

# SZ645 STEREO ZOOM MICROSCOPE

- High precision zoom with detents
- High definition and large depth of field
- Dual diopter adjustments for best image quality
- Ergonomic design

The SZ645 Stereo Zoom Microscope features high performance and top quality. It is ideal for schools, scientific research institutes and the industrial field. The SZ645 provides a high definition 3D image with a large depth of field. The horizontal dual zoom knobs with detents assure ergonomic operation and consistent zoom settings.

An ESD version is available on a special order basis. The ESD design will dissipate any static electricity generated by the microscope or tribo-charge from external sources and protect the specimens from damage.



<ul style="list-style-type: none"> <li>• Zoom Range of Zoom Body: 0.8X-5X</li> <li>• Zoom Ratio: 1: 6.3</li> <li>• Maximum Magnification Range: 4X - 200X</li> <li>• Field of View: 1.3mm-55mm</li> <li>• Working Distance: 43.5mm-211mm</li> <li>• Working Distance of Built-in 1X Lens: 115mm</li> <li>• Adjustable Interpupillary Distance: 52mm-75mm</li> </ul>	<ul style="list-style-type: none"> <li>• Eyetube Inclination: 45 °</li> <li>• Eyepiece Diopter Correction: -8/+5 Diopter</li> <li>• 360 ° Rotatable microscope head</li> <li>• Optional Eyepieces: 10X, 15X and 20X</li> <li>• Optional Auxiliary Lenses: 0.5X and 2X</li> <li>• Optional Video Couplers: 0.4X (For SZ645-TR models only)</li> </ul>
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High-eyepoint and Wide Field 10X Eyepieces are standard on the SZ645 Stereo zoom microscope, providing a continuous magnification from 8X-50X. The dual adjustable diopters allow the operator to get the best possible image quality. Different eyepieces and objectives are available for extended magnification and working distance.



Eyepiece Diopter



Zoom Knob



Video Coupler

## Application

High-eyepoint and wide field 10X, 15X and 20X eyepieces are optional; 0.5X and 2X auxiliary objective lenses are available for magnification range change; The optional 0.4X C-mount video coupler with adjusting screw is for mounting a camera on the SZ645 Trinocular body. The 50/50 True-Trinocular Body allow camera images to also be seen in binocular observation simultaneously. Different types of stands are available and optional.

Picture Preview	P/N	Name	Description
	SZ645	Stereo Zoom Binocular Body	Zoom range 0.8-5X, zoom ratio 1:6.3, with two horizontal zoom knobs, 45° inclined observation tubes. Eyepieces are not included for this item - see below.
	SZ645-ESD	Stereo Zoom Binocular Body, ESD	SZ645 Binocular with ESD Safe Body - <i>special order only</i>
	SZ645-TR	Stereo Zoom Trinocular Body	Zoom range 0.8-5X, zoom ratio 1:6.3, with two horizontal zoom knobs, 45° inclined observation tubes. True-Trinocular design. Eyepieces are not included for this item- see below.
	SZ645T-ESD	Stereo Zoom Trinocular Body, ESD	SZ645-TR True-Trinocular design with ESD Safe Body - <i>special order only</i>
	SA402101	10X Adjustable Eyepieces (Pair)	Wide Field 10X Eyepieces, with adjustable eyepiece diopter correction, 22mm field of view, the tube outside dia. 30mm. For SZ645 Series of Stereo Microscopes.
	SA402103	15X Adjustable Eyepieces (Pair)	Wide Field 15X Eyepieces, with adjustable eyepiece diopter correction, 16mm field of view, the tube outside dia. 30mm. For SZ645 series of Stereo Microscopes.
	SA402104	20X Adjustable Eyepieces (Pair)	Wide Field 20X Eyepieces, with adjustable eyepiece diopter correction, 12.5mm field of view, the tube outside dia. 30mm. For SZ645 series of Stereo Microscopes.
	SA402311	10X Adjustable Eyepiece with Reticle	SA402101 10X Adjustable single eyepiece, with a single line 10mm/100 cross hair Reticle, 26mm dia.
	SA402331	15X Adjustable Eyepiece with Reticle	SA402103 15X Adjustable single eyepiece, with a single line 10mm/100 cross hair Reticle, 18mm dia.
	SA403102	0.5X Auxiliary Lens	Outside dia. 60mm, working distance 220mm, for SZ645 Series Stereo Zoom Microscope.
	SA403105	2X Auxiliary Lens	Outside dia. 60mm, working distance 45mm, for SZ645 Series Stereo Zoom Microscope.
	SA403201	49.5mm Ring Adapter	Outside dia. 49.5mm, for SZ645 Series Stereo Zoom Microscope.
	SA403202	60mm Ring Adapter	Outside dia. 60mm, for SZ645 Series Stereo Zoom Microscope.
	SA404101	0.4X Video Coupler	0.4X C-Mount Video Coupler with adjustable parfocality, for mounting a CCD camera on the SZ645-TR.



### Optical Datasheet

Auxiliary Lens	Working Distance (mm)	Eyepieces					
		10X (FN22mm)		15X (FN16mm)		20X (FN12.5mm)	
		Mag.	FOV (mm)	Mag.	FOV (mm)	Mag.	FOV (mm)
0.5X	220	4X-25X	55-8.8	6X-37.5X	40-6.4	8X-50X	31.2-5
Built-in(1X)	115	8X-50X	27.5-4.4	12X-75X	20-3.2	16X-100X	15.6-2.5
2X	45	16X-100X	13.8-2.2	24X-150X	10-1.6	32X-200X	7.8-1.3

### Example Configurations

Note: Displayed items are options.



#### SZ645-1 / SZ645TR-1 Stereo Zoom Microscope - Track Stand

- SZ645 Stereo Zoom Binocular Body/SZ645TR Stereo Zoom Trinocular Body, SA404101 0.4X Video Coupler.
- SA402101 10X Adjustable Eyepieces (Pair), S221101 76mm Track Stand

Illuminator Options					
KIT p/n	Illuminator	FOI-150 Fiber Optic Illuminator		TLC5-645 Fluorescent Ring Light	AN-2-40-LED LED Ring Light
		FOI-Kit3-SZ645 Annular Ring Light Guide	FOI-Kit1 Dual Pipe Light Guide		
SZ645-1-AN		●			
SZ645-1-DPL			●		
SZ645-1-TLC				●	
SZ645-1-LED					●



#### SZ645-2 / SZ645TR-2 Stereo Zoom Microscope - Boom Arm Stand

- SZ645 Stereo Zoom Binocular Body/SZ645TR Stereo Zoom Trinocular Body, SA404101 0.4X Video Coupler.
- SA402101 10X Adjustable Eyepieces (Pair), S231101 Boom Stand, SA251101 76mm E-Arm (camera and monitor shown for illustration purposes - not included in kits)

Illuminator Options					
KIT p/n	Illuminator	FOI-150 Fiber Optic Illuminator		TLC5-645 Fluorescent Ring	AN-2-40-LED LED Ring Light
		FOI-Kit3-SZ645 Annular Ring Light Guide	FOI-Kit1 Dual Pipe Light Guide		
SZ645-2-AN		●			
SZ645-2-DPL			●		
SZ645-2-TLC				●	
SZ645-2-LED					●



#### SZ645-2D / SZ645TR-2D Stereo Zoom Microscope - Dual Arm Stand

- SZ645 Stereo Zoom Binocular Body/SZ645TR Stereo Zoom Trinocular Body, SA404101 0.4X Video Coupler.
- SA402101 10X Adjustable Eyepieces (Pair), S232101 Dual Arm Boom Stand, SA251101 76mm E-Arm.

Illuminator Options					
KIT p/n	Illuminator	FOI-150 Fiber Optic Illuminator		TLC5-645 Fluorescent Ring	AN-2-40-LED LED Ring Light
		FOI-Kit3-SZ645 Annular Ring Light Guide	FOI-Kit1 Dual Pipe Light Guide		
SZ645-2D-AN		●			
SZ645-2D-DPL			●		
SZ645-2D-TLC				●	
SZ645-2D-LED					●



#### SZ645-3 / SZ645TR-3 Stereo Zoom Microscope - Pneumatic Arm

- SZ645 Stereo Zoom Binocular Body / SZ645TR Stereo Zoom Trinocular Body, SA404101 0.4X Video Coupler.
- SA402101 10X Adjustable Eyepieces (Pair), S241102 76mm Pneumatic Arm assembly.

Illuminator Options					
KIT p/n	Illuminator	FOI-150 Fiber Optic Illuminator		TLC5-645 Fluorescent Ring	AN-2-40-LED LED Ring Light
		FOI-Kit3-SZ645 Annular Ring Light Guide	FOI-Kit1 Dual Pipe Light Guide		
SZ645-3-AN		●			
SZ645-3-DPL			●		
SZ645-3-TLC				●	
SZ645-3-LED					●

