

# USB Handheld Microscope

## USER'S Introduction

### Functions and applications

The USB HANDHELD MICROSCOPE is a new electronic product for the micro object observation. It is a tubular imaging system consisting of an optical lens, an image sensor, an illumination mechanism, and an image transfer control circuit connected to a computer. You can display the images captured by the USB HANDHELD MICROSCOPE on the computer screen, store them on the computer, print them, or send them over the Internet.



## **Applications**

As a USB microscope, it can magnify stamps, coins, antiques, insects, electric circuits, machines, hair, skin, fabrics, food, decorations, etc.

## **Attention**

Before installation and use of this product, please read the instructions in this manual to ensure its correct use.

## **Safety instructions**

Before using this product, please carefully read the following safety instructions.

1. The socket that the computer is plugged in must be properly grounded, as the computer supplies power to this product. If in any doubt, please have a professional electrician check and verify the grounding to ensure safety.
2. Never use this product in stormy weather.
3. This product contains delicate and precision components. Be gentle when using it and avoid harsh handling or excessive force that may cause damage to the product.
4. The temperature of the handle increases slightly during use and it feels a little warm. This is normal. If the product is overheated and hot to the touch, immediately cut off the power and contact us for repair.
5. Never leave the product on unattended. Unplug from the USB port after use.
6. Do not disassemble this product. Disassembling this product will result in irreparable damage. The company is not responsible for damage resulting from disassembly of the product by the user. In case of any difficulties in using the product, please contact us.
7. This product may only be used by children under supervision of an adult. Never give this product to a child to use or play by him or herself. Keep this product out of reach of children.
8. Do not let this product come in direct contact with steam, vapor, water, or liquids of any kind. Such contact can cause irreparable damage that is not covered by warranty.
9. When not in use, put the handle in the transparent sleeve and store it in a tightly sealed box to avoid moisture and decay. Damages resulting from

improper storage are not covered by the warranty.

10. The cable with this product has been strictly tested. To ensure safe use, do not replace it.

### **System Requirements**

For best picture quality, the following specifications are recommended:

1. Windows XP, Vista, windows 7
2. 128M RAM or above
3. At least one USB port (For best effect, USB 2.0 port is recommended).
4. CD-ROM and a 40G or higher hard disc.

### **Technical Specifications**

1. DSP: Digital Image Monarch Processor.
2. Sensor: high-quality CMOS sensor, 2MP
3. Resolution: 640\*480, 1600\*1200
4. Colors: true color 24bit (RGB)
5. Interface: USB2.0.
6. Frame rate: 30 frames/sec (when 640\*480).
7. Magnification: about 10X—500X
8. Size: 12mm in diameter,
9. USB cable length: 1.6 meters

### **Installation**

To avoid mistakes in the installation process, please strictly follow these steps:

Place the included CD into the CD-ROM drive.

Find the icon of 'amcap.exe'.

Copy the 'amcap.exe' to your PC. Just copy but never try to install it.

Plug the HANDHELD MICROSCOPE into the USB port, and double click on the icon of 'amcap.exe' to open the image window.

## Directions for Use

Properly connect the USB HANDHELD MICROSCOPE to the computer and to rotate the dial on the USB cable to controls the brightness of the LED on the USB HANDHELD MICROSCOPE. After a short while you should see the image captured by the USB HANDHELD MICROSCOPE on the computer monitor.

## OPEN IMAGE WINDOW

Double click on the icon and open an image window on the screen. After a few seconds the USB HANDHELD MICROSCOPE will begin to take images in the window. Click on 'OPTIONS' and click on 'VIDEO CAPTURE PIN'. Choose one of image window size in the drop-down menu and click on 'OK' to confirm.

## FOCUSING

The focusing ring is at the handle of the USB HANDHELD MICROSCOPE. When the focusing ring is rotated it adjusted the distance between lens and sensor for getting the clear image.

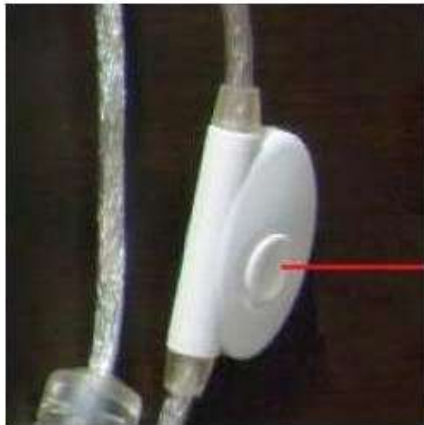
Please keep the head of USB HANDHELD MICROSCOPE tightly and snugly touching the surface of the object during the focusing and observation.



## TAKE PHOTOS



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Push the button of the dimmer that located on the USB cable to freeze an image.

The photos you have taken will be saved in the computer and display an icon on the screen. User may change the location of the photos by:

1. click on 'capture' that on the top of image window (see blow photo) .



2. click on the 'folder' and designate the folder you want to locate the photos

3. click the 'OK' to confirm

**Please keep the "Enable" and "High Resolution" is ticked for the proper snap function.**

**Click on the "Snap" will cause one image freeze.**

Push down the snap key on the handle or push down the button of the dimmer that located on the USB cable to freeze an image. Or click 'snap' on the top of image window, or push down the 'return key' of keyboard to freeze



an image.

The photos you have taken will be saved in the computer and display an icon on the screen.

If your system could not freeze an image please follow steps to make it work:

- 1, Open the image window
- 2, Click on 'capture' on top line of the window
- 3, Click on 'still' in the pull down window
- 3, Click on 'folder'
- 4, Designate the folder for your photos location
- 5, Click right mouse button to confirm

The photos can be taken by push down the button of the dimmer or just push down the return key of the keyboard.

### **LED Light Adjustment**

There is a LED light dimmer on the USB cable. Turning the dimmer can adjust the light power to a proper level according the demand of observation.

With the different display, resolution ratio and contrast, the definition of the picture will be different. So do the light, point of view.



## **MOVIE RECORD**

For making a record of still image please follow below procedures.

- 1, Click on the 'capture' that located on the top line of image window
- 2, Click on the 'set time limit' in the pull down window
- 3, Click on the 'use time limit'
- 4, Input the number of seconds that you want to delay the record
- 5, Click right mouse button to confirm
- 6, Click 'capture' again
- 7, Click 'start capture'
- 8, Click 'ok' to start the recorder

The movie record will be stopped while time is off.

The movie will be saved as the AVI format.

## **Post-Sale Services**

### **Limitations and exclusions**

Please keep all the receipts of your purchase in a safe place. You need to produce the unaltered and original receipts to receive warranty coverage. Otherwise, the warranty is voided.

The warranty only covers the product if it is used under normal operation conditions. However, the following are not covered by the warranty:

Damages resulting from unauthorized disassembly or assembly of the products by the customer

Damages caused by fitting of improper components to the product

Damages resulting from unauthorized attempts to repair or to alter the product

Gross distortion, scratches, discoloration, or damage of the covering

Cracks, scratches, and mold spots on the lens

COMS sensor is burned or apparently scratched

Damages to the PCB board (such as burned PCB board) due to misuse

## Product maintain ( **Dangerous ,beware operating** )

With vigorous shaking, the tiny dust may drop on the imaging sensor. We can't see it with our eyes but it only showed on the picture after microscopic's magnifying, PLS don't repair it unless you have enough professional maintain experience and patience.

If you want to repair it, pls refer the documents below

### ( **Dangerous ,beware operating** )

1. PLS turn left of the camera lens, and do not touch the LED light. Or it will be damaged.
2. PLS safekeep the camera lens, and do not let it touch the alcohol.
3. PLS adjust the focal distance, let the imaging sensor move into a best position. In order to wash easily.

we suggest that adjust the imaging sensor into the nearest distance

4. Dip in a little absolute alcohol with fine cotton swab, using fine cotton swab clean the imaging sensor gently. If you are unexperienced, pls ask the help of the professional. (Notes: Don't dip in too much absolute alcohol, protecting the alcohol from flowing into circuit board and LED light and don't be too strong when cleaning)

5. After confirming dust out, pls turn on the LED light and keep for 15-20min to fast the alcohol volatilization. Because the alcohol will dissolve the glue around the camera lens, pls make sure after volatilization totally, then install the camera lens

If the lens need washing, don't use absolute alcohol. Just clean the lens with cotton swab. To avoid the drop of the lens, pls don't be too strong.

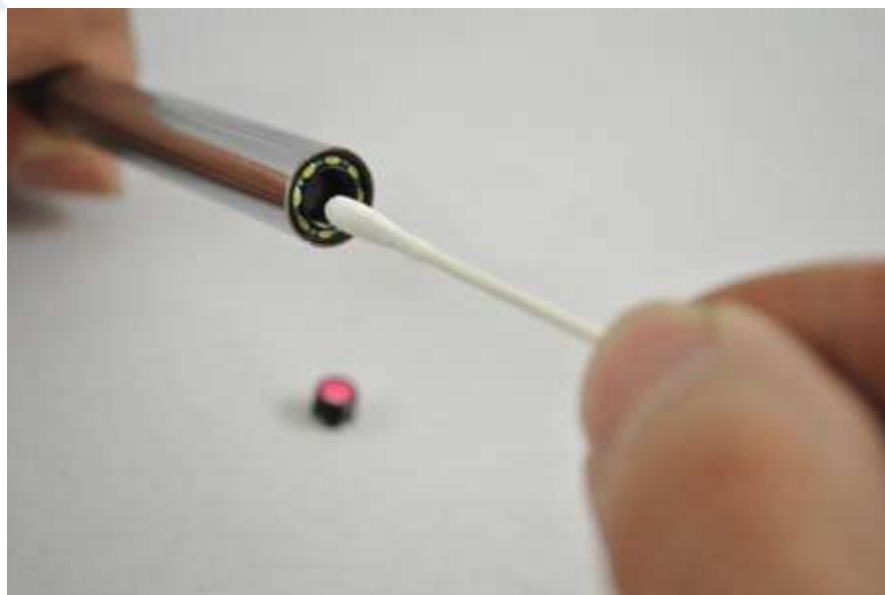
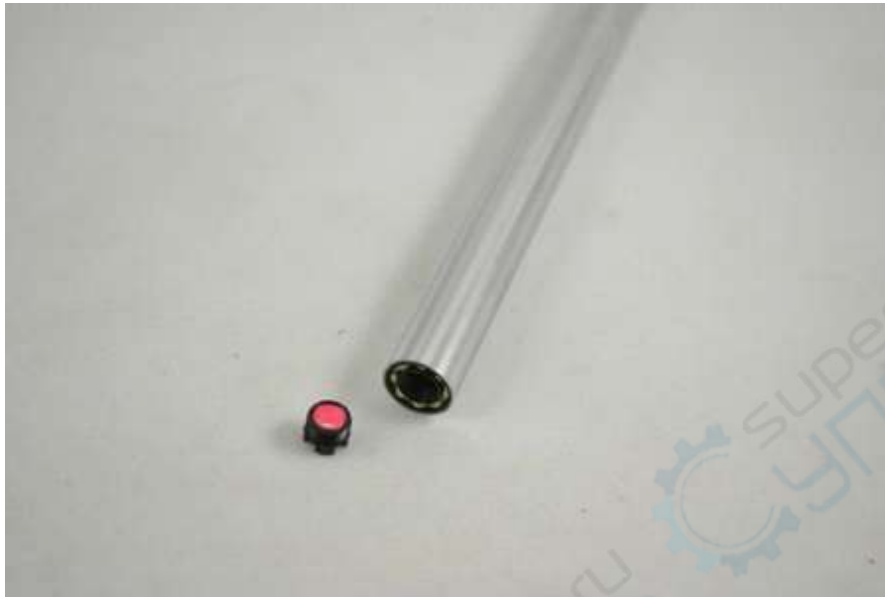
For the unprofessional, it is difficult to maintain. We can't see the tiny dust with our eyes. This work need patience and professional technology.

Unprofessional workers are not suggested to maintain, Any question, pls contact us! We will give you the technology supports then!





**( Dangerous ,beware operating)**



## Repair Service Card

Product model:

Date of repair	
Customer's name phone number	
Description of faults	
Place of repair	
Results	

## Warranty Card

Name of customer	Address of customer
Purchase date	Customer phone number
Product model	Labeling of Sales Company
Serial number	

