

Handheld USB Digital Endoscope/Microscope

eheV1-USBplus

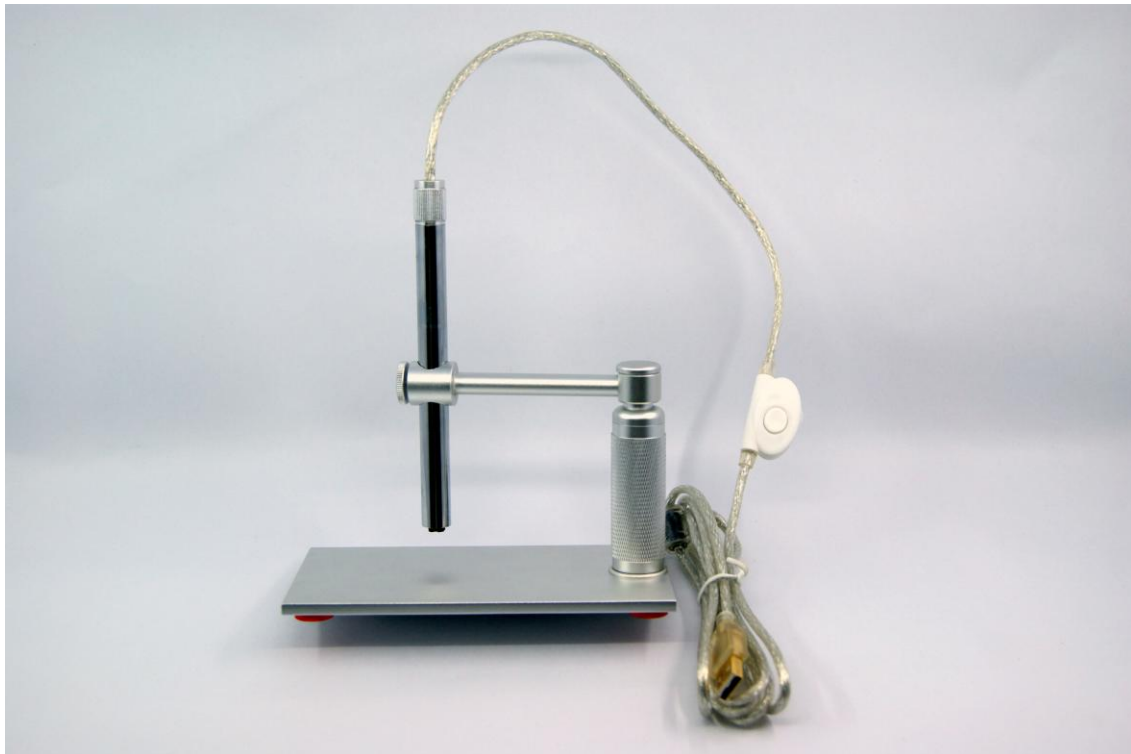
User's Manual



INTRODUCTION

FUNCTIONS AND APPLICATIONS

The USB Digital Endoscope/Microscope is a new electronic product for the micro observations. 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 Endoscope/Microscope on the computer screen, store them on the computer, print them, or send them over the Internet.



As an USB microscope, it can magnify stamps, coins, antiques, insects, electric circuits, machines, fabrics, food, decorations, etc. and can also help visually impaired patients magnify small text for reading. Also it can be used as a PC camera.

ATTENTION

Before installing and using this product, please read this User's Manual carefully to ensure its correct use.



SYSTEM REQUIREMENTS

Windows 7/Vista/XP

TECHNICAL SPECIFICATIONS

1. DSP: High power Digital Image Monarch Processor
2. Sensor: high-quality CMOS sensor, 2.0M pixels
3. Resolution: 640x480, 1600X1200
4. Interface: USB1.1/USB2.0
5. Frame rate: Max 20 frames/sec when resolution 640X480, 4 frames/sec when resolution 1600X1200
6. Focal distance: 5mm - infinity
7. Magnification: 1x - 200x
8. Diameter: 12mm (0.47 inch)
9. Length: 140mm (5.51 inch)
10. USB cable length: 165cm
11. Lighting: 8X LED around the camera lens

PACKING LIST

USB Digital Endoscope/Microscope	1
Adjustable Aluminum Alloy Stand	1
Reflector Tube	1
Multi-function tube	1
Large Focusing Cap	1
Black Specula	1
Software CD (Software and User's Manual included)	1

FUNCTION PARTS

Reflector with focusing ring



Ear tip with focusing ring



Large focusing cap



Multi-function tube with focusing ring inside

SET UP

Take the stand parts out of the box and assemble the stand according to the photo on the right. Insert the endoscope into the holding hole on the top of the stand and then slightly screw down the knob.

Place the included CD into the CD-ROM drive. Find the icon of 'ehe.exe'.

Copy the 'ehe.exe' to your PC (**JUST COPY, NOT INSTALL**).

Plug the endoscope into the USB port, and double click on the icon of 'ehe.exe' to open the image window.

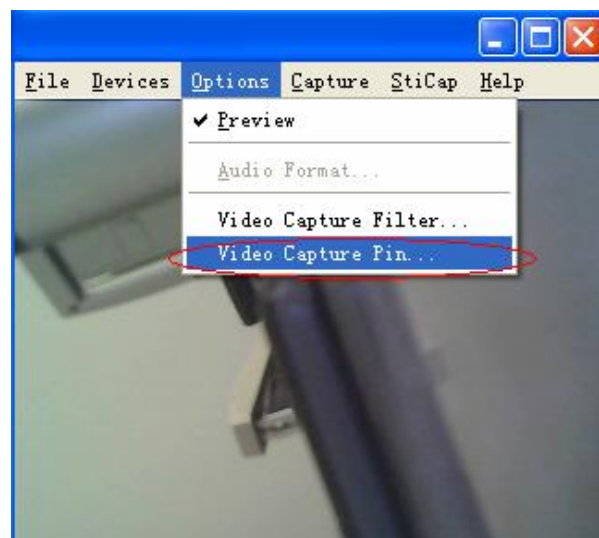


DIRECTIONS FOR USE

Rotate the dial on the USB cable to control the brightness of the LED on the USB endoscope.

After a short while you should see the image captured by the USB endoscope on the computer monitor. Click on 'OPTIONS' and click on 'VIDEO CAPTURE PIN'.

Click one of image window size in the drop-down menu and click on 'OK' to confirm. See below photos:



OPEN IMAGE WINDOW

Double click the icon 'ehe.exe' to open an image window on the screen. After a few seconds the endoscope will begin to take images in the window. If the picture comes from your PC camera or any other device, please click on 'Device' on the top line of the image window and open the pull down menu. Choose the proper USB camera and close the pull down menu.

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

Turn the knob of the endoscope to focus (see below left photo).

The endoscope can be moved up and down by turning the pillar (see below right photo) for getting larger photo area or smaller photo area.



TAKE PHOTOS

Click on 'option' on the top of image window.

Then click on 'high resolution' in the drop-down menu to make sure there is a tick mark here.

Close the drop-down menu.

Push down the button that is located on the USB cable to freeze an image.

Or click 'snap' on the top of image window to take a photo.

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, click on 'file' that is on the top of image window
- 2, click on the 'set photo folder'
- 3, designate the folder you want to save the photos
- 4, click OK to confirm



MORE WAYS TAKING PHOTOS

Click on 'option' on the top of image window.

Then tick off 'high resolution' in the drop-down menu.

Close the drop-down menu.

Now you get below functions:

IMAGE FREEZ

Rap the space bar for freezing an image.

If you want to save this image you can rap the return key for saving the image as a photo.

Rap the space bar again to activate the image window.

TIMING SNAP

Rap the F5 key to arouse a timing snap.

The snap will be delayed 10 seconds after the key was rapped company with beep per second.

If you could not get a clear photo by push down the snap button the timing snap may be a help.

RETURN KEY SNAP

Just rap return key to take a photo.

MOVIE RECORD

For taking a video:

- 1, click on 'video capture'
- 2, click on 'Set Time Limit' and input how many seconds the video you want to take and tick the 'use time limit'
- 3, click on the 'capture' again
- 4, click on 'start capture'
- 5, click on 'OK' to start a record

The video will be taken and stopped automatically when time is out.

The video is an AVI format.

User may move the AVI file to any folder.

USE REFLECTOR

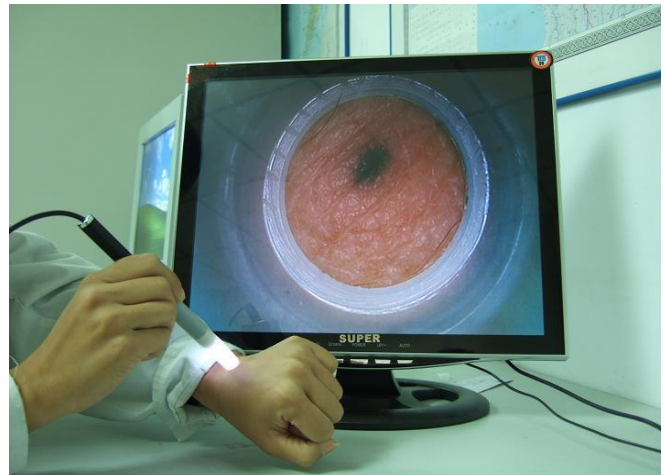
Reflector tube is used for side view of any tubing inspection.

It can also be used for teeth-checking.



MULTI-FUNCTION TUBE

The multi-function tube is used to inspect materials with flat surfaces. The advantage of using a multi-function tube is that when you inspect materials with flat surfaces, you do not need to constantly move the endoscope, and thus constantly adjust the focus. Attach the multi-function tube to the endoscope and press the tube against the surface with the materials you want to view.



You will always maintain a constant distance between the lens of the endoscope and the materials with this attachment.

With the multi-function tube, the distance between the lens of the camera and observed surface is about 25mm.

To use the multi-function tube, focus the edges of the opening at the front end of the lens. This is done by adjusting the focus until you see a sharp edged circle on the screen. The multi-function tube can now be used to inspect the ear canal, nasal cavity, hair roots, skin, etc.

FOCUSING CAP

The focusing cap is used to inspect materials with flat surfaces. The advantage of using a focusing cap is that when you inspect materials with flat surfaces, you do not need to constantly move the endoscope, and thus constantly adjust the focus. Attach the focusing cap to the endoscope and press the tube against the surface



with the materials you want to view. You will always maintain a constant distance between the lens of the endoscope and the materials.

EAR TIP

To use the ear tip, focus the edges of the opening at the front end of the lens. This is done by adjusting the focus until you see a sharp edged circle on the screen. The ear tip can now be used to inspect the ear wax, ear canal, and eardrum, etc.

