Digital loupe 3.5", Manual

SA-9755





Specification

3.5" color backlit display (LCD)
5 M active pixel sensor (CMOS sensor)
10 to 500x magnification
4x integrated digital zoom
Resolution: 12 M, 9 M, 5 M, 3 M, 1.3 M /
Video: 640 x 480 pixels (VGA)
Maximum visible area: approx. 20 x 15 mm
Suitable for objects up to a height/thickness of 40 mm (visible area: approx. 14 x 11.5 mm)
Lighting: 8 white LEDs (adjustable, can be turned off)
USB 2.0 computer connection

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LCD Digital microscope Lithium battery operating time 4 hours, charging time 3 hours Micro SD card 4GB Adapter 220v. USB cable AV cable CD software Manual Cleaning cloth Calibration scales Microscope slide: 95 x 95 mm

Tips and warnings

- Do not use the LCD digital microscope in environments where such devices are prohibited, improper use may result in serious accidents.
- Protect the LCD digital microscope from water and other liquids. Do not use the LCD digital microscope with wet hands. Never use the LCD digital microscope in the rain or snow. Moisture can cause fire and electric shock. If you notice smoke or odors coming from your LCD digital microscope, turn it off immediately. Turn it off immediately.
- The LCD digital microscope may become slightly warm during use. This is not a malfunction.
- Wipe the LCD digital microscope with a soft, dry cloth.

Function and Parts







- 7. Height adjustment block
- 9. LED Dimmer
- 10. Zoom
- 11. Input 5v.

12. AV output

9

10

14

- 13. USB Port
- 14. Battery



A. Play, Back

- B. Menu
- C. OK
- D. Color setting, Up
- E. To the bottom

F. On/OffG. LED DimmerH. Zoom In/OutK. Micro SD slot

Battery

To insert the battery, open the cover. Then you can insert the battery.



The battery charge status is shown in the lower right corner of the display. Additional indicators are the LED lighting and image quality.

If the battery is discharged, the brightness of the lighting will decrease. the brightness of the lighting and image quality will decrease.

SD Card

To save the photos or videos, you need to insert the Micro SD memory card into the device.

- 1. Turning off the microscope
- 2. Slide the Micro SD memory card into the slot and push it until it locks in place. Note: Do not force the Micro SD memory card into the slot to avoid damage to the digital LCD microscope and the memory card. Hold the Micro SD memory card as shown and try again.



3. If the SD is functional you will see the following icon on the screen



Screen Symbols







Number of images saved/total number that can be saved (depending on resolution).

You can turn off the display of the symbols by pressing the zoom button (R) briefly.



Photo Capture

- 1. Press the On/Off button (F) to turn the unit on or off.
- 2. Place the object on the object table (5).
- 3. Move the object table (5) up with knob (7) f until close to the microscope lens (4).
- 4. Magnification and image cross section result from the magnification set with the knob (3) and the table height, which is set with the knob (7). If the object is brought to the lower edge of the microscope with the table, you can set knob (3) just before the right stop (+), a second focus can be set for maximum magnification.
- 5. Secure object table with knob (6)
- 6. Set an appropriate LED brightness (9).
- 7. Use the zoom lever (10) to digitally enlarge the image.
- 8. Press the record button (8)

Video recording

To switch to video mode, repeatedly press the (A) button



until the video symbol



appears in the upper left corner. To start recording, press the record button (8), to stop recording, press the record button (8) again.

In video mode, 2 resolutions are available: VGA (640x480 pixels) and QVGA (320x240 pixels). To change the resolution, press button (L)

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After which you can choose between VGA and QVGA.



Exit the menu by pressing the (L) button again.



press.

Display

To open the playback menu, press the (A) button repeatedly



until the playback symbol



appears in the upper left corner.

If only videos are stored on the card, the symbol appears



Use the buttons below



to scroll between photos or videos



Start display

Break

Fast forward or rewind during playback

Stop rewinding and fast-forwarding

Zoom

To the right of the display is the switch for the digital 1x to 4x zoom, which allows the image to be enlarged (upward). The zoom factor is shown on the left side of the display. In playback mode, you will see a thumbnail view of your photos when you press the zoom switch in the Zoom minus (down) direction.



Screen color setting

This function is only available in photo mode. Press the button to switch between color and grayscale. The switching is done in the following order: color, grayscale in positive view, and grayscale in reverse or negative view.

Menu

During playback, you can access the menu by pressing the (B) button

press. With the up (D) or down (E) buttons you can move the picture to the desired item. To delete, if necessary, go into the program with icon

Menu and Settings (button B).

Enters the delete, single or all submenu.



The recordings you want to save goes into the same submenu



Now you can also create a Slide show, with various time intervals





Up/Down in menu

Clear

Slideshow

File security

Confirm choice

Exit menu

Color mode

Press

And choose Color / Positive / Negative.

Connecting to Computer



Connect the microscope to the Computer with the provided USB cable. Then select the PC Camera mode. Launch the PortableCapture software for use with the Microscope. When you connect the Microscope to the PC the buttons on the screen are disabled. The software is described later in this manual.

Connecting to TV (AV)



Plug the supplied AV cable into the TV (video-in) and Microscope (AV-out). Switch the TV to the AV input channel and then the identical image of you Microscope screen will appear.

Charging

Plug the included adapter into back of the microscope and then into the power outlet.

With the battery indicators (15) on the left rear of the Microscope base, you can monitor the charging process.

If the LED is red the battery is charging, if it is off then the battery is full again. After which you can use the Microscope again for 2 hours.

On the bottom right screen, you can monitor the battery capacity.

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VGA			Ē

Main menu 1, Usage settings

Open the menu via the button (B)





In this menu, you can set Resolution, Timer, Quality and Image Sharpness

Resolution

From the main menu, choose the resolution button



Then, using the buttons below, you can



make your choice of resolution, then press the OK (C) button, in the example it is set to 5 Megapixel.



Timer

From the main menu, select Timer Setting.



Then, using the buttons below, you can

Make your choice of how many frames to make, then press the OK (C) button, in the example it is set to

32 frames in a time interval to be determined.



Interval

From the main menu, select Interval setting.



Then, using the buttons below, you can



Make your choice of time interval, then press the OK (C) button, in the example it is set to 15 frames in a time interval to be determined.



Quality

From the main menu, choose Quality setting.



Then, using the buttons below, you can



Make your choice of quality/save compression, then press the OK (C) button, in the example it is set to fine.



Image sharpness

From the main menu, choose the Image Sharpness setting.



Then, using the buttons below, you can



Make your choice of image sharpness, then press the OK (C) button, in the example it is set to normal.



Main menu II, Basic settings

Open the menu via the button (B)





Language

From the main menu, choose Language of the software button



Then, using the buttons below, you can



make your choice of language, then press the OK (C) button, in the example it is set to English.

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R.		English	
\bigcirc		Deutsch	
DATE Fund		Français	
\blacksquare		Español	
menu	_	447	ОК) 1/3

Energy Savings

From the main menu, select Energy saving button



Then, using the buttons below, you can



make your selection of the standby time / period of automatic shutdown, then press the OK (C) button,

in the example it is set to 10 minutes.



Date / Time

From the main menu, choose the Date button



Then, using the buttons below, you can



make your choices of time and date, then press the OK (C) button.



Date / Time when saving recording(s)

From the main menu, choose the Date button



Then, using the buttons below, you can



make your selection of the date / time specified when storing recordings, then press the OK (C) button.



AV-Out

From the main menu, select the AV-out format button



Then, using the buttons below, you can



make your selection of the outgoing AV signal to your TV, then press the OK (C) button.



SD Format

From the main menu, select the SD Formation button



Then, using the buttons below, you can



your choice of reformatting the SD card, then press the OK (C) button.



Reset system

From the main menu, select the SD Formation button



Then, using the buttons below, you can

your choice of return to factory settings, then press the $\mathsf{OK}\left(\mathsf{C}\right)$ button



PortableCapture-Pro Software installation

Place the CD in the CD-ROM drive.

The PortableCapture-Pro software starts up automatically. If the installation does not start automatically, select "setup.exe" on the CD, to install the software on the computer. The installation is completely automatic. For MAC OS, there is a MAC folder on the CD.

Follow the installation wizard during the rest of the installation.

You can now connect your microscope to your PC's USB port, using the included USB cable.

On the screen, you can then choose from the various menus.

PortableCapture

Launch the software by clicking on the icon



The following menu will appear on your screen



Photo Capture

Click on the icon below



Click Capture > Photo



Video recording

Click on the icon below



Click Capture > Video



Timer

Click on the icon below



최 Timer			
 Photo 	🔿 Video		
StartTime	2012/04/18 13:39:07 💌		
Interval(sec):	10		
Video time(sec):	10 🗘		
Total Number:	10		
Captured Number:			
Start	Stop		

Under Timer Photo, you can set the start time, interval time and total number of images. Under Timer Video, you can set the start time, interval time and total number of videos.

Calibration

The software provides a calibration function that allows you to perform the most accurate measurements on your photos. You should always set this function first if you want to obtain correct value when taking measurements.



You can use the Crossing option to check that the scale unit is parallel. Then adjust the magnification until the image is clear. Take a picture of the selected area when the scale unit is parallel to the cross wire, as below. Our experience showed that the measurement could be checked with 99% high precision. Measurement tolerance can be caused by distortion and blur of the human eye.



Double-click the image to open the measurement interface, as below.



Then click on the calibration icon



Click on the start and end points over a known value. Now a dialog box like below will appear and you need to enter the exact value of the trial measurement in Actual measurements.

For correct measurement use the enclosed Calibration Ruler



Now manually enter the actual size in mm of the distance you just defined in the field.



The software will then automatically calibrate the magnification. Click OK and the adjusted magnification factor will appear in the upper right corner. Reliable measurements can now be made on all photos taken after calibration using the same microscope focus setting. If you change the focus for a photograph using the dial on the device, it is necessary to recalibrate. If necessary, you can also manually set the magnification for a single photo or for future shots.

Next, via Any angle Line, you can use the following icon below



Use to measure the value again. If the value measured with software is close to or exactly 100% equal to the exact value of the calibration ruler, it means the calibration is complete.



Changing calibration

To change the magnification and adjust the focus for photo shooting, recalibrate the magnification factor.



Reset magnification > Reset picture magnification. And then restart the calibration (see earlier in this manual)



Change the magnification factor and take several pictures, click on the image to open the measurement interface.

And click on the icon below



Set magnification > Set picture magnification, now a dialog box will appear, as below;



Enter the magnification factor in the dialog box and click OK.

If you want to use the same magnification factor to take pictures, just click on



Set magnification > Set capture magnification.

Now all images will use the same magnification factor and you can start measuring immediately.



Measurements

Double-click on the icon below to open the measurement interface.





The following setting/measurements are from Left to Right;

Line, ring, Square, Polygon, Line length, Oval, Arc, Point to point distance, Point to line distance, Parallel line, Angle.

1. Line measurement at any angle Simply click the mouse button on one point and drag to the next point, then release.

2. Continuous Line Measurement With the continuous line measurement, you can measure any continuous length you want. Simply click the mouse button on one point and drag to the other desired point and then release.

3. Circle radius measurement Simply click and extend to the desired radius, the radius, circumference and area of the circle will appear accordingly.

4. Circle diameter measurement Simply click and extend to the desired diameter, the diameter, circumference and area of the circle will appear accordingly.

5. Three-point angle measurement Just define any three points and click, the value of the angle will then appear.



Drawing

You can draw on the image or add a text and save it for later analysis. Using the icon below, you can select drawing tool under the pull-down menu as below.





Text

Using the icon below, you can select font under the pull-down menu as below.



Icons and statements



Take picture - Used to take a picture one at a time.



Start/Stop recording video.



Timer for photo/video - Set the start time, interval time and total number of photos/videos.



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



Save As



Copy to clipboard



Copy file

Previous





Next



Undo





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Drawing

Text

Measurement

Calibration

Your supplier

