

Global Sources 307-B Electron Microscope



# Global Sources 307-B Electron Microscope User Manual

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**Global Sources 307-B Electron Microscope**



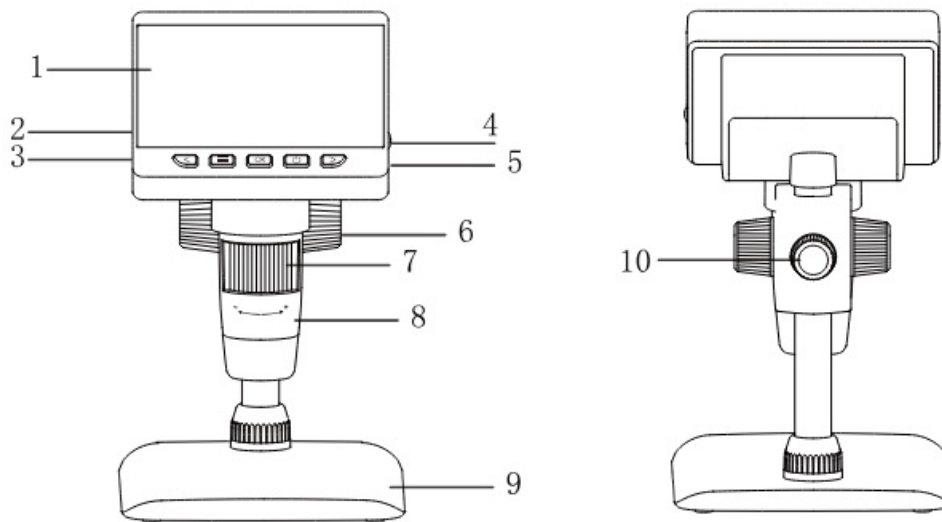
## **PREFACE**

Thank you for purchasing this device. This product is complex to use, so please read this manual in detail to understand how to operate the microscope before using it.

## **IMPORTANT NOTES**

1. Please fully charge the device before first use. Do not charge directly via the PC. Please choose the 5V 1A adapter.
2. For the first use, please format the memory card.
3. The best focal length of the microscope is 0-40mm, so you need to adjust the focal length through the adjustment roller to get the clearest view.
4. This device cannot accurately read the microscope magnification. It is a combination of digital and optical magnification microscope, the specific magnification effect is subject to the actual picture taken.
5. Please do not touch the lens and other optical parts with your hands, as this may result in blurred images and affect the image quality.
6. Do not disassemble the product or its components to avoid abnormal use of the device.

## PRODUCT DESCRIPTION



- 1. 4.3" display
- 2. Micro TF card slot
- 3. USB power output
- 4. LED adjustment wheel
- 5. Reset hole
- 6. Roller A
- 7. Focus Adjustment Roller (Roller C)
- 8. Microscope tube
- 9. Base
- 10. Wheel B

## FUNCTIONS

### Key functions



- 1. Power button: Short press to enter and exit file playback mode, long press to switch on and off.
- 2. OK button: Short press to take a picture, long press to enter video recording mode, short press again to start recording, and short press to stop recording.
- 3. menu/return key: short press to enter the advanced setting page or return to the photo preview page. In the advanced settings page, you can view or set the language/date and time/screen saver / light source frequency/format/default settings/version
- 4. zoom out/left key: short press to zoom out in photo mode, long press to rotate. In other modes, move up or left.
- 5. zoom in/right key: in photo mode, short press to zoom in. In other modes, move down or right.

### Other functions

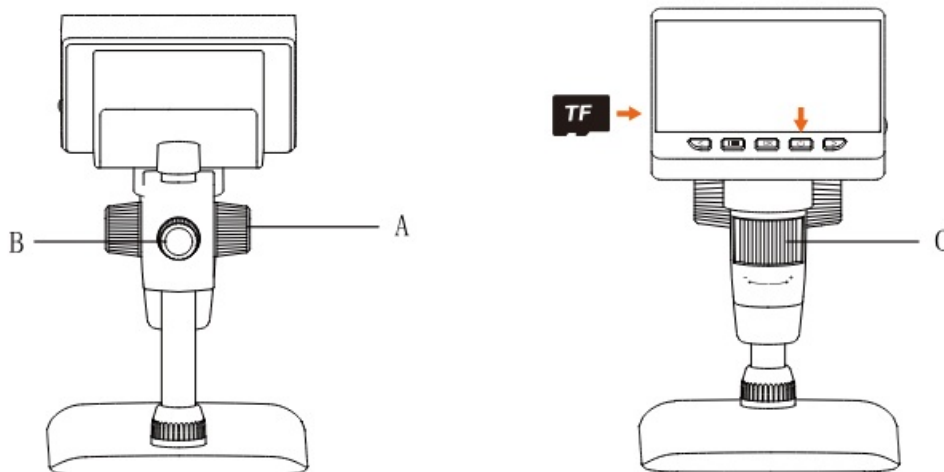
- 1. Micro TF card slot: up to 32G U3 high-speed memory card with a write rate of 25M/S or more, formatted as

FAT32.

2. USB power output: DC 5V/1A for power supply or data transfer.
3. Focus adjustment roller: adjusts the focus by rotating the roller, thus changing the sharpness of the image.
4. LED adjustment wheel: adjusts the brightness of the light source of the main unit.
5. Reset hole: When the device is in a dead state, press the reset hole with a thin needle to forcibly shut down the device

## STEPS TO USE

1. Insert the MicroTF card (optional) into the card slot; gently press in until the card is locked, (Note: the MicroTF card must be inserted to record and store pictures and videos) .
2. Long press the power button to turn on the device.
3. Place the object to be observed on the white stage and rotate Wheels A and B to bring the object closer to the microscope barrel.
4. Rotate wheel C left or right for fine focus.
5. When sharp focus is reached, rotate wheel C to lock the object platform.



## MODEL INTRODUCTION

This device is divided into 2 modes and functions, namely:

- Memory mode: connect to PC for TF card reading, writing and formatting. PC camera mode: connect to PC and use through PC software, as the large screen shows more intuitive.

### Memory mode:

Connect the microscope to the computer via a USB data cable, select the storage mode, and then click the OK button to view the stored photos and videos on the computer (the device function buttons will not be available in the storage mode, only the power button and the LED adjustment wheel can use).

### PC camera mode:

Note: When using PC mode,

1. The device menu key will not work.
2. The device will display a blue screen in PC camera mode, which is a normal phenomenon but not a product problem.
3. After connection, if there is no image in the software, please repeat plugging and unplugging the USB data cable or plug it into the USB port behind the computer host.

-Windows systems:

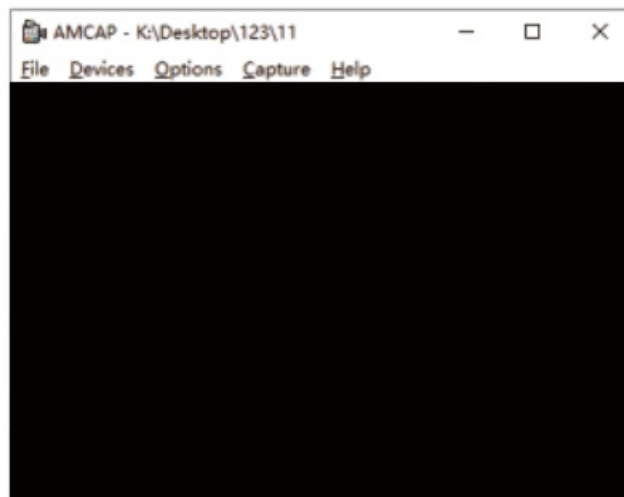
Windows vista/7/8/10 or higher are supported

#### 1. Software installation

1. For WIN 7/8 systems, download and install the AMCAP software.
2. For WIN 10 systems, search directly for the software Windows Camera (Note: Please disable the default laptop camera in Windows! And you must change the camera's privacy settings, which is needed for allowing access.)
3. Or download the application Smart Camera for your computer. Download link:  
[www.inskam.com/download/camera.zip](http://www.inskam.com/download/camera.zip)
4. Connect the USB cable supplied with the microscope to the USB port on the back of the computer case. Press and hold the power button to turn on the device and select to enter PC camera mode.
5. Different software is recommended for different Windows systems, please download the appropriate software for your system.

#### 2. Software page display:

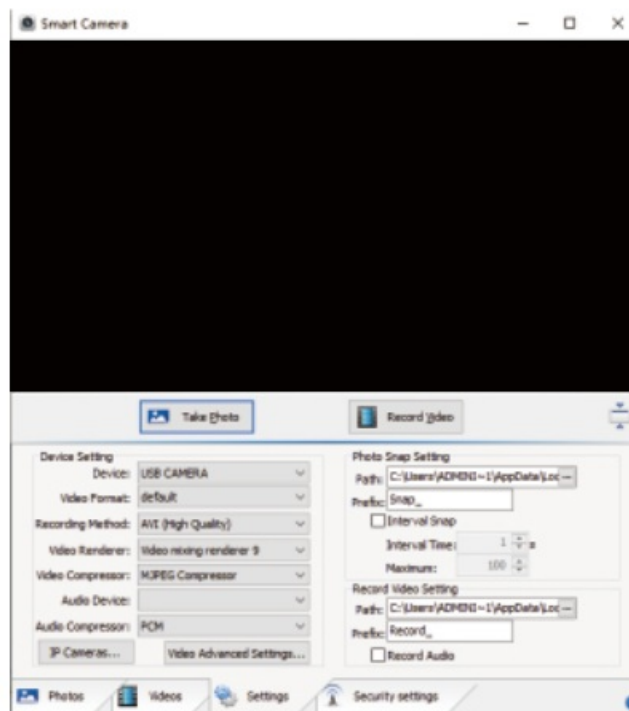
1. AMCAP page, as shown below



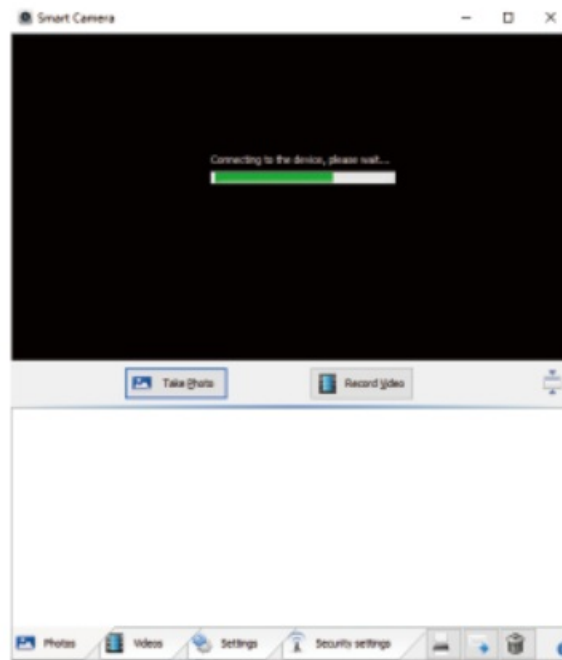
2. Windows Camera page, as shown below



3. Smart Camera page, as shown below



\*Note: The following situation occurs for a long time when connecting the device to the computer using the data cable. You may try the following solutions:



- a. Firstly, please repeat plugging and unplugging the USB cable or plug the cable into the USB port on the back of the computer case to ensure that the device is powered properly.
- b. Secondly, the software may not be compatible with the system, so you can check if you are using the software installation instructions correctly.

#### **MacOS systems:**

MacOS X 11.0 or higher is supported, not available for Apple laptops with Type-c interface.

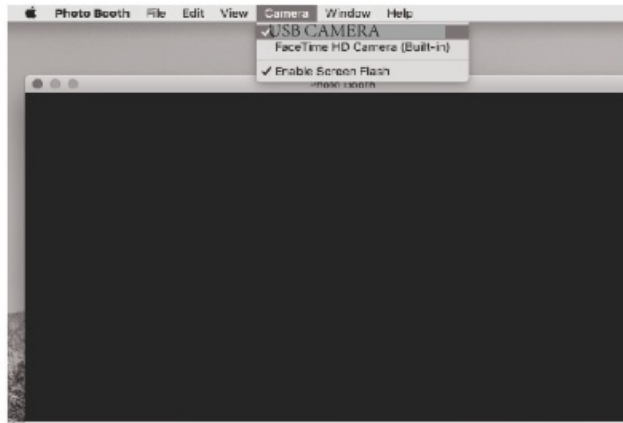
Opening the software (we recommend using the “Photo Booth” software that comes with your Apple computer).

1. Firstly, in the Applications directory of the Finder window, find an application called “Photo Booth”.



#### **2. Connecting device**

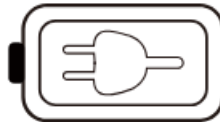
1. Connect the microscope to the USB port of your computer with the USB cable that comes with the microscope, press and hold the power button to turn on the device. Select to enter PC camera mode. Open and run the application “Photo Booth”.
2. Click on Photo Booth and select the camera “USB CAMERA”.



3. You can also use the alternative software “Quick Time Player”.

## CHARGING INSTRUCTIONS

1. Please use 5V 1A power adapter to charge the device.
2. During charging, there will be an indication on the microscope panel. When charging is complete, the battery indication is as shown below.



3. After fully charged, the microscope can be used continuously for up to 6 hours.
4. After the device is completely dead, it needs to be charged with a 5V/1A charger for at least 1 hour before it can be used normally.
5. Do not charge the device with a computer. It will automatically enter PC camera mode.



## TECHNICAL PARAMETERS

Screen parameters	4.3" IPS
Pixels	2 megapixels
Image resolution	1920*1080P
Video resolution	1920*1080P
Magnification	50-1000X
Focus mode	Manual focus (0~40mm)
Image format	JPG
Video format	AVI
Frame rate	30 f / s
Light source	8*LED ((brightness adjustable)
Battery capacity	2000 mA
Operating time	6 hours
Charging time	3hours
Supported systems	Windows vista/7/8/10/11. MacOS X 11.0 or higher
Interface type	USB 2.0

## FAQs

The device cannot be switched on

1. Check whether the battery is charged 2. Check whether the power supply is connected 3. Check whether the device is charged for more than 1 hour without power

The device halts

Use a thin needle to press the reset hole of the main unit to forcibly shut down the device

Black border on the screen

1. Whether the lens is fixed in the middle of the stand? 2. Whether the object being observed is placed correctly

The image is not clear

Make sure that the object under test is correctly positioned under the lens2. Whether the focal length is adjusted to the best position 3. Whether the light is used correctly

Stains or defects on the screen

1. Clean the screen and lens carefully with a soft cloth 2. Whether the surface of the object being measured is dirty 3. Whether the objective table is dirty

The microscope is connected to PC. After successfully downloading and opening software, there's no image.

1. Reconnect the microscope to the PC 2. Make sure that the microscope is in PC mode correctly 3. Whether the battery shows low alarm 4. Whether the data cable is used correctly

The microscope is connected to PC, but it can't read TF card

1. Reconnect the microscope and PC 2. Make sure whether the microscope is correctly entered into the memory mode 3. Whether the memory card is damaged or the format is correct

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## Documents / Resources



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307-B Electron Microscope, 307-B, Electron Microscope, Microscope

## References

- [User Manual](#)

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