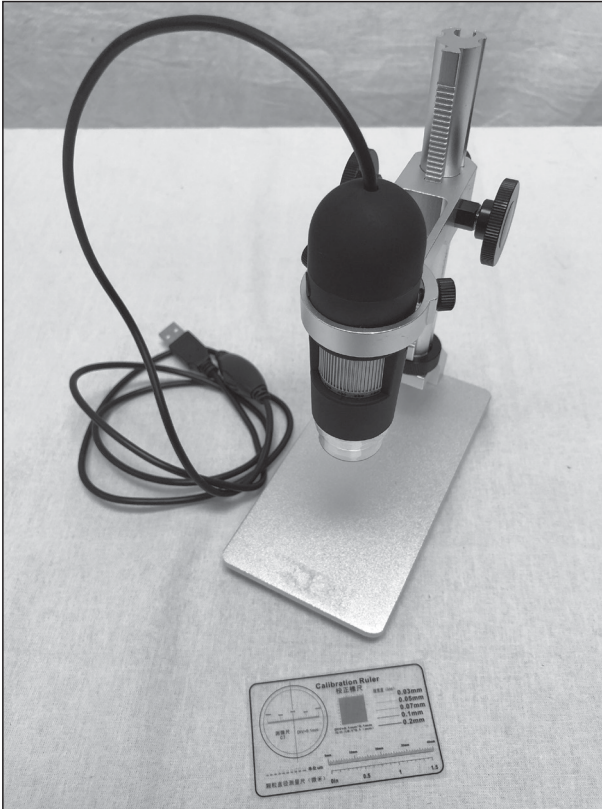


INSTRUCTION MANUAL

MicroXplore™ 2mp Handheld Digital Microscope

#51858



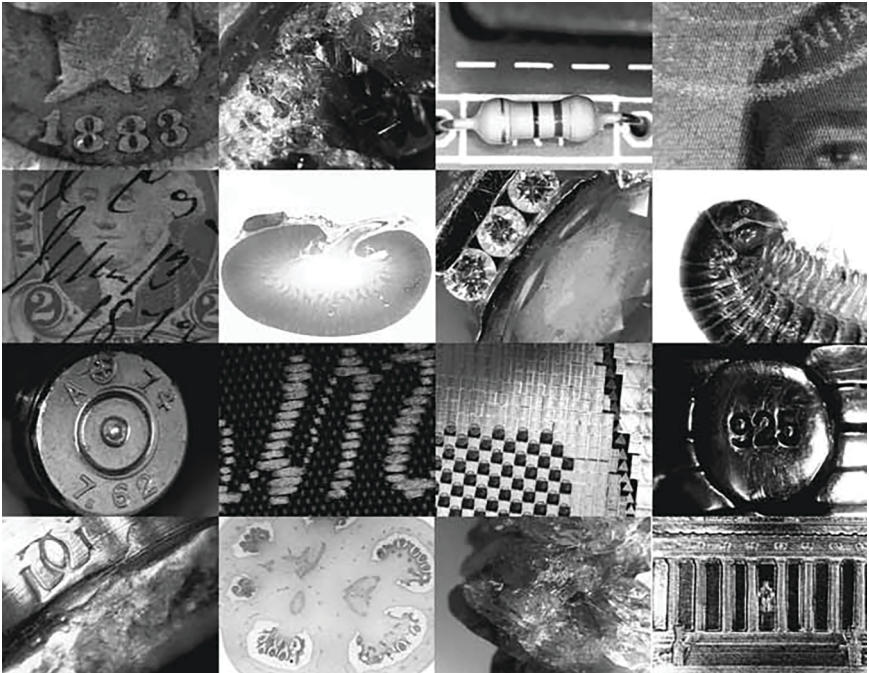
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Welcome to a new world of adventure! Your new MicroXplore™ 2mp handheld digital microscope is capable of capturing detailed, high resolution, full color images and movies of microscopic worlds awaiting your discovery. Examine specimen objects at low and high powers with a 1x to 1000x zoom ratio. With an adjustable 8 LED illumination and zoom magnification, a wide variety of specimen objects such as slides, coins, stamps, rocks, relics, insects, plants, gems, circuit boards and much more can easily be studied and digitally captured. Easy to use focus wheel provides a precise one-handed focusing mechanism. And the included stand allows for stable, hands-free operation.

Please read this instruction manual before attempting to use the microscope or install the needed software.

Typical applications

- Education and Scientific Research
- Coin and Stamp Collectors
- Electronic, Printing, Textiles and other industry inspection
- Medical Examining
- Law Enforcement & Security
- Beauty Treatment and Skin Care



Parts List

- 2mp Handheld Digital Microscope
- Microscope Stand
- Resolution test card

NOTE! Before plugging in the microscope, please download the driver software at the following link: <https://www.telescope.com/51858>

Software Installation

1. Download the driver install file mentioned above and unzip it to a location on your hard drive that is easy to locate.
2. Open the setup.exe file and proceed through the software installation (**Figure 1**). Click through each screen to finish installation.
3. Towards the end of the install process, a window will pop up asking if you'd like to install the device software (**Figure 2**). Click "Install" to correctly install the driver.
4. It will also ask if you wish to create a desktop icon. Click yes to install a shortcut of the AmCap software, used to control the camera.

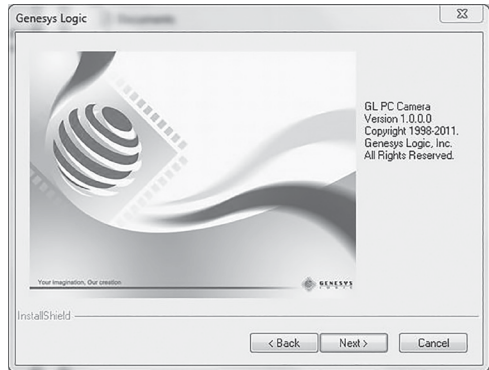


Figure 1. Software installation

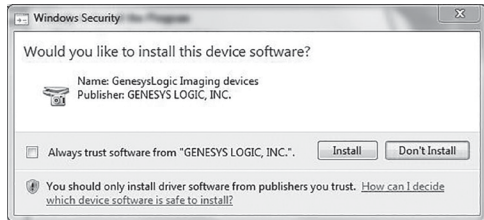


Figure 2. Driver installation – press “install.”

Microscope Stand Assembly

Before using the microscope stand, some assembly will be required out of the box. The stand includes three sections: the flat base, the base flange, and the focus post assembly (**Figure 3**).

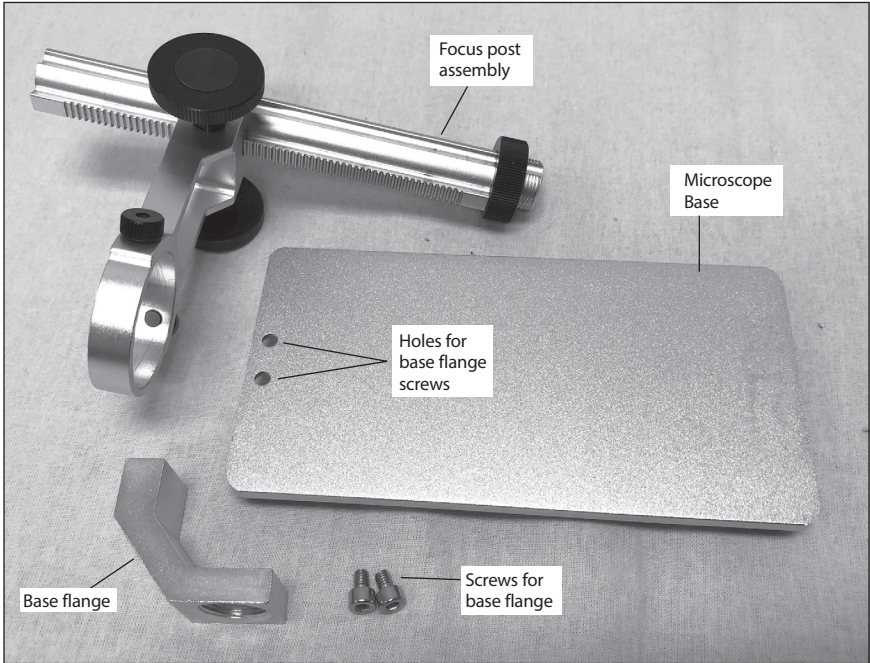


Figure 3. *The individual parts of the stand which require assembly.*

1. First, attach the base flange to the edge of the flat base in the proper orientation using the two allen screws (**Figure 4**). You'll need a standard 3mm allen wrench to full tighten down the flange (**Figure 5**).
2. Once the flange is installed, take the focus post assembly and make sure the large black threaded nut is threaded as far up the post as possible (**Figure 6**).
3. Thread the focus post into the base flange, and rotate until the post stops turning. At this point, the microscope ring holder won't be centered above the base. Unthread the entire post slightly until the ring holder is directly above the base (**Figure 7**).
4. Thread the black locking nut down towards the flange until snug. (**Figure 8**).
5. Drop the microscope into the ring, making sure the locking screws are unthreaded enough to allow the microscope to pass into the ring. When the zoom ring on the microscope is below the ring holder, and facing outwards, tighten down the two locking screws gently until snug (**Figure 9**). Your microscope is now fully assembled.

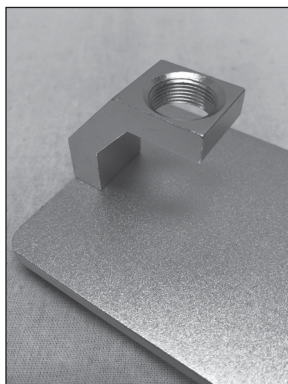


Figure 4. The base flange assembled in the correct orientation.

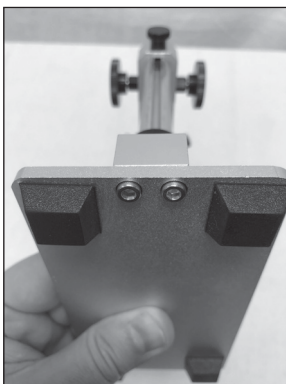


Figure 5. The base flange attaches with these two allen screws. Use a 3mm allen wrench.

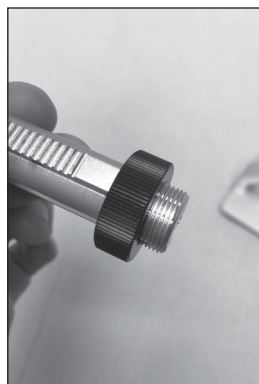


Figure 6. The threaded locking nut. Thread it up the shaft (to the left) before installing on the base.

Focusing the Microscope in the Stand

The stand allows the microscope to be focused by adjusting the height of the microscope on the focusing post. Adjust the focus by rotating either focus knob, and the tension of the focus can be adjusted by tightening the focus tension knob located on the back of the post, directly between the focus knobs (**Figure 10**). Make sure this knob is fairly snug in order to reduce play in the focus mechanism, and also to hold the microscope in place without slipping downwards.

Microscope Operation

1. Once the software is installed, plug the microscope into an available USB port on your computer. The device driver will install which may take a short amount of time to complete.
2. Once the system shows your device is ready to use, click on the AmCap program that was installed previously.
3. The LEDs in the head of the microscope can be adjusted by rotating the brightness wheel located on the USB cord. Brighten the LED's up to their full brightness to begin with, and you can adjust down later if needed.

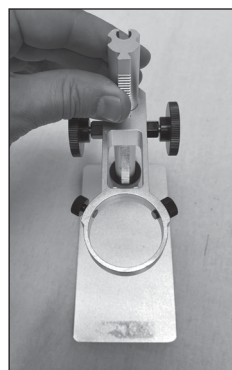


Figure 7. The correct orientation of the microscope ring—directly over the base.

4. Once AmCap is loaded, click on “Devices” in the menu, and choose the Lenovo EasyCamera.
5. At this point you will most likely see a blurry image in the display. For initial focus, adjust the zoom wheel until a setting of 1 is shown on the edge of the zoom wheel, and focus until the base of the microscope is approximately 1” above the object you wish to view. This should allow you to find the focus point fairly quickly.
6. As a general rule, higher zoom numbers will require the microscope to be closer to the subject, and lower zoom numbers will require greater distance.
7. If the color palette is not correct, press the small black button located on the housing of the microscope, above the zoom ring (**Figure 11**). In AmCap, this button will cycle through different color palettes, including standard RGB color, and black and white.

Capturing Images and Videos

1. Set the snapshot resolution by going to the Capture Menu, and choosing Snapshot Size. Any resolution can be chosen, but keep in mind if you go above 1600x1200, you are interpolating, as the native resolution of the camera is 1600x1200 (2mp).
2. Click “Take a Picture” under the Capture menu, or simply click the camera icon located in the window header to take an image.
3. For a video, either select the “Start Capture” button in the capture window, or click the “Start Capture” button (which looks like a “Play” button) in the window header. Click stop when you are finished recording

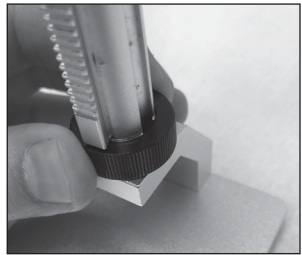


Figure 8. Thread the locking nut down against the base flange to secure the shaft in place.



Figure 9. Drop the microscope down through the ring, and gently tighten down the two clamping screws.

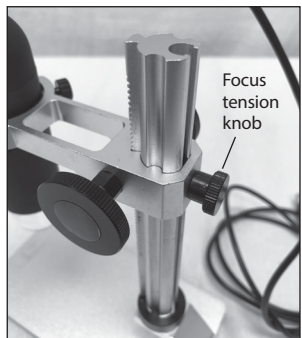


Figure 10. The focuser assembly. Make sure the focus tension screw is snug for proper focus tension.

the video. Please note video resolution is lower than snapshot resolution in order to preserve the fast frame rate.

4. You can select a capture file and also allocate a certain amount of file space dedicated to the video in the File menu.
5. Another handy feature is the time limit, which sets a specified limit to the number of seconds of your video. This option is located in the Capture Menu.
6. And finally, clicking on the Options menu and selecting Video Capture Filter will give you access to a menu to adjust things like brightness, contrast, gamma, and other settings.

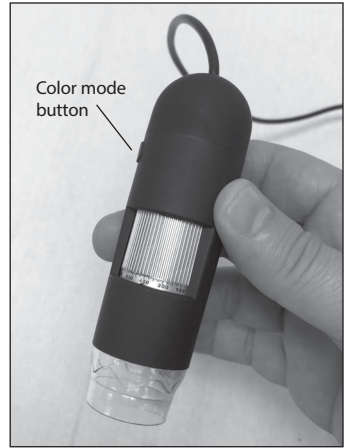


Figure 11. *The color mode button, used in AmCap. Click through different color settings while watching the preview screen.*

Tips

Loss of Camera Connection

If the computer connection to the camera is interrupted, you will need to re-establish connection. This can happen due to several reasons; if a cable becomes unplugged, the computer “freezes”, or the software/hardware otherwise temporarily loses the data coming from the camera. To re-establish camera connection, first close AmCap on your computer. Then, unplug and re-plug the camera into the computer’s USB port. Now, open AmCap, choose the camera in the Device menu, and the live feed should appear indicating re-established connection between the camera and computer.

Specifications

Sensor:	2 mega-pixels (1600x1200) max
USB Port:	USB 2.0/1.1
Video frame rate:	Up to 30 frames/second
Magnification ratio:	1x to 1000x zoom
Focus range:	Manual focus from 10mm to 40mm
Stand focus range:	110mm focus travel on rack
USB Cable length	52”
Light Source:	8 adjustable LED lights
Operating System	Windows XP/Vista/7/8/10

One-Year Limited Warranty

This product is warranted against defects in materials or workmanship for a period of one year from the date of purchase. This warranty is for the benefit of the original retail purchaser only. During this warranty period Optronic Technologies will repair or replace, at Optronic's option, any warranted instrument that proves to be defective, provided it is returned postage paid. Proof of purchase (such as a copy of the original receipt) is required. This warranty is only valid in the country of purchase.

This warranty does not apply if, in Optronic's judgment, the instrument has been abused, mishandled, or modified, nor does it apply to normal wear and tear. This warranty gives you specific legal rights. It is not intended to remove or restrict your other legal rights under applicable local consumer law; your state or national statutory consumer rights governing the sale of consumer goods remain fully applicable.

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