USB Digital Microscope

(10x-200x, for Windows/Mac/Android)

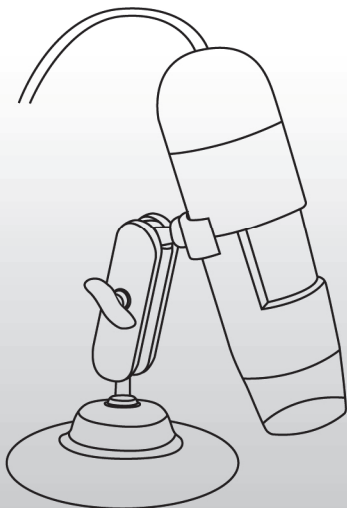**User's Manual**

Table of Contents

Welcome

Thank you for your choice of our product - it is a high-tech while easy to use Digital Microscope. With this unit you will see a unique and "bigger" world.

It's easy to zoom in on stamps, coins, paper currency, plants, insects, rocks and minerals, and so much more.

We recommend reading this manual first to get the best out of this unit.

1. Precaution

Before using The USB Digital Microscope, please ensure that you read and understand the safety precautions described below. Always ensure that the USB Digital Microscope is operated correctly.

- The Microscope is not waterproof, so keep it dry.
- Do not use it in a humid place like bathrooms. A dry environment will maintain its life to maximum.
- Use the Microscope only at -5℃-50℃.
- Sudden temperature change may form dew inside the Microscope like entering a warm room in cold winter. Put it inside a handbag or plastic bag to slow down temperature changes.
- Do not point Microscope lens to the sun or strong light for a long time. Powerful light may hurt the light-sensitive electronics.

- Avoid touching the lens.
- The white LEDs which illuminate the Microscope target field are very bright. Do not stare directly into these LEDs as it may damage your eyes.
- The clear plastic distance shell sometimes picks up dirt or toxic material from a microscopically observed surface. Be careful that this doesn't get in contact with the human skin. Always wash carefully or disinfect as needed.
- Do not unplug the Microscope from USB port when LEDs are on. This may cause information loss or circuit damage. Please always close MicroCapture Plus and then unplug the Microscope.
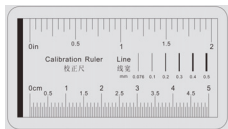
2. Preparation

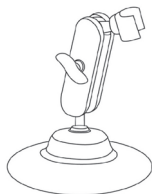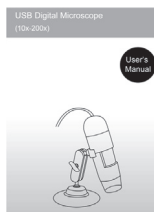## ■ Standard accessories

Microscope

Stand

CD
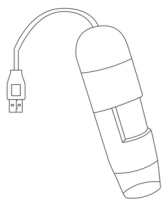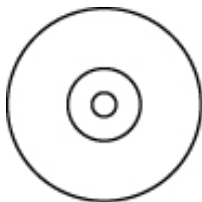
Manual

Calibration Ruler

■ Parts Names & Functions

#1	LED dimmer
#2	Focus wheel
#3	Magnification ruler
#4	LEDs
#5	USB port

■ **Computer System Requirements**
   * Windows 7 / 8 / 10, Mac 10.12 or later
     Android 4.0 or later
   * P4 1.8 or above
   * RAM: 1GB
   * Video Memory: 128M
   * USB port: 2.0
   * CD-ROM Drive

■ Technical Specifications

Image sensor	2 Mega Pixels (true resolution)
Still capture resolution	1920x1080, 1280x720, 640x480
Video capture resolution	1920x1080, 1280x720, 640x480
Focus Range	Manual focus from 0mm to 150mm
Magnification Ratio	10x~200x
Video format	AVI
Photo format	JPEG
Light source	8 LED (adjustable by control wheel)
PC interface	USB2.0
Power source	5V DC from USB port
Bundle software	MicroCapture Plus (with measurement for Win/Mac) TinyScope for Android
Operation system	Windows 7 / 8 / 10, Mac 10.12 or later Android 4.0 or later
OSD language	English, Deutsch, Spanish, Russian, Italian, French, Portuguese, Dutch, Polish, Japanese, Korean, Chinese
Product size	Microscope: 110mm (L) x 33mm (R)

3. Install the software in Windows

Software MicroCapture Plus is available on the included CD and www.cameradownload.net.

Insert the driver CD into CD-ROM Drive and then open for Windows or Mac, you will see the Setup file.

1) Install MicroCapture Plus
    Open the folder **for Windows** or **for Mac**, double click to install **MicroCapture Plus** and the installation wizard will guide you through the whole process.
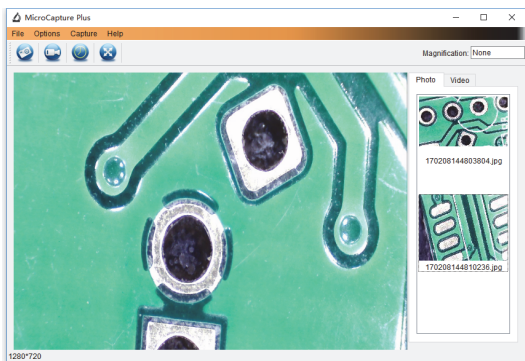Note: If your OS is Win7, please also install the patch for Win7.

2) Full user's manual can be viewed by clicking the folder **Manual.**

4. Start Microscope

Connect your Microscope to your PC USB port, start the

software by clicking the icon generated on the

desktop after installation and you will see the following

screen pop up.

When the Microscope is disconnected from your PC
USB port, the following message will pop up.

No Device detected, please
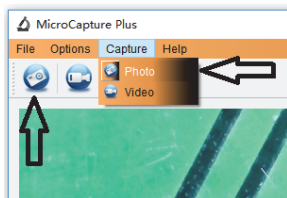connect your Microscope
directly to your PC USB port.

5. Software functions

■ Capture Photo

a. Click 'Photo' shortcut icon in the main menu bar.

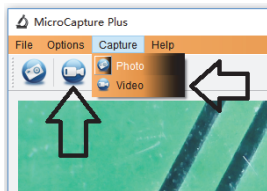b. Click 'Capture > Photo'.

■ Capture Video

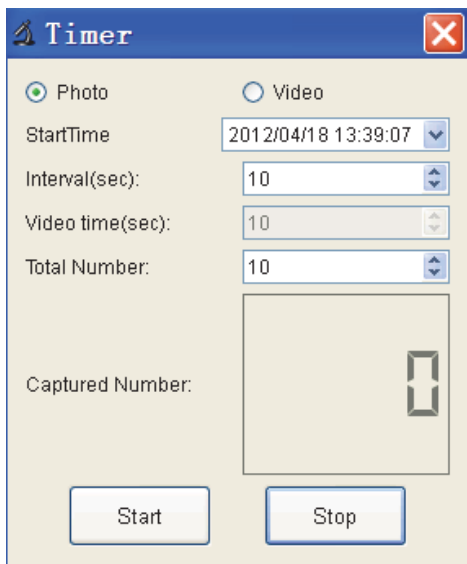a. Click 'Video' shortcut icon in the main menu bar.

b. Click 'Capture > Video'.

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■ **Timer (Photo / Video)**

Click 'Timer' shortcut icon ![icon] in the main menu bar.

* Under Timer photo, you can set the start time, interval time and total picture number.
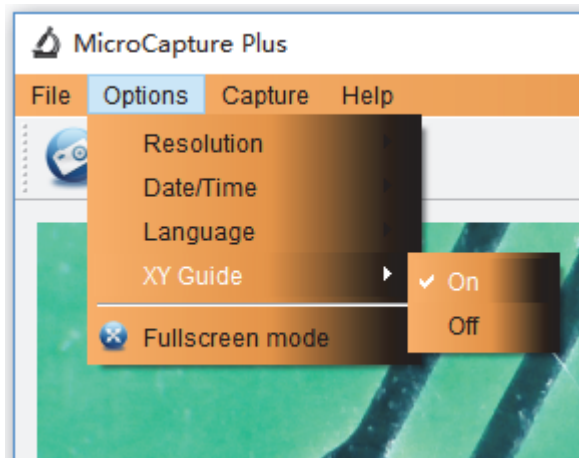
* Under Timer video, you can set the start time, interval time and total video number.

■ Calibration and Measurement

Please make calibration before measurement.

Calibration

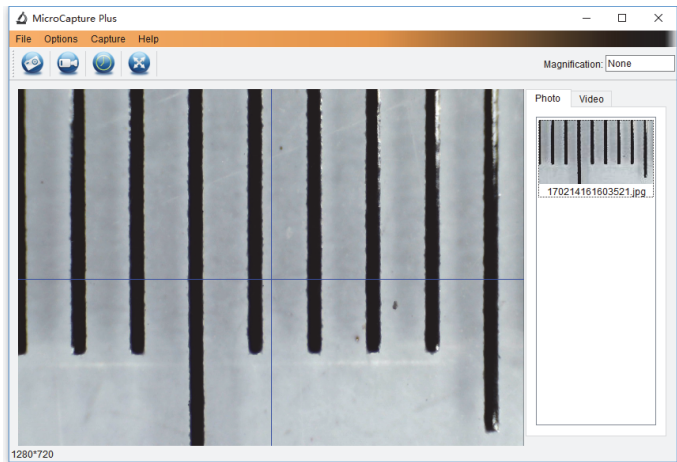Display Crossing from 'Options>Crossing''.

Microscope default at crossing "on"

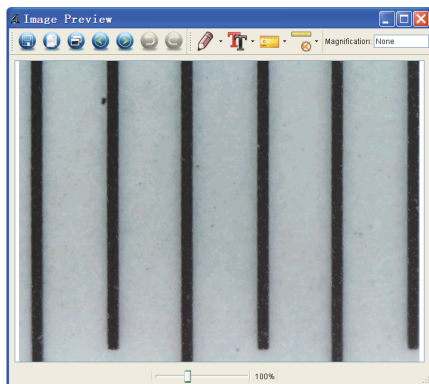It's used to check the dial on the calibration ruler.

1. Focus microscope on the attached calibration ruler

 and then adjust the magnification till the picture is clear. Take a picture for the selected area when the dial is parallel to the crossing as below.

2. Double-click on the picture to enter into measurement interface as below.
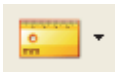
3. Click Calibration icon , and then move mouse to the picture.   Click on the beginning and ending points across a known value. Now a dialog will popup as below and you need to enter the exact value of the measurement sample into 'Actual dimension'.
Then the software will automatically calibrate the magnification rate. Click 'OK' and the adjusted magnification rate will show in the upper right corner.
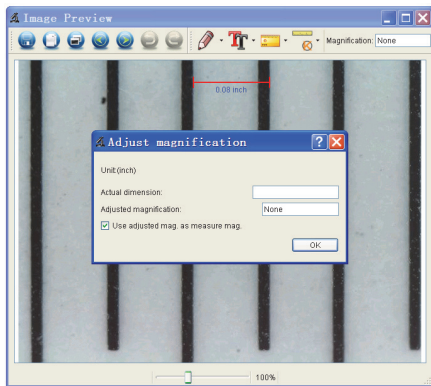
* Remark: The measured line should be paralleled.
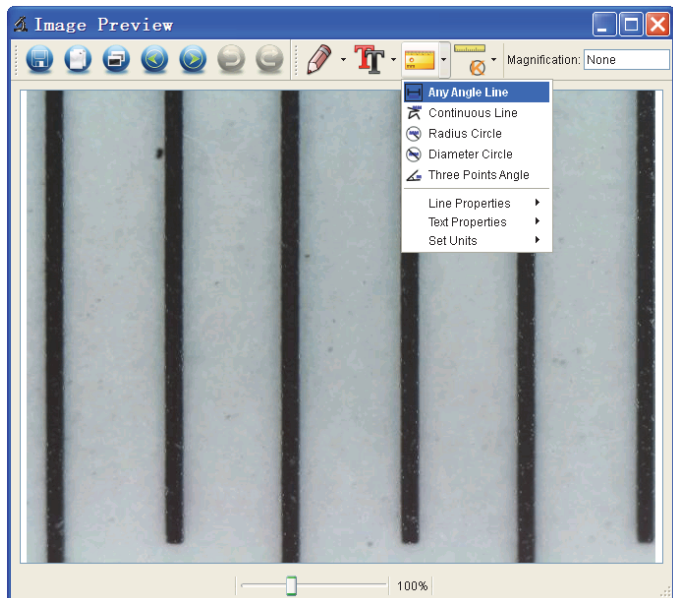
4. Now you can use 'Any angle Line' under Measurement icon ![measurement icon] to measure the value again. If the value you measure by software is nearly the same as the exact value of the dial means the calibration finish.

Measurement

Double-click on the picture to enter into measurement

interface. Under the 'Measurement' icon 🟡 ▾, you can

choose any desired options to measure.

1. Any Angle Line Measurement
Simply click from one point and drag to the next point, and
then release the click.

2. Continuous Line Measurement
The Continuous Line measurement allows you to
measure any continuous desired length.
Simply click and drag from one point to other desired
points, and then release the click.

3. Radius Circle Measurement
Simply click and extend out to the desired radius, the
radius, circumference and area of the circle will show up
accordingly.

4. Diameter Circle Measurement
Simply click and extend out to the desired diameter, the
diameter, circumference and area of the circle will show
up accordingly.

5. Three Points Angle Measurement
Simply define any three points angle and click, the angle
value will then display.

Change Calibration

If you need to change the magnification rate and adjust focus to capture picture, please calibrate the magnification rate again.

1. Double click to open the picture, Click ' > Reset magnification > Reset picture magnification' as below. And then start calibration again (Calibration details please refer to page37).
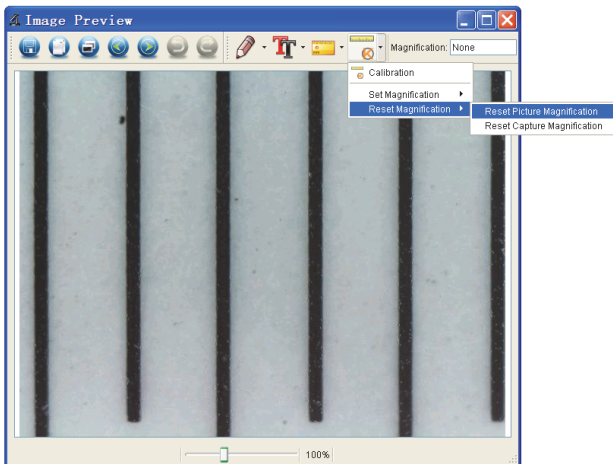
2. Change the magnification rate and capture several pictures, click on the picture to enter into measurement interface. And click ' > Set magnification > Set picture magnification', now a dialog will show up as below; enter the magnification rate into the dialog and click 'OK'.
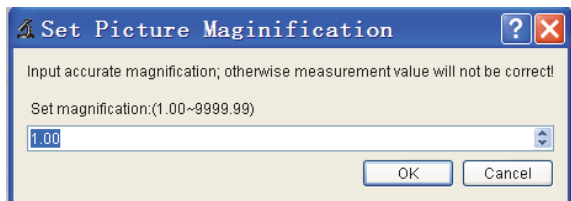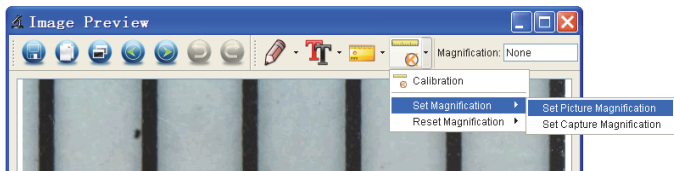
3. If you want to use the same magnification rate to capture pictures, just click ' > Set magnification >Set capture magnification'. Now all pictures will use the same magnification rate and you can start measurement directly.
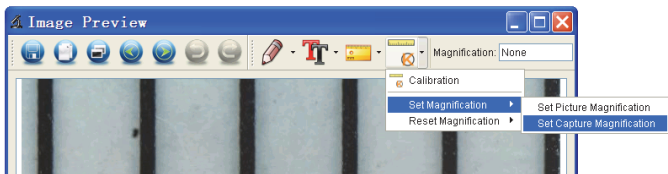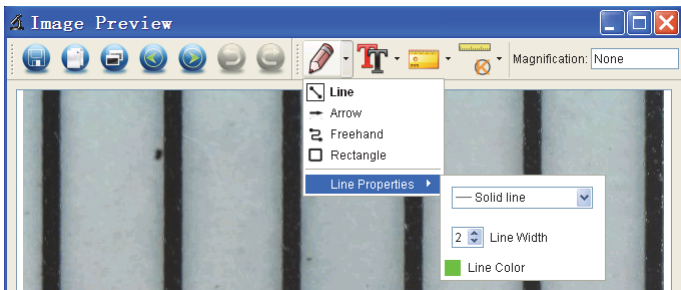
Draw and Text

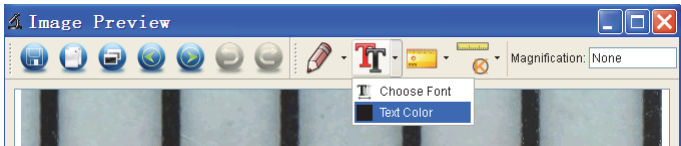You can draw or add a text on the picture and save for later analysis.

1. Click icon ![pencil icon] to choose any kinds of drawing under the pull-down manual as below.

2. Click icon ![TT icon] and set the font for the text in the popup dialogue as below.

6. Software Interface Instructions

Main Interface Icons

Capture photo – It's used to capture photo one by one.
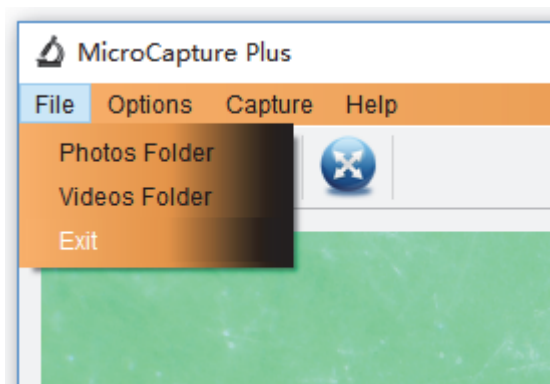
Start / Stop record video.

Timer for photo / video – Set the start time, interval time and total photo/video number.

Full screen mode,
Press ESC or double-click to exit.

Main Menu

File

Photos Folder: set the directory to store photos taken;

Videos Folder: set the directory to store video taken;

Options
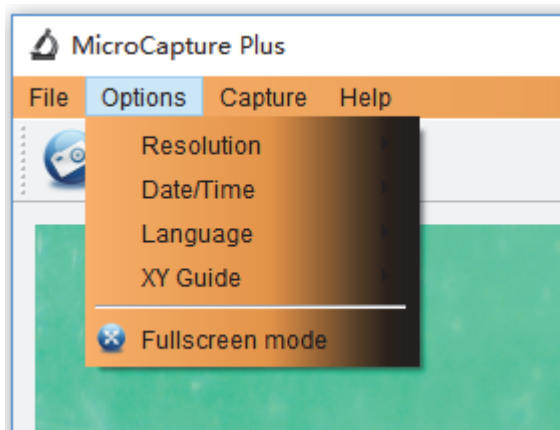
Resolution: change preview size

Date/Time: set to display system date/time on preview window

Language: choose different OSD language

XY Guide: display cross on preview window

Fullscreen mode: enter into full screen. Click ESC or double click to exit

Capture
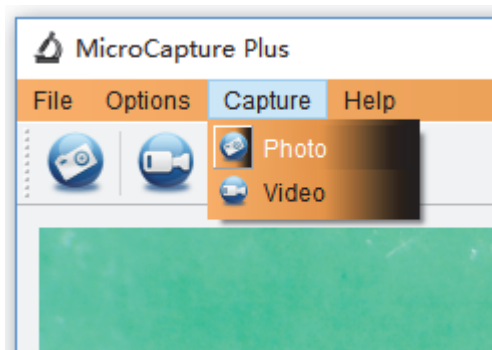
Photo: take a photo

Video: record a video clip

Measurement Interface Instructions

	Save as		Redo
	Copy to clipboard		Draw
	Copy file		Text note
	Previous		Measurement
	Next		Calibration
	Undo		

Instructions for Mac software

I-How to install the Mac software

Open *mac* folder from the disc and click **MicroCapture Plus** to finish the installation process. And then there will be icon generated on the desktop as follows.

II-How to use the Mac software

The use of the software is the same as that of Windows. So please refer to the previous instructions for Windows.

■ **APK for Android**

The microscope can also work on Android Smartphone & Tablet with Android 4.0 or later.

1) Search, download and install app **TinyScope** from play.google.com; or from the included CD; or download from www.cameradownload.net; or scan the following IR code.

2) Connect the microscope with Android device by USB connection. You may need a USB to Micro-USB converter and that may not be included in the package.

3) Start the installed apk and then you can get live video on your Android Smartphone or tablet. There you can capture photo and video. The captured files will be stored on your Smartphone or tablet.

This symbol on the product or in the instructions means that your electrical and electronic equipment should be disposed at the end of its life separately from your household waste. There are separate collection systems for recycling in the EU.

For more information, please contact the local authority or your retailer where you purchased the product.