



# **ZOOM STEREO MICROSCOPE**

**BS-3044, BS-3045**

**Instruction Manual**



This instruction manual is for the microscope BS-3044, BS-3045. To insure safety and obtain optimum performance and familiarize yourself fully with the use of this microscope. We recommend that you read the manual thoroughly before operating the microscope. Attain this manual instruction in an easily accessible place near the microscope for the further reference.

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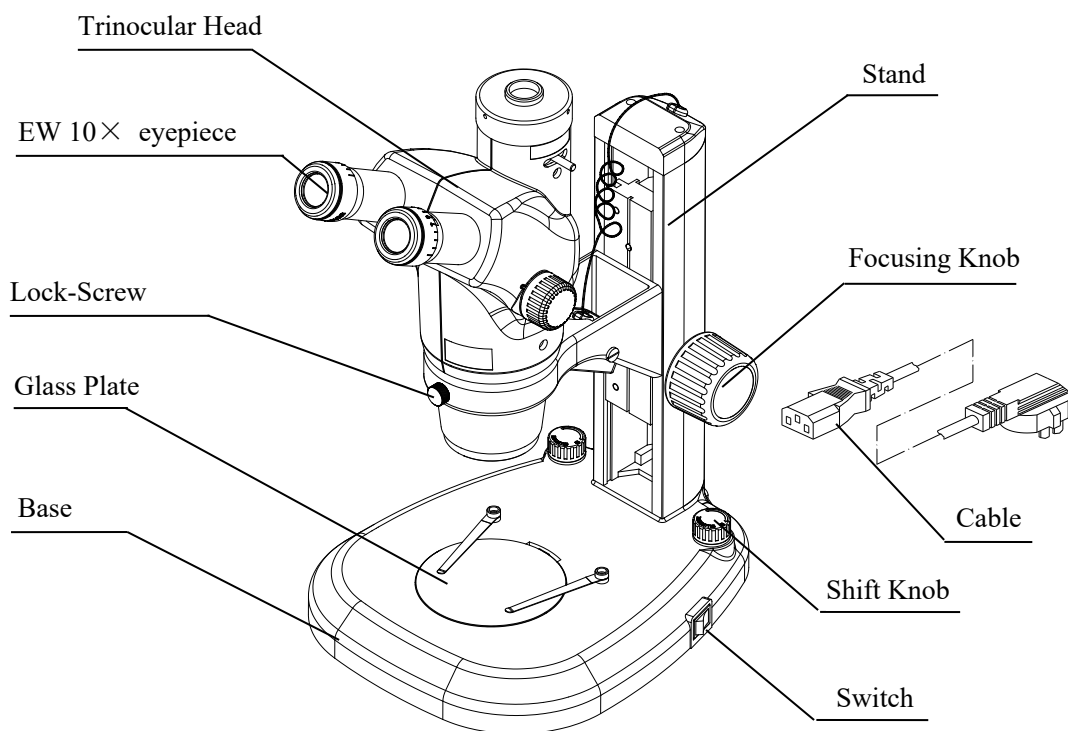
**1. Notice**

1. The microscope is composed of precision components, Handle with care to prevent abrupt.
2. Check the input voltage: be sure the input voltage which signed in the back of the microscope is consistent with the power supply voltage, or it will bring a serious damage to the instrument.
3. Microscope should be place dry and clean place. Do not expose the microscope in the sun directly, Avoiding high temperature and violent vibration.
4. Handle stand with one hand and the base with another hand when moving microscope.
5. If the bacterium solution or the water splash to the stage, objective or viewing tube, pull out the cord at once, and wipe up the microscope. Otherwise, the instrument will be damaged.
6. The microscope illumination house will get hot when operating. Make sure enough room to disperse heat.
7. Connect with land to prevent lighting strike.
8. Professional people to take the electronic components to prevent electricity strike.
9. Use the factory supplied power cord ,pleased

**2. Maintenance**

1. All lenses had been precisely adjusted and do not take the microscope apart.
2. Do not take the Trinocular head and focusing system apart.
3. The instrument should be kept clean, and prevent pollution while cleaning.
4. Wipe glass components softly, fingerprints and oil marked on it should be wipe off with a tissue moistened with a small mount of xylene or a 3:7 mixture of alcohol and ether.
5. Never use the organic solution to clean the other surface, if necessary, pleased choose neutral detergent.
6. Turn off electricity if microscope get moisture when operating, then wipe it off.
7. Do not take any parts of microscope apart, or else effecting microscope function.
8. The instrument should be kept in dry place, cover the microscope with the dust cover after the illumination house temperature come down.

1. NAME OF CONPONENTS

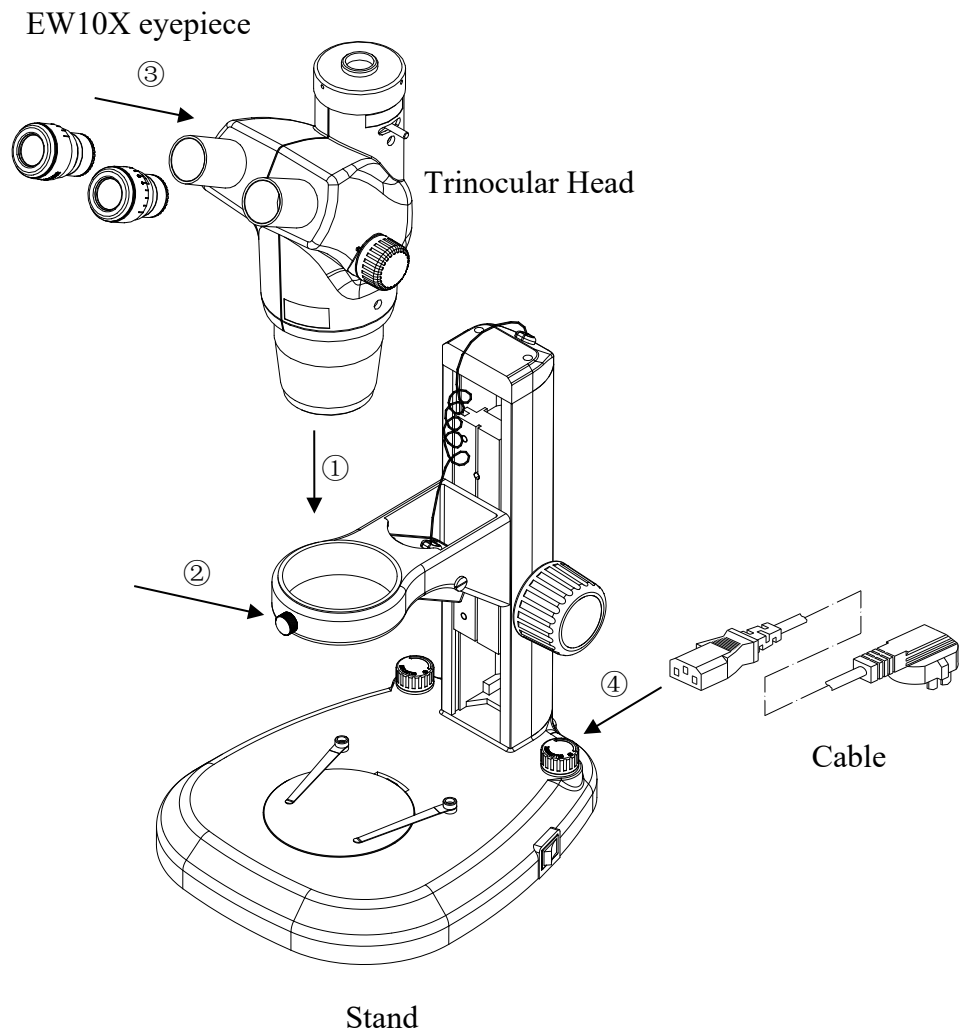


**BS-3044, BS-3045 ZOOM STEREO MICROSCOPE**

2.1 Assembly graph

Graph below indicate the assembly process.

- Check it is clean before assembling, do not scratch any components and the surface of glass.



## 2.2 Assembly process

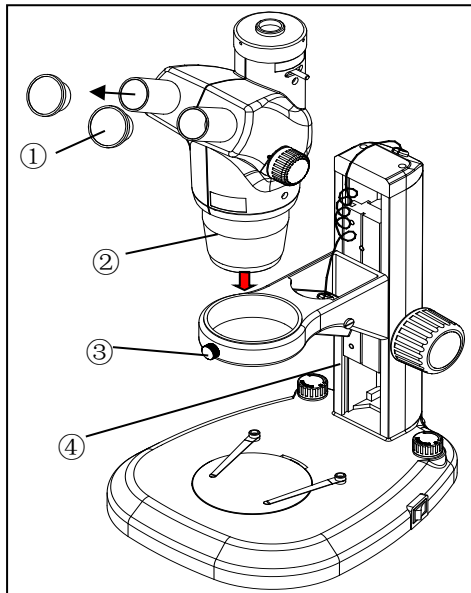


Fig 1

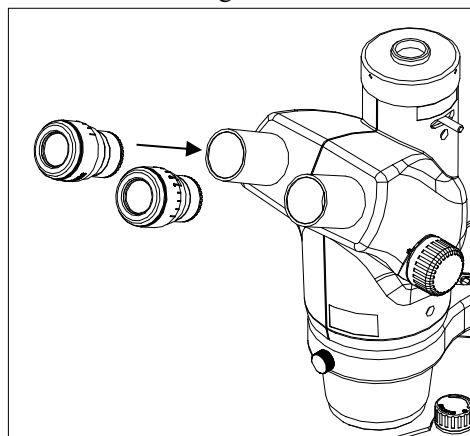


Fig 2

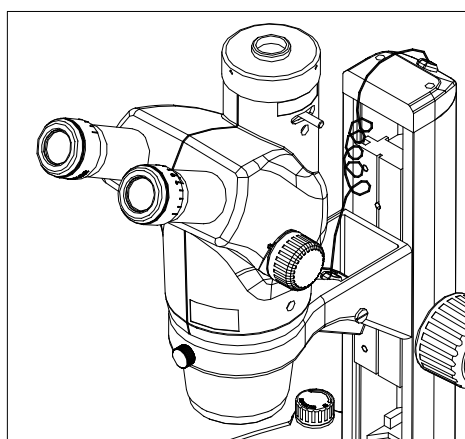


Fig 3

### 2.2.1 Assembly Trinocular head(fig. 1)

Loosen the lock-screw ③ of stand④, put the Trinocular head ② into the hole of stand, tight the lock-screw.

### 2.2.2 eyepiece assembly(fig1, fig2, fig3)

Take the dust cover① apart of Trinocular head②. Insert the 2pcs WF10X eyepiece into tube.

#### Working condition:

1. Temperature:0℃~40℃,
2. Hot or moisture will damage the instrument.
3. Place the instrument in a clear condition. cover it the instrument when no using.
4. The microscope should be placed without vibration.

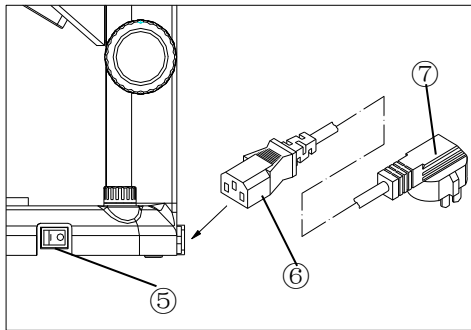


Fig 4

### 2.2.3 Cable connecting (fig.4)

1. Turn to “O” position ⑤ before connecting power ⑥.
2. Insert the pin ⑥ into microscope plug safely.
3. Insert the pin ⑦ into the power plug.

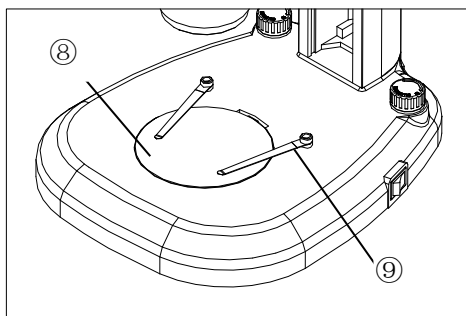


Fig 5

### 2.2.4 Use the glass stage(fig.5)

Set the glass stage plate ⑧ on the center of base, clamp the slide with two clips ⑨ when using the plate.

- Using LED light illumination.
- Input: AC 100V~240V.

3.1 Trinocular head

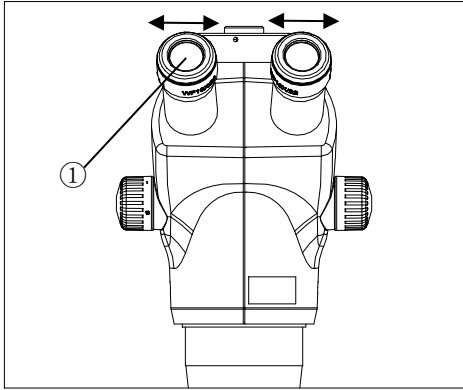


Fig 6

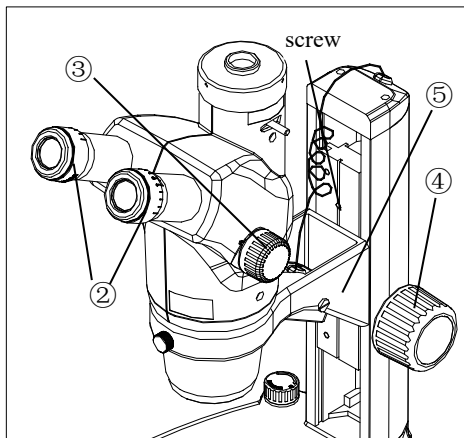


Fig 7

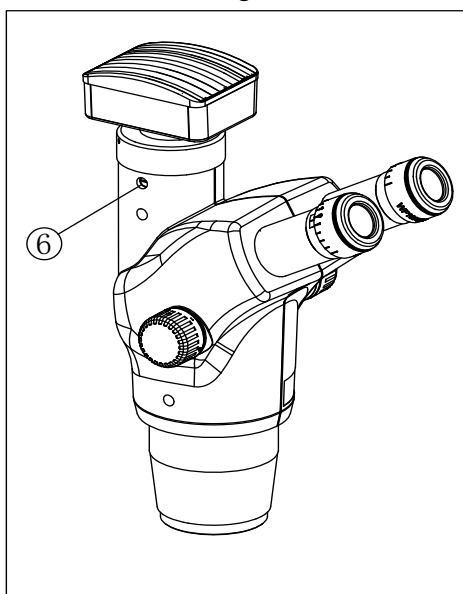


Fig 8

3.1.1 Interpupillary adjustment (fig.6)

Adjusting Interpupillary after observation for another one using. Hold the two tubes, ① adjust interpupillary to obtain a clear image..

3.1.2 Diopter adjustment(fig.7)

1. Turn the diopter adjusting rings ② to the zero
2. Set the sample on the stage.
3. Turn the zoom adjusting knob ③ to the 5X position, focusing the sample.
4. Turn the zoom knob ③ to 0.6X position. Observe though the left side eyepiece. Adjusting the adapter ring ② to focus sample, then look though the right eyepiece, adjusting the adapter ring ② to focus sample.
5. Repeat process 3 and process 4 until the image was located on focus, the image also the clear when change the magnification.

- working distance: 115mm, set up the tray if necessary.
- operating: take the lock-screw down by screwdriver. Driver up the tray ⑤ to a higher lock-screw hole. Tighten it.

3.1.3 Three optical path parfocality adjustment(fig.8)

1. When the diopter is adjusted, the image should be clear both in the eyepiece and the camera. If the image is not clear in the camera, move the cover of ⑥, loose the inner screw and using the screwdriver to rotate the prejudicial to make the image clear. Tight the screw and put on the cover.



### 3.2 Stand

#### 3.2.1 Focusing knob adjustment (fig9,fig10)

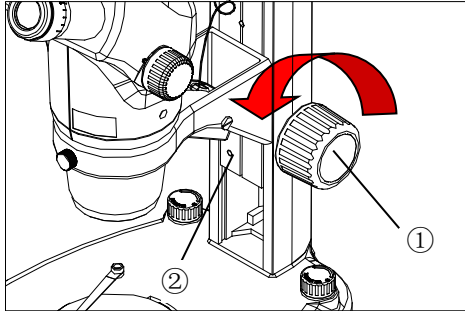


Fig 9

1. Pull down the skateboard ② by focusing knob① in a low position to prevent the microscope head drop because of focusing knob loosen.
2. Hold two side focusing knob ①. Left focusing knob keep still, turn the right focusing knob. Move up or down according to the strength of right focusing knob.
3. Light adjustment: adjust base illumination with right side knob ③. Adjust Top illumination by left side knob④.

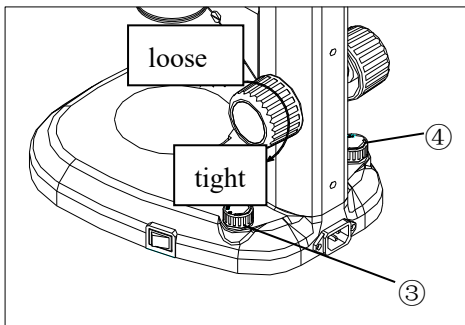


Fig 10

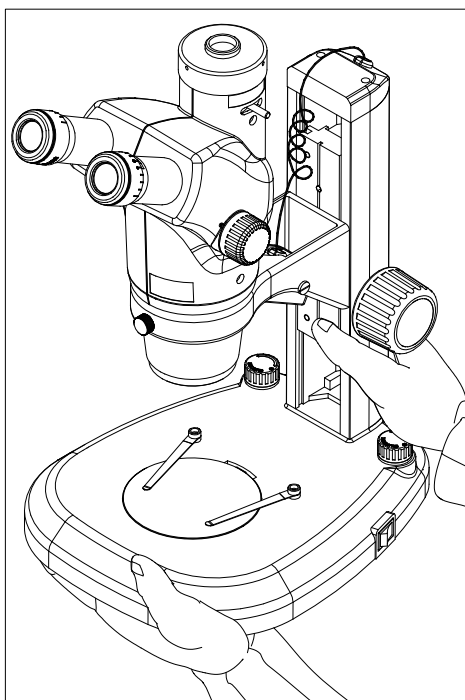


Fig 11

#### Attention :

1. Clean the touch-area after observing contagious sample.
2. Take away sample before move microscope.
3. Hold the stand and the base to prevent incline during move microscope.

**4. Technical Parameter**
**BS-3044, BS-3045**

- 4.1 Zoom ratio: 1:8
- 4.2 Zoom range: 0.6×~5×
- 4.3 Eyepiece: 10×/Φ22 Wide field, interpupillary adjustable
- 4.4 Binocular/ Trinocular head: incline at 30, interpupillary range :55~75mm
- 4.5 Working distance: 100mm
- 4.6 Range of movement: 100mm
- 4.7 Illumination: LED lamp illumination
- 4.8 Input:100-240V~, 0.15A, 50/60HZ
- 4.9 Magnification and field.

Optional Objective	Working Distance(mm)	Eyepiece					
		10X Field of view 22		15X Field of view 14		20X Field of view 11	
		Magnification	Actual Field (mm)	Magnification	Actual Field (mm)	Magnification	Actual Field (mm)
none	100	6~50×	36.7~4.4	9~75×	23.3~2.8	12~100×	18.3~2.2
0.5X	220	3~25×	73.3~8.8	4.5~37.5×	46.7~5.6	6~50×	36.7~4.4
0.7X	136	4.2~35×	52.4~6.3	6.3~52.5×	33.3~4	8.4~70×	26.2~3.1
2X	45	12~100×	18.3~2.2	18~150×	11.7~1.4	24~200×	9.2~1.1

**5. Trouble shooting**

The function of microscope will no work efficiently for the unfamiliar using. Check the table below if meet some troubles, then take proper action. Ask sales agent if the trouble will no be tackled after check..

Trouble	Cause	Remedy	Page
1. Double images	Interpupillary distance is not correct	Readjust it	7
	Diopter adjustment is not correct	Readjust it	
2. Dirt appears in the view field	Dirt on the specimen	Clean specimen	2
	Dirt on the surfaces of eyepieces	Clean eyepieces	
3. Image is not clear	Dirt on the surface of objectives	Clear objectives	
4. Image is not clear while focusing change	Diopter adjustment is not correct	Readjust diopter	7
	Focusing is not correct	Readjust it	
5. The focusing knob is not smooth	The focusing knob is too tight	Loosen it to a suitable position	8
6. The image is obscure because of the head slipping down during observation	The focusing knob is too loosen	Tighten it to a suitable position	8

**6. Configuration**
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Components	Specification	Quantity	Standard Outfit <sup>○</sup>
Body	Main body stand	1	●
head	Binocular/Trinocular zoom head	1	●
Illumination	Transmit(LED)	1	●
	Reflex(LED)	1	●
	Ring fluorescence lamp		○
eyepiece	10×eyepiece	2	●
	20×eyepiece	2	○
Objective	0.5×auxiliary objective	1	○
	2×auxiliary objective		○
Observe board	Black and white board	1	●
	Glass board	1	●
Cable	Cable	1	●

●:Standard, ○: Optional