

Infinity Corrected Optical System

# MT4000 SERIES

MEIJI TECHNO BIOLOGICAL MICROSCOPES



MT4200L / MT4300H



MT4000 SERIES

BRIGHTFIELD / PHASE CONTRAST

# MT4000 SERIES

## MEIJI TECHNO BIOLOGICAL MICROSCOPES

The Meiji Techno MT4000 Series Biological Microscopes have been designed as versatile, modular, ergonomic microscope systems which are ideally suited for use in research, or advanced laboratory applications. Ergonomic placement of controls allows for stress free operation, increased efficiency and maximum productivity. The MT4000 Series microscopes feature a new computer engineered rigid frame that incorporates low positioned coaxial coarse/fine focus controls and ergonomic stage design for maximum efficiency and comfort while also providing an extremely stable operating platform.

The MT4000 series offers an outstanding range of features and optical performance with an emphasis on all newly engineered high performance optics based on Meiji Techno's ICOS™ Optical System (Infinity Corrected Optical System). The new optics, provide exceptionally bright, crisp images, with good color rendition and superior flat fields of view.



## MODULAR DESIGN facilitates ATTACHMENT OF A VARIETY OF ACCESSORIES

Optional Ergonomic tilting binocular and trinocular head - Adjustable vertically from 10° to 50°

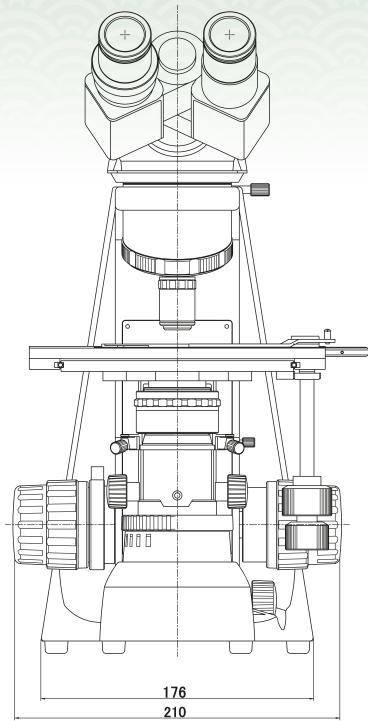
### INTEGRATED AUTOMATIC VOLTAGE SENSING POWER SUPPLY WITH LOCALIZED POWER CORDSET

(TRANSMITTED LIGHT MODELS ONLY)

Low positioned controls allow the operator to work with their forearms relaxed on the working surface so ergonomically placed controls are within easy reach.

### WIDE RANGE OF FILTERS AND ACCESSORIES

MT4300L / MT4300H



**MT4210L / MT4310H**

### BRIGHTFIELD BINOCULAR AND TRINOCULAR MODEL SYSTEMS

MODEL	BODY	ILLUMINATOR	EYEPIECES	OBJECTIVES	STAGE	CONDENSER
MT4200L	Binocular	LED ILLUMINATION KOEHLER AUTO VOLTAGE SENSING 110V-240V	KHW 10X F.N. 20 (O.D. 23.2mm) PAIRED	INFINITY OPTICAL SYSTEM $F = 200\text{mm}$ (Bright Field) U PLAN 4X U PLAN 10X U PLAN 40X U PLAN 100X OIL	FIXED CERAMIC COATED FLAT-TOP RIGHT HANDED CONTROLS	ABBE N.A. 1.25 WITH IRIS IN DOVETAIL MOUNT
MT4200EL	Ergonomic Binocular					
MT4300L	Trinocular					
MT4300EL	Ergonomic Trinocular					
MT4200H	Binocular	KOEHLER V6, 30W HALOGEN AUTO VOLTAGE SENSING 110V-240V	KHW 10X F.N. 20 (O.D. 23.2mm) PAIRED	INFINITY OPTICAL SYSTEM $F = 200\text{mm}$ (Bright Field) U PLAN 4X U PLAN 10X U PLAN 40X U PLAN 100X OIL	FIXED CERAMIC COATED FLAT-TOP RIGHT HANDED CONTROLS	ABBE N.A. 1.25 WITH BLUE FILTER IN DOVETAIL MOUNT
MT4200EH	Ergonomic Binocular					
MT4300H	Trinocular					
MT4300EH	Ergonomic Trinocular					

### PHASE CONTRAST / BRIGHTFIELD BINOCULAR AND TRINOCULAR MODEL SYSTEMS

MODEL	BODY	ILLUMINATOR	EYEPIECES	OBJECTIVES	STAGE	CONDENSER
MT4210L	Binocular	LED ILLUMINATION KOEHLER AUTO VOLTAGE SENSING 110V-240V	KHW 10X F.N. 20 (O.D. 23.2mm) PAIRED	INFINITY OPTICAL SYSTEM $F = 200\text{mm}$ (Phase Contrast /Bright Field) U PLAN 4X, U PLAN PH10X, U PLAN PH40X	FIXED CERAMIC COATED FLAT-TOP RIGHT HANDED CONTROLS	ZERNIKE TYPE PHASE N.A. 1.25 WITH GREEN FILTER IN DOVETAIL MOUNT
MT4210EL	Ergonomic Binocular					
MT4310L	Trinocular					
MT4310EL	Ergonomic Trinocular					
MT4210H	Binocular	KOEHLER V6, 30W HALOGEN AUTO VOLTAGE SENSING 110V-240V	KHW 10X F.N. 20 (O.D. 23.2mm) PAIRED	INFINITY OPTICAL SYSTEM $F = 200\text{mm}$ (Phase Contrast /Bright Field) U PLAN 4X, U PLAN PH10X, U PLAN PH40X	FIXED CERAMIC COATED FLAT-TOP RIGHT HANDED CONTROLS	ZERNIKE TYPE PHASE N.A. 1.25 WITH GREEN FILTER IN DOVETAIL MOUNT
MT4210EH	Ergonomic Binocular					
MT4310H	Trinocular					
MT4310EH	Ergonomic Trinocular					

## HDMI-USB 2.0 CAMERAS WITH 11.8" MONITOR

- HD1000-LITE-M** Affordable Color HD 5MP CMOS 15FPS/ HDMI/ USB 2.0 Camera/Annotation & Measurement Software with 11.8IN HDMI
- HD1500T-M** Color HD 6MP CMOS 60FPS/ HDMI/ USB 2.0 Camera/Annotation & Metric Measurement Software with 11.8IN HDMI monitor.
- HD1500MET-M** Color HD 6MP CMOS 60FPS/ HDMI/ USB 2.0 Camera/Annotation & Metric Measurement Software with 11.8IN HDMI.
- HD1500MET-AF-M** Autofocus HD 6MP CMOS 60FPS/ HDMI/ USB 2.0 Camera/Annotation & Metric Measurement Software with 11.8IN HDMI



## 35mm PHOTOMICROSCOPY

Following three accessories are required for mounting a 35mm SLR camera body

### 1. The appropriate T-2 adapter ring for your SLR camera body

- |               |                                  |
|---------------|----------------------------------|
| T2-1 Canon    | T2-6 Olympus                     |
| T2-2 Minolta  | T2-7 Contax, Yashika             |
| T2-3 Pentax K | T2-8 Konica                      |
| T2-4 Pentax S | T2-9 Canon Eos                   |
| T2-5 Nikon    | T2-10 Minolta Alpha / Maxim 2000 |

These adapter rings attach directly to your camera body's lens mount.

### 2. A photo eyepiece, available in the following magnifications:

- MA512** 2.5X magnification  
**MA500** 3.3X magnification (with reticle mount)  
**MA508** 5X magnification

The photo eyepiece performs the same function as a standard 35mm camera lens (i.e. focusing the image at the plane of the film).

### 3. One of two MA150 series camera attachments:

- MA150/50** Straight-tube camera attachment  
**MA150/60** Camera attachment with built-in focusing eyepiece  
 These attachments are used to mount the camera with T2 adapter ring to the photo tube.

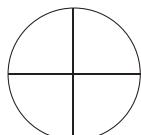


MT4310L / MT4310H

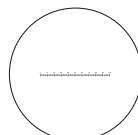
## COMPONENTS & ACCESSORIES FOR MT4000 SERIES

### EYEPiece MICROMETERS (FOR USE WITH MA407 EYEPiece)

- MA284** Cross-line reticle, 21mm diameter  
**MA255** Eyepiece micrometer, 10mm divided into 100 units, 21mm diameter  
**MA256** Eyepiece micrometer 5mm divided into 100 units, 21mm diameter  
**MA283/05** 10mm square divided into 100 parts, 1.0mm square, 21mm diameter  
**MA540** Cross-line with 0.1mm graduations, 21mm diameter  
**MA254/05** Walton and Beckett reticle 21mm diameter



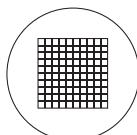
MA284  
Cross-line



MA255  
10mm in 100 parts



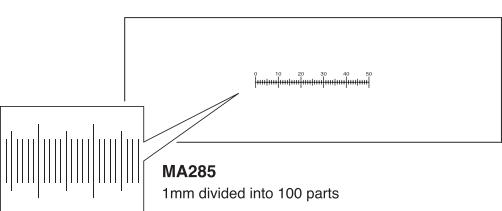
MA256  
5mm in 100 parts



MA283/05  
10mm square in 100 square

### STAGE MICROMETERS

- MA285** Glass micrometer, 0.01mm ruling  
**MA286** Glass micrometer, 0.04" divided into 40 units, 0.001"



MA285  
1mm divided into 100 parts

## COMPONENTS & ACCESSORIES FOR MT4000 SERIES

### VIEWING HEAD (without eyepieces)

- MA815/05** Binocular head (Siedentopf type, I.P. adjustment 53mm to 75mm graduated diopter on left eyetube (23.2mm I.D. eyetubes). Inclined at 30°. (Included in Model MT4200L, MT4200H & MT4210H)
- MA816/05** Trinocular head (Siedentopf type, I.P. adjustment 53mm to 75mm graduated diopter on left eyetube (23.2mm I.D. eyetubes). Inclined at 30°. (Included in Model MT4300L, MT4300H & MT4310H)
- MA957/05** Ergonomic head, inclination adjustable vertically from 10° to 50° (23.2mm I.D. eyetubes).
- MA958** Photo/Video attachment with sliding 80/20 beam-splitter for attaching video or digital camera to MT Series when MA957/05 Ergonomic head is used.



MA957/05 ERGONOMIC HEAD

### EYEPieces

- MA407** KHW10X Compensating eyepiece, Field No. 20, Tube O.D. 23.2mm (21mm reticle mount) (Paired MA407 Eyepieces included in all MT4000 Series models)
- MA407/05** KHW10X Compensating Focusing eyepiece, Field No. 20, Tube O.D. 23.2mm (each) (optional)
- MA408** HWF15X, Widefield eyepiece, Field No. 12.2, Tube O.D. 23.2mm (No reticle mount)
- MA409** HWF20X, Widefield eyepiece, Field No. 9, Tube O.D. 23.2mm (No reticle mount)
- MA406** HWF10X Widefield High-eyepoint eyepiece, Field No. 18. Tube O.D. 23.2mm (19mm reticle mount)
- MA413** HWF-10X Focusing eyepiece with reticle mount, Field No. 18, Tube O.D. 23.2mm (19mm reticle mount)



MA839 - U PLAN PHASE CONTRAST OBJECTIVE

### U PLAN OBJECTIVES (Infinity Corrected F=200mm) Included in models MT4200L, MT4300L, MT4200H, MT4300H

- MA830** U Plan Objective 2.5X, N.A. 0.07 W.D. 5.7mm, F.N. 24 (Optional)
- MA831** U Plan Objective 4X, N.A. 0.10 W.D. 25.8mm, F.N. 24 (Included in all model)
- MA832** U Plan Objective 10X, N.A. 0.25 W.D. 10.7mm, F.N. 24 (Included in BF model)
- MA833** U Plan Objective 20X, N.A. 0.40 W.D. 7.29mm, F.N. 24 (Optional)
- MA834** U Plan Objective 40X, N.A. 0.65 W.D. 0.5mm, F.N. 24 (Included in BF model)
- MA969** U Plan Objective 60X, N.A. 0.80 W.D. 0.23mm, F.N. 24 (Optional)
- MA837** U Plan Objective 100X, N.A. 1.25 oil, W.D. 0.23mm, F.N. 24 (Included in BF models)



MA913 - ABBE CONDENSER

### U PLAN PHASE CONTRAST OBJECTIVES (Infinity Corrected F=200mm) (Included in Model MT4210L, MT4310L, MT4210H, MT4310H)

- MA839** U Plan Phase 10X Objective, N.A. 0.25, W.D. 10.7mm (Included in PH Model)
- MA840** U Plan Phase 20X Objective, N.A. 0.40, W.D. 7.29mm (Optional)
- MA841** U Plan Phase 20X Objective, N.A. 0.40, W.D. 7.29mm (Included in PH Model)
- MA842** U Plan Phase 20X Objective, N.A. 0.40, W.D. 7.29mm (Optional)



MA861/05 - GREEN INTERFERENCE FILTER

### CONDENSER

- MA910** Abbe condenser, N.A. 1.25 with iris diaphragm in dovetail mount (Included in Models MT4200L, MT4300L, MT4200H & MT4300H)
- MA911** Achromatic condenser, N.A. 1.25 with iris diaphragm in dovetail mount
- MA913** Zernike Phase condenser with centerable phase annuli for 10X, 20X, 40X, 100X with brightfield position, darkfield stop for 40X objective, (black-out position for epi-fluorescence on MT6000 Series only) with iris in dovetail mount (Included in Models MT4210H & MT4310H)

### POLARIZER

- MA915** Polarizer set for MT4000 Series

### FILTERS

- MA858/05** ND25 Neutral density filter, 44.0mm diameter, unmounted (included in PH Model)
- MA856/05** LB100 Blue Clear filter 44.0mm diameter, unmounted (Included in Models MT4200H, MT4300H, MT4210H & MT4310H)
- MA857/05** Green filter, clear, 44.0mm diameter, unmounted (Included in Models MT4210H & MT4310H)

- MA861/05** Green interference filter, 44.0mm diameter, unmounted

### STAGES

- MA917R** Ceramic coated flat-top stage, 78mm x 52mm, X-Y movement, with right hand drop-down coaxial controls. (Included in all Models)
- MA917L** Ceramic coated flat-top stage, 78mm x 52mm, X-Y movement, with left hand drop-down coaxial controls. (Optional)
- MA598** Attachable finger assembly for MA917R and MA917L

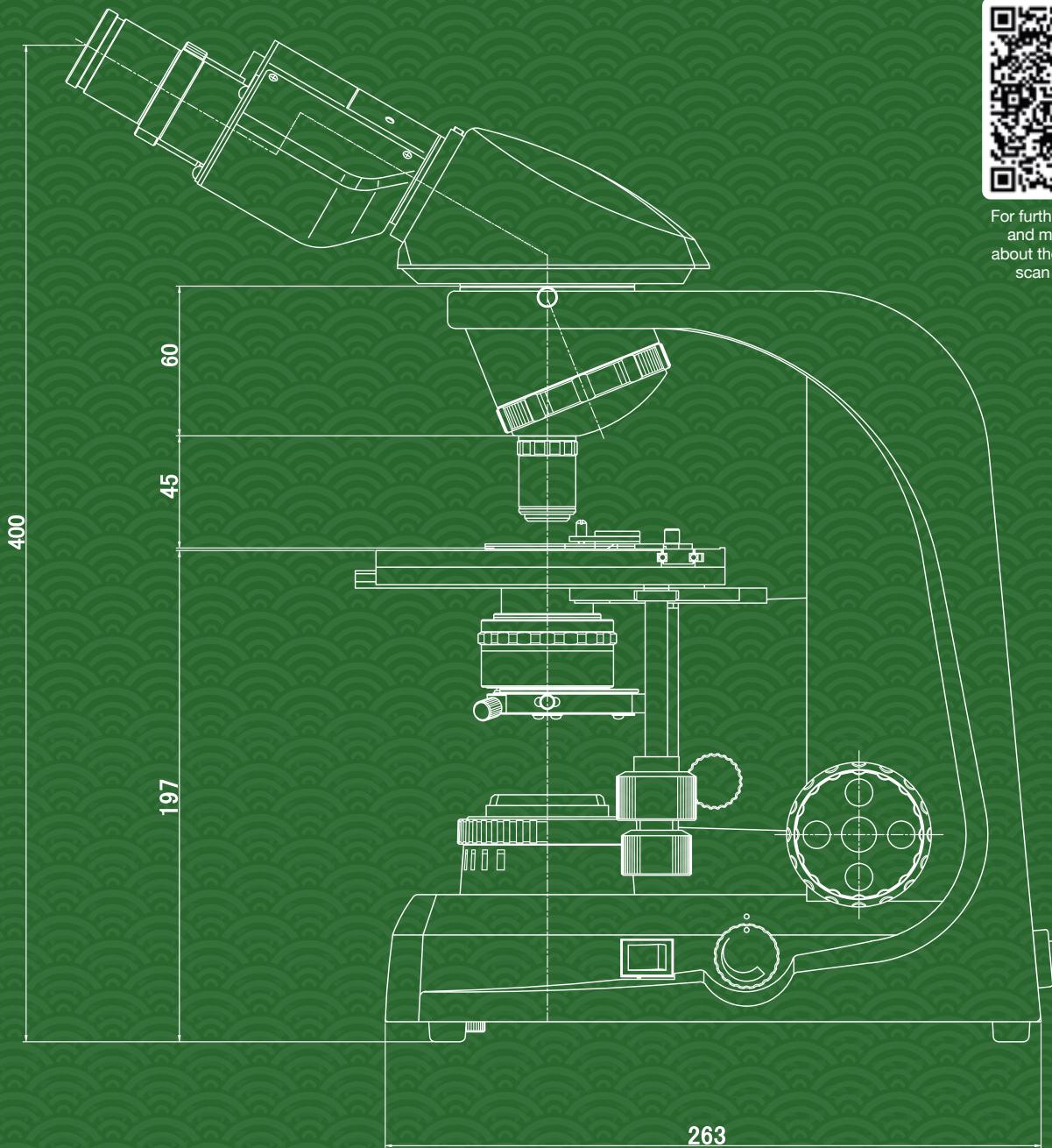
### MISCELLANEOUS

- MA200** EYESHIELD for MA407 KHW10X Eyepiece (ea)
- MA326** Spare bulb 6V 30W Halogen lamp
- MA327** Spare 3A Fuse for Halogen illuminator
- MA929** Spare Fuse 0.5A for LED Illuminator
- MA809/10** Removable AC Electric cord with UL plug for 115V models
- MA809/20** Removable AC Electric cord with European plug for 220V models
- MA809/30** Removable AC Electric cord with UK plug for 240V models
- MA701** Dust Cover for MT4000 Series



Zernike Phase Set

PHASE CONTRAST SET, comprising:  
Zernike Phase condenser, S Plan Phase Objectives 10X, 20X, 40X, 100X, Centering Telescope (MA458) and Green filter (MA857/05)



For further configurations  
and more information  
about the MT4000 Series,  
scan this QR code.

Specifications and design subject to change without notice for improvements

Agent:



**MEIJI TECHNO**



ISO9001  
JQA QMA10273



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Accredited by RvA

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