

Infinity Corrected Optical System

MT5000 Series

BIOLOGICAL MICROSCOPES

Brightfield / Phase Contrast



MT5200L / MT5200H



MT5000 Series

MT5000 Series Clinical & Laboratory Microscopes

The Meiji Techno MT5000 Series of biological microscopes have been designed as versatile, modular, ergonomic microscope systems which are ideally suited for use in education, research, or advanced laboratory applications. Ergonomic placement of controls allows for stress free operation, increased efficiency and maximum productivity.

The MT5000 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.

Features

- Super Widefield 10X High Eyepoint eyepieces, F.N.22 are standard.
- Available with comfortable Siedentopf type binocular or trinocular viewing head.
- Tilting ergonomic binocular head—Adjustable vertically from 10°~50°. (Optional)
- Smooth-operating ball bearing quintuple nosepiece provides effortless objective changes.
- New improved U. Plan infinity corrected objectives.
- 191mm x 128mm ceramic coated left or right-handed, flat top mechanical stage.
- Newly designed Abbe 1.25 N.A. condenser in quick change dovetail mount.
- Choice of LED or 30 watt halogen illumination with automatic voltage sensing power supply.
- New improved design, smooth operating, adjustable field iris.
- Brightfield, Darkfield, Phase Contrast and Polarized light modes available.



MT5300L / MT5300H

Viewing Heads

Units are supplied with either a standard Siedentopf type binocular or a Siedentopf type trinocular head. Both binocular and trinocular heads have the eyetubes inclined at 30° with the left eyetube having a graduated diopter adjustment. The interpupillary distance is adjustable between 53mm~75mm to accommodate a wide range of users. When the 80/20 beamsplitter of trinocular head is engaged for photo work, 80% of the image is directed to phototube and 20% to the eyetube.



Optional Ergonomic Tilting Binocular Viewing Heads

Meiji Techno's MT5000 Series offers an optional tilting binocular ergonomic viewing head (MA975) which can be used in conjunction with a photo/video attachment with a sliding 80/20 beamsplitter. The tilting binocular head is adjustable from 10° to 50°.

The left eyetube has a graduated diopter adjustment. The interpupillary distance is adjustable from 53mm - 75mm. When the 80/20 beamsplitter is engaged for photo work, 80% of the image is directed to phototube and 20% to the eyetubes.



Objectives

Newly designed U. Plan objectives provide exceptionally bright, crisp images with good color rendition and superior flat fields of view.

Stage

(Ceramic Coated, Low Profile, Right & Left Hand Stages)

All MT5000 models offer newly designed, double plate, ceramic coated stages, 191mm(W) x 128mm(D) with rounded corners and low positioned drop down ergonomic X-Y coaxial controls. The easy to clean ceramic coating allows for a smooth exchange of specimens while offering maximum protection to the stage surface from abrasions and wear.

The super hard coating is durable and rugged enough to provide years of demanding use.



Condenser

The MT5000 Series employs an all new condenser design with quick-change dovetail mount which makes switching between condensers really fast and easy.

Ergonomically Placed Focusing Controls

The MT 5000 Series Biological Microscopes have been designed with improved ergonomics which means operators can work without repetitive stresses.

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

Range of travel: 23mm, Rotation of fine focus: 0.2mm per revolution.



Improved Design Field Iris

Meiji Techno's MT5000 Models feature a newly designed field iris.

Unmounted 40mm filters can be quickly and easily placed directly into the filter tray above the aperture. The improved design iris control operates and tracks very smoothly and predictably facilitating accurate iris control with improved usability.





COMPONENTS AND ACCESSORIES FOR MT5000 SERIES

VIEWING HEAD (without eyepieces)

- MA815** Binocular head (Siedentopf type), I.P. adjustment 53mm to 75mm graduated diopter on left eyetube (30.0mm I.D. eyetubes). Inclined at 30° (Included in Models MT5200L, MT5200H, and MT5210H)
- MA816** Trinocular head (Siedentopf type), I.P. adjustment 53mm to 75mm graduated diopter on left eyetube (30.0mm I.D. eyetubes). Inclined at 30° (Included in Models MT5300L, MT5300H, and MT5310H)
- MA957** Ergonomic tilting binocular head (Siedentopf type), adjustable from 10° to 50°, I.P. adjustment 53mm to 75mm, graduated diopter on left eyetube (30.0mm I.D. eyetubes)

EYEPIECES WITH 30.0MM O.D. TUBE

- MA817** SWH10X, Widefield high eyepoint eyepiece, Field No. 22, Tube O.D. 30.0mm (paired), Included in Models MT5200L, MT5300L, MT5200H, MT5300H, MT5210H and MT5310H)
- MA818** SWH15X, Widefield high eyepoint eyepiece, Field No. 16.0, Tube O.D. 30.0mm (paired)
- MA819** SWH20X, Widefield high eyepoint eyepiece, Field No. 12.0, Tube O.D. 30.0mm (paired)
- MA859** SWH10X-F Focusing eyepiece with reticle mount (without reticle), Tube O.D. 30.0mm (paired)

PLANACHROMAT OBJECTIVES

- MA830** U Plan Objective 2.5X, N.A.0.07, W.D.5.7mm, F.N.24
- MA831** U Plan Objective 4X, N.A.0.10, W.D.17.8mm, F.N.24, (Included in Models MT5200L, MT5300L, MT5200H and MT5300H)
- MA832** U Plan Objective 10X, N.A.0.25, W.D.10.67mm, F.N.24, (Included in Models MT5200L, MT5300L, MT5200H and MT5300H)
- MA833** U Plan Objective 20X, N.A.0.40, W.D.7.29mm, F.N.24
- MA834** U Plan Objective 40X, N.A.0.65, W.D.0.5mm, F.N.24, (Included in Models MT5200L, MT5300L, MT5200H and MT5300H)
- MA835** U Plan Objective 50X oil, N.A.0.87, W.D.0.28mm, F.N.24
- MA837** U Plan Objective 100X oil, N.A.1.25, W.D.0.23mm, F.N.24, (Included in Models MT5200L, MT5300L, MT5200H and MT5300H)



PLANACHROMAT OBJECTIVES



COMPONENTS & ACCESSORIES FOR MT5000 SERIES

ZERNIKE PLANACHROMAT PHASE OBJECTIVES AND COMPONENTS

- MA839** U Plan Phase 10X Objective, N.A.0.25, W.D.10.7mm, F.N.24, (Included in Models MT5210H and MT5310H)
- MA840** U Plan Phase 20X Objective, N.A.0.40, W.D.7.29mm, F.N.24, (Included in Models MT5210H and MT5310H)
- MA841** U Plan Phase 40X Objective, N.A.0.65, W.D.0.5mm, F.N.24, (Included in Models MT5210H and MT5310H)
- MA842** U Plan Phase 100X Objective, N.A.1.25, oil, W.D.0.23mm, F.N.24, (Included in Models MT5210H and MT5310H)

ZERNIKE PHASE CONDENSER

- 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 MT5210H, MT5310H)

OTHER ZERNIKE COMPONENTS

- MA458/05** Centering Telescope.30.0mm O.D. (Included in Models MT5210H and MT5310H)
- MA861/05** Green interference filter, 40.0mm diameter, unmounted (Included in Models MT5210H, MT5310H)

BRIGHTFIELD CONDENSER

- MA910** Abbe condenser, N.A.1.25 with iris diaphragm and filter tray, dovetail mount (Included in all Models)

DARKFIELD OIL IMMERSION OBJECTIVE/CONDENSER SYSTEM

- MA836** Plan Objective 50X, N.A.0.87, oil, with iris, W.D.0.28, F.N.24
- MA838** Plan Objective 100X, N.A.1.25, oil, with iris, W.D.0.23, F.N.24
- MA914** Darkfield condenser, N.A.1.25, dovetail mount

POLARIZERS

- MA915** Polarizer set for MT5000 Series microscopes

FILTERS

- MA858/05** ND25 Neutral density filter, 40.0mm diameter, unmounted
- MA856/05** LB100 Blue Clear filter 40mm diameter, unmounted (Included in all Halogen illuminator models) (Included with MT5200H, MT5300H, MT5210H & MT5310H)
- MA857/05** Green filter, clear, 40.0mm diameter, unmounted
- MA861/05** Green interference filter, 40.0mm diameter, unmounted (Included in Models MT5210H, MT5310H)

STAGES

- MA918R** Ceramic coated flat-top stage, 78mm x 52mm, X-Y movement, with right hand drop-down coaxial controls. (Included in Models MT5200L, MT5300L, MT5200H, MT5300H, MT5310H, and MT5310H)
- MA918L** Ceramic coated flat-top stage, 78mm x 52mm, X-Y movement, with left hand drop-down coaxial controls. (Included in Models MT5200L, MT5300L, MT5200H, MT5300H, MT5310H, and MT5310H)

- MA676** Attachable clinical specimen holder for MA918R and MA918L

EYEPIECE MICROMETERS (25MM DIAMETER) FOR USE WITH MA817 SWH10X EYEPIECE)

- MA523** Cross-line reticle, 25mm diameter
- MA506** 10mm divided into 100 units, 25mm diameter
- MA509** 5mm divided into 100 units, 25mm diameter
- MA524** 10mm square into 400 parts, 0.5mm square, 25mm diameter
- MA510** 10mm square into 100 parts, 1.0mm square, 25mm diameter
- MA542** Cross-line with 0.1mm graduation, 25mm diameter

STAGE MICROMETERS

- MA285** 1mm divided into 100 units, 0.01mm
- MA286** 0.04" divided into 40 units, 0.001"

MISCELLANEOUS

- MA906** Eyeshield for MA817 SWH10X Eyepiece (ea) (Included in all models.)
- MA326** Spare bulb 6V 30W halogen lamp
- MA327** Spare Fuse 3A for Halogen illuminator version
- MA929** Spare Fuse 0.5A for LED illuminator version
- 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 MT5000 Series



ZERNIKE PHASE CONTRAST SET



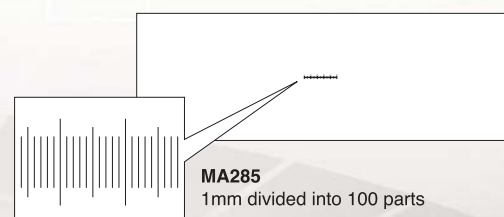
DARKFIELD CONDENSER AND OBJECTIVES WITH IRIS DIAPHRAGM



POLARIZER SET



MA523 MA506 MA509 MA542



MA285
1mm divided into 100 parts

CCD VIDEO & USB 2.0 DIGITAL CAMERAS

DK3000 3.0 megapixel, color digital video microscopy camera with high speed USB 2.0 interface, 1/2 format 6.5mm x 4.9mm image sensor with 2048 x 1536 resolution.



DK3000

CK3100N CCD Color TV camera. 1/3" CCD, 450 TV lines of resolution, NTSC system with DC12V adapter

CK3100P CCD Color TV camera. 1/3" CCD, 450 TV lines of resolution, PAL system with DC12V adapter

CK3900N CCD Color TV camera. 1/2" CCD, 450 TV lines of resolution, NTSC system with DC12V adapter

CK3900P CCD Color TV camera. 1/2" CCD, 450 TV lines of resolution, PAL system with DC12V adapter



CK3900

MA958 Photo/Video attachment with sliding 80/20 beam-splitter for attaching video or digital camera to MT Series when MA957 Ergonomic tilting head is used.

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.



MA150/60 Camera attachment **MA150/50** Camera attachment

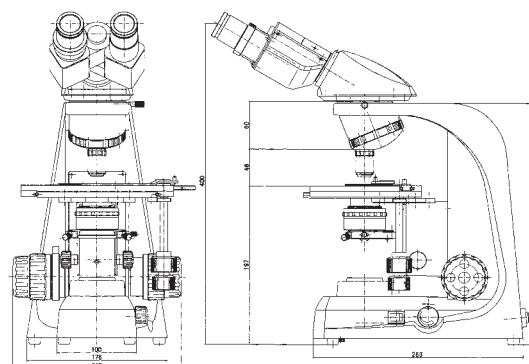
MT5000 Series ORDERING INFORMATION BRIGHTFIELD MODELS

| MODEL | BODY | OBJECTIVES | EYEPIECES | CONDENSER | ILLUMINATOR |
|---------|------------|--|----------------------------------|-------------------|---------------------------|
| MT5200L | Binocular | U Plan 4X 10X S40X S100X oil | SWH 10X F.N.22 (O.D. 30mm) | Abbe N.A. 1.25 | LED Koehler |
| MT5300L | Trinocular | | | | 30W Halogen Koehler |
| MT5200H | Binocular | | | | |
| MT5300H | Trinocular | | | | |

PHASE CONTRAST MODELS

| MODEL | BODY | OBJECTIVES | EYEPIECES | CONDENSER | ILLUMINATOR |
|---------|------------|---|----------------------------------|---------------------------------------|--|
| MT5210H | Binocular | U Plan Phase Ph10X Ph20X Ph40X Ph100X oil | SWH 10X F.N.22 (O.D. 30mm) | Zernike type Phase N.A. 1.25 | 30W Halogen Koehler Illuminator |
| MT5310H | Trinocular | | | | |

NOTE: All Phase Contrast models include Centering Telescope (O.D. 30mm)



Size and Weight of MT5000 Models

Footprint : 263 mm(D) x 176mm(W)
 Weight & Overall Dimension :
 Binocular head type 390 mm(D) x 410 mm(H) x 210 mm(W), 8.0kg
 Trinocular head type 390 mm(D) x 465 mm(H) x 210 mm(W), 8.7kg

Agent :



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