

# OLYMPUS®

**SZX-BS  
SZX-SLR  
SZX-PHA**

# INSTRUCTIONS

# SZX

## PHOTOMICRGRAPHY OPTION

This instruction manual is for the Olympus SZX photomicrography option. To ensure the safety, obtain optimum performance and familiarize yourself fully with the use of this option, we recommend that you study this manual thoroughly before operating the attachment. Retain this instruction manual in an easily accessible place near the work desk for future reference.



A X 7 1 8 7



# IMPORTANT

## 1 Getting Ready

1. This manual describes the SZX photomicrography option only. Before using this equipment with the SZX microscope and associated options, make sure that you have carefully read and understood the corresponding manuals, and understand how to use all components of the microscopic system in combination.
2. This product is a precision instrument. Handle it with care and avoid subjecting it to sudden or severe impact.
3. Do not use this product anywhere where it may be subjected to direct sunlight, high temperatures and humidity, dust or vibrations.

## 2 Maintenance and Storage

1. Clean all glass components by wiping them gently with gauze. To remove fingerprints or oil smudges, wipe them off with gauze slightly moistened with a mixture of ether (70%) and alcohol (30%), EE System Cleaner (Olympus EE-6310), alcohol or xylene.  
**▲ Since solvents such as ether, alcohol and EE System Cleaner are highly flammable, they must be handled carefully. Be sure to keep these chemicals away from open flames and potential sources of electrical sparks, such as sparks from main switches switching ON or OFF.**
2. Do not use organic solvents to clean non-optical components. If smudges are difficult to clean, wipe them with a soft cloth slightly moistened with a diluted neutral detergent.
3. Never disassemble any part of the unit as this could cause malfunctions or reduced performance.

### 3

### Caution

If the equipment is used in a manner not specified by this manual, the safety of the user may be imperiled. In addition, the equipment may also be damaged. Always operate the equipment as outlined in this instruction manual.

The following symbols are used to set off text in this instruction manual.

- ▲ : Indicates that failure to follow the instructions in the warning could result in bodily harm to the user and/or damage to equipment (including objects in the vicinity of the equipment).
- ★ : Indicates that failure to follow the instructions could result in damage to equipment.
- © : Indicates commentary (for ease of operation and maintenance).

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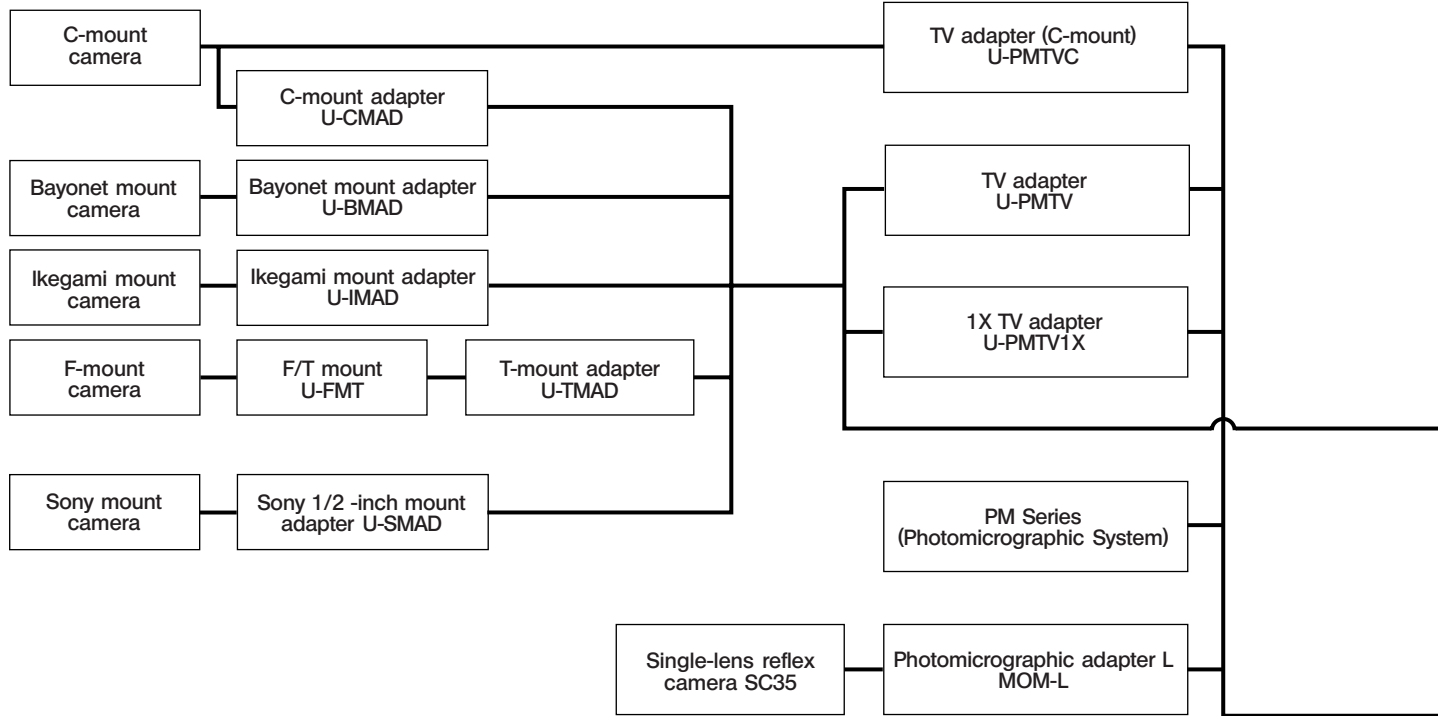
**PHOTOGRAPHY OPTION SYSTEM DIAGRAM 1**

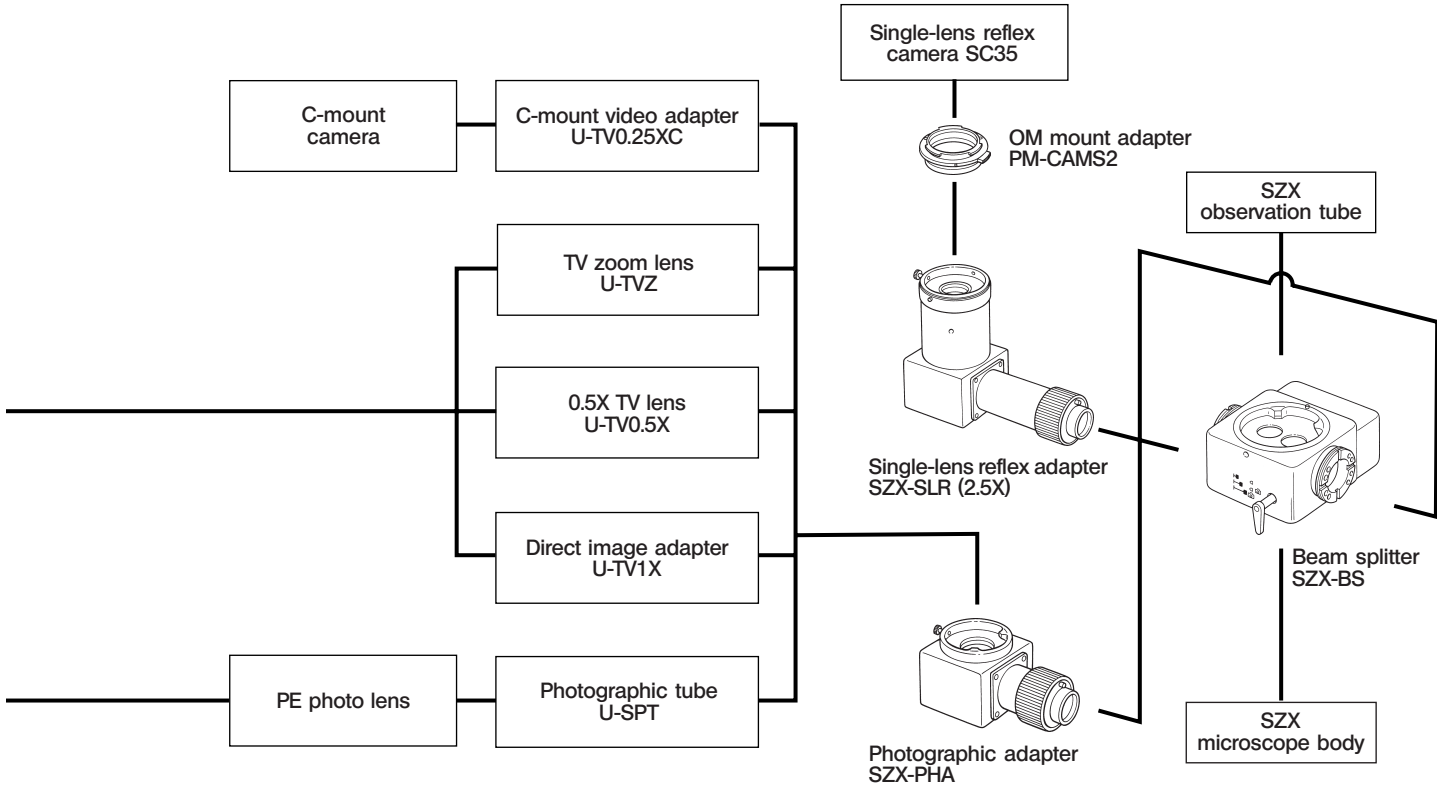
**BEAM SPLITTER SZX-BS 3**

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# PHOTOGRAPHY OPTION SYSTEM DIAGRAM








# BEAM SPLITTER SZX-BS

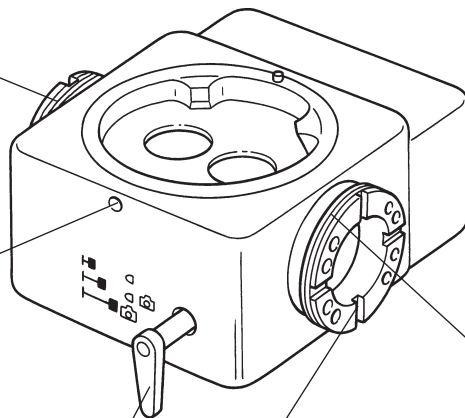
## 1 Controls

(Same function as the right mount)

Observation tube clamping screw

Light path switch knob

-  : 100% observation path
-  : 50% observation, 50% photomicrography/TV path
-  : 100% photomicrography/TV path



Photomicrographic/TV system mount

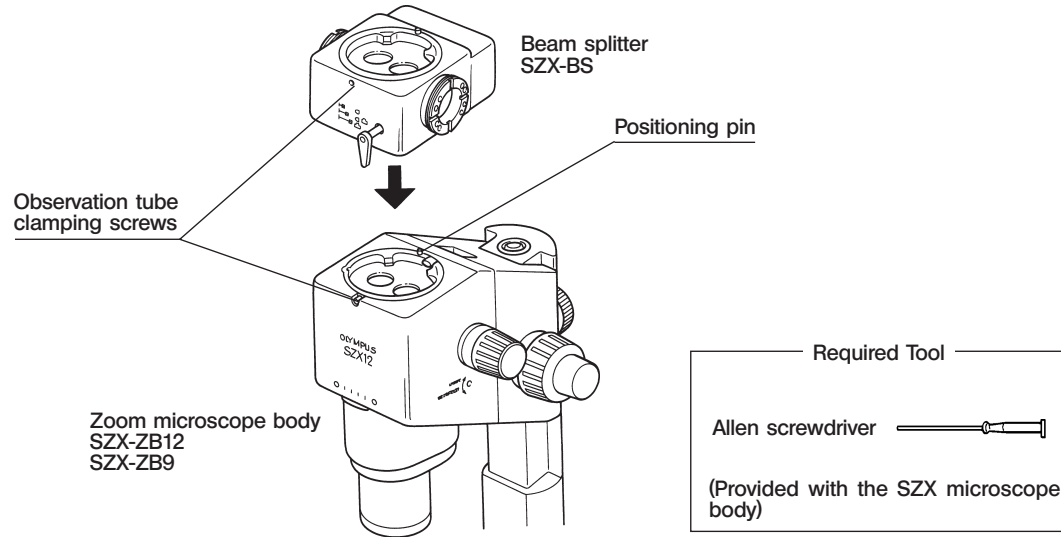
Either the SZX-SLR single-lens reflex adapter or SZX-PHA photomicrographic adapter can be mounted.

★ When no adapter is mounted, cap the mount to prevent reverse incident light.

Positioning grooves  
(4 grooves at 90° intervals)

## 2 Assembly




★ When mounting the microscopic system, make sure that all parts are free of dust and dirt and assemble them carefully.



1. Use the Allen screwdriver to loosen the observation tube clamping screw on the zoom microscope body and remove the observation tube.
2. Mount the SZX-BS beam splitter on the observation tube mount after removing the observation tube.
- ★ **Align the positioning groove on the bottom of the SZX-BS with the positioning pin on the zoom microscope body.**
3. Mount the observation tube on the SZX-BS.
4. Mount an adapter (either the SZX-SLR or SZX-PHA) on the photomicrographic/TV system mount. Additional information on these adapters is provided in a later section of this manual.

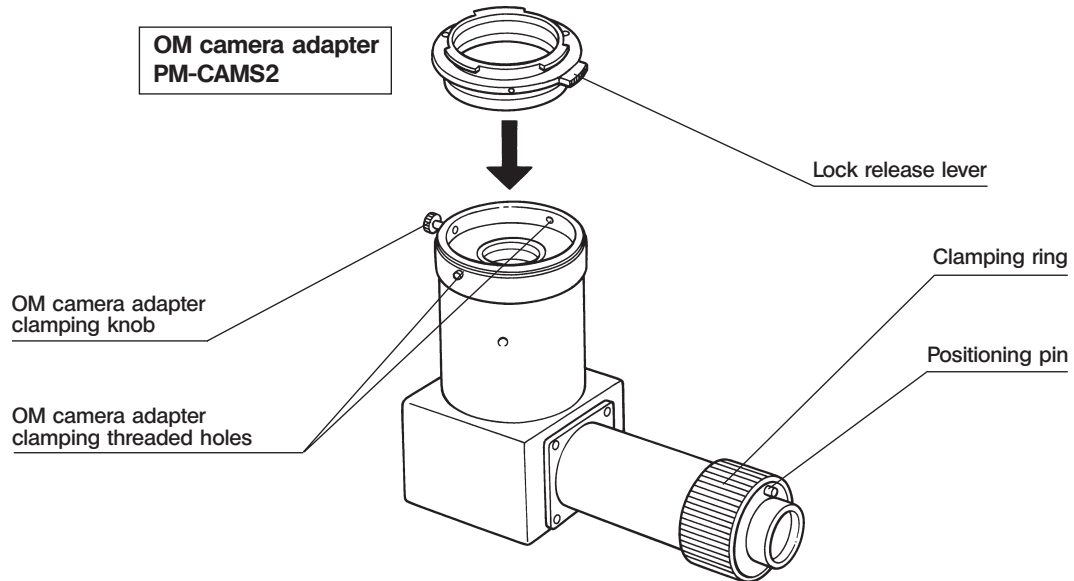
### 3 Operation

★ To change the light path, gently slide the lever back and forth to one of the click stop positions.

Lever Position	Light Intensity Ratio	
	Observation	Photomicrography/TV
Pushed in (  )	100%	0
Intermediate (  )	50%	50%
Pulled out (  )	0	100%

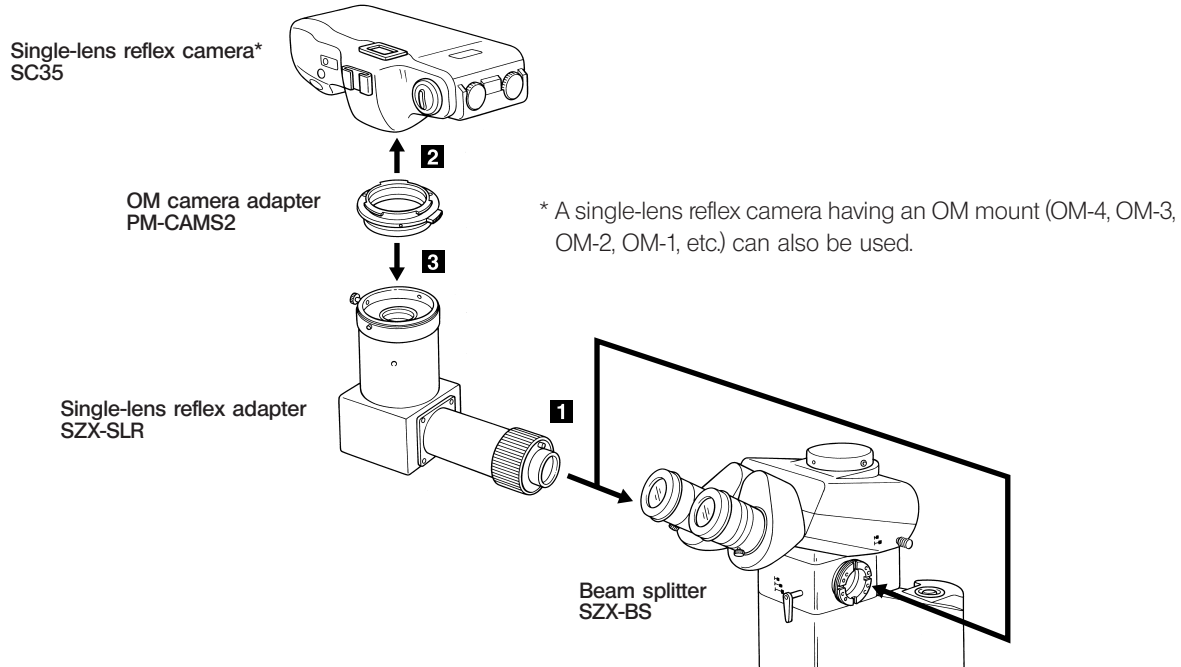
# SINGLE-LENS REFLEX ADAPTER SZX-SLR

## 1 Controls



## 2 Assembly

★ When mounting the microscopic system, make sure that all parts are free of dust and dirt and assemble them carefully.



1. Mount the SZX-SLR single-lens reflex adapter onto the left or right mount on the SZX-BS beam splitter.  
The standard mounting orientation is vertically upward but mounting in the horizontal or downward orientation is also acceptable.
  - Align the positioning groove on the SZX-SLR with that on the SZX-BS, fit them and clamp by turning the clamping ring clockwise.
2. Align the index on the PM-CAMS2 OM mount adapter with the red index on the SC35 single-lens reflex camera's lens mount. Then, with the PM-CAMS2 fitted to the mount, rotate it until it clicks. (This is the same procedure used to mount an interchangeable lens on a camera.)
3. Mount the SC35 camera (with PM-CAMS2) on the SZX-SLR and tighten the OM camera adapter clamping knob.  
© Three threaded holes are provided for attaching the clamping knob. These allow you to remove the knob and attach it to the easiest-to-operate position.

#### Photographing magnification

$$\text{Objective magnification} \times \frac{\text{Total magnification reading on the zooming knob}}{10} \times 2.5$$

### 3 Photographing

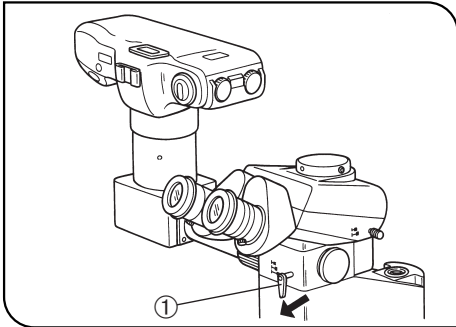


Fig. 1

1. Slide the light path switch knob ① on the SZX-BS beam splitter to select the desired light path.
2. Look into the camera viewfinder and adjust the focus with the coarse and fine focus adjustment knobs.
  - ⊙ It is recommended that you use a variable-magnification viewfinder for accurate focusing at a low magnification.
3. Gently release the shutter.
  - ⊙ It is recommended that you use a cable release to prevent picture blur from occurring when the shutter is released.

#### Determining the camera exposure

The optimum exposure is dependent on the specimen brightness, film speed and photographing magnification. Adjust the exposure by referring to the camera's exposure meter.

Camera in Use	Meter Switch	Exposure
OM-3, OM2000	ON	Optimum exposure is determined according to the shutter dial.
SC35, OM-4	AUTO	Automatic exposure

★ Refer to the camera's instruction manual for details of camera operation.

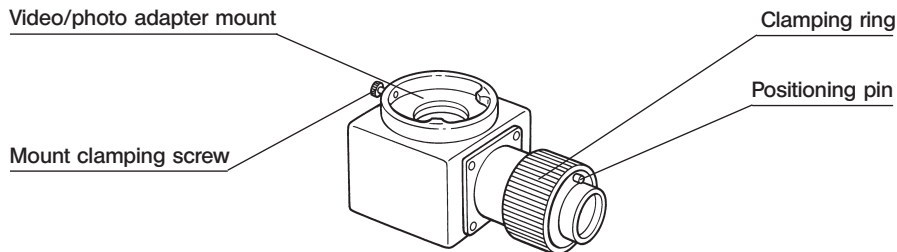
**Note on color photography**

To obtain the best possible color reproduction with daylight type color film, the color temperature of the illumination must be set according to that specified for the film. Select an optimum color filter by referring to the following table.

Illumination \ Condition	Voltage	Filter
SZX-ILLC	Max.	30.5S-LB80 (mounted on the LG-PS2)
SZX-ILLK SZX-ILLB SZX-ILLD	Max.	45LBD2-N Built-in LBD Built-in LBD

# PHOTOGRAPHIC ADAPTER SZX-PHA

## 1 Controls

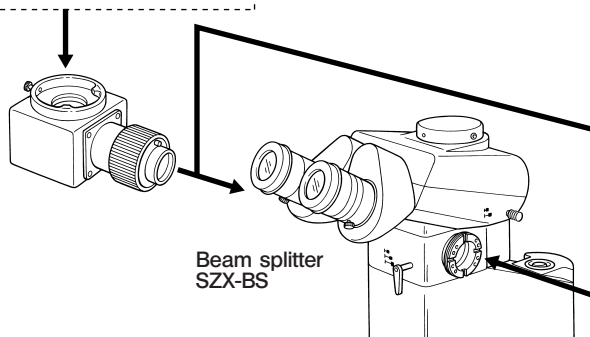


## 2 Assembly

★ When mounting the microscopic system, make sure that all parts are free of dust and dirt and assemble them carefully.

For details on the video/photo adapters, see the system diagram on page 1.

Photographic adapter  
SZX-PHA



1. Mount the SZX-PHA photographic adapter on the SZX-BS beam splitter's left or right mount.
  - Align the positioning pin on the SZX-PHA with the positioning groove on the SZX-BS, fit them and clamp by turning the clamping ring clockwise.
- ★ **The standard mounting orientation is vertical. However, if vertical space is limited (for example, when mounting a TV camera), the adapter can be mounted horizontally, provided that safe operation can be ensured.**
2. Mount the TV adapter you are going to use.

Refer to the video/photo adapters' instruction manual for details on mounting procedures.

### 3 Operation

Adjust the following items by referring to the video/photo adapters' instruction manual.

1. Optical adjustments on the microscope (SZX instruction manual)
2. TV camera and monitor adjustments (corresponding instruction manuals)
3. Matching observed and monitored images (video/photo adapters' instruction manual)
4. TV camera orientation adjustment (video/photo adapters' instruction manual)

# *MEMO*





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