

HY0745 系列 体视显微镜 说明书

STEREO MICROSCOPE HY0745 SERIES INSTRUCTIONS

本说明书详细阐述了 HY0745 系列体视显微镜的使用方法、故障排除及维护与保养等说明。请在使用前仔细阅读本说明。并将其随附仪器保存好方便以后参阅。

This instruction manual is for the Stereo Microscope HY0745 series. To ensure the safety and obtain optimum performance and familiarize yourself fully with the use of this microscope, we recommend that you read this manual thoroughly before operating the microscope. Retain this instruction manual in an easily accessible place near the microscope for further reference.

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1 注意事项 (Before use)

1-1 操作 (NOTICE)

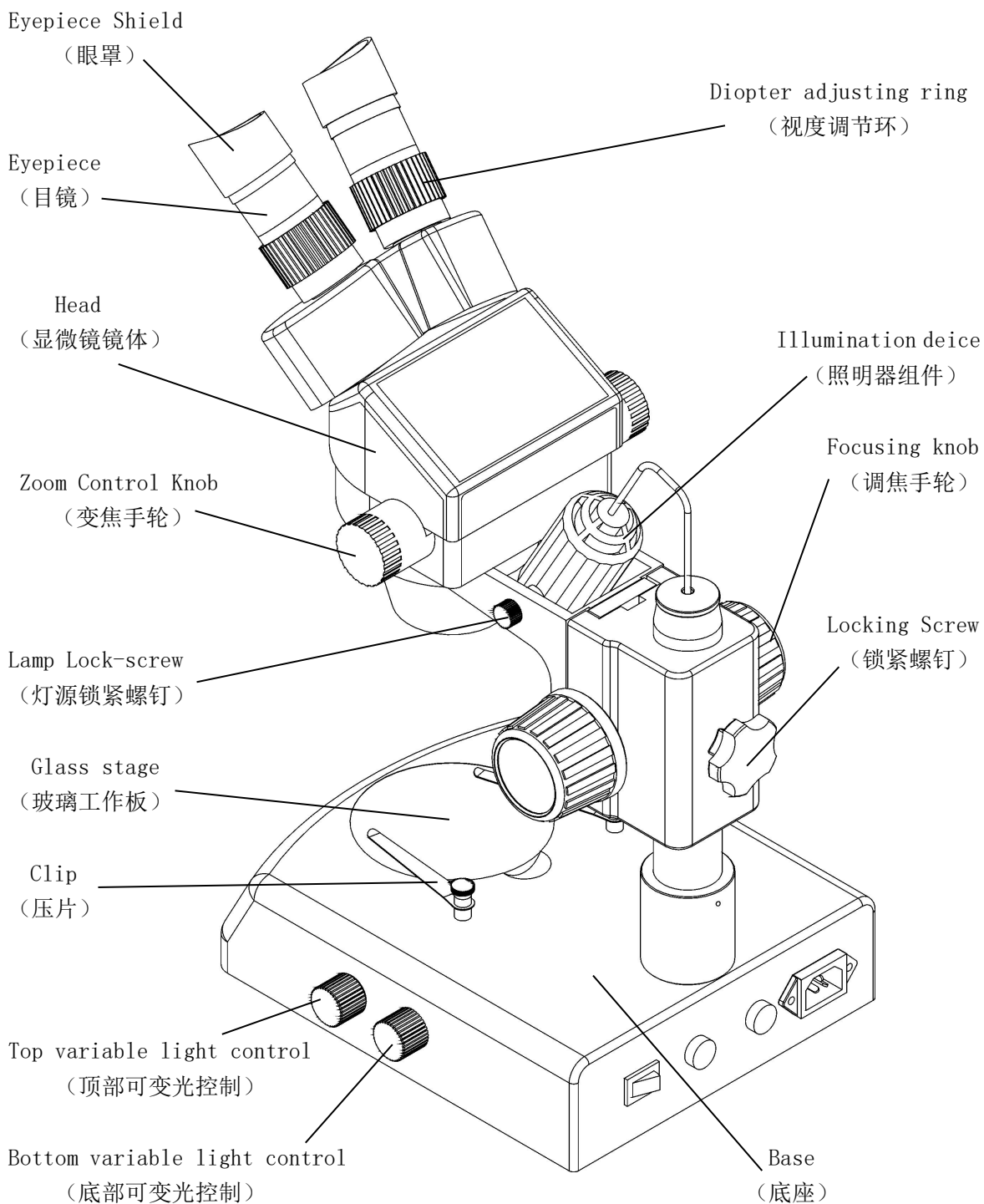
1. Microscope ought to be placed in a dry and clean place. Do not expose the microscope in the sun directly. Avoid high temperature and violent vibration.
(不应让部件直接暴露在阳光下, 应放置在干燥、清洁的环境中, 避免高温和剧烈振动。)
2. As microscope is a precision instrument, handle with care, avoiding impact or abrupt movement during transportation.
(显微镜是一种精密仪器, 应小心轻放, 在运输过程中避免冲击和碰撞。)
3. To keep the image clear, do not leave fingerprints or stains on the surfaces of the lens. (为了不影响像的清晰度, 避免污物或手指印留在镜片表面。)
4. Never turn the left and right Zoom control knob in the adverse direction at the same time, otherwise the microscope will be damaged.
(不能用相反方向转动左右变焦手轮, 否则会发生故障。)
5. When removing the film from camera, use one hand to hold the camera so that it does not fall over.
(从大型摄影机上取出胶片时, 应用单手扶住摄影机, 以免它倾倒。)

1-2 维护和保养 (MAINTENANCE)

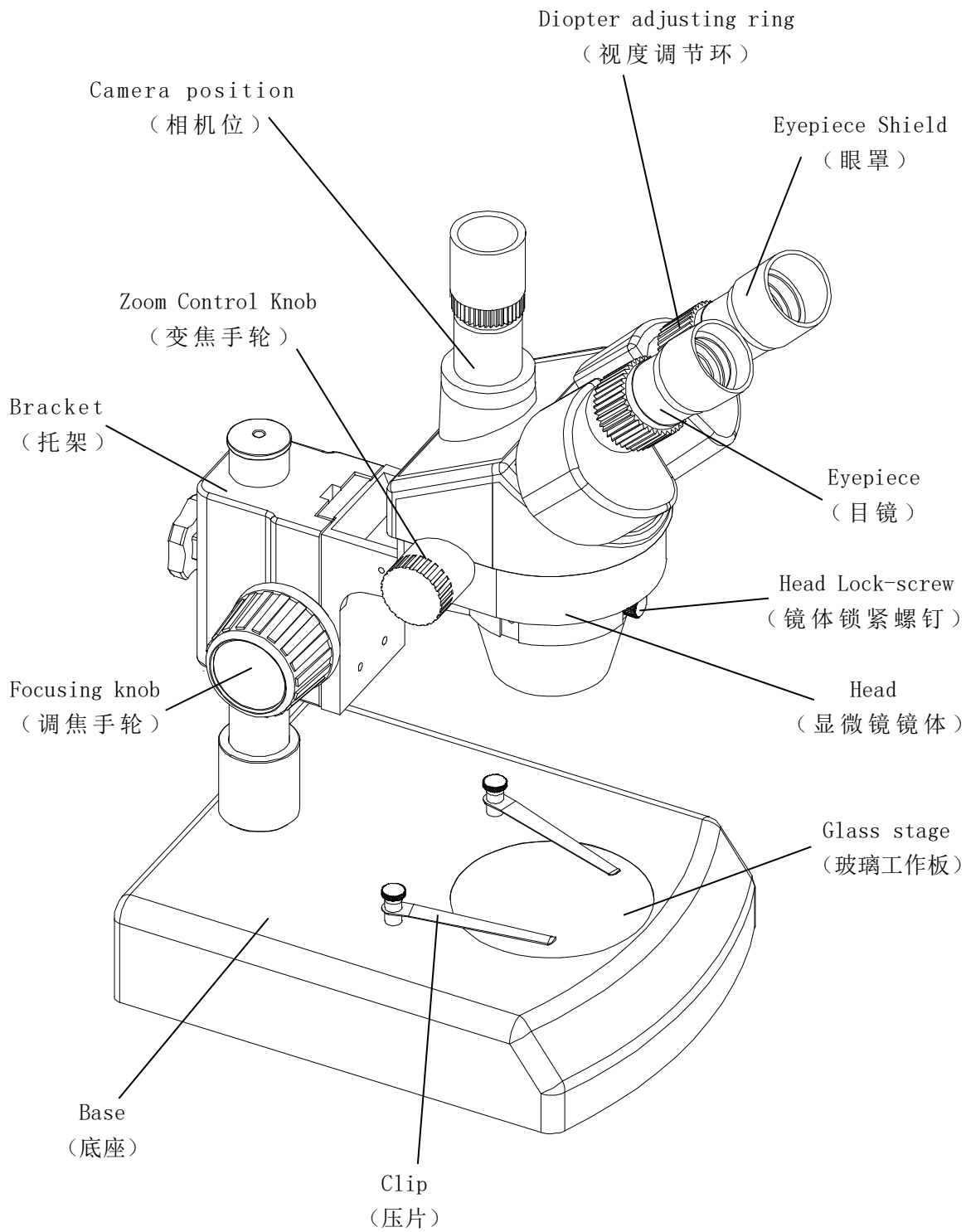
1. All lenses must be kept clean. Fine dust on the surface of the lens should be blown off with hand blower or wiped off gently with a soft lens tissue; Fingerprints or oil marked on it should be wiped off with a tissue moistened with a small amount of xylene or a 3:7 mixture of alcohol and ether.
(所有的镜片都应保持清洁。若有细小灰尘, 可用吹气球吹去或棉纱轻轻抹去; 若有油迹和手指印, 可用蘸有少量比例为 3:7 的乙醇乙醚混合液的棉纱轻轻抹去。)
2. Never use the organic solution to clean the other surface (especially the plastic surfaces). If necessary, please choose the neutral detergent.
(不能用有机溶剂去擦拭显微镜的其余表面, 特别是塑料制品的表面, 应用中性洗涤剂进行清洁。)
3. Do not take the microscope apart for fearing that it is damaged.
(不应自行拆装显微镜, 以免使显微镜性能受到影响。)
4. After using, cover the microscope with the dust-cover provided and store it in a dry and clean place free from moisture to prevent rust.
(显微镜不使用时, 应用防尘罩盖好, 使之不与灰尘接触, 并放置在干燥的地方, 避免生锈或发霉。)
5. To keep the performance of the microscope, please check it periodically. The detail can be gotten from the agent nearby.
(为保持显微镜的性能, 建议进行定期检查 (详情可与就近的代理商联系。))

2 各 零 部 件 名 称 (Nomenclature)

2-1 HY0745-B2

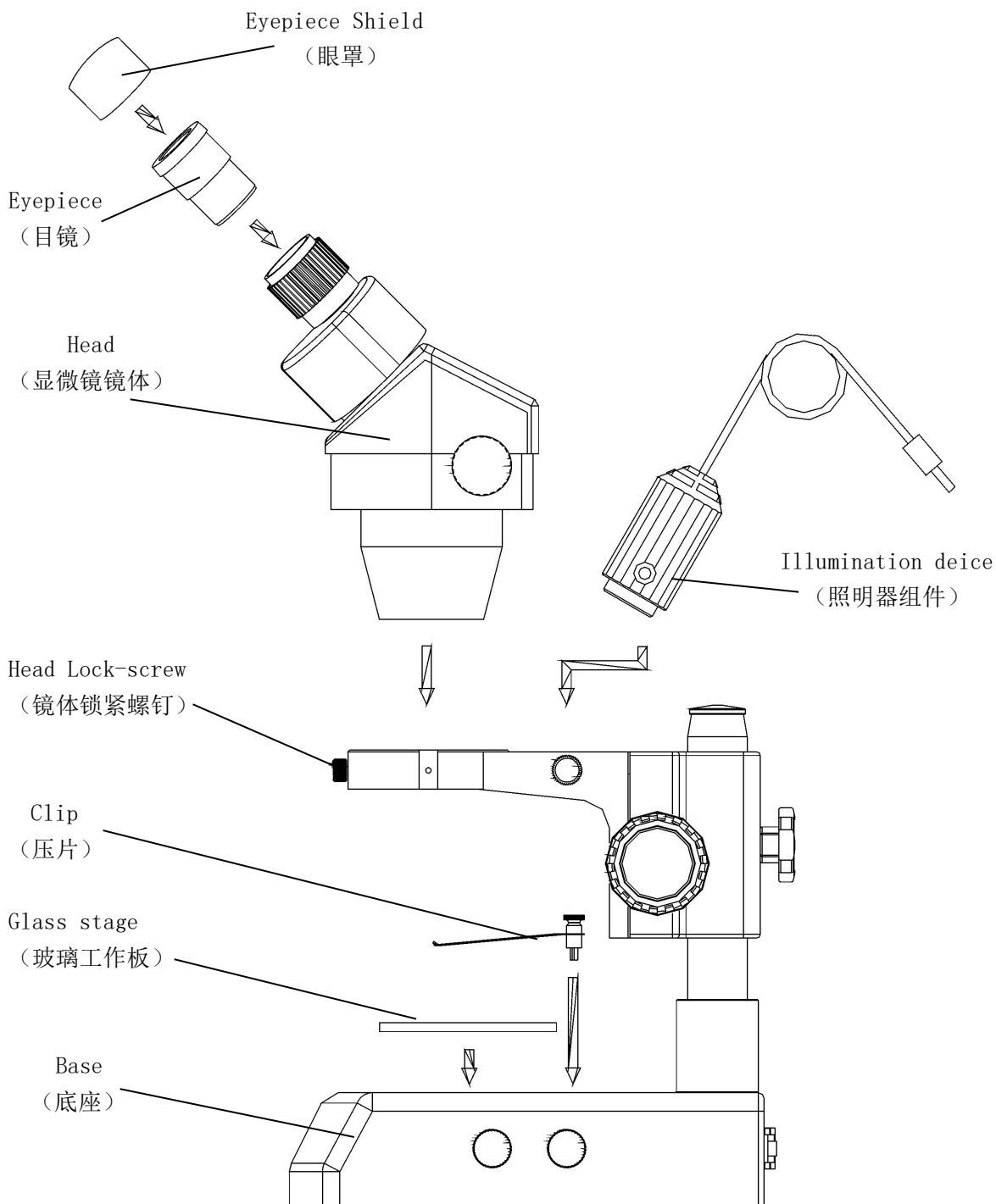


2-2 HY0745-T2

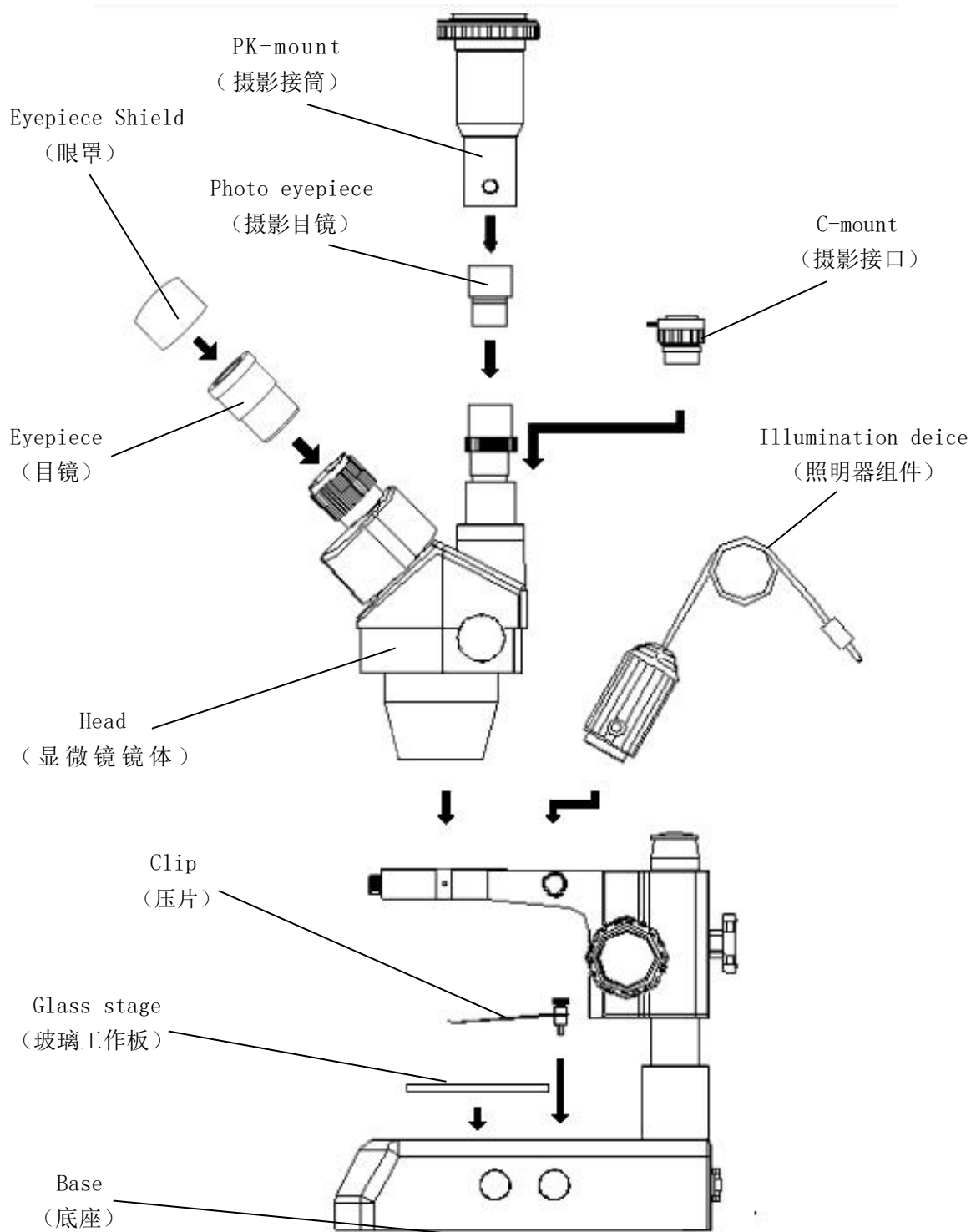


3 各 零 部 件 安 装 (A s s e m b l a g e)

3-1 HY0745-B2

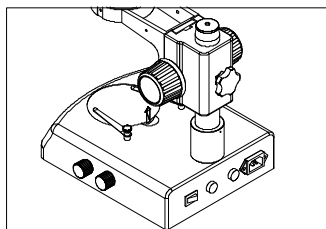


3-2 HY0745T2PH/CTV



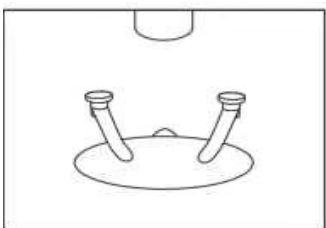
4 操作 (Operation)

4-1 玻璃工作板的使用 (Use the glass stage)



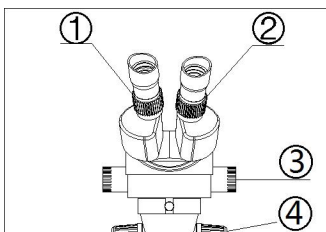
Press the glass stage on the sunken place then the other side of the glass stage will be lifted
(可用手指指尖从凹处直接将工作板掀起。)

4-2 标本的放置 (Set the specimen slide)



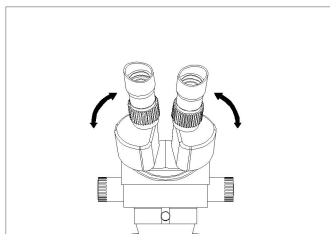
1. Set the specimen on the center of stage plate. If necessary, clamp the slide with the clips.
(把标本放置在玻璃工作板的中间。如果有必要用压片压住标本。)
2. Turn on the light.
(用照明器照亮标本。)

4-3 视度调节及调焦 (Adjust the specimen slide)



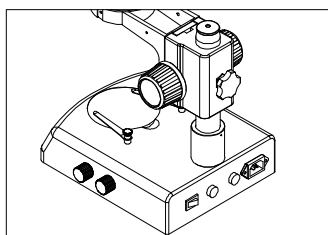
1. Turn the zoom control knob ③ to the maximum magnification.
(旋转变焦手轮③到最大倍率。)
2. Turn the diopter adjusting rings to the zero.
(旋转视度调节环到0刻线位置。)
3. Observe the specimen through the right eyepiece and make the image clear by turning the focusing knob ④.
(通过右边的目镜观察, 如果像不清晰, 旋转调焦手轮④使标本像清晰。)
4. Rotate the zoom control knob to the minimum magnification.
(旋转变焦手轮③到最小倍率。)
5. Observe the specimen through the right eyepiece and make the image clear by turning the right diopter adjusting ring ②.
(通过右边的目镜观察, 如果像不清晰, 旋转右视度调节环②使标本清晰。)
6. Redo the step (1), (3), (4) and (5) till the right adjusting ring is more precise.
(再旋转变焦手轮③到最大倍率。通过右边的目镜观察, 如果像不清晰, 可重复以上3到5步骤, 这可使视度调节更精确。)
7. Do the step (4) and make the image clear which is observed through the left eyepiece by turning the left diopter adjusting ring ①.
(旋转变焦手轮③到最小倍率。通过左边的目镜观察, 如果像不清晰, 旋转左视度调节环①使像清晰。)

4-4 瞳距的调节 (Adjust the interpupillary distance)



Adjust the prism housing along the direction of arrowhead of the (Fig. 4) till the observation is comfortable.
(用手握住目镜管, 按图 4 箭头所示方向, 转动左右棱镜箱, 直到双目观察感到舒适为止。)

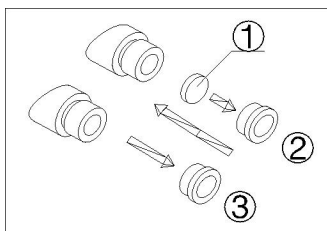
4-5 调焦机构松紧度的调节 (Hand wheel adjustment)



1. If you want to adjust degree of tightness of the focusing arm, you can hold one of the focusing knobs and turn another one to attain a suitable position. The degree of tightness relies on the direction to be turned. The clockwise direction is tight, otherwise, is loose.
2. The suitable position of tightness can make the adjustment more comfortable and prevent the focusing bracket from slipping down by its weight during the observation.

1. 要调节调焦机构的松紧度, 可用手握住其中一只手轮, 通过 旋转另一只手轮来达到。松紧依赖于手轮的旋转方向: 顺时针方向 旋紧, 逆时针方向松开。
2. (将调焦机构的松紧度调整合适, 可以防止显微镜镜体在观察过程中随托架自行下滑, 也使调焦比较舒适。)

4-6 安装和拆卸分划板 (Mount and Remove the Optional Eyepiece Micrometer)



1. Turn and remove the mounting ring② from the eyepiece.
(从目镜上旋下压圈 (如图))

2. Clean the eyepiece micrometer① and mount it to the mounting ring with the inscription side downward.
(清洁分划板①。将分划板有刻线的一面朝下装进压圈。)

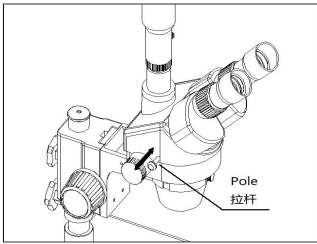
3. Gently twist the mounting ring with the eyepiece micrometer into the eyepiece till tightening② securely.
(将带有分划板的压圈再旋进②目镜, 直到旋紧为止。)

4. To remove the eyepiece micrometer, take down the mounting ring ③ by twisting and take out of the micrometer, and then wrap it.
(要拆卸分划板时, 从目镜上旋下③压圈, 取出分划板, 用干净的纸包裹后保存。)

4-7 目镜罩的使用 (Use Eyepiece shields)

1. For user who does not wear glasses, hold the diopter-adjusting ring to prevent them from rotating and turn the eyepiece till the eyepiece shields fit the observer well.
(对于不带眼镜的人,应用手握住视度调节环,使其不发生转动。通过旋转目镜,使目镜罩能与观察者的眼得贴合。)
2. For user who wears glasses,take the eyepiece shields off before observation
(对于带眼镜的人,可将目镜罩取下再进行观察。)

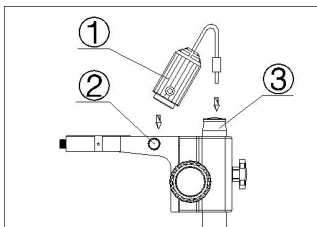
4-8 选择光路 (Choose the optical system)



You can alternate the binocular observation and video capture by pushing or pulling the pole. You can attain binocular observation by pushing the pole inside, or attain video capture by pulling it outside. No matter what optical system is chosen, push or pull the pole thoroughly.

(利用拉杆向里向外的移动,实现双目观察与摄影摄像的切换。拉杆向外移动,可进行摄影摄像;反之,拉杆向里移动,可进行双目观察。无论选择何种光路,必须使拉杆移动到底为止。)

4-9 照明器的安装 (Install the illumination device)



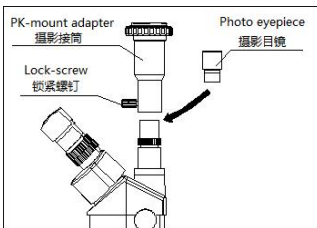
1. Insert the illumination device① in the bracket with the protrudent side toward the lock-screw② and tighten the lock-screw.

(把照明器组件①的凸台对着灯源固定螺钉②插入托架,然后旋紧螺钉)

2. Put the plug into the socket of the pillar stand③.

(把电线插头插到立柱③的插座上。)

4-10 装配摄影接筒和摄影目镜 (Mount the photo eyepiece and the PK-mount adapter)

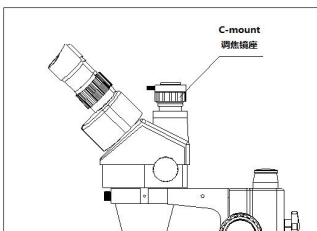


1. Put the photo eyepieces socket of the tri-ocular.
(把摄影目镜插入三通头目镜座中。)

2. Connect the PK-mount adapter with the photo eyepiece, and then tighten the lock-screw.

(把摄影接筒罩在三通头目镜座上,然后旋紧锁紧螺钉。)

4-11 CTV 位置的调节 (Adjust the CTV)

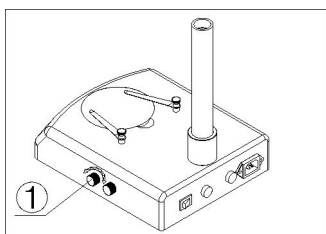


1. Adjust the CTV to a suitable position by rotating C-mount.
(通过旋转调焦镜座可以对 CTV 进行调焦,使 CTV 到需要的位置。)

2. **Note:** The range of the adjustment:1~2mm in general.

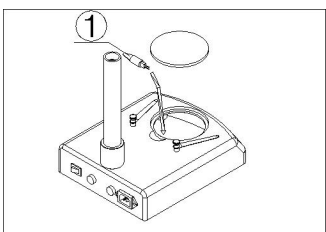
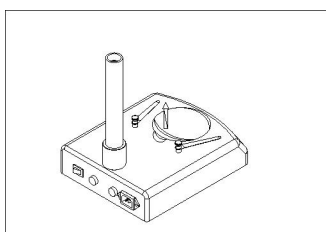
(注:一般上下调节 1~2mm 即可。)

4-12 底座透射照明亮度的调节 (Adjust the brightness of the bottom light)



1. Turn the adjustable light knob ① according to the sign marked on the base, along the clockwise the brightness will be added, otherwise it will be weakened.
(按底座上的图标①所示, 旋转亮度调节旋钮, 顺时针旋转, 则亮度增强; 反之, 则亮度减弱。)

4-13 灯泡的更换 (Replace the lamps)



1. Press the stage on the sunken place then the other side will be lifted.

(把手指放在工作板的一个凹槽内, 向上抬起并取出工作板。)

2. Take the lamp out of the jack.

(用手捏住灯泡, 从插座内抽出灯泡。)

3. Put a new lamp into the jack thoroughly.

(取一个新灯泡, 将灯泡插脚插入插座的孔中。插入时应插到底。)

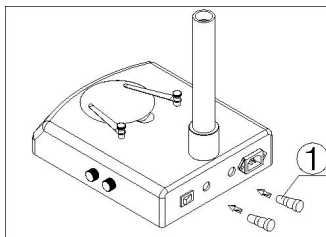
4. Recover the stage plate.

(重新放上工作板。)

注(Note): ① Before replacing the lamps, turn off the power first.
(更换灯之前, 先关闭电源。)

- ② Avoid violence while the lamp is plugged into the jack.
(当灯插入插座时, 避免暴力。)

4-14 保险丝的更换 (Replace the fuse)



1. Screw the fuse tube out with a screwdriver and then pull the fuse out of the tube ①.

(用小螺丝刀将保险丝座旋出。从保险丝座上抽出保险丝①)

2. Renew the fuse and mount it in an adverse way.

(更换新的保险丝, 按上述相反的过程进行即可。)

5 配置图表 (Configuration)

HY0745/HY0745TR

Composition 部件	Specification 规格	Quantity 数量
目镜(Eyepiece)	WF10X20	2
双目观察头(Microscope Body Only For Eyes)	HY0745	1
三通观察头(Microscope Body For Eyes And C)	HY0745P	1
CTV	0.5	1
调焦托架(Focusing Stage)	A1	1
底座(Stand With ESD Capability)	B2	1
压片(Elastic Pressing Device)		2
玻璃工作板(Glass stage)		1
包装(Packing)	Inside foam Outside carton 内包泡沫 外包纸箱	1

6 技术参数 (Technical parameter)

HY0745/HY0745TR

Eyepiece 目镜	标准配置 (Standard Configuration)		附加大物镜 (Auxiliary objectives)					
			0.5X		1.5X		2X	
	Working Distance 工作距离 100mm	Field Of View 视场范围	Working Distance 工作距离 165mm	Field Of View 视场范围	Working Distance 工作距离 45mm	Field Of View 视场范围	Working Distance 工作距离 30mm	Field Of View 视场范围
10x/20	Magnification 放大倍率	7x	Magnification 放大倍率	3.5x	Magnification 放大倍率	10.5x	Magnification 放大倍率	14x
	Field Of View 视场范围	28.6	Field Of View 视场范围	57.1	Field Of View 视场范围	19	Field Of View 视场范围	14.3
15x/15	Magnification 放大倍率	50x	Magnification 放大倍率	22.5x	Magnification 放大倍率	67.5x	Magnification 放大倍率	90x
	Field Of View 视场范围	4.4	Field Of View 视场范围	8.9	Field Of View 视场范围	3	Field Of View 视场范围	2.2
20x/10	Magnification 放大倍率	10.5x	Magnification 放大倍率	5.25x	Magnification 放大倍率	15.75x	Magnification 放大倍率	21x
	Field Of View 视场范围	21.4	Field Of View 视场范围	42.8	Field Of View 视场范围	14.3	Field Of View 视场范围	10.7
20x/10	Magnification 放大倍率	67.5x	Magnification 放大倍率	33.75x	Magnification 放大倍率	101.25x	Magnification 放大倍率	135x
	Field Of View 视场范围	3.3	Field Of View 视场范围	6.7	Field Of View 视场范围	2.2	Field Of View 视场范围	1.7
20x/10	Magnification 放大倍率	14x	Magnification 放大倍率	7x	Magnification 放大倍率	21x	Magnification 放大倍率	28x
	Field Of View 视场范围	14.3	Field Of View 视场范围	28.6	Field Of View 视场范围	9.5	Field Of View 视场范围	7.7
	Magnification 放大倍率	90x	Magnification 放大倍率	45x	Magnification 放大倍率	135x	Magnification 放大倍率	180x
	Field Of View 视场范围	2.2	Field Of View 视场范围	4.4	Field Of View 视场范围	1.5	Field Of View 视场范围	1.1

7 故障处理 (Troubleshooting)

The performance of the microscope can't be made fully because of unfamiliar using, this table will give some advices.

(如果由于使用不熟悉,而使显微镜性能不能充分发挥,那么下表可以为你提供一些解决办法。)

问题(Trouble)	原因(Cause)	解决办法(Remedy)
1、 Double images 双像不重合	Interpupillary distance is not correct 瞳距调节不正确	Readjust it 修正瞳距
	Diopter adjustment is not correct 视度调节不正确	Readjust it 重新进行视度调整
	Magnification of each eyepiece is not the same size 左、右目镜倍率不同	Mount the same size eyepiece 安装相同的目镜
2、 Dirt appears in the field of view 视场内有脏东西	Dirt on the specimen 标本上有脏物	Clean the specimen 清洁标本
	Dirt on the surfaces of eyepiece 目镜表面有脏物	Clean the surface 清洁目镜
3、 Image is not clear 像不清晰	Dirt on the surfaces of the objectives 物镜表面有脏物	Clean the objectives 清洁物镜
4、 Image is not clear while the focus changing 变焦时像不清晰	Diopter adjustment is not correct 视度调整不正确	Readjust the diopter 重新进行视度调节
	Focus is not correct 调焦不正确	Readjust the focus 重新进行调焦
5、 The focusing knob is not smooth 调焦手轮不灵活	The focusing knob is too tight 调焦手轮锁得太紧	Loosen it to a suitable position 适当放松
6、 The image is obscure because of the head slipping down by itself during observation 在观察过程中,显微镜镜自行下降,使像不清晰	The focusing knob is too loose 调焦手轮太松	Loosen it to a suitable position 适当锁紧
7、 Eyes fell tired easily 眼睛很容易疲劳	Diopter adjustment is not correct 视度没有调节正确	Adjust the diopter 正确调节视度
	Brightness of light is not correct 照明亮度不合适	Adjust the brightness 调整调光旋钮
8、 Incision image appears in the field of view or of the video view 观察目镜或摄影摄像的视场内切割	The pole is not in correct position 拉杆移动未到位	Pull or push it to the correct position 将拉杆移动到位

9、 The image on the monitor is not clear when the focusing knob is turned. 当变焦时，视频监视器上图像不清晰	The focus of video is not correct 摄像焦深调节不当	Readjust the focus of video to a correct position 利用摄像接筒上的调焦环重新进行摄像焦深调节
10、 Bulb does not work when the switch is on 开关接通时灯泡不亮	No power supply 无电源	Check the connection with the power supply 检查电源线的连接
	The bulb was not inserted correctly 灯泡未插入	Insert it correctly 正确地插入
	Bulb is wrong 灯泡坏了	Replace with a new one 更换
11、 Bulb is burned out suddenly 灯泡突然烧坏	Use the wrong bulb 使用了非指定的灯泡	Replace with a correct one 用指定灯泡更换
	The voltage is too high 电压过高	Control the voltage Eg: use voltage regulator 控制电压（如使用稳压器）
12、 Brightness is not enough 照明亮度不够	Use a wrong bulb 使用了非指定的灯泡	Replace with a correct one 用指定灯泡更换
	The voltage is too low 电压太低	Increase the input voltage 增加电压
13、 The bulb flickers or the brightness is unstable 灯泡闪烁或不稳定	The bulb will burn out soon 灯泡快要坏了	Replace with a new one 更换
	The bulb was not inserted correctly 灯泡安装不稳定	Insert it correctly 检查并稳固地插入