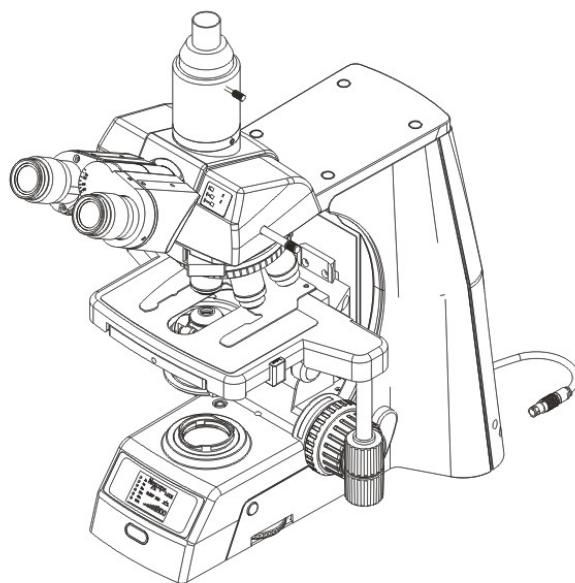


NE920 research microscope

User manual

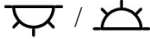


This manual is applicable to NE920 laboratory biological microscopes. In order to ensure safety, perform optimally with the instrument, and make you fully familiar with the use of this microscope, we recommend that you read the manual thoroughly and carefully before

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NE920**I.Safety symbol**

The following symbols are on the microscope. Find out what these symbols mean and always use the microscope in the safest way.

Symbol	Meaning of it
	Indicates that the main power switch is on.
	Indicates that the main power switch is off.
 / 	Indicates on/down illumination.
 F.S. 	F.S represents diaphragm,  represents the opening direction of the diaphragm,  represents the narrowing direction of the diaphragm.
	Indicates the light strong small direction, the small head is the light weakening, the big head is the light to become stronger.

II.Safety precautions

- Care should be taken when opening the box, to prevent the lens glass stick to fingerprints, sweat stains and other impact observation, to prevent the lens and other accessories fall damage.
- Avoid placing the microscope in areas with direct sunlight, high temperature or humidity, dust, and vulnerability to strong vibrations, ensuring that the stage is flat, horizontal and strong enough.
- When it is necessary to move the microscope, hook one hand into the slot above the back of the frame and hold the front bottom of the frame with one hand.
- If bacterial solution or water is splashed on the object stage, objective or observation tube, immediately pull out the power cord and dry the solution or water to ensure that the microscope is dry. Otherwise, it is possible to damage the instrument.
- To avoid blocking natural convection air for cooling, ensure that the microscope is at least 10 cm away from walls and other objects on the left, right, above and behind.
- Ground the unit to avoid lightning strikes.
-  To ensure safety, make sure that the main switch is in an "O"(off) state and that the power is switched off while waiting for the bulb and light chamber to cool down completely before replacing the halogen lamp or fuse. Input voltage check: the input voltage indicated on the back of the microscope is consistent with the supply voltage, otherwise it will cause serious damage to the microscope.
- Use the special wires provided by the company.

NE920

III.Maintenance

1. All the lenses have been well checked and adjusted. It is forbidden to disassemble them yourself.
2. Objective nosepiece and coarse micro-focusing mechanism, the structure is precise, please do not easily disassemble.
3. The instrument should be kept clean, dust removed every day, clean should pay special attention not to contaminate optics, objective lenses every other month to ask professionals to clean.
4. Smudges on the lens, such as fingerprints and grease, can be wiped with a small amount of ether (70%) and alcohol (30%) mixed solution on the lens paper.

⚠ Solvents such as ether and alcohol are highly flammable, do not carry out a variety of electrical equipment power switch operation, at the same time can not approach the open fire, please ensure indoor ventilation.

5. Don't use organic solvent to wipe the non-optical elements, when you need to clean, use the soft detergent, please.
6. When using, if the microscope is splash by liquid, cut off the power at once, and wipe up the moisture.
7. Do not disassemble any parts of the microscope. That will affect the function or decline the performance of the microscope.
8. Place the instrument in a cool, dry position. After using the microscope, remember to cover it with dust helmet. Do wait for the lamp house cooling completely before cover.
9. The environmental requirements for the use of microscopes:
 - a) Ambient temperature range: 10°C~35°C;
 - b) Maximum relative humidity: 80% when the temperature reaches 31°C, 70% When the temperature is reduced linearly to 34°C, 60% the temperature reaches 37°C, 50% when the temperature reaches 40°C.
10. Microscope storage and transport environment requirements:
 - a) Ambient temperature range: -40°C~+70°C;
 - b) Relative humidity range: 10% to 100%;
 - c) Air pressure range: 500hpa-1060hpa.

Warning:

Failure to operate the microscope in the manner specified in this manual may compromise the safety of the user. In addition, the microscope may be damaged. The microscope should always be operated in accordance with this instruction.

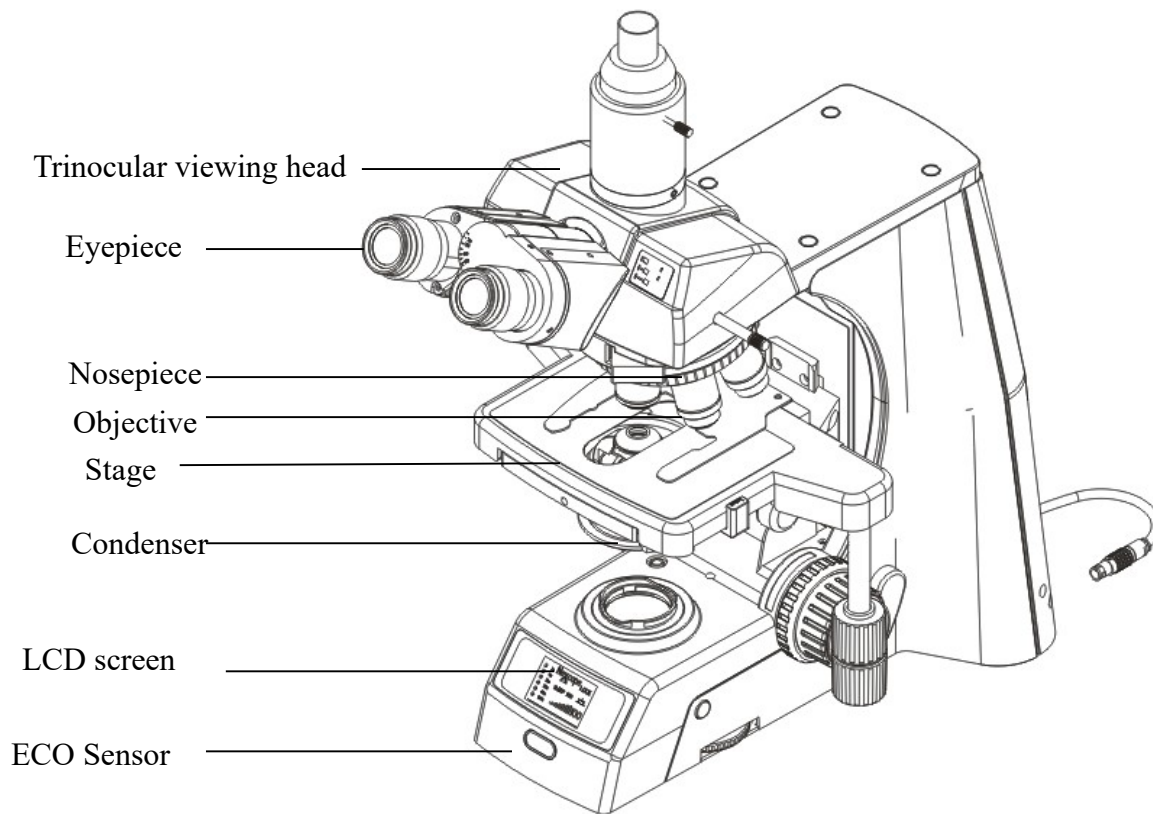
Ⓢ This microscope does not cause radiation, electromagnetic interference, etc. To the surrounding environment, in accordance with UL certification standards.

This manual practically the following symbols label prominent text:

⚠ The indication that the warning stake in this instruction manual will result in personal injury to the operator and/or damage to the instrument (including objects near the instrument).

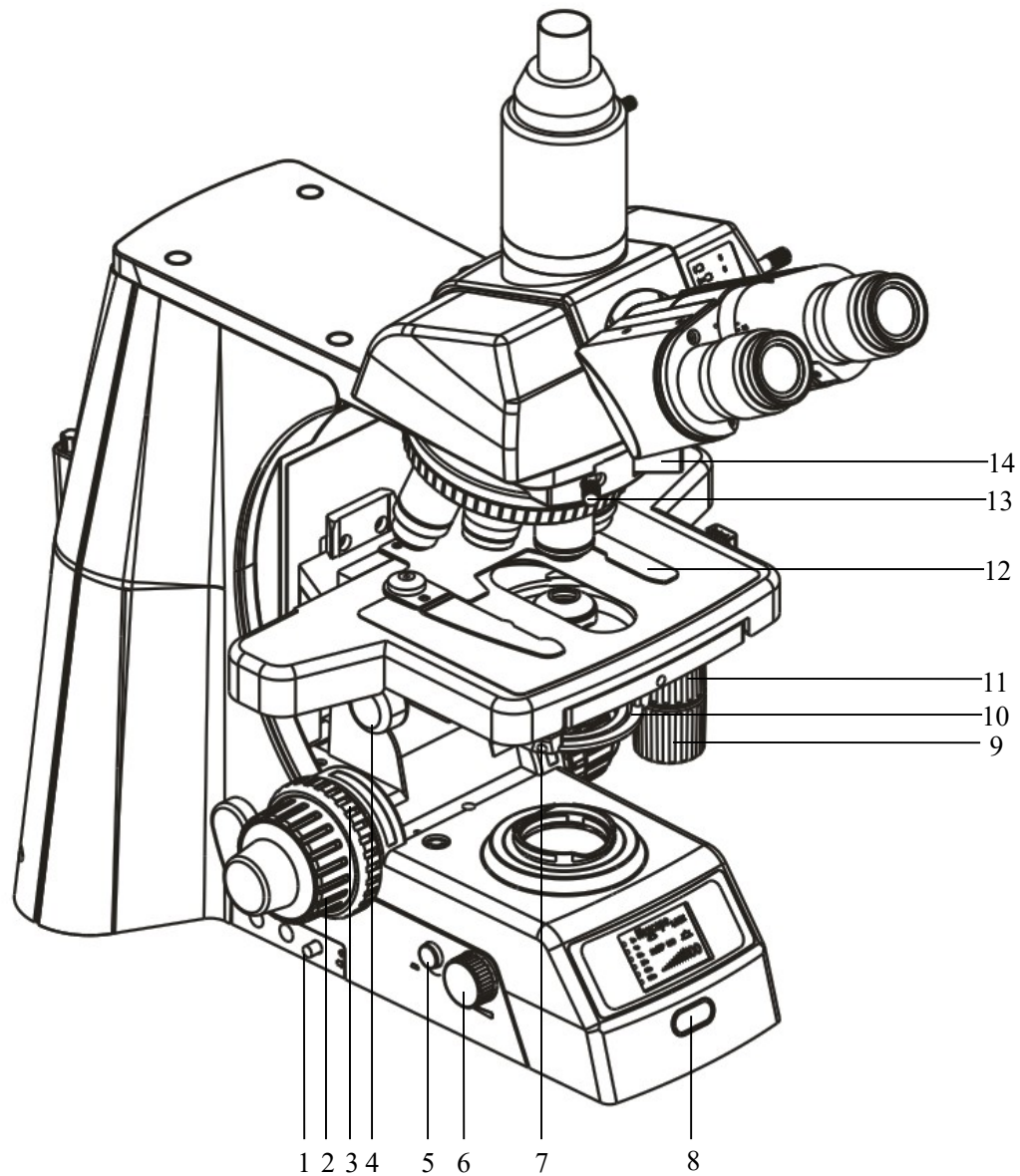
★ Indicates that failure to follow this instruction will cause damage to the instrument.

Ⓢ Indicates a comment (to operate and maintain at easy).

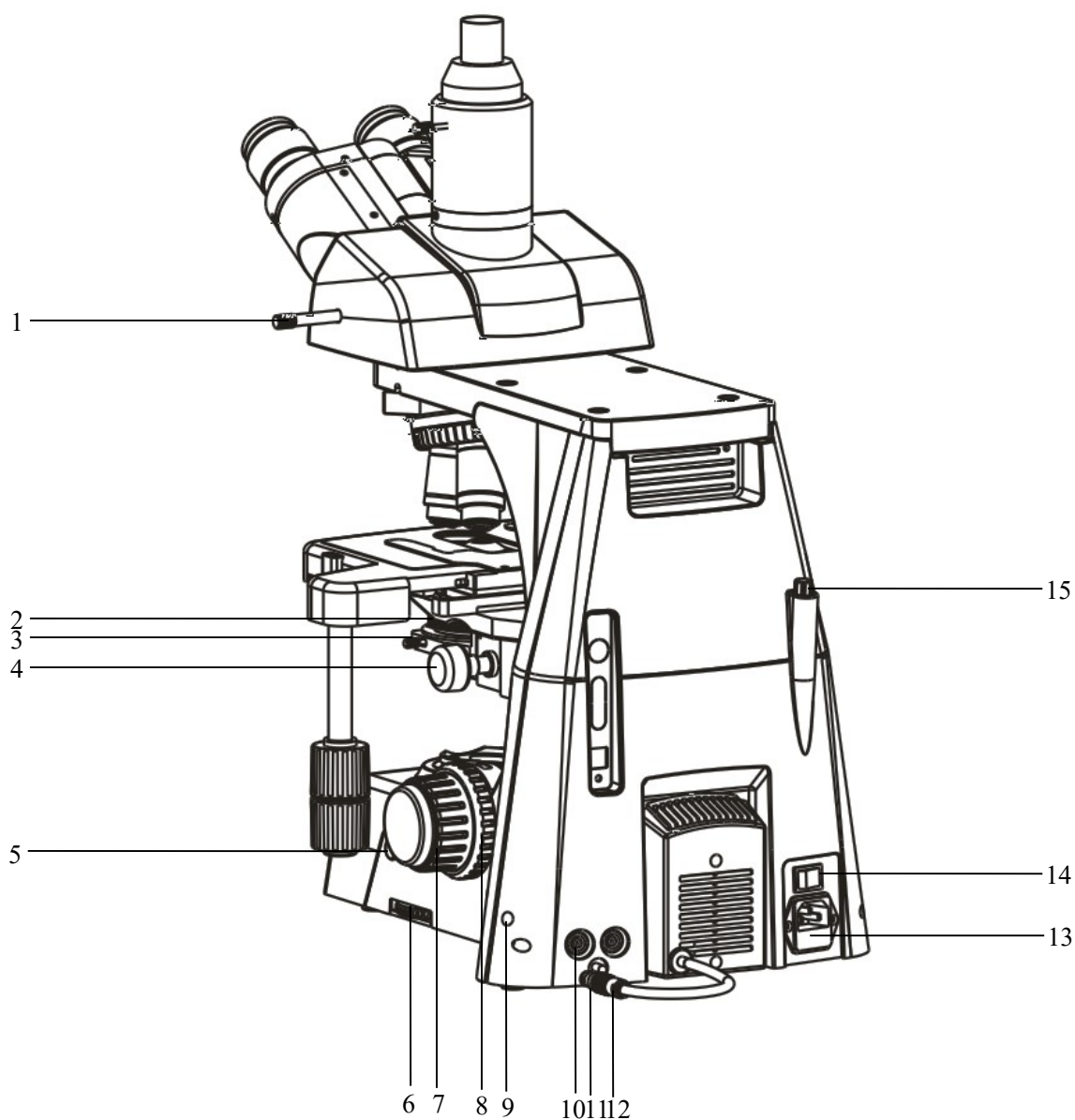


2. Overview of each mechanism

NE920



- | | |
|---|--|
| 1. Filter switch bar | 8. "ECO" Sensor |
| 2. Coarse/fine-tuning lift handwheel | 9. Lateral Adjustment Knob |
| 3. Focus the upper bit lock the handwheel | 10. Condenser Aperture Adjustment Ring |
| 4. The height adjustment of the condenser handwheel | 11. Portrait Adjustment Knob |
| 5. Switch button for upper and lower lighting | 12. Slide clip |
| 6. Brightness adjustment knob | 13. Fastening screws for extended function board |
| 7. Polarizer device | 14. Extended function board |

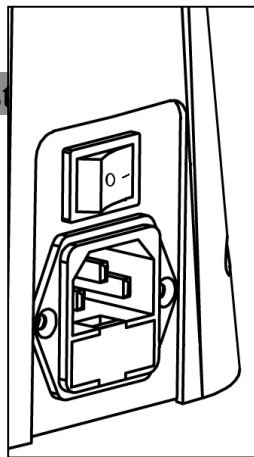


- | | |
|---|------------------------------------|
| 1. Observe the optical path switching push-pull rod | 9. Lamp Housing Fastening Screws |
| 2. Condenser diaphragm adjustment ring | 10. Lamp house socket |
| 3. Condenser fixing screw | 11. Ground extension rod |
| 4. Condenser height adjustment hand wheel | 12. Lamp house plug |
| 5. ECO button | 13. Power sockets and fuse holders |
| 6. Field diaphragm size adjustment knob | 14. Power switch |
| 7. Coarse and fine-tune handwheel | 15. Allen wrench |
| 8. Coarse tightness adjustment handwheel | |

3. Adjust

tion

NE920



3-1 Turn on the power (Figure 1)

Turn on the power and dial the main switch (as shown) on the back of the microscope body to the "-" (on) state.

3-2 Adjust light intensity and switch between upper and lower light sources (Figure 2)

1. As in Figure 2, when rotated in the direction indicated by the arrow, the light source is weakened and the opposite direction the light source is intensified.
2. As in Figure 2, when the upper and lower light switch button is pushed into the state, it will be in the state of upper light source, as shown in the figure . On the contrary, it is the lighting state of the lower light source, as shown in the figure .

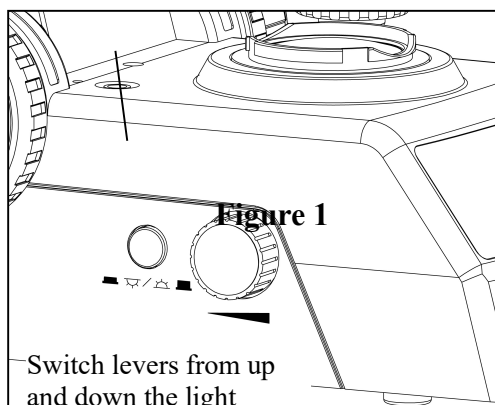
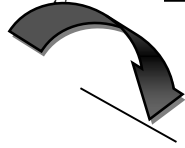


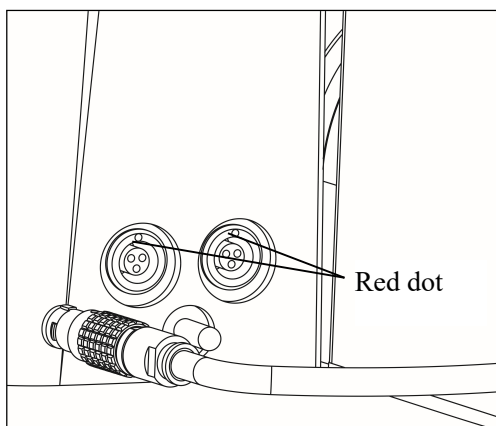
Figure 1

Switch levers from up and down the light



Dim the handwheel

Figure 2



3-3 Light socket (Figure 3)

As in Figure 3, there are red dots on the lamp source socket and the plug. Before inserting the plug into the socket, adjust the direction until the red dots are aligned in the same direction.

- ✧ Note that the silk screen on the left and right sockets corresponds to the upper and lower light switch buttons. As shown in the figure:  for the upper and lower light light switch button push-in state corresponding to the upper and lower light source switch ingest state, for the lower light light circuit  socket, with the upper and lower light source switch button ejection status.

- ★ If you find that the upper and lower light switching levers are not in the same state as the illustration, check that the upper and lower light plugs are inserted into the

Figure 3

NE920

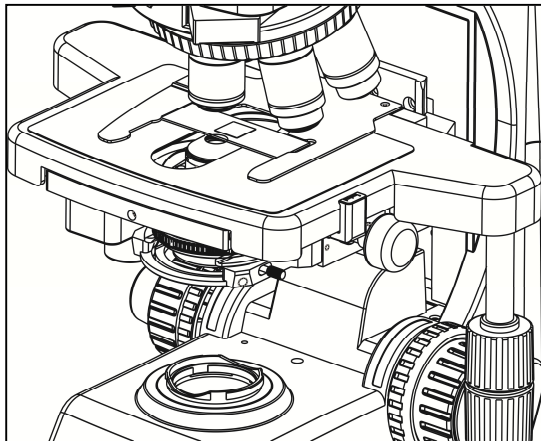


Figure 4

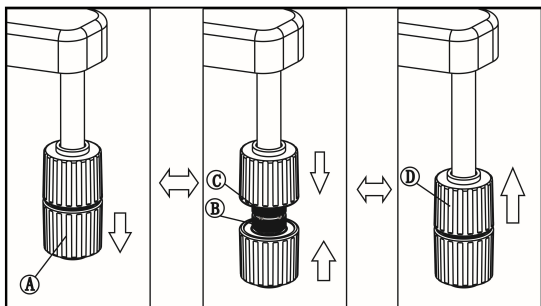


Figure 5

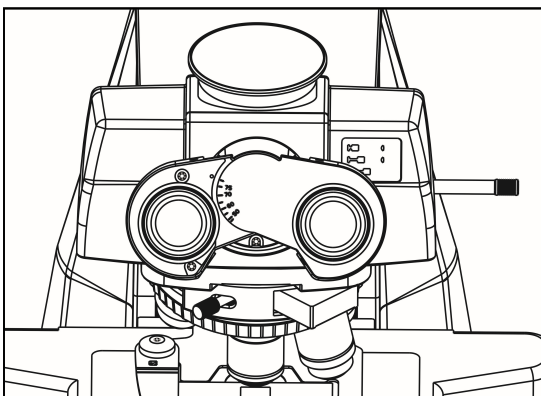
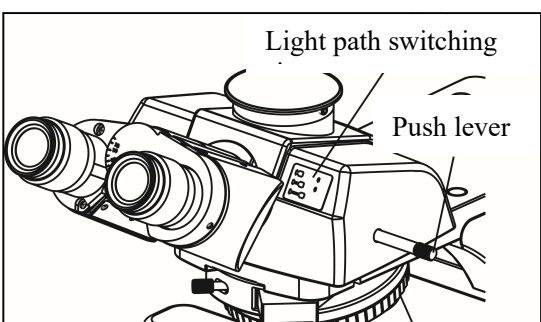


Figure 6



3-4 Specimen placement, platform handwheel adjustment (Figure 4, 5)

Slowly push the cover glass upwards into the movable jaws to gently clamp the slide. Rotate the horizontal and vertical adjustment handwheels on the mechanical moving ruler to move the sample to the desired position.

- ★ Be careful when changing objectives. After observing the specimen with an objective with a short working distance, when the objective needs to be replaced, the objective may collide with the specimen.
- ★ The tension of the platform handwheel can be adjusted as needed. Pull the A handwheel down, you can see the B and C elastic adjustment rings, just turn the adjustment rings, B is the handwheel for adjusting the X direction, and C is the handwheel for adjusting the direction.
- ★ The height of the platform handwheel can also be adjusted as required. Pull down the A handwheel as shown in the figure, and then pull down the D handwheel to realize the overall downward movement of the handwheel. It can also be implemented in the opposite direction, making the handwheel position higher

3-5 Pupil distance adjustment (Figure6)

The pupil distance is 47mm to 78mm. When observing with both eyes, the hand holds the left and right prism base and rotates around the axis to adjust the pupil distance until the left and right fields of view become one and the observation is comfortable

3-6 3rd-gear optical circuit switch (Figure7)

elect the desired light path and light-strength ratio as shown in Figure 6.

Icon.	Operation.	Eye: Camera (%)
	The push lever is fully pushed in.	100: 0
	Push lever put in the middle.	20: 80
	The push lever is completely pulled	0: 100

Figure 7

NE920

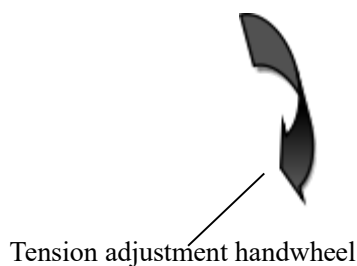
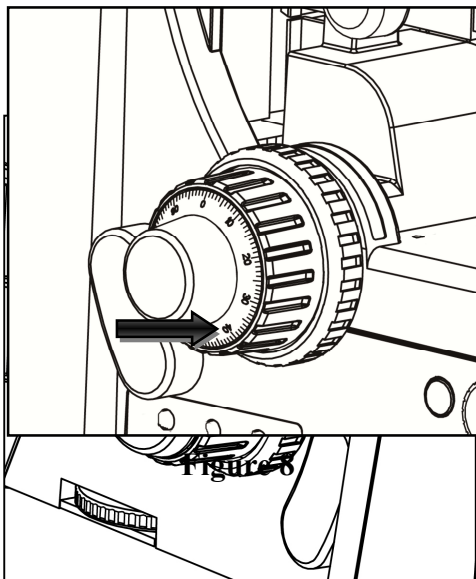
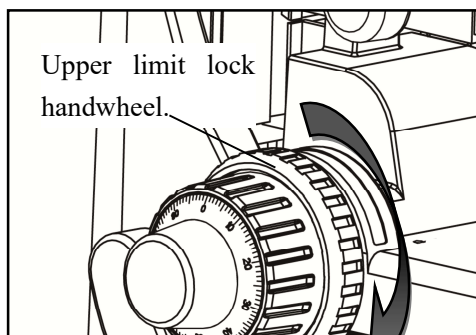


Figure 9



3-7 Focusing (Figure 7, 8, 9)

1. When the camera device is not used.

Push the push-pull rod for optical path switching completely in (shown in Figure 7) and perform binocular observation. Focus with a 10 $\times$ objective, in order to prevent the specimen and the objective from colliding, the mechanical loading stage should be raised first, so that the specimen and the objective are close to each other. The coarse focusing handwheel is then slowly rotated in the opposite direction to lower the specimen while searching the image in the 10 $\times$ eyepiece. Finally use the fine focus handwheel to focus to maximum clarity. At this time to switch to other magnification objective, can achieve focusing without damaging the specimen.

2. When a camera device is required.

After pushing the push-pull rod for optical path switching (shown in Figure 7) to the bottom, perform binocular observation. When the image is clear, then pull out the push rod, which can be observed through the camera system.

★ **The fine-tuning handwheel on both sides are fixed with strong magnets for easy disassembly. As shown by the arrow in Figure 8, press one end of the handwheel until the other end is raised, and then gently remove it from the raised end. When assembling, align the center of the handwheel and put it in. This function makes it easy to exchange the left and right of the two fine-tuning handwheels, and can avoid the collision between the fine-tuning handwheel and the platform handle.**

3-8 Tension adjustment for focusing handwheel (Figure 9)

The tension adjustment handwheel rotates in the direction shown by the arrow in Figure 9. And as the more the rotation, the tighter the focusing handwheel. The opposite is looser.

3-9 Focus upper limit position (Figure 10)

In⁸ practice, if you want to limit and lock the height of the platform, that is, the upper limit position of focusing, you only need to rotate the locking handwheel in the corresponding upper limit position in the direction of the

Figure 10

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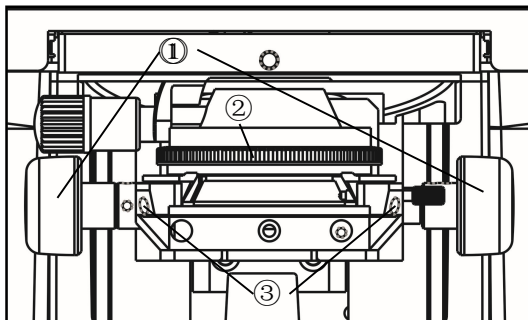


Figure11

3-10 Adjustment of swing-out condenser (Figure11 , 12)

- The condenser center should be coaxial with the optical axis of the objective. The product has been adjusted when leaving the factory, so users do not need to adjust by themselves.
- The highest position of the condenser has been adjusted before delivery, so users do not have to adjust it by themselves.
- Turning the focusing handwheel ① of the condenser can make the condenser move up and down. When high magnification objective is used, condenser lens rises; The condenser can be lowered when using a low magnification objective.

Alignment of condenser lens:

1. Turn the concentrating lens to focus the handwheel ① and raise the concentrating lens to the highest position.
2. Focus the sample with a 10× objective.
3. Rotate the field diaphragm to adjust the turntable ② and reduce the field diaphragm image to make it visible in the field of view.

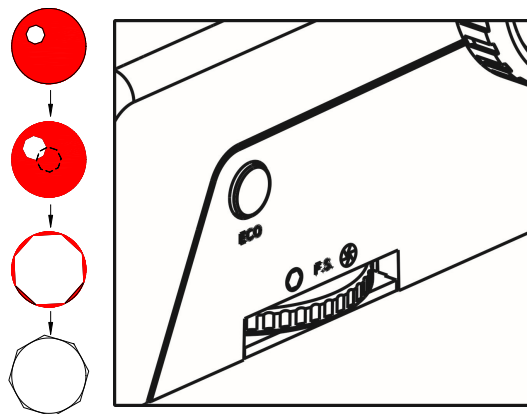


Figure12

4. Turn the condenser to focus the handwheel ① to focus the field diaphragm image.
5. Turn the centering screws on the two converters with a universal adjusting wrench and move the field diaphragm to the center of the field of view.
6. Gradually open the field diaphragm. If the field diaphragm image is centered and connected to the field of view, the condenser is properly aligned.
7. In practice, the field diaphragm is slightly increased so that the image is just tangent to the field of view.
8. **Adjustment of aperture diaphragm ④**

The aperture diaphragm is used to adjust numerical aperture, not brightness. In general, a good image with sufficient contrast can be obtained when the aperture is opened to 70% to 80% of the exit pupil of the objective. To view the aperture diaphragm image, take down the eyepiece and look down at the exit pupil of the objective from the eyepiece tube.

9. Adjust the size of the field diaphragm

To operate, turn the field diaphragm turntable, reduce the field diaphragm, and observe the field of view. If the field diaphragm image is visible, the condenser is properly aligned.

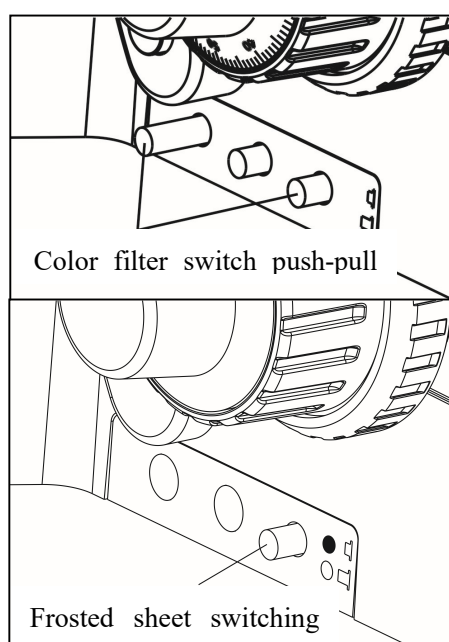


Figure 13

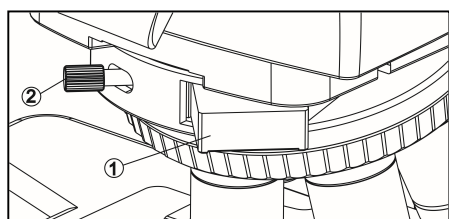


Figure 14

3-11 The use of color filters (Figure 13)

As shown in Figure 13, when the push rod is pushed in, the color filter is in use state, and when the push rod is pushed out, the color filter is in an empty state. LBD is a color temperature rise filter, and ND25 is a light transmittance of 25 % color filter, ND6 is a color filter with a light transmittance of 6%.

★For LED models, under normal use, the frosted sheet is in the cut-in state. When observing the dark field or phase contrast, you can press the handle as shown in the figure to make the frosted sheet out of the light path to improve the brightness of high magnification observation.

3-12 Use of extended function board (Figure 14)

As shown in Figure 14, a slot for the expansion function board is reserved on the converter. The microscope has been inserted into the slot with a common bright and dark field board when it leaves the factory. If you want to use other extended function boards, just unscrew the serial number ②, pull out the standard bright and dark field board, then insert the extended function board into the slot and tighten the screws of serial number ②.

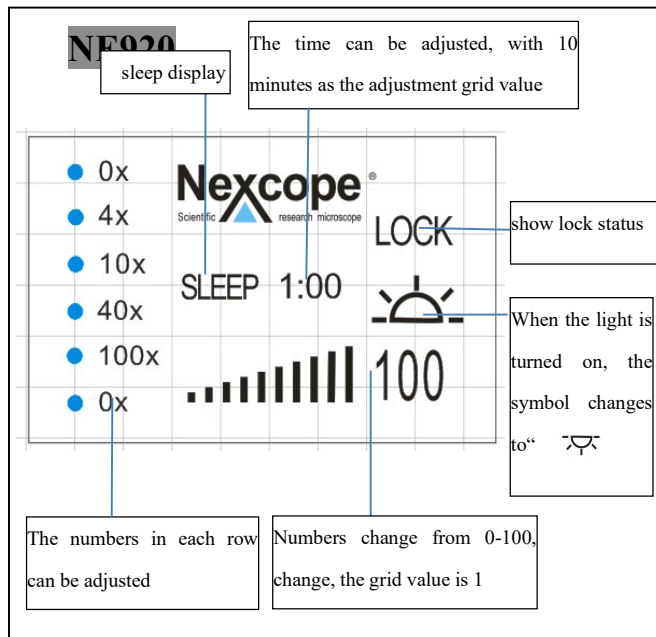


Figure 15

3-13 Operation of LCD screen and dimming knob (Figure 15)

- Turn the knob: adjust the light intensity, turn it forward to increase the brightness, and turn it backward to decrease the brightness
- Click the knob: enter the standby state, "SLEEP" is displayed on the screen. Release the standby and click again, the "SLEEP" on the screen disappears, and the normal working mode is displayed.
- Press and hold the knob for 3s: enter the selection and set time, the fractional value of the time starts to beat, click a knob to change to the hourly value and start to beat. The time can be increased or decreased by turning the knob, and the increase or decrease of the fractional value is 5 minutes; the longest can be set to 8 hours. After setting to the desired time, the time number stops beating after beating three times, which means the setting is successful. Time begins to decrease in minutes.

- Double-click the knob: the light intensity is locked or unlocked. The dimming handwheel fails when locked, and "LOCK" is displayed on the LCD screen, but not displayed after unlocking; "LOCK" means that the user has set a specific brightness when using a certain multiple objective lens, so as to avoid being changed by another user and use the lock function to fixed. (In this case, when turning to another multiple, the brightness will automatically change to the brightness of the corresponding multiple, but the dimming handwheel will also fail). Double-tap the button again to unlock, and "LOCK" disappears from the screen.
- Press + rotate up: switch to the top light source
- Press + Down: switch to the lower light source
- ★ The above can be set when the power is turned on.
- Long press the knob and turn on the power switch: enter the objective lens magnification setting. The LCD screen displays all hole magnifications, the first row of magnifications will jump, turn the knob to the desired installed objective magnification, click the knob (the converter does not need to be rotated), and enter the next hole objective magnification setting; after all settings are completed, long press the knob to complete.
- ★ This model has a light intensity memory function, which can automatically memorize the light intensity adjusted by each objective lens when it was used last time, and automatically adjust the light intensity to the memory size when the corresponding objective lens is used next time, which is convenient for observation.

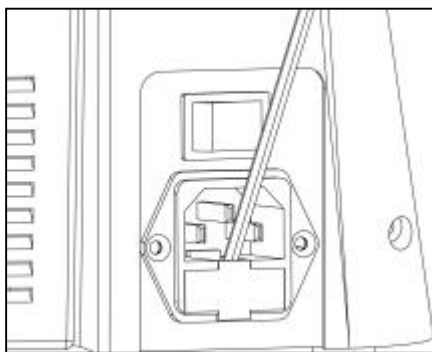


Figure 16

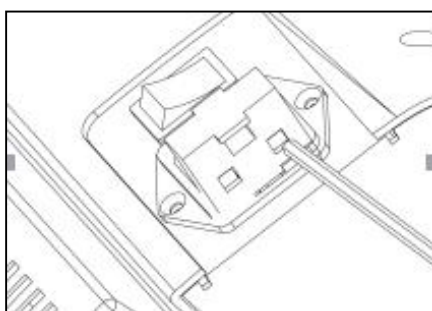


Figure 17

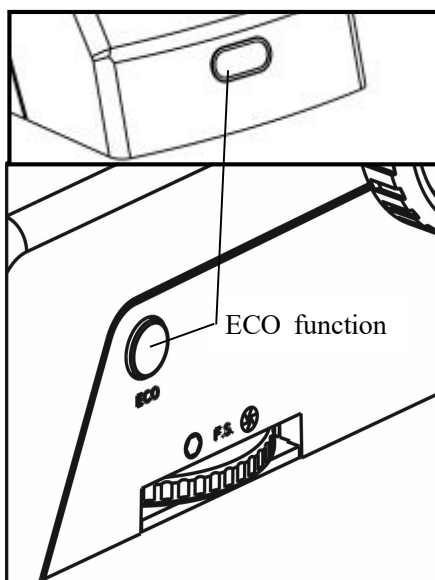


Figure 18

3-14 Fuse replacement (Figure 16, 17)

Open the fuse box drawer with a universal adjustable wrench as shown in Figure 16. As shown in Figure 17, gently push the fuse out through the square hole under the fuse drawer with a universal adjusting wrench.

★ The middle of the fuse is a thin glass, and carefully and gently operate when opening the fuse box drawer and ejecting the fuse.

3-15 “ECO” device (Figure 18)

As shown in Figure 18, the device can sense objects within 1 meter of its front.

When the person is observing, within 1 meter in front of the device, the red light is always on, and the microscope light source will not be extinguished at this time.

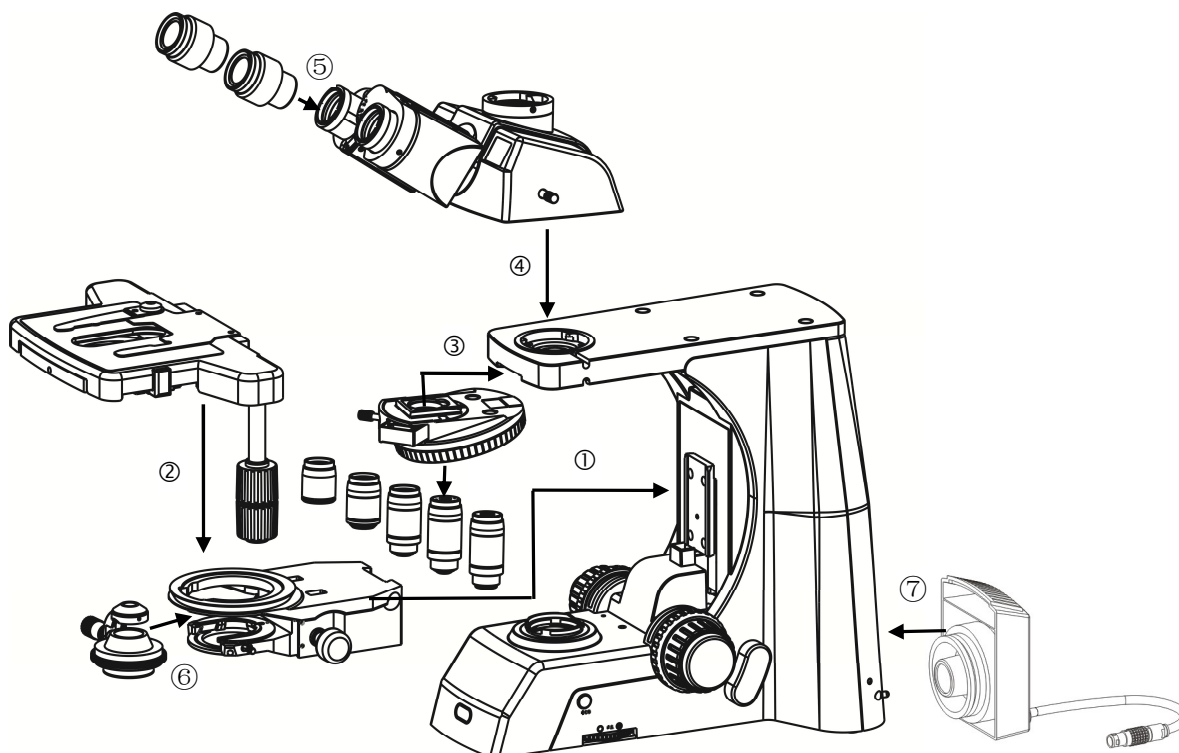
When the observer leaves, the red light changes to flashing if there is no other object within 1 meter in front of the microscope. After this state lasts for a period of time, the light source will automatically go out. The duration is 15 minutes by default, and can be set based on user requirements.

When the light is not on, the microscope light source is out. Press the “ECO” function key to restore the light on state.

4-1 Assembly Diagram

The diagram below shows how to assemble the various components. The numbers indicate the order of assembly.

- ★ When assembling the components, make sure that all parts are free of dust and dirt, and avoid scratching any parts or touching glass surfaces.
- ★ Keeping the hexagon- spanner well, when change the spare parts, you will use it.



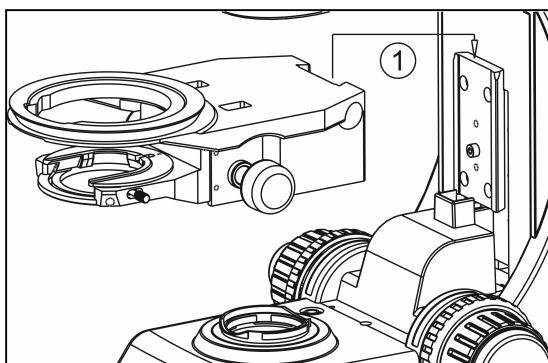


Figure 19

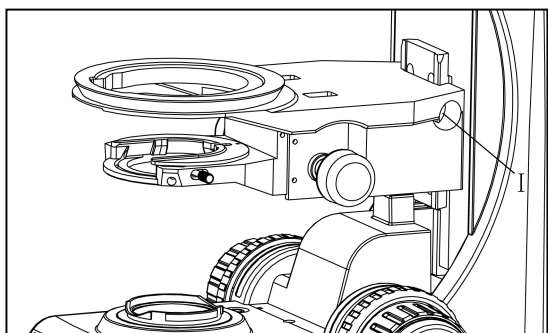


Figure 20

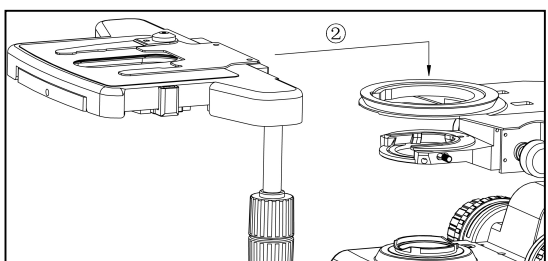


Figure 21

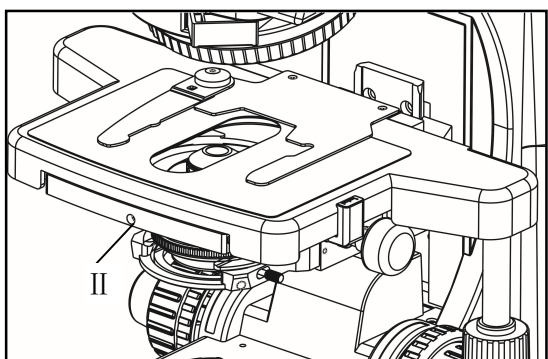


Figure 22

4-2-1 Install the mechanical loading stage bracket (Figure 19、20)

★ Rotate the rough handwheel so that the dovetail of the rack rises until the limit screw exposes the end face as shown in the figure, then install the platform bracket according to the path of No. ① in Figure 1, and align the dovetail groove of the platform bracket in Figure 1 with the dovetail protrusion of the rack. Align and slide down naturally until the lower limit screw stops the descent. Then tighten the screw at I in Figure 2 with the Allen wrench on the microscope belt.

4-2-2 Installation of Mechanical Stage Device (图 21、22)

★ The mechanical stage is installed according to the path of No. ② in Figure 21. First, roughly align the center of the stage hole with the center of the bracket circle, and then slide the stage down to the bracket positioning ring.

◇ After the stage is placed stably, tighten the screws of II in Figure 22 inward with the Allen wrench on the microscope belt, so that the stage cannot be rotated or shaken.

4-2-3 Install the converter (Figure 23)

Insert it into the dovetail slot of the microscope according to the path ③ shown in Figure 23, push it to the innermost position, and then use an allen wrench to tighten the screw at III to fix it.

Figure 23

4-2-4 Mounting the viewing head and photographic accessories/0.5X C-mount (Figure 24)

(Figure 24)

1. Install the trinocular viewing head
Install the observation head into the circular dovetail of the microscope according to the path shown by the serial number ④ in Figure 6, and then tighten the screw at the IV position with an internal wrench to fix the observation head.

2. Install photographic accessories/0.5X C-mount (optional)

Install the photographic accessory/0.5X C interface into the trinocular accessory interface of the observation head according to the path shown by the serial number ⑤ in Figure 6, and then tighten the screw at V with the universal wrench to fix the photographic accessory.

★ In the process of installing the observation head, pay attention to always hold the observation head with one hand to prevent it from falling or breaking.
★ When the trinocular observation head is not in use and the photographic accessories are not installed, please cover the trinocular accessory interface and the eyepiece interface with corresponding dust caps to prevent dust from entering.

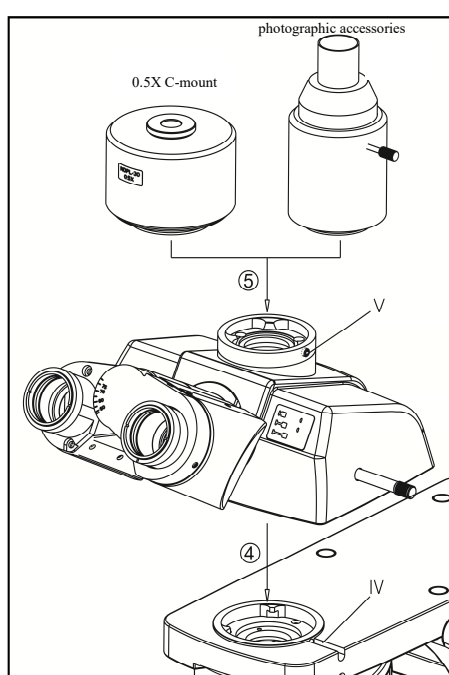


Figure 24

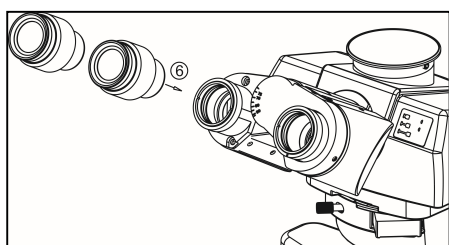


Figure 25

4-2-5 Install the eyepiece (Figure 25)

Insert the eyepiece into the eyepiece tube of the observation head according to the path of No. ⑥ in Figure 25 until it touches the surface.

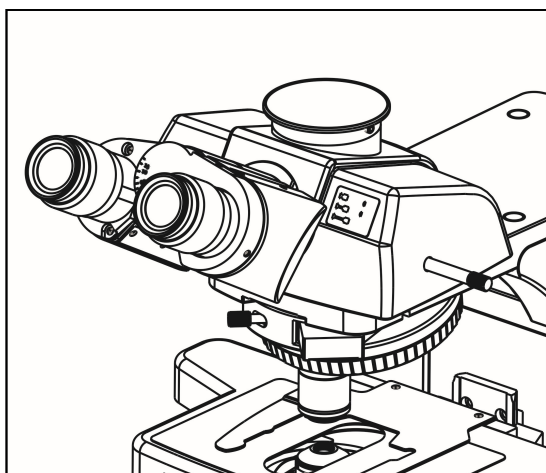


Figure 26

4-2-6 Install the objective lens (Figure 26)

1. Adjust the coarse focus handwheel until the mechanical stage support assembly is lowered to its lower limit.

2. According to the objective lens magnification label under the objective lens conversion key at the factory, press the button corresponding to the objective lens magnification you need to install, and then screw in the corresponding objective lens after the corresponding converter hole is in place.

✧ Mounting the objective in this way will ensure correct movement of the condenser front lens in and out during use.

★ Clean the objective regularly as it is very sensitive to dust.

★ When operating, use 10× objective to search specimen and focus firstly, then replace with higher magnification objective if necessary.

★ When replacing the objective, slowly turning the nosepiece until you hear “clicked”, that means the objective enter the required position—the light path center.

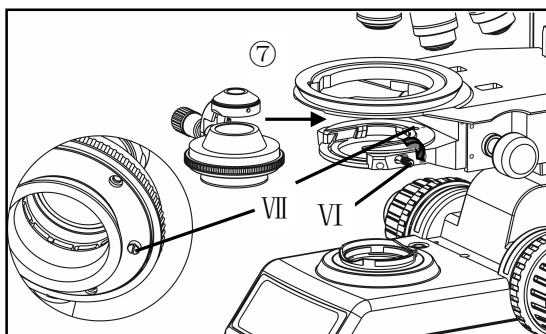


Figure 27

4-2-7 Install the swing-out condenser (Figure 27)

Insert the condenser into the bracket along the path shown in No. ⑦ in Figure 9, until the screw No. VII snaps into the groove of No. VII, and push it to the inside. Then screw in the screw at No. VI as shown in the figure to hold the condenser tightly;

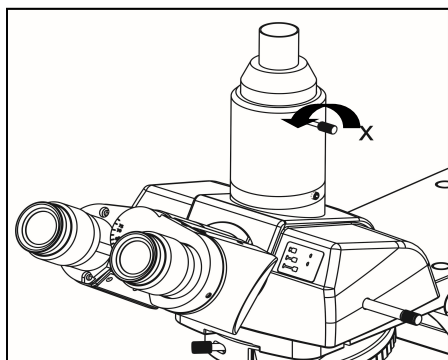


Figure 28

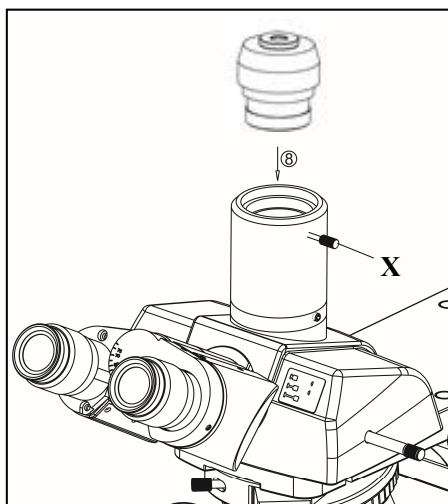


Figure 29

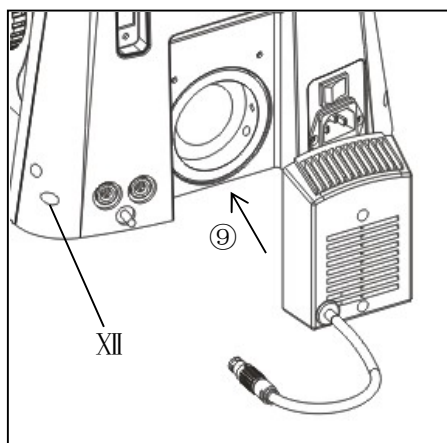


Figure 30

4-2-8 Replace the camera mount (optional) (Figure 28, 29)

First, as shown in Figure 28, first unscrew the screw at No. X in the direction of the arrow for a certain distance so that it no longer presses against the camera port, and then unscrew the camera port.

Then, as shown in Figure 29, screw the camera interface into the trinocular socket according to the path of serial number ⑧. After reaching the appropriate position, screw in the screw at the serial number X to the position where the camera interface is firmly supported.

★The most suitable position of the camera mount is determined, can first be observed with eyepieces, the specimen is adjusted to a clear position, and then through the installation of the camera, to observe its imaging, while the camera mount position is adjusted accordingly, to the clearest position of imaging, and then spin the screw at the tight sequence number X

4-2-9 Install the light box (Figure 30)

First insert the light box down the back of the frame base in the illustrated position in the sequence number ⑨ path in Figure30

Then use a universal wrench to tighten the fastening screws in the serial number XII hole so that the light box does not loosen.

★ The lamp room of the LED model has been installed at the factory, and the customer does not need to install it by himself.

5. Technical Specifications

NE920

I . The main technical specifications

Optical system	NIS60 Infinity Optical System	NE920
Viewing head	Hinged trinocular head, 30° tilted, with PD of 47-78mm.	●
Eyepiece	Large field eyepiece EW10X/25, with lens barrel Φ30	●
Objective nosepiece	Laboratory polarizing objective nosepiece	●
Objective	Infinity Plan Objective 4×, 10×, 20×, 40×, 100×	●
Focusing mechanism	Coaxial coarse fine-tuning focus mechanism, fine-tuning grid value 0.001mm.	●
Stage	Double-layer movable platform, size 185×142mm, moving range 78×54mm	●
Lighting	Cora lighting, 24V100W halogen lamp or 3W SLED light source	●
Condenser	Swing-out condenser NA0.9/0.25	●
Photography accessories		○
Camera receiver	C-Mount 1×	○
	C-Mount 0.5×	○
Polarizer		○
Turntable Phase Contrast Device		○
Dark field device		○
Fluorescent device		○

Note: ● for standard configuration, ○ for the purchase of accessories

II objective parameters

Magnification	Numerical Aperture (N.A)	Working Distance (mm)	Cover-glass thickness	Conjugate distance (mm)
4X	0.10	30	-	∞
10X	0.25	10.2	-	∞
20X	0.40	13	0.17	∞
40X	0.65	0.7	0.17	∞
100X	1.25oil	0.2	0.17	∞

III Electrical parameters

- 1) Input pressure: VAC100-240V 50/60 Hz
- 2) Fuse specification: T500mAL250V
- 3) Illumination: 3W S- LED

6. Troubleshooting guide

NE920

6.1 Optical parts

Question	Reason	Solution
The edges are dark or the field of view is uneven.	Nosepiece is not in position (objective is not in the center of light path).	Go to the position (turn the objective to get it right into the light path)
	The condenser is not in the center.	Make it to the center.
	Dirt on the lens (refers to condenser, objectives, eyepieces, photoscopes).	Wipe it clean.
There is dirt in the field of view.	Dirt on the lens (refers to condenser, objectives, eyepieces, photoscopes).	Wipe it clean.
	There is dirt on the slide.	Wipe it clean.
	The condenser position is too low.	Adjust the height of the condenser.
The image quality is poor (low resolution, poor contrast).	There were no cover slip on the specimen.	Attach cover slip.
	The cover slip is too thick or too thin.	Use a cover slip with a standard thickness(0.17mm).
	The specimen is reversed below.	Flip back.
	There is oil immersion in the dry objective (especially 40X easy to have).	Wipe it clean.
	Dirt on the lens (refers to condenser, objectives, eyepieces, photoscopes)	Wipe it clean.
	The oil-immersed objective is not oil-soaked.	Use dipping oil.
	There are air bubbles in the oil immersion.	Put the objective to eliminate the bubbles several times.
	Non-specified dip oil is used.	Use standard oil immersion.
	The aperture diaphragm is too wide open.	It's a good one.
	There is dirt on the incident lens of the binoculars.	Wipe it clean.
	The aperture diaphragm is too small.	Open appropriately.

	The condenser position is too low.	Correct the position.
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NE920

One side of the image is dimmed.	The condenser is not centered or tilted.	Refit the spotlight and carefully adjust it with the focus mirror tuning center screw.
	The nosepiece is not located.	Turn it to fit.
	The specimen is in a floating shape.	Reliable reinforcement.
The image moves while focusing.	The specimen floats on the surface of the objective table.	Should be placed securely.
	The nosepiece is not located.	Turn it to fit.
The lighting is not bright enough.	The brightness is not adjusted accurately.	Adjust the dimming knob.
	The condenser position is too low.	Correct its location.
	The condenser is not in the center.	Adjust the center.

6.2 Mechanical part

Question	Reason	Solution
The image with a high-fold objective cannot be focused.	The slide went the other wrong. The cover slip is too thick.	Flip the slide. Cover slip (0.17mm) with a standard thickness.
The slide is exposed when the objective is converted from a low to a high.	The slide went the other wrong. The cover slip is too thick.	Flip the slide. Cover slip (0.17mm) with a standard thickness.
The specimen does not move smoothly.	The slide holder is not reliably fastened.	To ensure that the fastening.
The binocular image does not coincide.	The PD is not adjusted correctly.	Readjust.
Excessive eye fatigue.	There is no visual adjustment.	Adjust the view correctly.
	The lighting is not bright.	Adjust the lamp voltage.

6.3 Electrical section

Question	Reason	Countermeasures
Switch the bulb does not light when switch is on.	No power.	Check the connection of the wires.
	The bulb is not plugged in.	Insert correctly.
	The light bulb is broken.	Replace.
The light bulb suddenly burned out.	The voltage of the non-specified bulb used is too high.	Replace with a specified light bulb, and if the situation does not change after replacing the specified bulb, contact the maintenance department.
The lighting is not bright enough.	A non-specified bulb was used.	Replace with a specified light bulb.
	The voltage is too low.	Increase the voltage.
The bulb is flashing or the brightness is not stable.	The light bulb is going to break down.	Replace.
	The bulb is not plugged into the socket correctly.	Check and plug it in firmly.
The person leaves the set time and does not return the rear light to go off.	Within 1 meter there is something else in front of the unit.	Move something within 1 meter of the unit.

