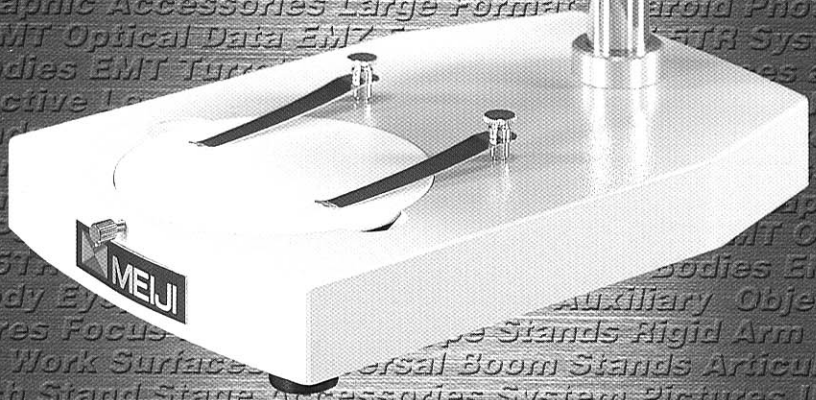
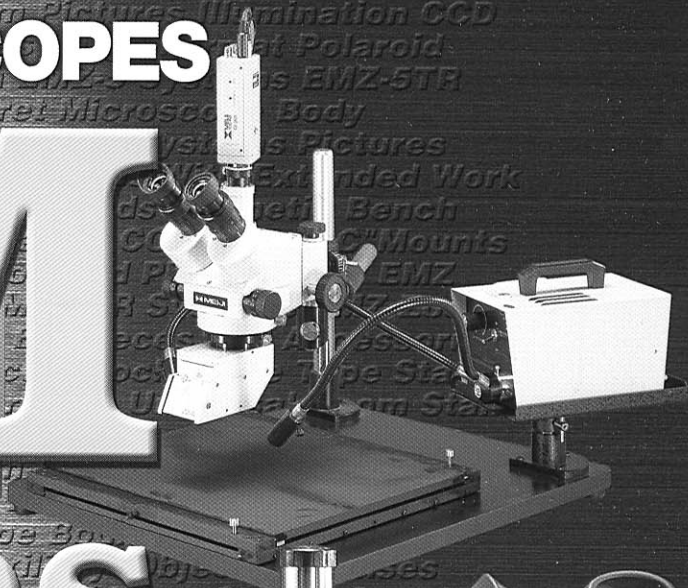


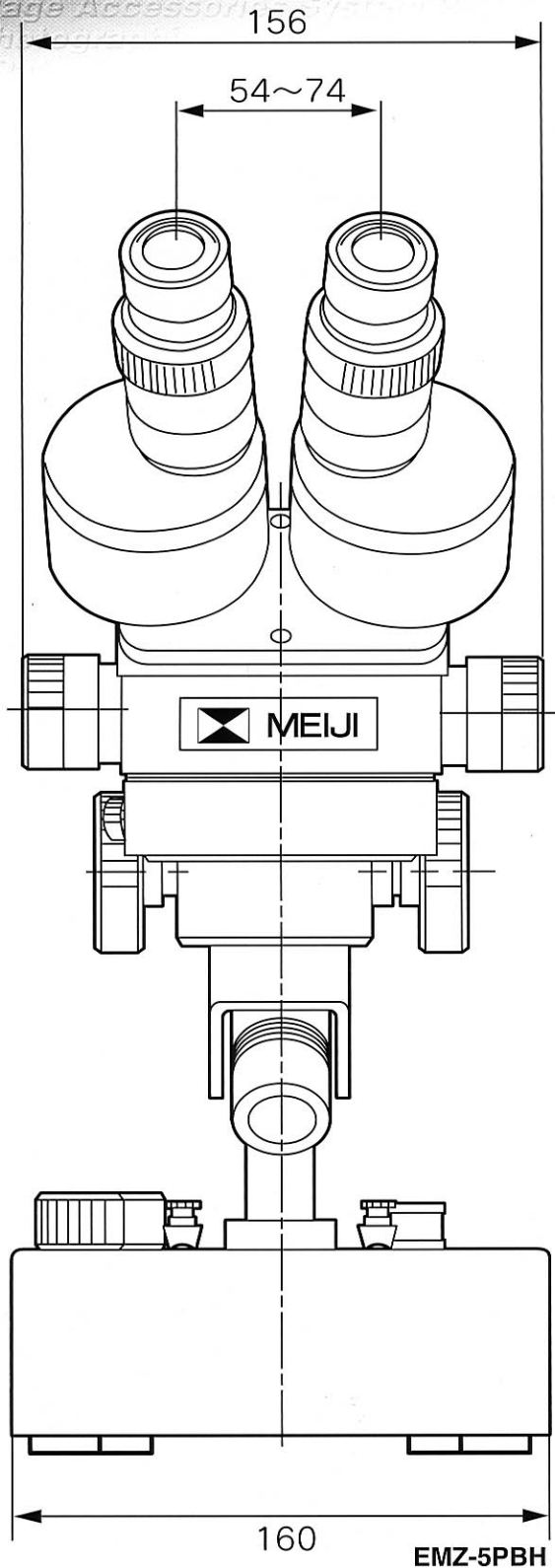
# STEREO MICROSCOPES

# EMM Series



EMZ-5 Systems EMZ-5TR Systems EMZ Zoom Microscope Bodies EMT Turret Microscope Bodies EMT Fixed Microscope Bodies  
 Eyepieces and Accessories Auxiliary Objective Lenses System Pictures Focus Blocks Pole Type Stands Rigid Arm Stands Stands  
 With Extended Work Surfaces Universal Boom Stands Articulating Arm Stands Stands With Extended Work Surfaces  
 Universal Boom Stands Articulating Arm Stands Stand Stage Accessories System Pictures Illumination CCD  
 Video "C" Mounts Spare Lamps CCD Video Cameras Video "C" Mounts Photographic Accessories Digital camera adapter  
 EMT Optical Data EMF, EMT, EMTR and EMX Optical Data EMZ-5 Systems EMZ-5TR Systems EMZ Zoom Microscope Bodies  
 EMT Turret Microscope Body EMT Fixed Microscope Body Eyepieces and Accessories Auxiliary Objective Lenses System  
 Pictures Focus Blocks Pole Type Stands Rigid Arm Stands Stands With Extended Work Surfaces Universal Boom Stands  
 Articulating Arm Stands Stand Stage Accessories System Pictures Illumination CCD Video "C" Mounts Spare Lamps  
 CCD Video Cameras Video "C" Mounts Photographic Accessories Digital camera adapter EMT Optical Data  
 EMF, EMT, EMTR and EMX Optical Data System Diagram for Zoom Models System Diagram for EMF, EMT, EMTR, and EMX  
 System Diagram for Special Stands System Diagram for Video Microscopy System Diagram for Photomicroscopy

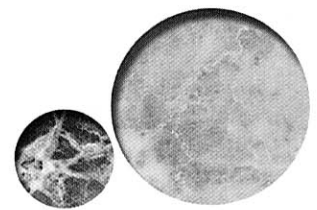
# EM Series



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# EM Series Stereo Microscopes



No other line of stereo microscopes can match the combination of superb optics, rugged dependability, economical pricing, and wide range of accessories offered by Meiji Techno's EM Series stereo microscopes.

## Modular Flexibility:

EM Series stereo microscopes are tailored to fit the needs of each and every customer. Modular design enables the user to engineer his own custom solution for virtually any application, selecting components from the widest range of stereo bodies, stands, eyepieces, supplementary lenses, illuminators, and accessory components available in the microscope industry today.

## Superb Optics:

Multi-coated optical components, free from chromatic and spherical aberration, provide crystal-clear, high resolution images. The Greenough optical design provides superior erect, unreversed, stereoscopic images, rich in contrast, brightness and correct in their original color. Excellent depth of field and a flat image rendition are also characteristic of the EM Series product line.

## Rugged Dependability:

All-metal aluminum alloy microscope bodies and components with chemical resistant finishes guarantee stability and rugged dependability for a lifetime of day-in and day-out use. Superior craftsmanship, quality components and materials result in long-lasting, high-performance products.

## Ergonomic Design:

All EM Series stereo microscope bodies feature a compact lightweight design. Every stereo body features adjustable diopter tubes and interpupillary distance adjustment. Observation tubes are inclined at 45°, 60° or 90° for convenient fatigue free viewing depending on the application. A range of fixed or tilting focus blocks are available to mount the microscope body onto existing O.E.M. equipment. A choice of Zoom, Turret or Fixed magnification bodies with various working distances, optional auxiliary objectives and eyepieces, multiple adjustable stands, versatile illumination systems, and auxiliary components allow the end user to design a system to fulfill their specific requirements.

## Applications:

EM Series stereo microscopes are the perfect modular microscope systems for a multitude of applications ranging from biological and industrial fields to educational and training situations. A wide variety of professional groups currently use the EM series product to their advantage: Biologists, Physicians, Geologists, Engineers, Dentists, Dental Technicians, Veterinarians, Paleontologists, Entomologists, Gemologists, Educators, Scientific Researchers, Quality Control Personnel, Quality Assurance Personnel, Assemblers, Forensic Document Examiners, Art Restoration Experts, Textile Specialists, Wire And Die Manufacturers, Environmental Specialists, Ophthalmic Specialists, Dermatologists, Metrology Personnel, Tool and Die Professionals, Circuit Board Rework and Repair Personnel, Aquaculture Professionals, Embryo Transplant Professionals, Horticultural Experts, Exterminators, Fish and Wildlife Departments, U.S. Customs Service, Semiconductor Manufacturers, Foresters, Pharmaceutical Manufacturers, Electroplating Specialists, Ballistics Experts, etc...



Head office • Factory (Miyoshi-machi, Saitama, Japan)

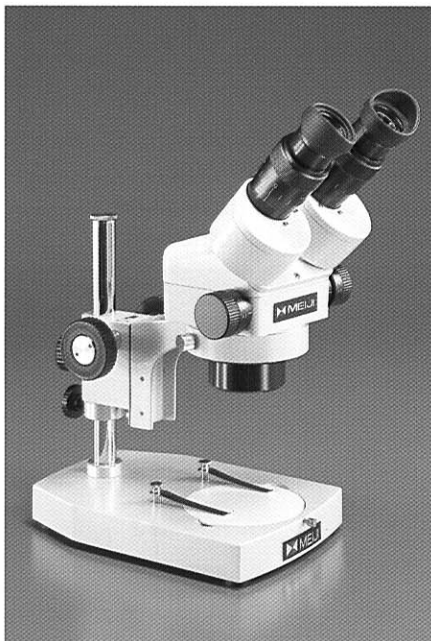
# EMZ Series ZOOM STEREO MICROSCOPES

## EMZ-5 ZOOM STEREO BODY

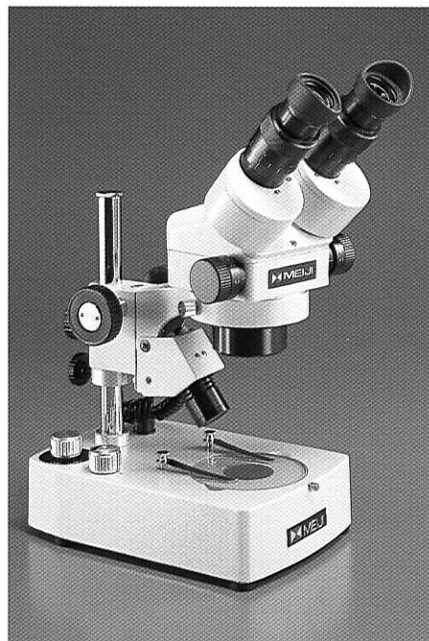
- Crisp, high resolution, precision optics provide an excellent, erect, unreversed stereoscopic image.
- Rugged all metal body designed to last a lifetime.
- Zoom Range: 0.7X to 4.5X
- Zoom Ratio: 6.5:1
- Ergonomically positioned bilateral zoom controls.
- Binocular eyetubes inclined at 45° for fatigue free viewing.
- Total magnification range available with auxillary lenses and eyepieces: 2.1X to 270X.
- Dual dioptic adjustment ( $\pm 5$  diopters) allows the specimen to remain in focus throughout the entire zoom magnification range.
- Interpupillary distance adjustment from 54mm to 75mm.
- Binocular body can be rotated a full 360° and locked in any position.
- Standard working distance 93mm.
- Working distance with optional auxillary lenses: 34mm to 251mm.



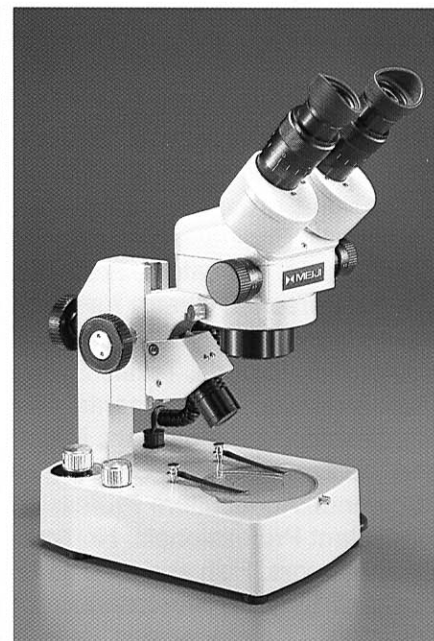
EMZ-5



EMZ-5 on P Stand with MA502 SWF10X eyepieces

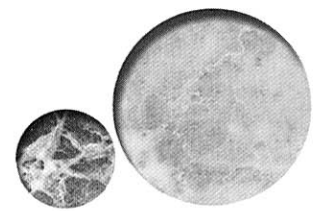


EMZ-5 on PBH Stand with MA502 SWF10X eyepieces



EMZ-5 on ABE Stand with MA502 SWF10X eyepieces

# EMZ Series ZOOM STEREO MICROSCOPES

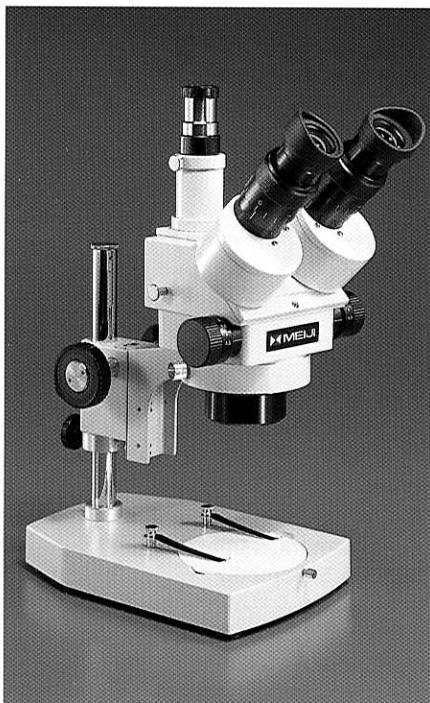


## EMZ-5TR ZOOM STEREO BODY

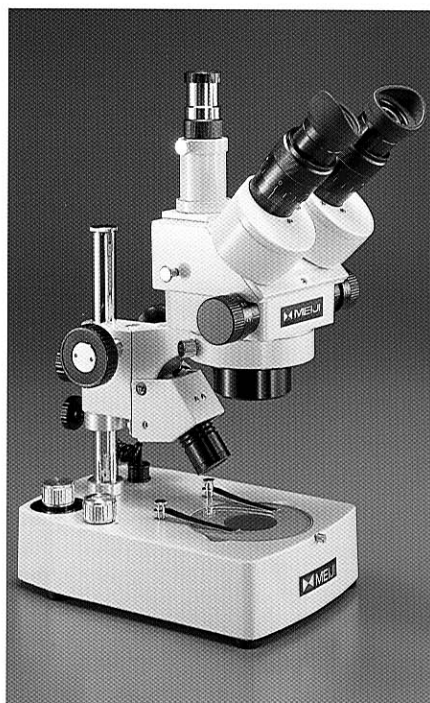
- Trinocular zoom body for use in photographic and video applications. When the beamsplitter is engaged 100% of the light from the left optical path is directed to the phototube. The image can still be viewed through the right eyetube.
- Crisp, high resolution, precision optics provide an excellent, erect, unreversed stereoscopic image.
- Rugged all metal body designed to last a lifetime.
- Zoom Range: 0.7X to 4.5X
- Zoom Ratio: 6.5:1
- Ergonomically positioned bilateral zoom controls.
- Binocular eyetubes inclined at 45° for fatigue free viewing.
- Total magnification range available with auxiliary lenses and eyepieces: 2.1X to 270X.
- Dual dioptic adjustment ( $\pm 5$  diopters) allows the specimen to remain in focus throughout the entire zoom magnification range.
- Interpupillary distance adjustment from 54mm to 75mm.
- Trinocular body can be rotated a full 360° and locked in any position.
- Standard working distance 93mm.
- Working distance with optional auxiliary lenses: 34mm to 251mm.



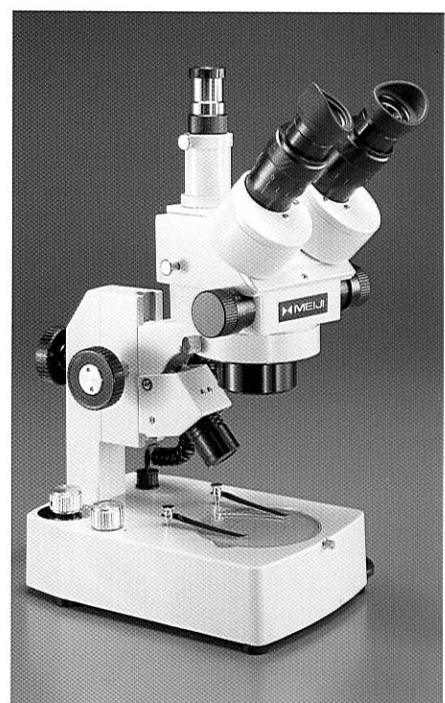
EMZ-5TR



EMZ-5TR on P Stand with MA502 SWF10X eyepieces



EMZ-5TR on PBH Stand with MA502 SWF10X eyepieces



EMZ-5TR on ABE Stand with MA502 SWF10X eyepieces

# EMZ ZOOM STEREO MICROSCOPES



EMZ-5 with MA502 SWF10X eyepieces



EMZ-5TR with MA502 SWF10X eyepieces



EMZ-10 with MA502 SWF10X eyepieces

## EMZ-5 ZOOM STEREO BODY

Body: Binocular, rotatable 360°  
 Zoom Ratio: 6.5:1  
 Zoom Range: 0.7X to 4.5X  
 Zoom Control: Dual, graduated, bilateral mount.  
 Magnification: 7X - 45X (With 10X eyepieces)  
 Field of view: 32mm - 5.1mm  
 Working Distance: 93mm Eyetube Inclination: 45°  
 Interpupillary Distance Adjustment: 54mm - 75mm  
 Dioptic Adjustment: Dual ( $\pm$  5 diopters)  
 Extended Magnification Range : 2.1X - 270X  
 Extend working distances: 34mm - 251mm  
 (With supplemental objectives and eyepieces)

## EMZ-5D ZOOM STEREO BODY WITH DETENT

## EMZ-5TR ZOOM STEREO BODY

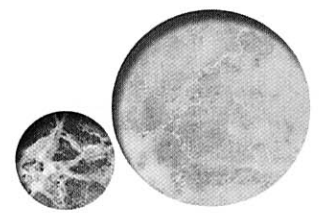
Body: Trinocular, rotatable 360°  
 Zoom Ratio: 6.5:1  
 Zoom Range: 0.7X to 4.5X  
 Zoom Control: Dual, graduated, bilateral mount.  
 Magnification: 7X - 45X (With 10X eyepieces)  
 Field of view: 32mm - 5.1mm  
 Working Distance: 93mm Eyetube Inclination: 45°  
 Interpupillary Distance Adjustment: 54mm - 75mm  
 Dioptic Adjustment: Dual ( $\pm$  5 diopters)  
 Extended Magnification Range : 2.1X - 270X  
 Extend working distances: 34mm - 251mm  
 (With supplemental objectives and eyepieces)

## EMZ-5TRD ZOOM STEREO BODY WITH DETENT

## EMZ-10 ZOOM STEREO BODY

Body: Binocular, rotatable 360°  
 Zoom Ratio: 6.5:1  
 Zoom Range: 0.7X to 4.5X  
 Zoom Control: Dual, graduated, bilateral mount.  
 Magnification: 7X - 45X (With 10X eyepieces)  
 Field of view: 32mm - 5.1mm  
 Working Distance: 110mm  
 Eyetube Inclination: 45°  
 Interpupillary Distance Adjustment: 54mm - 75mm  
 Dioptic Adjustment: Dual ( $\pm$  5 diopters)  
 Extended Magnification Range : 2.1X - 270X  
 Extend working distances: 45mm - 332mm  
 (With supplemental objectives and eyepieces)

# EMZ ZOOM STEREO MICROSCOPES



EMZ-2 with MA502 SWF10X eyepieces

## EMZ-2 ZOOM STEREO BODY

Body: Binocular, rotatable 360°  
Zoom Ratio: 6.5:1  
Zoom Range: 0.7X to 4.5X  
Zoom Control: Graduated knurled ring  
Magnification: 7X - 45X (With 10X eyepieces)  
Field of view: 32mm - 5.1mm  
Working Distance: 93mm  
Eyetube Inclination: 45°  
Interpupillary Distance Adjustment: 54mm - 75mm  
Dioptric Adjustment: Dual ( $\pm 5$  diopters)

Extended Magnification Range : 2.1X - 270X  
Extend working distances: 34mm - 251mm  
(With supplemental objectives and eyepieces)



EMZ-2TR with MA502 SWF10X eyepieces

## EMZ-2TR ZOOM STEREO BODY

Body: Trinocular, rotatable 360°  
Zoom Ratio: 6.5:1  
Zoom Range: 0.7X to 4.5X  
Zoom Control: Graduated knurled ring  
Magnification: 7X - 45X (With 10X eyepieces)  
Field of view: 32mm - 5.1mm  
Working Distance: 93mm  
Eyetube Inclination: 45°  
interpupillary Distance Adjustment: 54mm - 75mm  
Dioptric Adjustment: Dual ( $\pm 5$  diopters)

Extended Magnification Range : 2.1X - 270X  
Extend working distances: 34mm - 251mm  
(With supplemental objectives and eyepieces)



EMZ-1 with MA502 SWF10X eyepieces

## EMZ-1 ZOOM STEREO BODY

Body: Binocular, rotatable 360°  
Zoom Ratio: 3:1  
Zoom Range: 1X to 3X  
Zoom Control: Graduated knurled ring  
Magnification: 10X - 30X (With 10X eyepieces)  
Field of view: 23mm - 7.7mm  
Working Distance: 93mm  
Eyetube Inclination: 45°  
Interpupillary Distance Adjustment: 54mm - 75mm  
Dioptric Adjustment: Dual ( $\pm 5$  diopters)

Extended Magnification Range : 3X - 180X  
Extend working distances: 34mm - 251mm  
(With supplemental objectives and eyepieces)

# EMZ ZOOM STEREO MICROSCOPES



EMZ-9 with MA502 SWF10X eyepieces

## EMZ-9 ZOOM STEREO BODY

Body: Binocular, rotatable 360°  
 Zoom Ratio: 6.5:1  
 Zoom Range: 0.7X to 4.5X  
 Zoom Control: Dual, graduated, bilateral mount.  
 Magnification: 7X - 45X (With 10X eyepieces)  
 Field of view: 32mm - 5.1mm  
 Working Distance: 93mm  
 Eyetube Inclination: 60°  
 Interpupillary Distance Adjustment: 54mm - 75mm  
 Dioptric Adjustment: Dual ( $\pm 5$  diopters)

Extended Magnification Range : 2.1X - 270X  
 Extend working distances: 34mm - 235mm  
 (With supplemental objectives and eyepieces)



EMZ-6 with MA502 SWF10X eyepieces

## EMZ-6 ZOOM STEREO BODY

Body: Trinocular, rotatable 360°  
 Zoom Ratio: 6.5:1  
 Zoom Range: 0.65X to 4.2X  
 Zoom Control: Dual, graduated, bilateral mount.  
 Magnification: 6.5X - 42X (With 10X eyepieces)  
 Field of view: 35mm - 5.4mm  
 Working Distance: 108mm  
 Eyetube Inclination: 45°  
 Interpupillary Distance Adjustment: 54mm - 75mm  
 Dioptric Adjustment: Dual ( $\pm 5$  diopters)

Extended Magnification Range : 1.95X - 252X  
 Extend working distances: 34mm - 235mm  
 (With supplemental objectives and eyepieces)



Z-7100 with MA502 SWF10X eyepieces

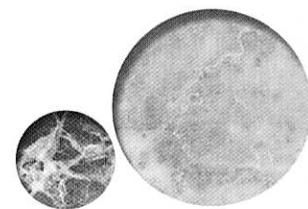
## Z-7100 ZOOM STEREO BODY

Body: Binocular, rotatable 360°  
 Zoom Ratio: 6.5:1  
 Zoom Range: 0.7X to 4.5X  
 Zoom Control: Dual, graduated, bilateral mount.  
 Magnification: 7X - 45X (With 10X eyepieces)  
 Field of view: 32mm - 5.1mm  
 Working Distance: 110mm  
 Eyetube Inclination: 90°  
 Interpupillary Distance Adjustment: 54mm - 75mm  
 Dioptric Adjustment: Dual ( $\pm 5$  diopters)

Extended Magnification Range : 2.1X - 270X  
 Extend working distances: 45mm - 332mm  
 (With supplemental objectives and eyepieces)



# TURRET-TYPE STEREO MICROSCOPES



**EMT-1** with MA502 SWF10X eyepieces      **EMTR-1** with MA502 SWF10X eyepieces

## EMT-1 & EMTR-1 TURRET STEREO BODY

Body: Binocular or trinocular, rotatable 360°  
 Paired Objectives: 1X, 2X  
 Magnification: 10X - 20X (With 10X eyepieces)  
 Field of view: 23mm - 11.5mm  
 Working Distance: 108mm  
 Eyetube Inclination: 45°  
 Interpupillary Distance Adjustment: 54mm - 75mm  
 Dioptic Adjustment: Left eyetube

Extended Magnification Range : 5X - 60X  
 Extend working distances: None

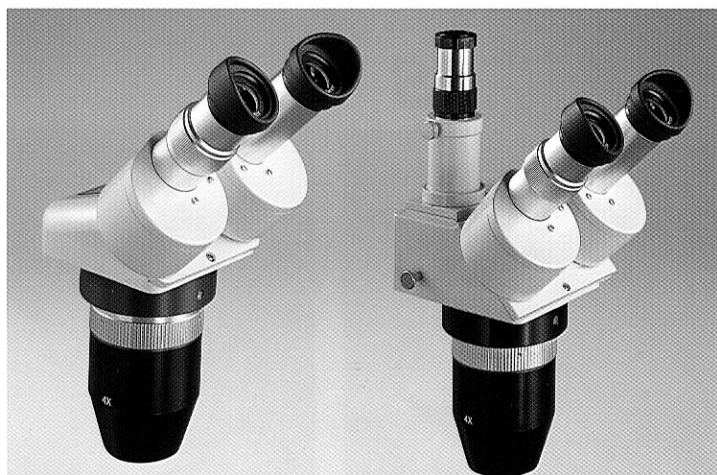


**EMT-2** with MA502 SWF10X eyepieces      **EMTR-2** with MA502 SWF10X eyepieces

## EMT-2 & EMTR-2 TURRET STEREO BODY

Body: Binocular or trinocular, rotatable 360°  
 Paired Objectives: 1X, 3X  
 Magnification: 10X - 30X (With 10X eyepieces)  
 Field of view: 23mm - 7.7mm  
 Working Distance: 81mm  
 Eyetube Inclination: 45°  
 Interpupillary Distance Adjustment: 54mm - 75mm  
 Dioptic Adjustment: Left eyetube

Extended Magnification Range : 5X - 180X  
 Extend working distances: 21mm - 96mm  
 (With supplemental objectives and eyepieces)



**EMT-3** with MA502 SWF10X eyepieces      **EMTR-3** with MA502 SWF10X eyepieces

## EMT-3 & EMTR-3 TURRET STEREO BODY

Body: Binocular or trinocular, rotatable 360°  
 Paired Objectives: 2X, 4X  
 Magnification: 20X - 40X (With 10X eyepieces)  
 Field of view: 11.5mm - 5.75mm  
 Working Distance: 63mm  
 Eyetube Inclination: 45°  
 Interpupillary Distance Adjustment: 54mm - 75mm  
 Dioptic Adjustment: Left eyetube

Extended Magnification Range : 10X - 240X  
 Extend working distances: 21mm - 96mm  
 (With supplemental objectives and eyepieces)

# TURRET TYPE STEREO MICROSCOPES



## EMT-4 & EMTR-4 TURRET STEREO BODIES

Body: Binocular or trinocular, rotatable 360°  
 Paired Objectives: 1X, 4X  
 Magnification: 10X - 40X (With 10X eyepieces)  
 Field of view: 23mm - 5.7mm  
 Working Distance: 63mm  
 Eyetube Inclination: 45°  
 Interpupillary Distance Adjustment: 54mm - 75mm  
 Dioptic Adjustment: Left eyetube

Extended Magnification Range : 5X - 240X  
 Extend working distances: 21mm-96mm

**EMT-4** with MA502 SWF10X eyepieces      **EMTR-4** with MA502 SWF10X eyepieces

# FIXED-OBJECTIVE TYPE STEREO MICROSCOPES



## EMF-1, EMF-2 FIXED-OBJECTIVE STEREO BODY

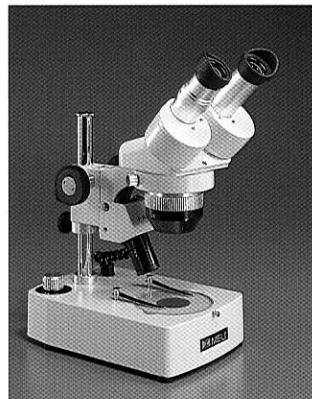
	EMF-1	EMF-2
Body	Binocular rotatable 360°	
Paired Objective	1X	2X
Magnification (with 10X eyepieces)	10X	20X
Field of view	23mm	11.5mm
Working Distance	108mm	
Eyetube Inclination	45°	
Interpupillary Distance Adjustment	54mm - 75mm	
Dioptic Adjustment	Left eyetube	
Extended Magnification Range (with optional eyepieces)	5X - 30X	10X - 60X

**EMF-1, EMF-2** with MA502 SWF10X eyepieces

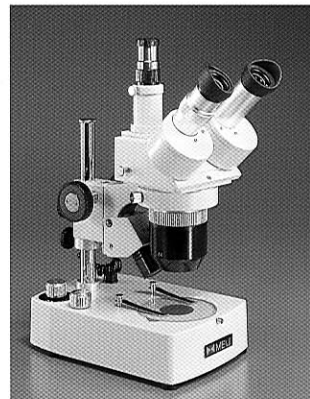
# CONFIGURATION SAMPLES



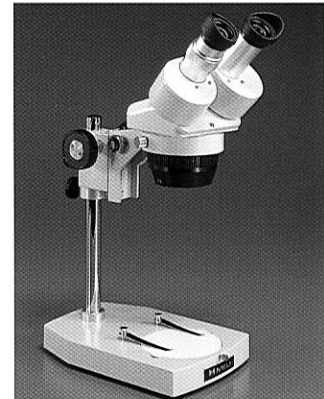
**EMF-2 / SWF10X / P**



**EMT-1 / SWF10X / PB**

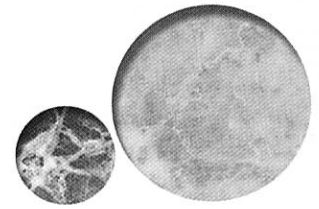


**EMTR-2 / SWF10X / PBH**



**EMX-1 / SWF10X / PX**

# LONG WORKING DISTANCE TURRET STEREO



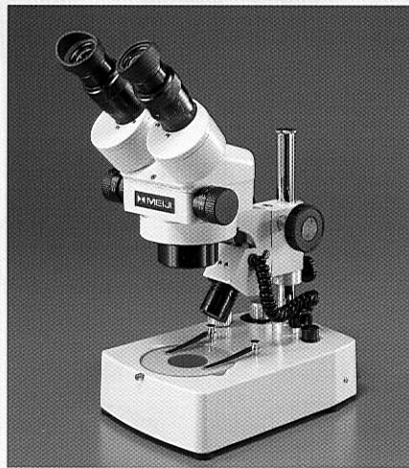
EMX-1 with MA502 SWF10X eyepieces

## EMX-1 TURRET STEREO BODIES

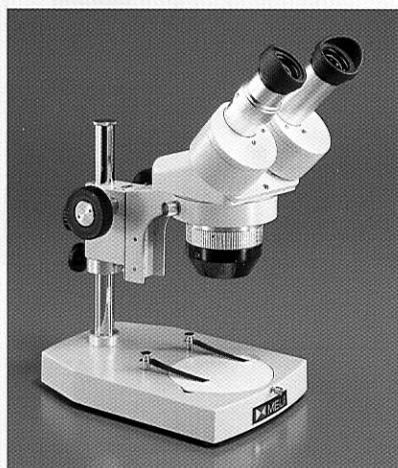
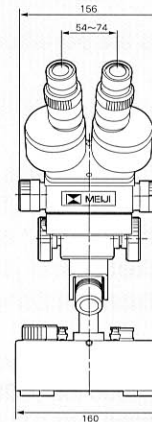
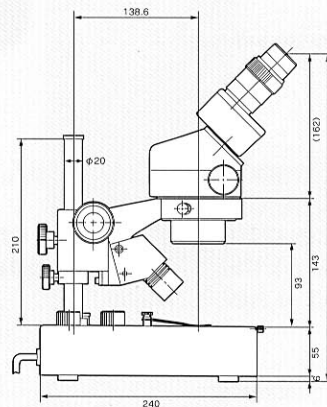
Body: Binocular, rotatable 360°  
 Paired Objectives: 0.5X, 1X  
 Magnification: 5X - 10X (With 10X eyepieces)  
 Field of view: 46mm - 23mm  
 Working Distance: 225mm  
 Eyetube Inclination: 45°  
 Interpupillary Distance Adjustment: 54mm - 75mm  
 Dioptic Adjustment: Left eyetube

Extended Magnification Range : 5X - 30X  
 Extend working distances: 300mm  
 (With supplemental objectives and eyepieces)

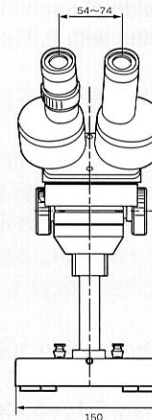
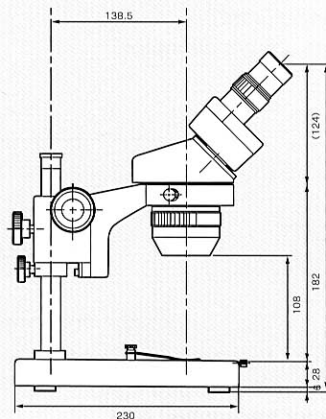
## CONFIGURATION SAMPLES



EMZ-5 / SWF10X / PBH



EMT-1 / SWF10X / P Stand



# EYEPIECES AND EYEPIECE ACCESSORIES

## EYEPIECES

A large selection of interchangeable super widefield eyepieces are available for all EM Series stereo microscopes.

- MA501** Super Widefield 5X Eyepiece, field No.26
- MA502** Super Widefield 10X Eyepiece with 25mm diameter reticle mount, field No.23
- MA520** Super Widefield 12.5X Eyepiece with 25mm diameter reticle mount, field No.20
- MA503** Super Widefield 15X Eyepiece with 25mm diameter reticle mount, field No.15.4
- MA535** Super Widefield 15X High-eyepoint eyepiece with 25mm diameter reticle mount, field No. 16.0
- MA504** Super Widefield 20X Eyepiece with 25mm diameter reticle mount, field No. 11.5
- MA521** Super Widefield 30X Eyepiece field No. 7.7
- MA519** Super Widefield 10X Focusing eyepiece (single) with 25mm diameter reticle mount, field No.21
- MA600** Eyeshields (paired)

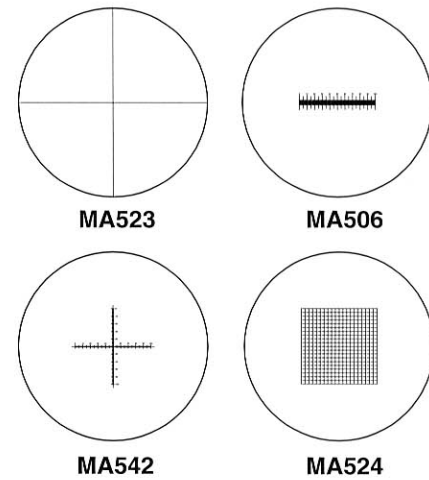


Note: All eyepieces are paired unless otherwise indicated.

## EYEPIECE MICROMETERS

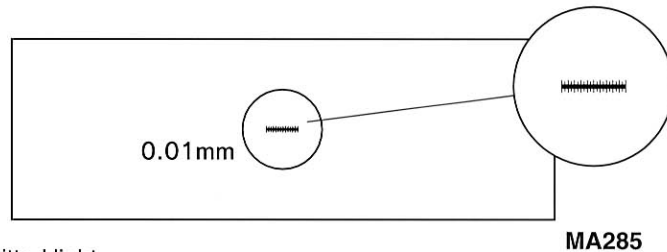
Eyepiece micrometers can be inserted into the 10X, 15X or 20X eyepieces for the purpose of specimen measurement. Linear scales, counting grids, and cross-line micrometers are just a few of the choices available to facilitate measurement of your specimens.

- MA523** Cross-line, 25mm diameter
- MA506** 10mm divided into 100 units, 25mm diameter
- MA509** 5mm divided into 100 units, 25mm diameter
- MA510** 10mm square divided into 100 parts, 25mm diameter (Each side of each individual square 1.0mm)
- MA524** 10mm square divided into 400 parts, 25mm diameter (Each side of each individual square 0.5mm)
- MA542** Cross-line with 0.01mm graduations, 25mm diameter



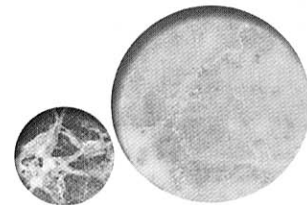
## STAGE MICROMETERS

Stage micrometers are used to calibrate eyepiece micrometers. Stage micrometers are available in both English and metric scales for reflected and transmitted light.



- MA285** 1mm divided into 100 units (0.01mm), for transmitted light
- MA286** 0.04" divided into 40 units (0.001"), for transmitted light
- MA287** 0.1mm by 0.1mm counting square for transmitted light
- MA292** 1mm divided into 100 parts(0.01mm), for reflected light

# AUXILIARY OBJECTIVE LENSES



A large selection of auxiliary objective lenses are available for EM Series stereo microscopes.

## AUXILIARY LENSES FOR: EMZ-1, EMZ-2, EMZ-2TR, EMZ-5, EMZ-5TR, EMZ-6, EMZ-9

- MA530** Auxiliary lens 0.3X, Working distance 251mm
- MA525** Auxiliary lens 0.44X, Working distance 171mm
- MA517** Auxiliary lens 0.5X, Working distance 148mm
- MA526** Auxiliary lens 0.75X, Working distance 97mm
- MA507** Auxiliary lens 1.5X, Working distance 49mm
- MA511** Auxiliary lens 2.0X, Working distance 33mm



**MA517**

**MA507**

**MA511**

## AUXILIARY LENSES FOR: EMZ-10 and Z-7100

- MA545** Auxiliary lens 0.3X, Working distance 326mm
- MA558** Auxiliary lens 0.44X, Working distance 247mm
- MA546** Auxiliary lens 0.5X, Working distance 194mm
- MA547** Auxiliary lens 0.75X, Working distance 127mm
- MA548** Auxiliary lens 1.5X, Working distance 64mm
- MA549** Auxiliary lens 2.0X, Working distance 44mm



**MA545**

**MA548**

**MA549**

## AUXILIARY LENSES FOR: EMT-2, EMTR-2, EMT-3, EMTR-3, EMT-4, EMTR-4

- MA515** Adapter\*
- MA518** Auxiliary lens 0.5X, Working distance 108mm
- MA527** Auxiliary lens 0.75X, Working distance 72mm
- MA513** Auxiliary lens 1.5X, Working distance 35mm
- MA514** Auxiliary lens 2.0X, Working distance 22mm



**MA518**

**MA513**

**MA514**

\*NOTE: The MA515 adapter is required when using the MA518, MA527, MA513, or MA514 with the EMT-2 and EMTR-2.

## AUXILIARY LENS FOR EMX-1

- MA562** Auxiliary lens 0.7X, Working distance 300mm

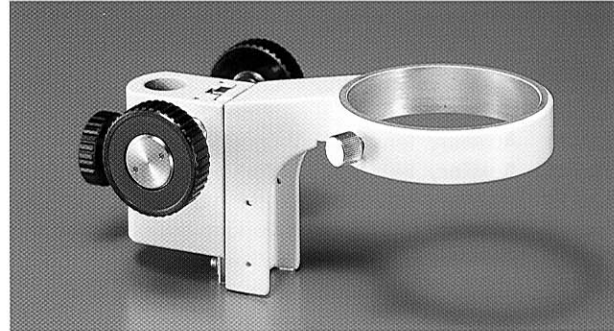


**MA562**

# FOCUSING BLOCKS

## F HOLDER

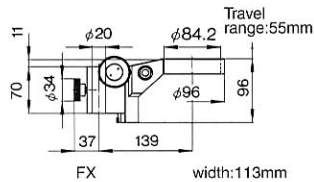
Focusing slide block designed to hold the stereo microscope body on machines or for special OEM applications. Rack and pinion mount allows smooth, precise focusing over 55mm of travel. Coarse focus mechanism incorporates a slip clutch and tension adjustment. Fits 20mm mounting post, 84.2mm diameter opening accepts 84mm stereo microscope body.



F

## FX HOLDER

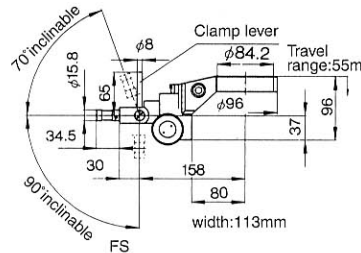
Focusing slide block with integral illuminator port designed to hold the stereo microscope body on machines or for special OEM applications. Rack and pinion mount allows smooth, precise focusing over 55mm of travel. Coarse focus mechanism incorporates a slip clutch and tension adjustment. Fits 20mm mounting post. 84.2mm diameter opening accepts 84mm stereo microscope body.



FX

## FS HOLDER

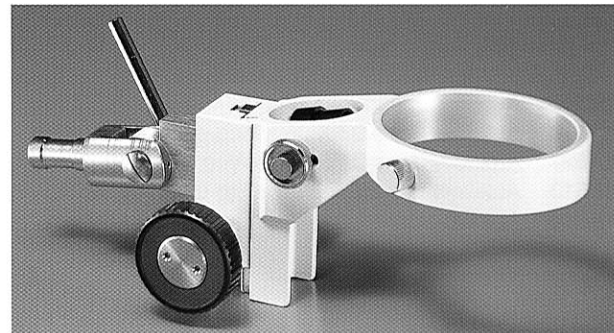
Special tilting focusing slide block with integral illuminator port designed to hold the stereo microscope body on machines or for special OEM applications. Rack and pinion mount allows smooth, precise focusing over 55mm of travel. Coarse focus mechanism incorporates a slip clutch and tension adjustment. 15.8mm (5 / 8") mounting pin, 84.2mm diameter opening accepts 84mm stereo microscope body.



FS

## FC HOLDER

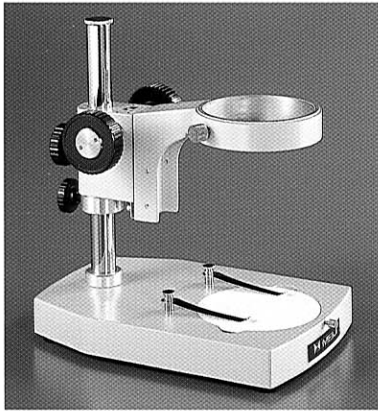
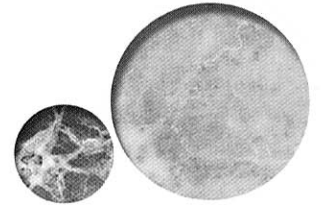
Coaxial coarse and fine focusing slide block designed for applications where precise fine focus adjustment is required. Rack and pinion mount allows smooth, precise focusing over 33 mm of travel. Coarse focus mechanism incorporates a slip clutch and tension adjustment. Fits 20mm mounting post, 84.2mm diameter opening accepts 84mm stereo microscope body. Note: 71mm mounting pins require FC11 extension



FC11

FC

# STANDS [POLE-TYPE STANDS]



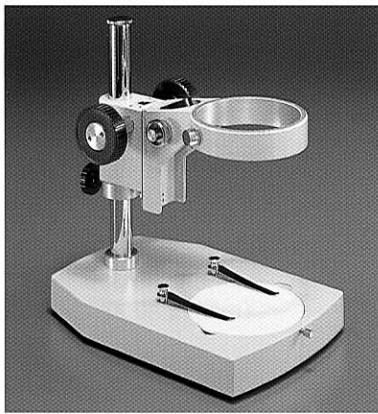
P

## P STAND

Pole-type stand with F holder focus block mounted on a plain base. Supplied with one 94.5mm diameter reversible black and white stage plate and two stage clips.

### Dimensions:

Length: 230mm  
Width: 150mm  
Height: 248mm  
Pillar Diameter: 20mm



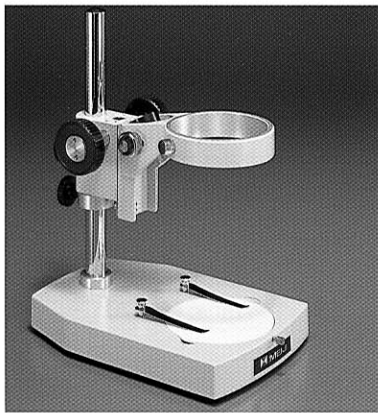
PL

## PL STAND

Pole type stand with FX holder focus block with incident light illuminator port mounted on a plain base. Supplied with one 94.5mm diameter reversible black and white stage plate and two stage clips.

### Dimensions:

Length: 230mm  
Width: 150mm  
Height: 248mm  
Pillar Diameter: 20mm



PX

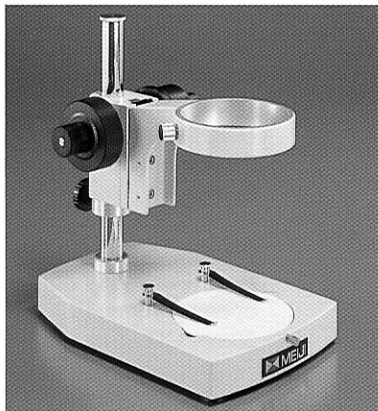
## PX STAND

Extended working distance pole-type stand with FX holder focus block with incident illuminator port mounted on a plain base. Supplied with one 94.5mm diameter reversible black and white stage plate and two stage clips.

### Dimensions:

Length: 230mm  
Width: 150mm  
Height: 290mm  
Pillar Diameter: 20mm

Designed for use with the EMX-1 extended working (distance stereo body)



PC

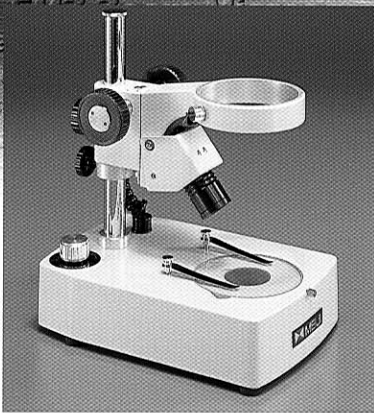
## PC STAND

Pole-type stand with FC coaxial coarse and fine focus block mounted on a plain base. 55mm Z axis travel. 138mm distance from optical center to center of mounting post. Supplied with one 94.5mm diameter reversible black and white stage plate and two stage clips.

### Dimensions:

Length: 230mm  
Width: 150mm  
Height: 248mm  
Pillar Diameter: 20mm

# STANDS (POLE-TYPE STANDS)



**PB**

## PB STAND

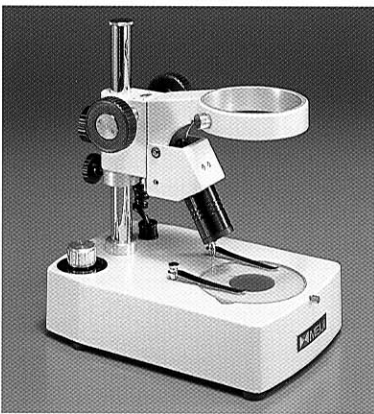
Pole-type stand with F holder focus block. Provides both transmitted and incident tungsten illumination. Supplied with 94.5mm diameter clear glass stage plate, reversible black and white stage plate and two stage clips. Illuminators may be operated independently or simultaneously.  
6V 7.2W

### Dimensions:

Length: 240mm  
Width: 160mm  
Height: 280mm  
Pillar Diameter: 20mm

### Bulbs:

Incident: MA560  
Trans: MA561



**PBM**

## PBM STAND

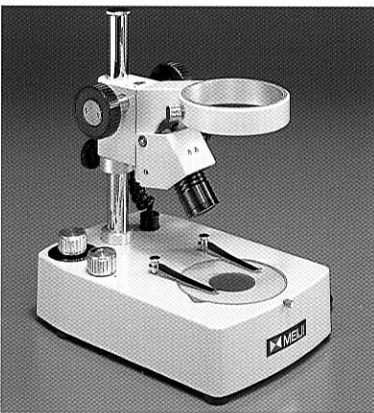
Pole-type stand with F holder focus block. Provides both transmitted and incident tungsten illumination. Supplied with 94.5mm diameter clear glass stage plate, reversible black and white stage plate and two stage clips. Illuminators may be operated independently or simultaneously.  
115V 15W

### Dimensions:

Length: 240mm  
Width: 160mm  
Height: 280mm  
Pillar Diameter: 20mm

### Bulbs:

Incident: MA590  
Trans: MA590



**PBH**

## PBH STAND

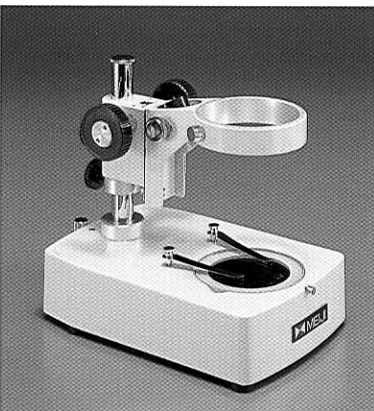
Pole-type stand with F holder focus block. Provides both transmitted and incident halogen illumination with variable intensity control. Illuminators may be operated independently or simultaneously. Supplied with a 94.5mm diameter clear glass stage plate, reversible black and white stage plate and two stage clips.  
6V 10W Halogen

### Dimensions:

Length: 240mm  
Width: 160mm  
Height: 280mm  
Pillar Diameter: 20mm

### Bulbs:

Incident: MA570  
Trans: MA570



**BX**

## BX STAND

Pole-type stand with FX holder focus block with incident illuminator port. Transmitted light base includes a fully rotatable mirror for brightfield or "pseudo" darkfield work. Supplied with a 94.5mm diameter clear glass stage plate and two stage clips. Base and focus block accept optional versatile type illuminators. (MA264H or MA264)

### Dimensions:

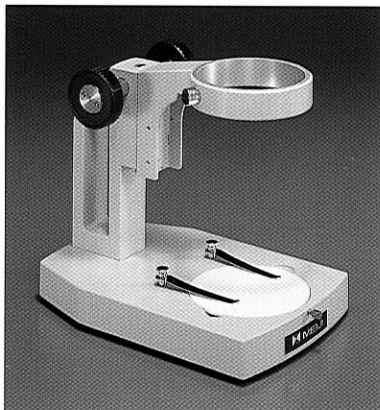
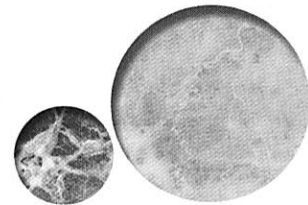
Length: 240mm  
Width: 160mm  
Height: 280mm  
Pillar Diameter: 20mm

### Note:

Rear illuminator port opening 25mm ID 30mm OD



# STANDS [RIGID ARM STANDS]



A

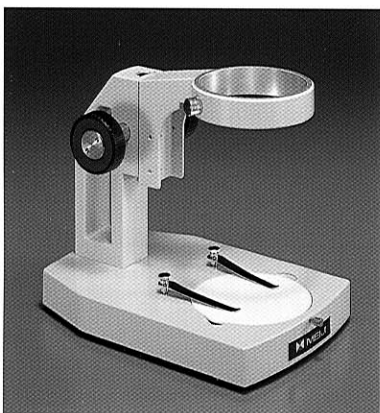
## A STAND

Rigid-arm type stand with integral focus block mounted on a plain base. Supplied with one 94.5mm diameter reversible black and white stage plate and two stage clips.

Note: The A stand is intended for use with fixed or turret type stereo bodies.

### Dimensions:

Length: 230mm  
Width: 150mm  
Height: 203mm



AZ

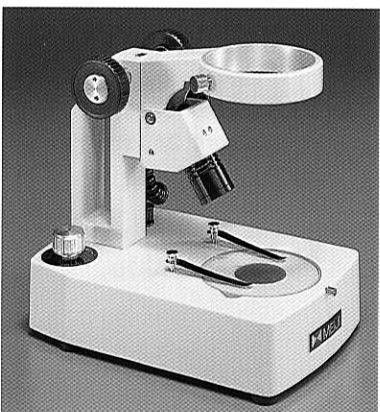
## AZ STAND

Rigid-arm type stand with integral focus block mounted on a plain base. Supplied with one 94.5mm diameter reversible black and white stage plate and two stage clips.

Note: The AZ stand is intended for use with zoom stereo bodies.

### Dimensions:

Length: 230mm  
Width: 150mm  
Height: 203mm



AB

## AB STAND

Rigid-arm type stand with integral focus block . Provides transmitted and incident tungsten illumination which may be operated independently or simultaneously. Supplied with a 94.5 mm diameter clear glass stage plate, reversible black and white stage plate and two stage clips. 6V 7.2W

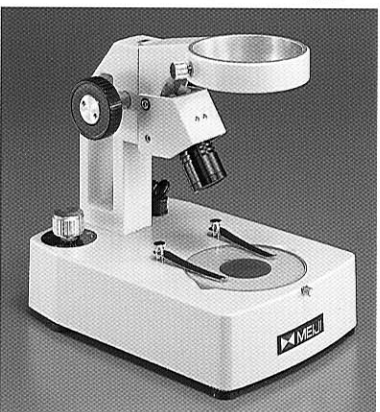
Note: The AB stand is intended for use with fixed or turret type stereo bodies.

### Dimensions:

Length: 240mm  
Width: 160mm  
Height: 233mm

### Bulb:

Incident: MA560  
Trans: MA561



ABZ

## ABZ STAND

Rigid-arm type stand with integral focus block . Provides both transmitted and incident tungsten illumination which may be operated independently or simultaneously. Supplied with a 94.5 mm diameter clear glass stage plate, reversible black and white stage plate and two stage clips. 6V 7.2W

Note: The ABZ stand is intended for use with zoom stereo bodies.

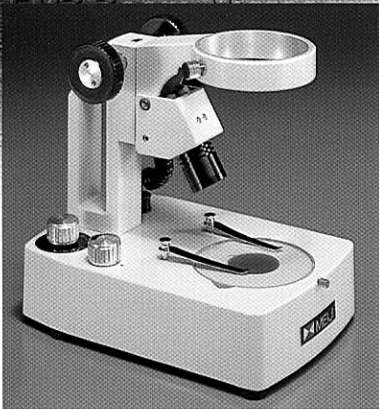
### Dimensions:

Length: 240mm  
Width: 160mm  
Height: 233mm

### Bulb:

Incident: MA570  
Trans: MA570

# STANDS RIGID ARM STANDS



**ABH**

Rigid arm type stand with integral focus block . Provides transmitted and incident halogen illumination, independently or simultaneously with variable intensity control. Supplied with 94.5 mm diameter clear glass, black and white stage plates and two stage clips. 6V 10W Halogen

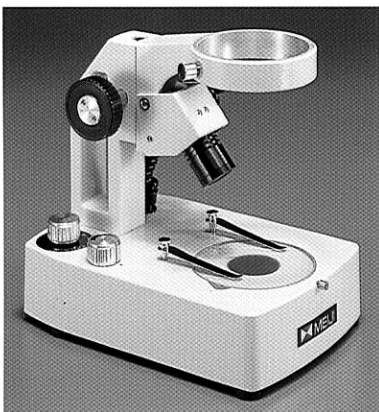
Note: The ABH stand is intended for use with fixed or turret bodies.

**Dimensions:**

Length: 240mm  
Width: 160mm  
Height: 233mm

**Bulb:**

Incident: MA570  
Trans: MA570



**ABZH**

**ABZH STAND**

Rigid arm type stand with integral focus block . Provides transmitted and incident halogen illumination, independently or simultaneously with variable intensity control. Supplied with 94.5 mm diameter clear glass, black and white stage plates and two stage clips. 6V 10W Halogen

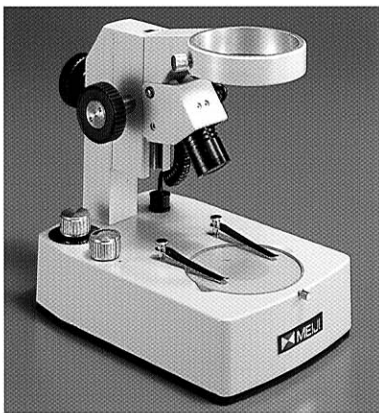
Note: The ABZH stand is intended for use with zoom stereo bodies

**Dimensions:**

Length: 240mm  
Width: 160mm  
Height: 233mm

**Bulb:**

Incident: MA570  
Trans: MA570



**ABE**

**ABE STAND**

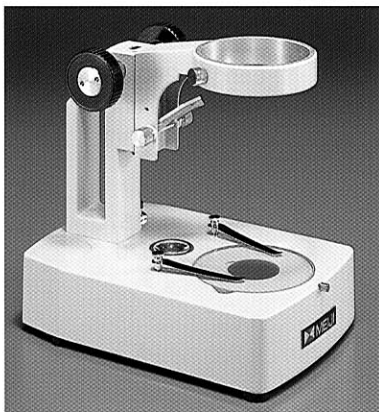
Rigid arm type stand with integral focus block and extendable working distance . Provides transmitted and incident halogen illumination, independently or simultaneously with variable intensity control. Supplied with 94.5 mm diameter clear glass, black and white stage plates and two stage clips. 6V 10W Halogen

**Dimensions:**

Length: 240mm  
Width: 160mm  
Height: 240mm-300mm

**Bulb:**

Incident: MA570  
Trans: MA570



**B**

**B STAND**

Rigid arm type stand with integral focus block. A dual-reflection lens system provides incident, transmitted, or simultaneous illumination. A fully rotatable mirror in the base provides transmitted light brightfield or "pseudo" darkfield illumination. Supplied with 94.5 mm diameter clear glass, black and white stage plates and two stage clips. 115V 20W

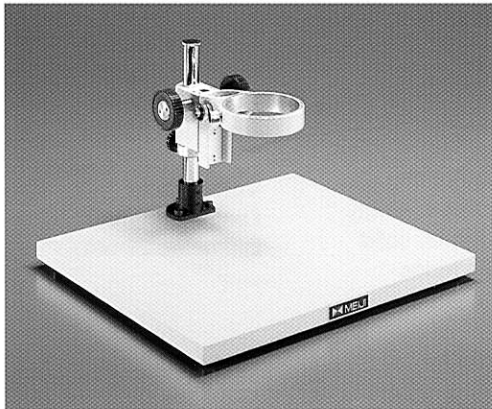
**Dimensions:**

Length: 245mm  
Width: 160mm  
Height: 233mm

**Bulb:**

MA261 / SL10

# STANDS [STANDS WITH EXTENDED WORK SURFACE]



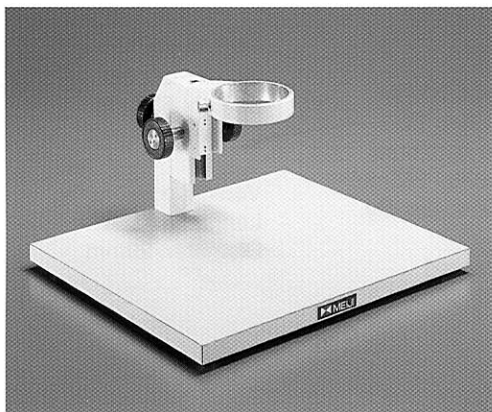
**KBL**

## KBL STAND

Pole type stand with FX holder focus block with incident illuminator port mounted on a 380mm x 330mm x 20mm flat laminate base. Optional 100mm (4") pillar extension (MA551) can provide additional clearance or working distance.

### Dimensions:

Length: 330mm  
Width: 380 mm  
Height: 245 mm



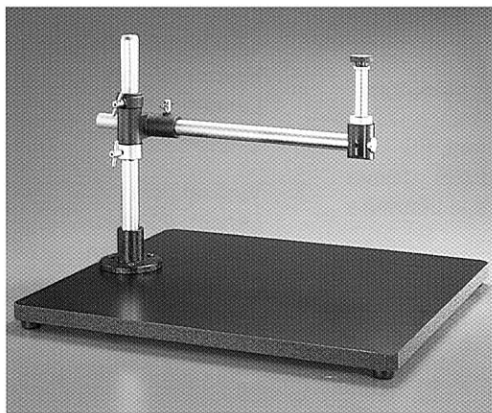
**KBE**

## KBE STAND

Rigid arm type stand with integral focus block mounted on a 380mm x 330mm x 20mm flat laminate base. The rigid arm can be extended to accommodate large specimens and a wide variety of auxiliary objective lenses.

### Dimensions:

Length: 330mm  
Width: 380 mm  
Height: Variable



**SBU**

## SBU STAND

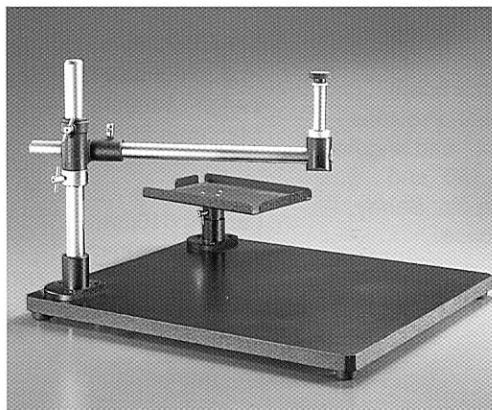
Special universal-type stand with pillar, crossarm and mounting post mounted directly over a large flat laminate work surface. Provides flexible horizontal and vertical movement for large specimens. 20mm diameter short mounting post accepts optional F, FX or FC holders.

### Dimensions:

Horizontal pole  
Length: 480 mm  
Diameter: 25mm

Vertical pole  
Length: 365 mm  
Diameter: 29 mm

Base: 580mm x 500mm x 38mm.



**UL**

## UL STAND

Special universal-type stand with pillar, crossarm, mounting post, and rotatable tray to hold optional fiber optic light source. Provides flexible horizontal and vertical movement for large specimens. 20mm diameter short mounting post accepts optional F, FX or FC holders.

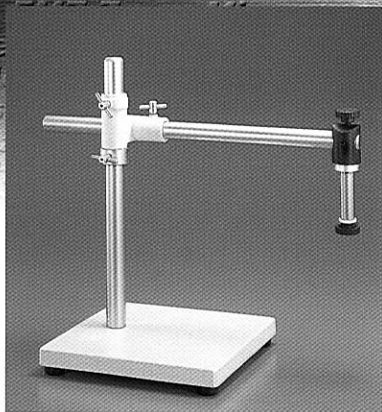
### Dimensions:

Horizontal pole  
Length: 480 mm  
Diameter: 25mm

Vertical pole  
Length: 365 mm  
Diameter: 29 mm

Base: 580mm x 500mm x 38mm.

# STANDS UNIVERSAL BOOM STANDS



S-4100

## S-4100 STAND

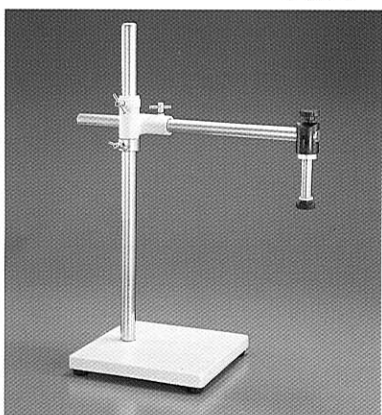
Industrial-type boom stand with 20mm mounting post for F, FX or FC holders. Provides complete flexibility for horizontal and vertical adjustment. Sturdy solid metal 265mm x 265mm x 25mm base provides excellent stability.

Note: F, FX and FC holders must be ordered separately.

### Dimensions:

Horizontal pole  
Length: 530mm  
Diameter: 25mm

Vertical pole  
Length: 400mm  
Diameter: 29mm



S-4200

## S-4200 STAND

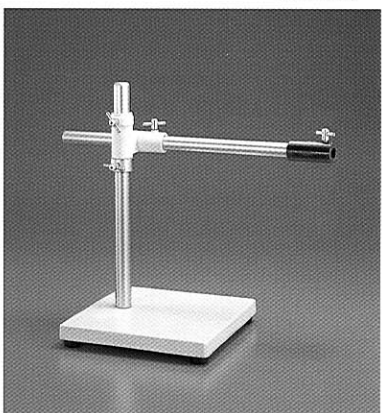
Extended working distance industrial-type boom stand with 20mm mounting post for F, FX or FC holders. Provides complete flexibility for horizontal and vertical adjustment. Sturdy, solid metal 265mm x 265mm x 25mm base provides excellent stability.

Note: F, FX and FC holders must be ordered separately.

### Dimensions:

Horizontal pole  
Length: 530mm  
Diameter: 25mm

Vertical pole  
Length: 610mm  
Diameter: 29mm



S-4300

## S-4300 STAND

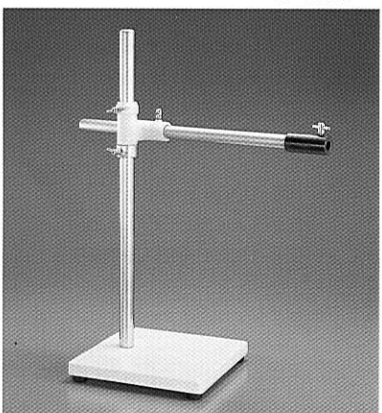
Industrial-type boom stand with adapter(MA552)for FS holder. Provides complete flexibility for horizontal, vertical and angular adjustment. FS holder can be inclined 180° and rotated 360°, 16mm diameter mounting pin. Sturdy, solid metal 265mm x 265mm x 25mm base.

Note: FS holder must be ordered separately.

### Dimensions:

Horizontal pole  
Length: 530mm  
Diameter: 25mm

Vertical pole  
Length: 400mm  
Diameter: 29mm



S-4400

## S-4400 STAND

Extended working distance industrial-type boom stand with adapter (MA552) for FS holder. Provides complete flexibility for horizontal, vertical and angular adjustment. FS holder can be inclined 180° and rotated 360°, 16mm diameter mounting pin. Sturdy, solid metal 265mm x 265mm x 25mm base.

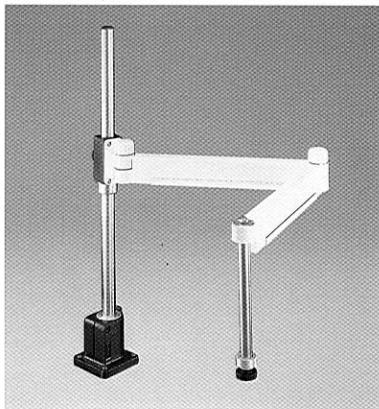
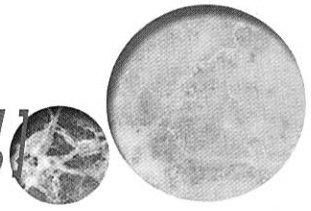
Note: FS holder must be ordered separately.

### Dimensions:

Horizontal pole  
Length: 530mm  
Diameter: 25mm

Vertical pole  
Length: 610mm  
Diameter: 29mm

# STANDS [ ARTICULATED ARM STANDS, CLAMP BOOM STAND, EXTENDED WORK SURFACE STAND



FA-1

## FA-1 ARTICULATED ARM STAND

Articulated arm stand for bench top attachment. Supplied with mounting flange, two piece folding arm, vertical mounting pillar and 20 mm diameter mounting pin for focus block. Maximum distance from rod to center of optical axis is 1000mm.

Note: F, FX or FC holder must be ordered

### Dimensions:

Length: 1100mm  
Width: 100mm  
Height: 560mm

Pillar Diameter: 20mm



FA-2

## FA-2 ARTICULATED ARM STAND

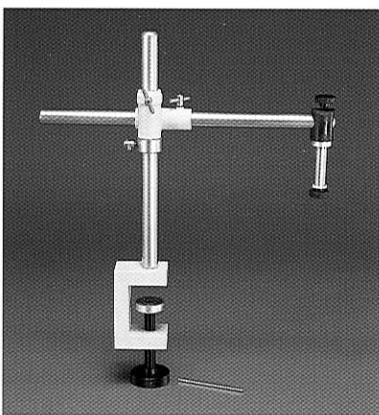
Articulated arm stand designed for mounting to a vertical surface. Supplied with mounting flange, two piece folding arm, and 20 mm diameter mounting pin for focus block. Maximum distance from rod to center of optical axis is 1080mm.

Note: F, FX or FC holder must be ordered separately.

### Dimensions:

Base  
Length: 1100mm  
Width: 100mm

Pillar Diameter: 20mm



S-4500

## S-4500 STAND

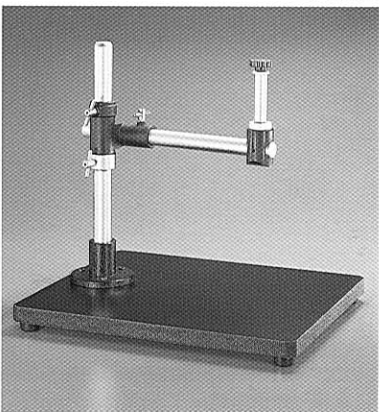
Industrial-type boom stand with 20mm mounting post for F, FX and FC holders. Provides complete flexibility for horizontal and vertical adjustment. Sturdy solid metal clamp provides excellent stability.

Note: F, FX and FC holders must be ordered separately.

### Dimensions:

Horizontal pole  
Length: 530mm  
Diameter: 25mm

Vertical pole  
Length: 400mm  
Diameter: 29mm



MU

## MU STAND

Special universal-stand with pillar, crossarm and mounting post mounted over a laminate work surface. Provides flexible horizontal and vertical movement for mid sized specimens. 20mm diameter short mounting post accepts F, FX or FC holders. Base: 350mm x 410mm x 30mm

Note: F, FX or FC holder must be ordered separately.

### Dimensions:

Horizontal pole  
Length: 330mm  
Diameter: 25mm

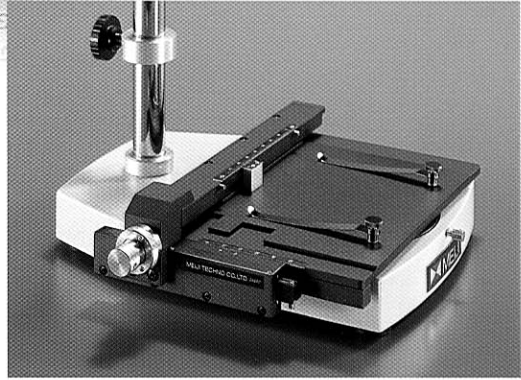
Vertical pole  
Length: 365mm  
Diameter: 29mm

# STAGES

## GRADUATED MECHANICAL STAGE

This stage has 0.1mm graduations and coaxial controls for precise movement of mounted specimens. Features a 116mm x 137mm work surface with stage clips, 50mm x 75mm x-y travel.

**Catalog Number: MA564**

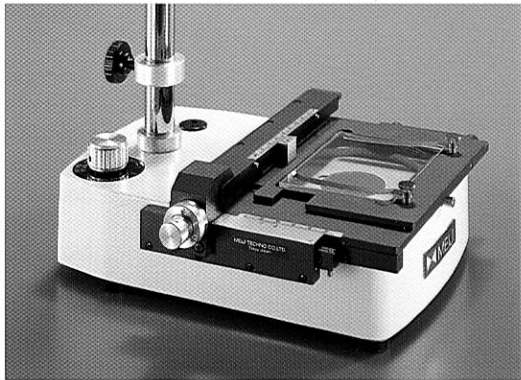


**MA564**

## GRADUATED MECHANICAL STAGE WITH GLASS STAGE PLATE

This stage has 0.1mm graduations and coaxial controls for precise movement of mounted specimens. Features a 116mm x 137mm work surface with stage clips and 74mm x 96mm clear glass plate for use with transmitted light stands, 50mm x 75mm x-y travel.

**Catalog Number: MA564/05**

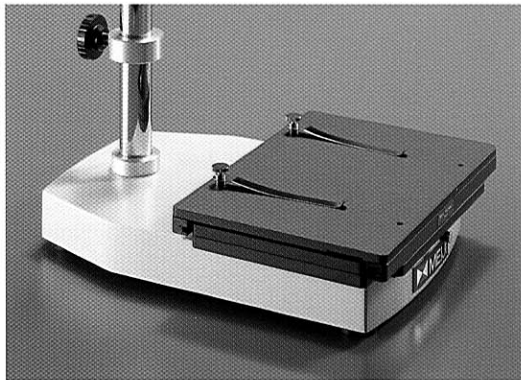


**MA564/05**

## UNGRADUATED MECHANICAL STAGE

This stage features a 125mm x 170mm work surface with stage clips. Roller bearing mount allows smooth, easy, fingertip control over 100mm x 100mm, x-y travel.

**Catalog Number: MA565**

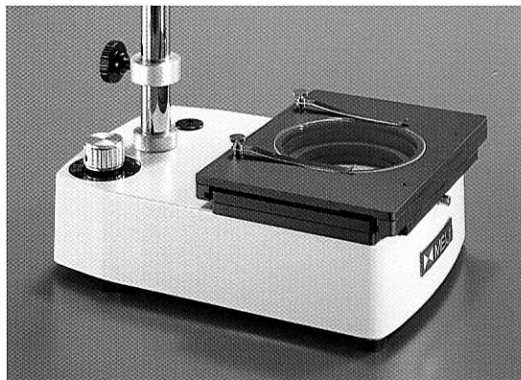


**MA565**

## UNGRADUATED MECHANICAL STAGE WITH GLASS STAGE PLATE

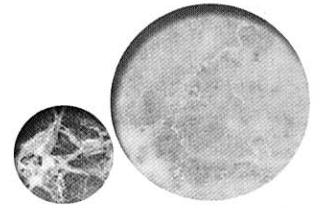
This stage features a 125mm x 170mm work surface with stage clips and a 94.5mm diameter clear glass stage plate for use with transmitted light stands. Roller bearing mount allows smooth, easy, fingertip control over 100mm x 100mm, x-y travel.

**Catalog Number: MA565/05**



**MA565/05**

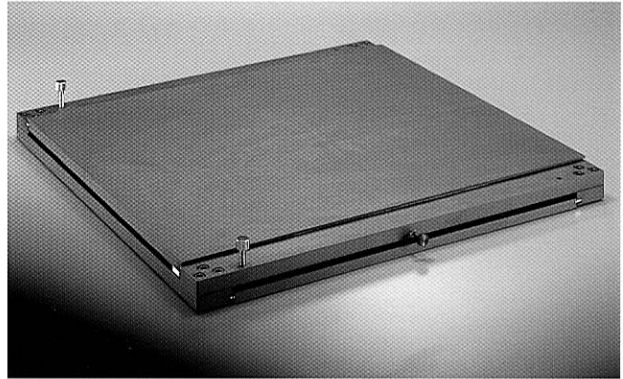
# STAGES AND ACCESSORIES



## LARGE SLIDING STAGE

Large 395mm x 395mm (15.5"x 15.5") roller bearing stage with 350mm x 270mm (13.78"x 10.63") x-y travel. Black anodized with x-y lock down screws.

**Catalog Number: MA574**

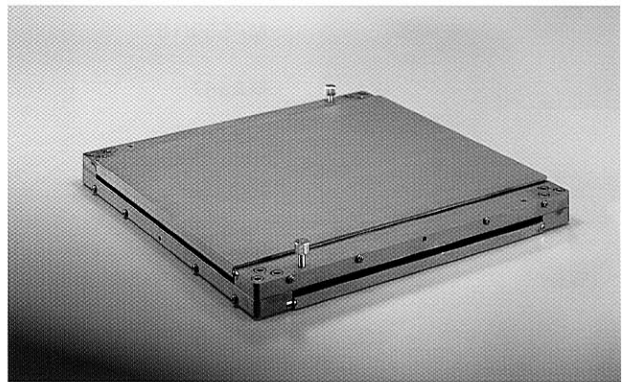


MA574

## MEDIUM SLIDING STAGE

Medium 292mm x 235mm (11.5"x 9.24") roller bearing stage with 203mm x 101mm (8"x 4") x-y travel. Black anodized with x-y lock down screws.

**Catalog Number: MA575**



MA575

## OBLIQUE VIEWING ATTACHMENT

Designed specifically for the inspection of solder connections, rework and repair of electronic circuits and for mounting small electronic components. One-touch sliding movement allows the user to quickly change from vertical to oblique viewing. Rotatable 360°. Vertical working distance 110mm. Oblique working distance 130mm.

Note: For use with Zoom Stereo EMZ- 5, EMZ-5TR, EMZ-2 and EMZ-2TR bodies only.

**Catalog Number: MA571**

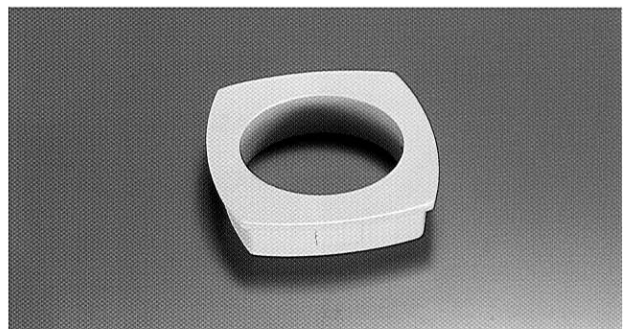


MA571

## LEICA ADAPTER PLATE

The Leica adapter plate allows the EM Series microscope body to be mounted onto the Leica "E" or "ER" arm.

**Catalog Number: MA577**



MA577

# ACCESSORIES

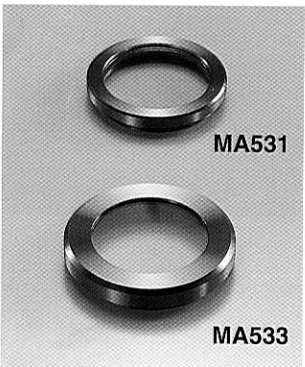


## Simple Polarizing Attachments

When used in conjunction with the MA667 polarizing plate the MA550 rotatable polarizing filter functions as an analyzer and is useful for viewing or detecting birefringent materials. (eg. mineral specimens, organic and inorganic crystal specimens, bone specimens, strained glass, etc.)

## EM Series polarizing filters in rotatable mounts

- MA550** Polarizing filter for EMZ Zoom stereo microscopes
- MA550/05** Polarizing filter for EMT-1, EMTR-1, EMT-2, EMTR-2, EMF-1, and EMF-2 stereo bodies
- MA550/10** Polarizing filter for EMT-3, EMTR-3, EMT-4, and EMTR-4 stereo bodies
- MA667** Polarizing plate for use with PB, PBH, PBM, AB, ABH, ABZH, ABE Transmitted Light Stand



## Protective Glass Attachments

Used to protect EM Series microscope objectives from harmful residue, vapors, solvents, debris etc.

- MA531** Protective glass for EMZ Zoom stereo microscopes
- MA532** Protective glass for EMZ Zoom stereo body with MA305 fluorescent illuminator
- MA533** Protective glass for EMT-1, EMTR-1, EMT-2, EMTR-2, EMF-1 and EMF-2
- MA537** Protective glass for EMT-3, EMTR-3, EMT-4 and EMTR-4



## Adapters For FL182 Annular Fiber Optic Illuminators

- MA553** Adapter to fit annular fiber optic ring illuminator on EMT-1, EMTR-1, EMT-2, EMTR-2, EMF-1, and EMF-2 (Fits 60mm I.D. ring illuminators)
- MA553/05** Adapter to fit annular fiber optic ring illuminator on EMT-3, EMTR-3, EMT-4 and EMTR-4

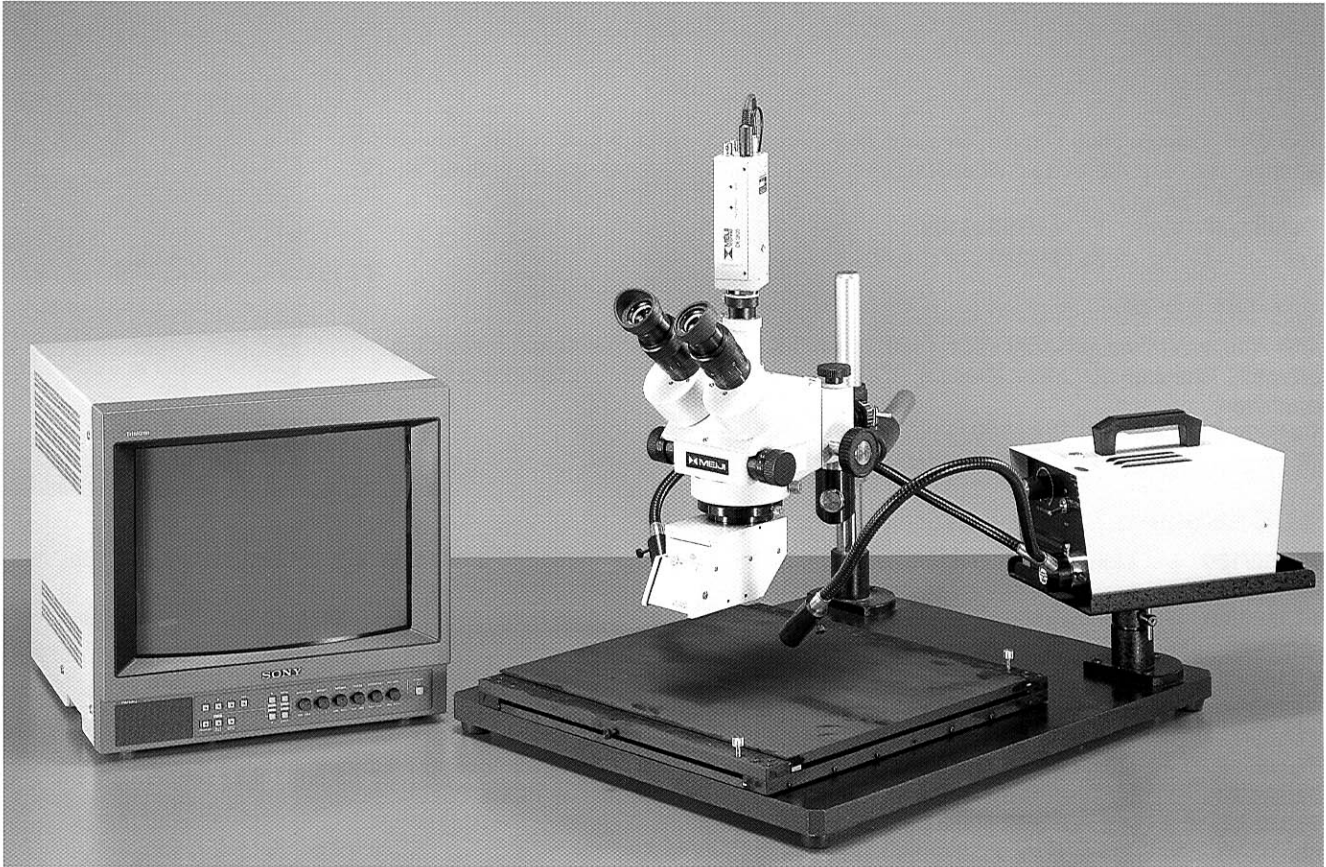
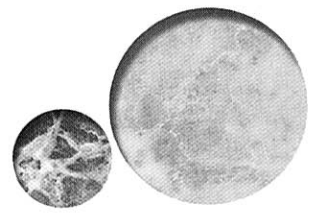


## Adapters For Fluorescent Illuminators

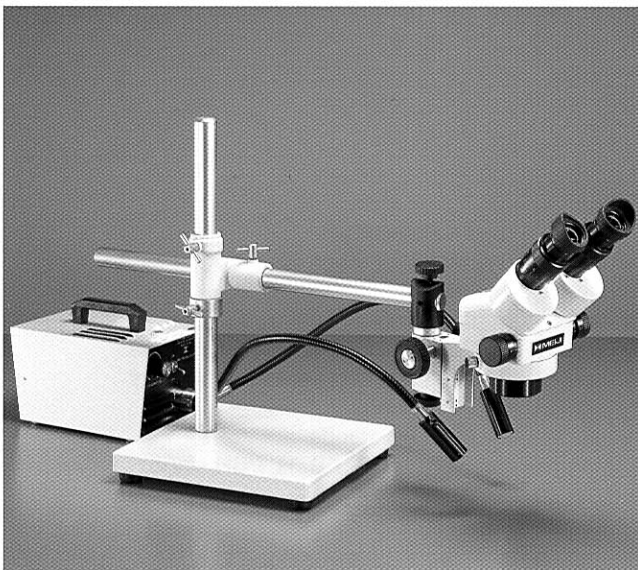
- MA302** Adapter to mount MA305 fluorescent illuminator on EMZ Zoom stereo microscope
- MA303** Adapter to mount MA305 fluorescent illuminator on MA507 and MA511 auxiliary lenses
- MA304** Adapter to mount MA305 fluorescent illuminator on EMT-1, EMTR-1, EMT-2, EMTR-2, EMF-1 and EMF-2
- MA307** Adapter to mount MA305 fluorescent illuminator on EMT-3, EMTR-3, EMT-4 and EMTR-4



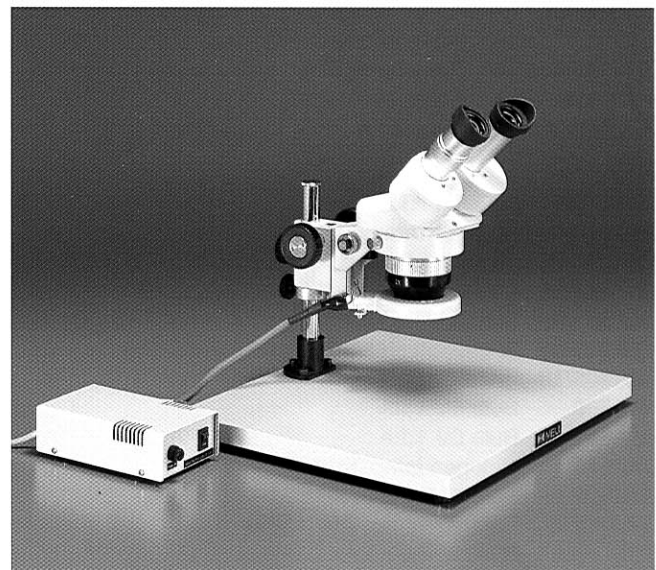
# CONFIGURATION SAMPLES



**SMD INSPECTION SYSTEM** : EMZ-5TR Zoom stereo microscope, MA571 oblique viewing attachment, MA503 Super widefield 15X eyepieces, UL universal stand, MA574 sliding stage, FL181 dual-arm fiber optic light system, MA151/5N video "C" mount, CK3800 video camera and video monitor.



EMZ-5 / SWF10X / S-4100 / FL181



EMT-1 / SWF10X / KBL / MA305

# ILLUMINATION

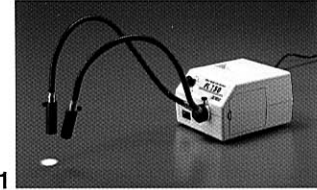
## DUAL-ARM FIBER OPTIC ILLUMINATOR

150 Watt quartz halogen light source with self-supporting dual arm light guides, connecting adapter and focusing lenses. Rheostat controlled intensity. Color temperature 3200°K. UL listed and CSA approved.

Catalog Number: **FL151/100** (110V)

**FL151/200** (220/240V)

FL151



## ANNULAR FIBER OPTIC ILLUMINATOR

150 Watt quartz halogen light source with 60mm I.D. annular light guide and connecting adapter. Rheostat controlled intensity. Color temperature 3200°K. UL listed and CSA approved.

Catalog Number: **FL152 / 100** (110V)

**FL152 / 200** (220/240V)

FL152

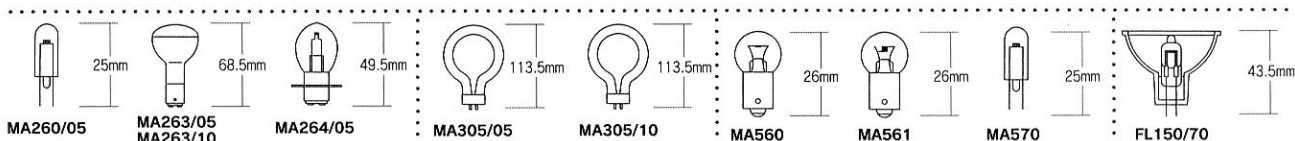


## ACCESSORIES FOR FL150 SERIES

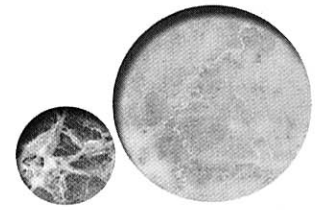
- FL150/100** Light source for 110/120V, 50/60Hz operation, halogen lamp, 21V 150W, with light-intensity regulation, maximum color temperature 3,200°k, with AC fan
- FL150/200** Light source for 220/240V, 50/60Hz operation, halogen lamp, 21V 150W, with light-intensity regulation, maximum color temperature 3,200°k, with AC fan
- FL150/05** Dual arm light guide, self supporting, each arm with 5mm (0.20") dia. active fiber optic bundle
- FL150/10** Annular light guide, 60mm (2.36") dia. ring aperture, 9.5mm (0.373") dia. fiber bundle
- FL150/12** Flexible 914.4mm (36") single arm fiber light guide with special end tip to fit EMZ-12, EMZ-12, EMZ-12TR EMZ-12TRD
- FL150/15** Dual arm light guide, each arm with 4.75mm (0.187") diam. fiber optic bundle
- FL150/50** Lens, 28mm F.L. (for use with FL150/05, FL150/75 and FL180/05)
- FL150/65** Annular light guide for use with MS-3
- FL150/70** Spare bulb, 21V 150W (EKE)
- FL150/75** Single arm light guide (20" self-supporting) 0.25" (6.35mm) diameter fiber optic bundle. Require one FL180/50 lens
- FL150/80** Single arm light guide (flexible), 4.75mm (0.18") dia. fiber optic bundle
- FL150/85** Polarizer cap (fits FL150/50)
- FL150/95** Single arm light guide (36" flexible) 0.187" (4.75mm) diameter fiber optic bundle. For use with VM Series video microscopes.
- FL150/FUSE-A** Fuse 3A 5x20mm, slow blow (115V)
- FL150/FUSE-B** Fuse 2A 5x20mm, slow blow (230V)
- FL180/FUSE** Fuse 2.5A 250V 3AG slow burn

## SPARE BULBS

CAT, No	DESCRIPTION	USE FOR
<b>MA260/05</b>	Halogen lamp, 6V 20W	MA260, MA264, MA264EX illuminators
<b>MA263/05</b>	Miniature flood bulb 115V 30W	MA263 Free stand illuminators
<b>MA263/10</b>	Miniature flood bulb 220/ 240V 30W	MA263 Free stand illuminators
<b>MA264/05</b>	Bulb 6.5V 2.75A	MA264 Versatile illuminators
<b>MA305/05</b>	Ring fluorescent tube, Daylight/DL.8W, 6,500°k	MA305/100 and MA305/200 Ring fluorescent illuminators
<b>MA305/10</b>	Ring fluorescent tube, Warm White/DL.8W, 3,500°k	MA305/100 and MA305/200 Ring fluorescent illuminators
<b>MA560</b>	Bulb 6V 1.2A	Incident light of AB, ABZ, PB stands
<b>MA561</b>	Bulb 6V 1.2A	Transmitted light of AB, ABZ, PB stands
<b>MA570</b>	Halogen lamp, 6V 10W	Incident and Transmitted light of AB, ABZH, PBH stands
<b>MA590</b>	Bulb 115V 15W frosted	PB-M stand
<b>FL150/70</b>	Halogen lamp, 21V 150W	FL150 light source for fiber light guide



# ILLUMINATION



## RING FLUORESCENT ILLUMINATOR

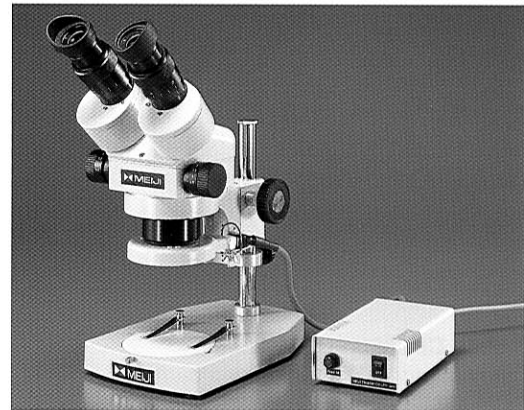
Provides 360° of cool white shadow-free illumination. Lightweight, compact, rugged.

Light Output: 8W

Color Temperature: 6,500K

Lamp Life: 1,500 Hours

**Catalog Number:** MA305 / 100 (110V)  
MA305 / 200 (220 / 240V)  
**Replacement Bulb:** MA305 / 05

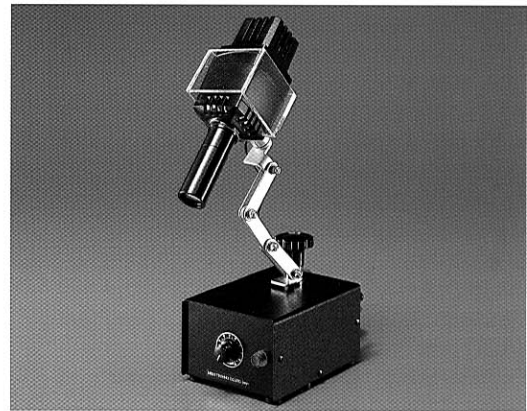


MA305

## VERSATILE HALOGEN ILLUMINATOR

Versatile halogen illuminator with prefocused three lens collecting system, detachable articulating arm, with swivel joint. Provides sharply defined spot without color fringes. Rheostat control. Acid and reagent resistant. 6V 20W

**Catalog Number:** MA264H / 100 (110V)  
MA264H / 200 (220 / 240V)  
**Replacement Bulb:** MA260 / 05

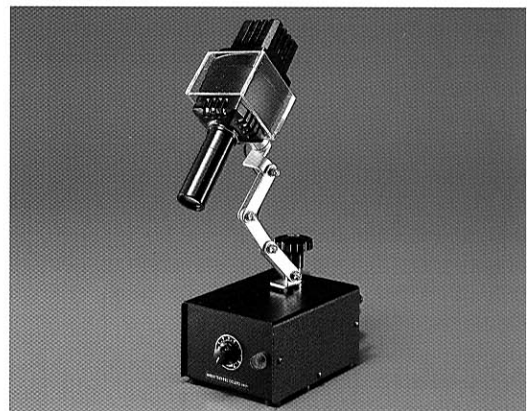


MA264H

## VERSATILE TUNGSTEN ILLUMINATOR

Versatile tungsten illuminator with prefocused three lens collecting system, detachable articulating arm, with swivel joint. Provides sharply defined spot without color fringes. Rheostat control. Acid and reagent resistant. 6V 18W

**Catalog Number:** MA264 / 100 (100V)  
MA264 / 200 (220/240V)  
**Replacement Bulb:** MA264 / 05

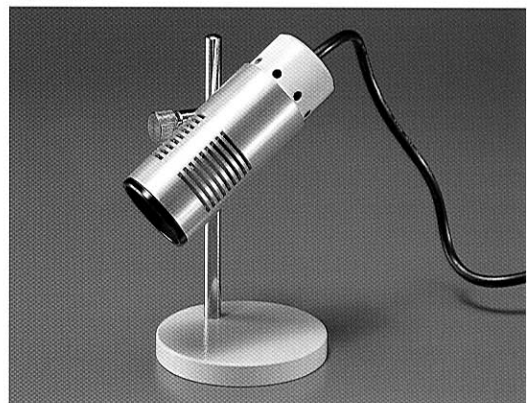


MA264

## FREE STANDING ILLUMINATOR

High intensity, long life daylight, miniature flood-light bulb. Enclosed in a vented, adjustable lamphouse. Heat absorbing filter is built in. 30W

**Catalog Number:** MA263 / 100 (110V)  
MA263 / 200 (220/240V)  
**Replacement Bulb:** MA263 / 05 (110V)  
MA263 / 10 (220/240V)



MA263

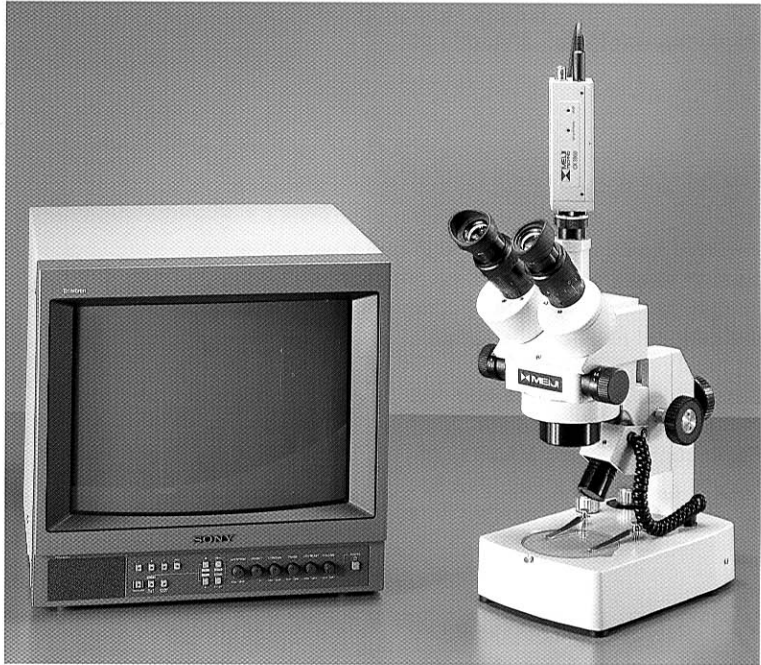
# CCD CAMERAS FOR VIDEO MICROSCOPY

offer a large array of features that make them ideal for industrial, medical, educational, or research applications. Durable, compact and lightweight these cameras are a perfect match for use with the EM Series Stereo Microscopes.

## COLOR CCD CAMERAS

### Model: CK3900N or CK3900P

Description: CCD color video camera  
 CCD: 1 / 2" Interline-Transfer type  
 Elements: 768(H) x 494(V) NTSC  
 752(H) x 582(V) PAL  
 TV System: NTSC or PAL  
 Lens Mount: "CS" mount  
 White Balance: 3200°K / 4600°K / 5600°K / ATW  
 AGC: 0dB~18dB  
 Shutter: Electronic, 1 / 60 (1/50)~1 / 10,000 second  
 Power: 12VDC + 10%  
 Horizontal Resolution: 450 TV lines  
 S / N: 50 dB  
 Video Output: VBS (γ=0.45)  
 Minimum Sensitivity : 0.3 lux on CCD surface  
 (AGC on)  
 External Sync: HD/VD, Composite sync  
 Power Consumption 4.5W  
 Storage Temperature: -25°C~40°C  
 Operating Temperature: 0°C~40°C  
 Dimensions: 51mm (W) x 43mm(H) x 128mm(L)  
 Net Weight: 380g

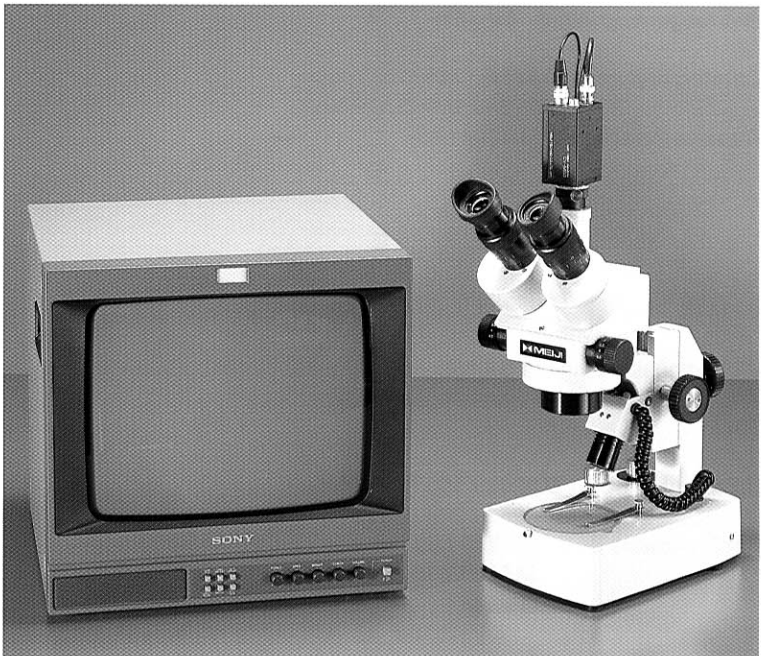


CK3900 CCD Color Video camera mounted on EMZ-5TR-ABE / SWF10X

## MONOCHROME CCD CAMERA

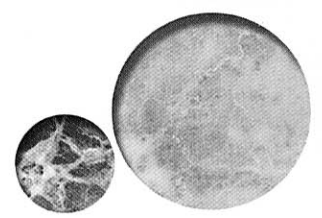
### Model: MK300N or MK300P

Description: CCD Monochrome video camera  
 CCD: 1 / 2" HAD Interline-Transfer type  
 Elements: 768(H) x 494(V) NTSC  
 752(H) x 582(V) PAL  
 TV System: NTSC or PAL  
 Lens Mount: "CS"mount  
 Shutter: Electronic, 1 / 60~1 / 10,000 second  
 Factory preset st 1 / 1,000second  
 Power: 12VDC regulated (11~16VDC)  
 Power Consumption: 2.7VA  
 Horizontal Resolution: 580 TV lines  
 S / N: 52 dB  
 Video Output: VBS (γ=0.45)  
 Minimum Sensitivity : 0.3 lux on CCD surface  
 (AGC on)  
 External Sync: HD / VD, Composite sync  
 Power Consumption 4.5W  
 Ambient Temperature: -10°C + 50°C  
 Dimensions: 50mm (W) x 40mm(H) x 80mm(L)  
 Net Weight: 230g



MK300 CCD Monochrome Video camera mounted on EMZ-5TR-ABE / SWF10X

# VIDEO "C" MOUNTS



A video "C" mount is used to connect the CCD camera to the trinocular tube of the EM Series stereo microscope. Since their introduction CCD video imagers have continually decreased in size. CCD formats of 2/3", 1/2", 1/3", and 1/4" are common. The smaller the CCD imager the greater the video magnification. Choosing the correct "C" mount for your application allows you to control the magnification on the video monitor. Meiji Techno offers the following "C" mounts for the EM Series microscopes:



**MA151 / 5N**  
Adapter  
without lens



**MA151 / 35 / 04**  
Adapter with  
0.45X lens



**MA151 / 35 / 20**  
Adapter with  
0.7X lens



**MA151 / 35 / 15**  
Adapter with  
1.0X lens



**MA151 / 35 / 25**  
Adapter with  
2.5X lens

Note: MA151 adapters are designed to be used in conjunction with the existing trinocular tube with the exception of the MA151 / 5N, which replaces the trinocular tube.

The total magnification displayed on a video monitor is determined by the following formula:

**Total magnification = Objective magnification x "C" mount magnification x Video magnification**

To determine the objective magnification multiply the magnification number found on the zoom control or turret setting times the magnification power of any auxiliary lens being used. The video magnification is determined by dividing the diagonal (mm) measurement of the video monitor by the diagonal (mm) measurement of the CCD video camera chip. Tables of common CCD chip dimensions and video monitor magnifications are listed below.

**Common CCD Dimensions**

Chip Format	Height	width	Diagonal
1 / 3"	3.6mm	4.8mm	6mm
1 / 2"	4.8mm	6.4mm	8mm
2 / 3"	6.6mm	8.8mm	11mm

**Common Video Magnifications**

	9"	12"	13"	19"	20"	27"
1 / 3"	38.1X	50.8X	55.0X	80.4X	84.7X	114.3X
1 / 2"	28.6X	38.1X	41.3X	60.3X	63.5X	85.7X
2 / 3"	20.8X	27.7X	30.0X	43.9X	46.2X	62.3X

Note: Top row denotes monitor screen size measured diagonally  
To convert from inches to mm multiply by 25.4

The actual size of a specimen can be determined by dividing the length of the specimen measured on the monitor by the total magnification of the monitor.

# PHOTOMICROSCOPY ACCESSORIES

are required for mounting a 35mm SLR camera body to the EM Series trinocular microscope bodies:

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

- |                                |   |
|--------------------------------|---|
| <b>T2-1</b> Cannon             | <b>T2-2</b> Minolta                     |
| <b>T2-3</b> Pentax K (bayonet) | <b>T2-4</b> Pentax S (threaded)         |
| <b>T2-5</b> Nikon              | <b>T2-6</b> Olympus                     |
| <b>T2-7</b> Contax, Yashica    | <b>T2-8</b> Konica                      |
| <b>T2-9</b> Cannon EOS         | <b>T2-10</b> Minolta Alpha / Maxim 2000 |



T2 Adapter Ring

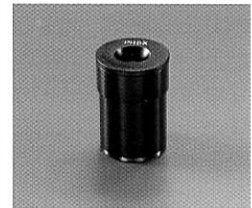


Photo Eyepiece

The T2 adapter rings connect your camera body to one of the MA150 camera attachments.

## 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 of the specimen onto the film plane).



MA150 / 50

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

- MA150 / 50** Straight-tube camera attachment
- MA150 / 60** Camera attachment with built-in focusing eyepiece

Note: The MA150 / 60 is provided with a focusing eyepiece viewfinder for framing and parfocalizing the camera attachment to the microscope.

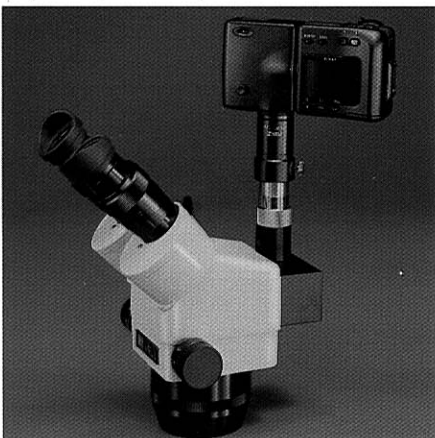


MA150 / 60

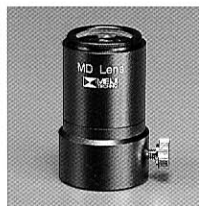
## DIGITAL CAMERA ADAPTERS

For use with

- NIKON Coolpix 950,990,995 and 5000**
- Olimpus Camedia C-3040Zoom, C-4040Zoom and C-43100**
- Fuji Finepix S602,4900Z06900Z**



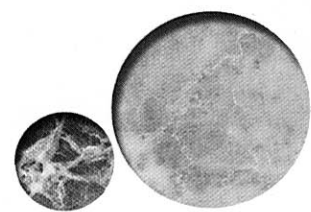
MA151 / 30 / 50 and optional items of EMZ-8TR/10 and NIKON Coolpix 950



MA 151/30/50



Digital Camera Adapters and Couplers



# DIGITAL CAMERA ADAPTERS

DIGITAL CAMERAS MICROSCOPES	NIKON Coolpix 950,990,995	NIKON Coolpix 5000	Olympus Camedia C-3040 Zoom C-4040 Zoom C-43100	Fuji Finepix S602 4900Z. 6900Z
	Adapter Cat.No.	Adapter Cat.No.	Adapter Cat.No.	Adapter Cat.No.
<b>Fits a 23.2mm I.D./25.2mm O.D. Eye tube or Photo tube of:</b> EMTR-1, EMTR-2, EMTR-3, EMTR-4 EMZ-2TR, EMZ-5TR, EMZ-5TRD, EMZ-8TR. EMZ-8TRD, EMZ-12TR, EMZ-12TRD,	<b>MA151/30/50</b> 	<b>MA151/30/70</b> 	<b>MA151/30/60</b> 	<b>MA151/30/80</b> 
<b>Fits "C" mount thread, 25.4mm diameter</b> MA151/5N, MA151/35/03, MA151/35/04, MA151/35/15/, MA151/35/20, MA151/35/25, MA151/8TR, MA151/8TR/02, MA151/053	<b>MA151/40/50</b> 	<b>MA151/40/70</b> 	<b>MA151/40/60</b> 	<b>MA151/40/80</b> 
<b>Fits a 30.5mm I.D./34.0mm O.D. Eye tube of:</b> EMF-1, EMF-2, EMT-1, EMT-2, EMT-3, EMT-4, EMZ-1, EMZ-2, EMZ-5, EMZ-6, EMZ-9, EMZ-10, EMZ-12, Z-7000,	<b>MA151/45/50</b> 	<b>MA151/45/70</b> 	<b>MA151/45/60</b> 	<b>MA151/45/80</b> 

## COUPLERS

### The MA151/30/37

Digital camera coupler is used in conjunction with the MA151/30/50, MA151/40/50 and MA151/45/50 digital camera adapter. This coupler allows you to convert the M28 x 0.75 thread of the above adapters to a M37 x 0.75 internal thread.

### MA151/43

Digital camera coupler is used in conjunction with the MA151/30/50, MA151/40/50 and MA151/45/50 digital camera adapter. This coupler allows you to convert the M28 x 0.75 thread of the above adapters to a M43 x 0.75 internal thread.

## How to use

For photo tube of trinocular head, slip the adapter over the top of the tube and secure it with locking screw.

For eye tube of binocular head, insert the adapter into the eye tube until fully seated and secure the adapter with lock down screw.

For C mount, slip the adapter over the upper part of the C mount adapter and secure it with locking screw.

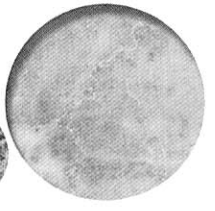
# EMZ Series OPTICAL DATA

Model	Zoom Range	SWF10X Eyepieces		SWF12.5X Eyepieces		SWF15X Eyepieces		SWF20X Eyepieces		SWF30X Eyepieces		Working Distance (mm)
		Total Magnification	Field Diameter (mm)	Total Magnification	Field Diameter (mm)	Total Magnification	Field Diameter (mm)	Total Magnification	Field Diameter (mm)	Total Magnification	Field Diameter (mm)	
EMZ-1	1X-3X	None	23~7.7	12.5X~37.5X	20~6.6	15X~45X	15.4~5.1	20X~60X	11.5~3.8	30X~90X	7.7~2.5	93
		0.3X	76~25.6	3.75X~11.25X	66~22	4.5X~13.5X	51.3~17	6X~18X	38~12.6	9X~27X	25.5~8.3	251
		0.44X	4.4X~13.2X	5.5X~16.5X	45~15	6.6X~19.8X	35~11.5	8.8X~26.4X	26~8.6	13.2X~39.6X	17.5~5.6	181
		0.5X	46~15.3	6.25X~18.75X	40~13.2	7.5X~22.5X	30.6~10.2	10X~30X	23~7.6	15X~45X	15.4~5	150
		0.75X	30.6~10.2	9.37X~28.12X	26.6~8.8	11.25X~33.75X	20.5~6.8	15X~45X	15~5.0	22.5X~67.5X	10.2~3.3	97
		1.5X	15.3~5.1	18.75X~56.25X	13.3~4.4	22.5X~67.5X	10.2~3.4	30X~90X	7.7~2.5	45X~135X	5.1~1.6	49
		2.0X	11.5~3.8	25X~75X	10~3.3	30X~90X	7.7~2.6	40X~120X	5.7~1.9	60X~180X	3.8~1.2	34
EMZ-2 EMZ-2TR EMZ-5 EMZ-5TR EMZ-9	0.7X-4.5X	None	32.8~5.1	8.75X~56.25X	28.5~4.4	10.5X~67.5X	22~3.4	14X~90X	16.4~2.5	21X~135X	11~1.7	93
		0.3X	109~17	2.62X~16.87X	95~14.6	3.15X~20.25X	73~11.4	4.2X~27X	54.7~8.5	6.3X~40.5X	36.6~5.7	251
		0.44X	74.5~11.5	3.85X~24.75X	64.7~10	4.62X~29.7X	50~7.7	6.16X~39.6X	37.2~5.9	9.24X~59.4X	25~3.8	171
		0.5X	65.7~10.2	4.37X~28.12X	57~8.8	5.25X~33.75X	44~6.8	7X~45X	32.8~5.1	10.5X~67.5X	22~3.4	148
		0.75X	43.8~6.8	6.56X~42.18X	38~5.8	7.87X~50.62X	29.3~4.5	10.5X~67.5X	21.9~3.4	15.75X~101.25X	14.6~2.2	97
		1.5X	21.9~3.4	13.12X~84.37X	19~2.9	15.75X~101.25X	14.6~2.2	21X~135X	10.9~1.7	31.5X~202.5X	7.3~1.1	49
EMZ-6	0.62X-4.2X	None	35~5.4	8.12X~52.5X	30.7~4.7	9.75X~63X	23.7~3.6	13X~84X	17.7~2.7	19.5X~126X	11.8~1.8	108
		0.5X	70~10.8	4.0X~26.2X	61.4~9.4	4.87X~31.5X	47.4~7.2	6.5X~42X	35.4~5.4	9.75X~63X	23.6~3.6	180
EMZ-10 Z-7100	0.7X-4.5X	None	32.8~5.1	8.75X~56.25X	28.5~4.4	10.5X~67.5X	22~3.4	14X~90X	16.4~2.6	21X~135X	11~1.7	110
		0.3X	109~17	2.62X~16.87X	95~14.6	3.15X~20.25X	73~11.3	4.2X~27X	54.6~8.6	6.3X~40.5X	36.6~5.7	326
		0.44X	74.5~11.5	3.85X~24.75X	64.7~10	4.62X~29.7X	50~7.7	6.16X~39.6X	37.2~5.9	9.24X~59.4X	25~3.8	247
		0.5X	65.6~10.2	4.37X~28.12X	57~8.8	5.25X~33.75X	44~6.8	7X~45X	32.8~5.1	10.5X~67.5X	22~3.4	194
		0.75X	43.8~6.8	6.56X~42.18X	38~5.8	7.87X~50.62X	29.3~4.5	10.5X~67.5X	21.8~3.4	15.75X~101.25X	14.6~2.2	127
		1.5X	21.8~3.4	13.12X~84.37X	19~2.9	15.75X~101.25X	14.6~2.2	21X~135X	10.9~1.7	31.5X~202.5X	7.3~1.1	64
EMZ-10 Z-7100	0.7X-4.5X	None	16.4~2.5	17.5X~112.5X	14.2~2.2	21X~135X	11~1.7	28X~180X	8.2~1.2	42X~270X	5.5~0.8	44
		2.0X	16.4~2.5	17.5X~112.5X	14.2~2.2	21X~135X	11~1.7	28X~180X	8.2~1.2	42X~270X	5.5~0.8	44



# EMF - EMT - EMTR - EMX OPTICAL DATA

Model	Objectives	Auxiliary Lens	SWF10X Eyepieces			SWF12.5X Eyepieces			SWF15X Eyepieces			SWF20X Eyepieces			SWF30X Eyepieces			Working Distance (mm)
			Total Magnification	Field Diameter (mm)	Field Diameter (mm)	Total Magnification	Field Diameter (mm)	Field Diameter (mm)	Total Magnification	Field Diameter (mm)	Field Diameter (mm)	Total Magnification	Field Diameter (mm)	Field Diameter (mm)	Total Magnification	Field Diameter (mm)	Field Diameter (mm)	
EMF-1	1X	None	10X	23	12.5X	20	15X	15.4	20X	20X	11.5	30X	7.7	30X	7.7	108		
EMF-2	2X	None	20X	11.5	25X	10	30X	7.7	40X	40X	5.7	60X	3.8	60X	3.8	108		
EMT-1	1X, 2X	None	10X, 20X	23.0, 11.5	12.5X, 25X	20.0, 10.0	15X, 30X	15.3, 7.7	20X, 40X	20X, 40X	11.5, 5.8	30X, 60X	7.6, 3.8	30X, 60X	7.6, 3.8	108		
EMTR-1		None	10X, 20X	23.0, 11.5	12.5X, 25X	20.0, 10.0	15X, 30X	15.3, 7.7	20X, 40X	20X, 40X	11.5, 5.8	30X, 60X	7.6, 3.8	30X, 60X	7.6, 3.8	108		
EMT-2	1X, 3X	None	10X, 30X	23.0, 7.6	12.5X, 37.5X	20.0, 6.6	15X, 45X	15.4, 5.1	20X, 60X	20X, 60X	11.5, 3.8	30X, 90X	7.7, 2.5	30X, 90X	7.7, 2.5	81		
EMTR-2		0.5X	5X, 15X	46.0, 15.3	6.25X, 18.75X	40.0, 13.0	7.5X, 22.5X	30.8, 10.2	10X, 30X	10X, 30X	23.0, 7.6	15X, 45X	15.4, 5.1	15X, 45X	15.4, 5.1	108		
		0.75X	7.5X, 22.5X	30.6, 10.22	9.37X, 28.12X	26.6, 8.8	11.25X, 33.75X	20.5, 6.8	15X, 45X	15X, 45X	15.3, 5.1	22.5X, 67.5X	10.2, 3.4	22.5X, 67.5X	10.2, 3.4	72		
		1.5X	15X, 45X	15.3, 5.1	18.75X, 56.25X	13.3, 4.4	22.5X, 67.5X	10.2, 3.4	30X, 90X	30X, 90X	7.6, 2.5	45X, 135X	5.1, 1.7	45X, 135X	5.1, 1.7	35		
		2.0X	20X, 60X	11.5, 3.8	25X, 75X	10.0, 3.3	30X, 90X	7.7, 2.5	40X, 120X	40X, 120X	5.7, 1.9	60X, 180X	3.8, 1.2	60X, 180X	3.8, 1.2	21		
EMT-3	2X, 4X	None	20X, 40X	11.5, 5.7	25X, 50X	10.0, 5.0	30X, 60X	7.7, 3.8	40X, 80X	40X, 80X	5.7, 2.8	60X, 120X	3.8, 1.9	60X, 120X	3.8, 1.9	63		
EMTR-3		0.5X	10X, 20X	23.0, 11.5	12.5X, 25X	20.0, 10.0	15X, 30X	15.3, 7.6	20X, 40X	20X, 40X	11.5, 5.7	30X, 60X	7.6, 3.8	30X, 60X	7.6, 3.8	108		
		0.75X	15X, 30X	15.3, 7.6	18.75X, 37.5X	13.3, 6.6	22.5X, 45X	10.2, 5.1	30X, 60X	30X, 60X	7.6, 3.8	45X, 90X	5.1, 2.5	45X, 90X	5.1, 2.5	72		
		1.5X	30X, 60X	7.7, 3.8	37.5X, 75X	6.6, 3.3	45X, 90X	5.1, 2.5	60X, 120X	60X, 120X	3.8, 1.9	90X, 180X	2.5, 1.2	90X, 180X	2.5, 1.2	35		
		2.0X	40X, 80X	5.7, 2.8	50X, 100X	5.0, 2.5	60X, 120X	3.8, 1.9	80X, 160X	80X, 160X	2.8, 1.4	120X, 240X	1.9, 0.9	120X, 240X	1.9, 0.9	22		
EMT-4	1X, 4X	None	10X, 40X	23.0, 5.7	12.5X, 50X	20.0, 5.1	15X, 65X	15.4, 3.8	20X, 80X	20X, 80X	11.5, 2.8	30X, 120X	7.7, 1.9	30X, 120X	7.7, 1.9	63		
EMTR-4		0.5X	5X, 20X	46.0, 11.5	6.25X, 25X	38, 9.6	7.5X, 30X	30.8, 7.7	10X, 40X	10X, 40X	23.0, 5.7	15X, 60X	15.4, 3.8	15X, 60X	15.4, 3.8	108		
		0.75X	7.5X, 30X	30.6, 7.6	9.37X, 37.5X	25.5, 6.5	11.25X, 45X	20.53, 5.1	15X, 60X	15X, 60X	15.3, 3.8	22.5X, 90X	10.2, 2.5	22.5X, 90X	10.2, 2.5	72		
		1.5X	15X, 60X	15.3, 3.8	18.75X, 75X	13.1, 3.2	22.5X, 90X	10.2, 2.5	30X, 120X	30X, 120X	7.6, 1.9	45X, 180X	5.1, 1.2	45X, 180X	5.1, 1.2	35		
		2.0X	20X, 80X	11.5, 2.8	25X, 100X	10.2, 2.3	30X, 120X	7.6, 1.9	40X, 160X	40X, 160X	5.7, 1.4	60X, 240X	3.8, 0.9	60X, 240X	3.8, 0.9	22		
EMX-1	0.5X, 1.0X	None	5X, 10X	46, 23	6.25X, 12.5X	40.0, 20.0	7.5X, 15X	30.6, 15.3	10X, 20X	10X, 20X	23.0, 11.5	15X, 30X	15.3, 7.6	15X, 30X	15.3, 7.6	225		
		0.7X	3.5X, 7X	69, 34	4.37X, 8.75X	61, 30	5.25X, 10.5X	48.5, 24	7X, 14X	7X, 14X	35, 17.1	10.5X, 21X	22, 11	10.5X, 21X	22, 11	300		



# EM Series SYSTEM DIAGRAM

## PART 1

### ZOOM MODELS

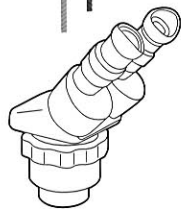
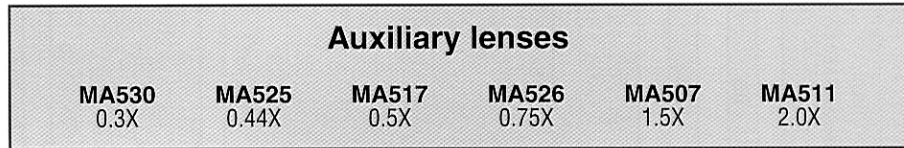
Photo/Video attachments are show in Part 4, 5 (Page 37).



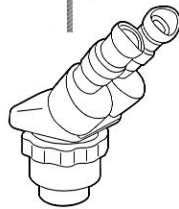
**MA550**  
Polarizing filter  
(Analyzer)



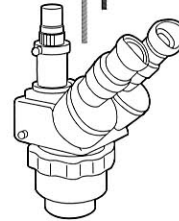
**MA531**  
Protective glass



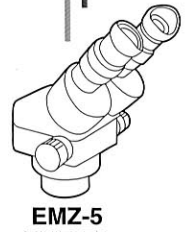
**EMZ-1**



**EMZ-2**

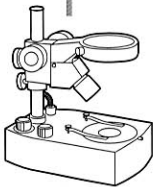


**EMZ-2TR**



**EMZ-5**  
**EMZ-5D**

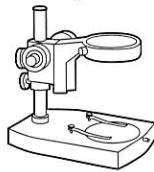
### STAND



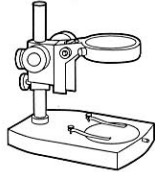
**PBH Pole type**  
w/halogen 6V 10W  
trans/incident



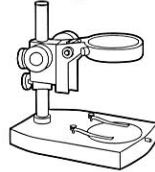
**PB Pole type**  
w/tungsten 6V 7W  
trans/incident lights



**PC Plain Pole**  
w/coaxial focusing



**PX Pole type**  
w/illuminator port  
10" Pillar



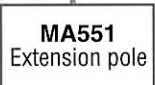
**PL Pole type**  
w/illuminator port



**P Plain Pole type**



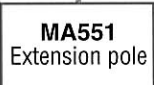
**AZ Plain Rigid-arm**



**MA551**  
Extension pole



**MA551**  
Extension pole



**MA551**  
Extension pole



**MA551**  
Extension pole



**MA551**  
Extension pole



**MA551**  
Extension pole



**MA568**  
B/W Plastic  
stage plate



**MA567**  
Acrylic frosted  
stage plate



**MA567**  
Acrylic frosted  
stage plate



**MA568**  
B/W Plastic  
stage plate



**MA568**  
B/W Plastic  
stage plate



**MA568**  
B/W Plastic  
stage plate



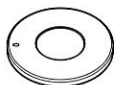
**MA568**  
B/W Plastic  
stage plate



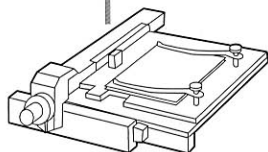
**MA569**  
Clear glass  
stage plate



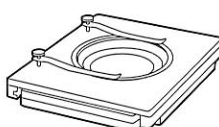
**MA569**  
Clear glass  
stage plate



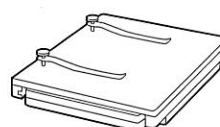
**MA667**  
Polarizing Plate  
(Polarizer)



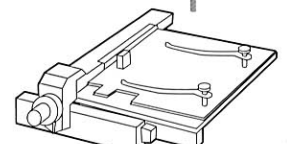
**MA564/05**  
Graduated mechanical stage  
with clear glass plate



**MA565/05**  
Ungraduated mechanical stage  
with clear glass plate



**MA565**  
Ungraduated  
mechanical stage



**MA564**  
Graduated mechanical stage

## EYEPIECES, Paired

**MA501**  
SWF5X

**MA502**  
SWF10X

**MA520**  
SWF12.5X

**MA503**  
SWF15X

**MA535**  
HSWF15X

**MA504**  
SWF20X

**MA521**  
SWF30X

**MA519\***  
SWF10X-F  
\*(Piece)

**MA600**  
EYESHIELD

### Auxiliary lenses

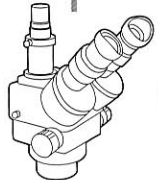
**MA791** 0.28X  
**MA792** 0.35X  
**MA794** 0.5X  
**MA795** 1.5X

### Auxiliary lenses

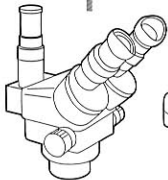
**MA545** 0.3X  
**MA558** 0.44X  
**MA546** 0.5X  
**MA547** 0.75X  
**MA548** 1.5X  
**MA549** 2.0X

### Auxiliary lenses

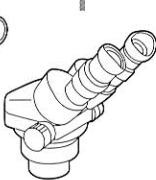
**MA652** 0.7X  
**MA796** 0.57X



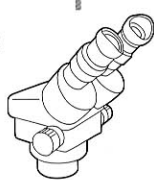
**EMZ-5TR**  
**EMZ-5TRD**



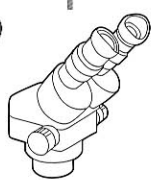
**EMZ-8TR**  
**EMZ-8TRD**



**EMZ-6**



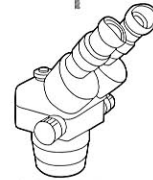
**EMZ-9**



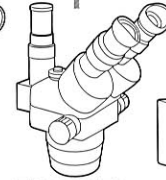
**EMZ-10**



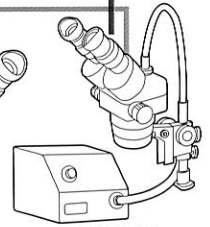
**Z-7100**



**EMZ-12**  
**EMZ-12D**



**EMZ-12TR**  
**EMZ-12TRD**



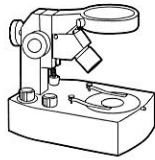
**EMZ-12**  
FL150 and FL150/12



**ABZ Rigid-arm**  
w/tungsten 6V 7W  
trans/incident lights



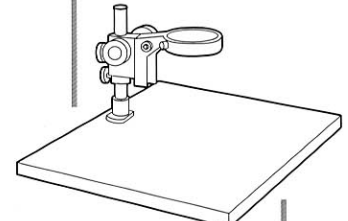
**ABZH Rigid-arm**  
w/halogen 6V 10W  
trans/incident lights



**ABE Extendable**  
w/halogen 6V 10W  
trans/incident lights



**BX Stand**  
w/mirror for B/D  
(light not included)



**KBL Pole type**  
w/illuminator port  
on flat base

**MA551**  
Extension pole

**MA567**  
Acrylic frosted  
stage plate

**MA567**  
Acrylic frosted  
stage plate

**MA567**  
Acrylic frosted  
stage plate

**MA551**  
Extension pole

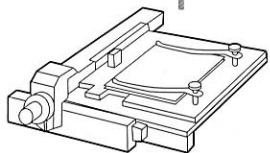
**MA569**  
Clear glass  
stage plate

**MA569**  
Clear glass  
stage plate

**MA569**  
Clear glass  
stage plate

**MA567**  
Acrylic frosted  
stage plate

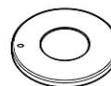
**MA569**  
Clear glass  
stage plate



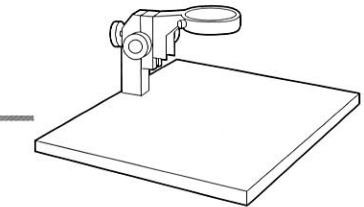
**MA564/05**  
Graduated mechanical stage  
with clear glass plate



**MA565/05**  
Ungraduated mechanical stage  
with clear glass plate



**MA667**  
Polarizing Plate  
(Polarizer)



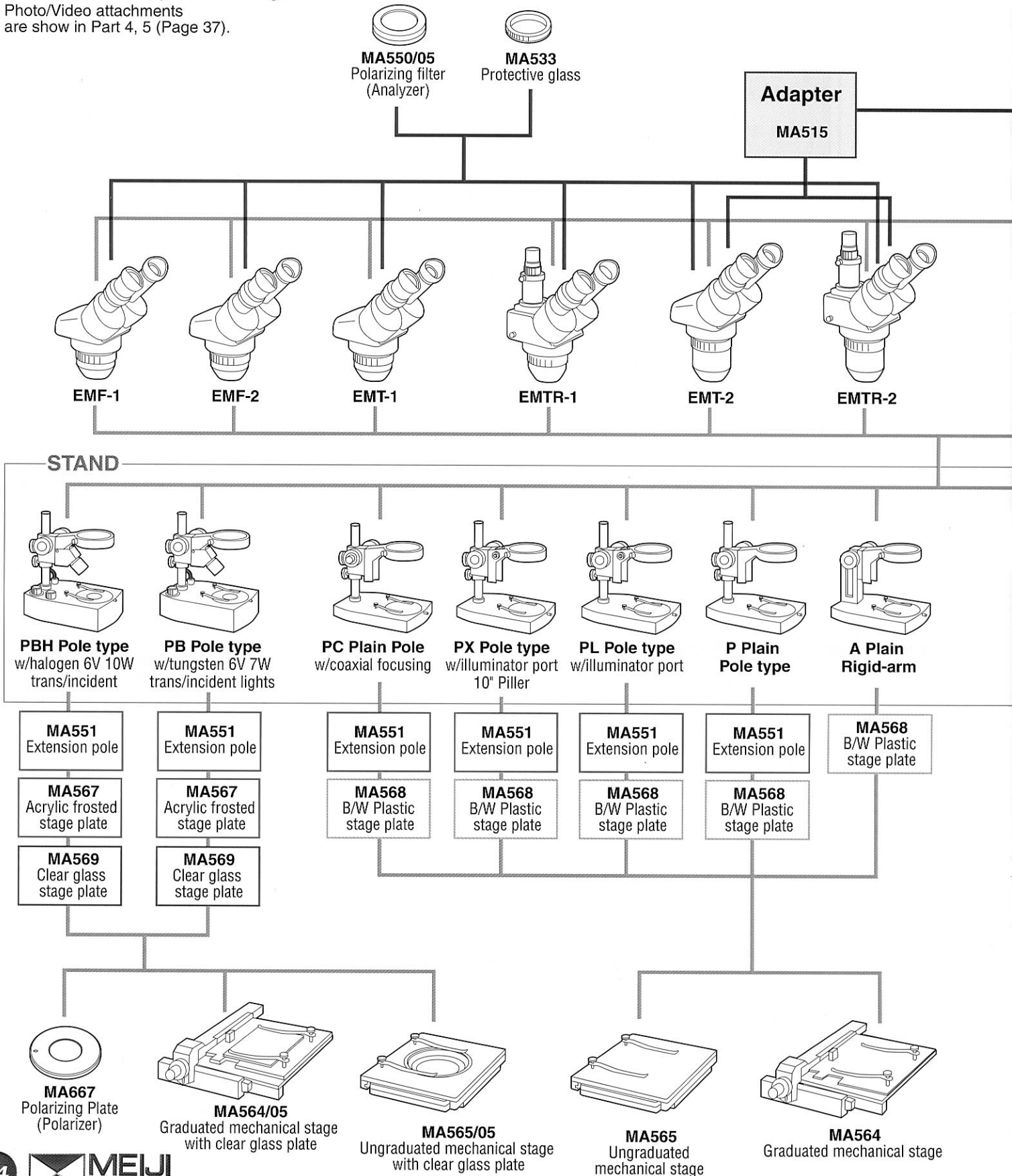
**KBE Rigid-extendable**  
arm on flat base

# EM Series SYSTEM DIAGRAM

## PART 2

### EMF, EMT, EMTR, EMX

Photo/Video attachments are shown in Part 4, 5 (Page 37).



## EYEPIECES, Paired

**MA501**  
SWF5X

**MA502**  
SWF10X

**MA520**  
SWF12.5X

**MA503**  
SWF15X

**MA535**  
HSWF15X

**MA504**  
SWF20X

**MA521**  
SWF30X

**MA519\***  
SWF10X-F  
\*(Piece)

**MA600**  
EYESHIELD

## Auxiliary lenses

**MA518**  
0.5X

**MA527**  
0.75X

**MA513**  
1.5X

**MA514**  
2.0X

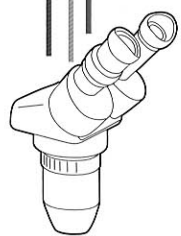
**MA550/10**  
Polarizing filter  
(Analyzer)

**MA537**  
Protective glass

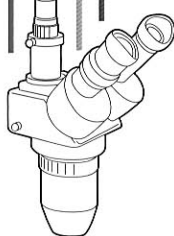
## Auxiliary lens

**MA658**  
Protective glass

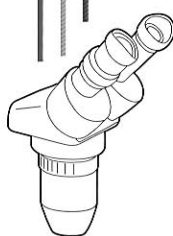
**MA652**  
0.7X



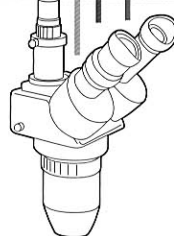
**EMT-3**



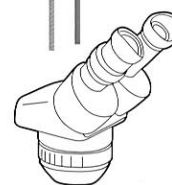
**EMTR-3**



**EMT-4**

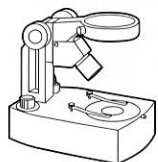


**EMTR-4**



**EMX\***

\*Need to use PX stand  
or Pole type stand with  
MA551 Extension pole.



**AB Rigid-arm**  
w/tungsten 6V 7W  
trans/incident lights



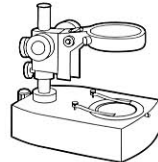
**ABH Rigid-arm**  
w/halogen 6V 10W  
trans/incident lights



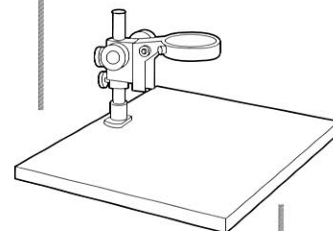
**ABE Extendable**  
w/halogen 6V 10W  
trans/incident lights



**B mirror Stand**  
115V 20W



**BX Stand**  
w/mirror for B/D  
(light not included)



**KBL Pole type**  
w/illuminator port  
on flat base

**MA551**  
Extension pole

**MA567**  
Acrylic frosted  
stage plate

**MA567**  
Acrylic frosted  
stage plate

**MA567**  
Acrylic frosted  
stage plate

**MA551**  
Extension pole

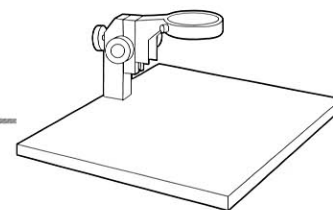
**MA569**  
Clear glass  
stage plate

**MA569**  
Clear glass  
stage plate

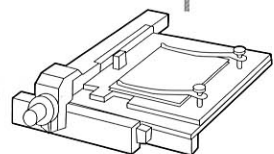
**MA569**  
Clear glass  
stage plate

**MA567**  
Acrylic frosted  
stage plate

**MA569**  
Clear glass  
stage plate



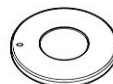
**KBE Rigid-extendable  
arm on flat base**



**MA564/05**  
Graduated mechanical stage  
with clear glass plate



**MA565/05**  
Ungraduated mechanical stage  
with clear glass plate



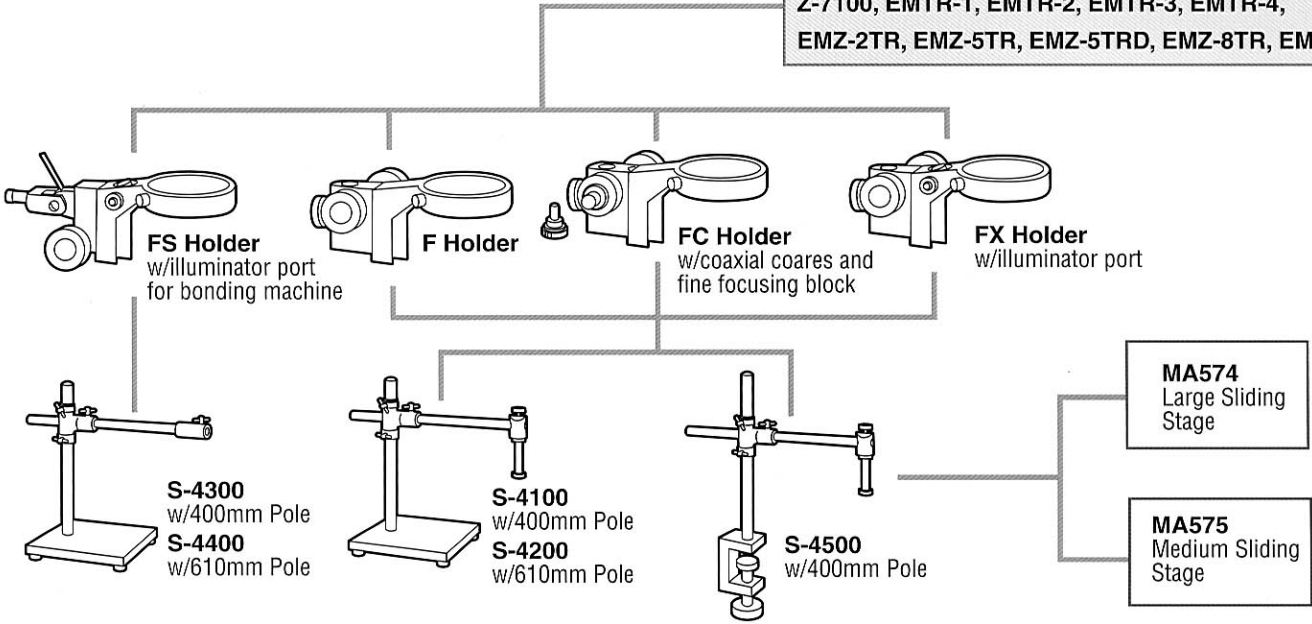
**MA667**  
Polarizing Plate  
(Polarizer)

# EM Series SYSTEM DIAGRAM

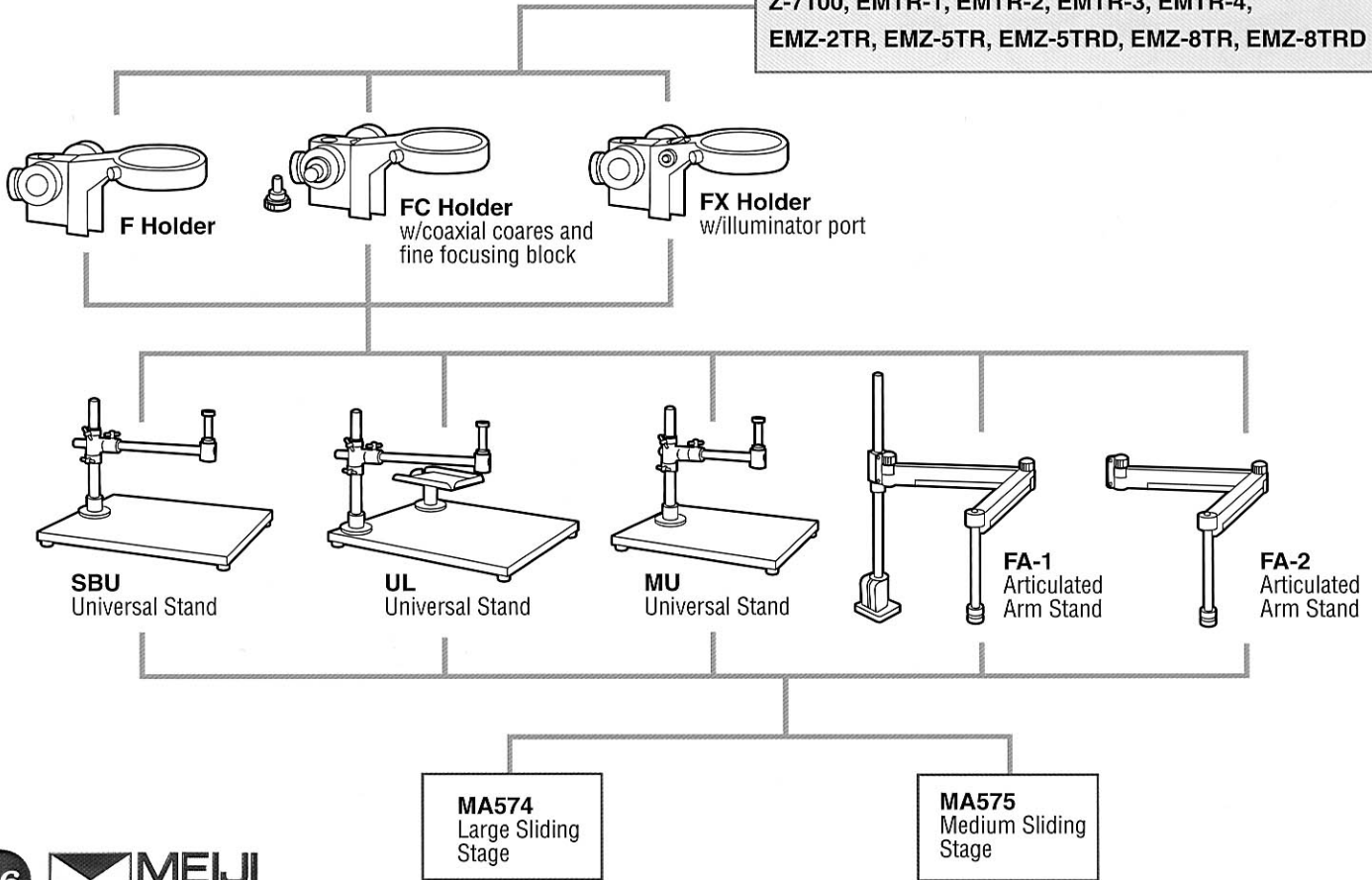
## PART 3

### SPECIAL STANDS

**EM Series VIEWING HEADS**  
 EMF-1, EMF-2,  
 EMT-1, EMT-2, EMT-3, EMT-4,  
 EMZ-1, EMZ-2, EMZ-5, EMZ-5D, EMZ-6, EMZ-9, EMZ-10,  
 Z-7100, EMTR-1, EMTR-2, EMTR-3, EMTR-4,  
 EMZ-2TR, EMZ-5TR, EMZ-5TRD, EMZ-8TR, EMZ-8TRD



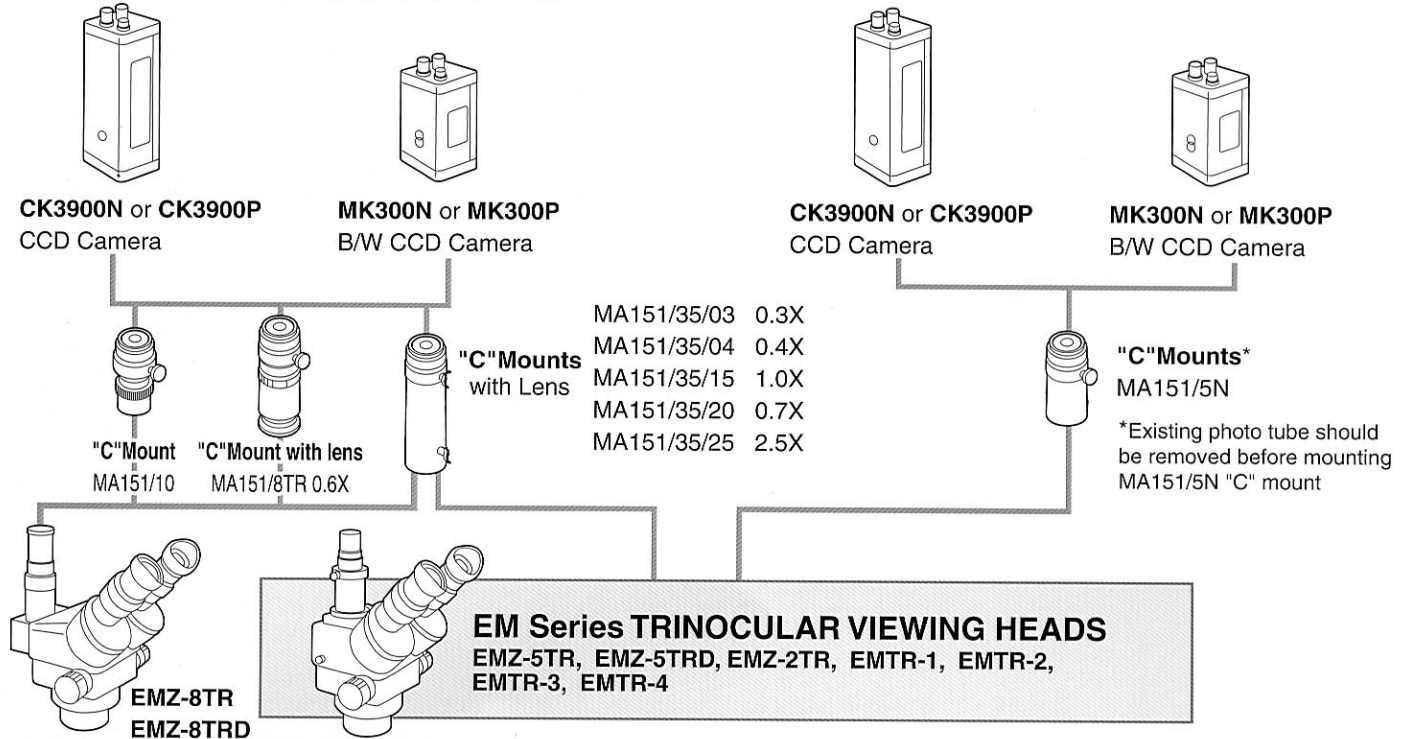
**EM Series VIEWING HEADS**  
 EMF-1, EMF-2,  
 EMT-1, EMT-2, EMT-3, EMT-4,  
 EMZ-1, EMZ-2, EMZ-5, EMZ-5D, EMZ-6, EMZ-9, EMZ-10,  
 Z-7100, EMTR-1, EMTR-2, EMTR-3, EMTR-4,  
 EMZ-2TR, EMZ-5TR, EMZ-5TRD, EMZ-8TR, EMZ-8TRD



# EM Series SYSTEM DIAGRAM

## PART 4

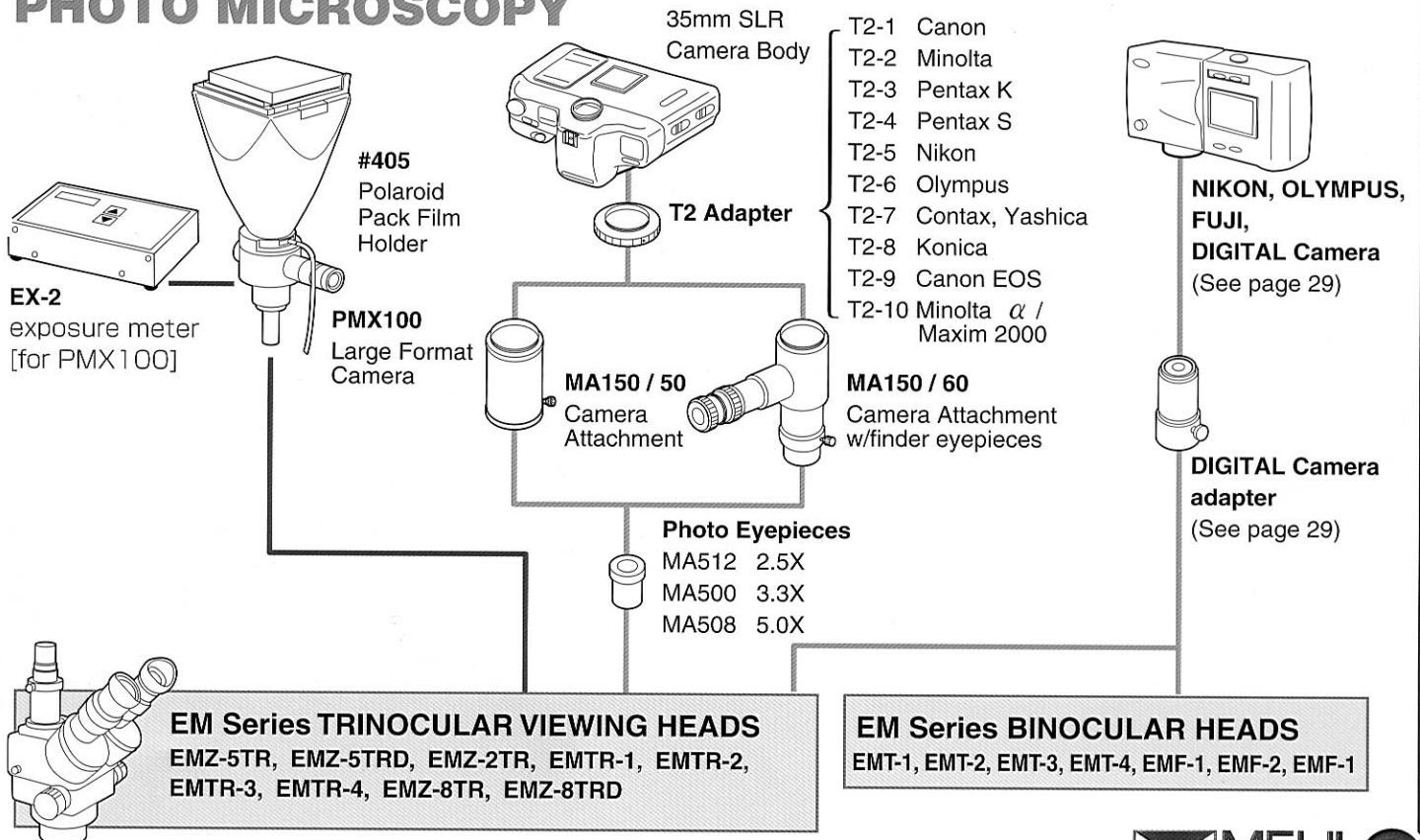
### VIDEO MICROSCOPY



# EM Series SYSTEM DIAGRAM

## PART 5

### PHOTO MICROSCOPY





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