



Confocal Microscopy Core Facility

Brigham and Women's Hospital



Confocal Microscope Startup Procedure

Revised January 2017

If you arrive and the microscope and computer are off, start with Step 1. If you are coming in after someone and the microscope and computer are on, you can start at Step. 8

1. **Turn on System** power supply (in the middle of the shelf to the left of microscope). It is on a white box labeled "1".
2. **Turn on Component** power supply, which is next to System power switch. It is labeled "2".
3. **Turn on the Power Strip**, which located on the left side of the floating table. It is labeled "3".
4. **Turn on the computer**, labeled "4".
5. **Optional:** Turn on the nitrogen tank to float the table (if not on already), and CO₂ tank for live cell imaging. Recommended for overnight live imaging.
6. **Optional:** Turn on the CO₂ and Temperature Module S, which are located on the table to the right of the computer. The only button is on the back of Temperature Module S, indicated by an arrow on the side.
7. **Click Checkin/Checkout** shortcut on the computer desktop to fill the checking form. After submitting, leave window on. Time begins to count.
6. **Click Zen** software button on the desktop to turn on imaging software.
7. **The objective should be in a lowered position.** If not, lower the objective by turning the large focusing knob on microscope toward you (anticlockwise).
8. **Select objective** for your experiment on the Zen software setup or the control module. The objective will automatically switch. **DO NOT switch objectives manually!**
9. **Place a very small dot of oil** directly on your cover slip. A small dot is often enough for a few samples. **Too much oil will ruin our microscope by seeping into the lower components.**
10. **Place slides with cover slip down**, and raise the objectives by rotating the large focus knob towards you (counter-clockwise) until you see the oil make contact with the cover glass and lens. Stop there and use the remote fine focus and eyepieces to bring sample into focus.
11. **Use Zen software** to control the microscope and take images. All the control could be done remotely on the software window or on the touch screen of remote control module, which is next to keyboard, including moving the stage, and CO₂% and temperature setting for live cell imaging.