GEMORO®
ELITE 1067T MICROSCOPE

USER MANUAL

Congratulations on your purchase of the advanced Elite 1067T trinocular gemological microscope by **GEM**ORO Superior Instruments, the most trusted name in gemological instrumentation for the jewelry industry. You've made a smart choice. Not only are the precision optics superior in this microscope, but the amazing **GEM**ORO Elite 1067T comes packed full of the latest innovations and exclusive features.

1. The Elite 1067T gemological microscope is a precision professional instrument, so care should be given to ensure that it is handled properly to make certain it isn't damaged during use or when being transported.

2. Place the Elite 1067T on a clean, dry and stable location such as a desk or a showcase. Avoid direct exposure to high temperatures exceeding 100F.

3. To maintain a clear image, do not touch the lenses or allow fingerprints to contaminate the lenses. Avoid exposing the microscope to dust.

4. Make sure that the main power supply where your Elite 1067T is going to be plugged into is suitable to be used with 110-120V electronics before use.

5. Do not simultaneously turn the right and left focusing knobs in opposite directions or damage may occur.

6. Always unplug the Elite 1067T from its power source before attempting to service, including replacing the fuse.

7. Only hold the Elite 1067T by its arm and base when moving it.

MICROSCOPE PARTS

1. Microscope Base
2. Microscope Head
3. Gooseneck Overhead Light
4. Eye Pieces
5. Eye Guards
6. Third Ocular Photo Eyepiece Tube
7. Tension Locking Screw
8. Gooseneck Spot LED Light
9. Gem Clips
10. AC Power Cord
11. Dust Cover
12. Lens/Dust Cloth

ASSEMBLY INSTRUCTIONS

Carefully unpack the microscope and components from its packaging.

Before assembling your Elite 1067T, make sure that every part is clean and dust free.

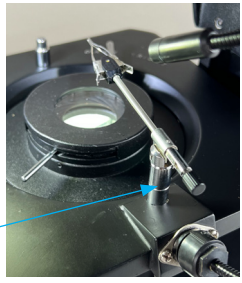
Insert the microscope's head into the base. Install the two Tension Locking Screws, one into each hole on either side (NOT MIDDLE) of the base. Adjust the screws to the appropriate tension or locked position. Remove the objective cover from the bottom of the head.

Insert the lenses in the eyepiece ocular tubes and then attach the rubber eye guards.

Attach the Third Ocular Photo Eyepiece Tube and remove the objective cover.

Attach the Overhead Spot Light LED and plug.

Attach the Gooseneck Spot LED.

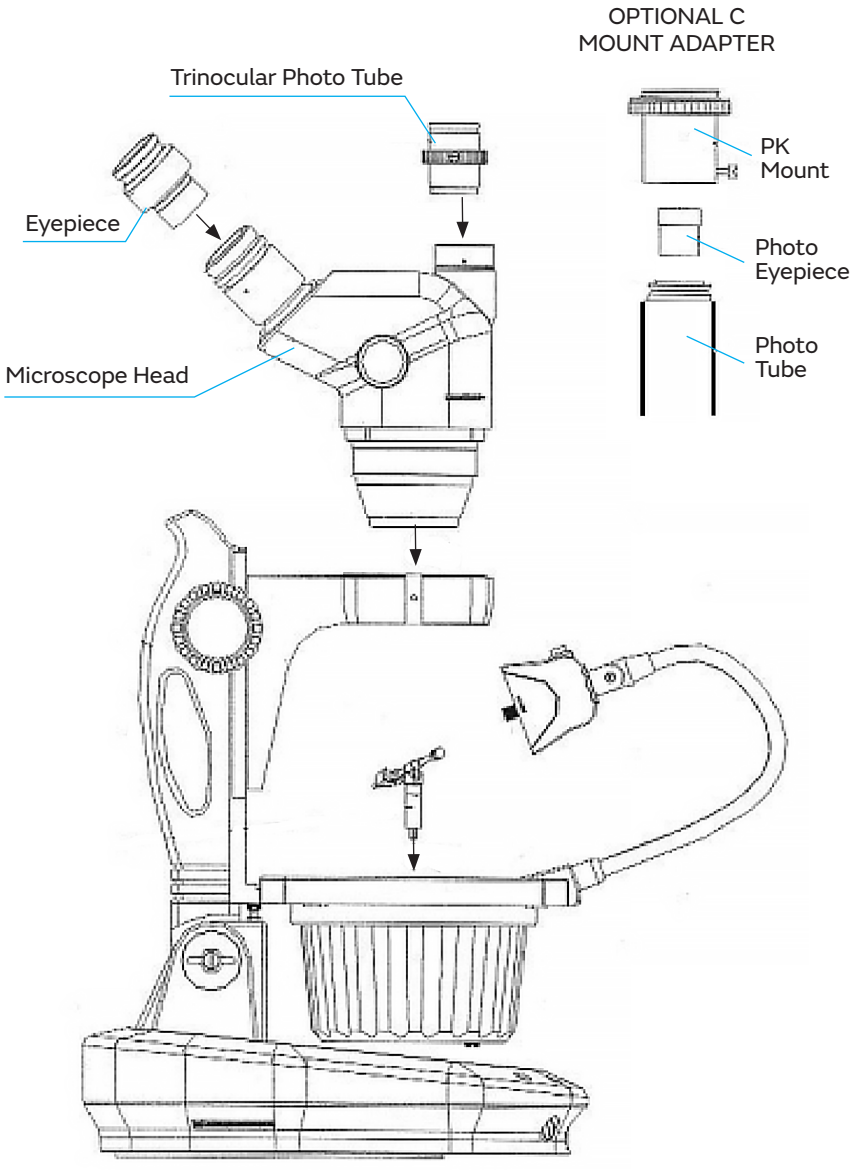


Attach one of the gem clips onto either the left or right post.

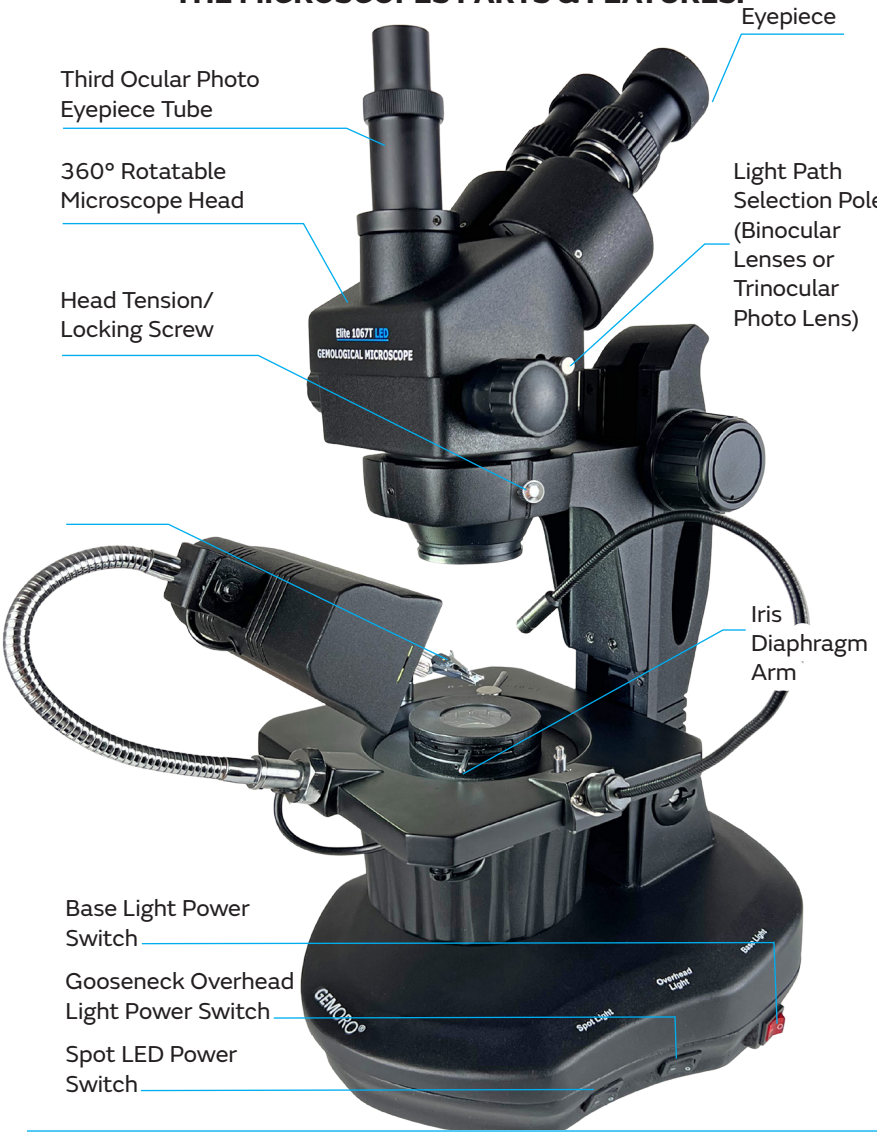
Insert the AC power cord into the receptacle located in the rear bottom end of the base. Then plug it into a suitable AC power outlet.

Tilt the Elite 1067T to the desired position.

Turn on the power and lighting switches.


OPTIONAL C
MOUNT ADAPTER
Trinocular Photo Tube
Eyepiece
Microscope Head
PK
Mount
Photo
Eyepiece
Photo
Tube

THE FOLLOWING DIAGRAMS IDENTIFY THE MICROSCOPES PARTS & FEATURES:




Head Tension/
Locking Screw
Objective
Cover
Microscope
Arm
Gooseneck
Overhead
Light
Tilt
Tightening
Screw
Gem Clip
Gem Clip Post
Microscope
Base
Base LED Rheostat Light Dimmer


Interpupillary
Distance Width
Adjustment
Fine
Focusing Diopter
Coarse Zoom
Focusing Knob
Darkfield
Condenser
Gooseneck
Spot LED Light
Fuse (3 AMP)

Figure 1

ILLUMINATION

1. Connect the Elite 1067T to a suitable power outlet and set the switches to "-".
2. Bottom Light: Adjust the brightness by rotating the wheel to the desired position as shown. (Fig. 1)

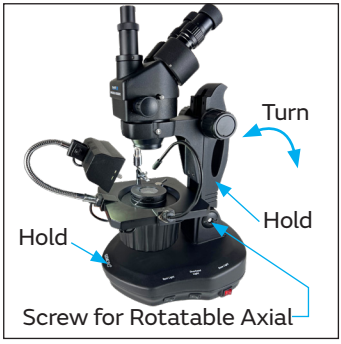


Figure 2

ADJUST MICROSCOPE BASE & VIEWING POSITION

1. Hold the front of the microscope base and arm to turn it to a desired position for use. (Fig.2) Then tighten the screw for rotatable axial.
2. The disc under the base allows the microscope to be rotated 360°.

Figure 3

ADJUST FOCUSING TIGHTNESS

1. Hold one knob and turn the other to adjust the tension as needed. (Fig. 3)
2. Adjust the tension and tightness as needed to make it more comfortable during use and prevent the stage from slipping down.

Figure 4

DIOPTER & FOCUSING

1. Turn the focusing knob to maximum magnification.
2. Turn both eyepiece tubes to the “0” position.
3. Look through the right tube and if the image is not clear, turn the focusing knob until it becomes clear.
4. Turn the focusing knob to the minimum magnification.
5. Look through the right tube and if the image is not clear, turn the diopter to focus it. (Fig. 4)
6. Turn the focusing knob to the maximum magnification again. If the image is still not clear, repeat the above steps (3) and (5).
7. Turn the focusing knob to the minimum magnification, and then look through the left tube. If the image is not clear, adjust diopter to focus it. (Fig. 4)


Figure 5

INTERPUPILLARY DISTANCE

1. Hold both eyepiece tubes and move them in or out (Fig. 5) until its in a comfortable position.

FIGURE 8

FIGURE 9

FIGURE 10

MOUNT & REMOVE MICROMETER (OPTIONAL)

1. Take off the mounting ring from eyepiece.(Fig. 8)
2. Clean the micrometer and mount it into mounting ring, make sure the inscription side is facing up. (Fig. 8)
3. Place the mounting ring into the eyepiece.
4. To remove the micrometer, first take off the mounting ring. Then take out the micrometer and wipe it clean with a soft microfiber cloth before storing it.

USING A CAMERA & MONITOR

1. Screw the camera tube of the trinocular tube. (Fig. 9)
2. Loosen the locking screw (on TV tube, and take off the C-mount) from the tube.
3. Screw the C-mount adapter into the camera.
4. Connect the camera to the TV tube and tighten the locking screw.

SELECTING LIGHT PATH (BINOCULAR LENSES OR TRINOCULAR LENS)

1. To view through the binocular lenses, push the Light Path Selection Pole to “IN”. (Fig. 10)
2. To use it with a camera and view through the trinocular tube, pull the Light Path Selection Pole to “OUT”. (Fig. 10)
3. Be certain to position the Light Path Selection Pole all of the way in or out to the desired position.

FIGURE 11

FIGURE 12

FIGURE 13

FOCUSING CAMERA

1. Turn the Light Path Selection Pole to “IN”. (Fig. 11)
2. Turn the zoom knob to the maximum magnification and view through the camera and adjust the focusing knob as needed.
3. Turn the zoom knob to the minimum magnification. If the image is not clear, turn the Adjusting Ring on the camera tube to bring it into focus.
4. Turn the zoom knob to the maximum magnification again. If the image is still not clear, repeat to bring it into focus throughout the entire zoom range.

IRIS DIAPHRAGM

1. Turn the switch for the Iris Diaphragm to change the aperture of the base light. The aperture for the Iris Diaphragm is <1>3mm <l>44mm. (Fig. 12)

SWITCHING BRIGHTFIELD & DARKFIELD

1. Turn the knob as desired to switch from the Brightfield to the Darkfield. (Fig. 12)
2. When selecting the Darkfield or Brightfield, be certain to turn the knob all of the way.

REPLACING FUSE **UNPLUG FIRST!*

1. Flip the power switch to “O” and unplug the Elite 1067T before replacing the fuse. Use a flathead screwdriver to remove the fuse from its base and replace it with a new one. (Fig. 13)
2. Fuse: 250V 3A

PROBLEM	CAUSE	REMEDY
	OPTICAL PARTS	
BRIGHTNESS IS TOO BRIGHT OR TOO DARK	The brightness adjustment isn't positioned correctly.	Adjust it accordingly.
DIRT APPEARS INSIDE THE VIEWING FIELD	Dirt on the gem or jewelry.	Clean gem or jewelry.
	Dirt on the surface of the eyepieces.	Clean the eyepieces.
	Dirt on the surface of the objective.	Clean the objective.
	Dirt on the stage.	Clean the stage.
DOUBLE IMAGE	Interpupillary is not positioned correctly.	Readjust the interpupillary.
	Diopter is not positioned correctly.	Readjust the diopter.
IMAGE IS NOT IN FOCUS	Eyepiece magnification is different on each eyepiece.	Use eyepieces with the same magnification.
	Dirt is on the objective surface.	Clean the objective.
IMAGE IS BLURRED DURING FOCUSING	Diopter is not positioned correctly.	Readjust the diopter.
	Focusing is wrong.	Adjust the focusing.
IMAGE APPEARS SPLIT WHEN VIEWING THROUGH THE EYEPIECES OR CAMERA	Light Path Selection Pole is not positioned correctly.	Push or pull the Light Path Selection Pole all the way to the appropriate position.
IMAGE IS NOT CLEAR ON CAMERA OR MONITOR WHILE FOCUSING	Incorrect focusing depth of the camera or video device.	Readjust the focusing depth by adjusting ring on camera or video.

PROBLEM	CAUSE	REMEDY
	ELECTRICAL PARTS	
BULB DOES NOT WORK	Wrong light setting is selected.	Set the appropriate light setting.
	LED light is faulty.	Contact factory.
	Fuse is burnt out.	Replace the fuse.
	Dirt on the stage blocked the light path.	Clean the stage.
LIGHT FLICKERED OUT	LED light is failing.	Contact factory.
	The wires may not be connected properly.	Properly connect it.
	FOCUSING PARTS	
FOCUSING KNOBS ARE TOO TIGHT WHEN OPERATING	The focusing knobs are too tight.	Adjust the tightness as desired.
IMAGE IS NOT IN FOCUS AND THE FOCUSING ARM IS SLIPPING DOWN WHEN FOCUSING	The focusing knobs are too loose.	Adjust the tightness as desired.

MAINTENANCE

1. All lenses should be kept clean. Use pressurized air or a lint-free cotton or microfiber lens cloth to remove dust. Use appropriate glass cleaner to remove fingerprints and body oil.

2. Never use aggressive, abrasive or acidic solutions when cleaning the surface of the microscope, especially the plastic parts. If necessary, only use mild detergents or cleaners designed to be used on delicate instruments.

3. Do not attempt to disassemble the microscope to service it yourself or you may damage it. Servicing your Elite 1067T should only be done by **GEM**ORO. Contact the factory at 800.527.0719 or service@sykessler.com.

4. When not in use, always place the dust cover over the Elite 1067T to protect it.

WARRANTY

Your **GEM**ORO Elite 1067T comes with a ONE YEAR LIMITED WARRANTY. Damage caused by abuse will void the warranty. This warranty becomes effective from the date of the original purchase by the consumer assuming the purchaser fills out the WARRANTY REGISTRATION FORM at https://www.sykessler.com/warranty-registration/ or the purchaser provides a copy of their invoice (bill of sale) when making a warranty claim. In the event the microscopes owner has not registered it or provided a copy of their invoice confirming when they purchased it, warranty service will be determined by the serial number tracking system as interpreted by the factory. In the event the **GEM**ORO Elite 1067T is no longer available or has been discontinued and warranty coverage is applicable, at the factory's sole discretion, an equivalent microscope may be substituted for the defective microscope. The purchaser shall incur the cost for postage, insurance, and handling for all warranty and non-warranty repairs. Warranty repairs and/or replacements will be shipped back to the customer FOB Destination to the location of the customer's choosing if within the continental United States. Non-warranty repairs will be shipped back to the customer FOB Factory. Should the customer require the repair and/or replacement to be shipped outside the continental United States, the customer will be required to pay any related shipping charges and any related taxes/duties for the respective destination country, regardless of whether it is a warranty or non-warranty claim.

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