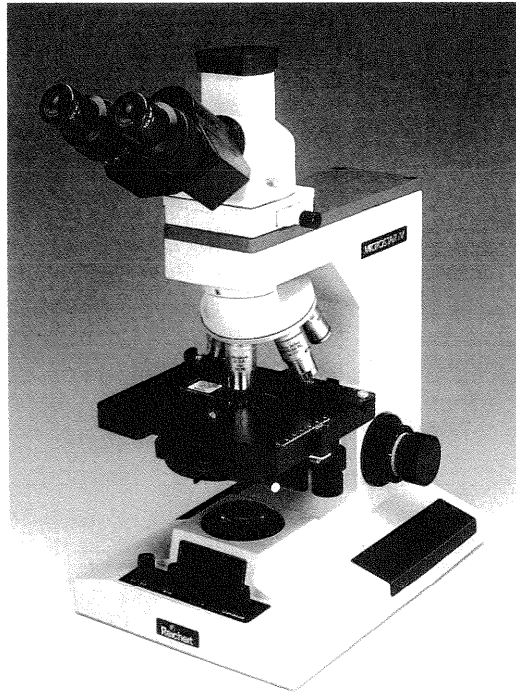
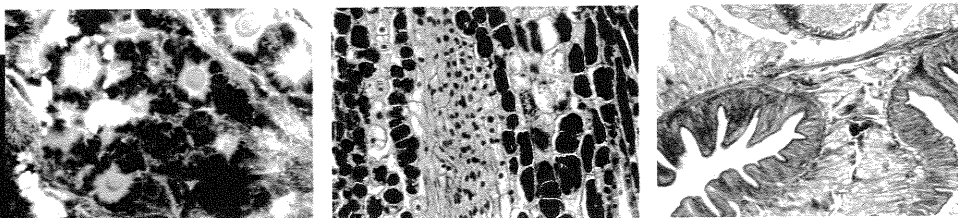
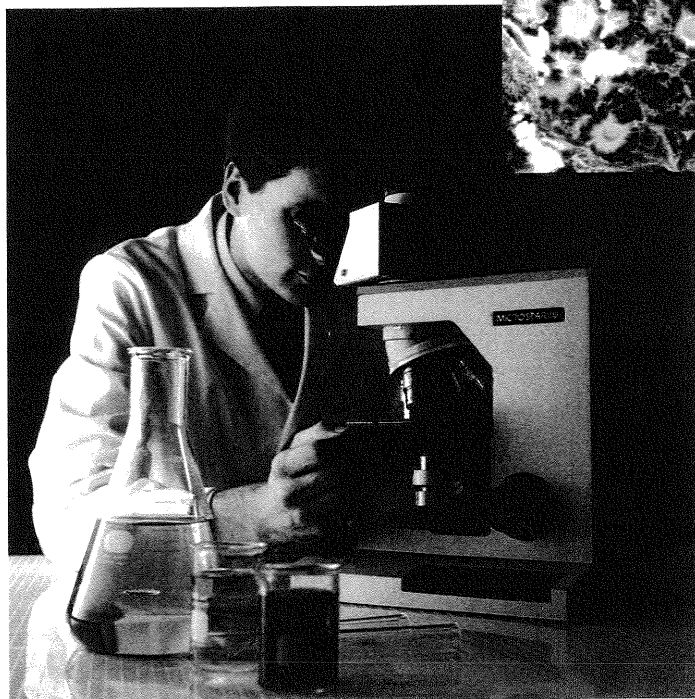


MicroStar® IV Laboratory Microscope



Leica

Precise, Dependable, Versatile



The MicroStar®IV microscope from Leica combines mechanical precision and comfortable design to meet the varied application needs of today's laboratories.

MicroStar IV's unique features, such as infinity-corrected optics, focusing nosepiece and fixed stage, maximize performance and value.

We are so confident of MicroStar's performance and quality, we stand behind it with a five-year warranty.

Human Engineering

MicroStar IV is designed to allow focusing and stage movement with hands resting on the bench for reduced fatigue and hours of comfortable use.

Binocular and trinocular bodies feature converging eyetubes for comfortable, long-term viewing. A focusable left eyetube compensates for differences in visual acuity from one eye to the other.

Illumination

MicroStar IV's improved illumination system features a built-in, continuously variable 20 watt halogen illuminator for white, bright, uniform illumination.

MicroStar's built-in 10% neutral density filter, blue filter and field diaphragm ensure optimal contrast and comfortable viewing. Illumination controls are on the front of the instrument for easy access.

Greatest Stability, Fast Focusing

MicroStar IV's focusing quintuple nosepiece and fixed stage minimize specimen movement and refocusing since pressure applied to the stage will not disturb focus or create movement, as it does with a focusing stage. MicroStar's adjustable autofocus stop speeds focusing even further.

The focusing nosepiece is gravity loaded so slide breakage and objective damage are prevented if the objective is accidentally lowered onto a slide. The nosepiece's reverse design allows convenient access to slides and objectives.

Optical Features

Wide-field, high-eyepoint eyepieces provide a large 20mm field of view and allow comfortable viewing, even with eyeglasses.

Plan achromatic objectives provide a flat field with edge-to-edge crispness.

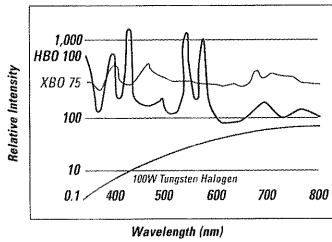
All glass surfaces of MicroStar's parcentered, parfocal objectives have a high efficiency, anti-reflection coating for reduction of internal reflection.

Infinity-corrected optics, a design pioneered by Leica, allow the addition of accessories, such as photo systems, without image degradation or magnification changes.

MicroStar's unique Magnichanger, an option installed between the body and stand, allows you to double magnification without changing eyepieces.

Type	Magnification	Numerical Aperture	Free Working Distance (mm)	Catalog Number
Plan Achromat	2.5X	0.06	5.85	1730
	4X	0.1	6.5	1731
	10X	0.25	4.15	1732
	20X	0.5	1.5	1733
	40X	0.66	0.55	1734
Plan Achromat, Oil	100X	1.25	0.1	1736
Plan Achromat, Iris, Oil	100X	1.25	0.1	1737
Plan Achromat, Phase	10X	0.25	4.15	1742
	20X	0.5	1.5	1743
	40X	0.66	0.55	1744
Plan Achromat, Phase, Oil	100X	1.25	0.1	1745
Neo Plan	10X	0.25	6.9	1754
	40X	0.66	0.47	1757
Neo Plan, Oil	50X	0.8	0.13	1758
	100X	1.25	0.1	1759
Neo Plan Phase	10X	0.25	6.9	1746
	40X	0.66	0.47	1748
Neo Plan Phase, Oil	100X	1.25	0.1	1749

Fluorescent Lamp Emission Spectra



Fluorescence

MicroStar utilizes incident light excitation for the highest degree of fluorescence intensity. The incident light illuminator provides optimal illumination since the objective works as its own condenser. All MicroStar objectives are suitable for use with this system. Consider adding the 50X/0.80 oil immersion objective to the standard objective set to enhance performance capability.

MicroStar's vertical illuminator package allows quick conversion to fluorescence microscopy. To install the package, just remove the binocular or trinocular body, mount the vertical illuminator and replace the body.

The vertical illuminator is designed for use with 100W halogen, 50W or 100W mercury and 75W xenon lamps.

Vertical Fluorescence Illuminator Outfit	Catalog Number
100W Halogen	2090H
50W Mercury	2090M50
100W Mercury	2090M100
75W Xenon	2090X

The fluor cluster system includes matched barrier, exciter and dichroic filters, all precisely aligned in individual, interchangeable clusters. The slideway in the illuminator housing allows mounting of two clusters at a time.

Phase contrast

MicroStar readily converts to dark (positive) phase contrast for viewing unstained specimens. For alignment of the phase annulus to the objective, choose the permanent, flip-in 1204 phase aperture viewing unit or the economical 1265A phase telescope.

MicroStar's phase turret condenser mount allows you to change magnification quickly. Center the four annuli just once then change from one objective to another without recentering.

MicroStar's single annulus phase condenser mount offers an economical system for routine applications, such as hematology and urinalysis. The single annulus phase condenser mount accepts all phase annuli and condensers and contains an aperture iris diaphragm. It permits independent centering of the annulus and condenser.

Versatile Design

MicroStar IV's modular design allows the needs of today's and tomorrow's applications to be met.

All MicroStar IV binocular and trinocular bodies provide constant 1X magnification and adjustable interpupillary distance. Basic and advanced trinocular bodies are available. The advanced model directs 80% of the light to the camera and 20% to the eyepieces for simultaneous viewing and exposure. All bodies are inclined a comfortable 30° and rotate a full 360°.

MicroStar's right- or left-hand graduated mechanical stage has a 2" x 3" (50 x 75mm) specimen area. The optional 180° rotatable orientation stage for specimen positioning is especially useful for photomicrography and basic polarized light applications.

Interchangeable condensers provide bright-field, dark-field and phase contrast techniques. These centerable condensers feature rack and pinion height adjustment and a quick-change condenser mount.

The standard Abbe condenser (0.9 N.A.) is provided with 4X to 100X bright-field objectives. A swing-in auxiliary condenser lens is available for the 2.5X objective.

Polarizer/Analyzer

For study of crystalline materials with birefringent properties, add the polarizer outfit complete with full-wave plate and analyzer

Photodocumentation

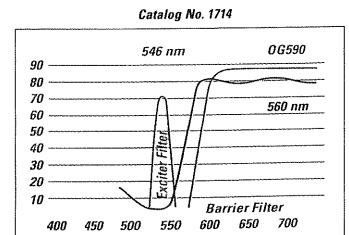
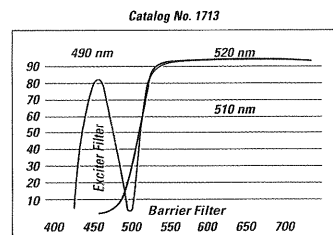
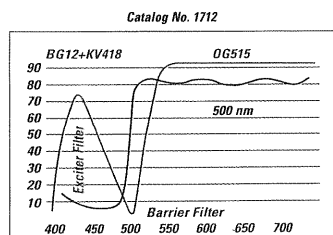
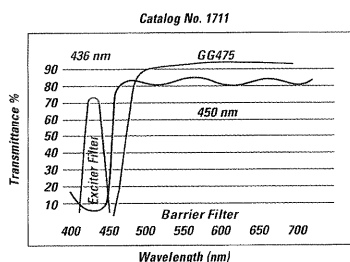
When outfitted with a trinocular head, MicroStar is compatible with video, 35mm and Polaroid® cameras, and Leica's PhotoStar® Automatic Camera Systems.

Dual and Multiviewing Attachments

Optional dual and multiviewing attachments allow up to nineteen people to view the same image simultaneously to facilitate training and discussion.

Comfortable height and ample room between positions enhance user comfort. Each system includes a two-color pointer with independent intensity control to facilitate discussion.

Transmission Curves for Exciter and Barrier Filter Combinations and Dichroic Beamsplitter



Leica's Microscopy & Scientific Instruments Division offers a full range of quality products including...

Microscopes

- Compound & Stereo
- Surgical
- Acoustical
- Electron-scanning
- Laser-scanning

Advanced Systems

- Image analysis
- Spectral photometry
- Automated inspection stations
- Measurement systems
- Electron-beam lithography

Laboratory Equipment

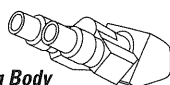
- Specimen preparation
- Routine and immunostaining
- Refractometers
- Diagnostic

Microtomes

- Sliding & Rotary
- Cryostats
- Ultramicrotomes

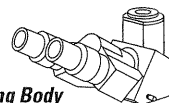
For more information, please contact your local Leica representative.

Viewing Bodies and Contrast Accessories



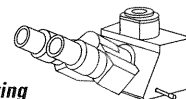
Binocular Viewing Body
Catalog no. 1942

Left eyetube focusable without affecting magnification, field size or parfocality.



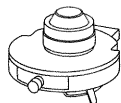
Trinocular Viewing Body
Catalog no. 1943

Parfocal photo tube allows focusing through the binocular viewing tube.



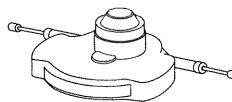
Trinocular Viewing Body with Beam Splitter (100/0, 20/80, 0/100%)
Catalog no. 1944

Beam splitter allows three conditions: full light to viewing tube, full light to camera, 80% of the light to the camera and 20% of the light to the viewing tube.



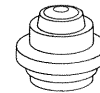
Single Annulus Phase Condenser Mount
Catalog no. 1206

Select when only one magnification is required. (Shown with 1201 Condenser)



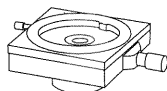
Phase Turret Condenser Mount
Catalog no. 1205

Select when different magnifications are required. A rotating turret with an extra opening for bright-field can take four individually centerable phase rings. (Shown with 1201 Condenser)



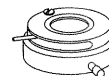
Dark Field Condenser
Catalog no. 1096

Wide-field, immersion dark-field condenser for work in transmitted light dark-field. Designed for 10X to 100X objectives. Objectives with an N.A. higher than 0.70 require a built-in iris diaphragm.



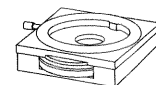
Aperture Viewer (Bertrand Lens)
Catalog no. 1204

Used for centering phase rings and setting Koehler illumination. Swing-out mount housed in intermediate tube with a 1X magnification factor. Works with all tube bodies.



Polarizer
Catalog no. 1153

Includes a 90° rotatable fullwave plate in the swing-out mount.



Analyzer
Catalog no. 1991

Swing-out mount, housed in intermediate tube with a 1X magnification factor. Can remain in place below the tube body without affecting image quality.

Request MicroStar Microscopes & Accessories (BI2000-0) for a complete listing of MicroStar model configurations and accessories.

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Due to a policy of continuous development, we reserve the right to change specifications without notice.



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