

Temperature Calibration for Hybex with EZ-Zone Controller

Required part: SciGene Cat. #1051-52-0 — Digital thermometer with cable

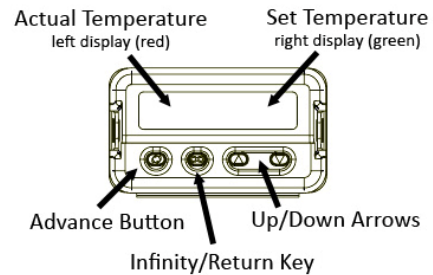


Re-calibrating the Hybex temperature controller is recommended **only if** the display varies by more than one degree (1°C) to a connected NIST-certified digital thermometer (SciGene cat. #1051-52-0).

Definitions:

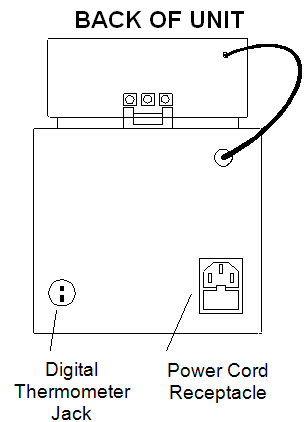
Actual temperature: temperature shown on the Hybex display indicating current conditions (left display/red)

Set temperature: temperature programmed into the Hybex controller by the user (right display/green)



To adjust the controller to achieve accurate temperatures:

- 1) Insert a block into the Hybex incubator, turn ON the instrument and set the controller to 65°C. Allow 15 minutes for temperature to stabilize.
- 2) Using the cable provided with the digital thermometer, plug one end into the blue receptacle found on the back panel of the Hybex incubator and the other end into the digital thermometer.
- 3) Turn on the thermometer. Allow 1 minute for thermometer to stabilize. The actual temperature of the block will be displayed.
- 4) Calculate the difference between the temperature shown on the controller and on the digital thermometer. For example, if the controller displays 65.0°C and the thermometer displays 66.5°C, the difference (offset) is 1.5°C.
- 5) On the controller, press the up and down arrows simultaneously for 3 seconds. The left display shows "A1" and the right display shows "oPEr".
- 6) Press the Advance Button (green circle) 3 times until the right display shows "i.CA". The left display shows the offset value between the controller and thermometer when the unit was last calibrated.
- 7) Use the up or down arrow to adjust the offset value to the temperature difference calculated in Step 4. For example, if the controller shows a temperature 1.5°C lower than the thermometer, adjust the offset by adding 1.5 to the value shown.
- 8) Press the Infinity Key (∞) twice to exit calibration and return to the operation display. Verify that the temperature on the thermometer matches the display. The incubator is now calibrated to provide accurate temperatures from 35 to 99°C.



For assistance, please contact: techserv@scigene.com (408) 733-7337, option 6.

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Temperature Calibration for Hybex w/Watlow SD31 Controller

Required part: SciGene Cat. #1051-52-0 — Digital thermometer with cable

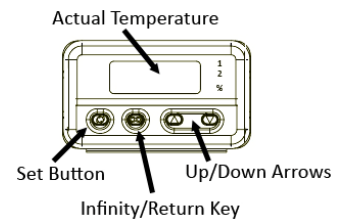


Re-calibrating the Hybex temperature controller is recommended **only if** the display varies by more than one degree (1°C) to a connected NIST-certified digital thermometer (SciGene cat. #1051-52-0).

Definitions:

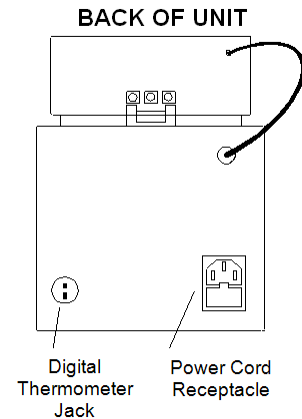
Actual temperature: temperature shown on the controller; indicating current conditions

Set temperature: temperature programmed into the Hybex controller by the user (hold down the **SET** button to view)



To adjust the controller to achieve accurate temperatures:

- 1) Insert a block into the Hybex incubator, turn ON the instrument and set the controller to 65°C. Allow 15 minutes for temperature to stabilize.
- 2) Using the cable provided with the digital thermometer, plug one end into the blue receptacle found on the back panel of the Hybex incubator and the other end into the digital thermometer.
- 3) Turn on the thermometer. Allow 1 minute for thermometer to stabilize. The actual temperature of the block will be displayed.
- 4) Take the temperature shown on the digital thermometer and subtract the temperature shown on the controller to determine the calibration offset. For example, if the digital thermometer displays 66.5°C and the controller displays 65.0°C, the calibration offset is +1.5°C.
- 5) On the temperature controller, press the Infinity Key (∞) for three seconds until “OPEN” appears.
- 6) Press the down arrow four times until “Cal” appears.
- 7) Press and hold the **SET** key. The existing offset value between the controller and digital thermometer is displayed.
- 8) Press and hold the **SET** key and use the up/down arrows to adjust the offset value to the temperature difference calculated in Step 4. For example, if the controller shows a temperature 1.5°C lower than the thermometer, adjust the offset by adding 1.5 to the value shown.
- 9) Press the Infinity Key (∞) to exit calibration and return to the operation display. Verify that the temperature on the thermometer matches the display. The incubator is now calibrated to provide accurate temperatures from 35 to 99°C.



Digital thermometer connected to incubator

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