# **OLYMPUS**<sup>®</sup>

Olympus is about life. About photographic innovations that capture precious moments of life. About advanced medical technology that saves lives. About information- and industry-related products that make possible a better living. About adding to the richness and quality of life for everyone. Olympus. Quality products with a FOCUS ON LIFE

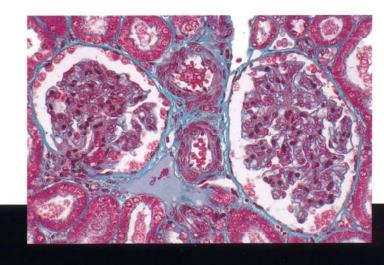
CHK2/CHL2



## New 20W halogen light source supplies brighter, more even

## Two economical but sturdy microscopes

CHK2/CHL2 microscopes are powerful laboratory and education tools. Simple enough for even first-time microscope operators to master, they also feature extraordinary operational versatility and the durable, proven design of the best-selling Olympus CH Series. To ensure superior viewing resolution with high contrast, they are equipped with Olympus LB Series objectives, which offer outstanding optical correction right up to the periphery of the field of view.





## CHK2 (with built-in light source) Featuring a built-in 20W halogen bulb, the CHK2 provides a binocular observation tube and mechanical stage to suit various microscopy requirements.



The affordable CHL2 microscope offers three combinations to choose from — binocular tube and mechanical stage; monocular tube and mechanical stage; or monocular tube and plain stage. The specimen is illuminated by a planoconcave mirror.

## illumination throughout the magnification range.

## Superb image over the entire field of view with the popular LB Series objectives

- ●Known for excellent resolution and high contrast, the LB Series objectives ensure that the image is always flat and sharply defined across the field of view.
- ●LB Series objectives feature a 45mm parfocal distance and long working distances to provide extra convenience for specimen marking. The 40x and 100x objectives are fitted with a safety spring to protect valuable specimens against inadvertent damage.
- •Simultaneous accommodation of four objectives of different magnifications is accomplished with the durable, ball bearing-equipped quadruple revolving nosepiece.



#### Performance of Objectives

		Numerical Aperture	Working Distance	
	4×	0.10	29.0mm	
ED ACH	10×	0.25	29.0mm 6.30mm 0.53mm 0.20mm 31.0mm 6.5mm	
	40× (spring)	0.65	0.53mm	
	100× oil (spring)	1.25	0.20mm	
	4×	0.10	31.0mm	
EACH	10×	0.25	29.0mm 6.30mm 0.53mm 0.20mm 31.0mm 6.5mm	
EACH	40×	0.65	0.5mm	
	60×	0.80	0.29mn	

## Anti-fungus treatment protects quality of optical components

Fungus is a leading cause of damage to optical components such as objectives and eyepieces, particularly in tropical regions. The CHK2/CHL2 have been treated against fungus with an effective anti-fungus method developed by Olympus. By subjecting the components to a continuous stream of thin, vaporous anti-fungus gas, the treatment inhibits the germination of fungi for a period of over three years (Olympus field test). The tightly sealed binocular tube further protects against fungus by preventing dust or dirt from entering the microscope. (Not available in some areas.)

## Observation tubes adjust to meet individual differences in vision

- ●To compensate for operator eye acuity, the binocular observation tube enables a ±5 diopter adjustment as well as interpupillary distance adjustment over a 54-72mm range. Both controls have graduated markings to allow the operator to quickly return to optimum settings, a particularly welcome feature in group observation in classroom.
- ●Binocular and monocular observation tubes, inclined at a 45° angle, assure comfort with less fatigue over long hours of observation.



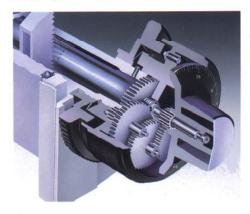
## Condenser height displacement for perfect illumination

- ●The condenser allows vertical height adjustment of 3mm to provide the best illumination of the specimen.
- ●The CHK2/CHL2 microscopes utilize an N.A. (Numerical Aperture) 1.25 Abbe condenser, which features an aperture iris diaphragm incorporating a scale to facilitate easy N.A. adjustment optimized for the objective in use.



## Smoother focusing with coaxial knobs

- Coaxial coarse and fine adjustment knobs allow the operator to easily perform onehanded focus adjustments with both elbows resting on the table. To suit operator preference for a heavy or light knob touch, a tension adjustment ring is provided.
- •Coarse adjustment range is 20mm, with fine adjustment possible over this entire range, enabling rapid, accurate focusing from any position.



## Large, stable, heavy-duty stage

●CHK2/CHL2 microscopes are equipped with large, 120×123mm plain stages. A mechanical stage fitted with coaxial drive control knobs (standard on all models except Model CHL2-F) is provided. Featuring ball-bearing guides, the traverse range is 76mm for the X-axis and 40mm for the Y-axis.

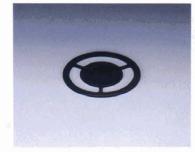


## Optional accessories for phase-contrast and darkfield microscopy



CHK-PC-PL Simple Phase-Contrast Attachment

Attachment of a phase annular ring (model CH2-RS10/RS40) to the standard Abbe condenser enables easy, economical phase-contrast microscopy. The CHK-PC-PL comes with the phase annular ring, phase-contrast objectives (PCD10×PL/40×PL), CT-5 centering telescope and 32.5G533 green filter.



CH2-DS Darkfield Central Stop The CH2-DS is an essential accessory for simple and efficient observation of specimens in a darkfield, and works well with lowand medium-power objectives.

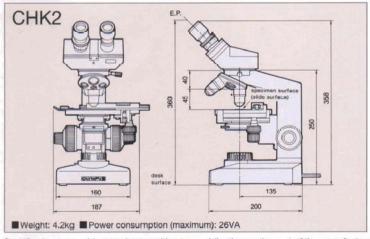
(Attaching the CHK-PC-PL to model CHL2 is not recommended.)

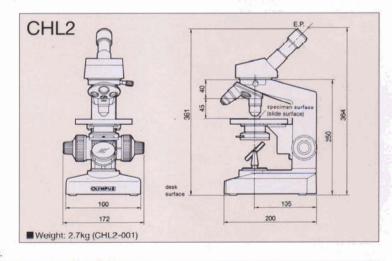
(Using the CH2-DS for 4x observation is not recommended.)

Model					CHK2	CHL2			
Module					-213	-212	-012	-001	-001EA
Microscope frame	Coaxial coarse and fine focusing knobs, coarse adjustment range 20mm with focusing limit control lever and tension adjustment ring. Fine focusing knob graduated in increments of 2.5 microns.  Plain stage 120×122mm  Quadruple revolving nosepiece  Abbe condenser, N.A. 1.25 with aperture diaphragm  Including 32.5mmø blue filter  Filter holder C2-FH, dust cover		Halogen illuminator base     Fixed mechanical stage	CHK2-F	0	-	_	-	-
			Plano-concave mirror     Fixed mechanical stage	CHL2-FM	_	0	0	_	_
			Plano-concave mirror     Stage clip (1 pair)	CHL2-F	-	-	-	0	. 0
Observation tube	Binocular tube (45°) Interpupillary distance adjustment range: 54 — 72mm Dioptric adjustment ring on the left		CH-BI45-3	0	0	-	_	-	
	Monocular tube (45°)			CH-MO45-3	_	_	0	0	0
Bulb	Halogen bulb 6	b 6V 20W		6V20WHAL	0	_		_	
Objective (long barrel)		ED ACH 4		EDA4×	0	-	-	0	-
	ED ACH series	ED ACH 10		EDA10x	0	0	0	0	-
		ED ACH 40 (spring-loaded)		EDA40x/R	0	0	0	0	_
		ED ACH 100 (spring-loaded, oil immersion)		EDA100x/RO	0	0	0		-
	E ACH series	EACH 4		EA4×	y ==	_	_	_	0
		E ACH 10		EA10x	_	-	-	_	0
		E ACH 40 (spring-loaded)		EA40x/R	_	-	-	_	0
		E ACH 60 (spring-loaded)	Particular Control of "And	EA60x/R					
Eyepiece	LB eyepiece 10x, F.N. 18, widefield, high eyepoint		CWHK10x-T	(2 pcs)	(2 pcs)	0	0	-	
	LB eyepiece 10x, F.N. 13			EH10x			-	-	0
Immersion oil	8 cc				0	0	0	_	-

\*o.p. Eyepiece ER15×F.N. 8

#### **Dimensions**





Specifications are subject to change without any obligation on the part of the manufacturer.

#### Olympus business areas



Medical and health-care area



Imaging and information area



Industrial applications area



OLYMPUS OPTICAL CO., LTD.
2-43-2, Hatagaya, Shibuya-ku, Tokyo, Japan
OLYMPUS OPTICAL CO. (EUROPA) GMBH.
Postfach 10 49 08, 20034, Hamburg, Germany
OLYMPUS AMERICA INC.
2 Corporate Center Drive, Meville, NY 11747-3157, U.S.A.
OLYMPUS OPTICAL CO. (U.K.) LTD.
2-8 Honduras Street, London ECI Y OTX. United Kinadom.