

# ZEISS LSM 880 INVERTED (i880) QUICK START GUIDE

The Zeiss LSM880 is a laser scanning confocal microscope with full confocal and multiphoton capability. The confocal detectors are spectrally resolved and can be used with either the standard (single photon) excitation lines or the multiphoton excitation lines. The non-descanned (NDD) detectors can only be used with multiphoton excitation.

INSTRUMENT OVERVIEW  
AND USER RESOURCES



## FULL TURN ON SEQUENCE (FIRST ONE ON)

- 1) If the computer is off, turn it on and let it boot.
- 2) Turn on the main switch.
- 3) Turn on the Systems/PC switch. (When touchscreen has booted, adjust heating and CO2 under Microscope->Incubation if applicable.)
- 4) Turn on the Components switch. Wait for the RTC to boot (see under table).
- 5) Log in to the computer.
- 6) Start Zen and select *Start System* Button.
- 7) Turn on laser lines you will be using. (If you are using multiphoton excitation, turn on both lines on even if you are just using one. Note that the Ar and multiphoton lines take a while to turn on. You can follow the warm-up progress by selecting the laser and the Laser Properties below)

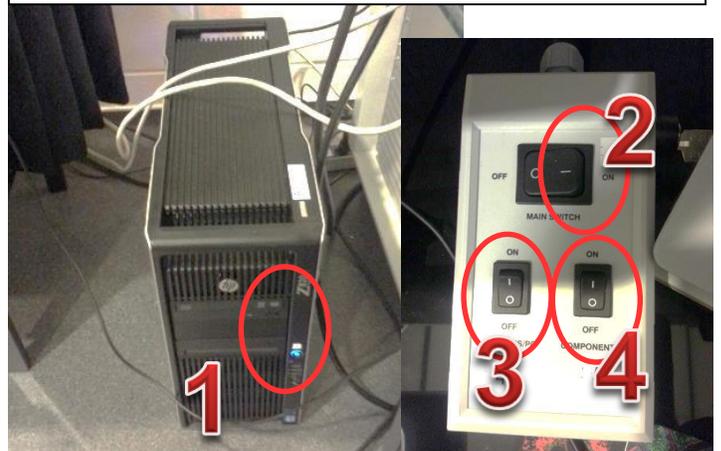
## PARTIAL TURN ON SEQUENCE

(Microscope already on)

- 5) Log in to the computer.
- 6) Start Zen and select *Start System* Button.
- 7) Turn on laser lines you will be using. (If you are using multiphoton excitation, turn on both lines on even if you are just using one. Note that the Ar and multiphoton lines take a while to turn on. You can follow the warm-up progress by selecting the laser and the Laser Properties below)

## FULL TURN OFF SEQUENCE (LAST ONE ON)

- 9) Save your data and transfer it to the fileshare.
- 8) Remove your sample and clean off your objective. (If using incubation, turn temp and CO2 regulation off and close CO2 tank using main gray valve only.)
- 7) Turn off lasers.
- 6) Exit Zen.
- 5) Log out of the computer.
- 4) Turn off the Components switch.
- 3) Turn off the Systems/PC switch.
- 2) Wait a few minutes for the Ar laser to cool. Turn off the main switch.
- 1) Do not turn off computer.

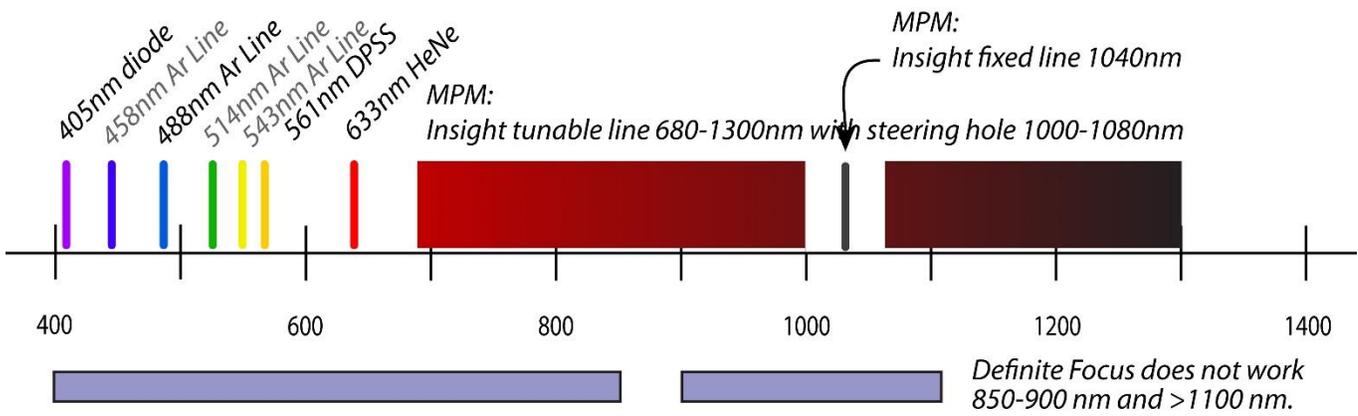


## PARTIAL TURN OFF SEQUENCE

(Someone else is scheduled after your time slot)

- 9) Save your data and transfer it to the fileshare.
- 8) Remove your sample and clean off your objective. (If using incubation, turn temp and CO2 regulation off and close CO2 tank using gray handle only.)
- 7) Turn off lasers.
- 6) Exit Zen.
- 5) Log out of the computer.

## LASER LINES



## STANDARD OBJECTIVE SPECIFICATIONS

Mag	NA	Immersion medium	CS thickness (mm)	WD (mm)	Objective Type	Trans > 0.5
10X	0.3	Air	0.17	5.2	EC Plan-Neofluar	350-1200nm
20X	0.5	Air	0.17	2.0	EC Plan-Neofluar	350-1250nm
32X	0.85	Water	0-0.17	1.1	C-Achroplan	450-1300nm
40X	1.1	Water	0.14-0.19	0.62	LD C-Apochromat	350-1150nm
40X	1.4	Oil	0.17	0.13	Plan-Apochromat	380-1200nm
10X	0.45	Water	0.17	1.8	C-Apochromat	350-1200nm
63X	0.75	Air	0-1.5	1.7 (at 0.75 CS)	LD Plan-Neofluar	350-950nm

## NDD DETECTOR FILTERS

**\*Do not use any laser lines <700nm with the NDD detectors!**

