

Bright-field Microscopy Quick Guide

ECLIPSE Ci-E

1 Turn on the power.

Turn on the power switch (press to the "I" position) for the microscope. (The power LED on the front of the main body will light up.)

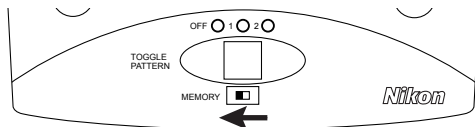


2 Select the setup target with the toggle pattern switch, and then switch to the setting mode to configure the motorized functions.

Before using a motorized swing-out condenser for the first time, configure the swing-out of the top lens. (→See Chapter 2, Section 13.1 in the instruction manual for details.) To use the toggle function, configure the toggle pattern. (→See Chapter 2, Section 12.2 in the instruction manual for details)

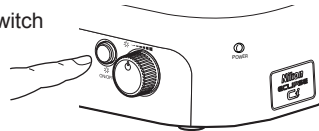
3 Set the setting mode switch to the left side (operation mode).

Set the setting mode switch on the remote control pad to the left side.



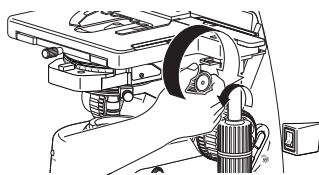
4 Turn on the dia-illumination lamp.

Press the dia-illumination ON/OFF switch to turn on the lamp.



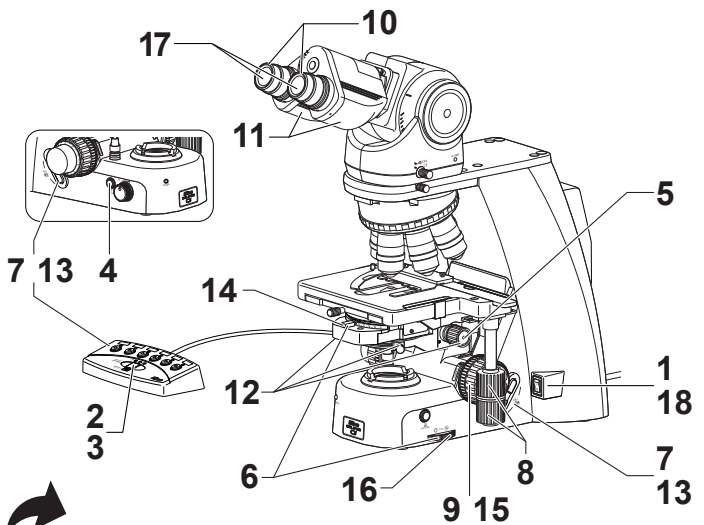
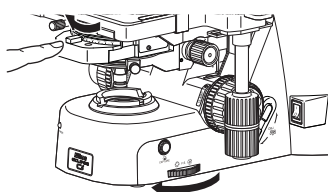
5 Lower the condenser slightly from the uppermost position.

Turn the condenser focus knob until the condenser is positioned at the upper limit (where it clicks to a stop), and then lower it a little.



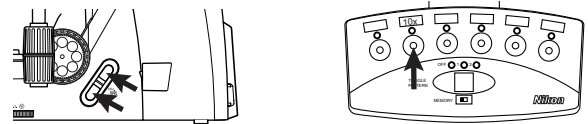
6 Fully open the field diaphragm and aperture diaphragm.

Turn the field diaphragm dial and the aperture diaphragm lever clockwise to open them completely.



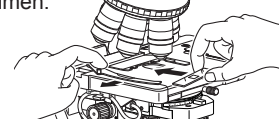
7 Bring the 10x objective into the optical path.

Press the nosepiece forward/reverse rotation buttons, or the nosepiece address button on the remote control pad to bring the 10x objective into the optical path.

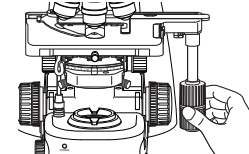


8 Place a specimen on the stage, and move the stage to bring the target into view.

(1) Open the claw of the specimen holder's moving part and place the specimen onto the stage, gently stowing the claw back to fix the specimen.



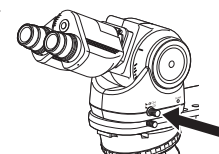
(2) Rotate the stage knob to move the stage and bring the target into the optical path. (So that the sample sealed under the cover glass will be lighted.)



9 Focus on the specimen.

(→See Chapter 2, Section 2 in the instruction manual for details)

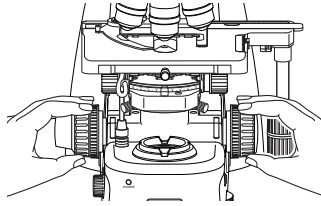
(1) When using the trinocular tube or ergonomic tube, push in the optical path switching lever to distribute 100% light to the binocular section.



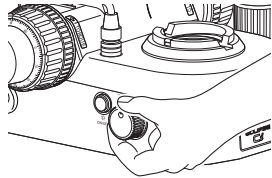
(2) Look into the eyepiece and turn the coarse focus knob away to raise the stage to the upper limit. From there, focus on the specimen by lowering the stage.

9 (Continuation) Focus on the specimen.
(→See Chapter 2, Section 2 in the instruction manual for details)

- (3) When the focus was roughly adjusted using coarse focus knob, turn the fine focus knob to accurately adjust the focus.



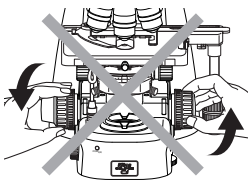
- (4) Adjust the brightness of the field of view by turning the dia-illumination lamp brightness control knob.



Notes on controlling the focus knobs

Avoid the following actions, which can cause equipment malfunction.

- Rotating the right and left focus knobs in opposite directions.
- Turning the coarse focus knob past its limit point.



10 Adjust the diopter.
(→See Chapter 2, Section 4 in the instruction manual for details)

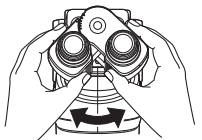
- (1) Turn the diopter adjustment ring on the right and left eyepieces to align the end face of the diopter adjustment ring with the line. (This is the diopter adjustment reference position.)
- (2) Focus on the specimen using the 40x objective.
- (3) Bring the 10x (or 4x) objective into the optical path.
- (4) Look into the right eyepiece with your right eye and the left eyepiece with your left eye. Turn the diopter adjustment ring of each eyepiece to focus on the specimen. At this point no focus knobs are used.



- (5) Repeat steps (2) through (4) to make sure the focus has been adjusted properly.

11 Adjust the interpupillary distance.

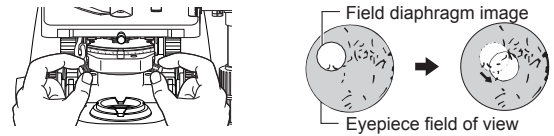
Look into both eyepieces and rotate the binocular part to adjust the binocular part's opening until the fields of view for the right and left eyes coincide.



- ✓ For easy adjustment, look into the eyepiece as if you were looking at a distant object.

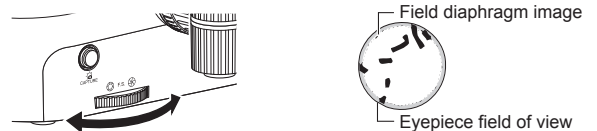
12 Focus and center the condenser.
(→See Chapter 2, Section 5 in the instruction manual for details)

- (1) Look into the eyepiece with the field diaphragm stopped down to the minimum. Focus on the field diaphragm image using the condenser focus knob, then adjust the condenser centering screws to center the diaphragm image within the field of view.



- (2) Bring the 40x objective into the optical path to check the focus and centering of the field diaphragm image. Make adjustments in the same way as step (1) as necessary.

- (3) Turn the field diaphragm dial and adjust the field diaphragm image so that its size is almost the same as the field of view.

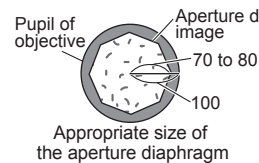


13 Select the desired objective.

Press the nosepiece forward/reverse rotation buttons, or the nosepiece address button on the remote control pad to move the desired objective into the optical path.

14 Adjust the aperture diaphragm.
(→See Chapter 2, Section 6 in the instruction manual for details)

Turn the aperture diaphragm lever on the condenser to adjust the aperture diaphragm so that it is set to 70 to 80% of the numerical aperture of the objective used.

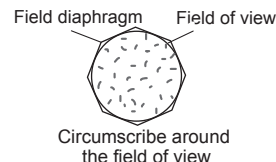


- ✓ Be sure to adjust the aperture diaphragm each time you change the objective. (You can see the aperture diaphragm image with the centering telescope.)

15 Focus on the specimen.

16 Adjust the field diaphragm

Turn the field diaphragm dial to adjust the field diaphragm so that it almost circumscribes the field of view.



- ✓ Opening the field diaphragm too much results in stray light entering the field of view, generating flare and reducing the image contrast.
- ✓ Be sure to adjust the field diaphragm each time you change the objective.

17 View the specimen.

Rotate the stage knob to move the target. If the target is not in focus, use the focus knob to adjust the focus.

18 Turn off the power.

Turn off the power switch (press to the "O" position) for the microscope. (The power LED on the front of the main body will turn off.)

