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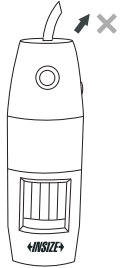
ISM-PM200SB Digital microscope

OPERATION MANUAL



## Attention

1. The USB power supply voltage to microscope should be  $5V \pm 0.1V$ . When voltage is lower, the microscope may not work.
2. When microscope is not in use, please install focus supporting ring to protect the lens.
3. Don't pull the cable.



4. Use the button the software in order to take clear pictures. When using the button on the microscope to take pictures, the microscope may shake and the pictures may be blurred.

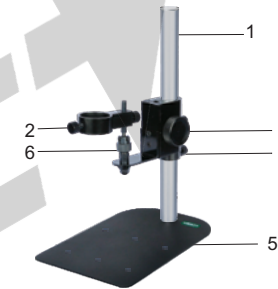
5. After using the microscope, please turn off the power of microscope before pull it from the computer USB port.

## 1 Description

ISM-PM200SB can be used for observation, photograph, video, measurement and analysis. It is connected to computer via USB port, and comes with software ISM-PRO.

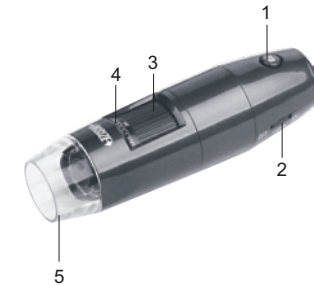
## 2 Description of each part

### 2.1 Stand



- 1 Column
- 2 Locking screw
- 3 Focus adjustment
- 4 Fix ring
- 5 Base
- 6 Universal head

### 2.2 Digital microscope



- 1 Take picture
- 2 Illumination adjustment
- 3 Magnification adjustment
- 4 Magnification indication
- 5 Focus supporting ring

### 2.3 Focus supporting ring

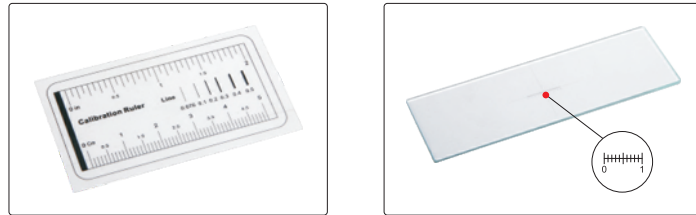


Focus support ring for 80X/150X magnification



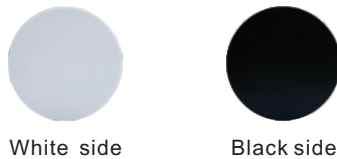
Focus support ring for 60X/200X magnification

2.4 Calibration rule



Calibration rule (graduation 1mm) Calibration rule (graduation 0.1mm)

2.5 White/black plate



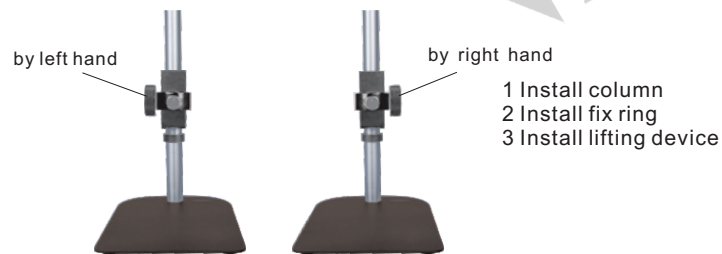
White side

Black side

Please use white/black plate in order to observe objects clearly. Put the white objects on black side of plate and put black objects on the white side of plate.

3 Using digital microscope with the stand

3.1 Install the stand as follows:

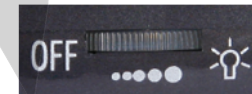


- 1 Install column
- 2 Install fix ring
- 3 Install lifting device

3.2 Take off the focus supporting ring. Insert the digital microscope into the hole and fix it with the locking screw. Let the magnification indication face to you.



3.3 Connect the microscope to the computer USB port, and turn on it as the below picture. Run the software, the image will appear on the computer screen.



3.4 Read the magnification indication. For example, the magnification is 40X in fig.1. The magnification is 70X in fig.2. The magnification is 200X in fig.3.



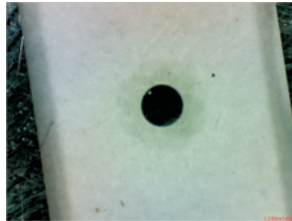
3.5 The below table shows the relationship among magnification, focus distance and view field.

Magnification	Focus distance	View field
10X	125mm	20x25
20X	62mm	12.63x15.79
30X	32mm	10x12.5
40X	28mm	8x10
50X	25mm	6.49x8.11
60X	18mm	5.11x6.39
70X	15mm	4.44x5.55
80X	13mm	3.87x4.84
90X	11mm	3.53x4.41
100X	9mm	3.16x3.95
120X	12mm	2.73x3.41
150X	13mm	2.11x2.64
200X	18mm	1.5x1.88

### 3.6 Choose view filed and adjust magnification

Move the white/black plate to let the object be in the view filed. In order to get high magnification, please adjust the magnification gradually.

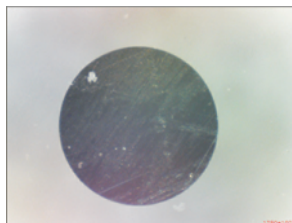
a Put the object under the microscope and set the magnification at low value. Rotate the focus adjustment to focus the object.



b Increase the magnification, the image will be blurred. Rotate the focus adjustment to focus the object again.



c Repeat step b, until the object is full of the view field.



### 4 Using digital microscope without the stand

Install the focus supporting ring. Set the magnification at 60X or 200X when focus supporting ring is 60X/200X. Set the magnification at 80X or 150X when focus supporting ring is 80X/150X. Let the focus supporting ring contact the object, turn the magnification adjustment slightly to make the image clear.



### 5 Specification

Magnification	10X-200X
Pixel	1.3M (resolution: 1280x1024)
Illumination	built-in adjustable LED
Power supply	USB 2.0 cable (voltage required: 5±0.1V)

### 6 Standard delivery

Digital microscope	1pc
Universal Stand	1pc
White/black plate	1pc
Focus support ring for 80X/150X	1pc
Focus support ring for 60X/200X	1pc
Calibration rule (graduation 0.1mm)	1pc
Calibration rule (graduation 1mm)	1pc
ISM-PRO software disc	1pc