to be increased (a positive number) or decrease (a negative number).
 - NOTE: If there is already a value in for the “Calibration Offset” this value must be added or subtracted to the value from the current device reading.
 - EXAMPLE:
 - The Device reading is 72
 - The thermostat reads 75
 - This is a 3-degree difference between the thermostat and device readings.
 - The current value of the Calibration Offset is “1.0 degree”
 - Since the reading is already artificially changed by +1 degree, eliminating that would bring the thermostat reading down to 74 degrees which would now be a 2-degree difference between the thermostat and the sensor. Therefore, enter “-2” in the Calibration Offset.

2.) To Calibrate a Built-in Room Sensor

- Take a reading at the remote room sensor. Place the probe at the bottom of the thermostat is this is where the sensor is located. The thermostat is designed to dissipate heat out of the top, so DO NOT take a reading other than at the bottom of the thermostat.
 - Use a properly calibrated hand-held device that measures room temperature, not a thermal device that measures surface temperature.
 - Let the device and its sensor acclimate to the room.

- Take a reading at the bottom of the thermostat, making sure that there are no other influences on the reading (i.e. airflow, breathing on the sensor, body temperature) and compare it to the value on the thermostat.
 - NOTE: If the temperature on your meter is within 1 degree of the UbiquiSTAT, do not change calibration as these temps are within the tolerance range of both the UbiquiSTAT and most commercial meters.
- If calibration is required, go to the Ubiquity programming page for that device
 - Under the “Analog Input” section, locate “Zone Temperature - Calibration Offset”
 - Enter the number of degrees the reading needs to be increased (a positive number) or decrease (a negative number).
 - NOTE: If there is already a value in for the “Calibration Offset” this value must be added or subtracted to the value from the current device reading.
 - EXAMPLE:
 - The Device reading is 72
 - The thermostat reads 75
 - This is a 3-degree difference between the thermostat and device readings.
 - The current value of the Calibration Offset is “1.0 degree”
 - Since the reading is already artificially changed by +1 degree, eliminating that would bring the thermostat reading down to 74 degrees which would now be a 2-degree difference between the thermostat and the sensor. Therefore, enter “-2” in the Calibration Offset.

UbiquiSTAT Series Thermostats

1.) To Calibrate a Remote Room Sensor (wired to the T-1 terminal block)

- Take a reading at the remote room sensor.
 - Use a properly calibrated hand-held device that measures room temperature, not a thermal device that measures surface temperature.
 - Let the device and its sensor acclimate to the room.
 - Take a reading at the sensor, making sure that there are no other influences on the reading (i.e. airflow, breathing on the sensor, body temperature) and compare it to the value on the thermostat.
 - NOTE: If the temperature on your meter is within 1 degree of the UbiquiSTAT, do not change calibration as these temps are within the tolerance range of both the UbiquiSTAT and most commercial meters.
- If calibration is required:
 - Return to the UbiquiSTAT and press “Settings”, enter the Access Code as needed, then press “Advanced, then “Temp Calibration”
 - Select the sensor you want to calibrate “Remote/Mixed (T1)”
 - Enter the number of degrees the reading needs to be increased (a positive number) or decrease (a negative number).
 - NOTE: If there is already a value in for the “Calibration Offset” this value must be added or subtracted to the value from the current device reading.

- EXAMPLE:
 - The Device reading is 72
 - The thermostat reads 75
 - This is a 3-degree difference between the thermostat and device readings.
 - The current value of the Calibration Offset is “1.0 degree”
 - Since the reading is already artificially changed by +1 degree, eliminating that would bring the thermostat reading down to 74 degrees which would now be a 2-degree difference between the thermostat and the sensor. Therefore, enter “-2” in the Calibration Offset.
- Press “Save”, then press the “Home” button to return to the main screen.

2.) To Calibrate the Internal Room Sensor

- Take a reading at the remote room sensor. Place the probe at the bottom of the thermostat is this is where the sensor is located. The thermostat is designed to dissipate heat out of the top, so DO NOT take a reading other than at the bottom of the thermostat.
 - Use a properly calibrated hand-held device that measures room temperature, not a thermal device that measures surface temperature.
 - Let the device and its sensor acclimate to the room.
 - Take a reading at the bottom of the thermostat, making sure that there are no other influences on the reading (i.e. airflow, breathing on the sensor, body temperature) and compare it to the value on the thermostat.
 - NOTE: If the temperature on your meter is within 1 degree of the UbiquiSTAT, do not change calibration as these temps are within the tolerance range of both the UbiquiSTAT and most commercial meters.
- If calibration is required:
 - Return to the UbiquiSTAT and press “Settings”, enter the Access Code as needed, then press “Advanced, then “Temp Calibration”
 - Select the sensor you want to calibrate “Internal”
 - Enter the number of degrees the reading needs to be increased (a positive number) or decrease (a negative number).
 - NOTE: If there is already a value in for the “Calibration Offset” this value must be added or subtracted to the value from the current device reading.
 - EXAMPLE:
 - The Device reading is 72
 - The thermostat reads 75
 - This is a 3-degree difference between the thermostat and device readings.
 - The current value of the Calibration Offset is “1.0 degree”
 - Since the reading is already artificially changed by +1 degree, eliminating that would bring the thermostat reading down to 74 degrees which would now be a 2-degree difference between the thermostat and the sensor. Therefore, enter “-2” in the Calibration Offset.
 - Press “Save”, then press the “Home” button to return to the main screen.