

## B-60 Series



**Entry-Level Biological Microscopes For Students**

# Cordless Educational Microscopes, Ideal To Start Exploring

## PERFECT FOR STUDENT'S FIRST EXPERIENCES

- » Designed for novice users (students and primary schools especially)
- » Easy to handle, also by the youngest users
- » Longlife LED illumination (providing over 20 years of use)
- » Compact, practical and intuitive to use
- » Sturdy and durable for extended lifetime

## COMFORTABLE, INTUITIVE & RELIABLE SOLUTIONS

- » 18 mm field number for a wide extended observation area
- » StagErase™ erasable stage to reduce scratches
- » Arm/wrist rest support to reduce the fatigue during use
- » Cordless use, totally independent from mains/batteries connection
- » External power supply for enhanced safety and convenient servicing





## B-60 Series

A wide range of cordless, modern microscopes ideal for students and mainly primary schools with achromatic lenses, FN 18 eyepieces, finite optical system, coaxial focusing, StagErase™ eraseable fixed or mechanical stage and 1 W LED illumination with rechargeable batteries. Slim and easy to carry, all the models are equipped with arm/wrist rest support to reduce the fatigue during use and long lasting LED illumination to provide over 20 years of use



### Arm/wrist rest support to reduce the fatigue during use

Students get relaxed and stay relaxed when using the microscope! Effective in preventing fatigue during operation, increasing the ergonomics and the performance as a result

### StagErase™ eraseable stage to remove scratches

Here's something you've never seen before! This new, revolutionary stage is coated with a special painting to reduce accidental scratches to the minimum and facilitate their removal



### Cordless use, totally independent from mains/batteries connection

All models work with or without the batteries in place and are provided with three NiMH rechargeable batteries for outdoor use (4-hour autonomy, at medium intensity)

### External power supply for enhanced safety and convenient servicing

OPTIKA's safety first approach drives to the use of a low voltage multi-plug, external power supply in order to prevent any risk of electric shock and heatflow inside the unit

### Longlife LED illumination (providing over 20 years of use)

Money & energy saving thanks to LED long lifetime (65.000 hours, 22 years in case of 8 hours/day) which is more than 20 times compared to a standard halogen bulb



# B-60 Series - Models

## B-61



Cordless, modern monocular microscope ideal for students and mainly primary schools with achromatic lenses (400x), FN 18 eyepiece, finite optical system, coaxial focusing, StagErase™ erasable fixed stage and 1 W LED illumination with rechargeable batteries. Slim and easy to carry, it is equipped with arm/wrist rest support to reduce the fatigue during use and long lasting LED illumination to provide over 20 years of use

**Head:** Monocular, 45° inclined; 360° rotating.

**Eyepiece:** WF10x/18 mm, secured by screw.

**Nosepiece:** Quadruple ball bearings revolving nosepiece, reversed.

**Objectives:**

- Achromatic 4x/0.10
- Achromatic 10x/0.25
- Achromatic 40x/0.65.

All with anti-fungus treatment.

**Specimen stage:** StagErase™ erasable fixed stage, 120x110 mm, with sample clips.

**Focusing:** Coaxial coarse and fine focusing mechanism with limit stop to prevent the contact between objective and specimen.

**Condenser:** N.A. 0.65 with iris diaphragm.

**Illumination:** 1 W LED, with brightness control, rechargeable batteries. Color temperature: 6,300 K. Multi-plug 100-240Vac/5Vdc external power supply.

## B-62



Cordless, modern monocular microscope ideal for students and mainly primary schools with achromatic lenses (400x), FN 18 eyepiece, finite optical system, coaxial focusing, StagErase™ erasable mechanical stage, Abbe condenser and 1 W LED illumination with rechargeable batteries. Slim and easy to carry, it is equipped with arm/wrist rest support to reduce the fatigue during use and long lasting LED illumination to provide over 20 years of use

**Head:** Monocular, 45° inclined; 360° rotating.

**Eyepiece:** WF10x/18 mm, secured by screw.

**Nosepiece:** Quadruple ball bearings revolving nosepiece, reversed.

**Objectives:**

- Achromatic 4x/0.10
- Achromatic 10x/0.25
- Achromatic 40x/0.65.

All with anti-fungus treatment.

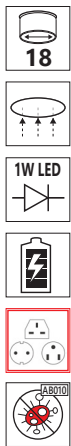
**Specimen stage:** StagErase™ erasable mechanical stage, 125x125 mm, 62x24 mm X-Y movement range. Vernier scale on the two axes, accuracy: 0.1 mm.

**Focusing:** Coaxial coarse and fine focusing mechanism with limit stop to prevent the contact between objective and specimen.

**Condenser:** Abbe N.A. 1.25, pre-centered, focusable, with iris diaphragm.

**Illumination:** 1 W LED, with brightness control, rechargeable batteries. Color temperature: 6,300 K. Multi-plug 100-240Vac/5Vdc external power supply.

## B-63



Cordless, modern monocular microscope ideal for students and mainly primary schools with achromatic lenses (600x), FN 18 eyepiece, finite optical system, coaxial focusing, StagErase™ erasable mechanical stage, Abbe condenser and 1 W LED illumination with rechargeable batteries. Slim and easy to carry, it is equipped with arm/wrist rest support to reduce the fatigue during use and long lasting LED illumination to provide over 20 years of use

**Head:** Monocular, 45° inclined; 360° rotating.

**Eyepiece:** WF10x/18 mm, secured by screw.

**Nosepiece:** Quadruple ball bearings revolving nosepiece, reversed.

**Objectives:**

- Achromatic 4x/0.10
- Achromatic 10x/0.25
- Achromatic 40x/0.65
- Achromatic 60x/0.85.

All with anti-fungus treatment

**Specimen stage:** StagErase™ erasable mechanical stage, 125x125 mm, 62x24 mm X-Y movement range. Vernier scale on the two axes, accuracy: 0.1 mm.

**Focusing:** Coaxial coarse and fine focusing mechanism with limit stop to prevent the contact between objective and specimen.

**Condenser:** Abbe N.A. 1.25, pre-centered, focusable, with iris diaphragm.

**Illumination:** 1 W LED, with brightness control, rechargeable batteries. Color temperature: 6,300 K. Multi-plug 100-240Vac/5Vdc external power supply.

## B-65



Cordless, modern monocular microscope ideal for students and mainly primary schools with achromatic lenses (1000x), FN 18 eyepiece, finite optical system, coaxial focusing, StagErase™ erasable mechanical stage, Abbe condenser and 1 W LED illumination with rechargeable batteries. Slim and easy to carry, it is equipped with arm/wrist rest support to reduce the fatigue during use and long lasting LED illumination to provide over 20 years of use

**Head:** Monocular, 45° inclined; 360° rotating.

**Eyepiece:** WF10x/18 mm, secured by screw.

**Nosepiece:** Quadruple ball bearings revolving nosepiece, reversed.

**Objectives:**

- Achromatic 4x/0.10
- Achromatic 10x/0.25
- Achromatic 40x/0.65
- Achromatic 100x/1.25 (oil).

All with anti-fungus treatment.

**Specimen stage:** StagErase™ erasable mechanical stage, 125x125 mm, 62x24 mm X-Y movement range. Vernier scale on the two axes, accuracy: 0.1 mm.

**Focusing:** Coaxial coarse and fine focusing mechanism with limit stop to prevent the contact between objective and specimen.

**Condenser:** Abbe N.A. 1.25, pre-centered, focusable, with iris diaphragm.

**Illumination:** 1 W LED, with brightness control, rechargeable batteries. Color temperature: 6,300 K. Multi-plug 100-240Vac/5Vdc external power supply.

## B-66



Cordless, modern binocular microscope ideal for students and mainly primary schools with achromatic lenses (400x), FN 18 eyepieces, finite optical system, coaxial focusing, StagErase™ erasable mechanical stage, Abbe condenser and 1 W LED illumination with rechargeable batteries. Slim and easy to carry, it is equipped with arm/wrist rest support to reduce the fatigue during use and long lasting LED illumination to provide over 20 years of use

**Head:** Binocular, 30° inclined; 360° rotating.  
Dioptic adjustment: Left eyepiece.

**Eyepiece:** WF10x/18 mm, secured by screw

**Nosepiece:** Quadruple ball bearings revolving nosepiece, reversed.

**Objectives:**

- Achromatic 4x/0.10
- Achromatic 10x/0.25
- Achromatic 40x/0.65.

All with anti-fungus treatment.

**Specimen stage:** StagErase™ erasable mechanical stage, 125x125 mm, 62x24 mm X-Y movement range. Vernier scale on the two axes, accuracy: 0.1 mm.

**Focusing:** Coaxial coarse and fine focusing mechanism with limit stop to prevent the contact between objective and specimen.

**Condenser:** Abbe N.A. 1.25, pre-centered, focusable, with iris diaphragm.

**Illumination:** 1 W LED, with brightness control, rechargeable batteries. Color temperature: 6,300 K. Multi-plug 100-240Vac/5Vdc external power supply.

## B-67



Cordless, modern binocular microscope ideal for students and mainly primary schools with achromatic lenses (600x), FN 18 eyepieces, finite optical system, coaxial focusing, StagErase™ erasable mechanical stage, Abbe condenser and 1 W LED illumination with rechargeable batteries. Slim and easy to carry, it is equipped with arm/wrist rest support to reduce the fatigue during use and long lasting LED illumination to provide over 20 years of use

**Head:** Binocular, 30° inclined; 360° rotating.  
Dioptic adjustment: Left eyepiece.

**Eyepiece:** WF10x/18 mm, secured by screw

**Nosepiece:** Quadruple ball bearings revolving nosepiece, reversed.

**Objectives:**

- Achromatic 4x/0.10
- Achromatic 10x/0.25
- Achromatic 40x/0.65
- Achromatic 60x/0.85.

All with anti-fungus treatment.

**Specimen stage:** StagErase™ erasable mechanical stage, 125x125 mm, 62x24 mm X-Y movement range. Vernier scale on the two axes, accuracy: 0.1 mm.

**Focusing:** Coaxial coarse and fine focusing mechanism with limit stop to prevent the contact between objective and specimen.

**Condenser:** Abbe N.A. 1.25, pre-centered, focusable, with iris diaphragm.

**Illumination:** 1 W LED, with brightness control, rechargeable batteries. Color temperature: 6,300 K. Multi-plug 100-240Vac/5Vdc external power supply.

# B-60 Series - Models

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Educational

## B-69



Cordless, modern binocular microscope ideal for students and mainly primary schools with achromatic lenses (1000x), FN 18 eyepieces, finite optical system, coaxial focusing, StagErase™ erasable mechanical stage, Abbe condenser and 1 W LED illumination with rechargeable batteries. Slim and easy to carry, it is equipped with arm/wrist rest support to reduce the fatigue during use and long lasting LED illumination to provide over 20 years of use

**Head:** Binocular, 30° inclined; 360° rotating.  
Dioptric adjustment: Left eyepiece.

**Eyepiece:** WF10x/18 mm, secured by screw

**Nosepiece:** Quadruple ball bearings revolving nosepiece, reversed.

**Objectives:**

- Achromatic 4x/0.10
  - Achromatic 10x/0.25
  - Achromatic 40x/0.65
  - Achromatic 100x/1.25 (oil).
- All with anti-fungus treatment.

**Specimen stage:** StagErase™ erasable mechanical stage, 125x125 mm, 62x24 mm X-Y movement range. Vernier scale on the two axes, accuracy: 0.1 mm.

**Focusing:** Coaxial coarse and fine focusing mechanism with limit stop to prevent the contact between objective and specimen.

**Condenser:** Abbe N.A. 1.25, pre-centered, focusable, with iris diaphragm.

**Illumination:** 1 W LED, with brightness control, rechargeable batteries. Color temperature: 6,300 K. Multi-plug 100-240Vac/5Vdc external power supply.

## Digital Video Bundles



Two models of the B-60 series can be equipped with a camera and a 7" LCD screen, both in high definition. In these bundles, the normal head (supplied with the instrument) can be replaced with the digital system in a few minutes. This solution provides a system suitable for viewing specimens by several students at the same time, without removing the possibility of using the microscope in the classical way through the eyepiece.

**LCD screen:** High definition 7" LCD.

**Camera:** 1920x1080 pixels, 30fps (video). Up to 1844x1080 pixels (photo).

**Storing capacity:** On Micro Sd card

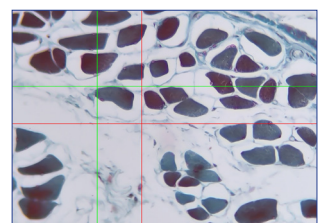
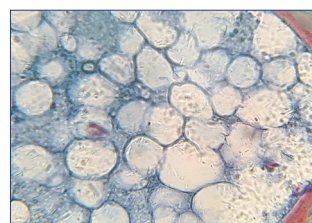
**Video recording:** Yes

**Measuring function:** Yes, simple line measurement

**Models available:**

**-B-61V:** Same features than standard B-61, but delivered as bundle together with the 7" screen with built in camera. **Optical head with eyepiece included.**

**-B-62V:** Same features than standard B-62, but delivered as bundle together with the 7" screen with built in camera. **Optical head with eyepiece included.**



# B-60 Series - Comparison chart

Model	Head	Eyepiece(s)	Nosepiece	Objectives	Stage	Focusing	Condenser	Illuminator
<b>B-61</b>	Monocular, 360° rotating, 45° inclined	Wide Field 10x/18mm	Quadruple, reversed	Achromatic 4x, 10x, 40x	Fixed, 120x110 mm	Coaxial coarse and fine focusing	N.A. 0.65 with iris diaphragm	1 W LED, brightness control, rechargeable batteries
<b>B-62</b>	Monocular, 360° rotating, 45° inclined	Wide Field 10x/18mm	Quadruple, reversed	Achromatic 4x, 10x, 40x	Mechanical, 125x125 mm with 62x24 mm X-Y moving range	Coaxial coarse and fine focusing	N.A. 1.25 Abbe type with iris diaphragm	1 W LED, brightness control, rechargeable batteries
<b>B-63</b>	Monocular, 360° rotating, 45° inclined	Wide Field 10x/18mm	Quadruple, reversed	Achromatic 4x, 10x, 40x, 60x	Mechanical, 125x125 mm with 62x24 mm X-Y moving range	Coaxial coarse and fine focusing	N.A. 1.25 Abbe type with iris diaphragm	1 W LED, brightness control, rechargeable batteries
<b>B-65</b>	Monocular, 360° rotating, 45° inclined	Wide Field 10x/18mm	Quadruple, reversed	Achromatic 4x, 10x, 40x, 100x (oil)	Mechanical, 125x125 mm with 62x24 mm X-Y moving range	Coaxial coarse and fine focusing	N.A. 1.25 Abbe type with iris diaphragm	1 W LED, brightness control, rechargeable batteries
<b>B-66</b>	Binocular, 360° rotating, 30° inclined	Wide Field 10x/18mm	Quadruple, reversed	Achromatic 4x, 10x, 40x	Mechanical, 125x125 mm with 62x24 mm X-Y moving range	Coaxial coarse and fine focusing	N.A. 1.25 Abbe type with iris diaphragm	1 W LED, brightness control, rechargeable batteries
<b>B-67</b>	Binocular, 360° rotating, 30° inclined	Wide Field 10x/18mm	Quadruple, reversed	Achromatic 4x, 10x, 40x, 60x	Mechanical, 125x125 mm with 62x24 mm X-Y moving range	Coaxial coarse and fine focusing	N.A. 1.25 Abbe type with iris diaphragm	1 W LED, brightness control, rechargeable batteries
<b>B-69</b>	Binocular, 360° rotating, 30° inclined	Wide Field 10x/18mm	Quadruple, reversed	Achromatic 4x, 10x, 40x, 100x (oil)	Mechanical, 125x125 mm with 62x24 mm X-Y moving range	Coaxial coarse and fine focusing	N.A. 1.25 Abbe type with iris diaphragm	1 W LED, brightness control, rechargeable batteries

## B-60 Series - Accessories

### Eyepups & Eyepieces

- M-001 Huygens 5x eyepiece
- M-002.2 WF10x/18 eyepiece
- M-004.2 WF10x/18 micrometric eyepiece
- M-008.2 WF10x/18 eyepiece, with pointer
- M-003.2 WF15x/12 eyepiece
- M-162 WF20x/10 eyepiece

### Condensers & Filters

- M-155.2 Polarising set (filters only)

### Camera Adapters

- M-115 0.35x C-Mount projection lens
- M-114 0.5x C-Mount projection lens
- M-118 0.75x C-Mount projection lens

### Miscellaneous

- 15008 Immersion oil, 10ml
- 15009 Immersion oil, 100ml
- 15104 Cleaning kit
- DC-001 Plastic dust cover, small, 340(l)x400(h) mm
- M-005 Micrometric slide, 26x76mm, with 2 scales (1mm/100 & 10mm/100)
- M-069 Solar charger
- M-970 Plane-concave mirror, with base (only for B-61)
- AB-010 Antibacterial surface treatment, only for newly purchased microscope

### 15104 - Cleaning kit

It cleans glass quickly and effectively, without leaving residue or odor. Ideal for precision lens or prism cleaning.



### M-069 - Solar charger

Included battery: rechargeable – Lithium-Poly. Capacity: 2500 mAh. Output voltage: 5 Vdc. - Autonomy: over 6 hours at medium intensity (X-LED<sup>3</sup>). Charging models: with solar panel (12h), with external USB power supply (2.5h)



### How to connect the cameras to our microscopes.

Please refer to the Adapter reference list on Digital section.

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## Headquarters and Manufacturing Facilities

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