

Levenhuk ZOOM Series Stereo Microscopes

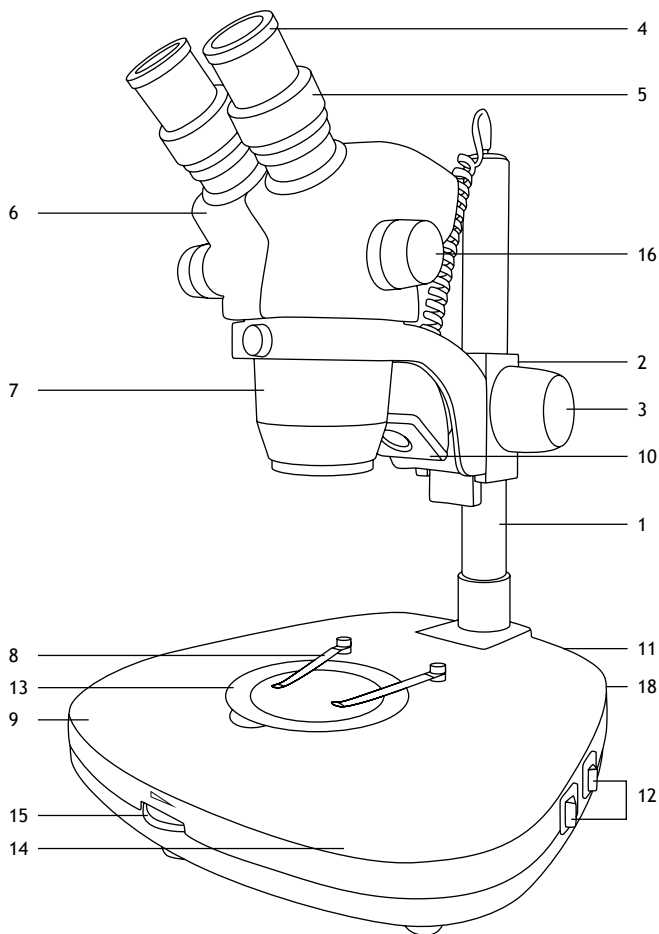
Levenhuk ZOOM 1B
Levenhuk ZOOM 1T



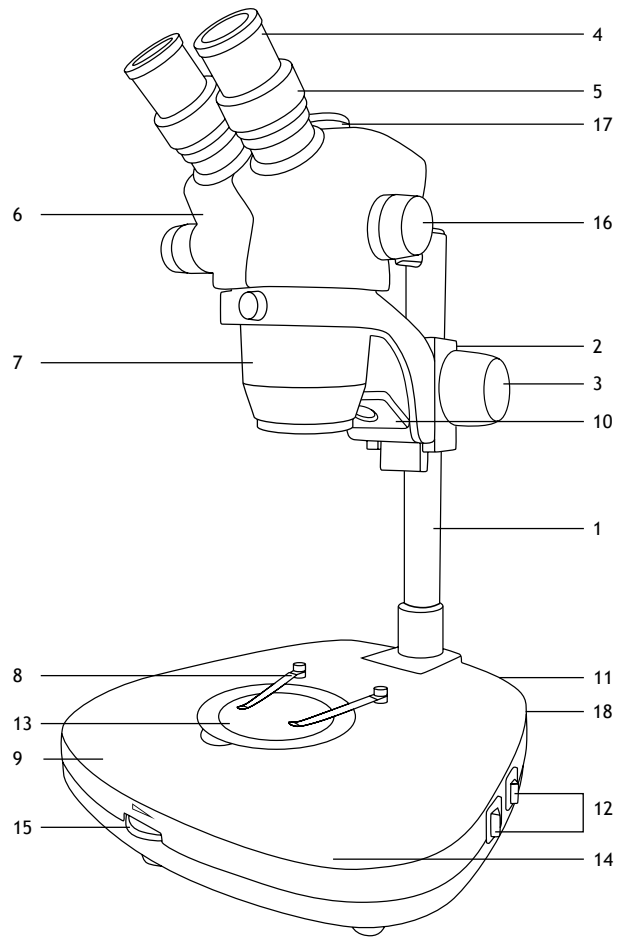
- EN User Manual
- BG Ръководство за потребителя
- CZ Návod k použití
- DE Bedienungsanleitung
- ES Guía del usuario
- HU Használati útmutató
- IT Guida all'utilizzo
- PL Instrukcja obsługi
- PT Manual do usuário
- RU Инструкция по эксплуатации

*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*

levenhuk
Zoom&Joy



1a. Levenhuk ZOOM 1B



1b. Levenhuk ZOOM 1T

EN

1. Pole
2. Locking knob (not shown)
3. Focus knob
4. Eyepieces
5. Diopter adjustment ring
6. Eyepiece head
7. Objective
8. Stage clips
9. Stage
10. Upper illumination
11. Power connector (not shown)
12. Illumination switch
13. Glass stage inset
14. Lower illumination (in the base)
15. Brightness adjustment wheel
16. Magnification adjustment knob
17. Third eyepiece tube (Levenhuk 1T only)
18. Power switch (not shown)

BG

1. Прът на стойката
2. Заклучващ бутон (не е показан)
3. Бутон за фокусиране
4. Окуляри
5. Пръстен за регулиране на диоптъра
6. Окулярна глава
7. Обектив
8. Щипки на предметната маса
9. Предметна маса
10. Горно осветление
11. Съединител за захранването (не е показан)
12. Ключ за осветлението
13. Стъклена вложка на предметната маса
14. Долно осветление (в основата)
15. Колело за регулиране на яркостта
16. Бутон за регулиране на увеличението
17. Трета тръба на окуляра (само за Levenhuk 1T)
18. Ключ на захранването (не е показан)

CZ

1. Sloupek
2. Aretační šroub (nezobrazeno)
3. Ostřící šroub
4. Okuláry
5. Kroužek dioptrické korekce
6. Okulární hlava
7. Objektiv
8. Svorky pracovního stolku
9. Pracovní stolek
10. Vrchní osvětlení
11. Konektor napájení (nezobrazeno)
12. Spínač osvětlení
13. Pracovní stolek se sklem
14. Osvětlení procházejícím světlem (v podstavci)
15. Regulátor nastavení jasu
16. Šroub nastavení zvětšení
17. Třetí tubus okuláru (pouze Levenhuk 1T)
18. Hlavní vypínač (nezobrazeno)

DE

1. Stange
2. Verriegelungsknopf (nicht abgebildet)
3. Fokussierknopf
4. Okulare
5. Dioptrienring
6. Okularkopf
7. Objektiv
8. Objektklammern
9. Objektisch
10. Beleuchtung von oben
11. Stromanschluss (nicht abgebildet)
12. Beleuchtungsschalter
13. Glastischeinsatz
14. Transmissionslicht-Beleuchtung (In der Basis)
15. Helligkeitsregler
16. Vergrößerungsregler
17. Dritter vertikaler Tubus (Nur Levenhuk 1T)
18. Stromschalter (nicht abgebildet)

ES

1. Varilla
2. Tornillo de bloqueo (no se muestra)
3. Mando de ajuste del enfoque
4. Oculares
5. Anillo de ajuste dióptrico
6. Cabezal
7. Objetivo
8. Pinzas
9. Platina
10. Iluminación superior
11. Compartimento de la batería (no se muestra)
12. Iluminación interruptor
13. Placa de vidrio de la platina
14. Iluminación de luz transmitida (en la base)
15. Rueda de ajuste de brillo
16. Mando de ajuste del aumento
17. Tercer tubo ocular (solo Levenhuk 1T)
18. Interruptor de conexión eléctrica (no se muestra)

HU

1. Rúd
2. Rögzítőgomb (nincs feltüntetve)
3. Fókuszállító gomb
4. Szemlencsék
5. Dioptria-állító gyűrű
6. Szemlencse fejrész
7. Objektív
8. Tárgyasztal csíptetői
9. Tárgyasztal
10. Felső világítás
11. Hálózati csatlakozó (nincs feltüntetve)
12. Világítás-kapcsoló
13. Üveges tárgyasztal betét
14. Alsó világítás (a talapzatban)
15. Fényerő szabályzókerék
16. Nagyításszabályzó gomb
17. Harmadik szemlencsecső (csak Levenhuk 1T)
18. Főkapcsoló (nincs feltüntetve)

IT

1. Colonna
2. Manopola di bloccaggio (non visibile)
3. Manopola della messa a fuoco
4. Oculari
5. Ghiera di regolazione diottrica
6. Testata oculare
7. Obiettivo
8. Mollette del tavolino
9. Tavolino
10. Illuminazione superiore
11. Presa di alimentazione (non visibile)
12. Interruttore illuminazione
13. Inserto in vetro per il tavolino
14. Illuminazione inferiore (alla base dello stativo)
15. Rotella regolazione luminosità
16. Manopola di regolazione dell'ingrandimento
17. Terzo tubo ottico (solo Levenhuk 1T)
18. Interruttore dell'alimentazione (non visibile)

PL

1. Statyw
2. Pokręto blokujące (nie pokazano)
3. Pokręto ustawiania ostrości
4. Okulary
5. Pierścień regulacji dioptrii
6. Głowica okularowa
7. Obiektyw
8. Zaciski stolika
9. Stolik
10. Oświetlenie
11. Komora baterii (nie pokazano)
12. Włącznik oświetlenia
13. Stolik ze szkła
14. Źródło światła przechodzącego (w podstawie)
15. Pokręto regulacji jasności
16. Pokręto regulacji powiększenia
17. Tuba trzeciego okularu (tylko Levenhuk 1T)
18. Wyłącznik (nie pokazano)

PT

1. Polo
2. Botão de bloqueio (não apresentado)
3. Botão de focagem
4. Oculares
5. Anel de ajuste de dioptria
6. Cabeça da ocular
7. Objetiva
8. Pinças da platina
9. Platina
10. Iluminação superior
11. Conector de alimentação (não apresentado)
12. Interruptor de iluminação
13. Área de inserção de vidro da platina
14. Iluminação inferior (na base)
15. Roda de ajuste do brilho
16. Botão de regulação de ampliação
17. Terceiro tubo ocular (apenas para Levenhuk 1T)
18. Interruptor de alimentação (não apresentado)

RU

1. Штатив
2. Стопорный винт (не показан)
3. Ручка фокусировки
4. Окуляры
5. Диоптрийное кольцо
6. Окулярная насадка
7. Объектив
8. Зажимы для фиксации препарата
9. Предметный столик
10. Блок верхней подсветки
11. Гнездо сетевого адаптера (не показано)
12. Переключатель подсветки
13. Предметное стекло
14. Блок нижней подсветки (находится в основании)
15. Кольцо регулировки яркости
16. Ручка регулировки увеличения
17. Третья окулярная трубка (только Levenhuk 1T)
18. Переключатель питания (не показан)

General Information

Levenhuk ZOOM Series stereo microscopes are safe regarding the health, life, and property of consumers and the environment when properly used. Thanks to the contrast image, depth of focus, and high resolution, they are widely used in the agriculture, jewelry, and electronic industries, for studying and working with precise mechanisms, etc. Great for studying volumetric opaque objects in the natural science and engineering fields, Levenhuk ZOOM Series Microscopes can also be a common tool for education and research. This series meets the requirements of the international standards.

The kit includes:

- microscope stand and base
- eyepiece head: binocular (ZOOM 1B), trinocular (ZOOM 1T)
- objectives: 0.7–4.5x
- pair of eyepieces: WF10x/22
- power cable
- pair of eyecups
- fuse
- dust cover
- user manual and lifetime warranty

Microscope parts

Base. It supports the weight of the microscope, and houses the illumination source, electronics and control mechanisms.

Arm. This piece holds the base and the head of the microscope together.

Eyepiece head. A binocular (ZOOM 1B) or trinocular (ZOOM 1T) eyepiece head is mounted at the upper end of the arm.

Eyepieces and objective. Consist of lenses that allow magnifying the image. The total magnification is calculated by multiplying the eyepiece magnification to the objective magnification.

Magnification adjustment knob. Turn this knob to adjust the magnification of the image.

Stage. Sturdy and reliable stage with clips to place and fix the specimen for further examination.

Focusing knob. A coarse focusing system allows for moving the stage up and down for adjusting the sharpness.

Illumination. The upper and lower LEDs are used to illuminate the observed samples. The illumination system can be powered by A/C.

Using the microscope

Stage inset glass

- Frosted glass stage inset may be used for observations of transparent specimens or thin slices of objects. Place it on the stage and secure it in place with the locking screw. Lower illumination source should be used during observations with this glass stage inset.
- The kit of your new microscope may also include a black and white glass stage inset. Normally, you would want to use the white side; however, if a specimen is very bright, or colored white, you should use the black side for additional contrast. Upper illumination source should be used during observations with this glass stage inset. Before installing the black and white glass make sure to remove the frosted glass from the stage.

Getting started

- Unpack the microscope and make sure all parts are available.
- Move the eyepiece head to the lowermost position using the focusing knob.
- Connect the microscope to A/C power using the A/C adapter.
- Turn on the illumination with the illumination switch.
- Select the desired magnification using the magnification adjustment knob.
- Slowly adjust the illumination brightness using the brightness adjustment wheel. When you finish your observations, always dim the illumination before unplugging the power cable.
- If you need to change the light bulb, unplug your microscope first.

Eyecups

For additional comfort during observations you can use rubber eyecups on both eyepieces.

Focusing, diopter adjustment, interpupillary distance

Place a slide on the stage and lock it in place with stage clips. Loosen the locking knob on the microscope pole and slide the eyepiece head up or down into the desired position and tighten the locking knob. Afterwards, turn the focus knob until the image is sharp and clear. Look through the left eyepiece and rotate the diopter adjustment ring until the image is sharp and clear. Do not adjust focus during diopter adjustment! Upon completing this process, look through both eyepieces, hold them with your hands and bring them closer or move them apart until a double image turns into a single image.

Changing objective lenses

Levenhuk ZOOM Series stereo microscopes are equipped with a revolving nosepiece with one objective lens variable multiplicity. To change the magnification, turn the magnification adjustment knob.

Changing the upper illumination lamp

Loosen the locking screw on the upper illumination housing and remove the light socket from within. Replace the old lamp with a new one and put the light socket back. Retighten the locking screw.

Changing the lower illumination lamp

Loosen the locking screw on the stage and remove the glass. Remove the old lamp from the light socket and replace it with a new one. Put the glass back in its place and retighten the locking screw.

Changing the fuse replacement

Fuse box is located on the bottom of the microscope base. Remove the cover and replace the old fuse with a new one.

Specifications

	Levenhuk ZOOM 1B	Levenhuk ZOOM 1T
Eyepiece head	binocular, 360° rotatable, inclined at 45°	trinocular, 360° rotatable, inclined at 45°
Magnification	7–45x	
Interpupillary distance	48–75mm	
Objectives	0.7–4.5x	
Eyepieces	WF10x/22 (2pcs)	
Eyepiece tube diameter	30mm	
Eyepiece diopter adjustment	±5 D	
Glass stage inset	95mm, matte glass stage with stage clips, additional double-sided (black and white, plastic) stage plate	
Working distance	235mm	
Optics material	optical glass	
Body material	aluminum	
Focus	coarse, 50mm	
Power supply	220V/50Hz or 110V/60Hz (optional)	
Illumination	upper (3W LED), lower (2W LED)	
Camera mount	–	1XCCD, removable, thread WJ1 "X1 / 32"

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



Caution: Please refer to the specifications table for the correct mains voltage and never attempt to plug a 110V device into 220V outlet and vice versa without using a converter. Remember that mains voltage in the U.S. and Canada is 110V and 220–240V in most European countries.

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.
- **Seek medical advice immediately if a small part or a battery is swallowed.**

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

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