

INSTRUCTIONS

SZX-RFA

COAXIAL FLUORESCENCE ATTACHMENT

To ensure safety, obtain optimum performance, familiarize yourself fully with the use of this equipment, we recommend that you study this manual thoroughly before operating the microscope. Retain this instruction manual in an easily accessible place near the work desk for future reference.

IMPORTANT

This equipment can provide the highest level of brightness required in macro fluorescence observation when combined with the SZX-ZB12 zoom microscope body, DFPLAPO1.2XPF objective and IX-UCLHG/XE collector lens.




★ When this equipment is combined with the SZX-ZB9 zoom microscope body, an objective of 0.75X or less and/or other collector lens than specified above, the brightness and contrast may be degraded.

SAFETY PRECAUTIONS

1. This equipment consists of precision instruments. Handle it with care and avoid subjecting it to sudden or severe impact.
2. The ultrahigh pressure mercury burner used should be the USH102D DC burner (mfd. by Ushio Inc.), that Olympus supplies.
3. Ensure that the burner is installed and that connection cords are connected properly before operating the unit.
4. Do not open the lamp housing while the lamp is turned on, or for at least 10 minutes after the lamp has been turned off. Lamp housing parts are extremely hot and will cause burns if touched. (See page 9)
5. Do not apply excessive force to the stoppers which are provided for some functions. Otherwise the stopper may be damaged.
6. Do not attempt to open or disassemble the power supply unit because it includes high voltage parts inside.
7. To ensure safety, be sure to **ground** the power supply unit. Otherwise the intended electrical safety performance cannot be obtained.
8. Before opening the lamp housing for replacement of the burner or any other internal part, set the main switch to "○" (OFF), unplug the lamp housing's connecting cord plug from the output connector on the power supply unit, and wait for 10 minutes or more, until the lamp housing cools down.
9. Before replacing the mirror unit, be always sure to set the shutter slider of the illuminator tube in the fully pulled-out (light-excluding) position or set the main switch of the power supply unit to "○" (OFF).



Safety Symbols

The following symbols are found on the equipment. Study the meaning of the symbols, and always use the equipment in the safest possible manner.

Symbol	Explanation
	Indicates the presence of high voltage (1 kV or more). Take caution to guard against electric shock.
	Indicates that the surface becomes hot, and should not be touched with bare hands
	Before use, carefully read the instruction manual. Improper use could result in personal injury to the user and/or damage to the equipment.
	Indicates that the main switch is ON.
○	Indicates that the main switch is OFF.

Warning Indications

Warning indications are placed at parts where special precaution is required when handling and using the equipment. Always heed the warnings.

Warning indication position	Lamp housing (U-ULH)	[Warning against high temperature]	
	Burner socket (U-ULS100HG)		
	Lamp housing (U-ULH)	[Warning against high voltage]	

1 Getting Ready

1. This manual pertains only to the coaxial fluorescence attachment. Before using this attachment together with the SZX microscope and associated options, make sure that you have carefully read and understood their manuals, and understand how the microscopic system should be used together.
2. The coaxial fluorescence attachment is a precision instrument. Handle it with care and avoid subjecting it to sudden or severe impact.
3. Do not use the equipment where it is subjected to direct sunlight, high temperature and humidity, dust or vibrations. (The operating environment should be identical to that of the SZX microscope body)
4. Always use the power cord provided by Olympus. Before plugging the power cord, make sure that the main switch of the power supply unit is set to “○” (OFF).
5. To allow heat from the unit to dissipate well, reserve a distance of at least 10 cm between the lamp housing and power supply unit.
6. The power cord can be used to cut the power supply in case of emergency. To make this possible, the power supply unit should be installed so that the power input connector (on the rear of the power supply unit) or the power outlet is easily accessible for unplugging in case of emergency.

2 Maintenance and Storage

1. To clean the lenses and other glass components, simply blow dirty away using a commercially available blower and wipe gently using a piece of cleaning paper (or clean gauze).
If a lens is stained with fingerprints or oil smudges, wipe it gauze slightly moistened with commercially available absolute alcohol.
▲ Since the absolute alcohol is highly flammable, it must be handled carefully.
Be sure to keep it away from open flames or potential sources of electrical sparks — for example, electrical equipment that is being switched on or off.
Also remember to always use it only in a well-ventilated room.
2. If any part of the equipment (other than glass components) gets dirty, wipe it with a clean cloth. If the part is extremely dirty, do not use organic solvents to clean it; instead, use a soft, lint-free cloth lightly moistened with a diluted neutral detergent.
3. Do not disassemble any part of the equipment. This could result in malfunctions or reduced performance.
4. The burner has a service life period of 200 hours. When the hour counter on the power supply unit indicates 200 hours, replace the burner with a new one. (See page 7)

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 use the equipment as outlined in the instruction manual.

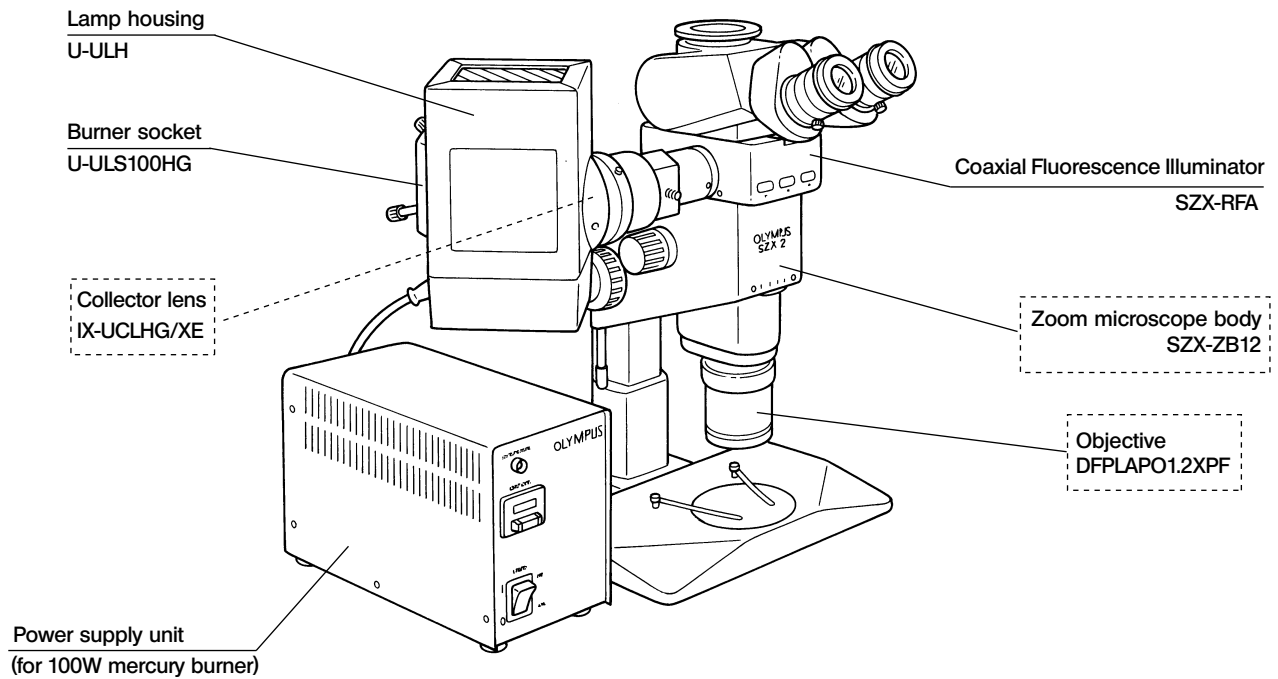
The following symbols are used to set off text in this instruction manual.

- ▲ : 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 the equipment.
- ◎ : Indicates commentary (for ease of operation and maintenance).

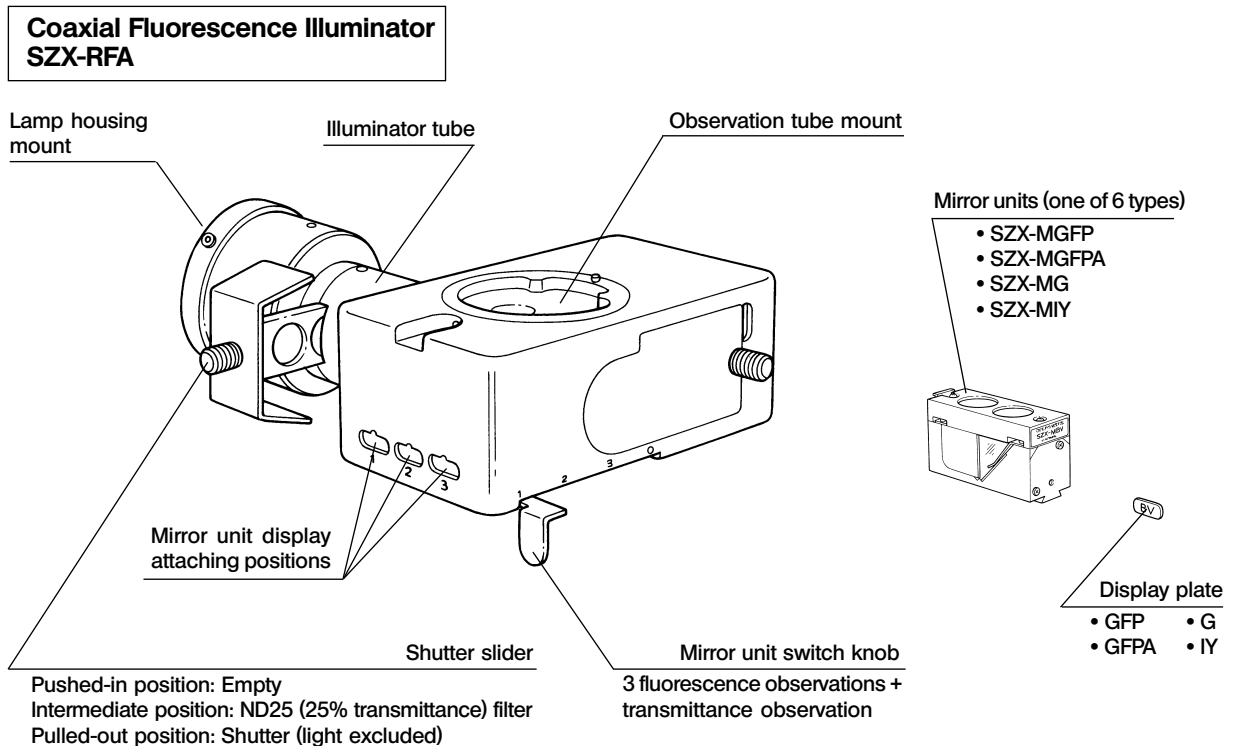
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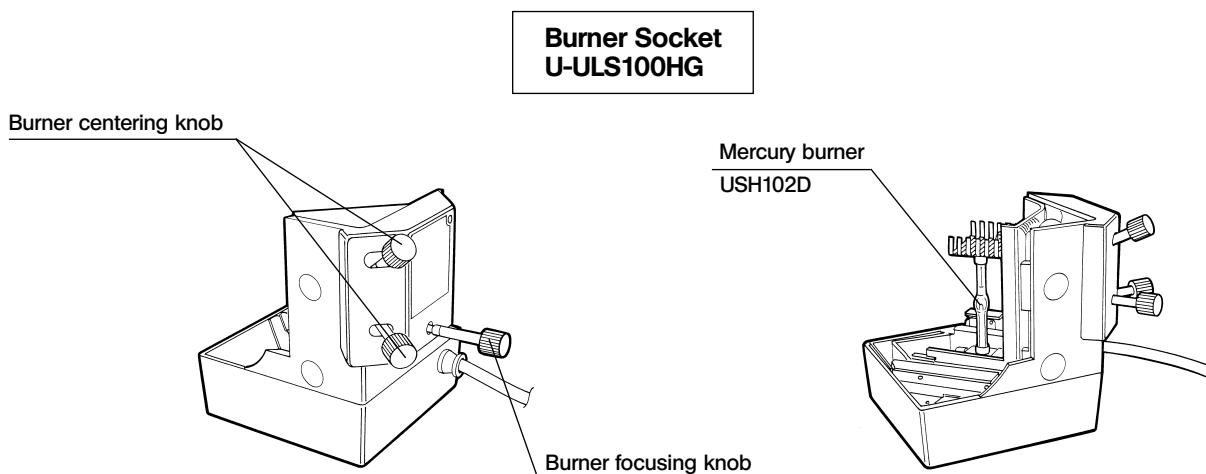
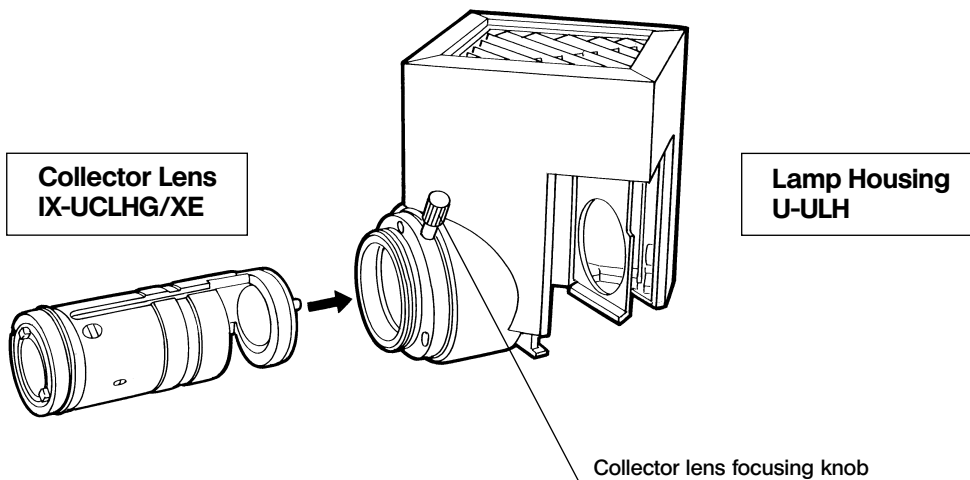
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1 MODULE NOMENCLATURE

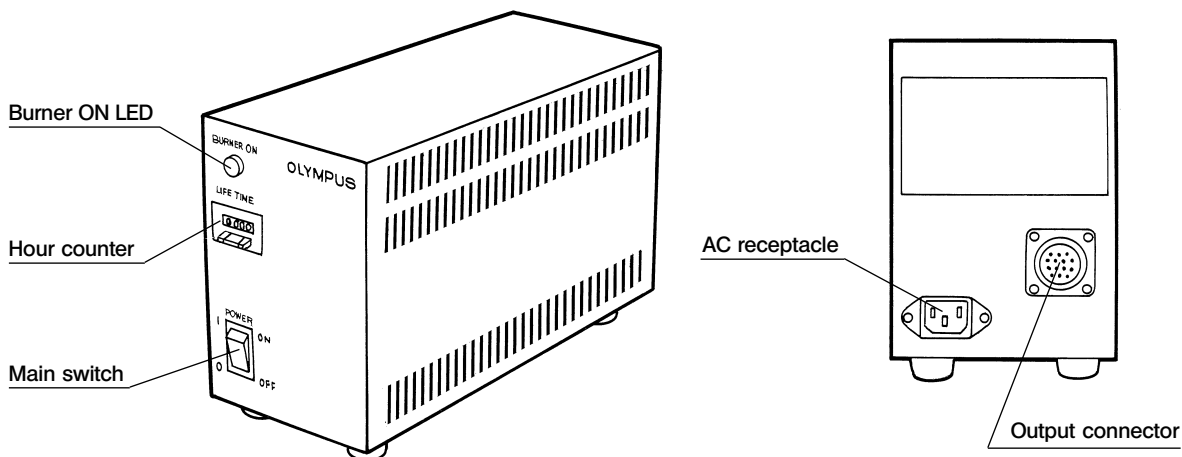


2 CONTROLS





Power Supply Unit (for 100W mercury burner)



3 ASSEMBLY

3-1 Assembly Diagram

© For the assembly of the SZX microscope, refer to the separate instruction manual for the SZX microscope.

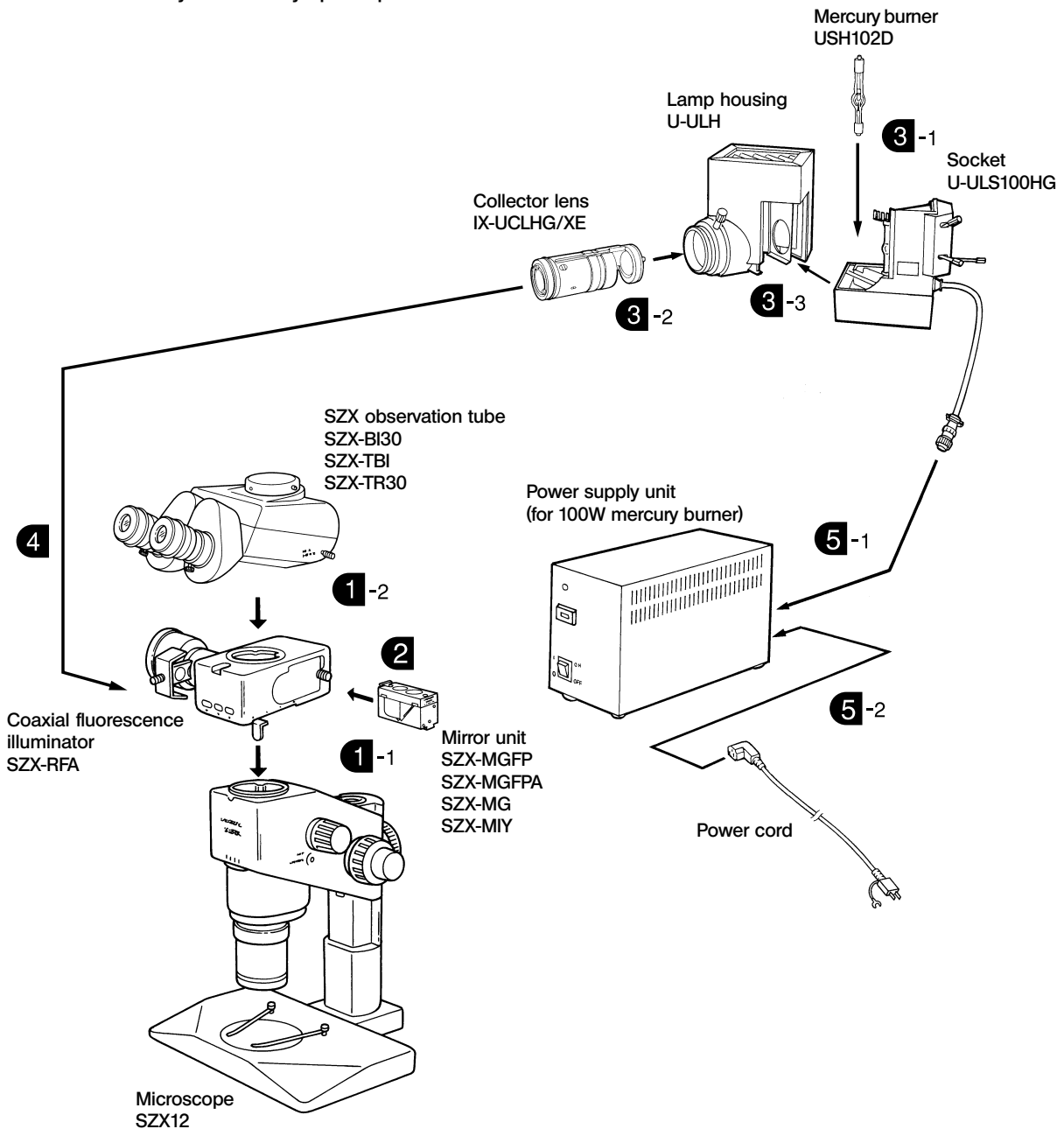
★ Remove dirt and dust from each part before assembly, and assemble the parts carefully by following the numbers shown in the figure.

★ When the SZX-RFA is combined with another intermediate attachment, some part of image may be cut off and the performance may be degraded. Also note that the SZX-RFA cannot be combined with the SZX-ILLC.

In case the SZX-RFA is combined with another intermediate attachment, always position the intermediate attachment above the SZX-RFA. If the intermediate attachment is located below the SZX-RFA, it cannot exhibit full illumination performance.

★ When the SZX-BS beam splitter is used together with this attachment, it is not possible to attach the SZX-SLR single lens reflex adapter onto the left side.

The SZX-BS manufactured prior to February 1998 has a light path switch knob that is too long and interferes with the SZX-RFA. Contact your local Olympus representative for assistance.



3-2 Detailed Assembly Procedures

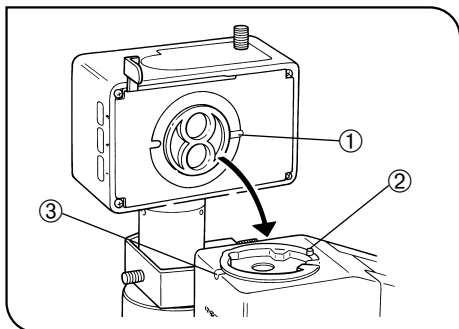


Fig. 1

1 Attaching the Coaxial Fluorescence Illuminator (Fig. 1)

1. Remove the observation tube from the microscope.
2. Attach the coaxial fluorescence illuminator onto the microscope body by aligning the illuminator's positioning groove ① with the microscope's positioning pin ②.
3. Tighten the observation tube clamping screw ③ using an Allen screwdriver.
4. Attach the observation tube, which has been removed in step 1, above the coaxial fluorescence illuminator.

2 Installing the Mirror Units (Figs. 2-4)

★ Handle the filters and mirrors of the mirror units so as not to stain them with fingerprints, etc.

▲ When it is required to change the initial setup later, be always sure to set the shutter slider of the illuminator tube in the fully pulled-out (light-excluding) position or set the main switch of the power supply unit to "O" (OFF) in advance.

★ Up to 3 mirror units can be installed by numbering them 1, 2 to 3 from rear to front (note that this numbering order is the reverse of the indications on the switch knob).

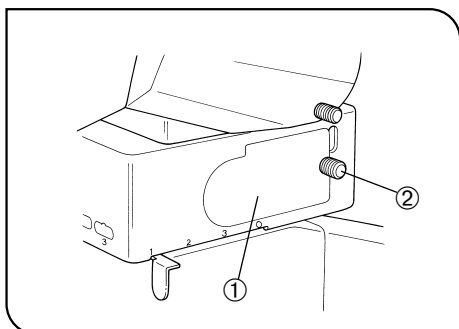


Fig. 2

1. Loosen and remove the lock knob ② of the cover panel ① on the illuminator tube. The cover plate is attached by magnetism on the illuminator tube, but can be removed easily by pulling lightly.
2. Slide the mirror unit switch knob ③ to a position in which each mirror unit can be installed easily.
3. Using the Allen screwdriver provided with the microscope body, slightly loosen the mount dovetail lock screw ④.
4. Screw in the lock knob ② into the mirror unit ⑤ to be installed, insert the mirror unit straight and all the way into the illuminator tube along the mount dovetail, and tighten the mount dovetail lock screw ④ securely.

★ If the mirror unit is inclined vertically or horizontally, smooth insertion is not possible.

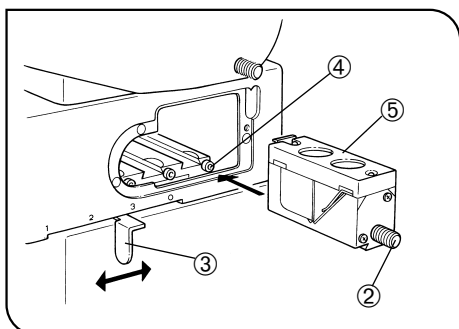


Fig. 3

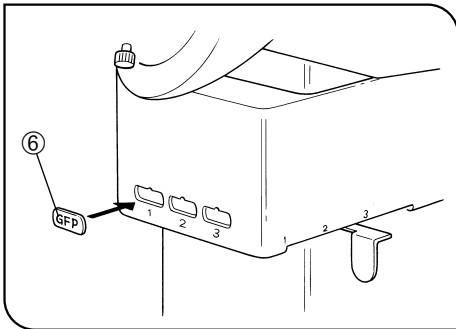


Fig. 4

5. Attach the mirror unit display plate ⑥ provided with the mirror unit to one of the display attaching positions on the front panel by means of magnetism.

Ⓞ Install other mirror units in the same way as detailed above.

★ **One or two mirror unit dovetails may not have a mirror unit installed. Even in this case, tighten their lock screws tightly.**

If the lock screws are not tightened, they may slip out during the use of the unit, making it impossible to slide the mirror unit switch knob.

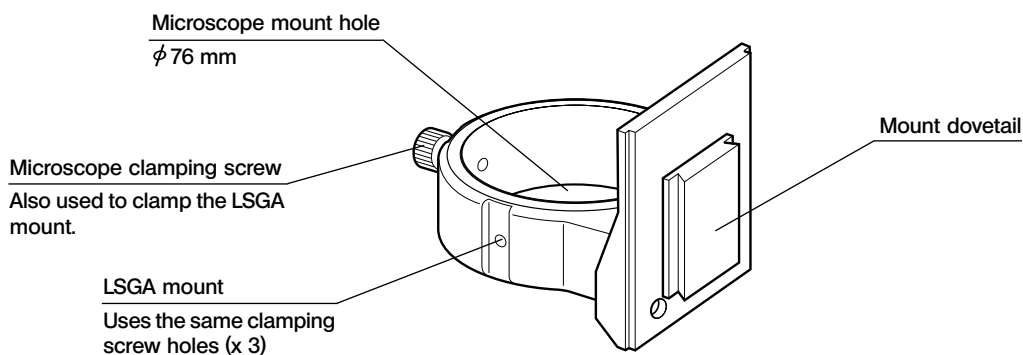
6. After having installed the required mirror units, place the cover panel ① in the original position by tightening the lock knob ②.

When Using the SZX7 Microscope Frame

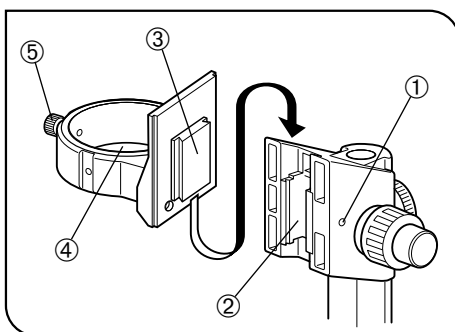
Ⓞ The SZX-STF Focusing Adapter for Ring Mount makes it possible to build a system using the SZX-ZB7 (SZX7 microscope frame) + SZX-RFA (coaxial reflected fluorescent light illuminator) + SZX-ST/SZX-ILL series (SZX base series).

The use of the SZX-STF improves the stability of the microscope and reduces oscillations, which pose a problem during fluorescent light imaging under extended exposure or during high-magnification observations.

1. External View and Nomenclature of the SZX-STF Adapter



2. Attaching the SZX-STF Adapter



1. Remove the cap ① of the focus adjustment section by inserting the tip of a pointed object into the notch.

2. Using the Allen wrench provided with the SZX7 microscope frame, turn the dovetail clamping screw inside the focusing module cap by 2 or 3 turns (counterclockwise) to loosen the screw.

3. Fit the mount dovetail ③ on the rear of the adapter gently into the mount dovetail ② of the focusing section.

★ **Do not fit obliquely or push in by force, as this may damage the functionality.**

4. After fitting the dovetail till the stop position, tighten the clamping screw and attach the cap again.

5. Fit the SZX7 microscope frame gently into the microscope mount hole ④ and tighten the microscope clamping screw ⑤.

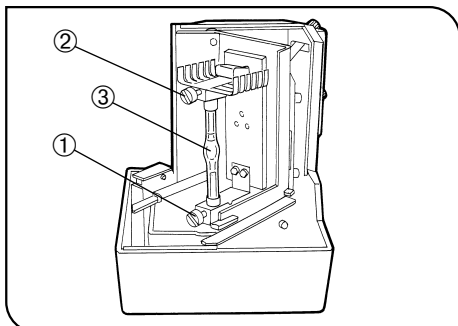


Fig. 5

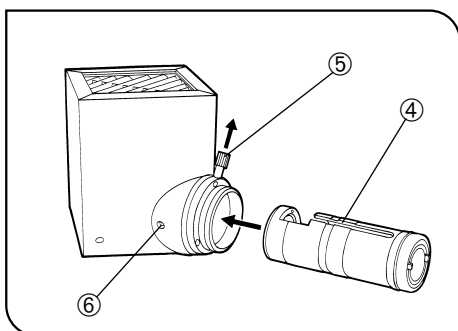


Fig. 6

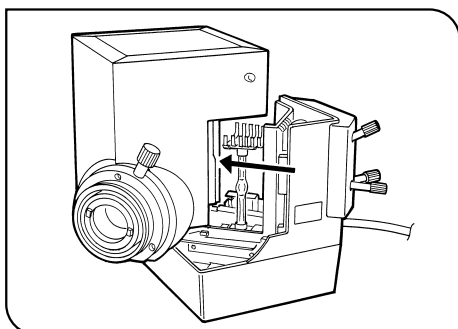


Fig. 7

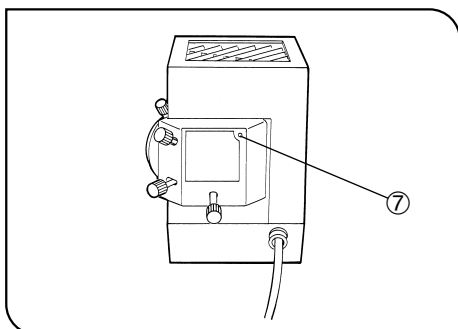


Fig. 8

3 Assembling the Lamp Housing (Figs. 5 - 8)

Attaching the Mercury Burner

1. Remove the burner mount holder for transportation by loosening the burner clamping screws ① and ② (Fig. 5). (Also remove the old burner in case of burner replacement.)
2. Place a mercury burner ③ with the + pole down, and tighten the + pole with the screw ①.
Then loosen the screw ② of the - pole, insert the - pole (indicated UP) of the burner into the - pole side hole of the lamp socket and tighten securely with the screw ②.

- ★ Be sure to use the USH102D burner.
- ★ Be careful not to stain the burner with fingerprints or dirt. If it is contaminated, clean by wiping gently with a piece of gauze slightly moistened with a mixture of ether (70%) and alcohol (30%) or alcohol.
- ★ After doing the above, attach the collector lens.
- ★ To prevent damage to the burner, the collector lens is designed to be attachable or removable only after the socket and lamp housing have been removed.

Attaching the Collector Lens

1. While pulling up the collector lens focusing knob ⑤ up, push in the collector lens by aligning its positioning groove ④ with the pin inside the opening. After inserting the lens until it stops, release the knob ⑤. Now turn the knob and ensure that the collector lens moves in two ways. If it does not move, move it manually until it reaches a position where it clicks into place.
2. Tighten the collector lens clamping screw ⑥. (Fig. 6)

CAUTION Illumination performance cannot be guaranteed if this screw is not tightened securely.

3. Insert the lamp socket into the lamp housing. (Fig. 7)
 4. Tighten the socket clamping screw ⑦ using the Allen screwdriver. (Fig. 8)
- ★ If the socket clamping screw ⑦ is loosened by mistake while the lamp is lit, the safety mechanism is activated to turn the light off. To turn it on again, set the main switch of the power supply unit to "O" (OFF), unplug the lamp housing's connecting cord plug from the output connector on the power supply unit, wait for about 10 minutes, tighten the socket clamping screw ⑦, then set the main switch to "I" (ON). (Fig. 8)

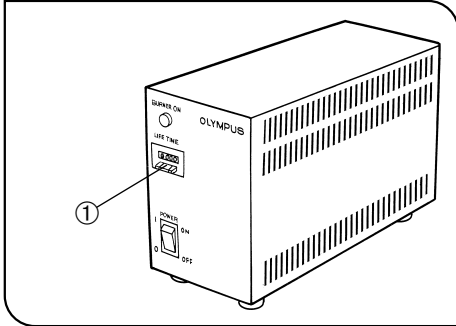


Fig. 9

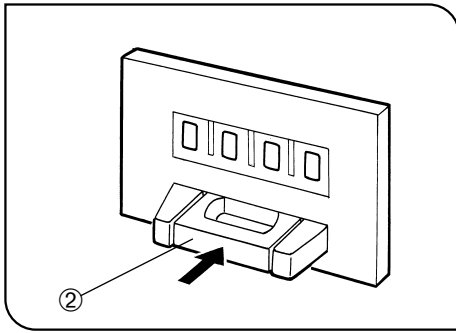


Fig. 10

Resetting the Burner Hour Counter

1. Press the center of the reset button ② (Fig. 10) on the power supply unit's front panel ① (Fig. 9) to reset the burner life indicator to 000.0.
- Ⓢ The indicator shows elapsed time in hours. For safety's sake, replace the burner when the indicator counts 200.0 hours. Make sure that the indicator is properly reset to 000.0. The burner may not start if the indicator is not properly reset.

Mercury Burner Replacement

1. In order not to impair the safety of the equipment, replace the burner when it has been used for 200.0 hours. The burner may crack if used beyond the specified life time.
2. Before replacing the burner, wait at least 10 minutes after turning the burner off. Before removing the burner, confirm that the main switch on the power supply unit is "O" (OFF), and unplug the connecting cord plug from the output connector on the power supply unit. Refer to page 6 for details on replacement procedure.
3. After replacing the burner, reset the burner life time hour counter to "000.0" as outlined above.

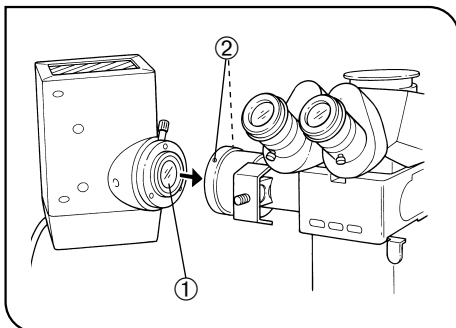


Fig. 11

4 Mounting the Lamp Housing

(Fig. 11)

1. Insert the collector lens portion ① of the lamp housing into the coaxial fluorescence illuminator and push inward until it stops.
2. Tighten the two collector lens clamping screws ② with the Allen screwdriver.

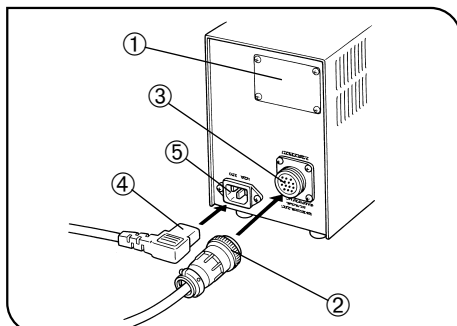


Fig. 12

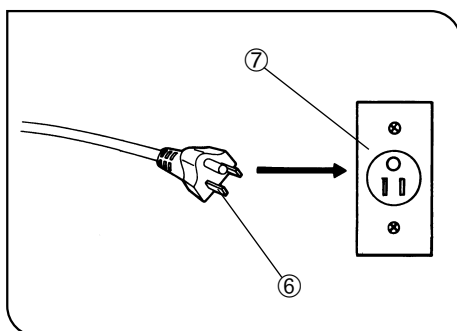


Fig. 13

5 Connecting the Power Supply Unit (Figs. 12 & 13)

▲ Cables and cords can easily be damaged when bent or twisted. Do not subject them to excessive force.

▲ Make sure that the main switch of the power supply unit is set to “O” (OFF) before connecting the power cord.

1. Verify that the voltage and frequency of the mains outlet match the requirements indicated on the rating plate ① on the power supply unit. (100V systems can be used with voltages in the 100–120V range and 200V systems can be used with voltages in the 220–240V range, both with frequencies of 50–60 Hz.)

2. Securely plug the burner socket's connecting power cord ② into the power supply unit's output connector ③.

▲ Always use the power cord provided by Olympus. If no power cord is provided, please select the proper power cord by referring to the section “PROPER SELECTION OF THE POWER SUPPLY CORD” at the end of this instruction manual.

3. Securely insert the power cord connector ④ into the AC receptacle ⑤.

4. Insert the power cord plug ⑥ into a wall outlet ⑦.

▲ Connect the power cord correctly and ensure that the ground terminal of the power cord plug and that of the wall outlet are properly connected. If the equipment is not grounded, Olympus can no longer warrant the electrical safety and performance of the equipment.

▲ The power supply unit must be located/installed in such a way that there is easy access to the AC inlet located on the rear of the equipment as the AC inlet is designated as the main disconnecting device for this equipment.

4 OPERATION

★ Overall precautions for observation

1. Verify that the power supply voltage and frequency match the requirements indicated on the name plate.
2. Make sure that the power cord and connecting cord are plugged in securely.
3. Engage the shutter if you interrupt observation for a short time.
(Turning the mercury burner on and off (setting the main switch to "I" (ON) and "O" (OFF) repeatedly will significantly shorten the life span of the burner)
4. The mercury burner radiates UV rays which are dangerous to the human body. Therefore, do not turn on the burner unless the equipment is properly assembled.
5. Set the shutter slider to the pulled-out (light-excluding) position during transmitted brightfield observation.
6. Do not apply excessive load onto the lamp housing and illuminator tube by placing your hand on them, etc. Otherwise the equipment may fall down or the alignment of the optics may be altered.

1 Turning on the Power Supply Unit

Set the main switch to "I" (ON). Between 5 and 10 minutes are required for the arc to stabilize after the burner is ignited.

- ★ Some mercury burners may not ignite the first time the power is turned on. If the burner does not ignite, set the main switch to "O" (OFF) once, then set the main switch to "I" (ON) again after 5 to 10 seconds.
- ★ To avoid shortening the life of the burner, do not turn the burner off within 15 minutes of ignition.
- ★ After turning the burner off, it cannot be re-ignited until the mercury vapor cools and condenses to liquid. Wait for about 10 minutes before restarting the burner.
- ★ Even while the burner is turned on, opening the lamp housing causes the safety interlock function to shut off power automatically. In this case, set the main switch to "O" (OFF), and then wait for more than 10 minutes before restarting the burner. Before opening the lamp housing, wait until it becomes sufficiently cool.
- ★ When resetting the hour counter, be sure to hold down its button until it reads "000.0".

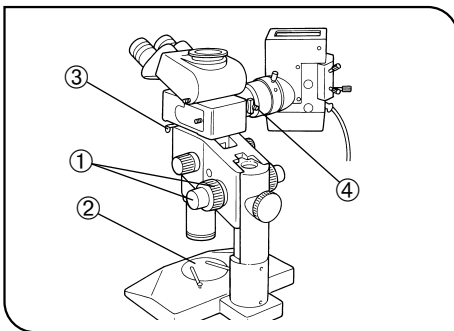


Fig. 14

2 Centering the Mercury Burner

(Figs. 14 - 16)

1. With the objective attached, turn the coarse and fine adjustment knobs ① to bring the stage plate ② into approximate focus.
The zoom magnification should be set to the lower magnification.
 2. Set the mirror unit switch knob ③ to the "GFP" or "GFPA" position.
If these positions are not available due to the current mirror unit combination, select a desired mirror unit position.
 3. Slide the shutter slider ④ to the "ND25" or "empty" light path.
- ★ If a desired mirror unit position is selected, the brightness may be too strong, making it difficult to center the mercury burner. So select the darkest mirror unit among the connected mirror units. Also, the brightness will decrease when the black side of the stage plate (or black paper) is used.

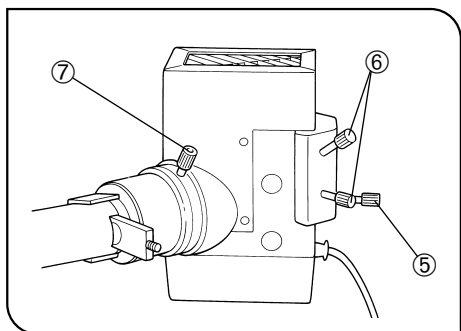


Fig. 15

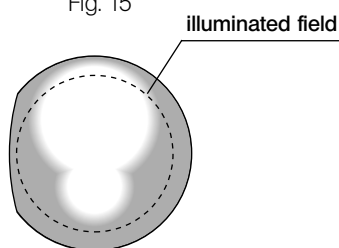


Fig. 16-A

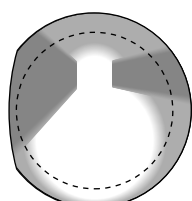


Fig. 16-B

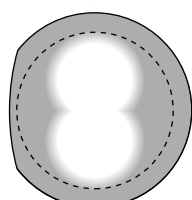


Fig. 16-C

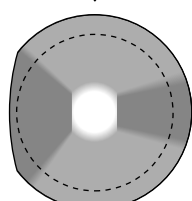


Fig. 16-D

4. Screw in the burner focusing knob ⑤ fully.
5. Using the burner centering knobs ⑥, adjust so that two arc images of the specimen will be visible as shown in Fig. 16-A .

★ During centering with the minimum zoom magnification, the left side of the illuminated field may be vignetted. However, the illuminated field in actual use is not affected.

6. Using the collector lens focusing knob ⑦ bring either one of the two arc images into focus. (Fig. 16-B)
7. Using the burner focusing knob ⑤, adjust so that the sizes of two arc images will be almost identical. (Fig. 16-C)

★ At this point, the two arc images may shift. In this case, adjust the positions of the arc images using the burner centering knobs ⑥. When it is difficult to determine the sizes of the arc images, adjust by using the collector lens focusing knob ⑦ to bring the arc images into focus.

8. While turning the collector lens focusing knob ⑦ repeatedly, check that the degree of blurring of one arc image is equal to that of the other arc image. (That is, when one of two arc image is focused, check that the other arc image is in focus also.)

If the degree of blurring of one arc image is different from that of the other arc image (the focusing positions of two arc images do not match each other), repeat the above steps 6 – 8.

9. After making sure that the degree of blurring of one arc image is equal to that of the other arc image (the focusing positions of two arc images are identical), overlay the two arc images using the burner centering knobs ⑥ under in-focus condition.

10. After the two arc images are overlaid, they appear as shown in Fig. 16-D. This completes the burner centering adjustment.

Note that even if the arc images deviate from the center position to some extent, it will not pose any trouble in observation practice.

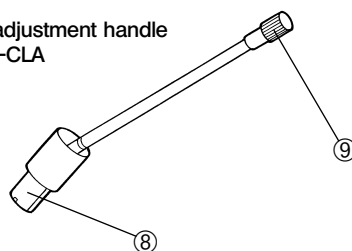
11. Before proceeding to observation, adjust the collector lens focusing knob ⑦ so that illumination on the visual field will be uniform.

⊙ When you have difficulties in operating the collector lens focusing knob, use the optional U-CLA collector lens adjustment handle which is shown below.

★ To avoid serious injury, never open the lamp housing while the burner is turned on or immediately after it is turned off.

⊙ Recenter the burner each time it is replaced.

Collector lens adjustment handle U-CLA



(Fit section ⑧ on the collector lens focusing knob and adjust by turning knob ⑨.)

5 OBSERVATION

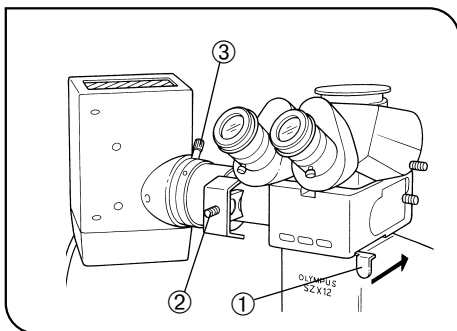


Fig. 17

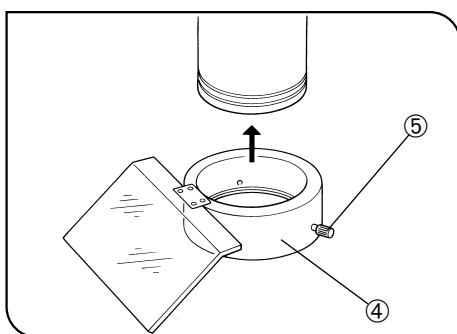


Fig. 18

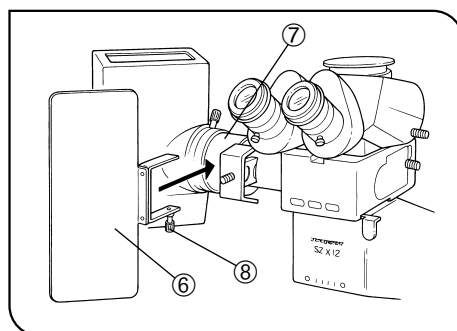


Fig. 19

1 Coaxial Reflected Fluorescence Observation

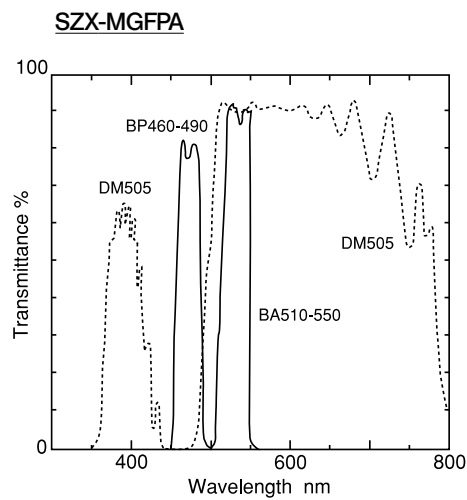
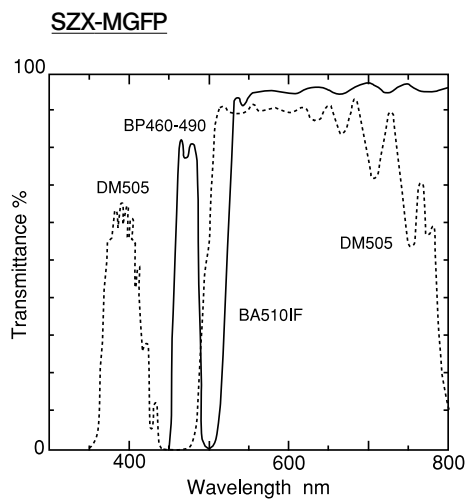
(Figs. 17 – 19)

- ⊙ Use the black side of the stage plate as the stage intermediate seat.
 - If the stage glass of the transmitted illumination base is used, image may become hard to observe due to the autofluorescence.
 - ⊙ If the reflection from the specimen surface makes viewing uncomfortable, attach the optional SZX-CCV glare shielding plate ④ onto the extremity of the objective and tighten the 2 clamping knobs ⑤. (Fig. 18)
 - ⊙ To cut off radiation heat from the lamp housing, fit the optional SZX-HPS protective shield ⑥ onto the illuminator tube ⑦, then tighten the clamping knob ⑧ to fix the protective shield. (Fig. 19)
1. Set the mirror unit switch knob ① to the desired fluorescence observation position.
 2. Set the shutter slider ② to the empty or ND filter position.
 3. Bring the specimen into focus and observe it.
- ⊙ Adjust the illuminated field by turning the collector lens focusing knob ③ on the lamp housing as required. Decreasing the illuminated field increases the brightness.
 - ⊙ To discontinue observation, set the shutter slider ② to the pulled-out (light-excluding) position.

Configuration of Mirror Units

Display Plate	Mirror Unit	Dichroic Mirror	Excitation Filter	Absorption Filter	Applications
(GFP)	SZX-MGFP	DM505	BP460-490	BA510 IF	GFP and B excited observation, YFP observation ★ GFP band pass observation is not available.
(GFPA)	SZX-MGFPA	DM505	BP460-490	BA510-550	GFP observation, B excited pigment band-pass observation
(G)	SZX-MG	DM580	BP460-560	O-590	G excited observation, TRITC dyeing, etc.
(Y)	SZX-MIY	DM600	BP540-580	BA610 IF	IY excited observation, Texas-Red dyeing, etc.

Spectral Characteristics of Filters



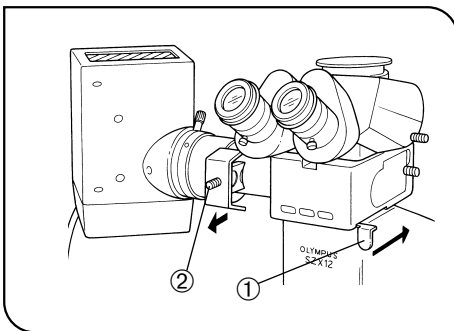
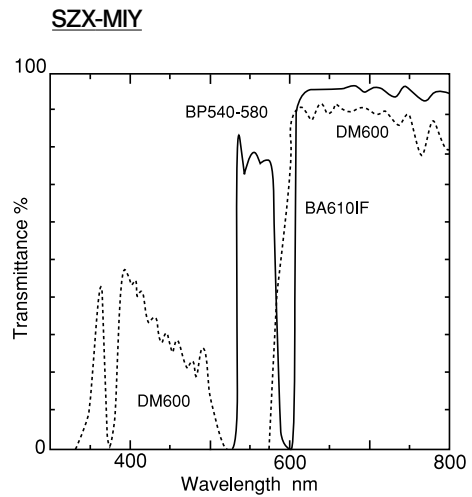
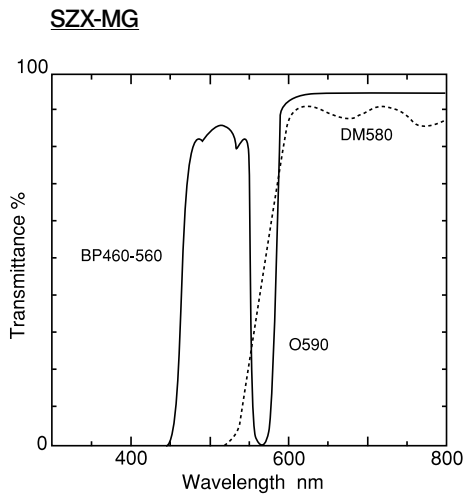


Fig. 20

2 Brightfield Observation

(Fig. 20)

1. Set the shutter slider ② to the pulled-out (light-excluding) position to cut the mercury burner illumination.
2. Set the mirror unit switch knob ① fully into the deepest position (indicated by ●).
3. Bring the specimen into focus and observe it.

■ PROPER SELECTION OF THE POWER SUPPLY CORD

If no power supply cord is provided, please select the proper power supply cord for the equipment by referring to “ Specifications ” and “ Certified Cord ” below:

CAUTION: In case you use a non-approved power supply cord for Olympus products, Olympus can no longer warrant the electrical safety of the equipment.

Specifications

Voltage Rating	125V AC (for 100-120V AC area) or, 250V AC (for 220-240V AC area)
Current Rating	6A minimum
Temperature Rating	60°C minimum
Length	3.05 m maximum
Fittings Configuration	Grounding type attachment plug cap. Opposite terminates in molded-on IEC configuration appliance coupling.

Table 1 Certified Cord

A power supply cord should be certified by one of the agencies listed in Table 1 , or comprised of cordage marked with an agency marking per Table 1 or marked per Table 2. The fittings are to be marked with at least one of agencies listed in Table 1. In case you are unable to buy locally in your country the power supply cord which is approved by one of the agencies mentioned in Table 1, please use replacements approved by any other equivalent and authorized agencies in your country.
















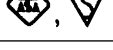



Country	Agency	Certification Mark	Country	Agency	Certification Mark
Argentina	IRAM		Italy	IMQ	
Australia	SAA		Japan	JET, JQA, TÜV, UL:APEX / MITI	
Austria	ÖVE		Netherlands	KEMA	
Belgium	CEBEC		Norway	NEMKO	
Canada	CSA		Spain	AEE	
Denmark	DEMKO		Sweden	SEMKO	
Finland	FEI		Switzerland	SEV	
France	UTE		United Kingdom	ASTA BSI	
Germany	VDE		USA.	UL	
Ireland	NSAI				

Table 2 HAR Flexible Cord

APPROVAL ORGANIZATIONS AND CORDAGE HARMONIZATION MARKING METHODS

Approval Organization	Printed or Embossed Harmonization Marking (May be located on jacket or insulation of internal wiring)		Alternative Marking Utilizing Black-Red-Yellow Thread (Length of color section in mm)		
			Black	Red	Yellow
Comite Electrotechnique Belge (CEBEC)	CEBEC	<HAR>	10	30	10
Verband Deutscher Elektrotechniker (VDE) e.V. Prüfstelle	<VDE>	<HAR>	30	10	10
Union Technique de l'Electricite' (UTE)	USE	<HAR>	30	10	30
Instituto Italiano del Marchio di Qualita' (IMQ)	IEMMEQU	<HAR>	10	30	50
British Approvals Service for Electric Cables (BASEC)	BASEC	<HAR>	10	10	30
N.V. KEMA	KEMA-KEUR	<HAR>	10	30	30
SEMKO AB Svenska Elektriska Materielkontrollanstalter	SEMKO	<HAR>	10	10	50
Österreichischer Verband für Elektrotechnik (ÖVE)	<ÖVE>	<HAR>	30	10	50
Danmarks Elektriske Materialkontroll (DEMKO)	<DEMKO>	<HAR>	30	10	30
National Standards Authority of Ireland (NSAI)	<NSAI>	<HAR>	30	30	50
Norges Elektriske Materielkontroll (NEMKO)	NEMKO	<HAR>	10	10	70
Asociacion Electrotecnica Y Electronica Espanola (AEE)	<UNED>	<HAR>	30	10	70
Hellenic Organization for Standardization (ELOT)	ELOT	<HAR>	30	30	70
Instituto Portages da Qualidade (IPQ)	np	<HAR>	10	10	90
Schweizerischer Elektro Technischer Verein (SEV)	SEV	<HAR>	10	30	90
Elektriska Inspektoratet	SETI	<HAR>	10	30	90

Underwriters Laboratories Inc. (UL)
Canadian Standards Association (CSA)

SV, SVT, SJ or SJT, 3 X 18AWG
SV, SVT, SJ or SJT, 3 X 18AWG

This device complies with the requirements of both directive 89/336/EEC concerning electromagnetic compatibility and directive 73/23/EEC concerning low voltage. The CE marking indicates compliance with the above directives.

MEMO

MEMO

This product is manufactured by **EVIDENT CORPORATION** effective as of Apr. 1, 2022.
Please contact our "Service Center" through the following website for any inquiries or issues related to this product.

EVIDENT CORPORATION

6666 Inatomi, Tatsuno-machi, Kamiina-gun, Nagano 399-0495, Japan

(Life science solutions)

Service Center

<https://www.olympus-lifescience.com/support/service/>



(Life science solutions)

Our Website

<https://www.olympus-lifescience.com>



(Industrial solutions)

Service Center

<https://www.olympus-ims.com/service-and-support/service-centers/>



(Industrial solutions)

Our Website

<https://www.olympus-ims.com>

