

# **Motic<sup>®</sup>**

## **SM7**

# Stereo Microscope Operation Manual

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**Note**

If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

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## **IMPORTANT NOTICE**

This product may malfunction due to electromagnetic waves caused by portable personal telephone, transceivers, radio-controlled toys, etc. Be sure to avoid having the above objects, which affect the normal operation of the product, brought near the product. The information in this publication has been carefully checked and is believed to be entirely accurate at the time of publication. MOTIC assumes no responsibility, however, for possible errors or omissions, or for any consequences resulting from the use of the information contained herein.

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# 1. INTRODUCTION

## 1.1 Indication for use (Intended use)

This instrument has been designed to be used to observe magnified images of specimens in routine and research applications. Do not use this instrument for any purpose other than its intended use.

## 1.2 Classification

- Protection against electric shock: Class I
- Protection against harmful ingress of water: Ordinary, IPXO
- Mode of operation: Continuous
- Light Hazard protection Classification: Group 2 by IS015004-2:2007
- Stationary: Do not try to move this equipment without help. This microscope is heavy and should maintain stationary. Always get two persons to help lift this unit

## 2. SAFETY INFORMATION

### 2.1 Introduction

Safety is everyone's responsibility. The safe use of this equipment is largely dependent upon the installer, user, operator, and maintainer. It is imperative that personnel study and become familiar with this entire manual before attempting to install, use, clean, service or adjust this equipment and any associated accessories. It is paramount that the instructions contained in this manual are fully understood and followed to enhance safety to the patient and the user/operator. It is for this reason that the following safety notices have been placed appropriately within the text of this manual to highlight safety related information or information requiring special emphasis. All users, operators, and maintainers must be familiar with and pay particular attention to all Warnings and Cautions incorporated herein.

#### **A WARNING:**

"Warning" indicates the presence of a hazard that could result in severe personal injury, death or substantial property damage if ignored.

To avoid the risk of electric shock, this equipment must only be connected to a supply mains with protective earth.

Do not position the equipment so that it is difficult to operate the (disconnecting device)."(Disconnecting device: power cord, appliance inlet, mains switch, etc.)

The protection provided by the equipment may be impaired if the equipment is used in a manner not specified by the manufacturer."

#### **NOTE:**

"Note" describes information for the installation, operation, or maintenance of which is important but hazard related if ignored.

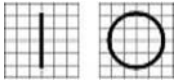
#### **A CAUTION**

"Caution" indicates the presence of a hazard that could result in minor injury, or property damaged if ignored.

## 2.2 Safety Symbols SM7 STEREO Microscope

The International Electro technical Commission (IEC) has established a set of symbols.

The symbols are shown as below. This applies only to the instrument that has the certification symbol printed explicitly on the product label or sticker.



I and O on power switch represent ON and OFF respectively.



This symbol identifies caution, risk of danger. Ensure you understand the function of this control before using it. Control function is described in the appropriate User's or Service Manual.



Identifies the point where the system safety ground is fastened to the chassis. Protective earth connected to conductive parts of Class I equipment for safety purposes.



### Disposal of your old appliance

When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.

All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.

The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.

For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.

### 2.3 Environment factors

Avoid the following environments for operation or storage:

- Where the equipment is exposed to water vapor. Don't operate an equipment with a wet hand.
- For indoor use only
- Where the equipment is exposed to direct sunlight.
- ■ Where the temperature changes extremely
  - Normal operating temperature range is from 10°C to 40°C.
  - Humidity is from 30% to 75%.
  - Altitude is from 700 to 1060hpa.
- Where it is near the heat equipment.
- Where the humidity is extremely high or there is a ventilation problem.
- Where equipment is exposed to chemical material or explosive gas.
- Alternating Current
- Be careful not to be inserted dust, especially, metal.
- Don't disassemble the product or open. We aren't responsible for it for nothing.
- Don't plug the AC power cord into the outlet before the connection between devices of the equipment is completed.

This can generate the defect.

Main supply voltage fluctuations should not exceed  $\pm 10\%$  Transient overvoltage according to installation category II Pollution degree 2.

- Pull out the power cord with holding the plug, not the cord.  
To avoid risk of electric shock, this equipment must only be connected to the supply mains with protective earth.

Avoid places where the ambient temperature falls below 10°C or exceeds 40°C for normal operation, or below -10°C or exceeds 55°C for transportation and storage. Humidity should be maintained below 95% for normal operation, transportation and storage. The atmospheric pressure in operation, transportation and storage is from 700 to 1060hpa. of Altitude up to 2,000m.

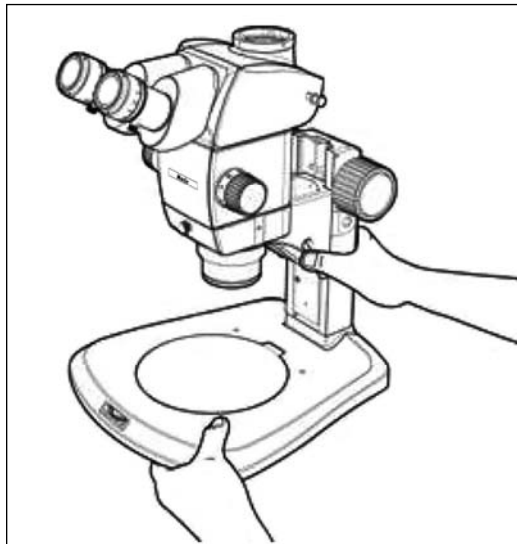


## 2.4 Safety Precautions

This equipment has been developed and tested according to safety standards as well as national and international standards. This guarantees a very high degree of safety for this device. The legislator expects us to inform the user expressively about the safety aspects in dealing with the device. The correct handling of this equipment is imperative for its safe operation. Therefore, please read carefully all instructions before switching on this device. For more detailed information, please contact our Customer Service Department or one of our authorized representatives.

1. This equipment must not be used (a) in an area that is in danger of explosions and (b) in the presence of flammable, explosive, or volatile solvent such as alcohol, benzene or similar chemicals.
2. Do not put or use this device in humid rooms. Humidity should be maintained between 30 and 75% for normal operation. Do not expose the device to water splashes, dripping water, or sprayed water. Do not place containers containing fluids, liquids, or gases on top of any electrical equipment or devices.
3. The equipment must be operated only by, or under direct supervision of a properly trained and qualified person.
4. Modifications of this equipment may only be carried out by Motic's service technicians or other authorized persons.
5. Customer maintenance of this equipment may only be performed as stated in the User's Manual and Service Manual. Any additional maintenance may only be performed by Motic's service technicians or other authorized persons.
6. The manufacturer is only responsible for effects on safety, reliability, and performance of this equipment when the following requirements are fulfilled: (1) The electrical installation in the respective room corresponds to the specifications stated in this manual and (2) This equipment is used, operated, and maintained according to this manual and Service Manual.
7. The manufacturer is not liable for damage caused by unauthorized tampering with the device(s). Such tampering will forfeit any rights to claim under warranty.
8. This equipment may only be used together with accessories supplied by Motic's. If the customer makes use of other accessories, use them only if their safe usability under technical safety aspects has been proved and confirmed by Motic or the manufacturer of the accessory.
9. Only persons who have undergone proper training and instructions are authorized to install, use, operate, and maintain this equipment.
10. Keep the User's Manual and Service Manual in a place easily accessible at all times for persons operating and maintaining the equipment.

11. Do not force cable connections. If a cable does not connect easily, be sure that the connector (plug) is appropriate for the receptacle (socket). If you cause any damage to a cable connector(s) or receptacle(s), let the damage(s) be repaired by an authorized service technician.
12. Please do not pull on any cable. Always hold on to the plug when disconnecting cables.
13. Before every operation, visually check the equipment for exterior mechanical damage(s) and for proper function.
14. Immediately turn off and unplug any equipment that gives off smoke, sparks, strange noises, or odors.
15. Power Supply Cord set (international) - (Detachable) Rated 10 A, 250 V. Plug type CEE 7A/II, Connector type IEC 60320/C13, and Cord type H05W-F3G, min. 0.75 mm<sup>2</sup>,3-conductor terminating in molded-on grounding type attachment plug. <HAR> marked on the cord. Maximum 4.0 m long.
16. After the equipment has been used in an observation of a specimen that is accompanied with a potential of infection, clean the parts coming in contact with the specimen to prevent infection.
17. Moving this microscope is accompanied with the risk of dropping the specimen. Be sure to remove the specimen before moving this product.
18. Hold the bottom of the stand with one hand while holding base column with the other hand to avoid tilting the microscope.



19. In case the specimen is damaged by erroneous operation, promptly take the infection prevention measures.
20. The desktop should be a level surface with an inclination of less than 3°, and the load to the microscope should be less than 7 kg. The microscope may become unstable when certain intermediate attachment and/or photography unit are mounted on it. Be careful so that the microscope does not topple down.

**A WARNING**

Class A equipment is intended for use in an industrial environment. In the documentation for the user, a statement shall be included drawing attention to the fact that there may be potential difficulties in ensuring electromagnetic compatibility in other environments, due to conducted as well as radiated disturbances.

### 3. OPERATING CONDITION

- As long as the device is in its original package it can be exposed to the following environmental conditions for up to 15 weeks for shipping and storage without risk of damage:
- Temperature range: from -40°C to +70°C;
  - a. Relative humidity range: below 100%;
- The device can be in the following storage conditions after unpackaged:
  - a. Temperature range: from -10°C to +55°C;
  - b. Relative humidity range: below 95%;
- The device is made to operate under the following environmental conditions:
  - a. Temperature range: from +10°C to +40°C;
  - b. Relative humidity range: below 85%;

The device neither generates nor receives electromagnetic interference when used near other equipment. Therefore, no preventive or corrective measures are required

### 4. GETTING READY

- A microscope is a precision instrument. Handle it with care and avoid subjecting it to sudden or severe impact.
- Do not use the microscope where it is subjected to direct sunlight, high temperature and humidity dust or vibrations.
- Do not turn the zoom adjustment knobs beyond the stopper positions. Otherwise, the internal mechanism may be damaged.
- Do not turn the left and right zoom adjustment knobs in the opposite directions, as this will result in a failure.

## 5. MAINTENANCE AND STORAGE

- To clean the lenses and other glass components, simply blow dirty away using a commercially available blower and wipe gently using a piece of cleaning paper (or clean gauze). If a lens is stained with fingerprints or oil smudges, wipe it gauze slightly moistened with commercially available absolute alcohol.

### CAUTION

Since the absolute alcohol is highly flammable, it must be handled carefully.

Be sure to keep it away from open flames or potential sources of electrical sparks - for example, electrical equipment that is being switched on or off. Also remember to always use it only in a well-ventilated room.

- Do not attempt to use organic solvents to clean the microscope components other than the glass components because they use plastic resin materials extensively. To clean them, use a lint-free, soft cloth slightly moistened with a diluted neutral detergent.
- Do not disassemble any part of the microscope as this could result in malfunction or reduced performance.
- When disposing of the microscope. Check the regulations and rules of your local government and be sure to observe them.

## 6. STANDARD COMPONENTS

Standard composition of stereomicroscope is as following.

- Zoom Microscope body (HSZ700.1)
- Observation tube (HSZ700.2)
- Stand (HSZ700.8 or HSZ700.9)
- Objective Lens (HSZ700.5A or HSZ700.7A)
- Eyepiece

### **A WARNING**

If the light illumination of the stand is not working, please check the power code, the switch, and fuses.

If you cannot solve the problem, please contact the local distributor in your province or country at first:

Only HSZ700.9

### **A WARNING**

For continued protection against risk of fire replace only with same type & rating of fuse. - Fuse (250Vac

T1AH): Only HSZ700.9

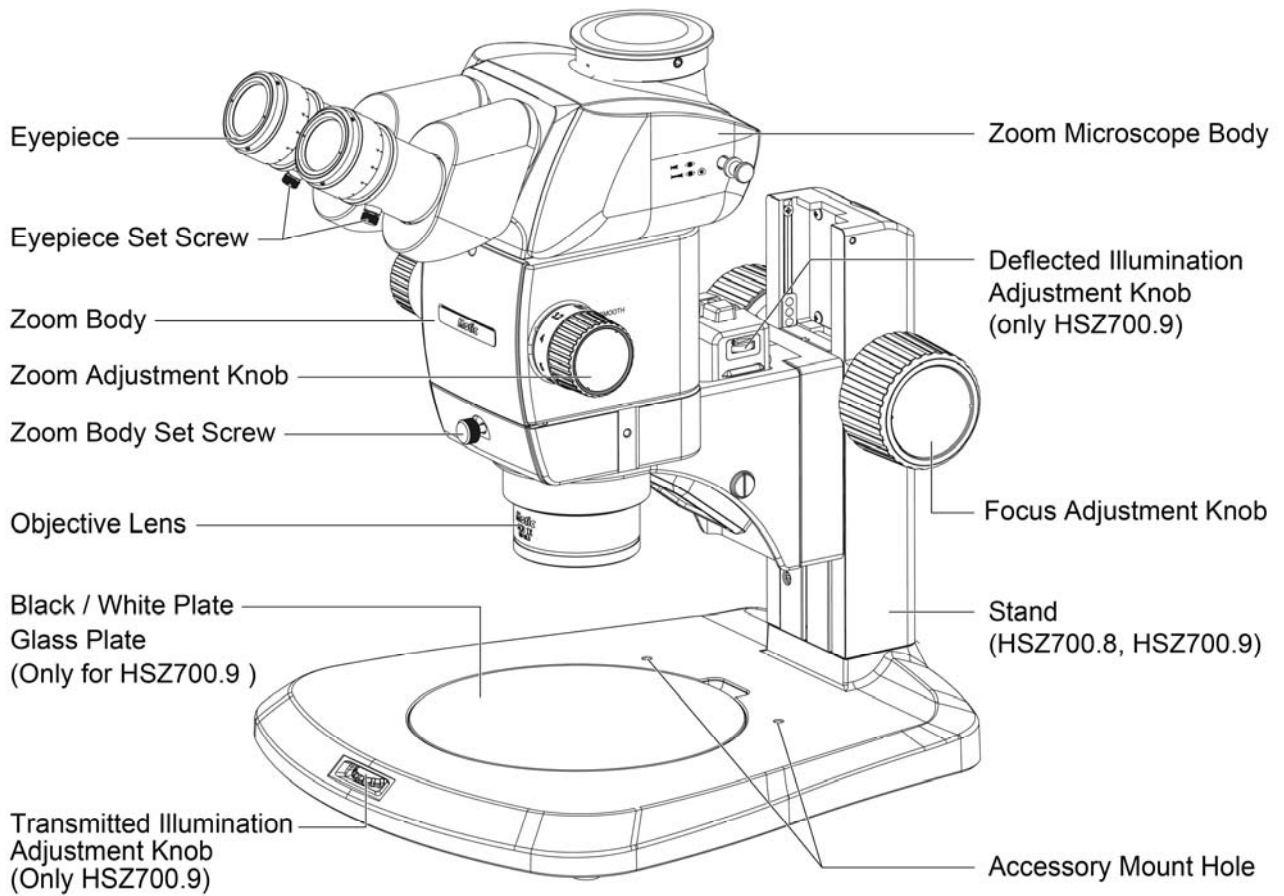
### **A WARNING**

If the light illumination of the stand is not working, please check the power Adapter, the switch.

If you cannot solve the problem, please contact the local distributor in your province or country at first:

Only HSZ700.9

## 7. NOMENCLATURE & CONTROLS



**SM7**

## 8. OBSERVATION PROCEDURE

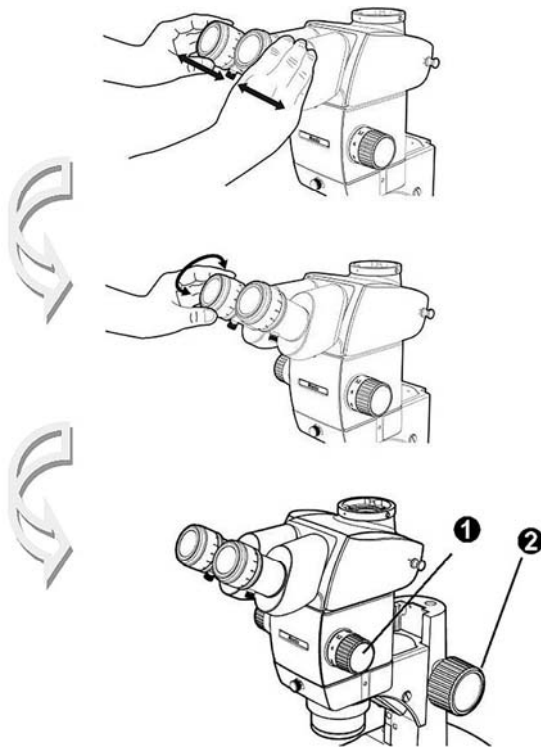
- If you have not assembled the microscope yet, please read “**Chapter 12.Assembly**”.

### 8.1 Preparation

- Confirm the mounting, particularly that of the observation tube
- Adjust the rotation tension of the focus adjustment knob
- Prepare the light source as required.

### 8.2 Procedure

- Place the specimen on the stage. (Page 14)
- Adjust the interpupillary distance. (Page 15)
- Adjust the eyepiece diopter. (Page 15)
- Set the zoom adjustment Knob❶ for the lowest magnification and rotate the focus adjustment Knob❷ to bring the specimen into approximate focus.
- Rotate the zoom adjustment knob❶ to the target magnification and rotate the focus adjustment knob❷ to bring the specimen into accurate focus.





## 9. OPERATION

### 9.1 Stand

#### 9.1.1 Using the Stage

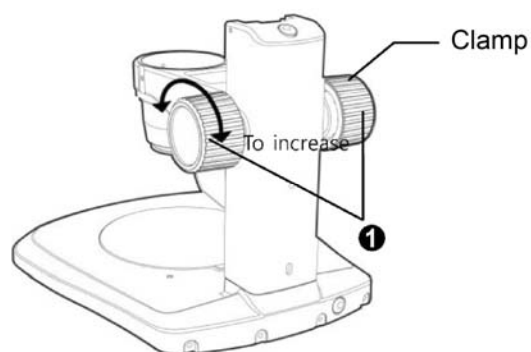
- When reflected light illumination is used, the stage plate can be placed either the white or black surface facing up depending on the specimen.
- When transmitted light illumination is used, use the transparent glass stage plate.

#### 9.1.2 Adjusting the Focus Adjustment Knob Tension (Fig.1)

##### CAUTION

This operation is intended to facilitate the rotation of the knobs while preventing spontaneous drop of the microscope body. It is recommended to set the knob tension to a slightly higher level than the point where spontaneous drop occurs.

- Hold the left and right focus adjustment knobs® with both hands, fix the left knob and rotate the right knob. The rotation tension of the knob is increases or decreases according to the direction in which the right knob is rotated.
- If the rotation tension is increased too much, accurate focusing is not possible and the mechanism may be damaged.



(Fig. 1)

#### 9.1.3 Adjusting the light illumination

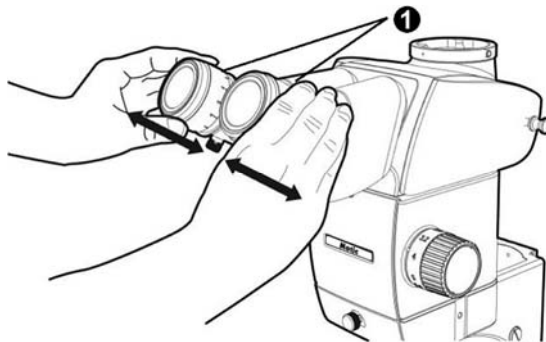
- Turn the light knob of transmitted light or reflected light to clockwise direction, the light illumination is increased (HSZ700.9)

## 9.2 Observation Tube

### 9.2.1 Adjusting the interpupillary Distance (Fig. 2)

#### CAUTION

Always hold the eyepiece sleeves ❶ with both hands when adjusting the interpupillary distance. While holding the left and right eyepiece sleeves ❶ with both hands, look through the eyepieces and adjust for binocular vision until the left and right fields of view coincide completely.



(Fig. 2)

### 9.2.2 Adjusting the Diopter (Zoom Confocality Adjustment) (Fig. 3)

#### NOTE

Confirm that the eyepiece clamping knobs ❶ are tightened firmly before proceeding to the adjustment.

#### [Eyepieces without eyepiece micrometer disk]

- Turn the diopter adjustment rings ❷ of the left and right eyepieces to positions “0” (This adjustment is not possible with eyepieces without helicoids.)
- Place an easy-to-observe specimen on the stage plate.
- Set the zoom adjustment knob ❸ for the lowest magnification and rotate the focus adjustment knob ❹ to bring the specimen into focus.
- Set the zoom adjustment knob ❸ for the highest magnification and rotate the focus adjustment knob ❹ to bring the specimen into focus.
- Set the zoom adjustment knob ❸ for the lowest magnification and rotate the diopter adjustment rings ❷ of the left and right eyepieces, instead of the focus adjustment knob, to bring the specimen into focus.

## NOTE

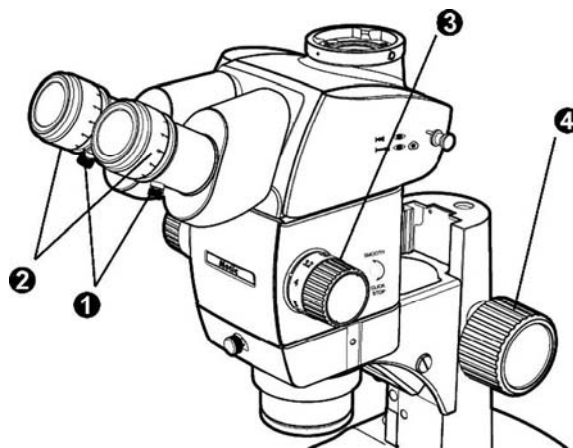
Set the zoom adjustment knob ③ for the highest magnification again and check the image focusing. The diopter adjustment is complete if the image is in accurate focus. If not, repeat steps 3 to 5 above.

### [Eyepieces with eyepiece micrometer disk]

- Look through the eyepiece with eyepiece micrometer disk and rotate its diopter adjustment ring ② to bring the micrometer scale into focus.
- Place an easy-to-observe specimen on the stage plate.
- Set the zoom adjustment knob ③ for low magnification, look through the eyepiece with eyepiece micrometer disk and rotate the focus adjustment knob ④ to bring the specimen into focus.
- Set the zoom adjustment knob ③ for the highest magnification, look through the eyepiece with micrometer disk and rotate the focus adjustment knob ④ to bring the specimen into focus.
- Set the zoom adjustment knob ③ for the lowest magnification and rotate the diopter adjustment ring of the eyepiece without eyepiece micrometer disk, instead of the focus adjustment knob, to bring the specimen into focus.

## NOTE

Set the zoom adjustment knob ③ for the highest magnification again and check the image focusing. The diopter adjustment is complete if the image is in accurate focus. If not, repeat steps 3 to 5 above.

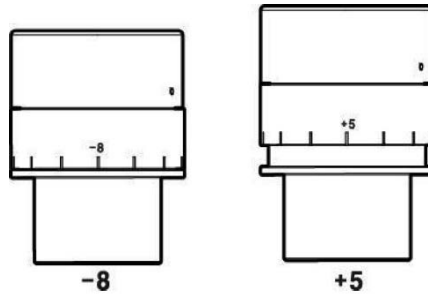


(Fig. 3)

**NOTE**

Diopter scale of the 10X eyepieces

The valid range of the diopter scale is between -8 and +5 but a slight margin is added to it. Therefore, the diopter value may exceed +5 or -8 when it is adjusted to the maximum. In this case, whether the diopter value is over -8 or under +5 can be identified by the length of the eyepiece.



9.2.3 Using the Eye Shades (Fig.4)

**A CAUTION**

The eye shades are not provided with ESD protection performance.

When ESD protection is required, do not use the eye shades.

**[When Wearing Eyeglasses]**

Use with the eye shades in the normal, folded-down position. This will prevent the eyeglasses from being scratched.

**[When Not Wearing Eyeglasses]**

Extend the folded eye shades in the direction of the arrow to prevent extraneous light from entering between the eyepieces and eyes.

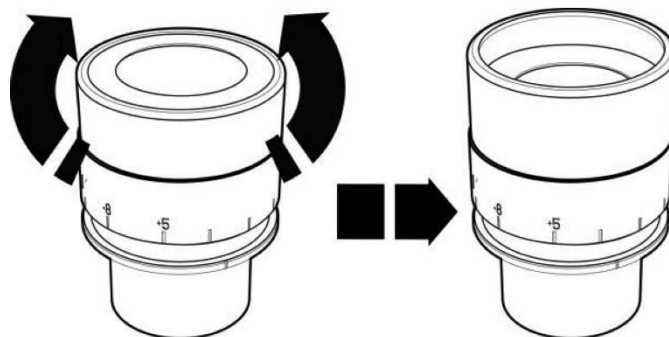
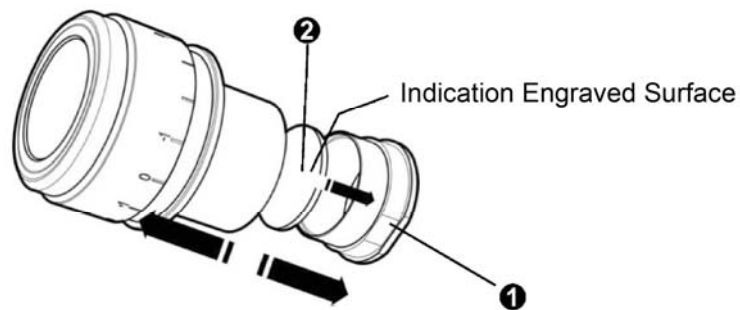


Fig. 4

### 9.2.4 Using an Eyepiece Micrometer Disk (Fig.5)






- Rotate the disk-mounting ring ❶ of the eyepiece counterclockwise to remove.
  - Prepare an eyepiece micrometer disk ❷, remove dust and dirt from its surface, and fit it into the disk-mounting ring ❶ so that the engraving on the micrometer disk faces downward.
  - Gently screw in the disk-mounting ring ❶ incorporating the eyepiece micrometer disk into the eyepiece. Turn the ring clockwise to attach it firmly.
- \* When the eyepiece micrometer disk is not used, store it by wrapping in a clean, soft cloth.

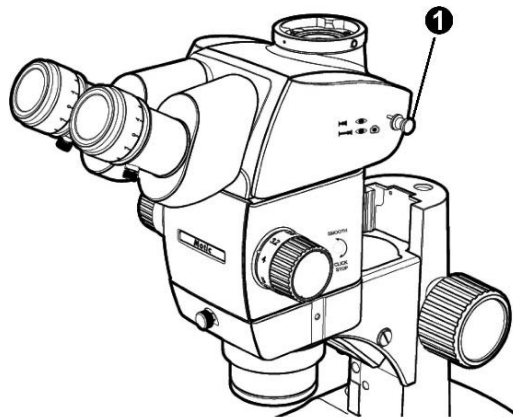


(Fig. 5)

### 9.2.5 Selecting the Light Path (HSZ700.2) (Fig.6)

Slide the light path selector knob ❶ to select the desired light path.

Light Path Selector Knob	Indication	Light Path Ratio
Pushed-in position	 	Binocular 100%
Pulled-in position	  	Binocular 20% TV & Photo 80%



(Fig. 6)

### 9.3 Microscope Body

#### 9.3.1 Zoom Magnification Indication (Fig.7)

The body zoom magnification is indicated on zoom adjustment knob (right)❶.

The total magnification can be calculated with the following formula.

$$\text{Total magnification} = \text{Objective magnification} \times \text{Body zoom magnification} \times \text{Eyepiece magnification}$$

#### 9.3.2 Switching the Click Stop ON-OFF (Fig.7)

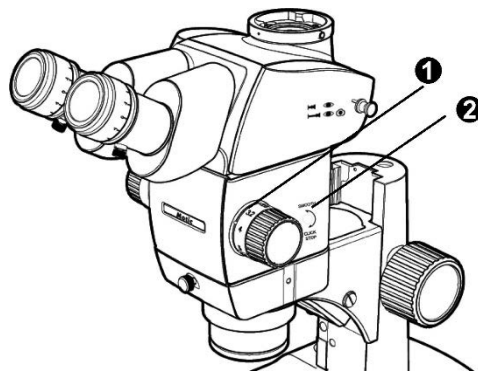
##### NOTE

The click stop function provides a click stop for each zoom magnification value indicated on the zoom adjustment knob. When the click stop function is switched OFF the zoom magnification can be adjusted finely around each zoom magnification value.

- To switch the click stop function ON, turn the click stop screw❷ clockwise (in the direction of the arrow) all the way until it is stopped using the Allen screwdriver A click stop is provided for each zoom magnification value indicated on the zoom magnification indication❶.
- To switch the click stop function OFF turn the click stop screw❷ counterclockwise (in the opposite direction to the arrow) by about 2 turns using the Allen screwdriver.

##### A CAUTION

To prevent damaging the microscope cover and internal mechanism, do not turn the screw excessively.

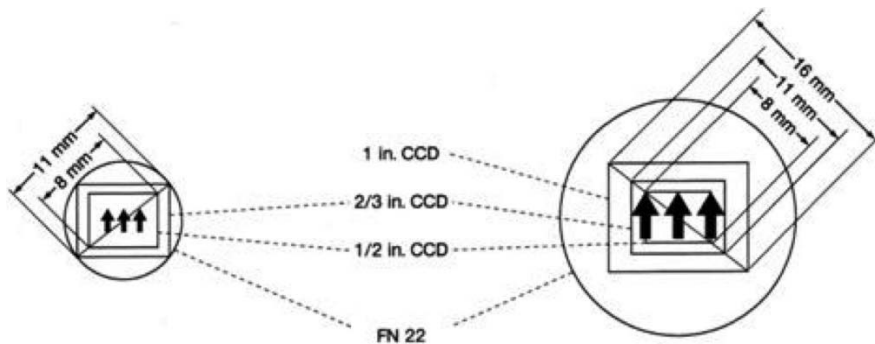


(Fig. 7)

## 9.4 TV Observation and Photomicrography

### 9.4.1 Selecting TV Adapter Magnification

Set the magnification of the TV adapter according to the size of the CCD in the TV camera or digital camera. The following figures show the TV observation areas when the 10X eyepieces with FN 22 are used.



When the 0.5X TV adapter is used

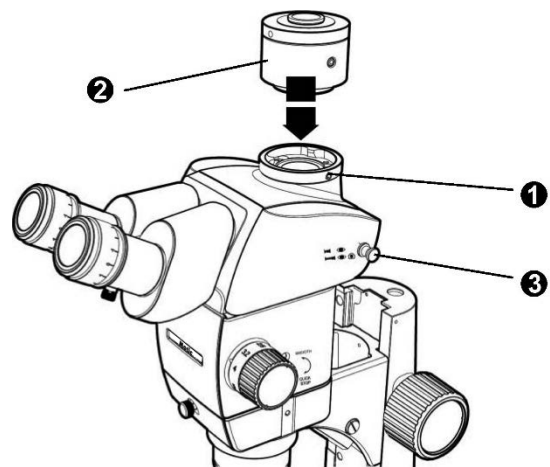
When the 1X TV adapter is used

### 9.4.2 Mounting the TV Adapter (Fig. 8)

- Using the Allen screwdriver fully loosen the straight tube clamping screw ❶ of the straight tube mount on the top of the trinocular tube
- Fit the round dovetail ❷ of the TV adapter into the straight tube mount of the trinocular tube, and tighten the clamping screw ❶.
- Mount the TV camera on the TV adapter a camera mount adapter may be required with certain TV adapters.

### 9.4.3 Selecting the TV Camera Light Path (Fig. 8)

Pull out the light path selector knob ❸ to select the Binocular 20% / TV & Photo 80% light path setting.



(Fig. 8)

## 10. TROUBLESHOOTING GUIDE

Under certain conditions, performance of the microscope may be adversely affected by factors other than defects. If problems occur, Please review the following list and take remedial action as needed. If you cannot solve the problem after checking the entire list, please contact Motic.

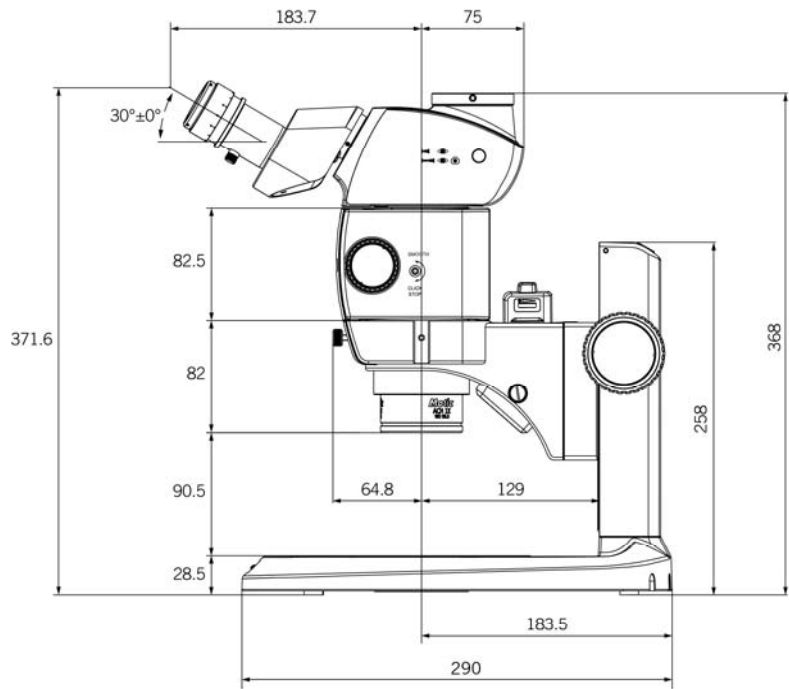
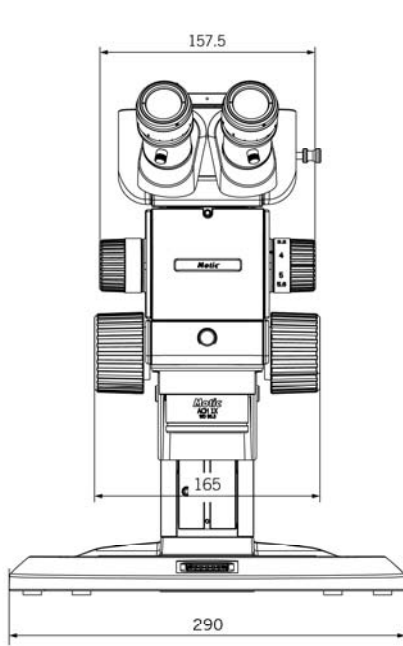
Problem	Cause	Remedy
1. The left and right fields of view do not coincide.	Interpupil lay distance is adjusted improperly.	Adjust it correctly.
	The parallax is not corrected.	
2. The edge of the field of view is obscured or not evenly illuminated.	The binocular tube and/or intermediate attachment are installed improperly.	Install them properly.
	The light path selector knob is in an intermediate position.	Set it properly.
3. Dirt to dust is visible in the field of view	Dirt/dust on specimen.	Clean Thoroughly.
	Dirt/dust on eyepieces.	
4. Visibility of observed image is poor. * Image is not sharp. * Contrast is poor.	The objective is tilted.	Screw it in correctly until it stops.
	The objective is dirty.	Clean Thoroughly.
	The stop and/or bottom lenses of the microscope body are dirty.	
	The bottom lens of the observation tube is dirty.	
5. Zooming causes defocusing of the observed image.	The eyepiece diopter is adjusted improperly.	Adjust it correctly.
	The focus adjustment is inaccurate.	Adjust the focus accurately.
6. The focus adjustment knob does not rotate smoothly.	The rotation tension of the knob is set too high.	Decrease the rotation tension to an optimum level.
7. The microscope body drops spontaneously, causing the focusing to be deviated during observation.	The rotation tension of the knob is set too low.	Increase the rotation tension to an optimum level.



## 11. SPECIFICATIONS

Item	Specifications		
Zoom Body (HSZ-ZB700)	Magnification: 0.8-5.6x Zoom ratio values: 7:1 (0.8-5.6x)		
	Click stop for each zoom magnification: On-Off switching possible		
	Zoom magnification indication: 0.8, 1, 1.25, 1.6, 2, 2.5, 3.2, 4, 5, 5.6		
	Objective lens mounting: Screw mounting into thread		
Observation tube (Binocular) (Trinocular)	Trinocular tube, Binocular tube		
	View inclination angle: 30°		
	Light path selection (Only TRINOCULAR): 2 steps (Binocular 100%, Video 80%-Binocular 20%)		
	Interpupillary distance adjustable range: 55 to 75mm		
Stand	<b>HSZ700.8</b>	<b>HSZ700.9</b>	
	(Standard large stand)	<b>LED</b> Reflected / Transmitted illumination stand	
		<b>ILLLT</b> Reflected transmitted illumination large	
	Frame installation	Mounting diameter: 76mm	
	Focusing adjustment	Knob rotation tension adjustment Focusing stroke: 120mm	
	Stage plate	HSZ600.11	HSZ600.11
		HSZ600.12	HSZ600.12
	Light source	Transmitted illumination: LED	
		Reflected illumination: LED	
		Average LED life span: 10,000 hrs.	
Input rating: AC 100 - 240V, 50/60HZ, 12W(HSZ700.9)			

<b>Objective lens</b>	Model	Working distance
	ACH1x	W/D: 90.5mm
	PLAPO1x	W/D: 81mm
	ACH1.5X	W/D: 45.5mm
	ACH2X	W/D: 33.5mm
<b>Eyepieces</b>	10X	IOX / FN22 / Diopter adjustment: -8D - +5D / Eyepiece micrometer dist mountable
	15X	15X / FN16 / Diopter adjustment: -8D - +5D / Eyepiece micrometer dist mountable
	20X	2GX / FN12.5 / Diopter adjustment: -8D - +5D / Eyepiece micrometer dist mountable
<b>Dimension</b>	Dimension (W*D*H): 290x367.1 x 371.6 (HSZ700.9)	
<b>Weight</b>	Weight: 6.56Kg	



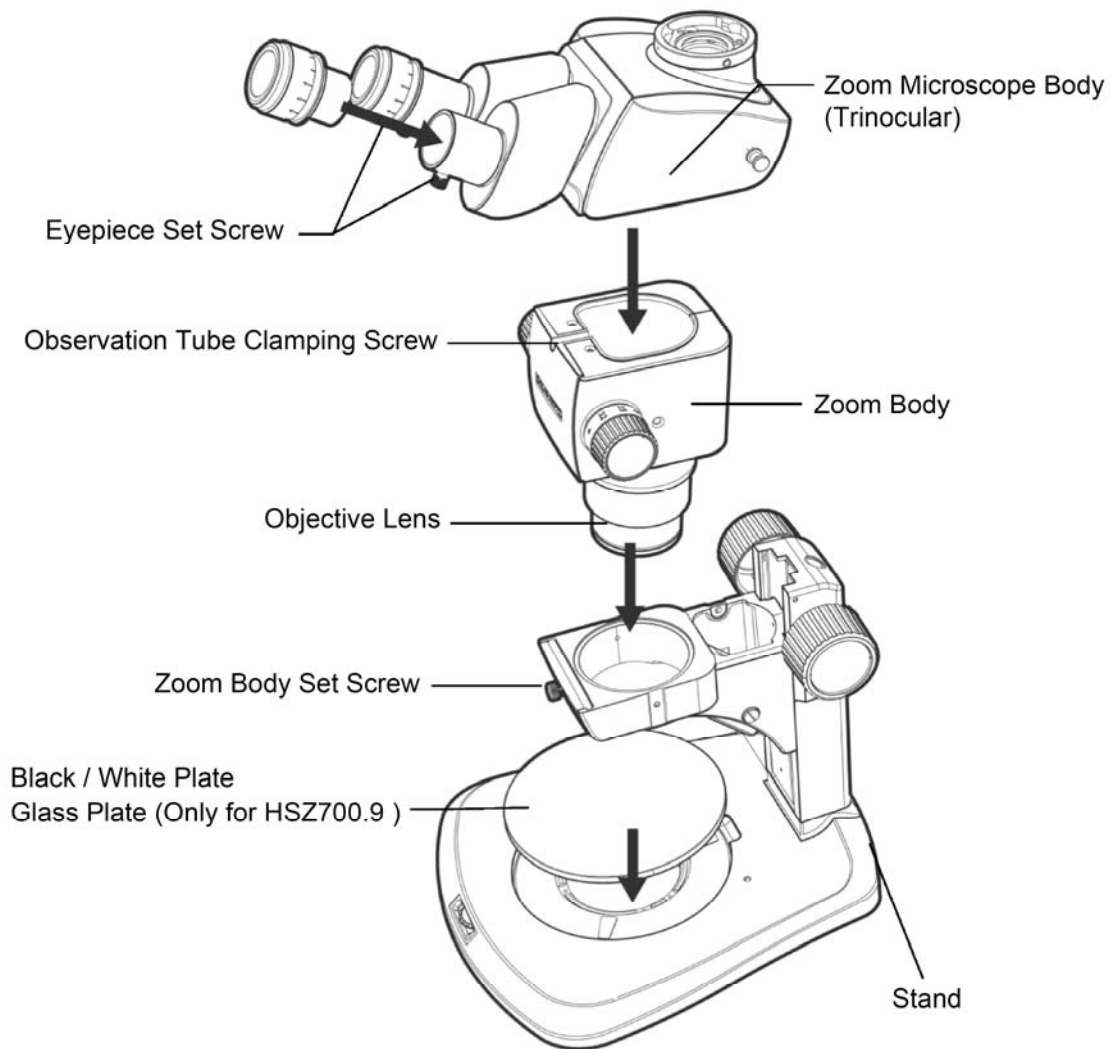
STAND : HSZ700.8, HSZ700.9

## 12. ASSEMBLY

### 12.1 Assembly Diagram

The diagram below shows the sequence of assembly of the various modules. The Objective lens can do removal and assemble easily by screw type.

- \* When assembling the microscope, make sure that all parts are free of dust and dirt, and avoid scratching any parts or touching glass surfaces.



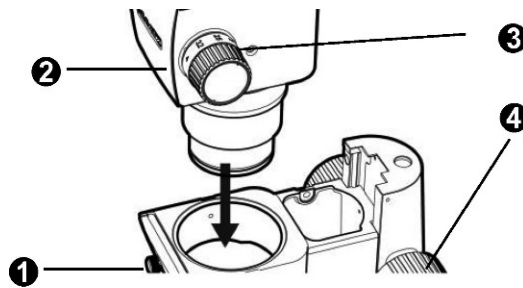
## 12.2 Detailed Assembly Procedures

### 12.2.1 Installing the Microscope Body (Fig. 9)

- Loosen the body clamping knob ❶ and insert the microscope body ❷ gently into the mounting hole of the standard stand.
- Position the microscope body so that it faces forward and tighten the body clamping knob ❶.

#### NOTE:

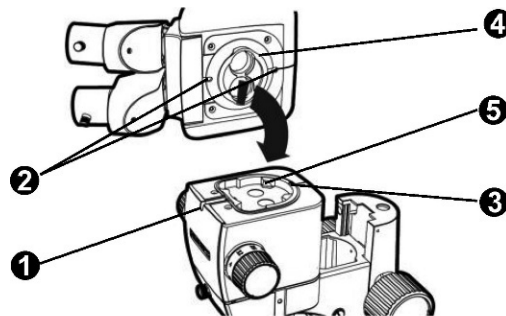
If it is required to position the zoom adjustment knob ❸ near the focus adjustment knob ❹, position the microscope body in the opposite orientation.



(Fig. 9)

### 12.2.2 Mounting the Observation tube (Fig. 10)

- Using the Allen screwdriver fully loosen the observation tube clamping screw ❶.
- Aligning the positioning groove ❸ of the observation tube with the positioning pin ❷ of the microscope body, tit the dovetail ❹ at the bottom of the observation tube into the dovetail mount ❺ of the microscope body.
- Tighten the observation tube clamping screw ❶ firmly using the Allen screwdriver.



(Fig. 10)

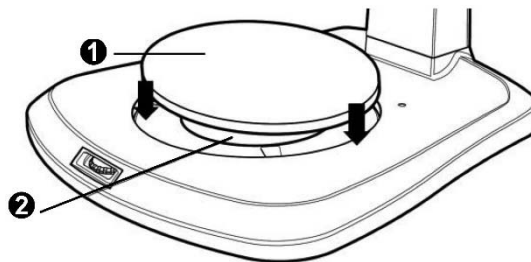
### 12.2.3 Mounting the Stage Plate

- To mount the stage plate ❶, fit the stage plate into the stage plate mounting hole ❷. (Fig. 11)

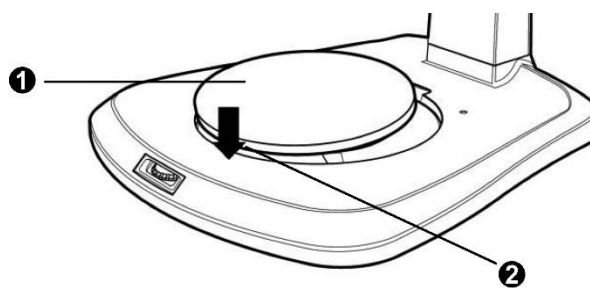
#### **NOTE:**

The stage plate has the milky white and black surfaces. Select the side facing up according to the specimen.

- To dismount the stage plate ❶, push the stage plate edge ❷. As this move up the opposite edge of the stage plate, dismount it by holding that edge. (Fig. 12)



(Fig. 11)



(Fig. 12)

## 13. SERVICE INFORMATION

If the instrument appears malfunctioning, before calling a customer service, it is highly recommended to check the instrument according to the troubleshooting procedure in “**Chapter 10**” of this manual.

If any problem persists or the instrument is damaged or malfunctioning, contact Motic or local distributor for service with the following information:

- Name of the product: SM7
- Serial number of the product: refer to the 9-digit number on its product label or name plate
- Descriptions of Problem: In detail



NO.: 1300901112461

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