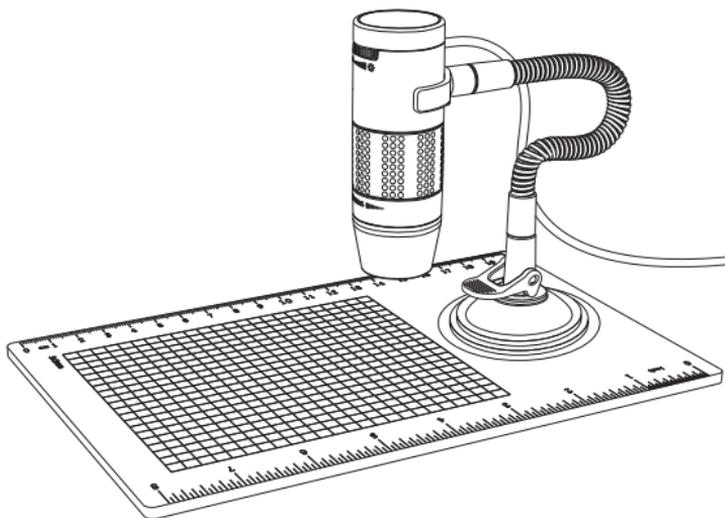


# CARSON

## eFlex

75x/300x Digital Microscope  
with Flexible Neck

User Guide



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## ■ Important information

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

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

## ■ Product description

1. This digital microscope differs from a traditional optical microscope. Instead of looking through an eyepiece, the magnified image or live video is displayed on a computer monitor via a USB connection.
2. Magnification power depends on the size of the monitor used – the larger the monitor, the higher the magnification. This device has 2 magnification powers, it can magnify images up to 75x and 300x when placed directly on top of the object and through a 21" monitor.
3. This device has 4 built-in LED lights. The intensity of these lights can be adjusted.

## ■ Computer requirements

### ■ Windows based PC

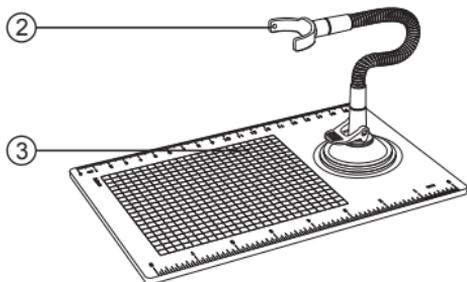
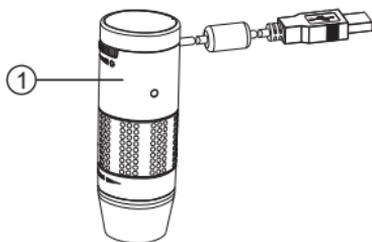
Compatible operating systems	Windows XP SP2, SP3 Windows Vista (32 bit or 64 bit) Windows 7 (32 bit or 64 bit) Windows 8 (32 bit or 64 bit) Windows 8.1
CPU Speed	P4-1.8GHz or above
RAM	512 MB or above
Hard disk	800 MB or above
USB	USB 2.0

### ■ Mac OS based PC

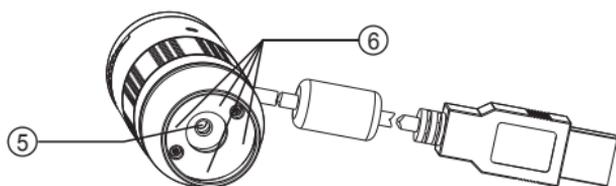
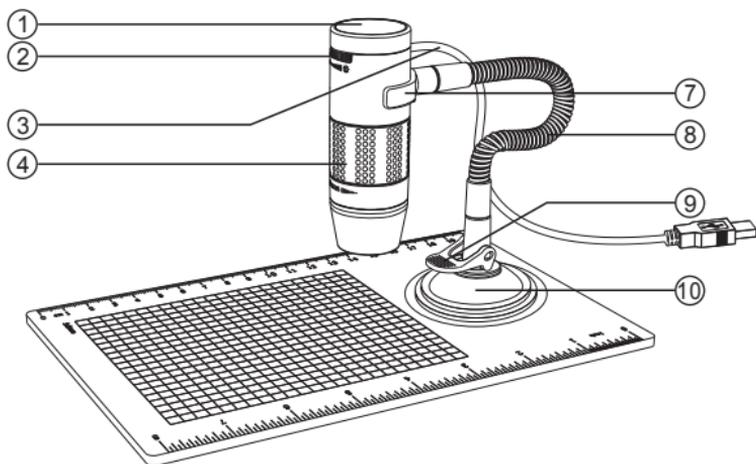
Compatible operating systems	Mac OS X 10.4.x - Mac OS X 10.10.x
CPU Speed	Power PC G3/G4/G5 or Intel based
RAM	128 MB or above
Hard disk	800 MB or above
USB	USB 2.0

## ■ Package contents

- |                    |    |
|--------------------|----|
| 1. Microscope      | x1 |
| 2. Stand           | x1 |
| 3. Observation pad | x1 |



## ■ Product overview



1. Snapshot button

2. Light intensity knob

3. USB cable

4. Focusing knob

5. Objective lens

6. LED

7. Stand bracket

8. Flexible tube

9. Locking lever

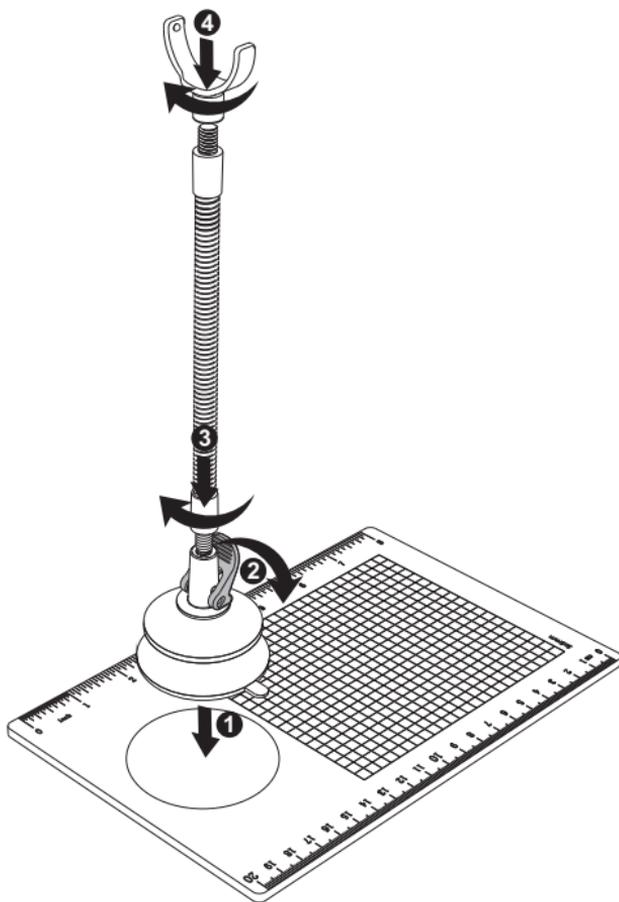
10. Suction cup

## ■ Product specification

Connection type	USB 2.0
Effective magnifications (on a 21" monitor)	75x, 300x
Effective viewing area	5.6 x 4.2mm (75x) 1.4 x 1.1mm (300x)
Illumination	Four LEDs
Sensor	CMOS
Maximum snapshot resolution	1600 x 1200 pixels (UXGA)
Maximum video capturing resolution	640 x 480 pixels (VGA)
Size	Ø 30 x 86mm
Weight	99 grams

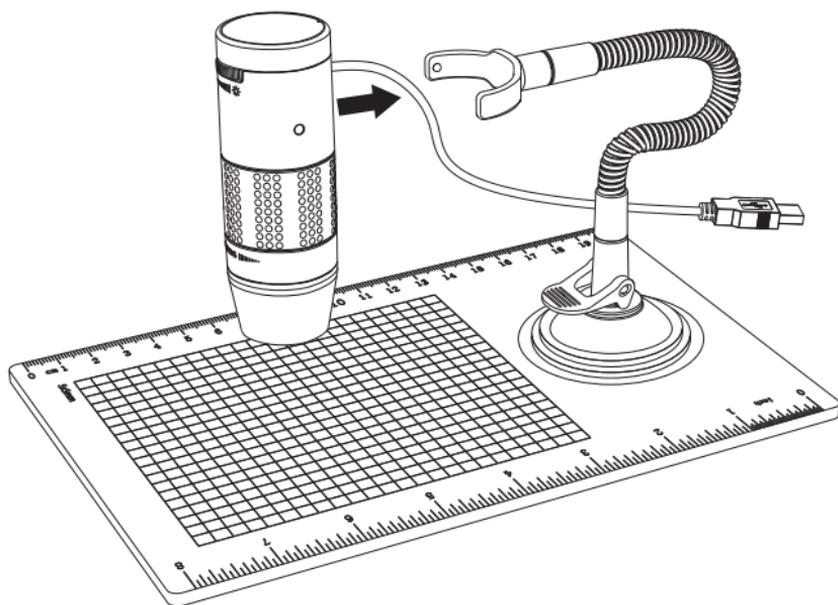
## ■ Assembling the stand

1. Screw the stand bracket and the suction cup base to the flexible tube as shown in the diagram below.
2. Make sure the mounting surface is free from oil and dirt, and ensure the locking lever is in the vertical position.
3. Press the suction cup down and secure it into place by pushing the locking lever down.



## ■ Attaching the microscope to the stand

Secure the microscope to the stand as shown below.



## ■ Focusing

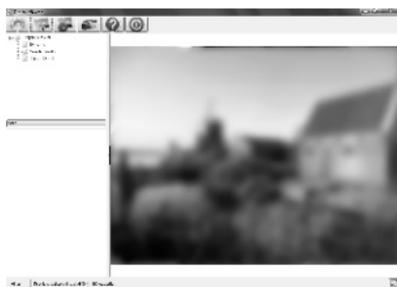
### ■ Preparation

Rotate the focusing knob to the left (clockwise) to the furthest position.



## ■ For viewing an object at a distance or on the stand

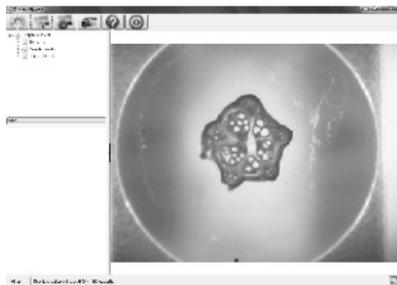
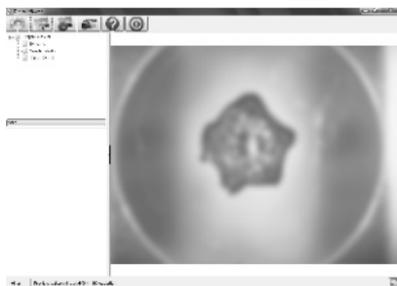
From the preparation position, rotate the focusing knob to the right (counter-clockwise) until the image is sharp and clear. The closer the microscope to the object, the higher the magnification power.



## ■ 75x magnification (21" monitor)

Place the microscope directly on top of an object or a specimen slide.

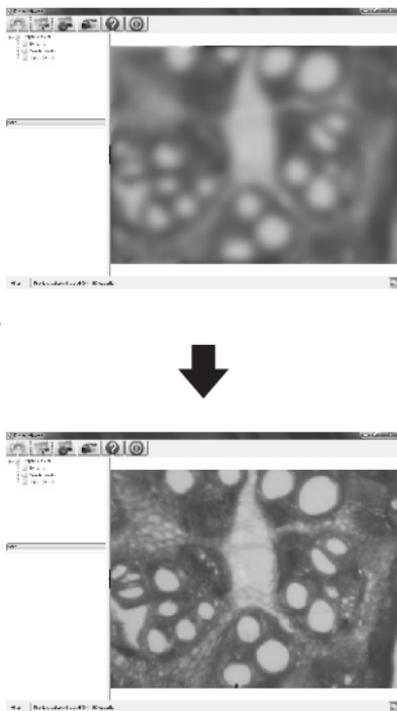
From the preparation position, rotate the focusing knob to the right (counter-clockwise) until the first focal point has been reached where the image is sharp and clear. Magnification of 75x can be achieved when viewing on a 21" monitor.



## ■ 300x magnification (21" monitor)

Place the microscope directly on top of an object or a specimen slide.

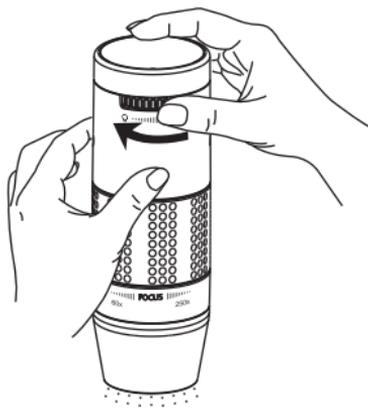
From the preparation position, rotate the focusing knob to the right (counter-clockwise) until the second focal point has been reached where the image is sharp and clear. Magnification of 300x can be achieved when viewing on a 21" monitor.



- **Adjusting the LED light intensity** Rotate the light intensity knob clockwise or counter-clockwise to increase or decrease the LED light intensity.



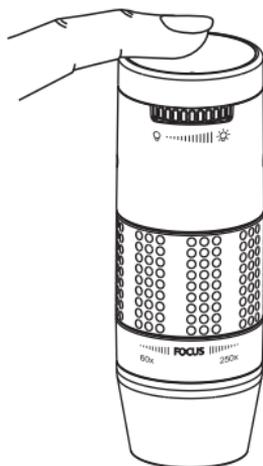
Increasing the LED  
light intensity



Reducing the LED  
light intensity

## ■ Taking a snapshot

The snapshot button is touch-sensitive. Touch the snapshot button located on top of the device to take a snapshot.



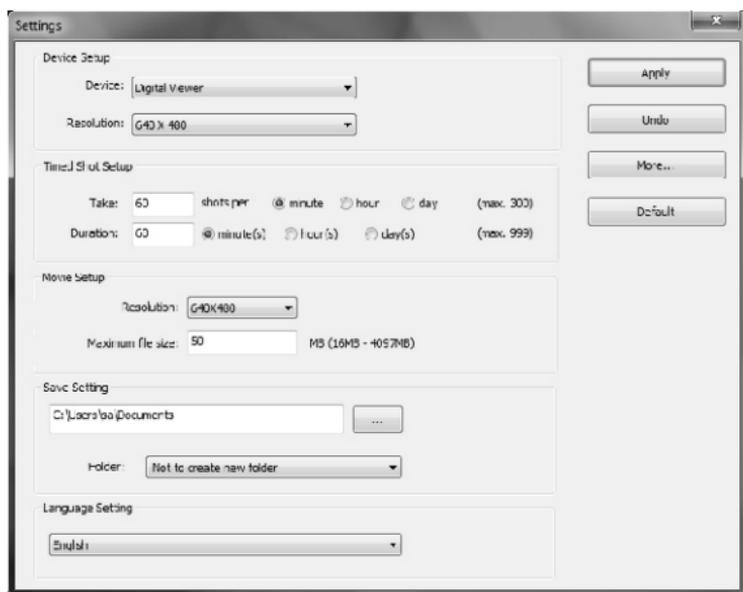
## ■ Using the Digital Viewer software

The following buttons are available:

	Clicking this will open the <b>system settings</b> menu (see next section).
	Clicking this will <b>capture</b> the on screen image of the device.
	Clicking this will activate or deactivate the <b>timed shot</b> feature. When activated, images will be captured at a regular interval.
	Clicking this will activate or deactivate the <b>video recording</b> feature.
	Clicking this will show the copyright and version <b>information</b> of the application software.
	Clicking this will <b>shut down</b> the application software.

## ■ System settings menu

The first time the Digital Viewer 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**

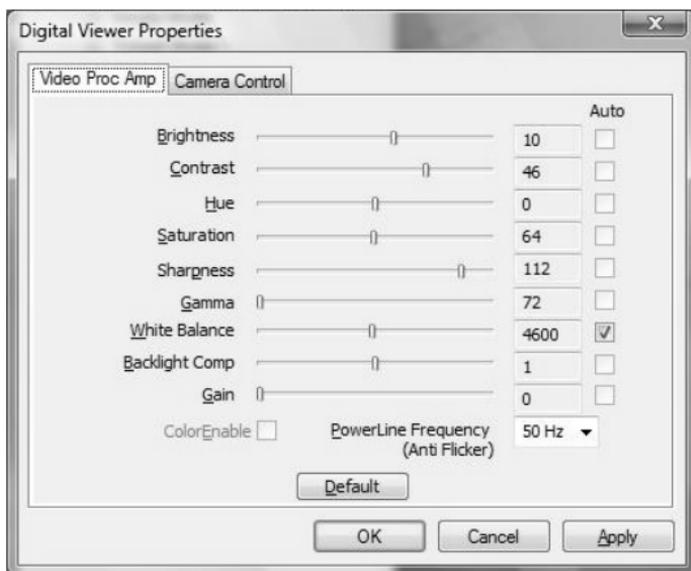
The default location for captured images or videos can be changed under this option.

## ■ **Language setting**

The language of the Digital Viewer 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.



## ■ Saved files

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



## ■ Full screen viewing

To activate the full screen mode, click the full screen button located on the bottom right hand corner of the Digital Viewer application software window.

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

## ■ Care and maintenance

- Keep the device dry and protect it from water and moisture.
- Do not leave your device in a place with an 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 place lighted Digital Microscope upon the eye, doing so may cause permanent eye damage.
- Do not attempt to open or dismantle the Digital Microscope.

### **CARSON ONE YEAR LIMITED WARRANTY**

This Carson product is warranted to be free from defects in material and workmanship for a period of one year from date of purchase. During this period Carson will, at its option and without charge, either repair any part or assembly of parts found to be defective in material or workmanship, or replace this Carson product with a Carson product of comparable value and condition, subject to the limitations and exclusions noted herein.

This warranty extends to the original purchaser only and is not assignable or transferable. It shall not apply to any product that has been subject to misuse, abuse, negligence or accident, or to any defects or damage directly or indirectly caused by the use of unauthorized replacement parts and/or service performed by unauthorized personnel.

This warranty gives you specific legal rights, and you may also have other rights which could vary from state to state. Some states do not allow limitations on the life of an implied warranty and/or do not allow excluding or limiting incidental or consequential damages. If so, the above limitations or exclusions may not apply to you.

## **WARRANTY PROCEDURE**

Provide proof of purchase. A receipt or other dated proof of purchase must be included with merchandise being returned for a warranty claim to be processed.

Call or write for authorization. Before returning any product for a warranty claim, a Return Authorization (RA) number must be obtained. No merchandise will be accepted without an RA, and failure to obtain an RA will prevent or delay processing of the warranty claim. To obtain an RA call 631-963-5000, or write to Carson Warranty Service, 2070 5th Ave., Ronkonkoma NY 11779 with a description of the problem. Include your name, address and telephone number.

Package the return carefully. Shippers will not reimburse for damages due to insufficient packaging, even if the merchandise is insured. Print the RA number prominently on the top of the package.

Prepay shipping. Insure the package. Send it to Carson Warranty Service, 2070 5th Ave., Ronkonkoma NY 11779. Merchandise must be shipped prepaid. Carson will not accept merchandise C.O.D.