



# MT-50

LED Binocular Research  
Grade Microscope



## MT-50



The MT-50 Series Compound Binocular Biological Microscopes is our Advanced Higher Academic Biological Microscope. For the laboratory, medical school, veterinary clinic, physician's office the economical MT-50 is the ideal microscope system. It's mechanical durability holds up to the constant daily use and demands of a busy laboratory. This is the ideal combination of economy without compromising quality. The MT-50 uses a 3 watt LED with variable intensity control, rated for over 25,000 hours of use. A new optical standard of precision optics is found in this series of Meiji Techno's MT-50 advanced student microscopes. These proven, durable microscopes will withstand the constant student wear and tear a student microscope endures from day to day use. The rugged cast aluminum base is designed with stability in mind, but compact in design to fit most laboratory bench. The quadruple objective turret nosepiece is in reverse position to permit easier changing and positioning of specimen slides and to protect the objective lenses. The LED illumination with intensity control provides optimum image brightness with all objectives in place. LED offers no heat, providing no external stress on the sample on the stage or quickly evaporating an alcohol solution. Cord hanger is positioned properly for portability and ease of storage, that lab technicians appreciate greatly. The magnification of this Binocular Compound Microscope from 40x, 100x, 400x and 1000x. Ideal for biological use, this microscope satisfies laboratories on a limited budget. This type of microscope requires that the specimen be mounted on a slide and are held in place with stage clips.



“Reverse bending function” of the binocular part, you can easily select the height of the viewing position.



“Carry grip” allows you to carry it safely and securely.

### The MT-50 Series Features:

- Inclined Binocular head, 30° rotates 360° (MT-50)
- Ergonomic Cord hanger for ease of storage
- Low positioned Ergonomic Coaxial Focus Control
- Abbe condenser, N.A. 1.25 with iris diaphragm and lever for height adjustability
- Field Iris Diaphragm
- Revolving Quadruple reverse nosepiece on ball bearings
- Achromatic Infinity Corrected Plan Achromat 4x, 10X, 40X, and 100x oil objectives
- Objectives are parcentered, parfocalled and color coded for easy detection.
- Anti-Fungus treated optical parts for mold prevention
- Large graduated mechanical stage with low position controls
- A built in mechanical stage makes moving the slide smoothly and effortless
- Mechanical stage with lock safety stop to prevent slide glass breakage
- 3W LED variable intensity illumination generating even illumination and low electrical consumption
- 1 year Warranty
- Cast Aluminum Alloy Construction
- Chemical Resistant Paint



5 revolving reverse nosepiece



LED Koehler Illumination



Coaxial Coarse and Fine focus Knobs



Equipped with a "cord hanger" that can be stored compactly by wrapping the AC cord

## VIEWING HEADS

Siedentopf type design, binocular 30° inclined tube on MT-50 Series, interpupillary distance adjustment 48-75mm, 360 degree rotatable.

## EYEPIECES

Paired Plan HWF 10x/20mm F.O.V.with integrated diopter adjustment

## OBJECTIVES

Infinity Corrected Plan Achromat 4X/N.A. 0.10, 10X/N.A. 0.25, 40X/N.A. 0.65 spring loaded, 100X oil/N.A. 1.25 spring loaded objectives.

## FUNGUS PROTECTION

All optical parts are anti-fungus treated.

## NOSEPIECE

Revolving quadruple reversed nosepiece on ball-bearings that is factory centered.

## STAGE

149 mm x 138 mm stage with integrated mechanical stage, X-Y movement of 76mm x 50mm

## CONDENSER

Abbe condenser, N.A. 1.25 with a slider housing for sliders and pinion for vertical movement

## FOCUSING ADJUSTMENT

Coaxial coarse and fine adjustments with adjustable tension control and upper limit stop to prevent objectives from articulating with slides. Internal brass fine focus gears.

## ILLUMINATION

3W intensity adjustable LED illumination, rated for 25,000 hours with internal power supply.

Model	MT-50	MT-51
Optical System	Infinity correction optical system (imaging lens F = 180mm)	
Lens Body	Binocular part: Break-action type 30° Tilt Eye width adjustment 50mm-75mm, Eyepiece inner diameter 30mm	Trinocular: No need to switch the optical path (ratio of light intensity between eyepiece and photographic lens barrel 8: 2)  C-mount adapter (optional) can be attached MA151/MT51/05: 0.5X C-mount adapter MA151/MT51/03: 0.35X C-mount adapter
Eyepiece	10X (20 mm field of view) (High eye point specification) (Adjustable range $\pm 5$ degrees with diopter adjustment function) With eyepiece lock mechanism	
Nosepieces	5 hole inward nosepiece	
Objective Lens	Plan Achromat 4X (N.A. 0.10) (W.D. 11.9mm) 10X (N.A. 0.25) (W.D. 12.1mm) S40X (N.A. 0.65) (W.D. 0.36mm) S100X oil (N.A. 1.25) (W.D. 0.18mm)	
Stage	Rack and pinion type mechanical stage Size: 150mm x 140mm Movable range: Front and rear 50mm x Left and right 76mm Lower right coaxial handle Large graduated stage with low position controls (can hold two specimens)	
Condenser	Abbe condenser (N.A. 1.25) With slot for mounting the iris diaphragm slider unit (optional phase contrast observation slider unit can be mounted)	
Focusing Block	Coarse / fine movement coaxial handle Rack & pinion type (total stroke amount 30 mm, fine movement handle 1 rotation 0.2mm) With sample safety device (coarse movement stopper) With coarse movement handle torque adjustment function	
Lighting Equipment	LED Koehler illumination (3W white LED) Equipped with a field diaphragm	
Additional Accessories	AC Adapter, Immersion Oil, Vinyl Cover, Instruction Manual	



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