Levenhuk DTX 500 Mobi
Digital Microscope

500x ZOOOOM **5 MEGA PIXELS** **LED ILLUMINATION** **3"**

LI-ION BATTERY **microSD**

Levenhuk
Zoom&Joy

Levenhuk DTX 500 Mobi
Digital Microscope

EN

Never, under any circumstances, look directly at the Sun, another bright source of light or at a laser through this device, as this may cause PERMANENT RETINAL DAMAGE and may lead to BLINDNESS.

Microscope parts

1. Shutter button
2. Zoom adjustment wheel
3. RCA socket
4. USB socket
5. Power cable socket
6. LEDs
7. Objective lens
8. Tripod threaded hole
9. MicroSD card slot
10. Wrist strap clip
11. Focus wheel
12. Brightness adjustment wheel
13. Battery compartment
14. LCD display
15. ▲ (color mode switch and scrolling)
16. Menu
17. OK
18. ▼ (DOWN)
19. ◄ (LEFT/ BACK)
20. Power button
21. Speaker
22. Microphone
23. Battery status indicator

The kit includes: microscope, tripod, rechargeable battery, power cable, USB cable, RCA cable, Levenhuk DTX installation CD, pouch, wrist strap, cleaning cloth, user guide.

Microscope assembly

Open the battery compartment and insert the battery into the battery compartment matching the indicated polarity. The battery has to be fully charged before turning the microscope on for the first time. Plug the power cable into the power cable socket on the microscope body (5) and connect it to a power source. The battery status indicator (23) will turn red. Once the battery is fully charged, the indicator will go out. You can now disconnect the microscope from the power source and turn it on. The fully-charged battery allows you to use the microscope for two hours. The illumination will grow dim and the image quality will decrease to inform you that the battery is low. Charge the battery, as described above.

A MicroSD card (purchased separately) is required to save captured images and recorded videos. Turn the microscope off and insert the MicroSD card into the corresponding slot on the microscope body until it locks in place with a click. Do not apply excessive force when inserting the MicroSD card. Try rotating the card, if it does not lock in place with ease. Format the card before using it.

To turn the microscope on, open the LCD display or press the power button (20). To turn the microscope off, fold the LCD display or press the power button (20) again (refer to Power saving section for more information).
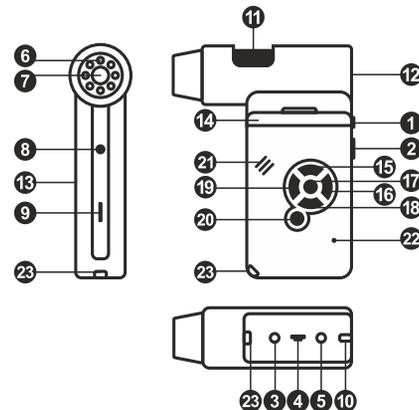
📷	Image capture mode icon
🗗	Sequence capture mode icon
00013/01618	Captured image counter/Total number of images that may be captured (based on the current resolution)
SD	MicroSD status icon
5.0M	Current image resolution
🔋	Battery status indicator

Note: interface icons may be hidden by pressing the magnification adjustment wheel (9).

Using the microscope

Capturing an image
Turn the microscope on and point it at an object. Make sure the LCD display is fully unfolded. Adjust the illumination brightness, so that the specimen is evenly lit. Change magnification, then focus your view and press the shutter button (1) to capture an image.

Recording a video
Press the ◄ key (19) to switch to video mode. The icon in the upper left corner of the screen will change in confirmation. Press the shutter button (1) to start recording and press it again to stop.

Playing recorded videos
Press the ◄ key (19) to switch to playback mode. The icon in the upper left corner of the screen will change in confirmation. Select the desired video clip with scroll keys and press **OK** to play it.

Deleting files
When browsing saved files, press the **Wrench** key (16), select **Delete...** press **OK** to confirm selection (you can choose to delete everything or just the selected file from the displayed menu).

Protecting files
When browsing saved files, press the **Wrench** key (16), select **Protect** press **OK** confirm selection (you can choose to protect everything or just the selected file from the displayed menu).

Slideshow
When browsing saved files, press the **Wrench** key (16), select **Slide Show** and press **OK** to confirm selection.

Interface color mode
When browsing saved files, press the ▲ (15) key to switch between existing interface color modes.

Zoom
Scroll the zoom adjustment wheel (2) to zoom your view in or out.

Note: zoom range of Levenhuk DTX 500 Mobi is 1x–4x.

Attaching the tripod
Place the tripod on a stable surface. Connect the tripod to the threaded hole (10) on the microscope and rotate the microscope until it locks in place. Do not apply excessive pressure during rotation, as this may damage both the microscope and the tripod. Tripod height may be adjusted, if necessary.

Transferring files to a computer
Connect the microscope to your computer with a USB cable and, when the AutoPlay window appears, choose to use the microscope as an external storage device.

Main menu
Press the **Wrench** key (16) to open the main menu. From this menu you can set image resolution, adjust image quality and sharpness, as well as set parameters for sequence capture.

Resolution
Select **Resolution** the main menu choose the required image resolution. Press **OK** to confirm selection.

Note: model supports the following resolutions: VGA / 1.3M / 3M / 5M / 9M / 12M.

Sequence capture
Select **Timer** from the main menu and set the total number of images to be captured in the **Frames** dialog window. Confirm your selection by pressing **OK**. A new dialog window will appear where you can set the interval between images using the ▲ and ▼ keys. Press **OK** to confirm and ◄ to return to capture mode. Press the shutter button to start capturing images. The icon in the upper left corner will change in confirmation. Once the set number of images has been captured, the screen will return to standard capture mode. Press the shutter button at any time to stop sequence capture.

Quality
Select **Quality** from the main menu and choose one of the existing settings. This will change the compression rate of captured images.

Sharpness
Select **Sharpness** from the main menu and choose one of the existing settings.

Language
Select **Language** from the main menu and choose one of the existing settings. Press **OK** to confirm selection.

Power saving
Select **Power Save** from the main menu and set the idle time before the microscope automatically shuts down.

Display frequency
Select **Frequency** from the main menu and choose one of the existing settings. Press **OK** to confirm selection.

Date and time display
Select **Date Stamp** from the main menu and choose one of the existing settings.
You can opt to display the date or both date and time. Press **OK** to confirm selection.

TV connection
Select **TV Out** from the main menu and choose one of the existing settings.
Press **OK** to confirm selection.

Date and time
Select **Date/Time** from the main menu and set the current date and time. Press **OK**
to confirm entry. You can also choose one of the following date formats: YY/MM/DD,
DD/MM/YY or MM/DD/YY.

Format SD card
Select **Format SD** from the main menu to format the installed memory card.

Settings reset
Select **Sys. Reset** from the main menu to revert back to factory settings.

Hardware version
Select **Version** from the main menu to check the current hardware version.

Connecting the microscope to a TV-set
Plug the RCA cable into the microscope and connect it to your TV-set (refer to the User
Guide of your TV-set for additional information). Turn on the TV and select the correct
channel from the corresponding menu of the TV-set (refer to the User Guide of your
TV-set for additional information).

PortableCapture software

Insert the installation CD into your CD drive. The Main Menu window will be displayed.
Select **PortableCapture software** to install the PortableCapture application. Keep in mind
that a system restart will be required during installation.The installation CD contains
a copy of this User Guide, which you can read by clicking the corresponding entry
in the Main Menu.

Connect the microscope to your PC with a USB cable and run the PortableCapture
application. A pop-up message will warn you if the microscope is not connected to the PC.

Image resolution
From the **Options** menu, select **Preview Size** to set the required image resolution.

Rotating the image
From the **Options** menu, select **Rotate** and choose to rotate created images 90°
clockwise or counterclockwise.

Date and time
From the **Options** menu, select **Date/Time** to display or hide the date and time of capture
during preview.

Language
From the **Options** menu, select **Language** to change the language of the user interface.

Full screen mode
There are three ways to enter full screen mode:
1. Double-click an image in the main window;
2. Click the **Full screen mode** icon on the toolbar;
3. From the **Options** menu, select **Fullscreen mode**.

To exit full screen mode, click the corresponding icon on the toolbar.

Capturing an image
Click the corresponding icon on the toolbar or select **Photo** from the **Capture** menu, or press
F11
on your keyboard. A thumbnail of the captured image will appear on the right side of the main
window.

Recording a video
Click the corresponding icon on the toolbar or select **Video** from the **Capture** menu.
The camcorder icon on the toolbar will change once you start recording. To stop recording
you can either click the corresponding icon on the toolbar again or select **Stop capturing**
from the **Capture** menu.

Note: recommended video resolution is 640x480.

Preview
Left-click the thumbnail of the image you wish to edit and it will open in the main window of
the application. The image resolution will be displayed in the bottom left corner of the screen.
Double-clicking a thumbnail will open the image in a separate window.

Saving images
To save an image, right-click the thumbnail of the desired image and select **Save** from the
drop-down menu.Images may be saved in .jpeg and .bmp formats. When saving images in
.jpeg format, clicking **Advanced** allows you to view and edit additional options.

Deleting images
To delete an image, right-click the thumbnail of the desired image and select **Delete** from the
drop-down menu.When viewing images in a separate window, you can click the corresponding
icon on the toolbar to delete the image.

Copying images
To copy an image, right-click the thumbnail of the desired image and select **Copy** from the drop-down menu.

Working with video clips
Right-click a video clip thumbnail and choose whether you want to watch, copy or delete the chosen clip from a drop-down menu.

Exiting the application
To exit the application, choose **Exit** from the **File** menu.

Calibration and measurements

Place a ruler on the stage, focus your view and aimage. Take note of the current magnification by looking at the calibration scale on the microscope body. Double-click the image thumbnail to open it in a separate window. Enter the magnification value into the corresponding field in the upper right corner of the preview window. Upon calibrating the microscope, you will be able to measure various parameters of observed specimens. All the buttons on the toolbar of the preview window are described below.

Line
Press and hold the left mouse button to start drawing a line. Release the left mouse button to complete the line.

Free-form line
Press and hold the left mouse button and draw a line. Release the left mouse button to complete the segment. You can continue adding more segments to the free-form line.

Radius
Draw a straight line on the image. The application will automatically calculate the radius, as well as circumference and area of the corresponding circle.

Diameter
Draw a straight line on the image. The application will automatically calculate the diameter, as well as circumference and area of the corresponding circle.

Angle
Press and hold the left mouse button to draw a line on the image. Release the left mouse button and draw another line. The application will automatically calculate value of the resulting angle.

Measurement units
From the drop-down menu on the toolbar you can select measurement units for calculations (pixels, inches, kilometers, meters, centimeters, millimeters, microns).

A	Press this button to create a text box on the image
Tᴛ	Press this button to edit font parameters
⟋ ⟍ ☐	These buttons allow you to draw something on the image
▬	Press this button to choose the line color
—	Press this button to choose the line thickness
—	Press this button to choose the line style
◀	Press this button to undo the last action
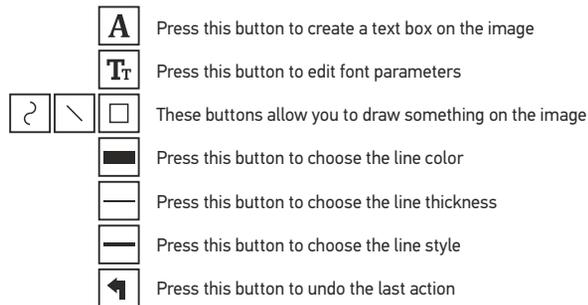
Note:
1. Magnification range of Levenhuk DTX 500 Mobi is 20x–500x. Do not use magnification values that exceed this range.
2. The application calculates values based on the magnification you have entered. The results may not be precise.
3. Measurement functions are only available to MS Windows users.

Working with the application for Mac OS users

Installing software
Browse to the **mac** folder on the installation CD and copy **PortableCapture** file to the desktop.

Operating the microscope
Use a USB cable to connect the microscope to your computer. Run the PortableCapture application by double-clicking its icon.

Observing specimens
A magnified image of the observed specimen may be seen in the main window of the application.

Image resolution
From the **Options** menu, select **Preview Size** to set the image resolution. Keep in mind that the preview window cannot be resized (standard resolution is 640x480). The image resolution is shown in the bottom left corner of the preview window.

Date and time
From the **Options** menu, select **Date/Time** to display or hide the date and time of capture during preview.

Capturing an image

Click the corresponding icon on the toolbar or select **Photo** from the **Capture** menu to capture an image. An image thumbnail will appear on the right side of the main window.

Recording a video
Click the corresponding icon on the toolbar or select **Video** from the **Capture** menu to start recording a video.

Note: during recording, the camcorder icon on the toolbar will turn red. Click the icon again to stop recording.

Editing images and videos
Image and video thumbnails are displayed on the right side of the main window of the application. Double-click an image thumbnail to open it in a separate preview window. Editing images with PortableCapture application is similar to working with other applications in Mac OS.

Care and maintenance

Never, under any circumstances, look directly at the Sun, another bright source of light or at a laser through this device, as this may cause PERMANENT RETINAL DAMAGE and may lead to BLINDNESS**.** White LEDs are very bright; do not look at them as this may cause permanent damage to your vision. Take necessary precautions when using the device with children or others who have not read or who do not fully understand these instructions. After unpacking your microscope and before using it for the first time check for integrity and durability of every component and connection. Do not try to disassemble the device on your own for any reason. For repairs and cleaning of any kind, please contact your local specialized service center. Protect the device from sudden impact and excessive mechanical force. Do not apply excessive pressure when adjusting focus. Do not overtighten the locking screws. Do not touch the optical surfaces with your fingers. To clean the device exterior, use only special cleaning wipes and special optics cleaning tools from Levenhuk. Abrasive particles, such as sand, should not be wiped off lenses, but instead blown off or brushed away with a soft brush. Do not use the device for lengthy periods of time, or leave it unattended in direct sunlight. Keep the device away from water and high humidity. Be careful during your observations, always replace the dust cover after you are finished with observations to protect the device from dust and stains. If you are not using your microscope for extended periods of time, store the objective lenses and eyepieces separately from the microscope. Store the device in a dry, cool place away from hazardous acids and other chemicals, away from heaters, open fire and other sources of high temperatures. To avoid data loss or equipment damage, always close the application first, and then disconnect the microscope from your PC. Wait until the illumination goes off completely, and disconnect the microscope. Seek medical advice immediately if a small part or a battery is swallowed.

Battery safety instructions

Always purchase the correct size and grade of battery most suitable for the intended use. Always replace the whole set of batteries at one time; taking care not to mix old and new ones, or batteries of different types. Clean the battery contacts and also those of the device prior to battery installation. Make sure the batteries are installed correctly with regard to polarity (+ and -). Remove batteries from equipment that is not to be used for an extended period of time. Remove used batteries promptly. Never attempt to recharge primary batteries as this may cause leakage, fire, or explosion. Never short-circuit batteries as this may lead to high temperatures, leakage, or explosion. Never heat batteries in order to revive them. Remember to switch off devices after use. Keep batteries out of the reach of children, to avoid risk of ingestion, suffocation, or poisoning.

Specifications

Image sensor	5Mpx (up to 12Mpx by interpolation)
Magnification	20x–200x–500x
Available image resolutions	12Mpx, 9Mpx, 5Mpx, 3Mpx, 1.3Mpx, VGA
Photo/video format	*.jpeg/*.avi
Memory card	microSD up to 32Gb (not included)
Objective lens	high-quality lens
Display	color display 3" TFT, 4:3 ratio
Illumination	8-LED system with variable brightness
Power source	Li-ion battery (3.7V/1050mAh)
	Operation time: 4 hours, charging time: 5 hours
Frame rate	30fps
Power cable	100–240V, 50/60Hz; 5V, 1A output
OS language	English, German, French, Spanish, Italian, Portuguese, Japanese, Chinese
Software language	English, German, French, Spanish, Russian, Italian, Portuguese, Polish, Dutch, Japanese, Korean, Chinese
Dimensions (HxWxD)	330x70x150mm
Weight	700g (with the battery)

Levenhuk reserves the right to modify or discontinue any product without prior notice.

System requirements

Operating system: Windows 7/8/10, Mac 10.6~10.8,
CPU: at least P4 1.8GHz, RAM: 512MB, interface: USB 2.0

Levenhuk International Lifetime Warranty

All Levenhuk telescopes, microscopes, binoculars and other optical products, except for accessories, carry a lifetime warrantyagainst defects in materials and workmanship. Lifetime warranty is a guarantee on the lifetime of the product on the market. Levenhuk accessories are warranted to be free of defects in materials and workmanship for six monthsfrom date of retail purchase. Levenhuk will repair or replace such product or part thereof which, upon inspection by Levenhuk, is found to be defective in materials or workmanship. As a condition to the obligation of Levenhuk to repair or replace such product, the product must be returned to Levenhuk together with proof of purchase satisfactory to Levenhuk. This warranty does not cover consumable parts, such as bulbs (electrical, LED, halogen, energy-saving and other types of lamps), batteries (rechargeable and non-rechargeable), electrical consumables etc.

For further details, please visit our web site: www.levenhuk.com/warranty