

后续

CONTINUATION

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SVM-211 USER'S MANUAL

SVM-211 使用说明书

数码生物显微镜

DIGITAL BIOLOGIC MICROSCOPE

温州山度仪器有限公司
WENZHOU SUNDOO INSTRUMENTS CO.,LTD

非常感谢购买SVM-211数码生物显微镜。

SVM-211生物观测分析系统集成了传统目视与数码影像功能。高达280x-2800x的电子放大倍率和40x-400x的光学放大倍率，成像质量优异。选配专业开发的高级图像测量分析软件，能快速精确捕捉各种图像，并具有图像测量、分析及打印等功能。普及型价格定位，操作轻松而简单，提高工作效率。

产品广泛应用于生物、医学、制药、生化研究、美容等领域。

Thank you for your purchasing SVM-211 Digital Biologic Microscope.
SVM-211 Digital Biologic Microscope Measuring System includes Video digital biology microscope and professional image measuring software. It is integrated traditional optic and digital video technology. The electric magnifications is 280x-2800x and the optic magnifications is 40X-400X. The image is very clear. You can capture the image very quickly and exactly by the professional measuring software. It has the image measurement, analysis, printing and so on.
The microscope is applied in Biology, Medicine, Bio-chemistry, Cosmetology, and so on.

装箱清单
Packing List

部件名称 Main body		数量 Quantity
下光源 Background illumination		1
镜座 Lens base		1
消色差物镜 Flat- field achromatic object lens	4x	1
	10x	1
	40x	1
目镜 Flat-field ocular	10x	1
CCD成像系统 CCD Photographic System		1
仪器防尘罩 Dustproof cover		1
使用说明书 User' s Manual		1
装箱单 Package list		1
检验合格证 Certificate		1

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产品概述

SVM-211是单目数码生物显微镜。产品广泛应用于生物、医学、制药、生化研究、美容等领域。SVM-211数码生物显微镜可与CCD成像器件配套使用，实现图像保存、测量、分析及打印等功能。

- 1、SONY高清晰度CCD；
- 2、大工作平台；
- 3、超高工作距离；
- 4、背光、底光双光源；
- 5、Vdio视频输出，选配测量软件实现测量功能。

外形结构



规格参数
Specification

型号 Model	SVM-211数码生物显微镜 SVM-211 Digital Biology Microscope	
成像器件 Pick-up Device	目视系统 Optic System	1/3" CCD Sony
放大倍率 Magnification	40x/100x/400x	280x/700x/2800x
最大倍率对应精度 Accuracy for max magnification	0.5 μ	0.5 μ
最大倍率对应解析度 Definition for max magnification	0.3 μ	0.3 μ
最大视场范围 (mm) Max Sight Field (mm)	8x8	1.1x0.8
显示方式 Display	目视 Eyes Inspect	监视器、电脑、电视、LCD Monitor, PC, TV, LCD
照明方式 Illumination	下置透射光源 Upper illumination	

output connector, insert another AV terminal into the connector on the yellow MMI cable.

2. Monitor, Computer, Video Card, Measuring Software The Measuring Software can provide measuring function, that can measure width, radii, diameter, distance between two lines and angle.

Note: Above accessories should be purchased additionally.

Maintenance

1. When the microscope is not used

Please fix the protector of the lens and cover the dustproof cover. You are advised that stock the lens and base of lens into damp proof container, and place drier and prevent them to be mould.

2. When the microscope is cleaned

Don't touch the optical component with hands. Use soft cotton or brush to clean the lens. You can clean the obstinate dirt as fingerprint, grease and so on with the cotton or lens tissue, which tipped alcohol.

Packing list (view page 12)

规格参数

- 1、规格参数见第11页表；
- 2、粗调范围：17mm；
- 3、微调范围：2mm；
- 4、照明输入电压：220V；
透射光照明：12V10W卤素灯。

注意事项

- 1、切勿拆卸

随便拆卸容易触电及损坏仪器，请不要随便拆卸本说明书所提及的能拆卸的部件之外的任何部件。如果发现仪器有故障，请找有经验的专业修理人员修理，或直接与厂家联系。

- 2、检查电压

- (1) 显微镜底座上标有额定输入电压值，注意当地供电电压必须与其相符。显微镜在非额定电压条件下使用，将会严重损坏。
- (2) 供电插座应有接地线。

- 3、防烫防火

- (1) 在照明期间，灯泡会很烫热，注意不要触及皮肤，以防灼伤。
- (2) 更换灯泡应待灯泡充分冷却之后进行。
- (3) 不要将易燃物质靠近灯泡，以免着火。

- 4、更换灯泡

- (1) 更换灯泡前，必须拔下电源插头，以免触电和损坏仪器。
- (2) 只能使用规定规格的卤素灯泡及荧光灯管。
- (3) 更换灯泡时，应戴手套或用保护套罩住灯泡，不要用手接触灯泡的玻璃部分。更换后，用洁布蘸上纯酒精擦去灯泡玻璃部分的指纹及污迹，否则灯泡易破裂及减弱亮度。

- 5、搬运放置

- (1) 在搬运显微镜前，要关闭电源开关。
- (2) 工作环境要求：

室温：0℃~40℃。

最大相对湿度：85%。

- (3) 避免将显微镜置于日光直射之下或房间灯光之下，明亮的环境会影响标本的成像质量。
- (4) 避免将显微镜放置在有粉尘的环境之中，显微镜不使用时，应用防尘罩盖好。
- (5) 显微镜应平放在无震动的地方。

操作实例

1、从包装箱中取出显微镜即可使用。

2、输入电压检查

检查底座后面或侧面的电器铭牌指定的输入电压与所用电网电压一致条件下，接通电源，电源插座必须有接地端子。

3、转动通光板，可以调节入射光量。

4、转动调焦手轮进行调焦，转动手轮进行微调。

5、CCD的使用

将CCD和CCD接口上的螺纹对接旋紧，即可使用数码影像功能。显示设备接法见下页“选配件”。

6、灯泡的更换

更换灯泡前，请拨下电源插头，同时应待灯泡冷却后进行。

配件选择

1、AV/VGA、XGA转换器+CRT显示器

采用此转换器可获得最高1024x768x75Hz高质量图像，并在CRT上显示，无闪烁，色彩明亮艳丽。

连接方法：

- (1) 将转换器电源接通，并将CRT信号线插头和转换器上的母插头连接。

dip in pure alcohol, on the bulb. Otherwise, the bulb should easy to crack or reduce the Brightness.

5. Delivery and Stock.

(a) The power must be cut off, before remove the microscope.

(b) Operation Environment

Temperature: 0℃-40℃

Relative Humidity: 85%

Operation

1. Take the microscope out of the package, it is available to be used.

2. Check the power supply

The rate input voltage is signed on the pedestal of microscope. The input voltage is according with the rate input voltage. Please connect the power supply as the voltage of power supply is same as the rate input voltage.

That will damage the microscope; the microscope is operated with the rate voltage. 2) The socket must be with earth.

3. Turn the diaphragm board to adjust the brightness.

4. Turn the focus adjusting knob to adjust the focus, turn the knob 12 to adjust focus rigor

5. Correct the screw of CCD to the CCD connector, then fasten it. You can use the Photographic system.

6. Change the light bulb

Please cut off the power before change bulb, prevent electric shock or damage the microscope. Take off the cover of the slant illumination after the bulb be cold. Pull out of the halogen bulb then change it.

Optional Accessories

1. AV/VGA, XGA-transfer card + CRT monitor

The XGA-transfer card can provide hi-definition image, display on CRT, without flash and with bright and flamboyant picture.

Connecting Step:

(a) Attach the power, Connect the CRT's signal plus with the transfer card's connector.

(b) Inert MMI signal provide with the instrument into the reciprocal connector on the transfer card, attach Ac cable with Photographic lens'

Specification

1. Parameters(view Page 11).
2. Rough adjusting range: 17mm.
3. Nice adjusting range :2mm.
4. Input voltage:220v
Transparent Illumination:Halogen bulb.

Cautions

1. Do not disassemble the microscope.
To reduce the risk of electric shock, do not remove the parts, which are not described to be removed in the manual. If the microscope is in trouble, refer servicing of quality service personnel.
2. Check the Power
 - (a)The rate input voltage is signed on the pedestal of microscope.
The input voltage is according with the rate input voltage. If the voltage of power supplied is not accord with the rate voltage, please ask the experience personnel to open the cover on the pedestal, turn The switch, which have a symbol 110V~220V. Select the voltage same as the power supply, then fix the cover on the pedestal. Or refer Service with the service personnel. That will damage the microscope; the microscope is operated with the rate voltage.
 - (b) The socket must be with earth.
3. Prevent the Fire or Scald
 - (a) During the bulb provides illumination, it is in high temperature. Pay more attention to do not touch the bulb to prevent be scalded.
 - (b) When you change the bulb, please wait for the bulb is cold.
 - (c) To prevent fire, do not take tinder close to the bulb.
4. Change the Light Bulb
 - (a) Please cut off the power before change bulb, prevent electric shock or Damage the microscope.
 - (b) The halogen bulb or fluorescent lamp is only applied with
 - (c) When you change the bulb, please wear gloves or pack the bulb with cover. Do not touch the glass part of the bulb with hand. After change the bulb, please sweep the finger mark or dirty with clean soft cloth

(2) 将转换器配套MMI线插入转换器相应接口，再将AV连接线一头插入摄像头AV输出接口，另一头插入MMI线引出的黄色接口，其它插头空闲。

2、显示器+电脑主机+视频采集卡+测量软件

使用测量软件可获得显微测量功能，可进行宽度、圆半径/直径、线间距，线间角度等测量。

连接方法：

将视频采集卡插在电脑主机PC插槽上，并安装视频采集卡驱动程序和选配件测量软件。然后将AV连接线一头插入摄像头AV输出接口，另一头插入视频采集卡AV输入口。

保养及维修

1、显微镜不使用时

请拧上镜头保护盖并用防尘罩盖好，贮放在干燥的地方。建议将镜座和目镜保存在防潮容器中，并放干燥剂以免生霉。

2、集光镜的清洁

不要用手接触光学零件。最好用柔软的刷子或纱布清除灰尘。比较顽固的污迹和指纹、油脂等，可用干净的软棉布、擦镜纸蘸上无水酒精擦拭。

包装清单（见第12页表）

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Function

SVM-211 Digital Biology Microscope Measuring System includes Video Digital Microscope and professional image measuring software. It is integrated Traditional Optic and Digital Video Technology. The microscope is Inspected with not only Optica inspection but also connect with video device that provide the image for inspection of many persons in same time. The software can be used in catching the image, saving the image, Measuring sample, Printing data, and so on. The microscope is applied with biology, medicine, bio-chemistry research, and so number SONY

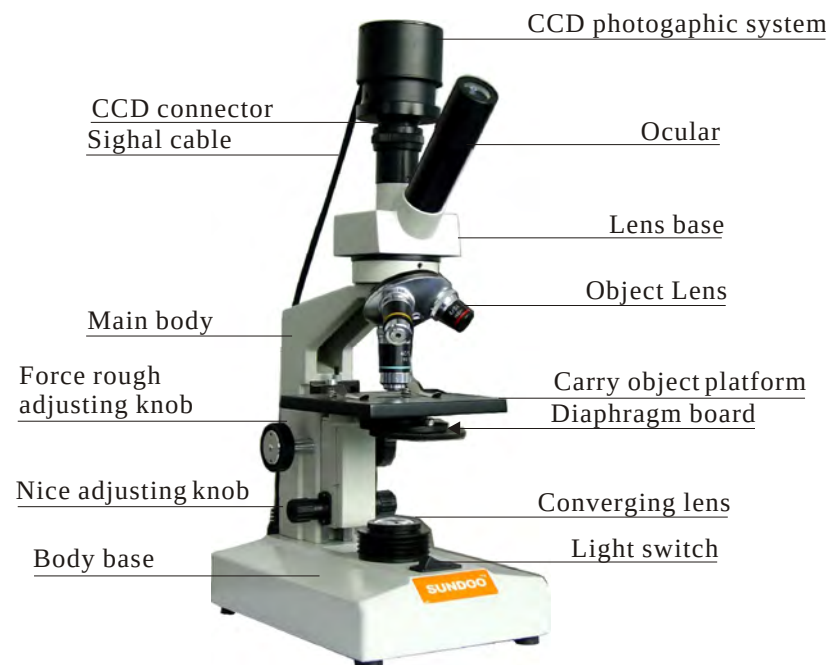
Hi-definition CCD Camera.

Large Stage Version.

Background Illumination.

Video Signal Output, Adapter Connected with PC Monitor.

Structure





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