

OLYMPUS®

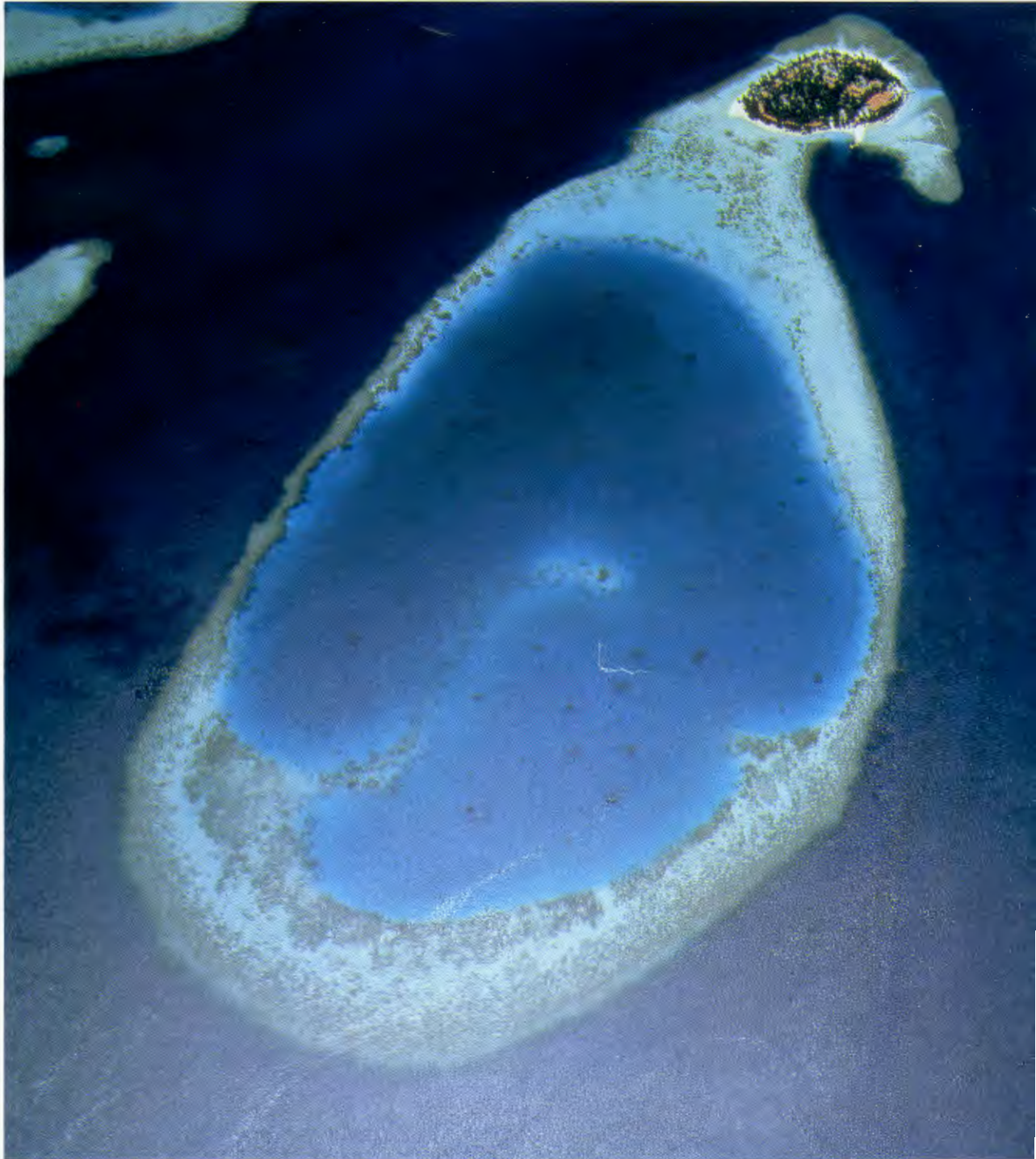
AHBS3/AHBT3

Vanox Research Photomicrographic Microscope System
For Life Science

**NEW
PRODUCT**



Automatic Functions Make a Difference.



Olympus has long strived to produce microscopes suited to the most stringent requirements for work in research fields which have become increasingly diverse and complex. We also engineer microscopes capable of delivering maximum usefulness, not only serving as eyes for the researcher, but also to assist their minds. And today, Olympus has merged its never-ending R&D efforts and advanced optoelectronic technology

to introduce yet another revolutionary microscope—the AHBS3/AHBT3. Utilizing sequence programming for observation and photomicrograph operations as well as image analysis, the AHBS3/AHBT3 features a virtually unlimited expandability to handle automatic inspections and remote-controlled operations. Reducing operator fatigue significantly, this innovative series will steadily broaden your research applications.



A Choice of Two Versions—Automatic or Semi-Automatic

Exceptional operation ease assures fast and reliable results.

The AHBS3/AHBT3 comes in two versions—automatic and semi-automatic. Both deliver uniform Koehler illumination at low to high magnification powers, since the condenser automatically switches over when the objective magnification power is changed. Moreover, the “all-in-one” design incorporates all of the standard photomicrographic functions. Twelve different combinations are available to choose from depending on the research application. These include the reflected light fluorescence system, enabling simultaneous observation of 4 reflected light fluorescence wavelengths, and transmitted light microscopic techniques.

Automatic Version

AHBS3

The control box of the AHBS3 provides automatic control over many functions with the simple touch of a button. This advanced photomicrographic system also permits remote control through an external computer.

- Once an objective power is selected, the condenser changes, and light adjustment with an ND filter, as well as aperture and field iris diaphragm adjustments, are carried out automatically. (Manual adjustment is also possible.)
- Auto focus adjustment is available for 1X through 40X objective powers. Focusing at higher magnifications is also a single-button operation. (Manual adjustment is possible.)
- Auto focus is possible regardless of the objective-to-specimen distance.
- One-touch selection of the photo light partly is possible to engage 35mm right, left or large-format cameras, and a video camera.
- Photo eyepieces are selectable via a motorized turret. (Turret incorporates 2.5X, 3.3X, 4X and 5X photo eyepieces.)

AHBS3 + AH3-RFC Reflected Light Fluorescence Microscope System

Equipped with a motorized quintuple reflected light fluorescence nosepiece, the AHBS3 + AH3-RFC allows versatile combination of observations by simultaneously accepting four filter cube units. Except for the auto focus function, the AHBS3 + AH3-RFC incorporates the same functions as the AHBS3 microscope. When performing reflected light fluorescence microscopy only, the automatic condenser changeover and light adjustment features can be disengaged.

Semi-Automatic Version

AHBT3

- When an objective is selected, automatic changeover of condensers is activated. The operator can manually adjust the aperture and field iris diaphragms. 11 levels of light adjustment are possible through the use of ND filters.
- Focusing magnifier is built in to facilitate focusing at low magnifications.
- A camera can be selected simply by touching the button on the microscope side panel.
- Photo eyepiece changeover is done by manually rotating the turret.

AHBT3 + AH3-RFC Reflected Light Fluorescence Microscope System

The AHBT3 + AH3-RFC is a semi-automatic microscope system with a reflected light fluorescence vertical illuminator fitted to the AHBT3 microscope. Motorized changeover of filter cube units and objective powers is provided.





AHBS3



AHB3



AHBS3 + AH3-RFC



AHB3 + AH3-RFC

Easy Maneuverability Using Remote Control Capability.

User-Programmable Parameters and remote-controllable automatic functions for added flexibility.

The AHBS3/AHBT3 has automated as many functions as possible, covering everything from observation to photomicrography. These functions have been further refined through the use of a remote control system. This system provides computer control over numerous automated functions incorporated in the AHBS3, thus allowing fully automatic photomicrography without ever touching the microscope. This makes it possible to upgrade the microscope to a completely automatic inspection system.



Automatic Control

Automatic AHBS3 control through a link to a host computer.

With the AH3-RS232C interface, a host computer can now control the microscope and provide microscope light path data. This feature allows the development of a remote-control system by programming an operational sequence.

•Compatible computers: NEC PC9801 Series, IBM-PC/AT



1 Objective changeover

Depending on the selected objective power, the condenser is switched, and field and aperture iris diaphragms as well as light level are adjusted automatically. It is also possible to manually adjust the light level, field and aperture iris diaphragms in order to tailor the unit to each operator's specific preference.



2 Focusing

Auto focus is provided for 1X through 40X objectives (S Plan and S Plan Apo series). Stage height is adjustable in minimum increments of 0.5 μ m, facilitating accurate focusing monitor, for at-a-glance confirmation.



via Host Computer



With AH3-RS232C Interface

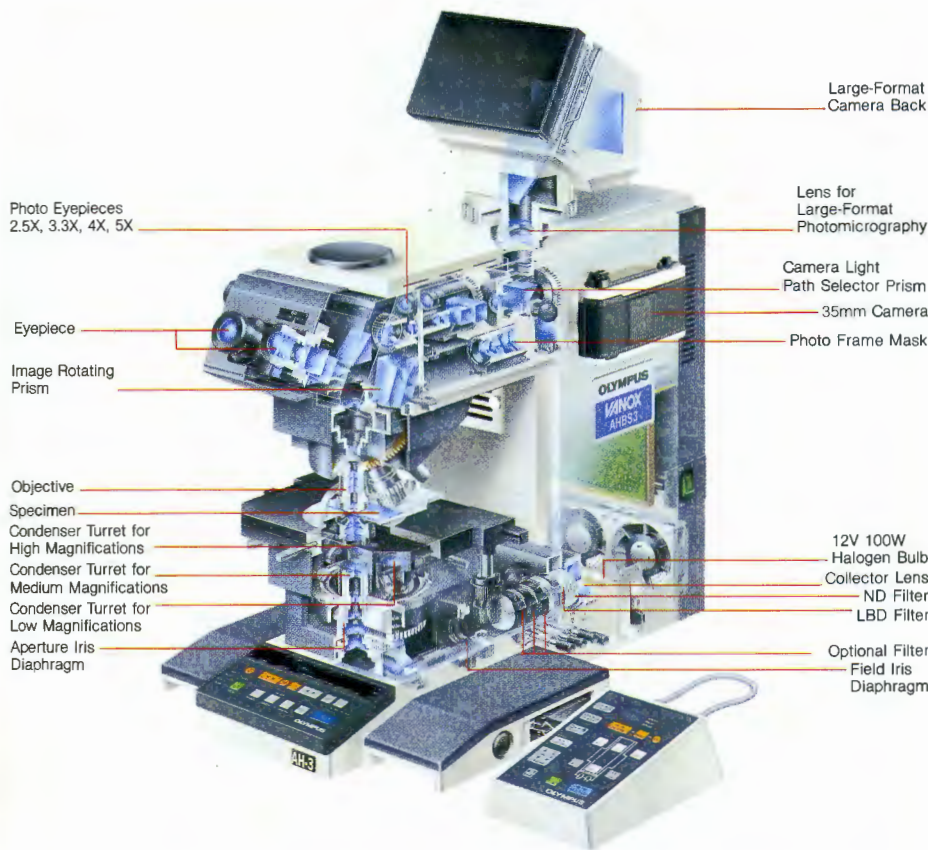


Photo Eyepieces
2.5X, 3.3X, 4X, 5X

Eye-piece

Image Rotating
Prism

Objective

Specimen

Condenser Turret for
High Magnifications

Condenser Turret for
Medium Magnifications

Condenser Turret for
Low Magnifications

Aperture Iris
Diaphragm

Large-Format
Camera Back

Lens for
Large-Format
Photomicrography

Camera Light
Path Selector Prism

35mm Camera

Photo Frame Mask

12V 100W
Halogen Bulb
Collector Lens
ND Filter
LBD Filter

Optional Filter
Field Iris
Diaphragm

3 Camera selection

With a touch of a button, a camera is selectable from among large-format and 35mm right and left cameras. Switching to a TV camera is also possible.

4 Photo eyepiece magnification changeover

Photographic magnification is determined by selecting any photo eyepiece from among the built-in 2.5X, 3.3X, 4X and 5X photo eyepieces.

5 Photomicrography

The AHBS3 is capable of sending a signal to release the camera shutter. When ND filters are used, an automatic light adjustment function maintains the color temperature at a constant level, even when the brightness is changed to meet the specimen conditions. This eliminates the need for color temperature adjustment. The objective and photo eyepiece magnifications are clearly displayed on the computer monitor.

Automatic Filter Cube Unit and Objective Changeover Plus Side-in Attachments.

Flexible combinations and easy selection of various observation techniques enhance functions for a broader research scope.

Accepting up to four filter cube units simultaneously, the new AH3-RFC reflected light fluorescence vertical illuminator allows a combination of microscopic techniques such as simultaneous reflected light fluorescence and transmitted light brightfield observations, reflected light fluorescence and transmitted light Nomarski differential interference observation or, reflected light fluorescence and transmitted phase-contrast observation. The filter cube units and objective powers are changed with the touch of a few buttons. And an easy slide-in Nomarski prism, analyzer and polarizer speed up the switching of microscopy methods.

Flexible combination of various excitation and observation methods

One cube unit is designed for transmitted light brightfield Nomarski DIC and phase contrast observations, another type for immuno gold stain (IGS) and six types for reflected light fluorescence. Four filter cube units are simultaneously mountable to provide many combinations of excitation and observation methods, making this attachment a powerful observation tool for double stained specimens. The operator just needs to press a few buttons to change the cube and the objective magnification.

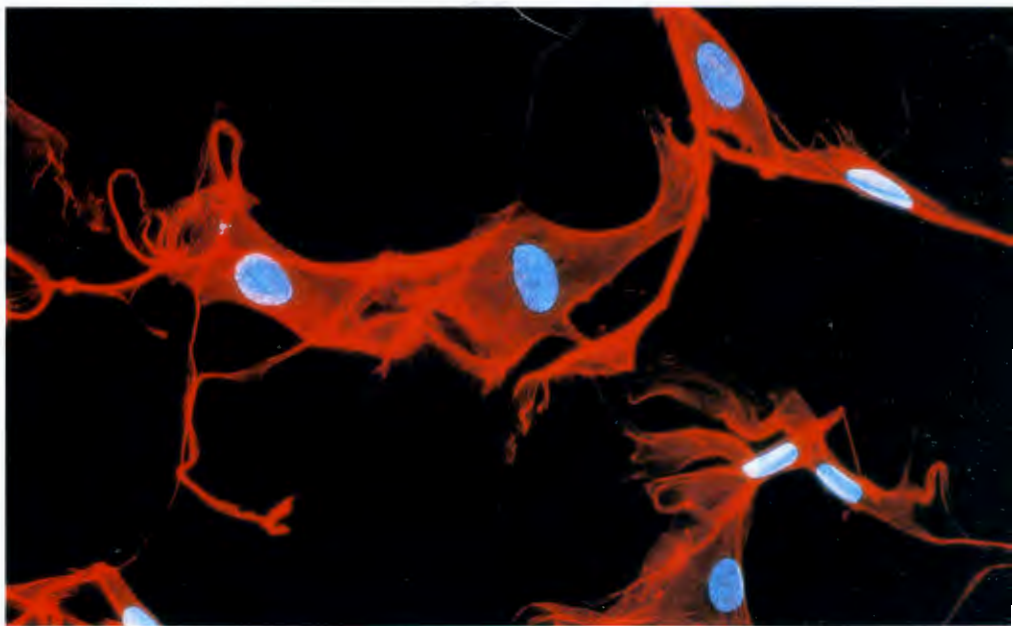
Six excitation methods available to ensure a bright image even for weakly fluorescing specimens

The new optical design and high-intensity illumination system are the key to AH3-RFC's high-contrast images. Provided are ultraviolet (U), violet (V), blue (B) and green (G) excitations, blue-violet (BV) excitations specially designed for quinacrine mustard stain and interference-blue (B) excitation for FITC stain. The superior spectral characteristics of IB excitation give a brighter and higher contrast FITC stained specimen image than conventional B excitation.



Simultaneous reflected light fluorescence and transmitted light Nomarski DIC observations

Researchers may obtain simultaneous observations of the entire specimen image and a specific fluorescent portion. Nomarski prism, analyzer, polarizer, and phase-contrast ring slit unit can be quickly engaged or disengaged from the fluorescence vertical illuminator or condenser to switch from combined observations to single microscopy. Observation of immuno-gold stained (IGS) specimens is also possible.



Adjustable excitation wavelength and transmitted light wavelength

Each fluorescence filter cube unit accepts one supplementary exciter filter and barrier filter for respectively adjusting the excitation wavelength and blocking unwanted fluorescence. Both filters are easily exchanged.

Full UV protection during changeover of excitation modes

The filter cube units totally exclude ultraviolet rays during the excitation wavelength change. Exciting light intensity is variable between 100% and 25% and there is a manual adjustment for the centerable field iris diaphragm and the aperture iris diaphragm. Together, they protect the specimen from deterioration and excessive heat, assuring optimum photomicrography conditions.



Filter Cube Unit Changeover



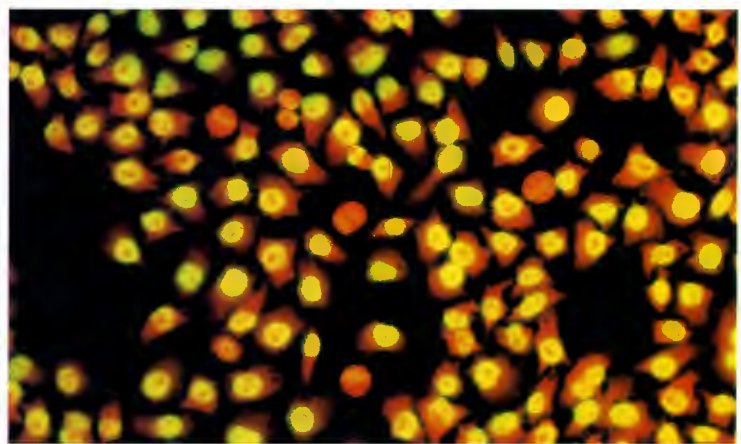
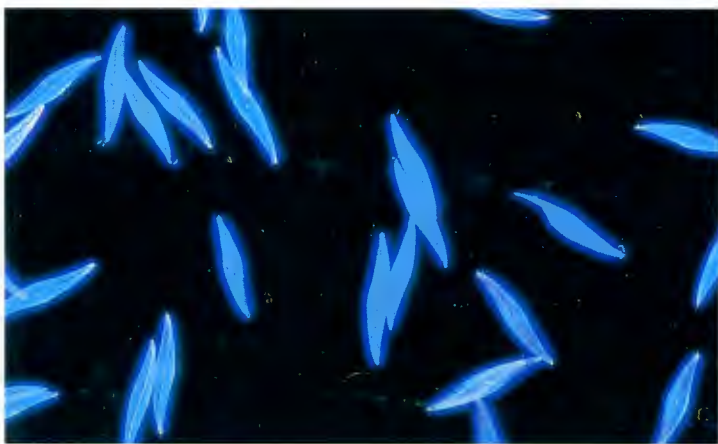
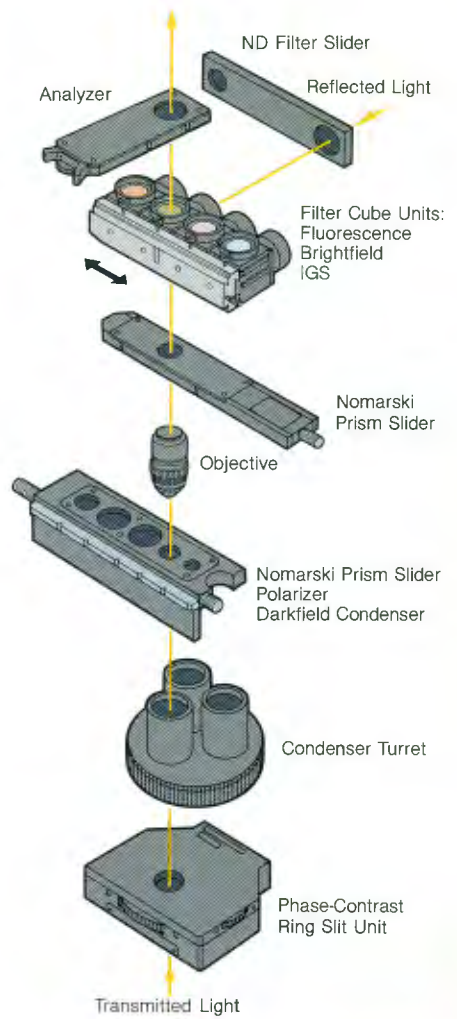
Analyzer



Phase-Contrast Ring Slit Unit



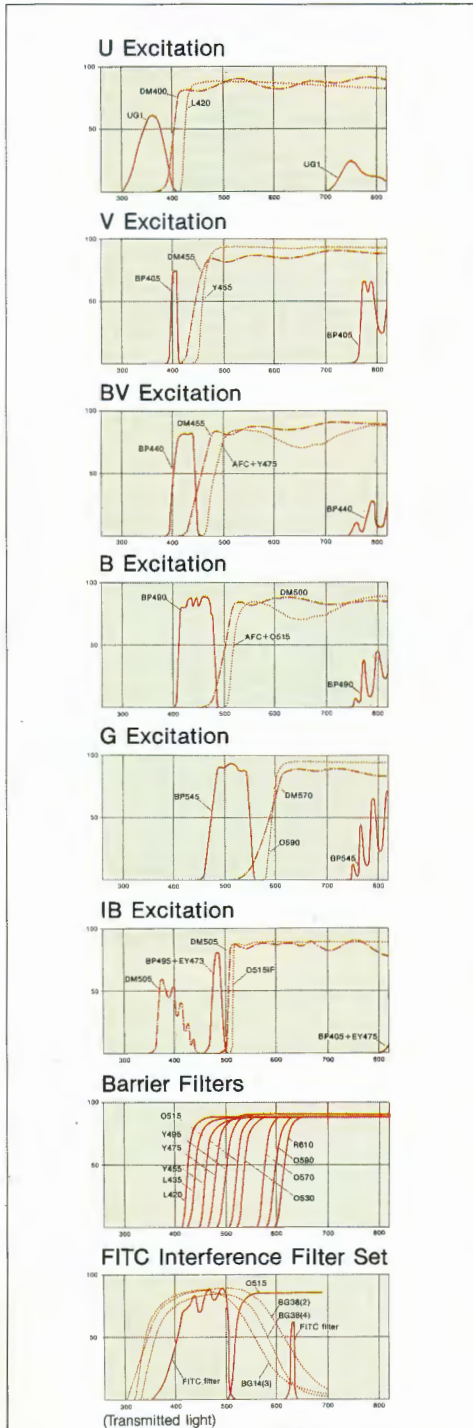
Nomarski Prism Slider



Multi-mode observation possible by mounting phase-contrast and Nomarski DIC units to the reflected light fluorescence attachment.

AH3-RFC Reflected Light Fluorescence Attachment

The AH3-RFC employs a 200W ultra-high pressure mercury burner as its light source, allowing observation of brilliant fluorescence images with a high-energy excitation light. When used with the phase-contrast or Nomarski DIC attachment, simultaneous observations can be made in different microscopic techniques. Four combinations are available.

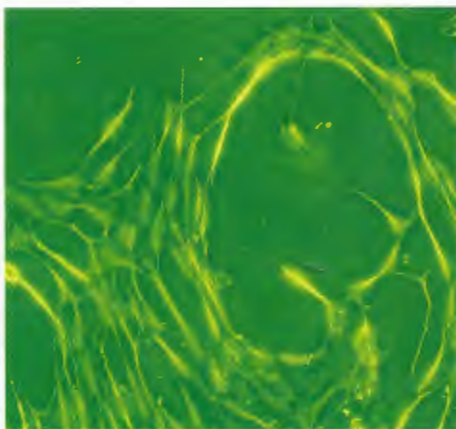


AH3-RFC Standard Outfit

Component	Model	AH3-RFC			
		-1	-2	-3	-4
Fluorescence Vertical Illuminator, including UV Protective shield (A3-RFCA-CCV), ND Filter (20ND25-W22) and Immersion Oil 50cc	AH3-RFCA	○	○	○	○
Fluorescence Lamp Housing	AH2-LSRF	○	○	○	○
Power Supply Unit for Mercury Burner	AH2-RFL-T	○	○	○	○
Mercury Burner (2 pcs.)	HBO200W/2	○ × 2	○ × 2	○ × 2	○ × 2
Halogen Lamp Housing	AH2-LSRH				
Power Cord	UYCP	○	○	○	○
Centering Screen	BH2-SGRF	○	○	○	○
Dichroic Mirrors	U Excitation	○	○	○	○
	V Excitation		○		○
	BV Excitation	○		○	
	B Excitation		○		○
	G Excitation	○	○	○	○
Half-mirror Cube**	BH2-DMIB	○		○	
Brightfield Cube	BH2-HMIGS	○	○	○	○
Supplementary Exciting Filters	B Excitation	○	○	○	○
	IB Excitation	○	○	○	○
	G Excitation	○	○	○	○
	BV Excitation	○	○	○	○
	U Excitation	○	○	○	○
Supplementary Barrier Filters	V Excitation	○	○	○	○
	V, BV Excitation	○	○	○	○
	B, IB Excitation	○	○	○	○
		○	○	○	○
		○	○	○	○
Objectives (for reflected light fluorescence)	20EY455-W22	○	○	○	○
	20EY475-W22	○	○	○	○
	20E0515-W22	○	○	○	○
	20E0530-W22	○	○	○	○
	20EL420-W22	○	○	○	○
	20L435-W22	○	○	○	○
	20Y455-W22	○	○	○	○
20Y475-W22	○	○	○	○	
Phase Ring Slit	20Y495-W22	○	○	○	○
	20O515-W22	○	○	○	○
	20B460-W22	○	○	○	○
	20G520-W22	○	○	○	○
	20O530-W22	○	○	○	○
	20O570-W22	○	○	○	○
	20O590-W22	○	○	○	○
20R610-W22	○	○	○	○	
Centering Telescope	DPLAPO10XUV	○	○	○	○
	DPLAPO20XUV/Dry	○	○	○	○
	DPLAPO40XUV/Dry Spring	○	○	○	○
	DPLAPO100XUV/Spring, Iris, Oil	○	○	○	○
	DAPO40XUV/Spring, Iris, Oil		○		
	DAPO100XUV/Spring, Iris, Oil		○		
	DPLAPO40XUV-PL Spring, Iris, Oil		○		○
DPLAPO100XUV-PL Spring, Iris, Oil		○		○	
Phase Ring Slit	AH2-RS				○
Centering Telescope	CT-30				○
Nomarski Attachment AH3-NAS	Nomarski slider			○	
	Rotating analyzer			○	
	Nomarski slider			○	
	AH3-NSF			○	

*USH200MB can be used as replacement

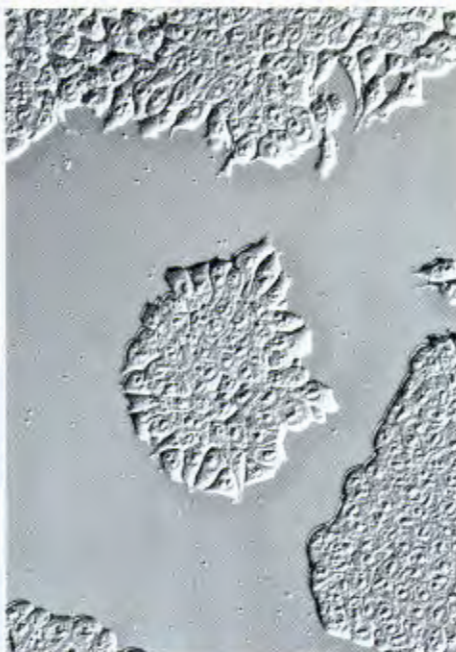
**The half-mirror cube BH2-HMIGS is optional and not included in any standard configurations.



Phase-Contrast Attachment, AH2-PC (Transmitted Light)

Living organisms such as cells or microorganisms can be observed without staining. Two types of contrast, negative and positive, are available. Negative contrast is suitable for observing the shape and movement of an object, while positive contrast is indicated for observation of minute structural details of the objects. For each type of contrast, five objectives (4X, 10X, 20X, 40X, and 100X) are available.

DApoUVP and D Plan ApoUVPL series objectives are available for simultaneous observation of transmitted phase-contrast and reflected light fluorescence microscopy.



Nomarski DIC Attachment (Transmitted Light)

Nomarski DIC technique is used to observe unstained specimens, such as living cells and microorganisms as three-dimensional images in interference colors. The Normaski slider is fitted with 10X, 20X, 40X and 100X (oil) Nomarski prisms, and a polarizer. An open position is provided to allow the microscopic method to be changed while the slider remains attached to the condenser.

Two different DIC attachments are available to be used with the following objectives:

- AH3-NAS (AH3-NAF, AH3-NSF, AH3-ANF) is designed for use with DPlanApo10XUV, 20XUV (Dry), 40XUV (Dry), 100XUV (Oil)
- AH2-NAS (A2-NS, A2-NA) is designed for use with SPlan 10X, 20X, 40X, 100X (Oil)

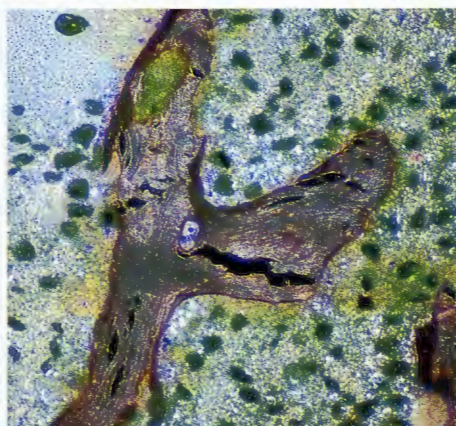


Simple Darkfield Condenser, AH2-KDC (Transmitted Light)

The AH2-KDC allows darkfield observation in transmitted light through a simple slide-in operation.

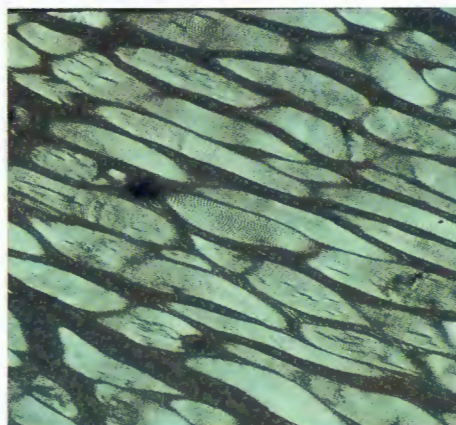
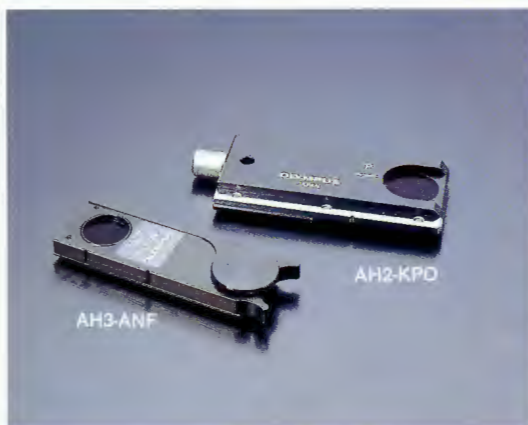
Darkfield Condensers, AH2-DCD, AH2-DCW

Designed to deliver clear darkfield images, the AH2-DCD is used with 10X—20X dry objectives, and the AH2-DCW with 40X—100X immersion objectives.



Simple Polarizing Attachments, AH2-KPO, AH3ANF (Transmitted Light)

Polarized light microscopy can be accomplished quickly by sliding the AH2-KPO polarizer into the condenser and the AH3-ANF analyzer into the fluorescence vertical illuminator.

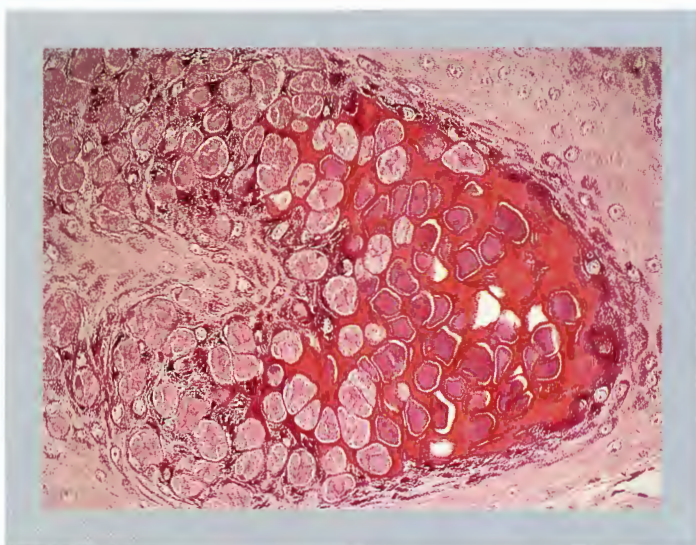
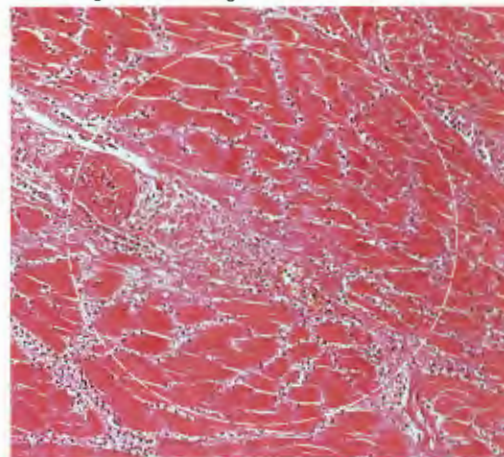


A Host of Sophisticated Photomicrographic Functions Including Automatic Exposure Measurement

All photomicrographic functions are built-in for faithful reproduction of observed images.

The innovative AHBS3/AHBT3 incorporates a fully automatic photomicrographic system, thus assuring that photographs are produced accurately and efficiently. The real-time light metering area can be chosen as a 1% spot or a 30% integrated measurement. The built-in microcomputer stores various kinds of basic reciprocity law failure characteristics. Once the film characteristics are put in memory, compensation for long exposure is made automatically. An illuminated digital panel indicates exposure time, ISO/ASA film speed and the camera back in use, for instant confirmation, even in dark rooms. Other convenient photomicrographic functions include multiple exposures, panorama photography, and half-frame photography. Moreover, time lapse photography can also be controlled from an external computer.

30% Integrated Metering



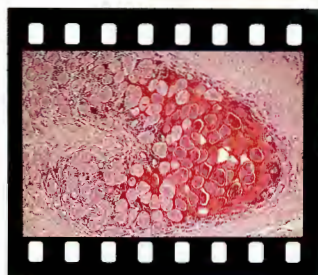
Large-Format Film

Frequent camera changes unnecessary

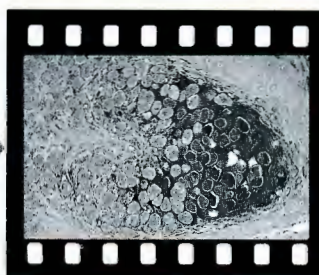
The microscope accommodates two 35mm cameras and a large format camera all at once, easily selected by the touch of a button.

Accurate photographic reproduction of viewing area

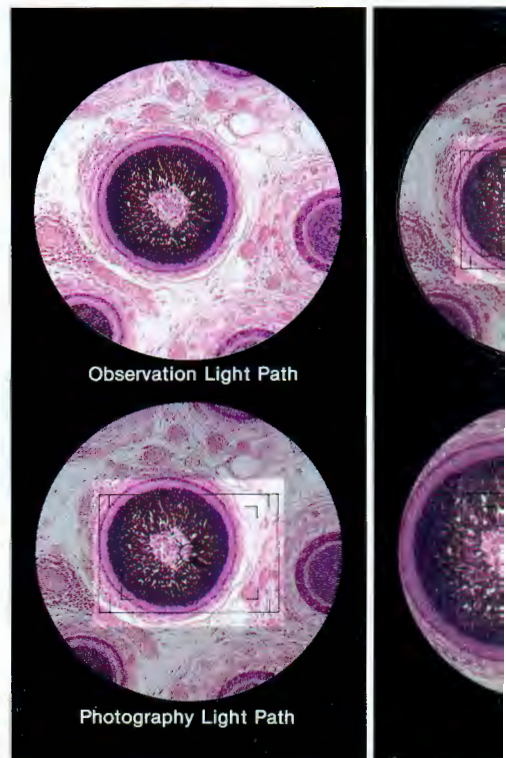
With the field of view extended to F.N. 26.5, clear, sharp images can be viewed to the periphery of the field of view. Once a camera is chosen, the light path shifts to photography automatically, the image frame comes into view and the light around the frame is reduced. This focusing method provides at-a-glance indication of the photographic area.



35mm Color Film



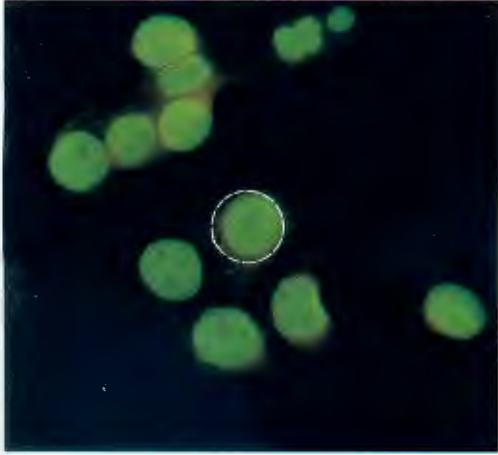
35mm Monochrome Film



Observation Light Path

Photography Light Path

1% Spot Metering



One-touch switching of metering area

The exposure measurement area is switchable between a 30% integrated area and a 1% spot area, to match the type and distribution of the specimen as well as the purpose of the observation. Spot measurement area assures accurate photo results particularly for unevenly distributed, dark or high-density specimens.

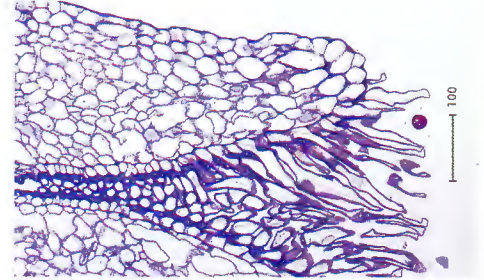
Simultaneous TV camera attachment

In addition to three cameras, a TV camera can be mounted. This provides extra convenience through VTR recording of data, elapsed time documentation of living cells, image analysis and storage.



Scale imprinting capability

A scale can be imprinted on the specimen image simply by sliding the optional AH2-SLM scale slider into the photography light path. Five different scales (10X, 20X, 40X, 50X and 100X) are provided to match the different objective powers.



Scale Imprinting

Simplified framing

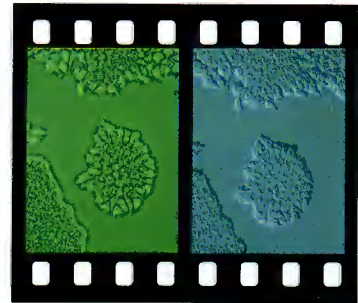
Built-in 2.5X, 3.3X, 4X and 5X eyepieces are one-touch selectable, thus facilitating quick framing.

Easy-to-see digital display

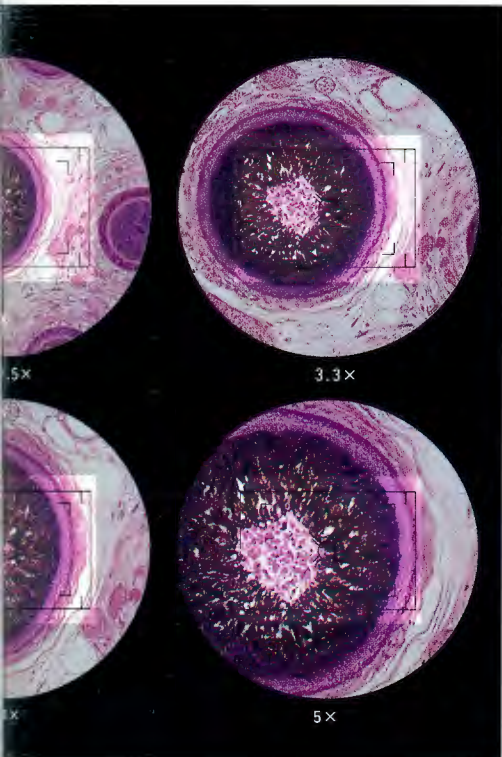
The camera back type, frame count, ISO/ASA film speed, film reciprocity failure compensation value, exposure adjustment value and exposure time (estimated time, remaining time and previous time) are displayed digitally. A safety lamp indicates whether or not the exposure time falls within the automatic exposure range.

Half-frame photography

The optional AH2-SLH half-frame slider allows two images to be photographed side by side on the same frame.

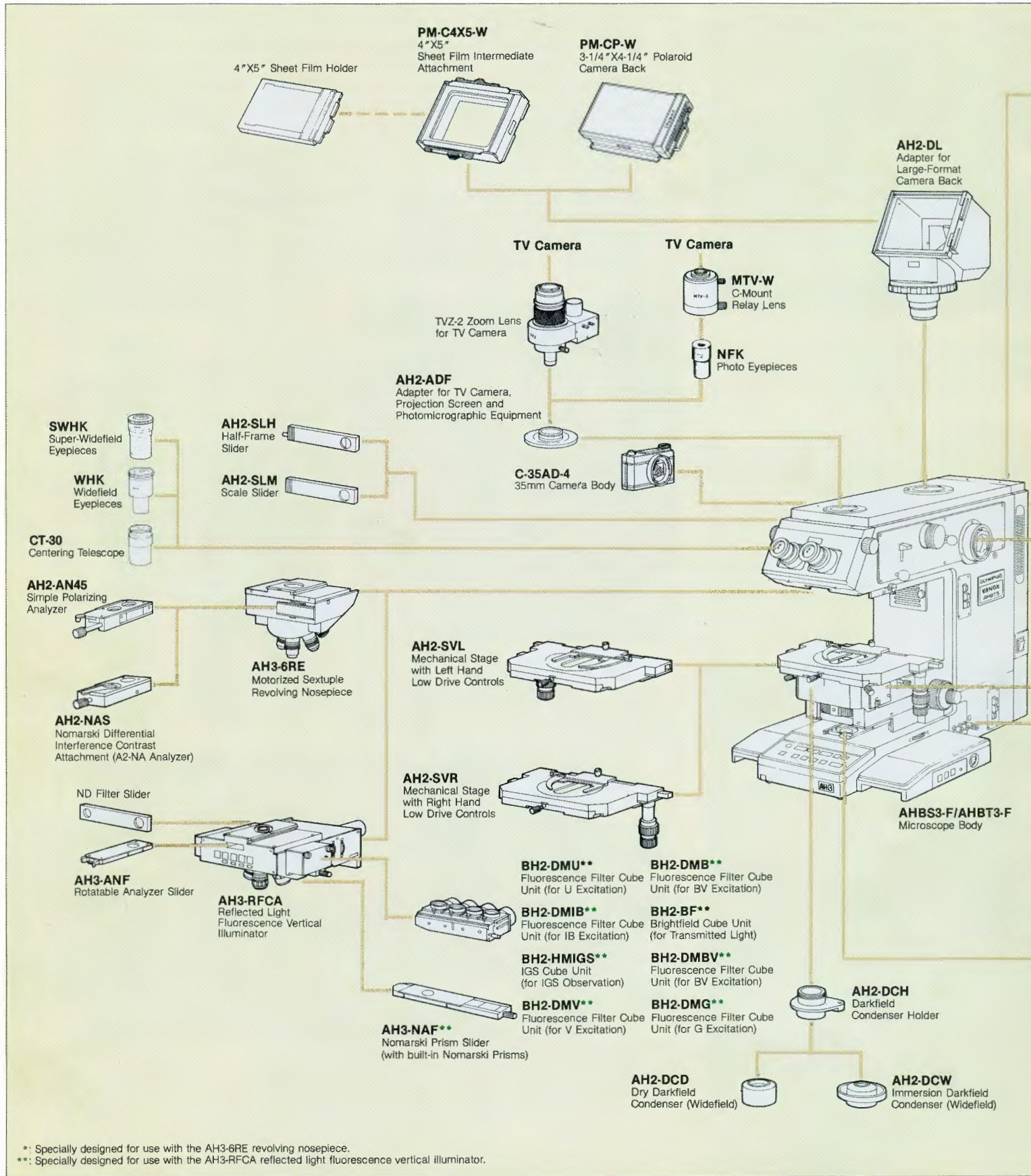


Half-Frame Photography

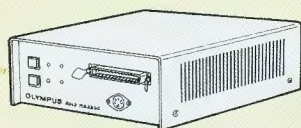


- Frame counter
- Reciprocity failure compensation button
- Exposure time indicator
- Exposure lock button
- Camera Indicator lights
- Film speed (ISO/ASA) indicator
- Exposure adjustment button
- Time recall button
- Intensity light
- Safety light
- Shutter release button
- Manual exposure button
- Film advance button
- Multiple exposure button
- Spot measurement button
- Objective magnification button
- Power light

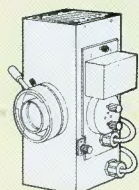
AHBS3/AHBT3 System Diagram



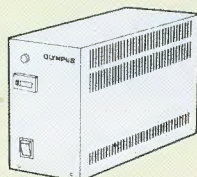
*: Specially designed for use with the AH3-6RE revolving nosepiece.
 **: Specially designed for use with the AH3-RFCA reflected light fluorescence vertical illuminator.



AH3-RS232C
RS232C Interface
(for AHBS3)

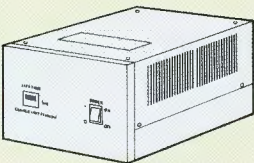
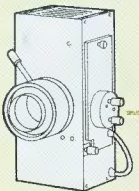


AH2-LSX
Xenon Lamp Housing



AH2-RX-T
Power Supply Unit

AH2-LSRF
Mercury
Burner Housing



AH2-RFL-T
Power Supply Unit
for Ultra-High Pressure
Mercury Burner Housing



C-35AD-4
35mm Camera Body



AH3-NSF**
Nomarski Prism Slider



AH2-NAS
Nomarski Differential
Interference Contrast
Attachment (A2-NS Slider)



AH2-KPO
Simple Polarizer



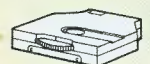
AH2-KDC
Simple Darkfield Condenser



Filter Tray
(Standard on Microscope)



AH2-PC
(AH2-RS) Phase-Contrast Attachment
(AH2-RS) Ring Slit Unit



AH2-ASS
(AH2-AST) Aperture
Iris Diaphragm Unit

● AH2-ASS is specially designed for AHBS3.

AHBS3 + AH3-RFC/AHBT3 + AH3-RFC Observation Methods and Compatible Objectives

Objective	Observation Method			Transmitted Light Brightfield	Reflected Light Fluorescence (U, V, BV excitation)	Reflected Light Fluorescence (B, IB, G excitation)	Reflected Light IGS	Transmitted Light Phase-Contrast*	Transmitted Light Nomarski DIC	Transmitted Light Simple Darkfield	Transmitted Light Darkfield	Transmitted Light Simple Polarizing
	Magnification	Power	N.A. W.D.									
DPlan Apo10xUV	0.40	1.10mm		○	○	○	X	○	○	○	○	○
DPlan Apo20xUV	0.70	0.75mm		○	○	○	X	○	○	○	○	○
DPlan Apo20xUV (oil)	0.80	0.18mm		○	○	○	X	X	○	X	○	○
DPlan Apo40xUV	0.85	0.25mm		○	○	○	X	X	○	X	○	○
DPlan Apo40xUV (oil)	1.00	0.16mm		○	○	○	○	○	X	X	○	○
DPlan Apo100xUV (oil)	1.30	0.16mm		○	○	○	○	○	○	X	○	○
DApo 20xUV	0.70	0.75mm		○	○	○	X	X	X	○	○	○
DApo 40xUV (oil)	1.30	0.12mm		○	○	○	○	○	X	X	○	○
DApo 100xUV (oil)	1.30	0.12mm		○	○	○	○	○	X	X	○	○
SPlan Apo4x	0.16	9.83mm		○	X	X	X	X	X	X	X	○
SPlan Apo10x	0.40	0.55mm		○	X	○	X	X	X	○	○	○
SPlan Apo20x	0.70	0.55mm		○	X	○	X	X	X	○	○	○
SPlan Apo40x	0.95	0.13mm		○	X	○	X	X	X	X	○	○
SPlan Apo60x (oil)	1.40	0.12mm		○	X	○	X	X	X	X	X	○
SPlan Apo100x (oil)	1.40	0.15mm		○	X	○	X	X	X	X	○	○
SPlan4x	0.13	15.50mm		○	X	X	X	○	X	X	X	○
SPlan10x	0.30	7.50mm		○	X	△	X	○	○	○	○	○
SPlan20x	0.46	1.50mm		○	X	△	X	○	○	○	○	○
SPlan40x	0.70	0.50mm		○	X	△	X	○	○	○	○	○
SPlan100x	0.95	0.20mm		○	X	△	X	X	X	X	○	○
SPlan100x (oil)	1.25	0.17mm		○	X	△	X	○	○	X	X	○

○: Usable

△: Usable but image slightly darker than with other objectives.

X: Not usable.

*Objectives specially designed for transmitted light phase-contrast microscopy. (If phase-contrast objectives are used for other observations, the image may darken and the performance decrease slightly.)

Fluorescence Vertical Illuminator/Microscopy Attachment Combinations

Observation Method	Transmitted Light Nomarski DIC	Transmitted Light Simple Polarizing
Revolving Nosepiece		
AH3-RFCA Reflected Light Fluorescence Vertical Illuminator	AH3-ANF Analyzer Slider AH3-NAF Nomarski Prism Slider AH3-NSF Nomarski Prism Slider	AH2-KPO Simple AH3-ANF Analyzer Slider
AH3-6RE Motorized Sextuple Revolving Nosepiece	A2-NA Analyzer A2-NS Nomarski Prism Slider	AH2-KPO Simple AH2-AN45 Simple Analyzer

*Attachments other than listed above may be used both with AH3-RFCA and the AH3-6RE revolving nosepieces.

LB Series Objectives and Eyepieces

S Plan Achromat Objectives

Magnification	N.A.	W.D.(mm)
SPlanApo4X	0.16	9.83
SPlanApo10X	0.40	0.55
SPlanApo20X	0.70	0.55
SPlanApo40X	0.95	0.13
SPlanApo60X oil	1.40	0.12
SPlanApo100X oil	1.40	0.15



S Plan Achromat

S Plan Achromat Objectives

Magnification	N.A.	W.D.(mm)
SPlanFL1X*	0.04	2.20
SPlanFL2X	0.08	5.50
SPlan4X	0.13	15.50
SPlan10X	0.30	7.50
SPlan20X	0.46	1.50
SPlan40X	0.70	0.50
SPlan100X oil	1.25	0.17
SPlan100X dry	0.95	0.20



S Plan Achromat



S Plan Achromat FL

No Cover Objectives

Magnification	N.A.	W.D.(mm)
NCSPan40X	0.70	0.45
NCSPan100X dry	0.95	0.30
NCSPanApo60X dry	0.90	0.42
NCSPanApo100X oil	1.40	0.15



No Cover

*Designed for Field Number 21; not recommended for super widefield observation



Fluorescence-free



Fluorescence-free Phase-Contrast



Phase-Contrast (positive)



Phase-Contrast (negative)



Super Widefield Eyepiece



Widefield Eyepiece

Fluorescence-free Objectives

Magnification	N.A.	W.D.(mm)
DPlanApo10XUV	0.40	1.10
DPlanApo20XUV	0.70	0.75
DPlanApo20XUV oil	0.80	0.18
DPlanApo40XUV dry	0.85	0.25
DPlanApo40XUV oil	1.00	0.16
DPlanApo100XUV oil	1.30	0.16
DApo40XUV oil	1.30	0.12
DApo100XUV oil	1.30	0.12

Fluorescence-free Phase-Contrast Objectives

Magnification	N.A.	W.D.(mm)
DPlanApo10XUVPL	0.40	1.10
DPlanApo20XUVPL	0.70	0.75
DPlanApo40XUVPL oil	1.00	0.16
DPlanApo100XUVPL oil	1.30	0.16
DApo40XUVPL oil	1.30	0.12
DApo100XUVPL oil	1.30	0.12

Phase-Contrast Objectives (positive)

Magnification	N.A.	W.D.(mm)
PC SPlan4XPL	0.19	15.50
PC SPlan10XPL	0.30	7.50
PC SPlan20XPL	0.46	1.50
PC SPlan40XPL	0.70	0.50
PC SPlan100XPL oil	1.25	0.17

Phase-Contrast Objectives (negative)

Magnification	N.A.	W.D.(mm)
PC SPlan4XNH	0.19	15.50
PC SPlan10XNH	0.30	7.50
PC SPlan20XNH	0.46	1.50
PC SPlan40XNH	0.70	0.50
PC SPlan100XNH oil	1.25	0.17

Super Widefield Eyepiece

Magnification	F.N.
SWHK8X	26.5
SWHK-10X	26.5

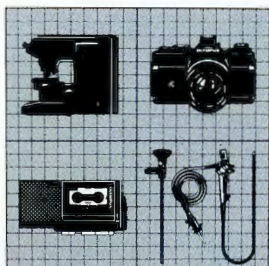
Widefield Eyepieces

Magnification	F.N.
WHK8X	20
WHK10X	20
WHK15X	14

A pair of adapters for widefield eyepieces is supplied with the microscope stand.

AHBS3/AHBT3 Standard Outfit

Component	Model	AHBS3		AHBT3
		-513	-514	513
Microscope Stand	AHBS3-F	○	○	
	AHBT3-F			○
Power Cord	UYCP	○	○	○
Sextuple Revolving Nosepiece	AH3-6RE	○	○	○
Mechanical Stage	AH2-SVR	○	○	○
Halogen Bulb (2pcs)	JC12V100WHAL-L	○	○	○
35mm Camera Body (2 pcs)	C35AD-4	○	○	○
Filter Set (LBT and IF550)	PM-FIL-6	○	○	○
Lens Cleaning Kit	CLEANING KIT	○	○	○
S Plan Fluorite Objective	SPLFL2X	○	○	○
S Plan Achromatic Objective	SPL4X	○		○
	SPL10X	○		○
	SPL20X	○		○
	SPL40X	○		○
	SPL100X/oil	○		○
S Plan Apochromatic Objective	SPLAPO4X		○	
	SPLAPO10X		○	
	SPLADO20X		○	
	SPLAPO40X		○	
	SPLAPO100X/oil		○	
LB Eyepiece (2 pcs)	SWHK10X	○	○	○



Photographic,
Medical,
Microscopic,
Industrial & Business Equipment

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