

OLYMPUS®

Your Vision, Our Future

ZOOM STEREOMICROSCOPE

SZ61/SZ51

For **B**iological Use



Comfort at work: the key to consistent, accurate results

User comfort has always been an Olympus priority. Even so, the standards set by the new SZ61 and SZ51 are a revelation. The smoothly contoured finish, the newly designed "ComfortView" eyepiece, and the accessible, responsive controls make operation easier and less fatiguing than ever before.

The compact design owes much to the incorporation of the Greenough optical system, which delivers excellent flatness and ample depth of field as well as clarity, detail, accurate color and the least possible distortion. Dependable, high-performance optics are central to the achievement of consistent, accurate results in today's widening range of biological microscopy applications — as are ergonomic features which make even long-duration tasks easier and less demanding to perform.

Welcome to the comfort zone.



SZ51-60

SZ51



SZ61



SZ61TR



SZ61-60

*SZ61: offers the highest zoom ratio in its class.
SZ51: offers superb cost efficiency with practical zoom ratio.*

High-performance optics in a compact, comfortable design

Incorporating new improvements to the highly-regarded Greenough optical system, the SZ61 and SZ51 successfully meet the demand for a variety of observation and documentation options in a genuinely compact microscope design. Clear, sharp image reproduction is matched by new ergonomic design elements which maximize comfort and ease of use.

The SZ61 and SZ51 microscope bodies are manufactured using newly developed lead-free optics, demonstrating Olympus commitment to protect the environment.

6.7:1 — the best zoom ratio in this class

The SZ61's class-leading magnification range extends from 6.7x through 45x (using 10x eyepieces), with a zoom ratio of 6.7:1. This derives from a newly developed optical system and allows quick, comfortable observations at the most appropriate magnification. The SZ51 provides a magnification range from 8x through 40x (using 10x eyepieces), with a zoom ratio of 5:1.

Outstanding depth of field and flatness

The 10-degree angle of convergence in the Greenough optical system secures excellent image flatness with large depth of field.

Accurate color reproduction

The careful selection of lens surface coatings and glass materials in the entire optical system makes it possible to observe and document specimen in their original, authentic colors.

Sharp, clear, high-contrast images

High contrast images and field flatness ensure accurate reproduction and documentation of original specimen shapes.

"Comfort View" eyepieces for greater comfort and faster work

Quick, comfortable observation and documentation are ensured by this completely new eyepiece design featuring Pupil Aberration Control and Appropriate Positioning in the eye point. The result is a field of view that is easy to find, comfortable to view, and easy to keep.



The Greenough optical system has two zoom optical paths inclined at a 10° angle. This enables a compact microscope design with high performance.



Five variations in zoom performance

The SZ61 and SZ51 provide five system configuration choices. First, they can both be equipped with an ergonomically designed 45° inclination tube when mounted on standard stands. Second, operators can attach a 60° inclination tube (SZ61-60/SZ51-60) for special applications where the zoom body has to be tilted for use with other equipment or mounting on a universal stand. And for documentation purposes, OLYMPUS also offers the SZ61TR, which incorporates a trinocular tube for easy attachment of digital and video cameras.

Convenient front-access operation

Improved ease of access to the most frequently used knobs and controls maximizes operator comfort and reduces neck and back strain.



The right accessory for every application

Digital camera DP20 (SZ61TR)

Equipped with a 2 million pixel CCD which enables display with 6 times the amount of information of an ordinary TV screen, the DP20 provides smooth live display, at a 15 fps speed, of high-resolution images close to that of high-definition TV. Also, as both live and stored images are expressed with 8-bits each for RGB (16.7 million colors), color reproduction is faithful to the specimen.

Various universal stands

A variety of universal stands are available for the observation of large size specimens. No matter how big the samples are or how much they vary in size, OLYMPUS has the right choice of stands to suit any requirements.



SZ61TR+DP20



SZ61+SZ2-STU2



SZ61+SZ2-STU3



Wide choice of auxiliary objectives and eyepieces

A wide choice of auxiliary objectives enables observation at the optimum working distance (W.D.) for a variety of applications. W.D. can be changed between 250mm-350mm (0.3x objective) and 180mm-250mm (0.4x objective). Eyepieces are available ranging from 10x to 30x to optimize system magnification.



Auxiliary Objectives



Eyepieces

Choose the illumination source that suits the task at hand



LED illuminator stand / SZ2-ILST

The world's first LED stand features a thin design to keep sample positions low and to optimize operability. Simultaneous transmitted and reflected light are available on this stand. LED light offers both long lifetime and constant color temperature at any intensity.



Transmitted illumination attachment / SZ2-ILA

Used with the SZ2-ST stand, this cost-effective illumination stand provides bright, uniform illumination from low to high magnifications. Tiltable mirror provides direct and oblique illumination for low contrast specimen. Available 22W and 100W lamphouses provide necessary power for a variety of illumination needs.



High-level transmitted light illumination base / SZX2-ILLB

Provides effective contrast from oblique illumination and easily selected "High" and "low" contrast settings. Light volume and color temperature are adjusted by means of built-in filters (LBD/ND).



Slim LED transmitted light illumination base / SZX2-ILLT

With a slim design of 41mm, this transmitted light illumination base has a lower height to enable a low eyepoint and easy access to base-mounted samples during observation and operation. The LED 4-position turret enables contrast adjustment between brightfield, oblique, and darkfield illumination with a simple turn.



Flexible light guide / SZ2-LGSF

A single fiber optic guide is fixed at the back of the objective so as not to disturb microscope operation.



Interlock dual light guide / SZ2-LGDI

Standard oblique semi-rigid fiber optic light guide. The light source position on the rear side of the stand saves desk space.



Ring light guide / SZ2-LGR

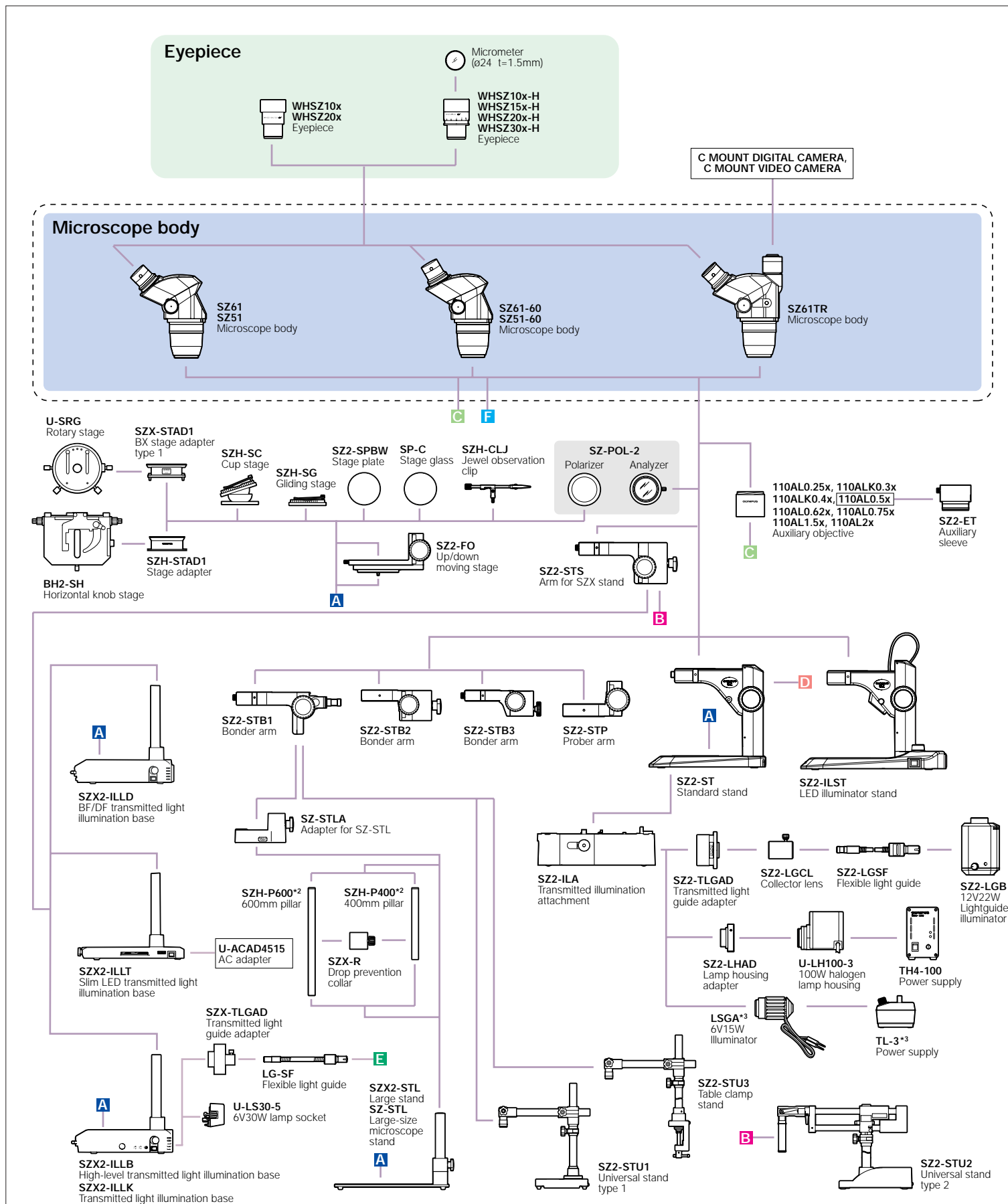
Used with LGB illumination system, this ring light guide provides bright and uniform images.



Coaxial reflected light illuminator / SZ2-ILLC

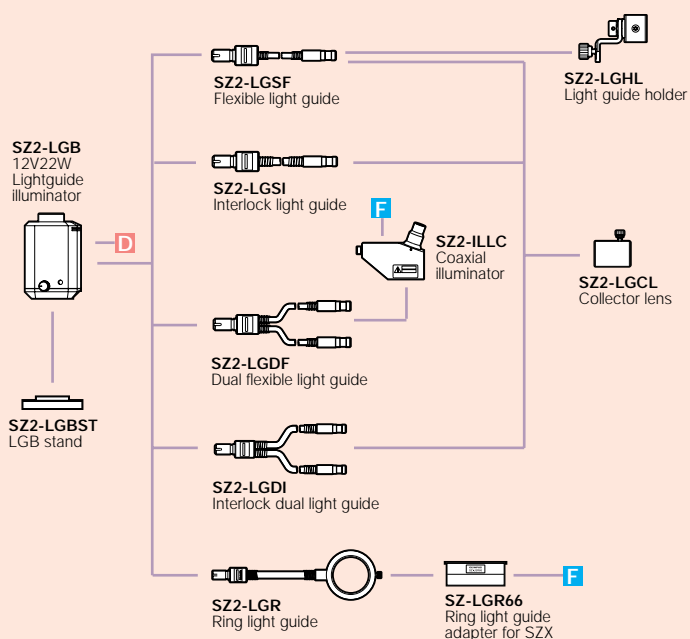
It combines a polarizer and a $1/4\lambda$ plate, for easier viewing of specimens which are difficult to examine under oblique reflected light illumination.

■ SZ61/SZ51 System Diagram

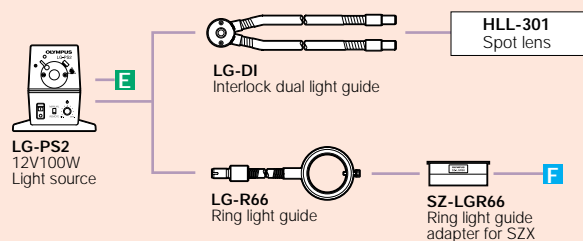


*1 Please contact the nearest Olympus dealer for applicable models. *2 SZH-P400 and SZH-P600 can be attached to the transmitted light illuminators. *3 Not available in some areas.

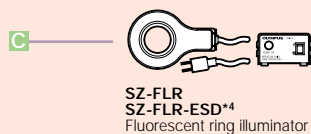
Compact fiber optics system/SZ2-LGB



High power fiber optics system/LG-PS2

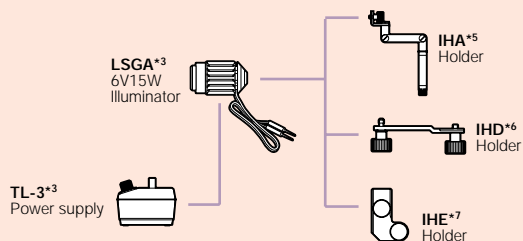


Fluorescence illumination



*4 Other systems are offered in some areas.

Reflected illumination/LSGA



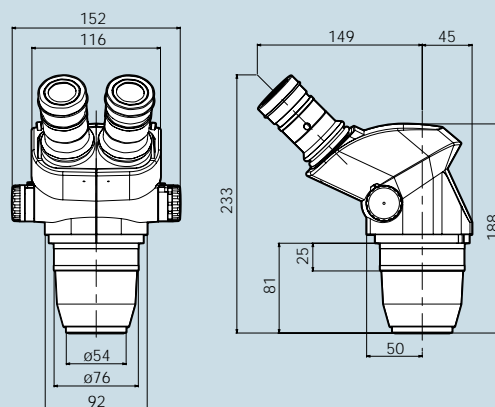
*5 IHA is mountable to SZ2-ST, SZ2-STB1, SZ2-STB3, SZ2-ST5 and TL-3.

*6 IHD is mountable to SZ2-STB1 and SZ2-ST5.

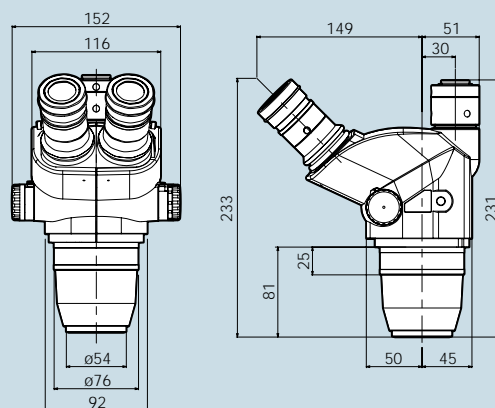
*7 IHE is mountable to SZ2-ST.

■ SZ61/SZ51 Dimensions

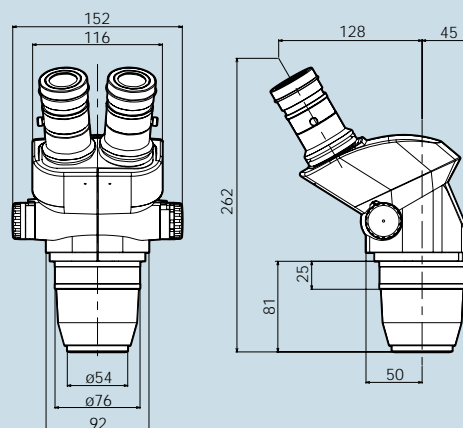
SZ61 / SZ51



SZ61TR



SZ61-60 / SZ51-60



SZ61/SZ51 Specifications

Item		Specifications				
Microscope body SZ61 SZ61-60 SZ61TR SZ51 SZ51-60		SZ61	SZ61-60	SZ61TR	SZ51	SZ51-60
	Magnification	0.67X to 4.5X			0.8X to 4X	
	Zoom ratio	6.7: 1			5: 1	
	Working distance	110mm				
	Tube inclination angle	45°	60°	45°		60°
	Interpupillary distance adjustment	Left/right interlocked Adjustment range: 52 to 76 mm (using the WHSZ10X eyepieces)				
	Video camera adaptability	—		C-mount (0.5x built in)	—	
	Zoom adjustment knob	Left/right single-shaft horizontal knob Interpupillary distance high/low magnification stopper incorporated.				
	Optical components	Lead-free				
Auxiliary objective		Mounting by screwing into the thread at the bottom of frame (M48 thread X0.75)				
Eyepiece		"ComfortView" WHSZ series Lead-free				
Stand SZ2-ST SZ2-ILST		SZ2-ST		SZ2-ILST		
		Standard stand		LED reflected/transmitted illumination stand		
	Frame installation	Mounting diameter: 76mm				
	Focusing adjustment	Focusing stroke: 120mm				
	Stage plate	SZ2-SPBW (Black & white for anti-ESD) SP-C (Clear glass plate)		The dedicated glass plate in 100mm dia. included		
	Light source	Fiber optic illumination system SZ2-LGB mountable (option) Transmitted light illumination attachment (SZ2-ILA) mountable (option)		Transmitted illumination: LED Reflected illumination: LED Average LED life span: 6000 hrs. Input rating: 100-120V/200-240V ~0.15/0.1A, 50/60Hz		
Weight	Zoom body only	1,300g		1,500g	1,300g	
	Configuration 3	3,520g		3,720g	3,520g	

Configuration3: Zoom body + WHSZ10X-H(2) + SZ2-ST

SZ61/SZ51 optical performance

Microscope Body	Zoom magnification	WHSZ10X-H WHSZ10X		WHSZ15X-H		WHSZ20X-H WHSZ20X		WHSZ30X-H	
		F.N. 22		F.N. 16		F.N. 12.5		F.N. 7	
		Total magnification	Field of view (mm)	Total magnification	Field of view (mm)	Total magnification	Field of view (mm)	Total magnification	Field of view (mm)
SZ61	0.67X	6.7	32.8	10.1	23.9	13.4	18.7	20.1	10.4
	1X	10	22	15	16	20	12.5	30	7.0
	2X	20	11	30	8	40	6.3	60	3.5
	3X	30	7.3	45	5.3	60	4.2	90	2.3
	4.5X	45	4.9	67.5	3.6	90	2.8	135	1.6
SZ51	0.8X	8	27.5	12	20	16	15.6	24	8.8
	1X	10	22	15	16	20	12.5	30	7.0
	2X	20	11	30	8.0	40	6.3	60	3.5
	3X	30	7.3	45	5.3	60	4.2	90	2.3
	4X	40	5.5	60	4.0	80	3.1	120	1.8

* No auxiliary objective lens is attached


Auxiliary objective for SZ61/SZ51

	Working distance (mm)
110ALK0.3X	250-350
110ALK0.4X	180-250
110AL0.5X	200
110AL0.62X	160
110AL0.75X	130
110AL1.5X	61
110AL2X	38

"Comfort View" WHSZ eyepiece

	F.N.	Diopter adjustment	Reticle	Focal magnification
WHSZ10X	22	—	N.A.	—
WHSZ20X	12.5	—	N.A.	—
WHSZ10X-H	22	-8-+5	Yes*2	—
WHSZ15X-H	16	-8-+5	Yes*2	—
WHSZ20X-H	12.5	-8-+5	Yes*2	1.3X
WHSZ30X-H	7	-8-+5	Yes*2	2X

*2 Applicable reticle size: 24mm diameter, t1.5



SZ61/SZ51 are the environmental conscious products according to OLYMPUS's own standards.

Main features of OLYMPUS Eco-products are as follows.

- Lead-free and arsenic-free Eco-glass for optics, such as lenses and prisms.
- Adoption of cardboard for packing materials without styrene foam for promoting the recycling.
- Some accessories are inapplicable.

Please visit our web site for further information:
<http://www.olympus.co.jp/en/eco-products/>

ECO-PRODUCTS

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



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