

赛克数码<sup>®</sup>  
**SAIKEDIGITAL**  
www.saikedigi.com

**SK2700H/P 2300P** 工业显微镜（专业一体机）  
Industrial digital microscope  
(A professional all-in-one)

**用户手册** Users manual

SKDIGITAL

SPC

新一代

ShenZhen Saike Digital Technology Exploiture Co.,ltd.

亲爱的顾客: Dear customer

借此机会赛克数码感谢您购买SK2000系列产品。请仔细阅读本用户手册,并妥善保管以便日后参考。

I am glad to take this opportunity to thank you for buying our Microscope series product Please read this user's manual and keep it carefully for your reference in the future.

## 安全注意事项 Safety Cautions

### 警告 Warning

- ◆不能随意拆卸显微镜及部件。如发现仪器有故障,请找有经验的专业修理人员修理,或直接联系赛克数码的售后服务人员。
- ◆Taking apart the Microscope series product or its parts by yourself is forbidden. If find any fault in the instrument, please find a professional maintenance personnel to get it repaired, or you can directly contact Saikedigital's after-sales worker.
- ◆显微镜是一种精密仪器,操作应谨慎,任何震动或不规范操作都有可能致损坏。
- ◆Microscope is a kind of precision instrument, please operate it carefully, any shake or nonstandard operation may cause damage to the Microscope series product.
- ◆在搬动显微镜观察时,请您务必断开连接的所有电缆。
- ◆When move the Microscope series product, please remember to disconnect all the power connected to the product.
- ◆清洁仪器之前,请拔出电源插头。勿使用液体或喷雾清洁剂擦拭电源部分。
- ◆When clean the instrument, please pull out the power plug. Please remember not using liquid or spray cleaner to wipe the power part.
- ◆为了减少对显微镜的干扰,请您务必使用我们推荐的部件。
- ◆In order to reduce the interference to the Microscope series product, please do remember using the recommended parts.

### 安全性 Safety

- ◆显微镜备有12V电源,可连接220V电源插板,请保证接地可靠。注意当地供电电压必须与其相符。
- ◆Microscope series products have ground socket, if your machine doesn't have such socket, you need to install one and ensure the safety of it.
- ◆仪器在非额定电压条件下使用将会严重毁坏。
- ◆The instrument would be seriously damaged if it is used in a non-rated voltage.

本用户手册适用于SK2000系列工业显微带屏一体机您所操作的产品部件等都可能与本用户手册中的图例略有不同。

本用户手册信息如有改变,恕不通知。

Product you are operating may have some difference with the pictures in this user's manual.  
For any change of the above parameters, please acknowledge that we will not otherwise notify you.

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## ► 工作环境 Working environment

- ◆ 放置显微镜的工作平台，要求桌子水平、稳固、无晃动。  
The operating table of SK2700H/P series products shall be flat, stable and without any shake.
- ◆ 室内温度：0℃---40℃  
Indoor temperature: 0-40℃
- ◆ 室内湿度：不大于60%  
Indoor humidity: ≤60%
- ◆ 将显微镜远离腐蚀、震动和强磁场。  
Put Microscope series products away from corrosion, shake and strong magnetic field.
- ◆ 用于显微镜的室内灯光，建议使用可调整无频闪的灯源环境，将外界光源干扰减少到最低。  
It is suggested to use the adjustable and stroboflash free light for indoor lighting for the Microscope series products to reduce the exterior light source interference to the minimum.
- ◆ 避免热辐射。 Avoid heat radiation.
- ◆ 避免高压电辐射。 Avoid high voltage radiation.
- ◆ 避免结露现象。 Avoid fogging phenomenon.
- ◆ 避免暴露于雨中或潮湿环境中。 Avoid being exposed to rain or humid environment.

## ► 显微镜的放置

## Placement of Microscope series products

- ◆ 显微镜在不使用时，请用塑料罩盖好，并贮存在干燥的地方。  
When not using Microscope series products, please cover them with plastic cover, and keep them in dry places.
- ◆ 监视器 Monitor
- ◆ 监视器的色彩、亮度、对比度都会影响到显微镜的显示效果。  
The color, brightness and contrast will affect the display effect of the Microscope series products
- ◆ 显微镜的显示方式支持监视器、电脑、液晶屏、电视机；本说明书以8寸显示屏为例。  
The display mode of the Microscope series products are applicable to monitor, computer, LCD screen and TV set. In this user's manual, we take the 8-inch monitor as an example.



## 定期检查 Regular inspection

- ◆ 为保持仪器的性能，建议进行定期检查。  
In order to maintain the performance of the machine, it is suggested to conducting regular inspection.

产品介绍  
Product introduction

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## SK2700H/P 2300P工业显微

SK2700工业显微镜是SK2000的补充,属于中型平台。其平台尺寸为280\*250mm,工作半径为130mm,物件最大允许高度为80mm,配带环形光源照明。适用于观察尺寸在280\*250\*80mm范围内的各类物件,特别是片状、板状物件和中小型立体物件。与SK2000A相比,SK2700平台窄而略长,亦为黑色台面的暗场环境,市场定位非常接近,仅取决于被观察物件形状特征与工位安排需要。应用于消费电子、微电子、小五金、中小型塑料制品生产等需要。

工业显微镜,又名工业视频显微镜、工业数码显微镜、单筒显微镜、CCD显微镜等。系列属于赛克数码的中低倍模组化产品线,这条产品线派生出众多型号的产品,其中最为常用的产品型号有:SK2000、SK2100、SK2200、SK2300、SK2400、SK2500、SK2600、SK2700、SK2900等。每个型号又因配置镜头的倍率不同而分为A、B、C三种,A型镜头倍率为19\*-135\*倍;B型为38\*-270\*倍;C型为特制倍率的镜头(定制),因此派生出SK2000A、SK2000B、SK2000C等产品,其它型号以此类推。

SK2000系列工业显微镜是在原SK2004和SK2005基础上开发的,是一个产品族系庞大的产品线,可以派出近千种差异性产品。这些产品可以满足于不同行业、不同材质、不同物件、不同工位安排的差异性需要。SK2000系列产品全部使用了高像质连续变倍镜头,变倍比从原SK2004的1:3、SK2005的1:6.3,提升为1:6.9。同时,具有了齐焦能力(即在变倍中,图像不发虚,无须对焦)。SK2000系列是一条常规产品和系统集成产品的产品线,不仅支持现有模组进行自选配置,还支持模组构件的定制和系统集成。

The industrial microscope of SK2700P is the supplement of SK2700P. It belongs to a middle-sized platform. Its platform dimension is 280\*250mm, with the work radius of 130mm. The maximum allowable height of the article is 80mm. It is equipped with ring light illumination. It is applicable to observe various articles within the dimension range of 280\*250\*80mm, especially the flake, plate, small-and middle-sized three-dimensional articles. Compared with SK2700P, The platform of SK2700P is narrower and

详细介绍  
Detailed introduction

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## SK2700H/P 2300P工业显微

longer. Besides, it is dark environment with the black platform. The market positioning is quite close to each other. It only depends on the shape feature of the observed articles and the demands of the station. It is applied in the demands of several domains, such as consumer electronics, micro-electronics, hardware, plastic products, etc.

The industrial microscope is also named as industrial video microscope, industrial digital microscope, monocular microscope, CCD microscope, etc. The series of SK2700P belongs to the middle-and low-power modularization product line of SAIKE Digital. This production line derives many types of products, among which, the most common types are as follows: SK2000, SK2100, SK2200, SK2300, SK2400, SK2500, SK2600, SK2700, SK2900, etc. Due to the different multiplying power of the allocated lens, each type is divided into three kinds, i.e. A, B and C. The multiplying power of the lens of Type A is 19\*-135\* times; that of Type B is 38\*-270 times; Type C is the lens (customized) with the exclusive multiplying power. Therefore it derives the products of SK2000A, SK2000B, SK2000C, etc. Other type can be analogized according to the rule.

The industrial microscope of SK2000 series is developed on the basis of the original SK2004 and SK2005. It is a production line with a giant product family. It also can derive almost thousands of different products. These products can meet different demands of different industries, materials, articles, and station arrangement. All products of SK2000 series adopt continuous zooming lens with high-quality image. The zooming ratio is increased to 1:6.9 from 1:3 of SK2004 and 1:6.3 of SK2005. Meanwhile, it has parfocalization ability, namely, during the zooming, the image is not blurring and it does not need focusing. SK2000 series is a production line with conventional products and system-integrated products. It not only supports the existing modules to conduct optional configuration, but also supports the customization and system integration of the module components.

## 简明操作步骤 Operation steps

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### SK2700H/P 2300P工业显微

- ◆拆箱: 将SK2700H/P主机从包装箱中取出, 放置在不震动的平台上。检查包箱内物件是否与发货清单相符。
- ◆安装: 连接主机上的中转线, 中转线连接视频信号线、电源线, 显示屏连接电源、信号线, 安装环形灯。
- ◆开机: 检查仪器与显示屏的视频信号线是否连接; 检查CCD电源、显示屏电源是否接电, 并保证接地可靠; 打开环形灯开关。
- ◆检测: 放置工件, 根据工件材质调节灯源, 更换倍率等。
- ◆关机: 关闭已开启灯源, 关闭显示屏。
- ◆Unpackin: Take the SK2700P main processor out of the packing container, place it on a shake free table. Check whether the contents in the packing container are the same with the packing list.
- ◆Installation: Check whether you have bought the loop lamp, if yes, please install it according to the part of "Install the loop lamp";
- ◆Startup: Check whether the instrument is connected with the video cable of the monitor, check the CCD power, put on the power of the monitor.
- ◆Testing: placing workpiece, override, etc.
- ◆Shutdown: out off the power and shut down the monitor.

## 拆箱 Unpack

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### SK2700H/P 2300P工业显微

在拆箱之前, 请检查发货仪器型号是否与购买仪器型号相同。如果不同, 请联系赛克数码客服中心。

在拆箱时, 请检查包装箱内物品是否与发货清单相符。如果不同, 请联系赛克数码客服中心。

取出产品主机, 并将它放置在不震动的平台上。注意: 取出主机时, 应使用双手握住主机立柱取出, 避免用手握住镜头取出。

Before unpacking, please check the delivered instrument model is the same with that you have bought. If not, please contact Saikedigital's customer service center.

During the unpacking, please check whether the contents in the packing container are the same with the packing list. If not, please contact Saikedigital's customer service center.





标准的附件  
Standard accessories

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SK2700H/P 2300P工业显微

打开包装, 可看到以下标准的附件:  
主机1, 8寸显示屏1, 用户手册1, 电源控制盒1, 环形灯1, 连接线1套。  
After the unpacking, you will see the following standard accessories: Microscope host, user's manual, power control box, ring light, Signal lines, the power cord



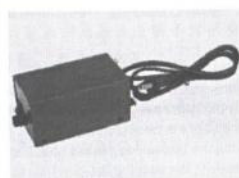
SK2700HS3  
Microscope host SK2700HS3



SK2700H  
Microscope host SK2700H



SK2700P  
Microscope host SK2700P



电源控制盒1套  
Power control box



连接线1套  
Power control box



LED环形灯1个  
ring light

专业一体机

标准的附件  
Standard accessories

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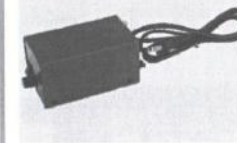
SK2700H/P 2300P工业显微



SK2700PD  
Microscope host SK2700PD



SK2300P  
Microscope host SK2300P



电源控制盒1套  
Power control box



连接线1套  
Power control box



LED环形灯1个  
ring light

专业一体机

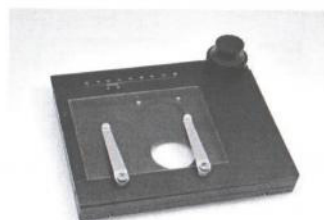
可选附件  
Optional accessories

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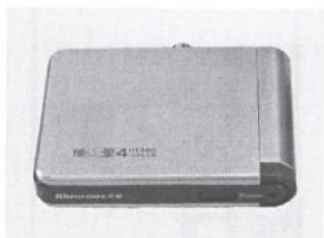
SK2700H/P 2300P工业显微

可向本公司购买以下附件：  
Customers can choose to buy the following accessories.

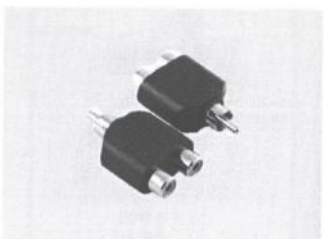
移动平台  
Mobile platform



AV转USB转换器  
AV-USB image box



AV一分二转接头  
One-split and two-transfer joints of AV



结构图  
Structure Chart

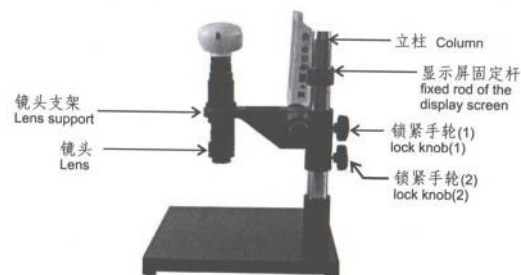
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SK2700H/P 2300P工业显微

正面图 Front View



侧面图 Side view



安装  
Installation

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SK2700H/P 2300P工业显微

一、装机 Transfer cable jointing

1. 取出底座及镜体支架, 将镜头组装入支架中, 锁紧 (如图1-3)  
Take out the support bottom seat and mirror body support, assemble the lens into the support, and fasten.
2. 取出显示屏支架, 装柱锁紧 (如图4);  
Take out screen supporting rods, assemble it into the column, and fasten.
3. 取出显示屏, 卡槽位对准固定件滑入, 锁紧 (如图5-6).  
Take out screen, align card slot with fixing member and slip into it, and fasten.



图1 picture1



图2 picture1



图3 picture3

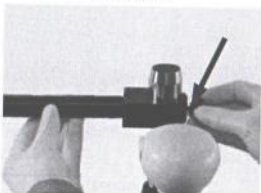


图4 picture4

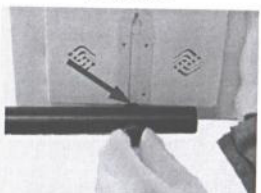


图5 picture5

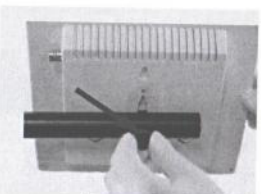


图6 picture6

专业一体机

安装  
Installation

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SK2700H/P 2300P工业显微

二、连线、接电 Line connection, electricity connection

1. 取出电源控制盒、环形灯、连接线, 分别将环形灯与一分二电源线的主端连接至电源控制盒上 (如图1)  
Take out the power source control box, ring light, connecting line, and respectively connect the ring light and the main terminal of the one-to-two power line to the power supply control box.
2. 将中转线USB端接入CCD后座USB端口 (如图2);  
Connect transfer line USB port with CCD backseat USB port.
3. 将信号线的另一端连接至显示屏的AV端口 (黄色插孔) (如图3);  
Connect the other end of the signal line with the AV port of screen (yellow jack)



图1 picture1

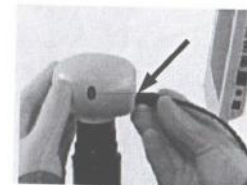


图2 picture2



图3 picture3



图4 picture4

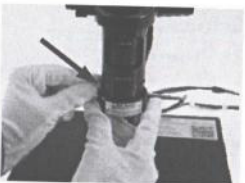


图5 picture5



图6 picture6

专业一体机

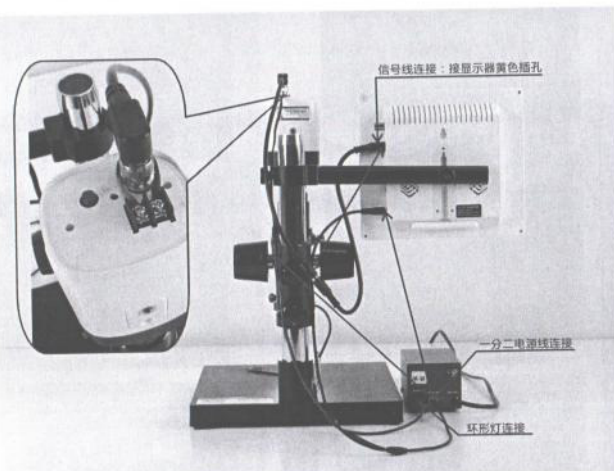


## 安装 Installation

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### SK2700H/P 2300P工业显微

- 4、将一分二电源线的1/2端连接至显示屏的DC端口(如图4);  
Connect 1/2 terminal of the one-to-two power line to DC port of screen
- 5、取下镜头防尘盖, 将连接好的环形灯套入镜头底端居中锁紧(如图5);  
Remove the dustproof cover of the lens, set the bottom of the ring light at the middle of the lens, and fasten
- 6、将电源控制盒的电源插头接入220V电源插座  
Connect the power supply control box plug into 220V power supply socket
- 7、将电源控制盒的开关拨至“I”, 旋转控制盒旋钮可调光源明暗度(如图6)  
Dial the switch of power supply control box to “I”, and rotate control box knob to adjust the brightness of the light source



SK2700HS3连线

专业一体机

## 调节 Adjust

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### SK2700H/P 2300P工业显微

#### 一、高度调节 Height adjustment

托住镜头支架, 松开锁紧旋钮, 上下调整镜头合适高度后锁紧(如图1-2);  
倍率越小, 视场越大; 倍率越大, 视场越小。  
Hold up the lens holder, loose the lock knob, and lock it after adjusting the proper height of the lens from up and bottom (Picture 1-2);  
the smaller the magnification, the larger the field of view; the greater the magnification, the smaller the field of view.



图1 picture1

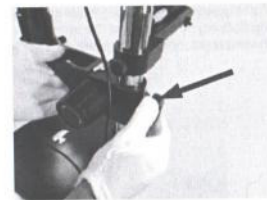


图2 picture2



图3 picture3

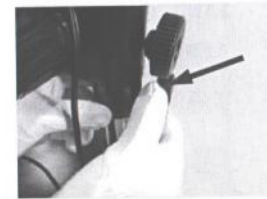


图4 picture4

专业一体机

#### 二、限位锁定 Spacing locking

托住限位环, 松开锁紧旋钮, 调整至镜头支架下方锁紧(如图3-4)。  
Hold up the spacing ring, loose the locking button, adjust it to the down part of the lens holder and lock it (Picture 3-4).

调节  
Adjust

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SK2700H/P 2300P工业显微

三、倍率调节 Image adjustment

1. 将工件放入镜头下方，旋转镜头倍率环，调节所需倍率；  
Put the work piece under the lens, rotate the multiplying power ring of the lens, and adjust the required multiplying power;



图1 picture1



图2 picture2

2. 旋转调焦手轮对焦，直至屏幕图像清晰（如图3）。倍率环上的倍率数0.67与指标线对齐时，为最小倍率；4.6为最大倍率。  
Rotate the focusing hand wheel till the screen image is clear (Picture 3). When the multiplying power number 0.67 on the ring aligns at the index line, it reaches the minimum multiplying power; the maximum multiplying power is 4.6.

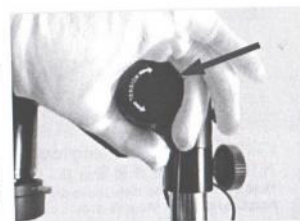


图3 picture3

调节  
Adjust

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SK2700H/P 2300P工业显微

四、显示调节

1. 按接线方式选择视频模式，如为AV视频线则选择“AV1”，如为VGA线则选择“VGA”，按“MODE”键选择“AV1”或“VGA”（如图1）；
2. 按“MENU”键-“亮度”-“VOL+”或“VOL-”调节适合的亮度（如图2-3）；
3. 按“MENU”键-“CH+”或“CH-”-“对比度”-“VOL+”或“VOL-”调节适合的对比度（如图4-5）；
4. 关机，按“POWER”键（如图6）。

1. Select video mode according to the connection mode, such as selecting "AV1" for AV video cable, selecting "VGA" for VGA cable, pressing "MODE" key to select "AV1" or "VGA" (Picture 1).
2. Press "MENU" to select "brightness", and then press "VOL+" or "VOL-" to Adjust the brightness of suits (Picture 2-3).
3. Press "CH+" or "CH-" to adjust the proper contrast ratio (Picture 4-5)
4. To turn it off., Press the "POWER" button(Picture6)



图1 picture1



图2 picture2

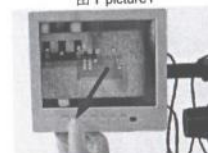


图3 picture3



图4 picture4



图5 picture5



图6 picture6

附录

注: AV-USB图像盒为选购件

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## SK2700H/P 2300P工业显微

### AV-USB图像盒的连接 The connection of AV-USB image box

1. 拿出AV-USB图像盒(如图1-2);
2. 取出AV一分二转接头, 分别连接显示屏与USB图像盒(如图3-4);  
注: 此连接方法可同时双屏显示, 如只需单屏显示则取下一分二转接头, 将显微镜直接与图像盒连接。
3. 将USB线另一端连接电脑主机USB端口, 连接完成图像盒蓝灯亮(如图5)。注: 请勿使用延长线



图1 picture1

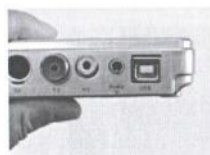


图2 picture2

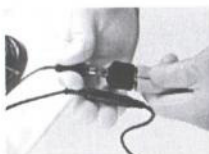


图3 picture3

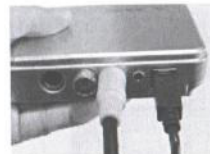


图4 picture4

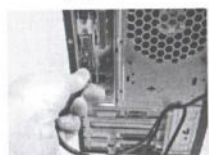


图5 picture5

注: 系统要求  
基本配置P4-1.8G, 128M内存, 支持OVERLAY显示的显卡, 500M空闲硬盘空间,  
WIN78 XP, DIRECTX9.0, 一个空着的USB2.0接口(推荐使用P4-2.4G或以上, 256M内存  
或以上, 支持OVERLAY显示的显卡, 1G以上空闲硬盘空间, WIN78 XP,  
DIRECTX9.0C, 一个空着的USB2.0接口(推荐使用P4-1.8G, 128M内存, 支持OVERLAY显  
示的显卡, 500M空闲硬盘空间, WIN78 XP, DIRECTX9.0, 一个空着的USB2.0接口(推  
荐配置P4-2.4G或以上, 256M内存或以上, 支持OVERLAY显示的显卡, 1G以上空闲硬  
盘空间, WIN78 XP, DIRECTX9.0C, 一个空着的USB2.0接口  
Remark: system requirements  
Basic configuration  
P4-1.8G, 128M memory, support the graphics card of OVERLAY display, 500M of unoccupied  
hardware space, WIN78 XP, DIRECTX9.0, a vacant USB2.0 port.  
Recommended configuration  
P4-2.4G or above, 256M memory or above, support the graphics card of OVERLAY display,  
above 1G vacant hardware space, WIN78XP, DIRECTX9.0C, a vacant USB2.0 port.

### AV-USB图像盒的驱动安装及使用 Driver installation and usage of AV-USB image box

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1. 放入驱动光盘, 双击鼠标进入安装文件(如图1)。  
Put into the driver disc, double-click the mouse and enter into the installation file (Picture 1).



图1 picture1

2. 选择USB系列(如图2)。  
Select USB series (Picture 2).



图2 picture2



SK2700H/P 2300P工业显微

3. 选择UT340(如图3).  
select UT340 (Picture 3).

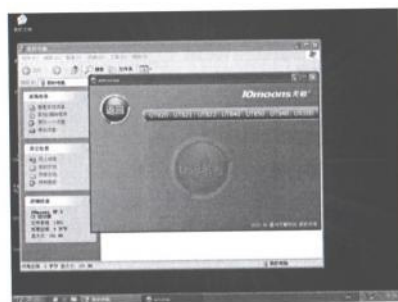


图3 picture3

4. 点击驱动程序, 开始安装(如图4).  
Click driving program, and start the installation (Picture 4).



图4 picture4



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5. 选择语言, 点击下一步(如图5).  
Select language, and click the next step (Picture 5).

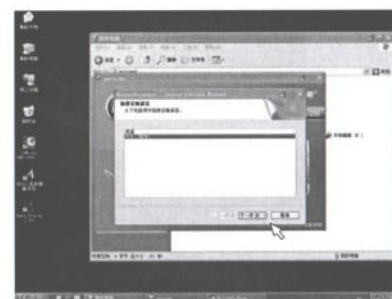


图5 picture5

6. 继续下一步(如图6).  
Continue the next step (Picture 6).



图6 picture6





## SK2700H/P 2300P工业显微

- 7、完成驱动程序安装，重启电脑(如图7)。  
Complete the driver program installation and restart the computer (Picture 7).

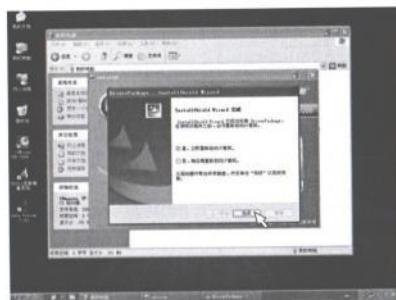


图7 picture1

- 8、重启电脑后安装应用程序(如图8)。  
Install the application program after restarting the computer (Picture 8).



图8 picture8



## SK2700H/P 2300P工业显微

- 9、选择全部，点击下一步(如图9)。  
Select all and click the next step (Picture 9).

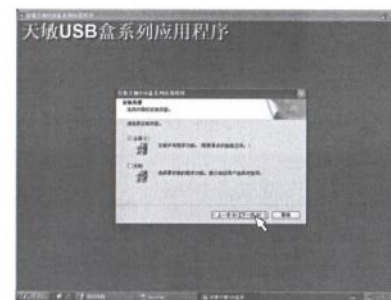


图9 picture9

- 10、继续下一步至完成安装(如图10)。  
Continue the next step till the installation is completed (Picture 10).



图10 picture10



### SK2700H/P 2300P工业显微

11. 程序安装完成，双击桌面上的软件图标(如图11)。  
Complete the program installation, and double-click the software icons on the desk (Picture 11).



图11 picture11

12. 初始化设置，选择“中国”，点击“下一步”(如图12)。  
Conduct the initialization setting, select "China", and click "next step"(Picture 12).



图12 picture12



### SK2700H/P 2300P工业显微

13. 初始化完成(如图13)。  
Complete the initialization (Picture 13).

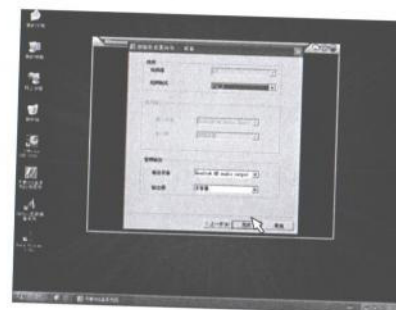


图13 picture13

14. 点击“切换视频源”，将界面默认的“TV”转为“AV”(如图14)。  
Click "Switch video source", and transfer "TV" defaulted by the interface to "AV" (Picture 14).

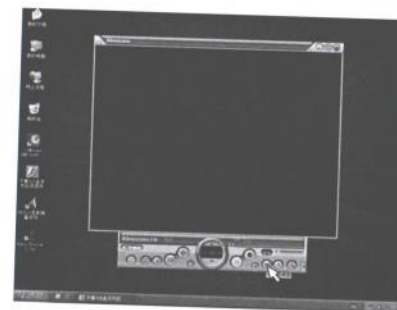


图14 picture14



### SK2700H/P 2300P工业显微

15. 点击“设置”(如图15).  
Click "setting" (Picture 15).



图15 picture15

16. 进入设置面板, 选择“视频”, 按显示需求调节“亮度”、“对比度”等, 输出解析度默认“720\*576”(如图16).  
Enter into the setting panel, select "video", and adjust "brightness" and "contrast ratio" according to the display demands, output the resolution, and default "720\*576" (Picture 16).

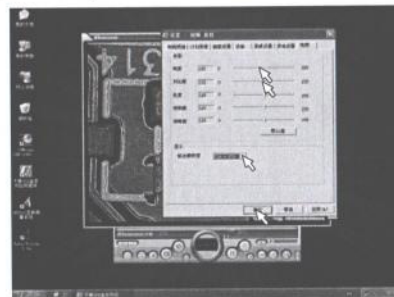


图16 picture16



### SK2700H/P 2300P工业显微

17. 点击“录像设置”, 可设置图片“存储路径”、“抓图格式”等, 设置完成点击“确定”(如图17).  
Click "Video setting". It is feasible to set the "storage path", "screenshot format" and so on of the pictures, and click "Yes" after the completion of setting (Picture 17).



图17 picture17

18. 单击鼠标右键, 可设置显示或隐藏面板、窗口大小等(如图18).  
Click the right mouse button. It is feasible to set displaying or hiding the panel, window size, etc(Picture 18).

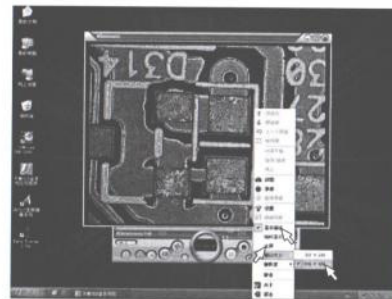


图18 picture18

AV-USB 图像盒的补充  
Supplement of AV-USB  
image box

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## SK2700H/P 2300P工业显微

1、如软件安装完成后不能正常使用，请参照“AV-USB图像盒的安装及使用”1-4步操作后，选择“修改”，点击“下一步”（如图1）。  
If the software cannot be normally used after installation, please refer to "installation and usage of AV-USB image box". After the operation of Step 1-4, select "modification" and click "next step" (Picture 1).

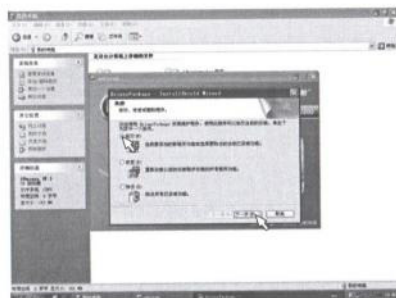


图1 picture1

2、按电脑系统选择适配位数，点下一步至完成安装（如图2）。  
Select adaptive digits according to the computer system, and click the next step till the completion of the installation (Picture 2).

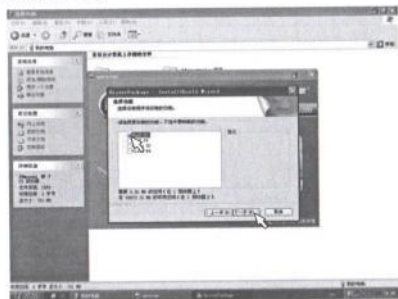


图2 picture2

AV-USB 图像盒的补充  
Supplement of AV-USB  
image box

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## SK2700H/P 2300P工业显微

3、如需卸载重装，请参照“AV-USB图像盒的安装及使用”1-4步操作后，选择“除去”，点下一步直至完成（如图3）。  
If the uninstalling and reassembly are needed, please refer to "installation and usage of AV-USB image box". After the operation of Step 1-4, select "Remove", and click the next step till the completion (Picture 3).

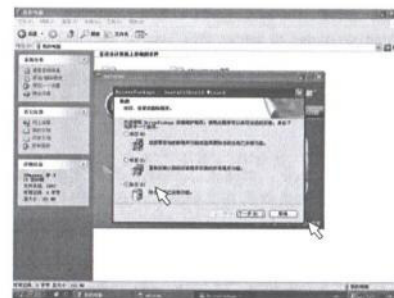


图3 picture3

4、重启电脑后，进入电脑“控制面板”-“添加删除程序”，卸载图像盒的应用程序，完成后重新安装软件，参照“AV-USB图像盒的安装及使用”。  
After restarting the computer, enter into the computer "control panel" - "adding and removing programs", uninstall the application program of the image box, reinstall the software after completion, and refer to "installation and usage of AV-USB image box".



## 选择照射光源 Choose the light carrier

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### SK2700H/P 2300P工业显微

根据各种材料对光线的敏感程度不同，在同样的光照条件下，材料的成像质量也会不同，而成像质量的好坏直接影响到测量的精度。为了更好地发挥测量仪器的性能，针对不同材料的工件选择正确显微方式及合适的光照。

According to the different sensitivities of various materials to light, under the same light, the imaging quality of different materials is also different and directly affects the accuracy measured. In order to better give play to the measuring instrument's performance, it is required to choose the correct microscopic imaging method and proper light according to the workpieces made of different materials.

#### 透明工件:

如玻璃、透明的塑料工件等，对透光工件建议使用透射的显微方式，即关闭环形灯。同时根据成像效果在监视器上对图像进行亮度、对比度及颜色调节。

#### Transparent workpiece:

Non-transparent workpiece: It is suggested to use penetrating microscopic imaging method, that is, close the loop lamp, for workpieces made of glass or transparent plastics. Meanwhile, adjust the brightness, contract and color of the images on the monitor according to the effect of the images.

#### 不透明工件:

如金属等，对不透明工件建议使用正射的显微方式，即打开环形灯。同时根据成像效果在监视器上对图像进行亮度、对比度及颜色调节。

#### Non-transparent workpiece:

It is suggested to use orthographic microscopic imaging method, that is, open the loop lamp, for workpieces made of metal. Meanwhile, adjust the brightness, contract and color of the images on the monitor according to the effect of the images.

## 阶梯零件的对焦方法: Focusing ways of ladder parts:

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### SK2700H/P 2300P工业显微

阶梯零件的对焦方法是根据工件被观测要素的高低面决定的，当对焦时，所有被观测要素在一个平面高度时，使用一次对焦方法，就可将工件影像的被观测要素置于最清晰状态；而当被观测要素不是处于一个平面高度时，需要使用二次对焦方法。

#### 一次对焦方法:

阶梯零件的一次对焦方法即所有的被观测要素都在一个高度相等的平面上，只需要一次对焦操作即可，它与普通对焦相同。

#### 二次对焦方法:

1、先找准被观测要素的第一个面，并对焦，直至清晰。注意：记住对焦操作的最后一次方向，如往上或是往下，供观测被观测要素的第二个面时使用。

2、然后找准被观测要素的第二个面，并对焦，直至清晰。注意：对焦操作的最后一次方向，一定要与第一个面的，最后一次对焦方向相同。如第一个面的最后一次对焦方向是往上，那么这里的最后一次方向也是往上。

The focusing ways of ladder parts depends on the high and low surface of the observed elements of the work piece. When all observed elements are on the height of a plane during the focusing, it is feasible to put the observed elements of the work piece image on the clearest status through.

one-time focusing: when the observed elements are not on the height of the a plane, it is necessary to adopt two-time focusing. One-time focusing: the one-time focusing of the ladder parts refers that all observed elements should be on the plane with the same height, and it is only necessary to adopt one-time focusing, which is the same as the common focusing. All observed elements are on the plane with the same height.

#### Two-time focusing method:

1. Capture the first surface of the observed elements, and focus it till it is clear. Please note that it is important to memorize the final direction of the focusing operation, such as upward or downward, which is applied for observing the second surface of the observed elements.

2. Capture the second surface of the observed elements, and focus it till it is clear. Please note that it is important to memorize the final direction of the focusing operation, it should be the same as the final focusing direction of the first surface. If the final focusing direction of the first surface is upward, the final direction is also upward.

清洁  
Clean the main processor

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## SK2700H/P 2300P工业显微

## 主机清洁 Clean the main processor

使用柔软的刷子或纱布清洁灰尘。对于更多的较顽固的污渍，如指纹、油脂等，可以用干净的软棉布，镜头纸或纱布蘸上汽油轻轻地擦拭。  
Use soft brush or etamine to clean the dust. For more and obstinate smudginess, such as fingerprint, grease, use clean soft cotton cloth, lens tissue or etamine which are dipped with gasoline and wipe gently.

## 镜头清洁 Clean the lens

取下镜头，使用棉签或镜头纸带有3:7的乙醚、乙醇混合液擦拭镜头(如右图)  
Take down the lens, use cotton bud or lens tissue dipped with mixed liquid of diethyl ether and ethylalcohol (3:7) to wipe the lens (as shown in the right figure)



大项目赠品(如图)  
Gift for large project (as shown in the figure below)



注：促销时赠品  
Remark: gift during the sales promotion

常见故障  
Common faults

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## SK2700H/P 2300P工业显微

## 1、显示屏内无图像显示(黑屏)

- 检查SK2700H/P的CCD电源与显示屏电源是否正常供电。
- 检查显示屏是否在开启状态(按POWER键)。
- 检查视频线的连接是否正常。
- 检查显示屏的“亮度”。

## 2、屏幕图像出现有规律的波纹

- 先排除干扰源，检查附近是否有其他电器干扰等。
- 确认干扰后，现象仍然存在，检查视频线连接是否正常。

## 1. No image displayed in the monitor (blank screen)

- Check whether SK2700P's DC12V power supply is in normal condition.
- Check whether the monitor is got started.
- Check whether the video cable is connected.
- Check whether the monitor's brightness is adjusted to the highest degree.

## 2. There are regular waves on the images.

- Get rid of interrupting source at first. Check whether there are other electrical appliances which may cause interference.
- After ensuring that there is no interference, if the waves still exist, check whether the video cable is connected.

公司简介  
company profile

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## SK2700H/P 2300P工业显微

赛克数码是一家集成研发、生产、销售为一体的中国最具影响力创新百强企业。研发了生产了国内首台数字化影像测量仪、首台全自动影像仪，首套显微测量软件，一直致力于开发生产最前沿的尺寸测量仪器与设备，更高速、更精准、更便捷。基于产品平台战略和丰富的CCB构件库，独特的快速成型与量产工艺能力，亦为非标定制型高速影像测量设备、工业显微装置和在线监测设备的首选企业。

赛克数码是《影像测量仪国家标准》起草单位，主要产品又全自动影像测量仪、在线高速测量仪、触摸屏检测设备，提供非标定制的全新模式。涵盖了缺陷检查、尺寸测量和基于机器视觉自动作业的人工智能型现代光学仪器，广泛运用于微电子、电子、PCB、LCD、精密加工、五金塑胶、科研院所等。10年来，赛克数码以优良品质和周到服务，赢得了包括中科院、“神六”课题组、凤凰光学、LG飞利浦、索尼、TCL、美国Minicircuits等众多科研院与知名企业的信赖，并远销美国、韩国、马来西亚、台湾等多个国家和地区。

Saikedigital is a most influential top 100 innovative enterprise, integrating research and development, production and sales. It ever researched and developed the first digital image measuring instrument, the first full-automatic imager and the first micro measuring software of China, it has been committed to produce and develop the most advanced size measuring instruments and equipment, which are faster, more accurate and convenient. The special rapid prototyping and mass producing ability, which are based on the product platform strategies and rich CCB component warehouse, also make it become the first choice for purchasing non-standard rapid prototyping measurement instrument, industrial micro device and online Saikedigital is the enterprise that drafted the National Standard for the Image Measuring Instrument, its main products include full-automatic image measuring instrument, online rapid measuring instrument, touch screen testing equipment, providing a brand-new model of non-standard customization. The Company provides artificial intelligent instruments for defect checking, size measuring and auto-operation based on machine vision, mainly being applied in micro-electronic, electronic, PCB, LCD, precision finishing, hardware plastic and scientific research institutes, etc. For the 10 years since its foundation, Saikedigital has won trust from many scientific research institutes and famous enterprises as the Chinese Academy of Sciences, "Shenzhou VI" research group, Phenix Optical, LG Philips, Sonny, TCL and American Minicircuits, and its products are exported to many countries and regions as the United States, South Korea, Malaysia and Taiwan.

公司简介  
company profile

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## 赛克大事记

- 2003.05 中国第一套显微测量软件——显微宝问世  
The first micro measuring software of China was made
- 2004.07 中国第一台全数字化影像测量仪——SK4002A问世  
The first full-digital image measuring instrument - SK4002A of China was made
- 2004.11 SK4002A销往上海凤凰光学股份有限公司  
SK4002A was successfully sold to Shanghai Phenix Optical Company Limited
- 2004.12 SK4002A销往中国工程物理研究院，成为“神六”研发基地设备  
SK4002A was successfully sold to Shanghai Phenix Optical Company Limited
- 2005.10 组建“赛克数码无尘化总装厂”，开始规模化生产之路  
Established the Saikedigital Dust-free Assembly Plant and started the road of mass production
- 2005.11 数字化影像测量仪开始销往美国本土  
The digital image measuring instrument began to export to America
- 2007.05 中国第一台全部自主知识产权的全自动影像测量仪问世  
The first full-automatic image instrument with full independent intellectual property rights of China was made
- 2007.08 荣膺“中国最具影响力百强创新企业”  
Saikedigital was honored with the title of "The Most Influential Top 100 Innovative Enterprise in China"
- 2008.04 参加影像测量仪国家标准起草工作  
Participated in the draft of the National Standard for the Image Measuring Instrument
- 2009.03 被推荐位创业板150“候选企业”  
Saikedigital was recommended as "The GEM 150 Candidate Enterprises"
- 2009.04 批量向iphone手机屏生产提供高速测量仪  
Started the mass production of rapid measuring instrument for iphone
- 2009.10 研发ipad触摸屏高速测量仪  
Researched and developed the ipad touch screen rapid measuring instrument
- 2010.05 批量生产新一代飞针测试机机芯  
Started the mass production of the new generation of flying probe tester module
- 2010.09 负责起草的《影像测量仪国家标准》正式发布  
The official publish of the National Standard for the Image Measuring Instrument
- 2013.12 荣获中国机械工业科学技术奖  
Science and Technology Award of Chinese Machinery Industry

## 赛克荣誉客户

美国minicircuits公司  
American minicircuits company  
Malafoe Electronic pte ltd(新加坡)  
Malafoe Electronic pte ltd (Singapore)  
日本索尼东莞宏德电子有限公司  
Japanese Sonny Dongguan Wintec-HD Electronics Equipment Co., Ltd.  
中国工程物理研究院  
China Academy of Engineering Physics  
中科院理化技术研究所  
Technical Institute of Physics and Chemistry, CAS  
中科院北京电子研究所  
Institute of Electronics, CAS (Beijing)  
中科院兰州化学物理研究所  
Lanzhou Institute of Chemical Physics, CAS  
中科院长春光学精密机械物理研究所，“神六”课题组  
Changchun Institute of Optics, Fine Mechanics and Physics,  
上海凤凰光学股份有限公司  
CAS (Shenzhou VI Research Group)  
TCL国际电工(惠州)有限公司  
Shanghai Phenix Optical Company Limited  
北京LG、飞利浦电子有限公司  
Beijing LG, Philips Electronic Co., Ltd.



# 如何登陆我们的网站上查看相关产品介绍? How to log in our website to read the product introduction

第一步: 打开IE, 在地址输入我闪的访问地址: www.saikedigi.com  
登录我们的网站。点击“产品中心”进入产品中心页面, 里面包括所有赛克工业  
显微产品的图像和介绍 (如下图)  
Step 1: Open the IE, input our website address (www.saikedigi.com) at the address bar and log  
in our website. Click "product center" and enter the product center page, which including  
pictures of and introductions to allsaikedigital industrial microscope products (as shown in the  
figure below).



专业一体机

第二步: 选择产品类别, 点击产品图进入, 可以查看到相关产品的详细信息。  
Step 2: Choose the product type, you can enter by click, then you will see the detailed information about  
Product.

## 客服中心 Customer Service Center

客服电话: 0755-83645515

Technical hotline: 0755-89962830

技术热线: 0755-89962830

Fax: 0755-85210073

传 真: 0755-85210073

电 邮: c2105@saikedigi.com

E-mail: c2105@saikedigi.com

地 址: 深圳横岗窝肚工业区

Address: Wodu Industrial Park, Henggang, Shenzhen China

## 网站

您可以通过访问赛克数码公司网站 (www.saikedigi.com) 上获取相关信息。  
You can get relative information by visiting our website (www.saikedigi.com).



本用户手册适用于KS2700H/P 2300P...等  
This User's Manual is applicable to SK2700H/P 2300P...etc  
(SK2000系列工业显微镜通用)  
(applicable to SK2000 series industrial microscopes)

for use  
SK2700  
SK2700P  
SK2700H  
SK2700V  
SK2700PD  
SK2700HD  
SK2700VD  
SK2700D  
SK2300  
SK2300P  
SK2300V  
SK2300PD  
SK2300VD

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