

Nikon LV150N Microscope Standard Operating Procedure



NYU Tandon School of Engineering Nanofabrication Facility

The Nikon LV150N Microscope is capable of operating in the following imaging modes:

- 1. Bright-field Microscopy**
- 2. Dark-Field Microscopy**
- 3. Simplified Polarization Microscopy**

1. Bright Field Microscopy

- a. Ensure that power switch is in the “on” position at the rear of microscope**
- b. Turn brightness up to mid-level**
- c. Make sure the epi-illumination attachment is on “BF”**
- d. Open the field and aperture diaphragms completely**
- e. Rotate the nose cone to the 10x objective**
- f. Slide the NCB11 filter into the optical path**
- g. Place sample onto the microscope stage**
- h. Use the focus knob to bring sample surface to focus**
- i. Adjust the diopter and inter-pupillary distance**
- j. Rotate the nose cone to the desired objective**
- k. Adjust the aperture diaphragm**
- l. Re-focus on the sample**
- m. View the sample**
 - l. Use NIS Elements Software to capture an image, if required**
- n. Turn brightness to the “off” position**
- o. Turn off power**

2. Dark Field Microscopy

- a. Follow Procedure for Bright Field Microscopy**
- b. Set the epi-illumination tab to “DF”**
- c. Adjust the brightness**
- d. View the sample**

I. Use NIS Elements Software to capture an image, if required

e. Put microscope back in bright field mode, by switching to “BF” on the epi-illumination attachment

f. Turn brightness to the “Off” position

g. Turn Off Power

3. Simplified Polarization Microscopy

a. Follow procedure for Bright Field Microscopy under epi-illumination

b. Move analyzer and polarizer into optical path

c. Adjust the brightness

d. View sample

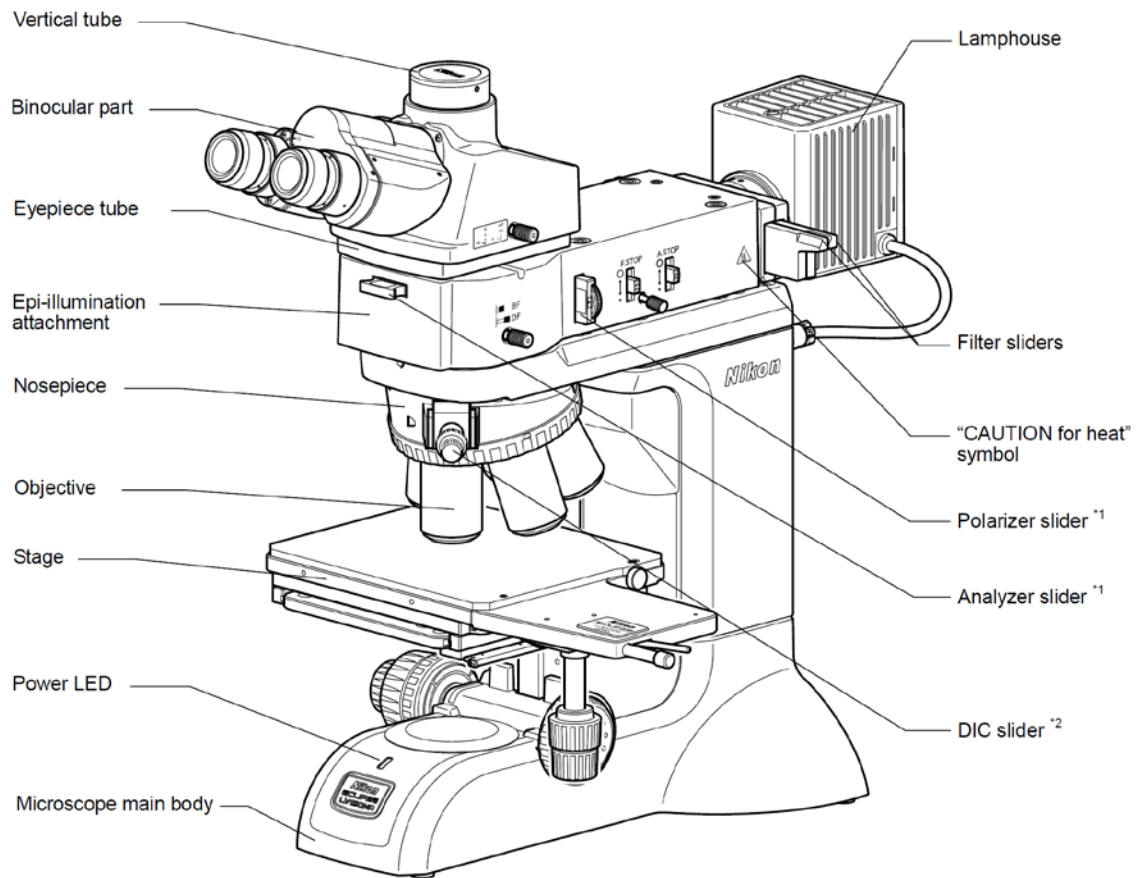
I. Use NIS Elements Software to capture an image, if required

e. Move analyzer and polarizer from optical path

f. Turn brightness to the “Off” position

g. Turn off power

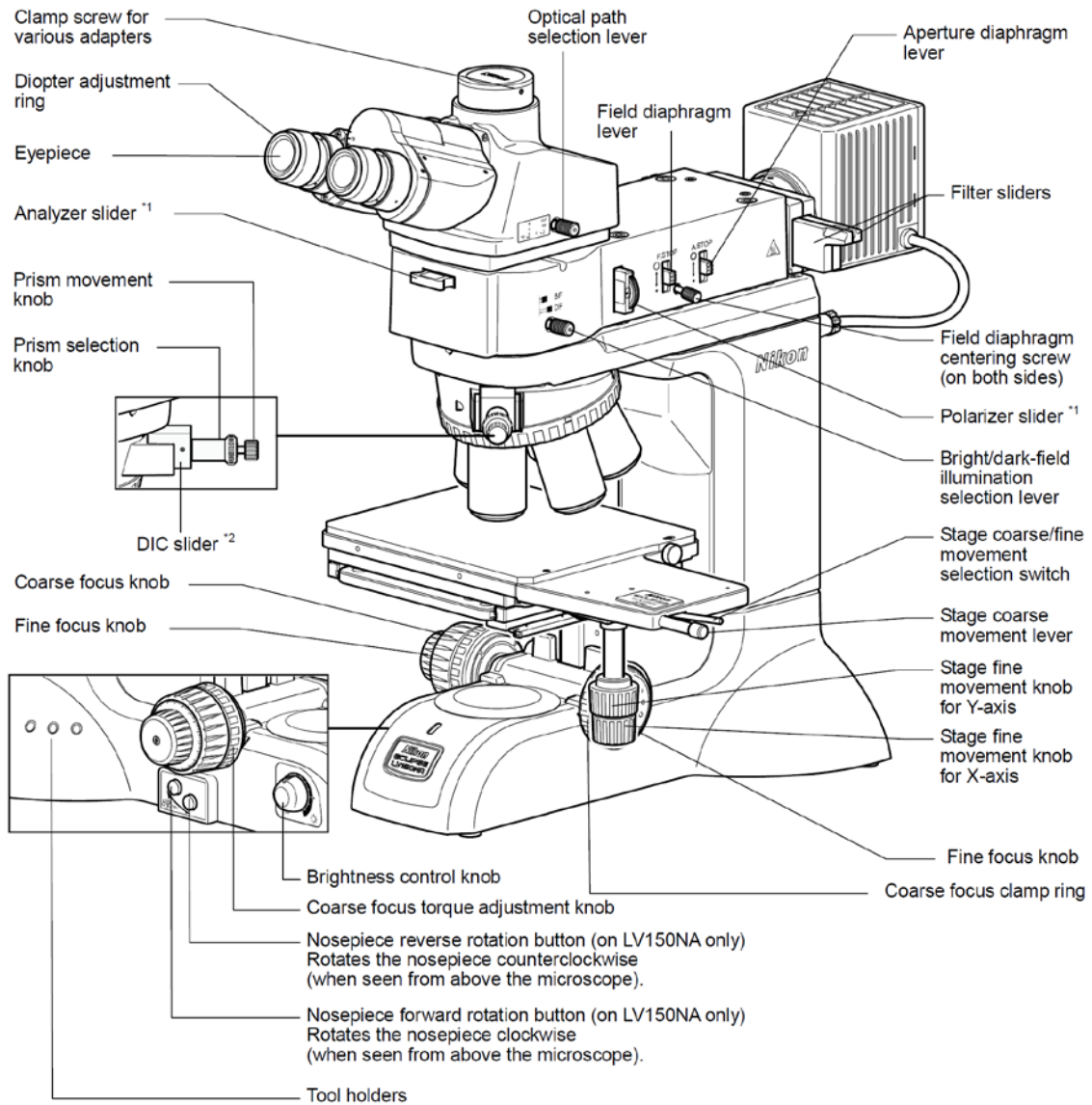
Names of Parts



*1: For DIC microscopy or simplified polarization microscopy

*2: For DIC microscopy

Names of Operational Parts



*1: For DIC microscopy or simplified polarization microscopy

*2: For DIC microscopy