

NOTE: ALL USERS SIGN OUT ON COMPLETION

Cascade Microtech Summit 11861 Prober

Users must meet with Alan Seabaugh before using the prober independently

Operating Instructions

1. Sign up on the clipboard log.
2. Turn on high pressure nitrogen – 60 psi
2. Check to see that all micropositioners are held by vacuum at their base. If any of the positioners are loose, turn them over, wipe the dust off with your fingers, wipe the prober surface, check the vacuum connections, and reseal the probes. Repeat as necessary.
3. Raising the left-hand lever arm lowers the wafer chuck; do this before pulling the wafer chuck out. If the lever arm drops, tighten the set screws at the rear of the chuck; see Cascade manual for procedure under Z-lever.
4. Always make sure probes are clear of the stage before moving the wafer chuck
5. If a nitrogen tank becomes empty, remove the regulator, replace the cap, and exchange the cylinder with one on the loading dock. If you take the last cylinder or the next-to-last cylinder on the dock, email Mike Thomas and let him know to order more.

When your are done:

1. Raise the probes a few twists using the micromanipulators: then raise the lever arm.
2. Turn off microscope light
3. Turn off high pressure nitrogen
4. Check to see that all three nitrogen tanks are in place; go to the dock.
5. Make sure you have signed up on the clipboard log – THIS IS A REQUIREMENT

Users must meet with Alan Seabaugh before using the Temptronics controller for the first time independently

Low Temperature Measurements

1. Turn on low pressure nitrogen – 10 psi and flow meter to 1 slpm
2. Raise the probes on making any temperature change – thermal expansion will crash the probes – lower the probes when the set temperature is reached
3. If ice crystals form – raise the probes, raise the Z-lever – increase the temperature until the ice crystals disappear, increase the nitrogen flow rate, and resume measurements

When you are done:

1. The same shutdown procedures apply, plus
2. If your last measurement temperature is under 40 C, drive the chuck temperature to 40 C, then turn off controller – this will prevent icing
3. If your last temperature is above 25 C, drive the chuck temperature to 25 C, then turn off controller
4. Turn off the nitrogen flow meter – turn off both nitrogen cylinders
5. Sign out on the clipboard – THIS IS A REQUIREMENT

