

MICROTECH SX93 Stereo Microscope Operation Manual

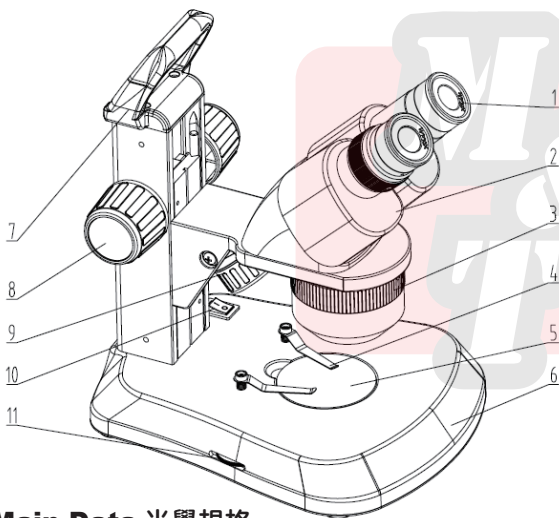
MICROTECH SX93立體顯微鏡操作說明書

Please read carefully before using the microscope

1. Applications 應用

Widely used in electronical industry, assembly and inspection of precision instrument, dissection and study of propagation, also applied in field of school, carving, geology, archeology etc
廣泛的應用於電子工業、裝配維修精密儀器、研究檢驗、生物解剖、學術、地質、考古、美術雕刻、珠寶鑲埋、寶石鑑定、顯微鑑識等，用途極為廣泛。

2. Name of the parts and accessories 部位說明



1. Eyepiece 目鏡
2. Prism Box 稜鏡室
3. Objective cover 物鏡
4. Clips 固定夾
5. Working stage 工作台附底光
6. Base底座
7. Handle 手提把
8. Focusing Knob 調焦鈕
9. Incident Illumination 投射照明
10. Power Switch 電源開關
11. Dimmer 調光鈕

3. Main Data 光學規格

1) Optical Data (mm)

Eyepiece 目鏡/倍數		WF 5X	WF 10X	WF 15X	WF 20X	
Objective 物鏡倍率	1X 標配	Field of View視野mm	22	20	15	10
		Working Distance工作距離mm	57	57	57	57
	2X 標配	Field of View視野mm	12	10	7.5	6.5
		Working Distance工作距離mm	80	80	80	80
	3X	Field of View視野mm	8	6.7	5	4.3
		Working Distance工作距離mm	61	61	61	61
	4X 標配	Field of View視野mm	6	5	3.7	3.2
		Working Distance工作距離mm	57	57	57	57

(Note: Objective:1X/2X/3X or 1X/2X/4X. Optional eyepiece WF5X,WF15X,WF20X)

5. LED lamp and battery replacement 燈泡與電池的更換

1) Replace the incident bulb 更換投射燈泡

Firstly remove objective cover via taking off 4 screws. Secondly take off the lampshade, replace the burned bulb with new bulb by input the feet to the porcelain socket fully. Then set the lampshade on again.

首先卸下四個物鏡蓋螺絲，接著卸下燈罩，更換損壞的燈泡，最後安裝回燈罩與物鏡蓋。

2) Replace the transmitted bulb 更換穿透光燈泡

Firstly loosen the screw, then take off frosted glass and filter, take out the burned bulb and replace with new bulb by input the feet on the porcelain socket fully, at last set back the frosted glass and screw.

Note: Usually longer pins means anode.

首先鬆開螺絲，取下磨砂玻璃和濾鏡，取出損壞的燈泡，更換與插入新燈泡，最後裝回磨砂玻璃和螺絲。

注：通常較長的插腳代表正極。

3) Replace battery 更換電池

Open battery box under base of microscope, take out old batteries and replace new batteries. Please put out

batteries when don't use for long time. 打開顯微鏡底座下方的電池艙，取出舊的電池並更換新的電池。

記得長時間不使用顯微鏡時，需取出電池，以免電池漏液造成故障。

6. Maintaining and storage 維修及存放

- 1) Microscope is a precision instrument, you should place carefully, avoid impact during transportation.
- 2) Put it in a dry and clean place, avoid high temperature and shock.
- 3) Do not touch the lens directly by your finger.
- 4) Keep the optical surface clean, dust on the surface you can wipe off by hair drier.
- 5) Do not use organic things to wipe the surface of microscope, especially plastic surface, please clean with neutral scour.
- 6) All the optical and mechanism part are adjusted and could not take apart by yourself.
- 7) Add grease on moving part regularly.
- 8) Put the microscope in a cool and dry place and cover it with dust cover when not be used for a long time.

- 1) 顯微鏡是一種精密的儀器，你應該妥善放置，避免在運輸過程中撞擊。
- 2) 把放在乾燥和乾淨的地方，避免高溫和衝擊。
- 3) 不要直接用手指觸摸鏡頭。
- 4) 保持光學表面的清潔，表面的灰塵可以通過吹風機除去。
- 5) 不要使用有機溶劑擦顯微鏡的表面，特別是塑料表面，請使用清潔中性洗滌劑。
- 6) 所有的光學和機械部分出廠已調整妥善，不可擅自自行拆開。
- 7) 添加油脂可以是定期保養維修的一部分。
- 8) 可把顯微鏡安置在陰涼，乾燥的地方，並用防塵罩蓋住它，尤其是很長一段時間不使用顯微鏡時。

2) Electrical Data 電源/光源

Power Supply電源需求：3*1800mA Rechargeable batteries 三個1800mA的充電電池(AA)

Input Voltage輸入電壓：DC4.5V / 1A (附變壓器)

Lighting System光源系統：Incident Illumination投射光 1*1W LED, transmitted Illumination穿透光 5*20mA LED, separated brightness adjustment system上下光源獨立調光系統

3) Structure data 結構規格

Eyepiece目鏡：WF10X(標配) Objective物鏡倍率(三組)：1X/2X/4X

45° inclined binocular head, left ocular-tube is with diopter adjustment ± 5 dp, the interpupillary distance is between 54~76mm

45° 傾角雙目觀測頭，左眼管具備屈光度調節 ± 5 dp，雙眼瞳孔距可調範圍54~76mm

4. Operation 操作說明

1) Environment 工作環境

Dry and dustless room, temperature between $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$. 乾燥無塵溫度範圍 $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$.

2) Power control 電源控制

Turn on the switch, adjust the brightness of Incident and Transmitted light by the two dimmers.

打開開關，調整兩個獨立的調光器使投射光與透射光的亮度達到適當。

3) Selecting of working stage 工作台的選擇

a) Normally frosted glass stage equipped with microscope when packing, locked by screw. You can use transmit light to observe transparent object. 使用毛玻璃時可以利用穿透光觀察透明物體。

b) Black and white working stage is packed with the microscope accessories for choice. When use, please loosen the screw and take off the glass stage. Normally use the white side. For white or other transparent object, you need to use black side to improve the contrast with Incident light. 使用黑白不透光工作台，通常使用白色面，若觀察白色或透明物體則使用黑色面，可以有效改善對比度與光的反射。

4) Usage of eye's cover 眼罩的使用

The eye's covers are packed with the microscope as accessory. Please put them on the eyepiece when you need. 橡皮製眼罩是顯微鏡附件，適合未戴眼鏡觀察者，建議安裝在目鏡上使用，可有效保持目鏡與眼球的距離。

5) Focusing、Changing magnification、Adjusting diopter & interpupillary distance

聚焦，放大倍率變化，調節屈光度和瞳距

Place the specimen on the centre of the working stage, rotate magnification knob (or objective cover) to a high power, then turn the knob slowly till you can see clearly image on right eyepiece; Then observe through left eyepiece, adjust diopter if not clear, then turn around the left and right prism house till the interpupillary distance are suitable. If need to change the magnification, just turn around magnification knob (or the objective cover). If necessary, you can adjust head's height by locking knob.

將試樣在工作台的中心，旋轉物鏡到高倍率，然後轉動調焦旋鈕慢慢直到你可以看到右目鏡清晰的圖像；然後通過左目鏡觀察，調整屈光度，使左眼同樣清晰，然後轉動左右棱鏡，直到瞳距是合適的。如果需要改變放大倍率，只需轉動物鏡倍率旋鈕。如果有必要，可以通過調焦旋鈕調節觀測頭部的高度。

6) Battery and adapter 電池和變壓器

This model use battery and AC adapter for power supply. 使用電池和交流電適配器電源。

When use battery, please open battery box and put 3pcs batteries in it. Then close the battery box.

使用電池，請打開電池盒，並置入3顆AAA電池。然後關閉電池盒。

When use AC adapter, please input the plug to the socket on microscope. 使用AC適配器時需插上鏡座插座。

保修卡

MICROTECH SX-93E-LED實體顯微鏡(標準型) 貨號:2241100001

MICROTECH SX-93S-LED實體顯微鏡(數位型) 貨號: 2241100014

購買日期:

- 1.憑本保修卡自購買日期起，享有一年之維修服務。
- 2.保修期內，我們將先對出現問題的儀器進行判斷，然後決定修理或更換損壞的零部件。
- 3.聲明對出現下列情況的儀器不提供保修:
 - (1)錯誤的操作或人為損壞儀器。
 - (2)儀器的保存不當，造成儀器受潮、發霉。
 - (3)將儀器交給未被授權的人或修理單位修理儀器。
 - (4)購買後因運輸、移動、疏失所造成之故障及損壞。
- 4.產品之燈具零件、燈泡、保險絲為使用耗材,不在保固範圍內。
- 5.超過保修服務期限者，仍可憑保修卡享受本公司完善售後服務，但得酌收材料及工本費。
- 6.本保修卡未蓋店章無效。



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