

H-CAM

User's Guide



USB Microscope

Version 2.3

MicroLinks Technology Co., Ltd.

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1. Product Introduction

1.1 Packing Contents

Object	Quantity	Object	Quantity
USB Digital Microscope	1	User's Guide	1
Mini USB2.0 Cable	1	Installation CD	1
Microscope Accessories	1+5		

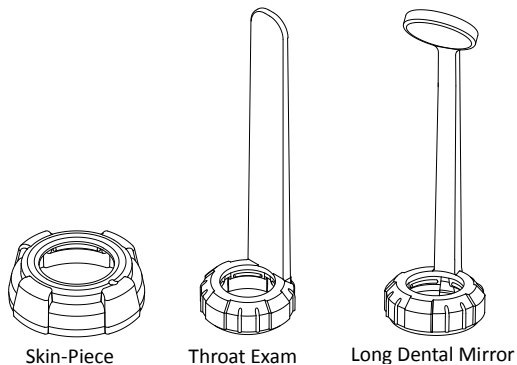
1.2 Microscope Accessories

Except for skin-piece (a general PC material), the materials of the other accessories are adequately for medical devices that can touch the skins and resist steam sterilization at 120 °C .

©Attention : Please disinfect them at first time use , which can choose clean water, alcohol or hot water. Please do not use hot water for Skin-piece.

- a. Skin-Piece: The machine itself has this accessory called Skin-Piece. This accessory can look at skin and hair and must the machine flat on observed object.
- b. Throat Exam: This accessory can look at Mouth and Throat.
- c. Long Dental Mirror : Using Long Dental Mirror can look at the rear teeth.
- d. Short Dental Mirror: Using Short Dental Mirror can look at the front teeth.

- e. Ear-Piece: Using Ear-Piece can look at inside ear.
- f. Ear Wax Removal: Ear Wax Removal can clean ear wax.



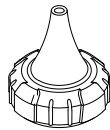
Skin-Piece

Throat Exam

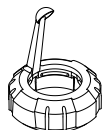
Long Dental Mirror



Short Dental Mirror



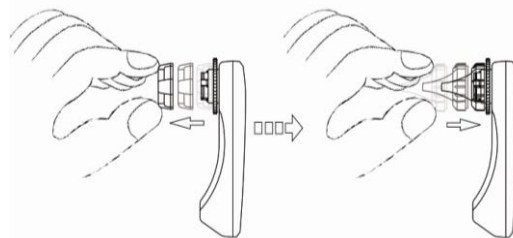
Ear-Piece



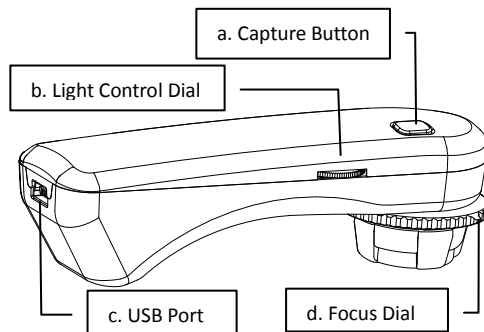
Ear Wax Removal

1.3 Exchange Accessories

These accessories can be changed by hand with different types of pieces.






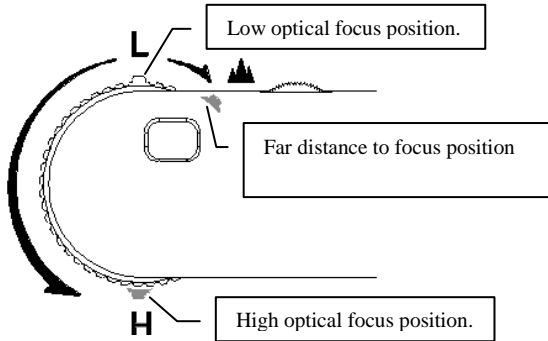
1.4 USB Digital Microscope Function



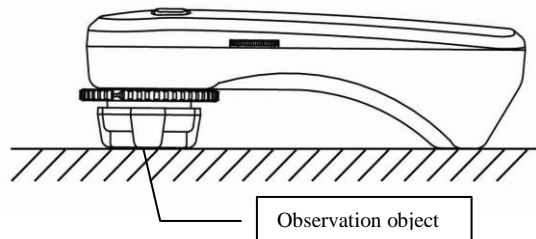
- a. Capture Button: Press the capture button to take picture, which will pass to program.
- b. Light Control Dial: Light control dial can adjust the brightest of LED.
- c. Focus Dial: Focus button \ Adjust magnification and also can adjust the distance just like a video camera.
- d. USB Port: It is USB2.0 port. Please don't connect a different transmission line.

1.5 USB Digital Microscope Operation

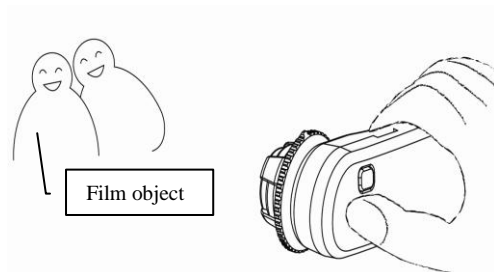
- a. Focus mode: 3 Focus points as L \ H & . L, H, and  are focus positions. L is low magnification, H is high magnification &  is for far distance snapshot.



- b. Flat Mode: Adjust flat mode button to L or H to observer.

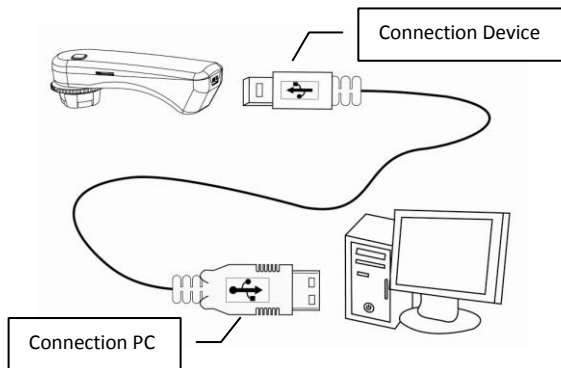


- c. Distance mode: Distance mode is just like a regular video camera to shoot.



1.6 USB Cable

USB lines have two different joint, one is connected to PC (Normal), and another one is connected to Mini 5 pin.



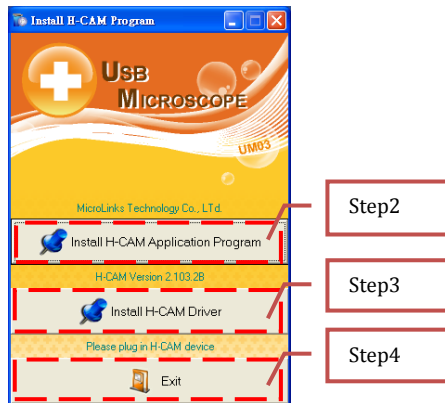
©Attention: Please use the included USB 2.0 cable in the package, and do not use the other extended USB line or transmission line.

2. Installation

For detailed program installation, please refer to the Manual set in the Installation CD (User's Manual). Programs shall be installed according to the following 4 steps:

2.1 Insert Installation CD (Step 1)

Insert Installation CD provided together with the product into CD-ROM Drive. The CD will be read by computer automatically, and the installation window will be displayed:



If the computer does not display installation window, please open the Installation CD and select 「Autorun.exe」 as illustrated in the following image:



If the Installation CD provided together with the product is lost or unknown damaged, please visit <http://www.vitiny.com> to download installation files.

2.2 Install Application Program(Step2)

Please click and select the position of Step 2. Press button of Install **Microscope** Application Program to install H-CAM Application Program.

2.3 Install Driver(Step 3)

Please click and select the position of Step 3. Press button of Install **Microscope** Driver to install H-CAM driving program.

©Attention: Before install driver, please connect USB Microscope Camera to the computer. If not, you can't install the program.

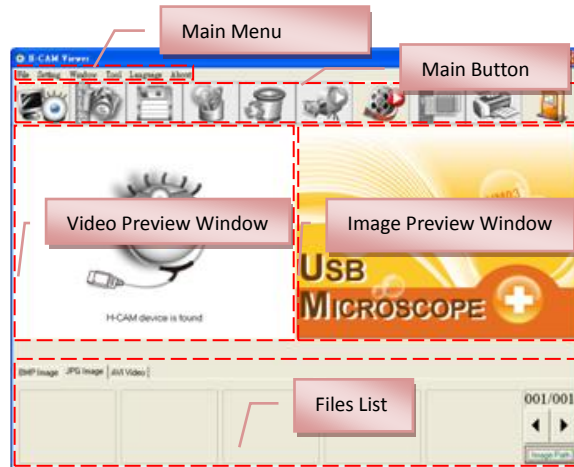
2.4 Exit Installation Program (Step 4)

After installing Application Program and Driver, please click and select the position of Step 4. Press button of Exit to quit image of program installation.

3. Application Program

Operation Instruction of Application Program is composed of 6 parts about primary operation functions. For detailed contents,

please refer to the Operation Instruction set in the Installation CD (User's Manual).



3.1 Video Preview Window

After connecting to microscope camera, the window will show video information images, videos, played files, as well as operations and display of special function modules.

3.2 Image Preview Window

The window is applied to display shot images, edit and process images.




3.3 Main Menu

The Main Menu of the Application Program contains the following selections:




- File: includes files open and storage, as well as printing images.
- Setting: includes input device, image quality, video information formats, sources and compression, as well as automatic storage, etc.
- Window: you can adjust sizes of video information windows and switch to the single window model.
- Tool: open different files folders, such as BMP, JPG and AVI. Languages and path of files storage can be reproduced to preset values of the system.
- Language: five languages including Chinese in complex and simple forms, English, Japanese and Germany are available for selection.
- About: to show the version, copyright and other relevant information about the Application Program.

3.4 Main Button






Main Button contains more general functions as follows:

- Connect  / Disconnect  : button of connecting and disconnecting to microscope camera. Video image will be displayed in Video Preview Window after connection.
- Snapshot  : press the button to capture image from Video



Preview Window. The captured image will be displayed in Images Preview Window.

- Save Image  : store images in Images Preview Window
- Editor Image  / Exit Editor  : to enter or quit Image Edition function. After entering, tools of image edition are listed below Images Preview Window as follows:





- Delete Image  : Pressing delete icon will delete image.
- Video Record  / Stop Record  : to record or stop recording video. Recorded video will be displayed in Video Preview Window. You can set compressed coding way by clicking and selecting "Setting->Video Compression" in the Main Menu. The user is suggested install DivX encoder to achieve better compression results and quality.
- Play Video  / Stop Play  : to play or stop playing video. Video of played files will be displayed in Video Preview Window. Playing tools are listed below the preview window as follows:



- Image Process  / Exit Image Process  : image processing include reversed video, grey scale, black and white, edge detection and other basic functions. After entering Image Processing model, tools will be displayed below Images

Preview Window as follows:



- i. Print Image  : print images displayed in Images Preview Window.
- j. Exit  : close the Application Program.

3.5 Files List

Files List is primarily applied to list all current files contained in folders. You can select among BMP images, JPG images and AVI videos.

3.6 video flip & control mode

After opening H-CAM program, also click connect button. under video preview window will show 「Video Control Mode」 toolbar. In this mode, it can flip video image and adjust contrast, brightness, and exposure.



When it applies a different accessory, it need apply a different & suitable scene for observation. To get the clearer observation image, the LED brightness must be adjusted to the brightest level. The Toolbar of the Video Control Mode is as below.

