



# **Breeder Canine Analysis Microscope 1000X Manual**

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<b>1.0</b>	<b>Scope of Application .....</b>	<b>3</b>
1.1	Warnings.....	3
1.2	Return Policy .....	3
1.3	Important Information .....	3
<b>2.0</b>	<b>Product/Part Information .....</b>	<b>4</b>
2.1	Environmental Requirements.....	4
2.2	Total Magnification Information.....	5
<b>3.1</b>	<b>Unpacking .....</b>	<b>5</b>
<b>3.2</b>	<b>Installation .....</b>	<b>6</b>
<b>3.3</b>	<b>Connections and Instrument Preparation .....</b>	<b>7</b>
<b>3.4</b>	<b>Viewing a Microscope Image Using 4x (Red) or 10x (Yellow) Objective Lenes .....</b>	<b>10</b>
<b>3.5</b>	<b>Viewing a Microscope Image Using 40x (Blue) Objective Lenes .....</b>	<b>11</b>
<b>4.0</b>	<b>Cleaning/Ending Procedures.....</b>	<b>12</b>
4.1	Transportation .....	12
4.2	Storage .....	13
4.3	Power Supply Inspections .....	13
4.4	Daily Maintenance and Precautions .....	13
4.5	Troubleshooting Table: Mechanical Issues .....	14
4.6	Troubleshooting Table: Electric Issues .....	14
4.7	Troubleshooting Table: Optical Issues .....	15

## 1.0 Scope of Application

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Magnification observation in multiple fields, for use for examining canine sperm samples.

## 1.1 Warnings

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Thoroughly read the user manual before use. Recommended to be operated by a dedicated technical person.

Be careful when unpacking to prevent fragile components such as lenses falling and getting damaged.

The instrument should be placed in a cool and dry place. Cover with a dust cover after use. If cleaning is required, please gently wipe with a clean, lint-free soft cotton cloth.

If the instrument malfunctions, please immediately turn off the power and unplug the power plug.

Treat all specimens as potentially hazardous and infectious.

## 1.2 Return Policy

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In the event that it becomes necessary to return this product or part of this product to us the following procedure should be followed:

Contact Customer Service at [support@k9p4go.com](mailto:support@k9p4go.com) or 844-673-7378 first. Please provide the instrument's serial number, and a brief description of the reason for return. It is for the purpose of obtaining a Return Materials Authorization (RMA) number. A video or image of the defect may be required to process a warranty replacement or return. Once approved, a label will be provided by canineP4 with which to ship the device back. Do not ship the device back without first contacting CanineP4.

## 1.3 Important Information

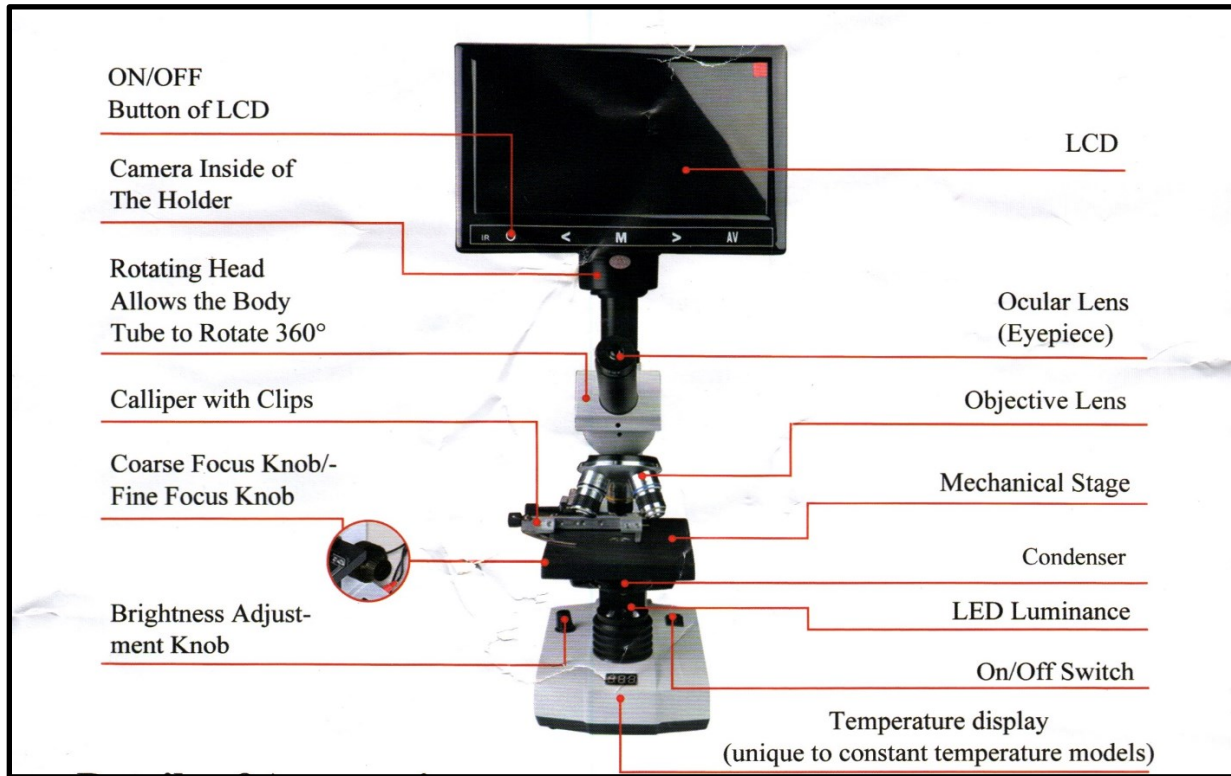
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This system shall not be used to diagnose conditions by people other than fully qualified and certified medical personnel. Do not make changes or modifications to the software or hardware of this product. In no event shall CanineP4 be liable for problems, damage or loss caused by relocation, modification, or repair performed by personnel other than those designated by canineP4.com. The responsibility for diagnostic procedures lies with the physicians involved. Important data must be backed up on external recording media such as clinical records, notebooks etc. We shall not be liable for the loss of data stored in the memory of this system caused by operator error or accidents.

## 2.0 Product/Part Information

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**Product Name:** Breeder Canine Analysis Microscope  
**Model:** LCD Screen Monocular Microscope w/Heated Stage  
**SKU:** VME-PTSD-50504



## 2.1 Environmental Requirements

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### During Use:

Environment Temperature Range: +50°F - 104°F  
Relative Humidity Range: <80% RH  
Atmosphere Pressure Range: 0.85 – 1.05 ATM

### While in Storage:

Environment Temperature Range: +50°F - 104°F  
Relative Humidity Range: 10% - 80% RH  
Atmosphere Pressure Range: 0.85 – 1.05 ATM

## 2.2 Total Magnification Information

While Using...	Looking Through....	Total Magnification Is...
Eyepiece (10x magnification)	Objective Lens (Red) (4x magnification)	= 40x (Total Magnification)
Eyepiece (10x magnification)	Objective Lens (Yellow) (10x magnification)	= 100x (Total Magnification)
Eyepiece (10x magnification)	Objective Lens (Blue) (40x magnification)	= 400x (Total Magnification)
Eyepiece (16x magnification)	Objective Lens (Red) (4x magnification)	= 64x (Total Magnification)
Eyepiece (16x magnification)	Objective Lens (Yellow) (10x magnification)	= 160x (Total Magnification)
Eyepiece (16x magnification)	Objective Lens (Blue) (40x magnification)	= 640x (Total Magnification)
LCD Screen (25x magnification)	Objective Lens (Red) (4x magnification)	= 100x (Total Magnification)
LCD Screen (25x magnification)	Objective Lens (Yellow) (10x magnification)	= 250x (Total Magnification)
LCD Screen (25x magnification)	Objective Lens (Blue) (40x magnification)	= 1000x (Total Magnification)

## 3.1 Unpacking

Take out the aluminum case, place it in the direction shown in the picture and open the case. Ensure all components are intact.



## 3.2 Installation

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First, turn the rotating head with the ocular lens to the front.



Second, install the 10x eye piece by dropping into place, with the glass facing outward.



Locate the LCD mounting bracket and LCD screen. Slide the metal insert into the grooved channel on the back of the screen.



Once inserted, fasten bracket to the LCD screen by turning the bracket dial clockwise to secure it to the screen.



Next, almost completely, loosen the bracket knob counter-clockwise to be able to fit on screen bracket on the topmost position of the microscope, the LCD camera stage. Then re-tighten clockwise once properly positioned.



Finally, carefully check if all parts are fully secured and Tightened. There should be nothing loose, and the correctly Installed screen should be placed on the mount without Movement.

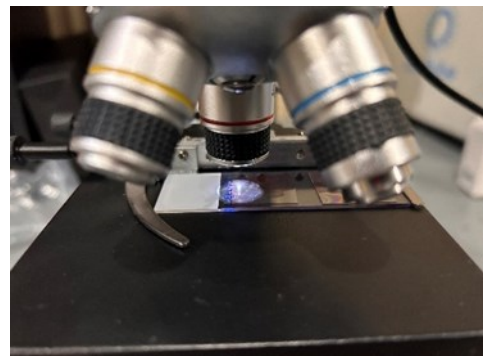


### 3.3 Connections and Instrument Preparation

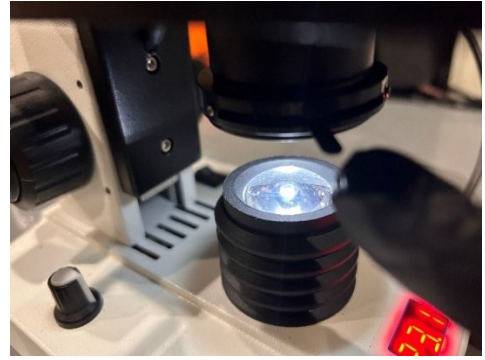
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Before connecting, set the microscope to the state where it is easiest to find and obtain images on the slides.

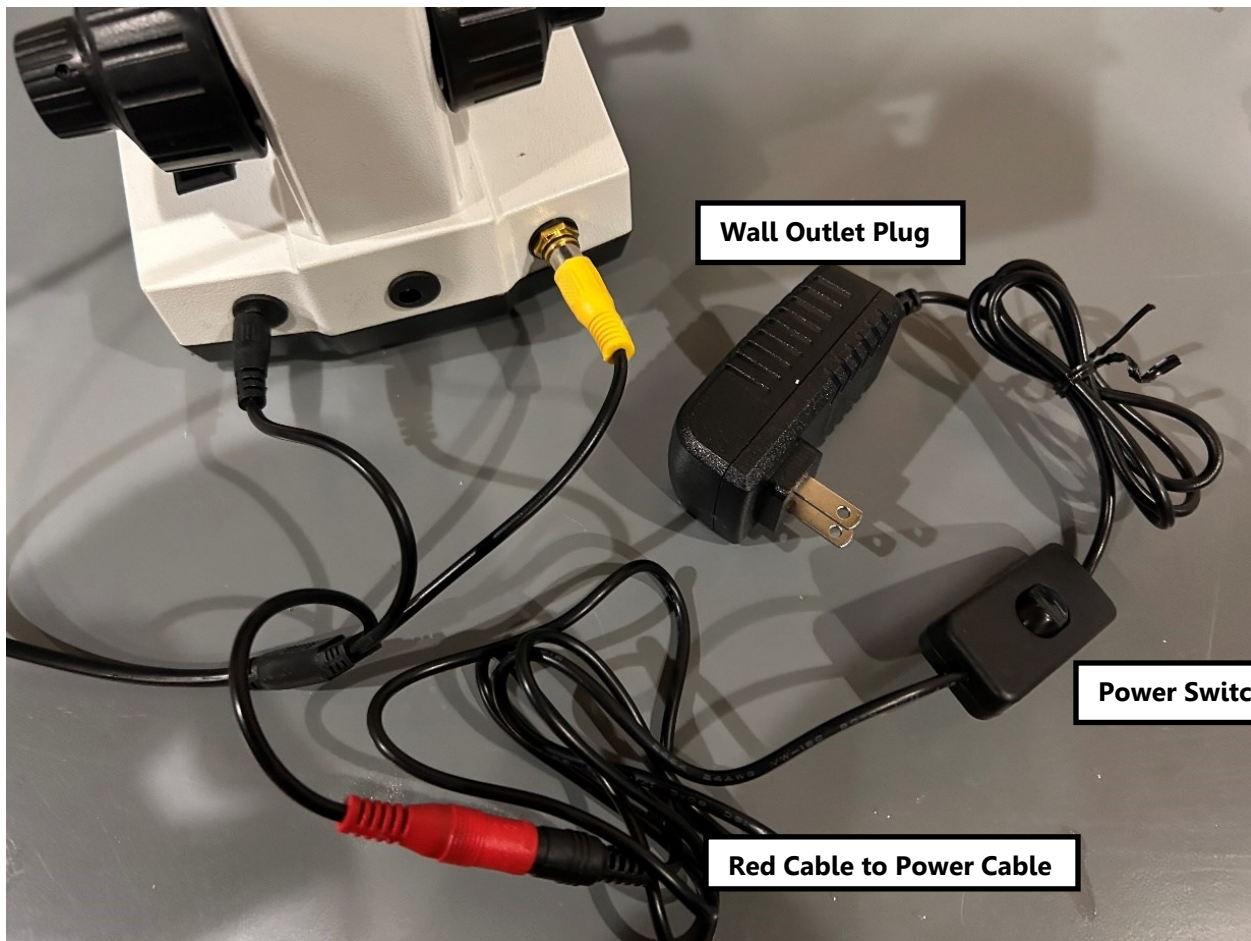
First, adjust the 4x objective lens (red) to the light source. It will gently click into place. Increasing contrast by decreasing the amount of light through the slide via the aperture light bar might be necessary to best visualize sample.



Second, set the aperture light bar to the appropriate or Desired position.



Next, the back of the microscope hard-wired setup is pictured below. The main cord has 2 sections. Wall outlet plug (with power on/off switch) and the microscope power converter cord (red plug). The red cable end cord is for the power to the wall. Each microscope kit includes two power cables. They are identical and can be used interchangeably. Please note that the power switch turns the power on and off.





Next, ensure the ON/OFF switch on the right-hand side of the microscope base has the slide with the – switched down flush with the base.



Then, ensure the ON/OFF switch in-line with the microscope Power cable is switched towards the side with the –notch at The end. Both pictures demonstrate the machine is power ON.



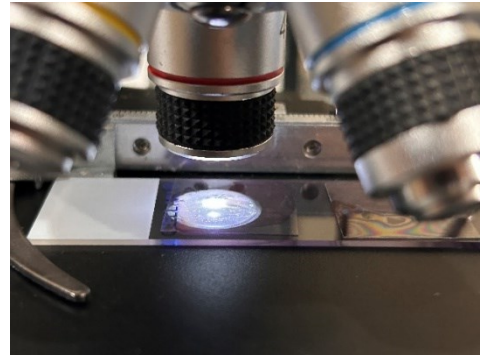
Complete microscope setup, including power and screen Cables.



### 3.4 Viewing a Microscope Image Using 4x (Red) or 10x (Yellow) Objective Lenses

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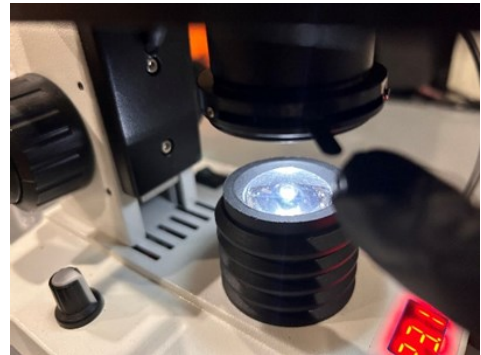
Use the lowest objective lens (4x or 10x). Then place the specimen on the glass slide. Protect your objective lens by placing a cover slip over the top of your sample.



Adjust the microscope slide by using the slide adjustments. There are two levers, left/right and front/back. Ensure that you specimen sample is centered by moving the slide adjustments before you begin.



Confirm that the aperture light bar is in the correct position. To allow the proper amount of light on your sample. Turn the Knob on the left to increase or decrease the light intensity.



Next, begin trying to find/focus on slide specimen. Turn the Course (large knob) and fine (small knob) focus adjustments. Until a clear image appears.



Once adjustments knobs are used and specimen is in focus, Use the slide adjustments to view several parts of your Specimen. Also adjust the brightness as needed.

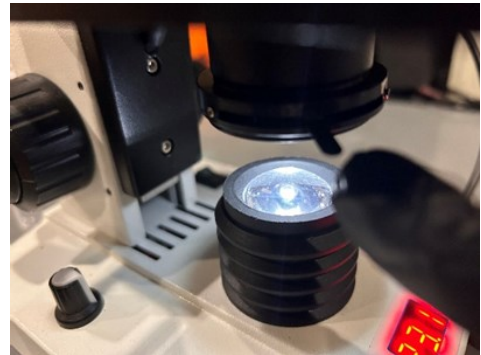


### 3.5 Viewing a Microscope Image Using 40x (Blue) Objective Lenses

Adjust the microscope slide by using the slide adjustments. There are two levers, left/right and front/back. Ensure that you specimen sample is centered by moving the slide adjustments before you begin.



Confirm that the aperture light bar is in the correct position To allow the proper amount of light on your sample. Turn the Knob on the left to increase or decrease the light intensity. Increasing contrast by decreasing the amount of light through the slide via the aperture light bar might be necessary to best visualize sample.



Next, begin trying to find/focus on slide specimen. Turn the Course (large knob) and fine (small knob) focus adjustments Until a clear image appears.



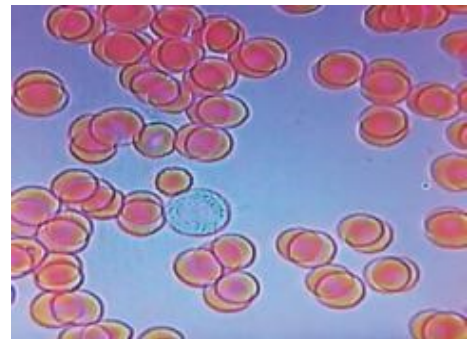
Once adjustments knobs are used and specimen is in focus, Use the slide adjustments to view several parts of your Specimen. Also adjust the brightness as needed.



Once in focus in the lower magnification, rotate to the higher power objective lens (10x) blue lens. And use the fine focus knobs for view. Avoid using course focus at higher magnification.



The higher magnification (40x) lens (blue) when adjusted to Clear image should almost touch the surface of the glass cover Slip. When the lens is found to be indented, it indicates that it Has been positioned too far down and it is necessary to adjust the fine knob back up. Avoid damaging the objective lens or breaking the slide by adjusting too far down.



#### **4.0 Cleaning/Ending Procedures**

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Before shutdown, the light knob should be rotated to where no light is showing through. This will extend the life of the microscope lamp.

If any specimen or immersion oil touched any of the objective lens, remove any microscopic debris by using specialized lens paper or cotton swab to clean. Avoid getting these lenses dirty as abrasive cloths can cause scratching on the lens. Both 100x immersion oil and lens paper are not included but can be purchases separately.

#### **4.1 Transportation**

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If transportation is needed, the transportation case is equipped with simple shockproof abilities. This is suitable for normal air, railway, road, and ship travel scenarios. Avoid heavy rain, snow, splashing of liquids, inversion, and collisions.

## 4.2 Storage

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If the storage period exceeds 6 months, the device should be checked and powered on for 1 hour, then powered off and returned to packaging. The microscope should be stored in a well-ventilated room away from strong sunlight, corrosive gas, high pressure, or extreme temperatures.

## 4.3 Power Supply Inspections

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Check the power supply cord. Don't turn it on if the power voltage exceeds the specified range of the instrument. Do not replace the power supply with any other power supply. Regularly check the power cord and immediately stop using if any damage or breakage occurs.

## 4.4 Daily Maintenance and Precautions

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Be careful when unpacking the microscope and accessories to prevent lenses from falling and damaging. All lenses have been installed, calibrated, and debugged. Please do not disassemble by yourself.

The objective lens converter and precision dynamic focusing mechanism have a compact structure, so please do not disturb or disassemble as this will void the warranty. If for any reason a malfunction occurs, please request a return or repair from [caninep4.com](http://caninep4.com).

The microscope should be kept clean and free of dust and debris. The sliding components should be regularly coated with a small amount of lubricant. Be careful not to contaminate the optical glass components with

The microscope should be placed in a cool and dry place and should be covered with a dust cover after use.

Cleaning of lenses: It is best to use a soft brush or gauze to clean dust. Severe oil stains and fingerprints can be gently wiped off with a clean, soft cloth, cotton cloth, lens paper, and gauze dipped in isopropyl alcohol.

Cleaning of paint or plastic surfaces: Avoid using any organic solvents (such as alcohol, ether, diluents, etc) to clean the paint or plastic of the instruments surface. We recommend using a soft cloth with regular household cleaner, or soapy water.

#### 4.5 Troubleshooting Table: Mechanical Issues

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If a malfunction occurs with this instrument, please refer to the following table. If the malfunction still exists, please contact us at [support@k9p4go.com](mailto:support@k9p4go.com).

What is the Issue?	Reason for Issue	How to Avoid / Fix Issue
Using a high magnification objective image cannot focus.	The glass slide is reversed.	Flip glass slide over. Realign image.
	Cover glass too thick.	Use standard thickness cover glass (0.17mm)
Contact with glass slide after switching from low magnification lens to high magnification	Use adjustment knob to lower stage vertically.	Bring image back into focus on lower magnification and reattempt. Ensure only 1 glass slide and slip are on stage.
The movement of the specimen is not smooth	The glass slide holder set screw is not reliably connected or tightened	Tighten set screw with flat-head screwdriver, or lubricate caliper
Specimen too dark	Inappropriate lighting brightness	Increase the brightness or adjust the condenser lever

#### 4.6 Troubleshooting Table: Electric Issues

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If a malfunction occurs with this instrument, please refer to the following table. If the malfunction still exists, please contact us at [support@k9p4go.com](mailto:support@k9p4go.com).

What is the Issue?	Reason for Issue	How to Avoid / Fix Issue
The bulb does not light up when the switch is turned on.	No power.	Check the connection and routing of the power cord. Ensure switch is turned on the proper orientation.
Flashing or unstable brightness of lights.	The circuit board or lamp is becoming defective.	Replace device.

## 4.7 Troubleshooting Table: Optical Issues

If a malfunction occurs with this instrument, please refer to the following table. If the malfunction still exists, please contact us at [support@k9p4go.com](mailto:support@k9p4go.com).

What is the Issue?	Reason for Issue	How to Avoid / Fix Issue
No image on screen.	Video cable or power supply not connected.	Reconnect, verify power cable routing. Press power button on screen.
Insufficient brightness of light source	Brightness adjustment knob turned down.	Turn the light adjustment knob clockwise to increase light output
	Aperture light bar too small.	Open aperture more with lever.
Dark on edges of view or uneven field of brightness.	The objective lens is not aligned with the aperture light bar vertically.	Rotate the objective lens and ensure it is in the proper position
	Dirt or contamination on the lens, eyepiece, or light source bulb.	Gently clean as described in previous section.
Poor image quality, Low Resolution, or Poor Contrast.	The specimen was not covered with a glass slide.	Cover a glass slide.
	Cover glass too thick or too thin.	Use a standard thickness (0.17mm) cover glass slide.
	Immersion oil on the objective lens (especially 40X).	Gently clean as described in previous section.
	Dirt on the lens (referring to the objective lens, eyepiece, and collecting lens).	Gently clean as described in previous section.
	Dirt on the incident lens of the eyepiece tube.	Gently clean as described in previous section.
	The specimen is in a floating or moving state.	Apply sample to new slide and ensure the slip is placed securely on top.
	Field is too bright or too dark.	Adjust light output with knob, or adjust condenser aperture.



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