

# Levenhuk 400 Series Microscopes

Levenhuk 400M

Levenhuk 400B

Levenhuk 400T

Levenhuk D400T

Levenhuk D407 LCD



- EN User Manual
- BG Ръководство за потребителя
- CZ Návod k použití
- DE Bedienungsanleitung
- ES Guía del usuario
- HU Használati útmutató
- IT Guida all'utilizzo
- PL Instrukcja obsługi
- PT Manual do usuário
- RU Инструкция по эксплуатации
- TR Kullanım kılavuzu

*Наслади се отблизо*

*Radost zaostřit*

*Zoom ran und hab Fun!*

*Amplie y disfrute*

*Kellemes nagyítást!*

*Ingrandisci il divertimento*

*Radość przybliżania*

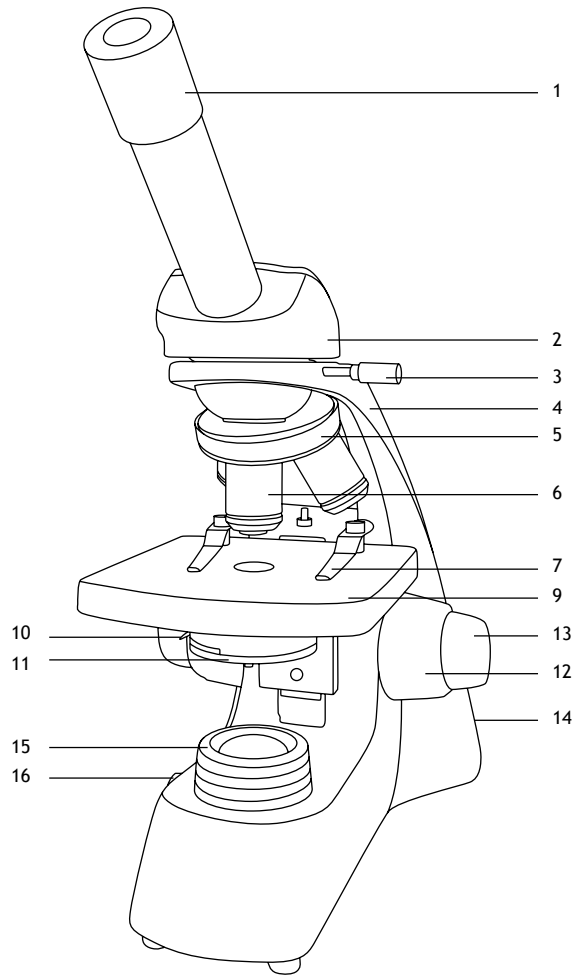
*Dê um zoom na sua emoção*

*Приближает с удовольствием*

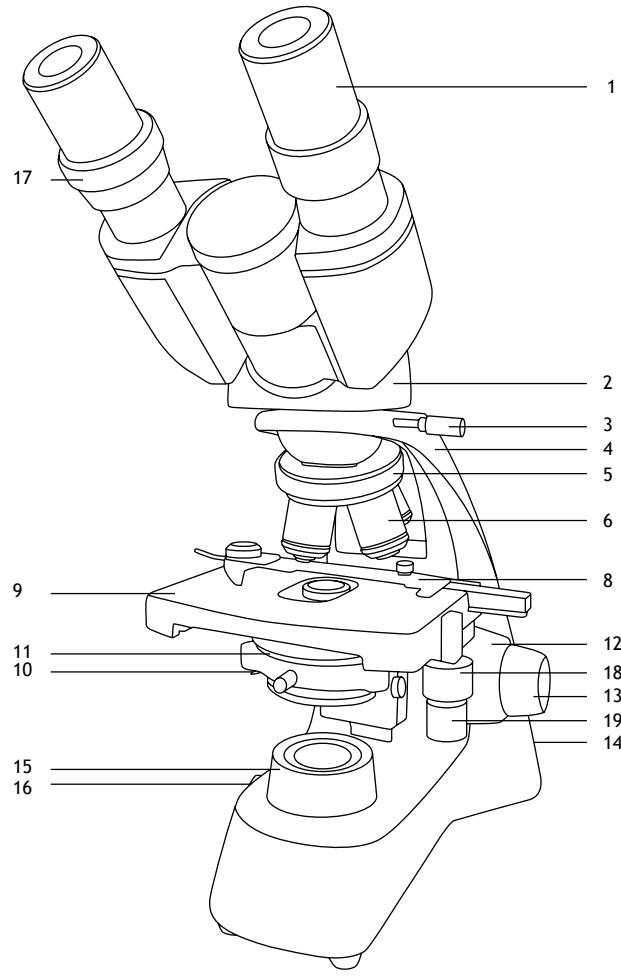
*Yakınlaştırın ve Keyfini Çıkarın*

**levenhuk**  
Zoom&Joy

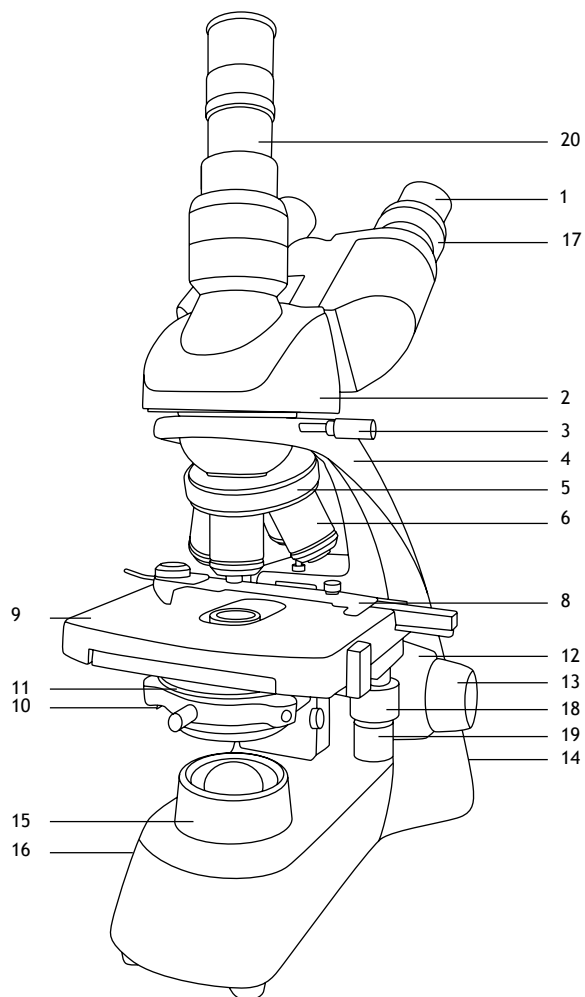
1a. Levenhuk 400M



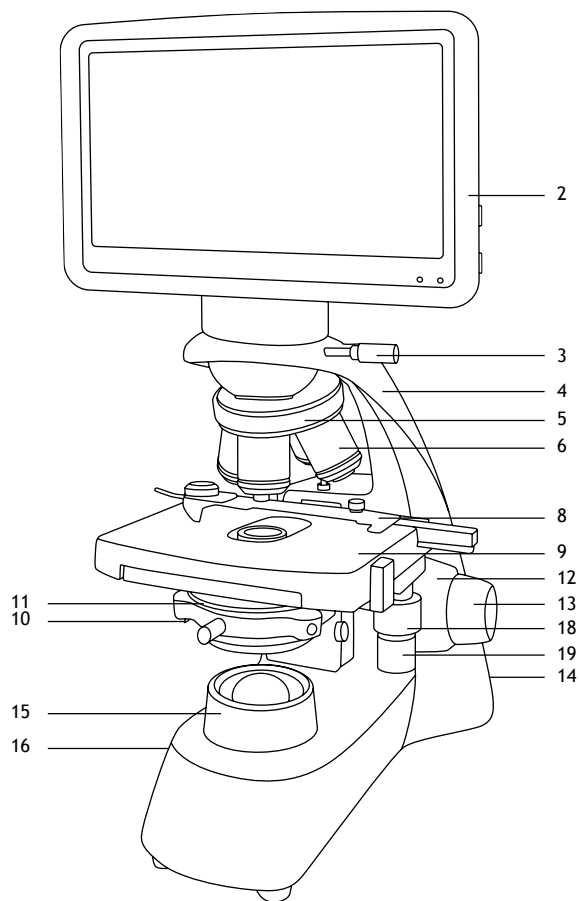
1b. Levenhuk 400B



1c. Levenhuk 400T  
Levenhuk D400T



1d. Levenhuk D407 LCD



**EN**

1. Eyepiece
2. Eyepiece head/LCD screen
3. Monocular/binocular/trinocular head locking screw
4. Arm
5. Revolving nosepiece
6. Objective
7. Specimen holders
8. Mechanical scale
9. Stage
10. Aperture diaphragm adjustment rod
11. Condenser with filter holder
12. Coarse focusing knob
13. Fine focusing knob
14. Illumination on/off button (not shown)
15. Collector
16. Brightness adjustment knob (not shown)
17. Diopter adjustment ring
18. Stage moving knob (right/left)
19. Stage moving knob (back/forth)
20. Third eyepiece tube (trinocular models only)

**BG**

1. Окуляр
2. Глава на окуляра/течнокристален екран
3. Закljučващ винт на монокулярната/бинокулярната/тринокулярната глава
4. Рамо
5. Револверна глава
6. Обектив
7. Държачи за образец
8. Механична скала
9. Предметна маса
10. Лостче за регулиране на апертурата на диафрагмата
11. Кондензатор с държач за филтри
12. Бутон за грубо фокусиране
13. Бутон за фино фокусиране
14. Бутон за включване/изключване на осветлението (не е показан)
15. Колектор
16. Бутон за регулиране на яркостта (не е показан)
17. Пръстен за регулиране на диоптъра
18. Бутон за преместване на предметната маса (надясно/наляво)
19. Бутон за преместване на предметната маса (назад/напред)
20. Трета тръба на окуляра (само за тринокулярни модели)

**CZ**

1. Okulár
2. Hlavice s očnicí/LCD obrazovka
3. Pojistný šroub monokulární/binokulární/trinokulární hlavy
4. Rameno
5. Revolverový nosič objektivů
6. Objektiv
7. Držáky preparátů
8. Mechanická stupnice
9. Pracovní stolek
10. Páčka pro nastavení aperturní clony
11. Kondenzor s držákem filtru
12. Makrošroub pro hrubé zaostření
13. Mikrošroub pro jemné zaostření
14. Tlačítko zapnutí/vypnutí osvětlení (není zobrazeno)
15. Kolektor
16. Knoflík pro nastavení jasu (není zobrazeno)
17. Kroužek dioptrické korekce
18. Ovládací knoflík posuvu pracovního stolku (vpravo/vlevo)
19. Ovládací knoflík posuvu pracovního stolku (dozadu/dopředu)
20. Třetí tubus okuláru (pouze trinokulární modely)

**DE**

1. Okular
2. Okularkopf/LCD-Bildschirm
3. Monokular-/Binokular-/Trinokularkopf-Fixierschraube
4. Arm
5. Revolver
6. Objektiv
7. Probenhalter
8. Physische Skala
9. Objektstisch
10. Irisblende-Einstellstab
11. Kondensator mit Filterhalter
12. Grobtrieb
13. Feintrieb
14. Beleuchtung-Ein-/Ausschalter (nicht abgebildet)
15. Sammellinse
16. Helligkeitsregler (nicht abgebildet)
17. Dioptrienring
18. Tischverstellungsknopf (links/rechts)
19. Tischverstellungsknopf (vorwärts/rückwärts)
20. Dritter Okulartubus (nur Trinokularmodelle)

**ES**

1. Ocular
2. Cabezal del ocular/pantalla LCD
3. Tornillo de bloqueo del cabeza monocular/binocular/trinocular
4. Brazo
5. Revólver giratorio
6. Objetivo
7. Porta muestras
8. Micrómetro mecánico
9. Platina
10. Varilla de ajuste del diafragma de apertura
11. Condensador con soporte de filtro
12. Mando de enfoque aproximado
13. Mando de enfoque preciso
14. Botón de encendido/apagado de la iluminación (no se muestra)
15. Lente colectora
16. Mando de ajuste del brillo (no se muestra)
17. Anillo de ajuste de las dioptrías
18. Mando de movimiento de la platina (derecha/izquierda)
19. Mando de movimiento de la platina (atrás/adelante)
20. Tercer tubo ocular (solo modelos trinoculares)

**HU**

1. Szemlencse
2. Szemlencse fejrész/LCD-kijelző
3. Egy-/kettő-/háromszemlencsés fejrész rögzítőcsavar
4. Kar
5. Revolverfej
6. Objektiv
7. Mintatartók
8. Mechanikus skála
9. Tárgasztal
10. Rekesznyílás állítórúd
11. Kondenzor szűrőtartóval
12. Durva-fókuszállító gomb
13. Finom-fókuszállító gomb
14. Világítás be-/kikapcsoló gomb (nem látható)
15. Kollektor
16. Fényerősség állítógomb (nem látható)
17. Dioptria-állító gyűrű
18. Tárgasztal mozgató gomb (jobb/bal)
19. Tárgasztal mozgató gomb (előre/hátra)
20. Harmadik szemlencsecső (csak háromszemlencsés modelleknél)

## IT

1. Oculare
2. Testata oculare/Schermo LCD
3. Vite di fissaggio della testata monoculare/binoculare/trinoculare
4. Stativo
5. Revolver portaobiettivi
6. Obiettivo
7. Portacampione
8. Traslatore meccanico
9. Tavolino
10. Leva di regolazione dell'apertura del diaframma
11. Condensatore con portafiltro
12. Manopola di messa a fuoco grossolana
13. Manopola di messa a fuoco fine
14. Interruttore per l'illuminazione (non visibile)
15. Collettore
16. Manopola di regolazione della luminosità (non visibile)
17. Ghiera di regolazione diottrica
18. Manopola per il movimento del tavolino (destra/sinistra)
19. Manopola per il movimento del tavolino (avanti/indietro)
20. Terzo tubo ottico (solo modelli trinoculari)

## PL

1. Okular
2. Głowica okularowa/ekran LCD
3. Śruba blokująca głowicy monokularowej/dwuokularowej/trójokularowej
4. Ramię
5. Miska rewolwerowa
6. Obiektyw
7. Zaczepy do preparatów
8. Skala mechaniczna
9. Stolik
10. Pręt regulacji przysłony aperturowej
11. Kondensator z uchwytem filtra
12. Pokrętło zgrubnej regulacji ostrości
13. Pokrętło precyzyjnej regulacji ostrości
14. Przycisk wł./wył. oświetlenia (niepokazany)
15. Kolektor
16. Pokrętło regulacji jasności (niepokazany)
17. Pierścień regulacji dioptrii
18. Pokrętło przesuwania stolika (w prawo/w lewo)
19. Pokrętło przesuwania stolika (do tyłu/do przodu)
20. Tuba trzeciego okularu (tylko modele trójokularowe)

## PT

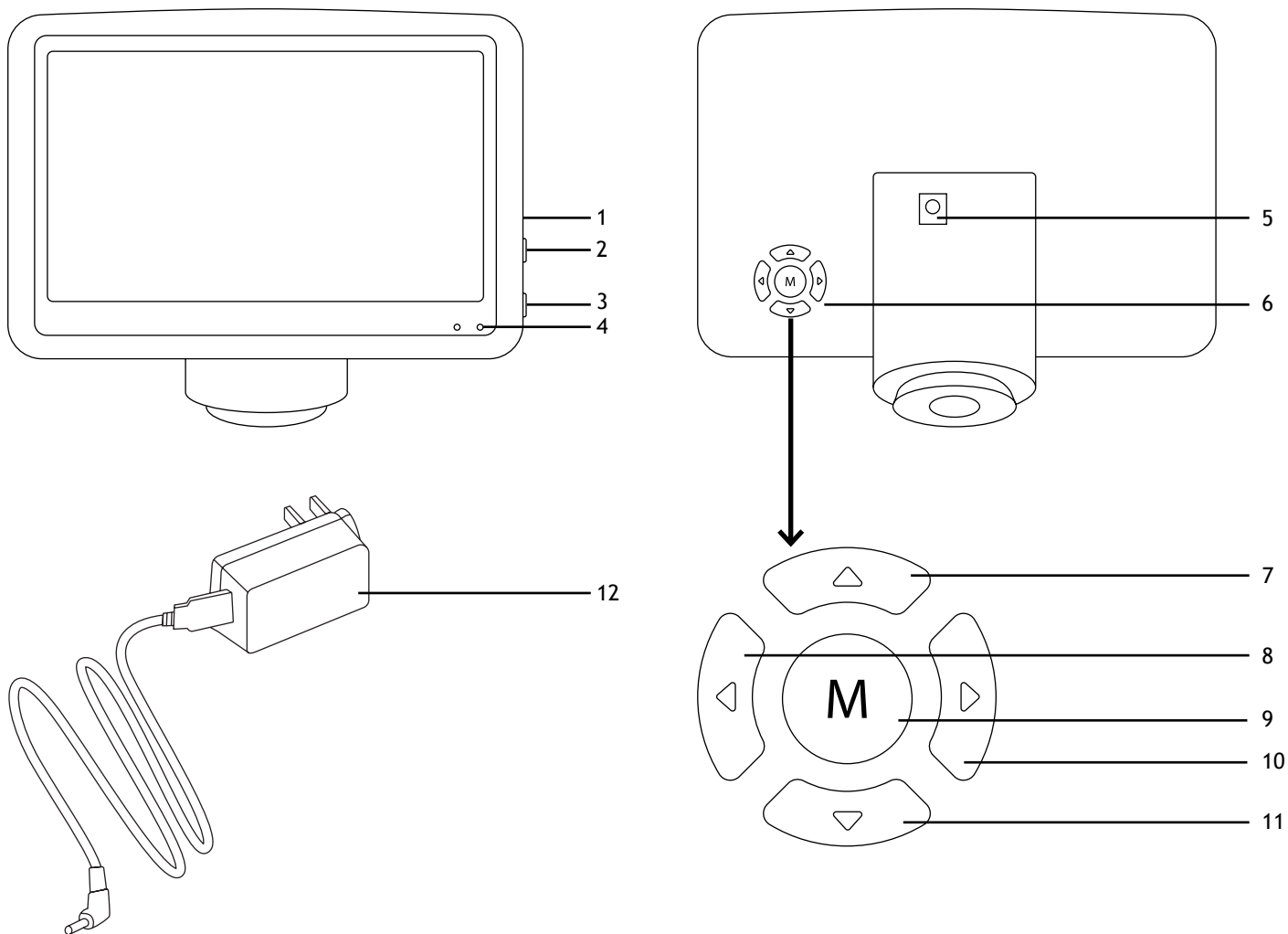
1. Ocular
2. Cabeça da ocular/ecrã LCD
3. Parafuso de bloqueio da cabeça monocular/binocular/trinocular
4. Braço
5. Revólver giratório
6. Objetiva
7. Suportes de espécimes
8. Balança mecânica
9. Platina
10. Haste de ajuste do diafragma de abertura
11. Condensador com suporte do filtro
12. Botão de focagem grosseira
13. Botão de focagem fina
14. Botão de ligar/desligar a iluminação (não apresentado)
15. Coletor
16. Botão de ajuste do brilho (não apresentado)
17. Anel de ajuste de dioptria
18. Botão de deslocação da lâmina (para a direita/para a esquerda)
19. Botão de deslocação da lâmina (para a frente/para trás)
20. Terceiro tubo ocular (apenas modelos trinocular)

## RU

1. Окуляр
2. Окулярная насадка/ЖК-экран
3. Фиксатор монокулярной/бинокулярной/тринокулярной насадки
4. Опорная стойка
5. Револьверное устройство
6. Объектив
7. Держатели препарата (зажимы)
8. Препаратоводитель
9. Предметный столик
10. Регулятор апертурной диафрагмы
11. Конденсор с держателем фильтра
12. Ручка грубой фокусировки
13. Ручка тонкой фокусировки
14. Кнопка вкл/выкл подсветки (не показана)
15. Коллектор
16. Регулятор яркости подсветки (не показан)
17. Кольцо диоптрийной настройки
18. Перемещение столика по горизонтали (вправо/влево)
19. Перемещение столика по горизонтали (вперед/назад)
20. Третья окулярная трубка (только тринокулярные модели)

## TR

1. Göz merceği
2. Göz merceği başlığı LCD ekran
3. Monoküler /Binoküler/üç mercekli başlık kilitleme vidası
4. Kol
5. Döner burun parçası
6. Objektif
7. Numune tutucular
8. Mekanik ölçek
9. Lamel yuvası
10. Açıklık diyaframı ayarlama çubuğu
11. Filtre tutuculu kondansatör
12. Kaba odaklama düğmesi
13. İnce odaklama düğmesi
14. Aydınlatma açma/kapatma düğmesi (gösterilmemiş)
15. Kolektör
16. Parlaklık ayar düğmesi (gösterilmiyor)
17. Diyopter ayar halkası
18. Lamel hareket ettirme düğmesi (sağ/sol)
19. Lamel hareket ettirme düğmesi (geri/ileri)
20. Üçüncü göz merceği tüpü (yalnızca üç mercekli modeller)



## 2. LCD (Levenhuk D407)

EN

1. SD slot
2. Snap button
3. Power on/off
4. LED
5. Power input
6. Menu buttons
7. FOV/Up
8. Enter/Increase
9. Menu/Quit
10. Decrease
11. FOV/Down
12. Power cable

BG

1. Слот за SD карта
2. Бутон за заснемане (Snap)
3. Вкл./изкл. на захранването
4. Светодиод
5. Вход на захранването
6. Бутони на менюто
7. Видимо зрително поле/нагоре
8. Enter/Увеличаване
9. Меню/Изход
10. Намаляване
11. Видимо зрително поле/надолу
12. Захранващ кабел

CZ

1. Slot pro SD kartu
2. Tlačítko Snap (vyfotit)
3. Vypínač napájení (zap/vyp)
4. LED kontrolka
5. Vstup napájení
6. Tlačítko Menu (nabídka)
7. FOV (zorné pole)/Nahoru
8. Zadat/Zvýšit
9. Menu (nabídka)/Ukončit
10. Snížit
11. FOV (zorné pole)/Dolů
12. Napájecí kabel

**DE**

1. SD-Steckplatz
2. Snap-Taste (Schnappschuss-Taste)
3. Ein/Aus
4. LED
5. Stromeingang
6. Menu-Taste (Menü)
7. Blickfeld/erweitern
8. Eingabe/steigern
9. Menü/verlassen
10. Verringern
11. Blickfeld/verringern
12. Stromversorgungskabel

**ES**

1. Ranura para tarjeta SD
2. Botón de tomar foto (Snap)
3. Botón de encendido/apagado
4. LED
5. Entrada de corriente
6. Botones de menú
7. FOV/Aumentar
8. Entrar/Aumentar
9. Menú/Salir
10. Disminuir
11. FOV/Reducir
12. Cable de alimentación

**HU**

1. SD-hely
2. Snap (Képkészítés) gomb
3. Bekapcsolás / kikapcsolás
4. LED
5. Tápbemenet
6. Menügombok
7. Látómező/fel
8. Enter (belépés) / növelés
9. Menü/kilépés
10. Csökkentés
11. Látómező/le
12. Tápkábel

**IT**

1. Slot SD
2. Pulsante di scatto
3. Interruttore on/off
4. LED
5. Ingresso alimentazione
6. Pulsanti del menù
7. Campo visivo/Su
8. Accedi/Aumenta
9. Menù/Esci
10. Diminuisci
11. Campo visivo/Giù
12. Cavo di alimentazione

**PL**

1. Gniazdo karty SD
2. Przycisk szybkiego zdjęcia
3. Wł./wył. zasilania
4. LED
5. Gniazdo zasilania
6. Przyciski menu
7. Pole widzenia/przycisk w górę
8. Wprowadź/zwiększ
9. Menu/zamknij
10. Zmniejsz
11. Pole widzenia/przycisk w dół
12. Przewód zasilający

**PT**

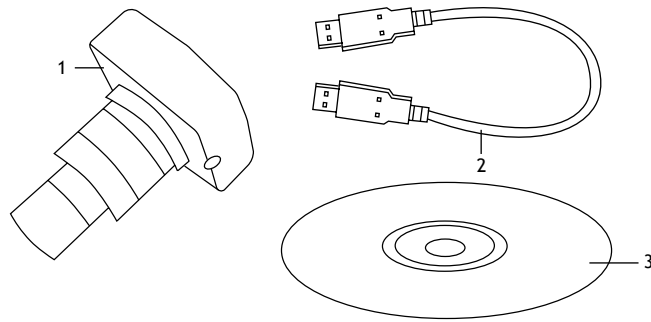
1. Ranhura SD
2. Botão de pressão
3. Ligar/desligar
4. LED
5. Entrada de energia
6. Botões de menu
7. FOV/Para cima
8. Enter/Aumentar
9. Menu/Sair
10. Diminuir
11. FOV/Para baixo
12. Cabo de alimentação

**RU**

1. Разъем карты SD
2. Кнопка «Съемка»
3. Кнопка вкл/выкл питания
4. Светодиодный индикатор
5. Разъем кабеля питания
6. Кнопки управления меню
7. Кнопка «Поле зрения/Вверх»
8. Кнопка «Ввод/Повышение»
9. Кнопка «Меню/Выход»
10. Кнопка «Уменьшение»
11. Кнопка «Поле зрения/Вниз»
12. Кабель питания

**TR**

1. SD yuvası
2. Fotoğraf çekme düğmesi (Snap)
3. Güç açma/kapama
4. LED
5. Güç girişi
6. Menü düğmeleri
7. FOV/Yukarı
8. Giriş/Artır
9. Menü/Çıkış
10. Azalt
11. FOV/Aşağı
12. Güç kablosu



### 3. Digital camera (Levenhuk D400)

**EN**

1. Digital camera
2. USB cable
3. Installation CD

**BG**

1. Цифрова камера
2. USB кабел
3. Инсталационен компактдиск

**CZ**

1. Digitální fotoaparát
2. Kabel USB
3. Instalační CD

**DE**

1. Digitalkamera
2. USB-Kabel
3. Installations-CD

**ES**

1. Cámara digital
2. Cable USB
3. CD de instalación

**HU**

1. Digitális kamera
2. USB-kábel
3. Telepítő CD

**IT**

1. Fotocamera digitale
2. Cavo USB
3. CD di installazione

**PL**

1. Aparat cyfrowy
2. Przewód USB
3. Płyta instalacyjna

**PT**

1. Câmara digital
2. USB cable
3. CD de instalação

**RU**

1. Цифровая камера
2. USB-кабель
3. Компакт-диск с программным обеспечением

**TR**

1. Dijital kamera
2. USB kablosu
3. Kurulum CD'si



## General Information

Read the user manual carefully before you start working with a microscope. Levenhuk 400 Series biological microscopes are safe for health, life and property of the consumer and the environment when properly used, and meets the requirements of international standards. These microscopes are designed for observing transparent objects in the transmitted light using the bright field method. They perform well in clinical research and tests; teaching demonstrations; bacterioscopy and cytology in medical and health establishments, laboratories, universities; and may be used for scientific research in agriculture and microbiology.

## Microscope assembly

- Unpack the microscope carefully and place it on a flat surface.
- Remove the plastic bags and dustproof cover of the eyepiece head.
- Install the monocular, binocular, trinocular head or LCD screen and tighten the locking screw.
- Inspect all the items included in the kit and define their purpose.
- Open the battery compartment, position the batteries according to the polarity marking on the battery compartment, reinsert the battery compartment door and turn on the microscope. Before using the microscope, it is necessary to charge the batteries: insert the batteries into the battery compartment (observe the polarity) and connect the microscope to the mains using the power adapter.

## Use

Please refer to the fig. 1a (monocular model), fig. 1b (binocular model), fig. 1c (trinocular model) and fig. 1d (model with LCD screen).

- Turn on the power and the illumination will turn on. Set the brightness at approximately 70%. Place the specimen on the stage. Make sure the clips hold the specimen firmly in place.
- Iris diaphragm should be adjusted in accordance with numerical aperture of a lens. The best practice is to make the iris diaphragm slightly smaller than the aperture of the selected lens. Open or close the iris diaphragm using the adjustment screws. If the adjustment screw is turned to the right, the iris diaphragm is fully open. **Note:** the diaphragm is not intended for adjusting the brightness of the illumination. To adjust the brightness, use the brightness adjustment knob.
- Slide the filter holder, place the filter in it and then return the holder to its initial position.
- To change the objective magnification, turn the revolving nosepiece until it clicks.
- Make sure that the lens does not touch the sample when adjusting the focus: rotate the coarse focus knob until the specimen is about 3.175mm (1/8") away from the lens.
- Looking into the eyepiece, slowly turn the coarse focusing knob until you can see the image of the observed specimen. Turn the fine focusing knob to make the image clear. The fine focusing mechanism allows you to focus on the observed specimen while using high magnifications.
- When you use an oil immersion objective, the space between the specimen and the lens should be filled with immersion oil. Raise the condenser to the upper position and put a drop of oil on the lens and on the cover glass of the specimen. Move the revolving nosepiece back and forth to get rid of air bubbles in the oil. Then, fix the objective lens in its working position. Make sure that oil fills the entire space between the objective lens and the specimen. After use, wipe the lens dry.
- To adjust the position of the mechanical scale (except for Levenhuk 400M), turn the coarse focusing knob in a clockwise direction if you want to fix the position of the mechanical scale, or in a counterclockwise direction if you want to loosen it.
- To place the specimen in the field of view, move the stage horizontally back and forth or left and right using the stage moving knob (except for Levenhuk 400M).
- Look through the right eyepiece with your right eye and adjust the image sharpness with the coarse and fine focusing knobs. Binocular and trinocular models: then, look through the left eyepiece with your left eye and rotate the diopter adjustment ring to equalize the difference between your left and right eyes vision. Remember the setting for future use. Adjust the distance between the eyepiece tubes of the binocular head so that the image merges into a single circle.
- Trinocular models: you can install the digital camera to the third eyepiece tube.

## LCD screen (Levenhuk D407 LCD)

### Getting started

- Connect the power cable to the power input on the LCD screen and connect it to the network. The red LED will light up. Turn the LCD screen on with the power on/off button; the LED light will change to green.
- Insert the SD card (included) in the SD slot to view the image and save the resulting photos and videos.

### Menu and functions

- Use the buttons on the back of the LCD screen to control the camera functions and parameters. After modifying the parameters, exit the interface to save data.
- Press the **Menu** button to call up the menu. Use  $\uparrow/\downarrow$  to select the functions. Use  $\rightarrow$  to enter the submenu. Press the **Menu** button once again to save the modified parameters and exit the interface.

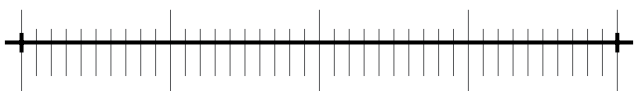
### Photo and video

- **Photo.** Press the **Snap** button on the LCD panel to take a photo. The image will be saved on the SD card.
- **Video.** Before recording a video, make sure that the SD card is formatted with the FAT32 file system and has enough free space. You cannot take photos while recording a video. Enter the menu and select "Record Video" to record a video.

## Basic settings

- White Balance. In this parameter, you can adjust the color temperature. The default option is "Auto White Balance".
- Exposure. In "Auto Exposure", you can set the exposure value. In "Manual Exposure", you can adjust the "time" parameter.
- Color Adjustment. In this parameter, you can adjust saturation, hue, brightness, and contrast.
- Monochrome. By selecting this parameter, you will see the image in different tones of a single color (e.g. shades of gray).
- Flip. This feature allows you to flip the image horizontally or vertically.

## Measurements

1. Cross Line. You can select a cross line in four colors, turn the display on or off, and adjust the position of the center point of the cross line.
2. Calibration. The camera is calibrated by default, but you may need to recalibrate the camera.
  - Put the calibration slide on the stage so that the scale is placed horizontally on the screen. Adjust the focus as clearly as possible.
  - Enter the Calibration menu. Drag a segment of the calibration ruler so that its ends are next to the marks on the physical scale of the calibration slide. For maximum accuracy, try to capture as many scales as possible.
  - Example: The image above uses a ruler with 0.01 mm (10  $\mu\text{m}$ ) divisions under a 10x lens. The camera parameters are set to: "magnification 10x", "units  $\mu\text{m}$ ", and "length 40".
  - Each objective lens must be calibrated to take measurements at different magnifications.
  - After adjusting the parameters, exit the calibration menu to complete the procedure.
3. Recalibration. The calibration process has to be repeated if the magnification or focus has been changed during observations. Enter the **Measurement** menu. Select the magnification, adjust the start and end point, and then the value of the measured segment will be displayed.

## Digital camera (Levenhuk D400T)

Levenhuk D400T comes with a digital camera (fig. 3). A digital camera is installed to the third eyepiece tube and enables observing specimens on the screen in exquisite detail and true color, taking photos and videos, and saving the images for future reference.

## Specifications

Product ID	75419	75420	75421	75435	78932
Model	Levenhuk 400M	Levenhuk 400B	Levenhuk 400T	Levenhuk D400T	Levenhuk D407 LCD
Type	biological/optical			biological/optical, digital	
Research method	bright field				
Magnification	40–400x	40–1000x			60–1500x
Interpupillary distance	–	48–75mm			–
Eyepiece head	monocular, 360° rotatable, inclined at 45°	binocular, 360° rotatable, inclined at 30°	trinocular, 360° rotatable, inclined at 30°		7" color LCD screen
Optics material	optical glass				
Eyepiece tube diameter	23.2mm				–
Third vertical eyepiece tube	–	23.2mm			–
Eyepieces	WF10x/18mm (1pc) with a pointer	WF10x/18mm (2pcs)			–
Eyepiece diopter adjustment	–	±5D			–
Objectives	achromatic: 4x, 10x, 40xs	achromatic: 4x, 10x, 40xs, 100xs (oil)			
Revolving nosepiece	3 objectives	4 objectives			
Stage moving range	–	55/20mm			
Stage	110x110mm, with specimen holders	double layer mechanical, 115x110mm, with mechanical scale			
Focus system	coaxial, coarse (12mm) and fine (0.002mm)			coaxial, coarse (0.5 mm) and fine (0.002mm)	coaxial, coarse (15mm) and fine (0.002mm)
Condenser	0.65 iris diaphragm and filter holder	Abbe N.A. 1.25 iris diaphragm and filter holder			
Body	metal				
Illumination	lower (1W LED) with brightness adjustment				
Collector	+				
Filters	blue, green, yellow			blue	blue, green, yellow
Vial of immersion oil	–	+			–
Power supply	110–220V via AC adapter or 3 AA batteries				
Digital camera	–			3.1Mpx	2Mpx
Camera connector	–	+			–

## Digital camera specifications (Levenhuk D400T)

Megapixels	3.1
Max. resolution (still images)	2048x1536px
Sensor	1/2
Pixel size	3.2x3.2µm
Frame rate	up to 11fps
Exposure time	auto/manual
Spectral range	400–650nm
Video recording	+
Image format	*.jpg, *.bmp, *.png, *.tif
Video format	*.wmv, *.avi
White balance	auto/manual
Output	USB 2.0, 480Mb/sec.
Power supply	DC 5V; via USB 2.0 cable
Software features	image size, brightness, exposure time
System requirements	Windows XP (32-bit), Windows Vista/7/8/10 (32-bit or 64-bit), Mac OS X, Linux processor up to 2.8GHz Intel Core 2 or higher, USB 2.0 port, CD-ROM
The kit includes	microscope digital camera with adapter (23.2mm), USB cable, installation CD with image editing software

## LCD screen specifications (Levenhuk D407 LCD)

Megapixels	2
Max. resolution (still images)	1920x1080px
Sensor	1/2.8
Mounting location	microscope's arm
Pixel size	2.9x2.9µm
Sensitivity	2.0V/lux.sec@706nm
Spectral range	380–700nm
Image format	*.jpg
Video format	*.mp4
White balance	auto/manual
Exposure control	auto/manual
Software	embedded
Connection to a computer/external screen	no
Power supply	5V, 1A via AC adapter

The manufacturer reserves the right to make changes to the product range and specifications without prior notice.



**Caution!** Please remember that mains voltage in most European countries is 220–240V. If you want to use your device in a country with a different mains voltage standard, remember that use of a converter is absolutely necessary.

## 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.** 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. Do not use any corrosive or acetone-based fluids to clean the optics. 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. When using the microscope, try not to use it near flammable materials or substances (benzene, paper, cardboard, plastic, etc.), as the base may heat up during use, and might become a fire hazard. Always unplug the microscope from a power source before opening the base or changing the illumination lamp. Regardless of the lamp type (halogen or incandescent), give it some time to cool down before trying to change it, and always change it to a lamp of the same type. Always use the power supply with the proper voltage, i.e. indicated in the specifications of your new microscope. Plugging the instrument into a different power outlet may damage the electric circuitry of the microscope, burn out the lamp, or even cause a short circuit. Children should use the device under adult supervision only. **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 short-circuit batteries as this may lead to high temperatures, leakage, or explosion. Never heat batteries in order to revive them. Do not disassemble batteries. Remember to switch off devices after use. Keep batteries out of the reach of children, to avoid risk of ingestion, suffocation, or poisoning. Utilize used batteries as prescribed by your country's laws.

## Levenhuk International Lifetime Warranty

All Levenhuk telescopes, microscopes, binoculars and other optical products, except for accessories, carry a **lifetime warranty** against defects in materials and workmanship. Lifetime warranty is a guarantee on the lifetime of the product on the market. All Levenhuk accessories are warranted to be free of defects in materials and workmanship for **six months** from date of retail purchase. The warranty entitles you to free repair or replacement of the Levenhuk product in any country where a Levenhuk office is located if all warranty conditions are met.

For further details please visit our web site: [www.levenhuk.com/warranty](http://www.levenhuk.com/warranty)

If warranty problems arise, or if you need assistance in using your product, contact the local Levenhuk branch.