**Purpose**

To provide instructions for calibration of NIST TempTrak sensors in the Transfusion Service Laboratory (TSL).

**Policy**

Cooper Atkins Intelli-ware v 4.5 software is licensed to UWMC/HMC and is accessed via the internet: <https://temptrak.mcis.washington.edu/Intelli-ware/>

All identified equipment in TSL will be fitted with electronic monitoring TempTrak which will record temperatures 24/7.

Monitored equipment includes:

* Refrigerators
* Freezers
* Platelet Incubators
* Portable refrigerators
* Room Temperature and Humidity

All TempTrak sensors will have calibration checked annually. Room Temperature/Humidity sensor does not need calibration. Acceptable limits across the 4 point temperature range will be ±1.5 °F (±0.8 °C).

**Equipment**

* TempTrak Prover box

**Procedure**

|  |  |  |
| --- | --- | --- |
| **Step** | **Action** | **Related Documents** |
| 1 | Using Internet Explorer, log into the Cooper Atkins website.<https://temptrak.mcis.washington.edu/Intelli-ware/>Log on computer with user name and password* + - * To Access Cooper Atkins website:
			* Open Internet Explorer
			* Open “Remote Access” link in favorites
			* Log in using your AMC account and password
			* Under Web Bookmarks, Open “Temptrak”

Note: Require supervisor level login access |  |
| **Step** | **Action**  | **Related Documents**  |
|  |  |  |
| 2 | Using pull down menu at top of screen, pull up NIST Validation:* + - Configuration
		- TempTrak
		- NIST Validation
		- Start Session
		- The following screen comes up:

 |  |
| 3 | Input the required information from the Certificate of Calibration and Report that came with the TempTrak Prover boxNote: Select 0F for the NIST Prover Degree Type |  |
| 4 | Click on Start Session |  |
| 5 | Locate the tan TempTrak sensor transmitter box that needs calibration |  |
| 6 | Push the tab on the end of the housing and remove the housing cover from the TempTrak transmitter |  |
| **Step** | **Action** | **Related Documents** |
| 7 | Remove one of the wires connecting the sensor to the Terminal Block by loosening the appropriate screw (Not necessary to remove both wires) |  |
| 8 | Set switch to lower temperature on Prover box |  |
| 9 | Press the 2 Prover box spring pins onto the Terminal Block and momentarily press the **Reset** button on the transmitter. (watch for the LED on transmitter board to flash) |  |
| 10 | Switch to next temperature and repeat* Repeat for each temperature. (leave the spring pins depressed as you move from one temperature to the other)

**NOTE**: By pressing the TempTrak transmitter **Reset** button, you are sending a temperature reading. This reading will be recorded in the TempTrak software. If the **Reset** button is held down for more than 5 seconds the transmitter will go into Sleep Mode. Hold **Reset** button again for 5 seconds to release transmitter from Sleep Mode.* After 4 readings are sent to software, on the computer, press **Refresh** to see latest readings from transmitter.
 |  |
| 11 | Verify the temperature readings on the computer are ±1.5 °F (±0.8 °C) of the selected temperatures on the Prover. If any temperatures are out of acceptable ranges, the software automatically highlights the failed readings in yellow. |  |
| 12 | If any of the four readings are either out of range or missing, repeat the above process starting at step 8 |  |
| 13 | If the four readings are acceptable, reinstall the detached sensor wire(s) into Terminal Block and fully tighten the screw. Replace cover to transmitter box. |  |
| 14 | If transmitter box is inside the refrigerator, you may need to reattach the sensor/transmitter with new cable ties. |  |
| 15 | When complete, you can move on to the next transmitter. After sending new data to the computer, pressing **Refresh** will update the program with data from each transmitter. |  |
| 16 | When finished checking all the transmitters, press **Stop Session.** |  |
| 17 | For all freezers that use the **Lab/Cryogenic RTD** probe, (-80C and -30C Freezers), change the Temperature Probe Type to **Standard** for data to be transmitted to the software. Change probe type as follows:* Configuration
* TempTrak
* Sensor Configuration
* Sensor Attributes
* Choose appliance
 |  |
| **Step** | **Action** | **Related Documents** |
|  | * At Temperature Probe Type, change **Lab/Cryogenic RTD** to **Standard** in pull down menu
* Save Changes
* Refresh Information
* Proceed with validation

After results are obtained and acceptable, remember to change probe type back to **Lab/Cryogenic RTD** to prevent Temperature error alarms |  |
| 18 | Print out report as follows:* + - Configuration
		- TempTrak
		- NIST Validation
		- Session Report
		- Click on appropriate session
		- Print
 |  |
| 19 | To print a Summary Report to include all sensors last validated in the laboratory:* + - Configuration
		- TempTrak
		- NIST Validation
		- Summary Report
 |  |
| 20 | Create a Certificate of Calibration for each sensor calibrated. * Update the TempTrak Prover Kit Calibration Information from current insert that came with the prover box.
* Sensor Validation Expiration will be 1 year from validation date
* All certificates and attached calibration must be reviewed and approved by manager or designee
 | Cooper-Atkins Corp Certificate of Calibration  |
| 21 | Troubleshooting questions can be directed to HMC Facilities Services or to Cooper Atkins directly. Link to Cooper Atkins is in one of the drop down menu boxes on Intelli-ware program. |  |
| 22 | If a new or replacement sensor is needed,* Obtain manager approval
* Request the item using HMC’s Clinical Support Services Centralized Work Request
 |  |

 **Reference**

TempTrak Service and hotline

Laboratory Equipment NIST Temperature Calibration Policy