Hamlet

400x Digital Microscope

3-in-1 USB Digital Microscope

Instruction Manual

www.hamletcom.com

Dear Customer,
thanks for choosing a Hamlet product. Please carefully follow the instructions for its use and maintenance and, once this item has run its life span, we kindly ask You to dispose of it in an environmentally friendly way, by putting it in the separate bins for electrical/electronic waste, or to bring it back to your retailer who will collect it for free.

We inform You this product is manufactured with materials and components in compliance with RoHS Directive 2011/65/EU, with WEEE Directives 2002/96/CE, 2003/108/CE Italian Legislative Decree 2005/151 and EMC Directive 2014/30/EU for the following standards:
EN 55032: 2015
EN 55024: 2010 + A1: 2015

CE

The complete CE declaration of conformity of the product can be obtained by contacting Hamlet at info@hamletcom.com specifying the product code and the documentation.
The information on the importer for your country are available in the "About Us" section of the Hamlet website at www.hamletcom.com.

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BEFORE USE

Important information

Please read this instruction manual carefully before using this product, and retain this instruction for future reference.

Improvements and changes to this text necessitated by typographical errors, or improvements to the software and / or equipments may be made at any time without notice.

Care and maintenance

- Avoid vibration, shock and pressure e.g. dropping the microscope.
- Keep the device dry and protect it from water or vapour.
- Do not leave your device in a place with extreme high or low temperature.
- Do not touch the device with a wet hand as it may damage the device, or cause an electric shock to the user.
- Do not use or store the device in dusty, dirty areas as its moving parts may be damaged.
- Do not use harsh chemicals, cleaning solvents or strong detergents to clean the device. Wipe it with a soft cloth slightly dampened in a mild soap-and-water solution.

Warning

- Do not attempt to open or dismantle the digital microscope.

Product description

- This is a dual system (optical and digital) device. It can be used as a conventional microscope by viewing through an eyepiece, as well as via a computer through the digital camera adaptor.

- The microscope has three objective lenses with magnification power of 50x, 100x and 200x respectively. With the built-in 2x zoom, the device can magnifies specimens up to 400x when viewing through an eyepiece.

- By using the digital camera adaptor, specimens can be magnified by up to 780x on a 17" computer monitor. Snapshots and video capture function is also available.

- In addition, the microscope body can be detached from the microscope stand and used as a handheld microscope.

Computer requirements

Windows based PC

Compatible operating systems	Windows 10 (32 bit or 64 bit) Windows 8 (32 bit or 64 bit) Windows 7 (32 bit or 64 bit) Windows Vista (32 bit or 64 bit) Windows XP SP2, SP3
USB	USB 2.0

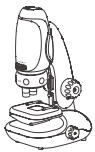
Mac OS based PC

Compatible operating systems	Mac OS X 10.5.6 - Mac OS X 10.11.x
USB	USB 2.0

PRODUCT AT A GLANCE

Package contents

Microscope (consists of microscope body and stand)

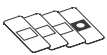


Installation CD

Digital camera adaptor

User manual

Blank specimen slides x3
Prepared slide with cotton swatch

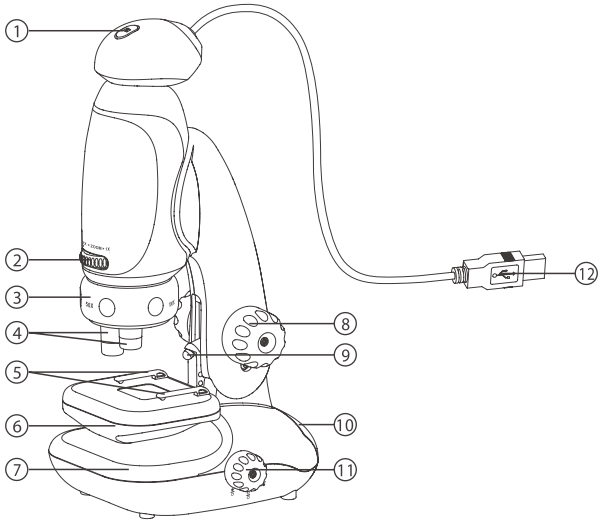


Dropper

Blank specimen slides cover x6

Tweezers

Product overview



1. Snap button
2. Optical zoom wheel
3. Objective lenses turret
4. Objective lenses
5. Stage clips
6. Specimen stage
7. Microscope base
8. Focusing knob
9. LED illumination
10. Storage drawer
11. LED switch
12. USB cable

Product specification

Connection type	USB 2.0
Effective observation area (without zoom)	Ø2.3mm (50x), Ø1.2mm (100x), Ø0.56mm (200x)
Effective observation area (with max zoom)	Ø1.2mm (100x), Ø0.6mm (200x), Ø0.28mm (400x)
Magnification power	Through eyepiece: 50x-100x, 100x-200x, 200x-400x 100x-180x, 190x-350x, 415x-780x on a 17" monitor
Illumination	Two LEDs
Optics	3-objective turpet, 2x optical zoom
Power supply	5V ⎓ 250mA (via USB) or 3 x 1.5V AA alkaline batteries
Sensor	CMOS
Maximum snapshot resolution	1600 x 1200 pixels (UXGA)
Maximum video capturing resolution	640 x 480 pixels (VGA)
Size	112mm x 134mm x 252mm
Weight	380 grams (not including batteries)

GETTING STARTED

Software installation

Windows based PC

- Insert the supplied application CD to the CD-ROM of the computer.
- Double click the "xploview v3.2.xx.exe" icon < > located on the driver CD.
- Follow the xploview setup wizard to install the application software for the digital microscope.

Mac OS based PC

- Insert the supplied application CD to the CD-ROM of the computer.
- Double click the "xploview v3.2.xx.dmg" icon < > located on the driver CD.
- Drag the xploview icon < > into the Applications folder.

Connecting the device

Connect the device to the computer using the USB cable provided.

Starting the xploview software

Windows based PC

The xploview software can be launched by double clicking the xploview icon < > from the desktop, or from the start menu.

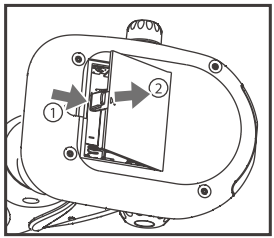
Mac OS based PC

The xploview software can be launched by double clicking the xploview icon < > from the Applications menu.

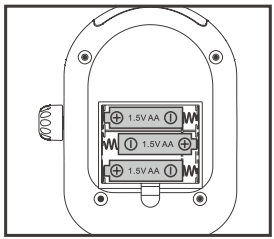
> **⚠ Note**
>
> When the device is connected to the computer for the first time, a driver will automatically be installed by Windows or Mac OS. This process could take up to a few minutes.
>
> Each time when the xploview software is started, the device should start up automatically. Otherwise, the device can be selected from the device setup section of the system settings menu.

Battery Installation

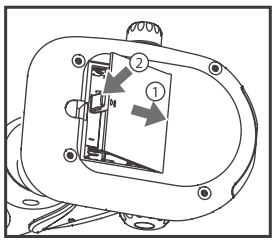
Open the battery compartment door, located at the bottom of the microscope base, by lifting and pushing the compartment door latch in the direction shown in the diagram below.



Install 3 x AA alkaline batteries with the correct polarity shown inside the battery compartment.



Replace the battery compartment door.

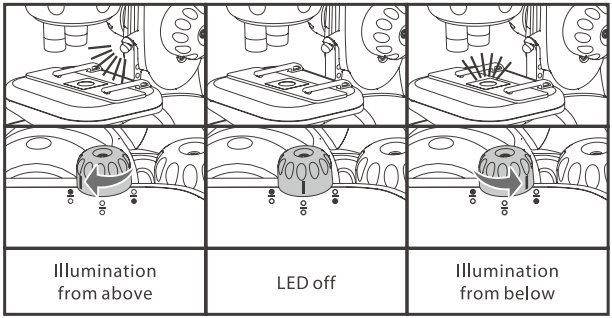


⚠ Note

Do not mix different types of batteries or new and used batteries; do not charge non-rechargeable batteries; for rechargeable batteries, only charge rechargeable batteries under adult supervision and remove rechargeable batteries from the product before being charged; remove exhausted batteries from the product; do not short circuit the supply terminals.

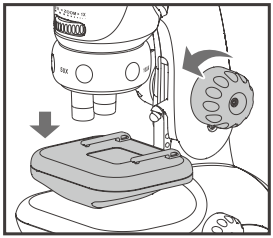
Selecting a light source

There are two LED illumination sources on your microscope, one above the specimen stage and one below the specimen stage. You may select one of them at a time by rotating the LED switch to an appropriate location. The illumination modes are shown in the diagram below.

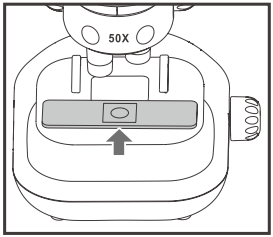


Installing a specimen slide

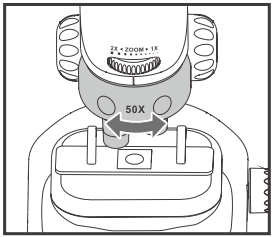
Rotate the focusing knob counter-clockwise to fully lower the specimen stage.



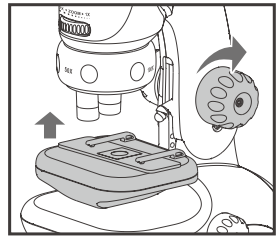
Place a specimen slide on the specimen stage and secure the slide with the stage clips.



Rotate the objective lens turret to obtain the desire magnification power. It is recommended to start from a magnification power of 50x.



Rotate the focusing knob clockwise to raise the specimen stage towards the objective lens as far as you can but avoid collision with the objective lens.

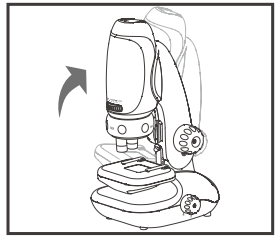


⚠ Note

Collision between your specimen slide and an objectivelens may cause damage to your specimen and the objective lens.

Viewing Angle

For your comfort when using the microscope, the microscope stand column can be adjusted backwards for approximately 30° from vertical. Explore this feature to obtain a suitable, comfort viewing angle.

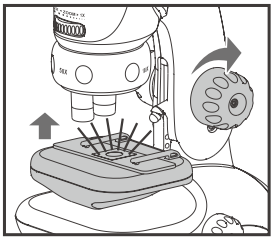


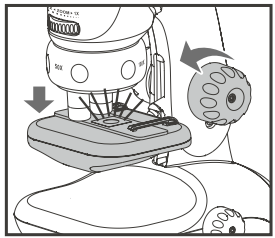
Focusing

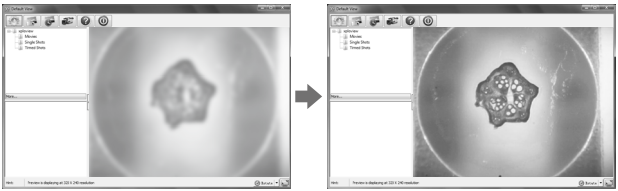
Focusing is carried out by rotating the focusing knob. It is recommended you follow the following steps.

Rotate the focusing knob clockwise to raise the specimen stage towards the objective lens as far as you can but avoid collision to the objective lens.

While viewing through the eyepiece or using digital camera adaptor, rotate the focusing knob counter-clockwise to lower the specimen stage until you see a clear image. You may also need to move the specimen slide to locate the desire area of examination.

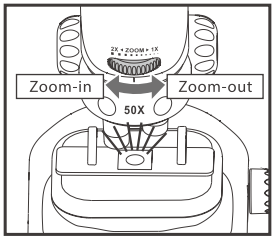


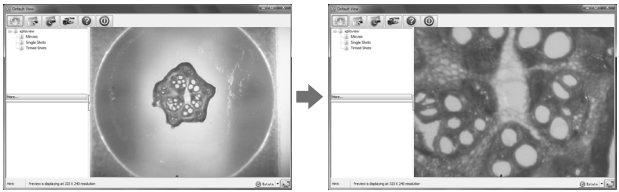




Zooming

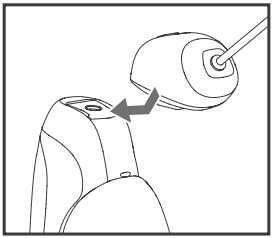
If you require a higher magnification power, rotate the optical zoom wheel to zoom into the image. After zooming into the image, you may require to readjust the focus.





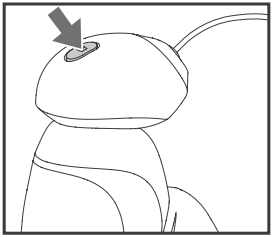
Assembling the product

Slide in the digital camera adaptor onto the microscope for observation on a computer monitor. Always start at 50x magnification before zooming in or turning to a higher magnification.



Taking a snapshot (when observing with a computer only)

Press the snapshot button to take a snapshot.



Button menu

The icons on the button menu :

Open **System Settings Menu** (see system settings menu on page 22).

Capture on screen **image**.

To start and to stop **Timed Shot**. Images will be captured at a regular interval (see system settings menu on page 23 to adjust frequency and duration).

To start and to stop **Video Recording**.

Information of the application software. This information maybe helpful when updating software.

Shut down the application software.

Full screen viewing

To activate the full screen mode, click the full screen button < > located on the bottom right corner of the xploview application software window.

To exit full screen mode, either double click on the screen, or press the "Esc" button on the keyboard.

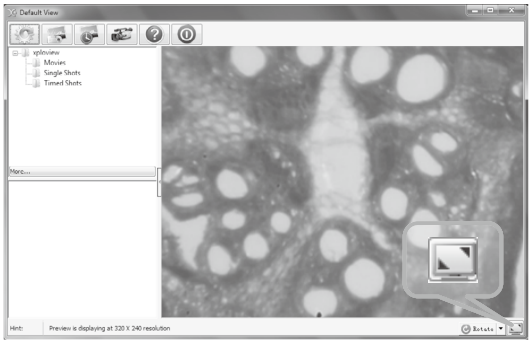
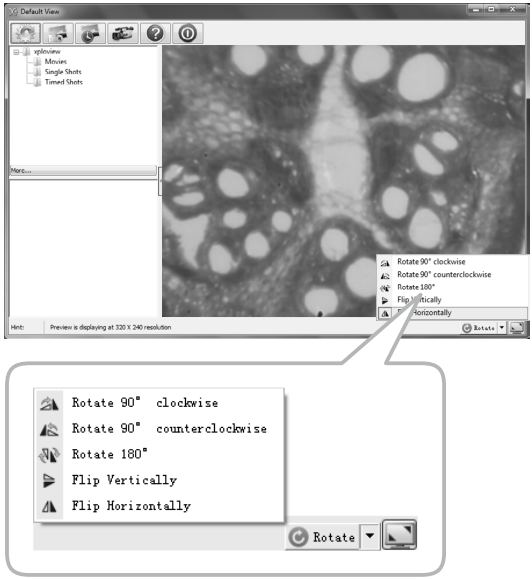


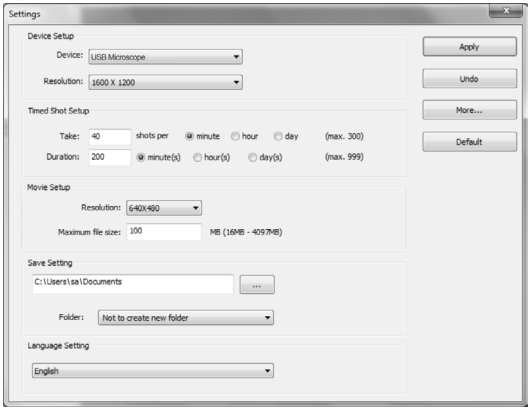
Image rotation / flip

Click < Rotate > button to rotate or flip the image.



System Settings Menu

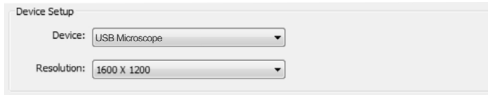
The first time the xploview software is started, the default settings will be loaded, you may change these settings manually in the system settings menu.



Device setup

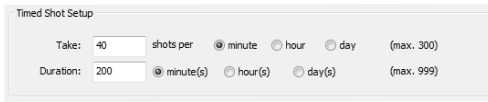
If the image captured by the digital microscope was not displayed by default, you can change this by selecting it from the "Device" drop-down menu.

The resolution of images you capture can be changed from the "Resolution" drop-down menu.



Timed Shot setup

The frequency and duration of automatic images capture can be adjusted under this option.

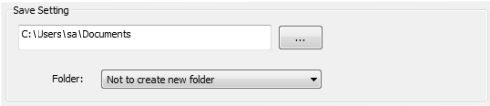


Movie setup

The resolution of videos you record can be changed from the "Resolution" menu. You can also set a maximum file size for each video.

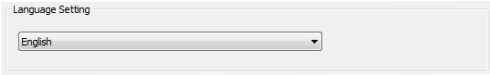
Save setting

The default location for captured images or videos can be changed under this option.



Language setting

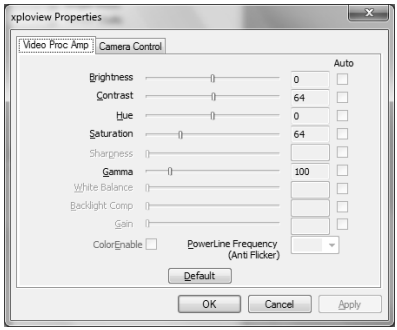
The language of the xploview software can be changed under this option.



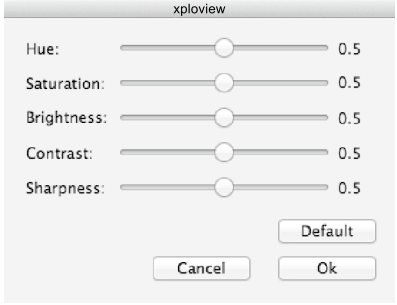
Advanced settings

By clicking the "More..." button on the right of the system settings menu, you will be able to manually adjust all of the image settings. Note that the settings available may be different, depending on your operating system.

Windows based PC

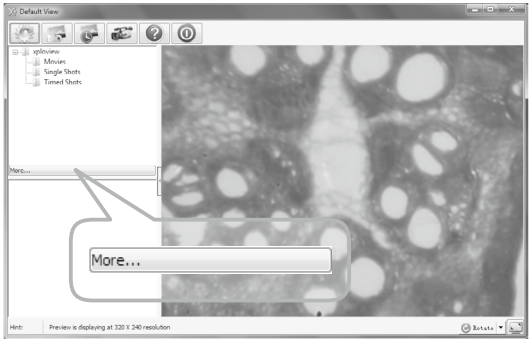


Mac OS based PC



Saved files

With the xploview application software opened, you can locate the saved files folder by clicking the "More..." button located on the left of the main software window.



Uninstalling the xploview software

Windows based PC

Select "Uninstall" from the start menu (Start > All Programs > xploview > Uninstall).

Mac OS based PC

Drag the xploview application icon from the "Applications" folder to "Trash".

FCC compliance statement (United States only)

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this device.

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This device generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

— Reorient or relocate the receiving antenna.
— Increase the separation between the equipment and receiver.
— Connect the device into an outlet on a circuit different from that to which the receiver is connected.
— Consult the dealer or an experienced radio / TV technician for help.

Legal information

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