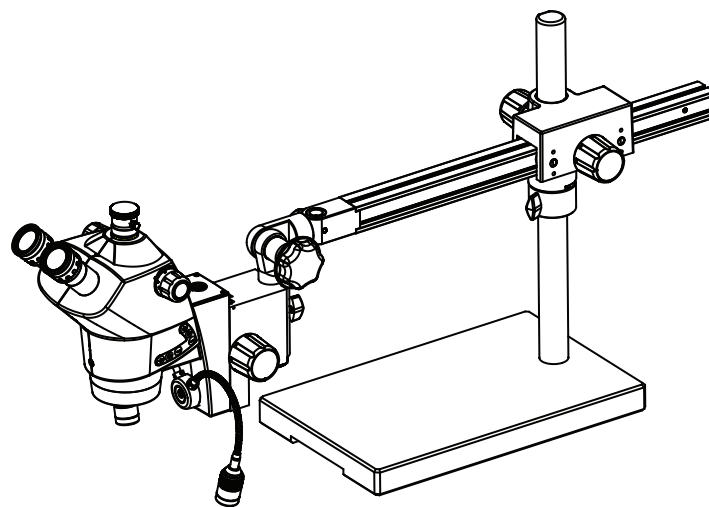
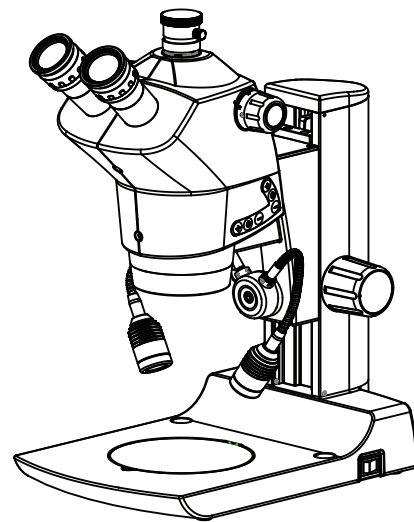
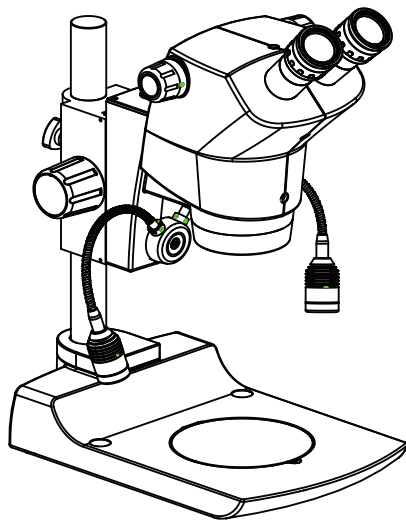


# Luxeo 6z Stereo Zoom Microscopy

## User Manual



To ensure proper use of this instrument as well as to avoid injury while operating Instrument, understanding this manual completely before use is highly recommended.

Part no.: 4146000-795  
Issue 1.2  
Printed on April,2021

# CONGRATULATIONS

Congratulations on purchasing a LABOMED Luxeo 6z- an excellent choice!

The outstanding features of this stereo microscope are its flexible design, its ease of use and Absolutely maintenance-free performance. Sturdy and reliable, it is exceptionally well suited to Manufacturing tasks, testings, quality control and other industrial applications.

In developing the LABOMED Luxeo 6z, we have placed great emphasis on simple, self-explanatory operation. However, please take the time to read the user manual and the notes on operating safety to learn about all the features and capabilities to use them to your best advantages.

Should you have any questions, please consult your local Labomed representative. We are gladly to be at your service!

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# 1. INTRODUCTION

The Luxeo 6z is a stereoscopic zoom microscope reflecting a modern design as well as the latest in optical and mechanical advancements.

Designed for professionals as well as students, this microscope offers many features and functions for a diverse set of applications.

Extra clarity and contrast is provided through a Binocular body inclined at 45°.

The pressure die cast stand consists of Ball bearing 'friction less' sideways focusing to avoid any loss in motion.

The sturdy new stylish design provides comfort as well as stability.

The lateral magnification changer allows comfortable and friction less movement for zoom magnification.

Extra excursion range provides opportunity to inspect larger & high objects.

The LED Ring Light configuration is a cluster of 23 LED's, switchable between arc illumination or full circular illumination. The Luxeo is used with direct input power supply of 110V - 240V AC 50Hz/60Hz. This ensures continuous operation even under fluctuating voltages.

Our LED on this instrument has an average life span of up to 50,000 hours.

## 2. SAFETY INFORMATION

### 2.1 SYMBOLS

#### Warning / Caution Symbols Used in this Manual

Though Labomed Products are designed to provide you with the utmost safety during use, incorrect usage or disregard of the instructions may cause personal injury or property damage. For your own safety, read the instruction manual carefully and thoroughly before using the product. Do not discard this manual. Always keep it near the product for easy reference. Inside this instruction manual, safety instructions are indicated with the symbols shown below. Be sure to follow the instructions marked with these symbols for your safety.



**WARNING**

Disregarding instructions marked with this symbol may lead to death or serious injury.



**CAUTION**

Disregarding instructions marked with this symbol may lead to injury or instrument damage.



**WARNING**

#### 1. Intended use of this product

This product is intended only for microscopy. Do not use it for any other purpose.

#### 2. Do not disassemble

Disassembly may result on damage to the instrument. Never disassemble any part except as described in this operation manual. Contact your LABOMED representative if you notice any Malfunction of this instrument.

#### 3. Check the input voltage

When using an illumination, check that the input voltage displayed on the power supply (supplied) matches the operating voltage. Contact your LABOMED representative voltage. Use of an improperly matched illuminator may result in damage to equipment.

#### 4. Power Cord

Always turn the power switch off and plug the power cord when replacing the lamp of an illuminator as failure to do so may result in electric shock or equipment damage.

#### 5. Heat from the light source

When using an illuminator, do not place cloth or paper or highly flammable materials, such as gasoline, benzene, thinner or alcohol, near the lamp as there is danger of fire.

# SAFETY INFORMATION (CONTINUED)

## CAUTION

### 1. Place of use

Use the stereo microscope in closed, dust free rooms at +10°C to +40°C. Protect it from oil, Chemicals and extreme humidity. Install electrical devices at least 10cm from the wall and away from flammable substances.

In warm and warm-damp climate zones, the individual components require special care in order to prevent the built-up of fungus.

### 2. Transport

If at all possible ,use the original packaging for shipping or transporting individual modules.

In order to prevent damage from vibrations, the customer should disassemble all moving parts according to the user manual and pack them separately.

### 3. Integration in third-party products

When installing Labomed products into third-party products, the manufacturer of the complete system or its dealer is responsible for following all applicable safety instructions, laws and guidelines.

### 4. Disposal

Disposal must comply with locally applicable laws and regulations.

If the warning label is stained or peeled off, contact your LABOMED distributor.

# SAFETY INFORMATION (CONTINUED)

## 2.2 IMPORTANT NOTES



Before installing, operating or using the instrument, it is mandatory to read this user manual. In particular, please observe all safety instructions.

### User Manual

This User manual includes important instructions related to operating safety, maintenance and Accessories.

- It is prohibited to reproduce or transmit this manual in part or whole without Labomed's expressed permission.
- The content of this manual are subject to change without notice.
- Although every effort had been made to ensure the accuracy of this manual, if you note any points that are unclear or incorrect, contact your nearest Labomed representative.
- Some of the products described in this manual may not be included in the set you have purchased.
- If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

### Legal Requirements

Adhere to general and local regulations relating to accident prevention and environmental protection.

### EC Declaration of Conformity

Electrically operated accessories are constructed based on the state of the art of technology and are provided with an EC Declaration of Conformity.

# SAFETY INFORMATION (CONTINUED)

## 2.3 CARE & MAINTENANCE INSTRUCTIONS

### 1. General Instructions

- Protect the stereo microscope from moisture, fumes and acids and from alkaline, caustic and corrosive materials.
- Protect the stereo microscope from oil and grease. Never grease or oil mechanical parts or sliding surfaces.
- Follow the instructions of the disinfectant manufacturer.
- We recommend concluding a service contract with Labomed.

### 2. Cleaning the lenses

To clean the lens surfaces, remove dust using a soft brush or gauze (compressed air dust cans are ideal). For removing finger marks or grease, soft cotton cloth/ lens tissue or gauze lightly moistened with cleaning solution ( 85% petroleum ether and 15% isopropyl alcohol) should be used. For cleaning the optics, use xylene. Observe sufficient caution in handling xylene.

#### Cleaning procedure

Place the eyepieces on the dust-free surface (e.g. fresh aluminum foil). All other optical components to be cleaned should be as accessible as possible.

- Blow all loose dust particles away with a dust blower.
- Remove all water-soluble dirt with distilled water. If this is unsuccessful repeat using a solution of diluted hand soap liquid. Remove any remaining residue with a dry cotton swab.
- To remove oil, use a solution of diluted hand-soap liquid initially. If this does not produce a satisfactory result, repeat the cleaning using a solvent (Optical Cleaning Solution 85% petroleum ether and 15% isopropanol).
- Grease must always be removed using a solvent.
- Cleaning is achieved by using a spiral motion from the center to the rim. Never wipe using zig-zag movements as this will only spread the dirt. With larger optical surfaces (e.g. tube lenses) the spiral motion starts initially at the rim before to the middle and is only then followed by a center to rim cleaning motion. Normally several spiral wipes are recommended. We recommend pure, volatile petroleum ether or Optical Cleaning Solution as explained in point 3 above.



Zig-Zag motion ❌



Spiral motion ✔️

Wipe using a spiral movement. Do not use a zig-zag motion!

### 3. Cleaning of painted surfaces

Avoid the use of any organic solvent (e.g. thinner, xylene, ether, alcohol etc.) for cleaning of painted surfaces of the instrument. Painted surfaces can be cleaned with a very lightly moistened micro fiber cloth. Loose dust and dirt can be removed using a brush of soft hair used exclusively for this purpose.



## SAFETY INFORMATION (CONTINUED)

### 4. Cleaning coated parts and plastic parts

- Dust and dirt particles should be removed with a soft brush or lint-free cotton cloth.
- Remove coarse debris with a moistened disposable cloth.
- Acetone, xylene or intro-containing thinners must not be used.
- Never use chemicals to clean colored surfaces or accessories with rubberized parts. This could damage the surfaces, and specimens could be contaminated by abraded particles.

#### Caution

Do not use aggressive organic solvent such as acetone for cleaning painted surfaces and plastic parts of the microscope.

### 5. Accessories, maintenance and repair

#### Accessories

- Use accessories only described in 'SYSTEM DIAGRAM' of this user manual.

#### Maintenance, Repair & Servicing

- The labomed Luxeo 6i stereo microscope is basically maintenance-free. To ensure that it always operates safety and reliably, we recommend periodic inspections or, if appropriate, conclude a maintenance contract with LABOMED.
- We recommend concluding a service contract with Labomed.
- For maintenance and repair, only OEM spare parts may be used.

#### Repairs and service work

- Only original Labomed spare parts may be used.
- Before opening the instruments, switch off the power and unplug the power cable.
- Touching the live circuit can cause injury.

### 6. Never attempt to dismantle

Never attempt to dismantle the instrument so as to avoid the possibility of impairing its operational efficiency and accuracy.

### 7. Disinfection

1. Normal household bleach (Sodium hypochlorite 5%)- strength 5000 ppm(10 parts water 1 part bleach).  
OR
2. 70% Isopropyl alcohol.

#### Disinfection Procedure:

- Take a muslin cloth.
- Moist it to feel wet
- Disinfect/clean the surface gently.

Note – 1. Use mask and Gloves while performing cleaning and disinfection.

2. While cleaning, muslin cloth should not be dripped wet to prevent seepage and rusting to running/bare parts.

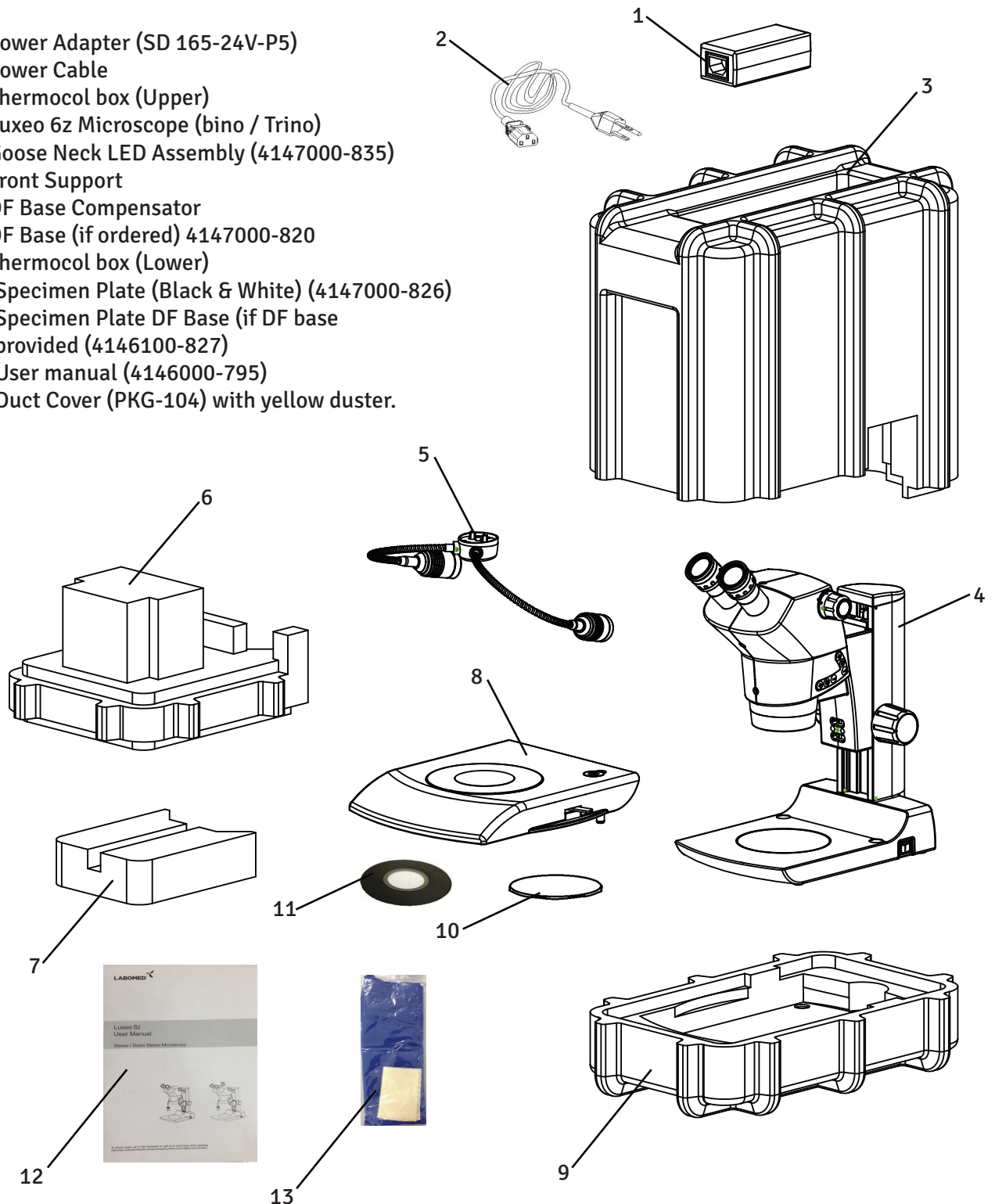
3. Alcohol is flammable,its use as a surface disinfectant should be in well-ventilated spaces only.

## 3. INITIAL SETUP

### 3.1 UNPACKING YOUR MICROSCOPE

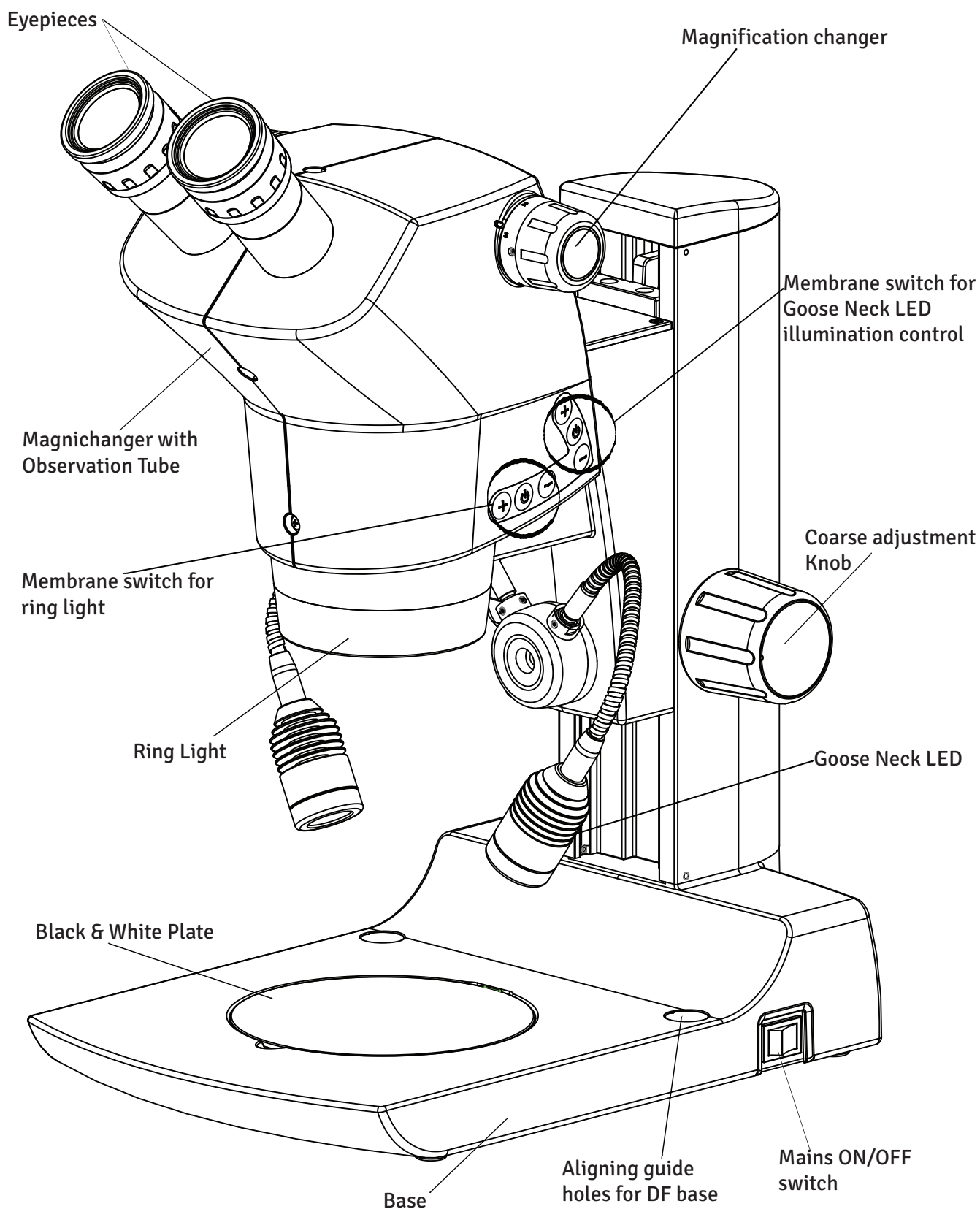
#### LIST OF PARTS

1. Power Adapter (SD 165-24V-P5)
2. Power Cable
3. Thermocol box (Upper)
4. Luxeo 6z Microscope (bino / Trino)
5. Goose Neck LED Assembly (4147000-835)
6. Front Support
7. DF Base Compensator
8. DF Base (if ordered) 4147000-820
9. Thermocol box (Lower)
10. Specimen Plate (Black & White) (4147000-826)
11. Specimen Plate DF Base (if DF base provided (4146100-827)
12. User manual (4146000-795)
13. Duct Cover (PKG-104) with yellow duster.



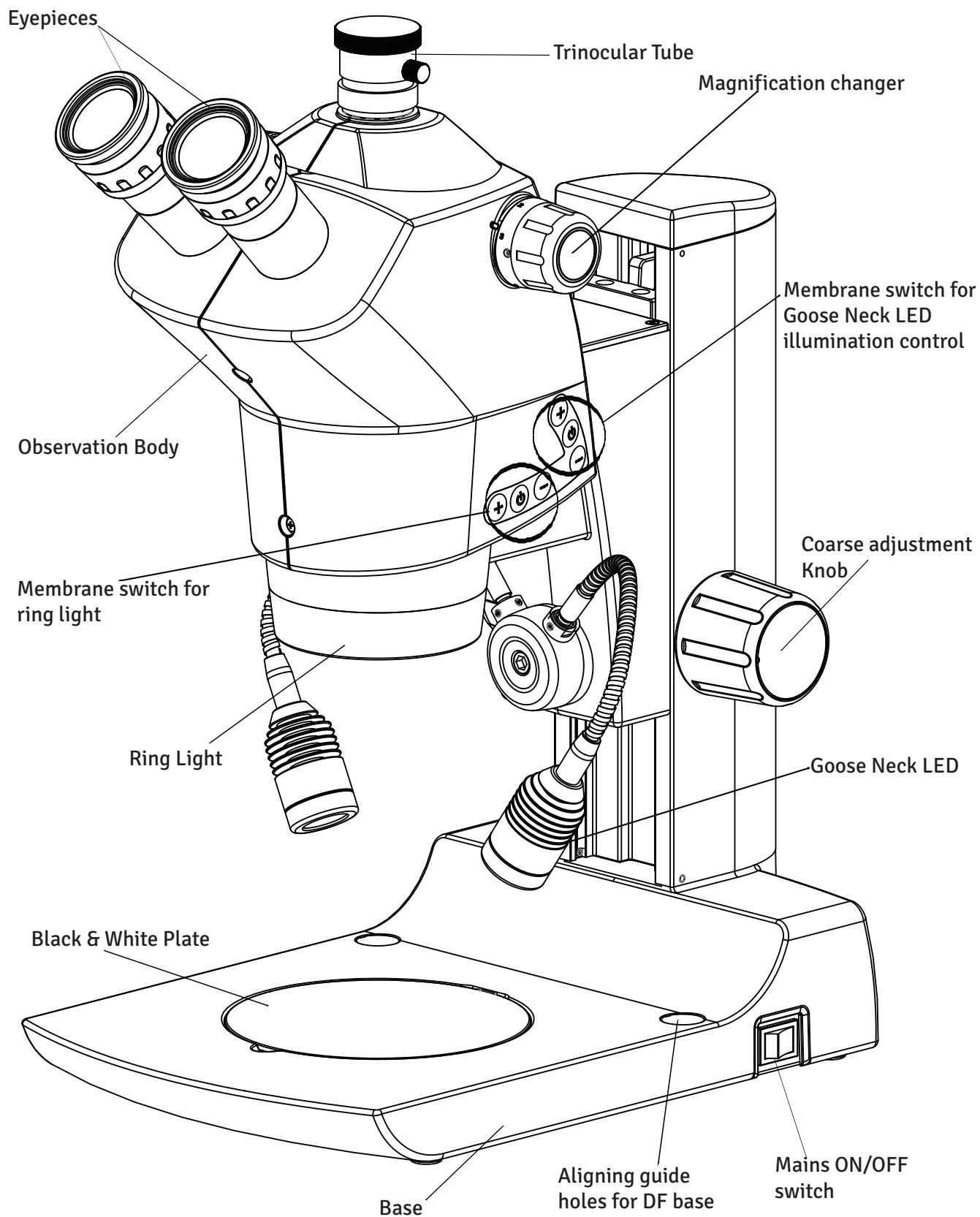
## 4. LUXEO 6z BINOCULAR MICROSCOPE

Part No. - 4146101 - 800



## 5. LUXEO 6z TRINOCULAR MICROSCOPE

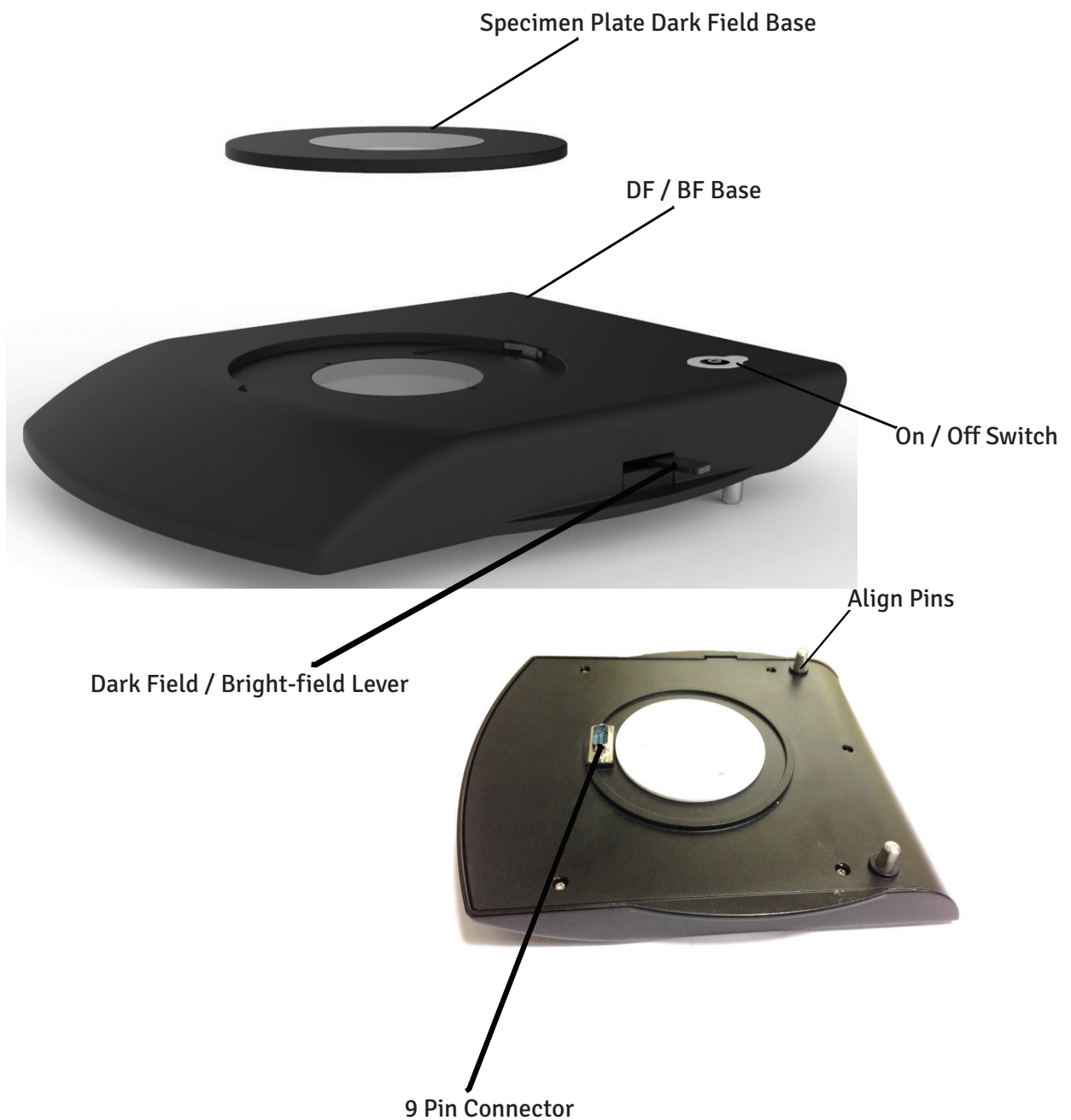
Part No. - 4146102 - 800



## 6. DARK FIELD/BRIGHT FIELD (DF/BF) BASE

Part No. 4146100-826

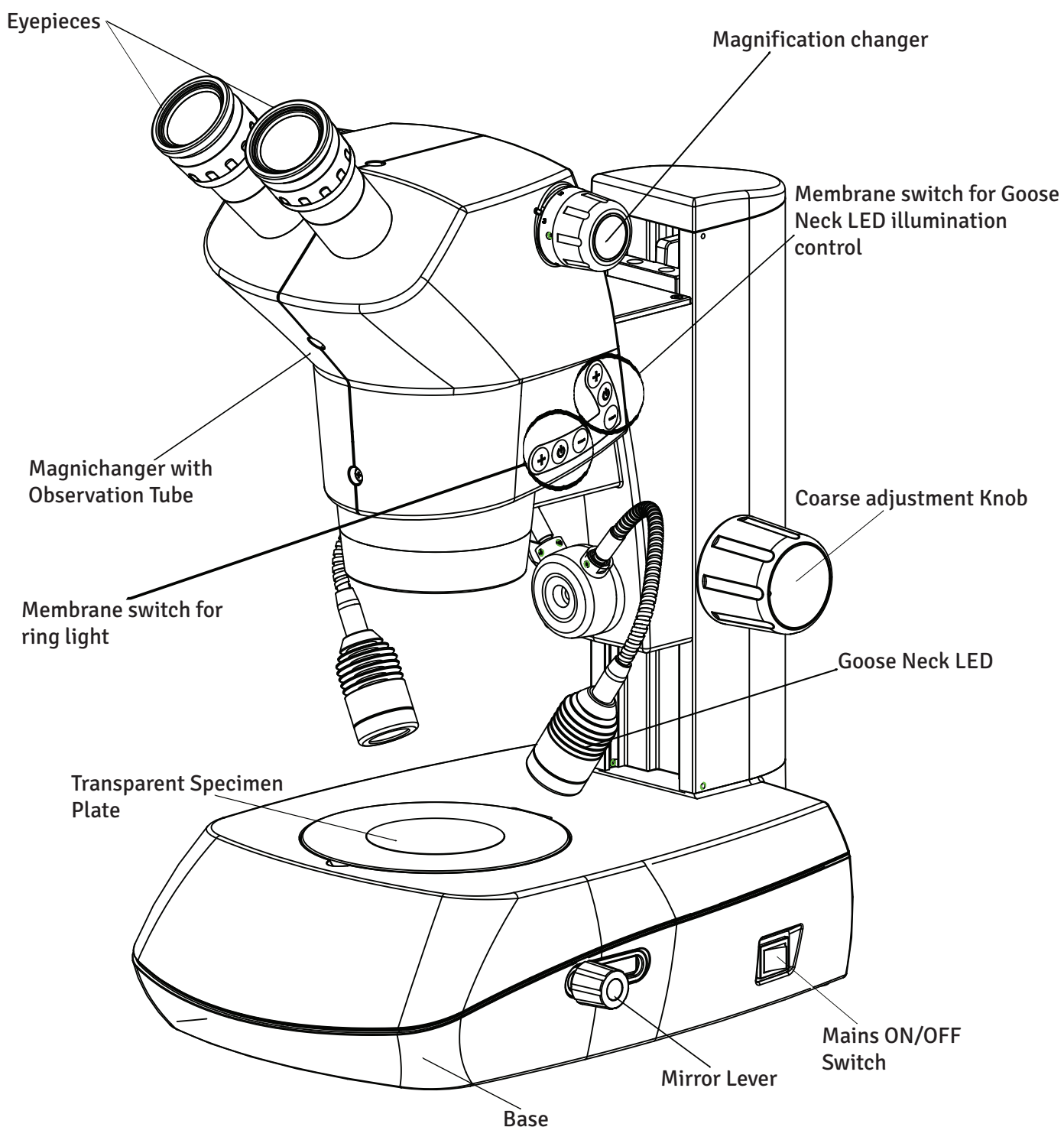
**Note:** DF/BF base is not a standard configuration part of Luxeo 6z. It is supplied on order.  
For use of DF/BF base refer page no. 14.



## 7. MIRROR BASE LUXEO 6z BINOCULAR MICROSCOPE

### PRE-CONFIGURED MIRROR BASE FOR DARK FIELD ILLUMINATION

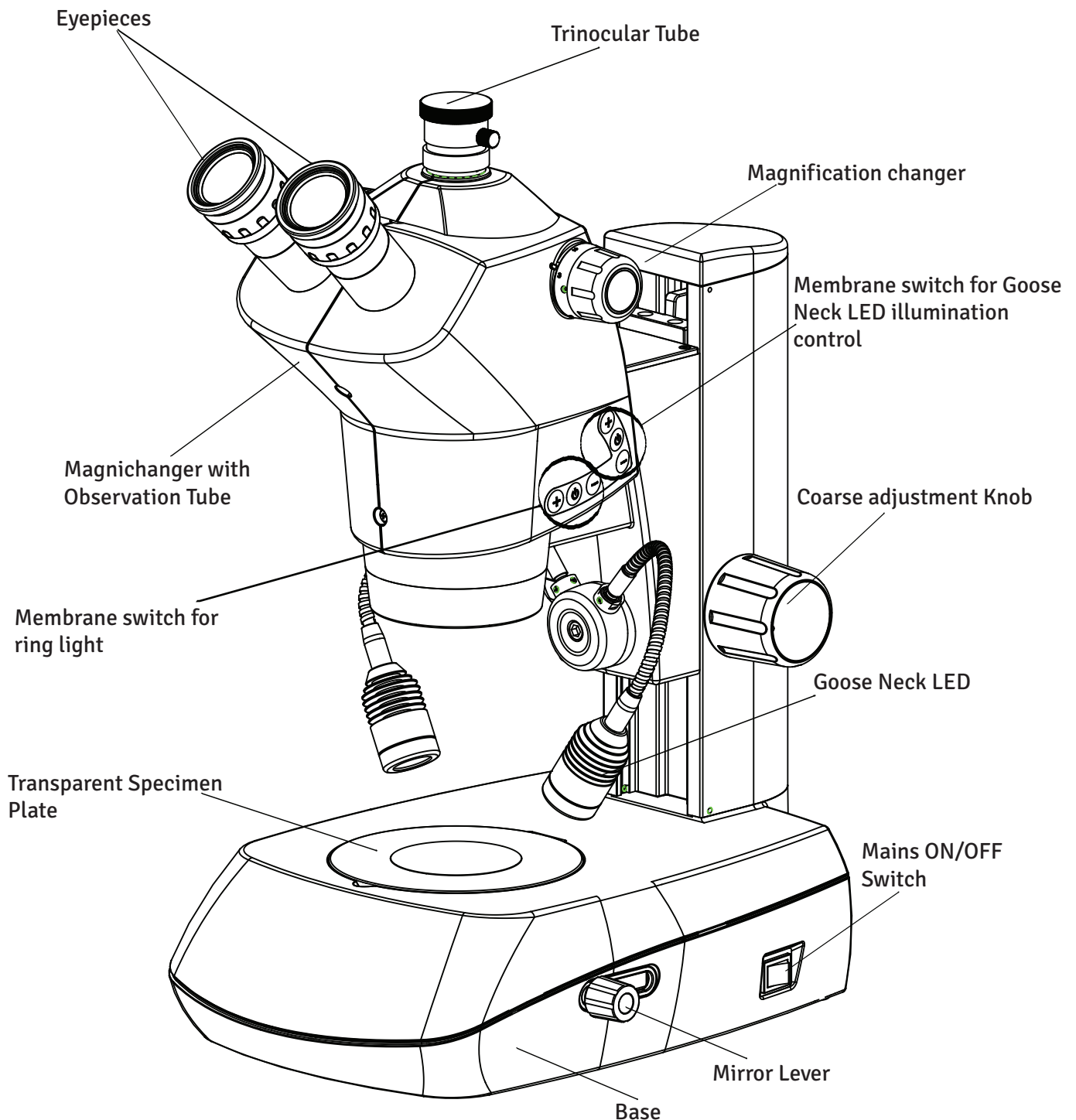
Dark field observation in Luxeo 6z is provided through a specialized stand controlling reflection mirror & light shielding plate to direct on inverted hollow cone of illumination towards specimen at oblique angles. It has the same function as DF / BF base but advantage is that it is factory configured dedicated to DF application only.



## 8. MIRROR BASE LUXEO 6z TRINOCULAR MICROSCOPE

### PRE-CONFIGURED MIRROR BASE FOR DARK FIELD ILLUMINATION

Dark field observation in Luxeo 6z is provided through a specialized stand controlling reflection mirror & light shielding plate to direct on inverted hollow cone of illumination towards specimen at oblique angles. It has the same function as DF / BF base but advantage is that it is factory configured dedicated to DF application only.



## 9. INSTALLATION

### 9.1 MICROSCOPE SETUP

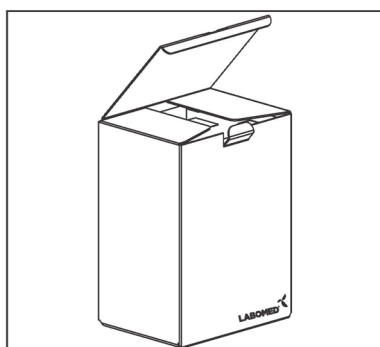


Fig.1

1. Open Card board box from top.
2. Take out User manual, Power Cord and Power adapter.
3. Take out thermocol box out of card box and remove top of thermocol box.
4. Take out the Goose neck Assembly.
5. Raise up the bracket of microscope using Coaxial Knobs.
6. Remove front support packing.
7. Remove dummy foam block if DF/BF base not provided.
8. Recover the microscope from packing and place on a sturdy table. The ocular tubes are equipped with eyepieces installed. Ocular tab prevents the eyepieces from falling, rotating freely or easily pulled out.
9. Refix the Goose Neck Assembly as per instructions below.

### 9.2 MOUNTING OF THE GOOSE NECK LED ASSEMBLY

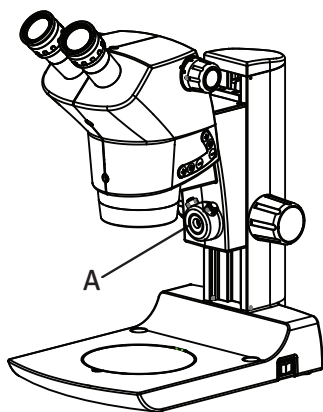


Fig.2

1. Open the dummy Goose neck mount using 4.0mm Allen wrench and secure the coupling connectors carefully (A) refer fig. 2.

**Note: The coupling connectors should be outside the bracket to connect the Goose neck LED connectors easily.**

2. Take Goose neck LED assembly (B) and connect the goose neck connectors. refer fig.3.

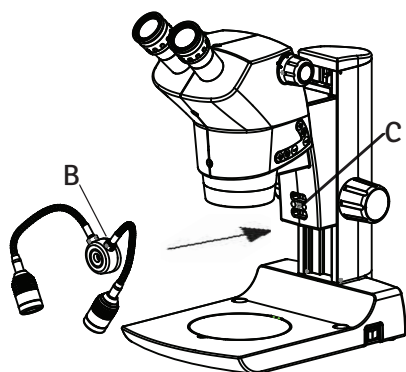


Fig.3

3. Refix the Goose neck LED assembly on bracket (D) using same 4.0mm Allen wrench. refer fig.4.

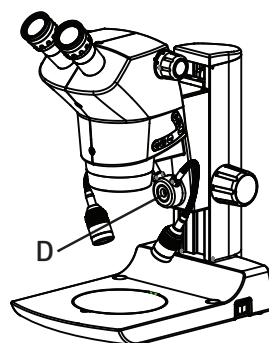


Fig.4



# INSTALLATION (CONTINUED)

## 9.3 SETTING UP THE DARK FIELD ATTACHMENT (IF SUPPLIED)

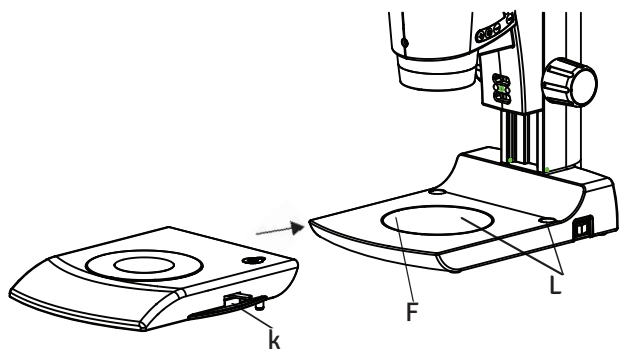


Fig.5

1. Remove Black & White specimen plate from base pressing the plate as shown in fig. 5.
2. Place the Dark Field Base gently on to the Luxeo 6z base by matching the Guide pins of Dark Field base (K) with the Guide holes (L). Refer fig.5.
3. The 9 pin male connector below dark field base will automatically connect to the female 9 pin inlet (F) while lifting up the disc gently on the Luxeo 6z base. Refer fig. 5 & 6.
4. For illumination press On/Off button (N) on Dark field base. Refer figure 6.
5. Place the transparent specimen plate (P) on DF/BF base. Refer fig. 6.
6. Achieve Dark Field Illumination by push back the Lever (O). Pull the same lever (O) to front to achieve Bright field Illumination.

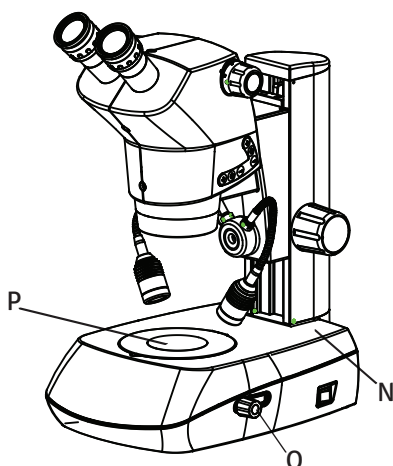
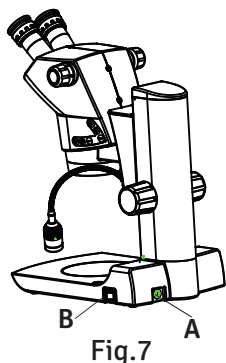


Fig.6

## 10. OBSERVATION & USE OF MICROSCOPE

### 10.1 POWER ON THE MICROSCOPE

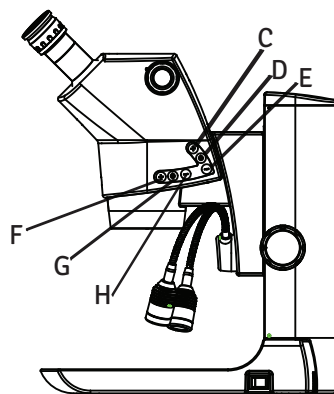


Plug in the output of power adapter and connect the power adapter to the AC socket.

Press the power on switch (B).

The incident illumination (Ring Light) is controlled by the switch (G) to glow all the 23 LED's, Eleven front LED's and Twelve rear LED's. Press the button in the following sequence to illuminate the LED's.

- First press of button (G) to illuminate all the LED's in the ring.
- Second press of button (G) to illuminate the rear twelve LED's in arc.
- Third press of button (G) to illuminate front eleven LED's in arc.
- Fourth press of button (G) to switch off all the LED's.



#### Intensity control

Press button (F) and (H) to increase or decrease the Ring light intensity in six steps.

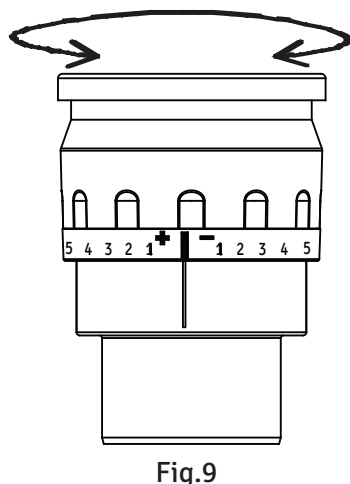
The incident illumination (Goose Neck LED ) is controlled by the switch (D) to glow both sided Goose Neck LED's. Press the button in the following sequence to illuminate the Goose Neck LED.

- Press button (D) to illuminate both Goose Neck LED.
- Second press of button (D) to switch off Goose Neck LED.

#### Intensity control

Press button (C) and (E) to increase or decrease the Goose Neck LED intensity in six steps.

### 10.2 DIOPTRER SETTING OF EYEPIECES



This adjustment should be performed every time the observer is changed since the eyesight differs between individuals.

1. Turn the diopter rings on both eyepieces to set them at the 0 position match the 0 line with the index line.
2. Turn the zooming knob to the highest magnification. Focus on the sample using the focus knob.
3. Turn the zooming knob to the lowest magnification. Peering through the left eyepiece with the left eye, focus on the sample using the diopter ring on the left eyepiece. Then, peer through the right eyepiece with your right eye and focus on the sample using the diopter ring on the right eyepiece.
4. Repeat steps 2 and 3 until the image is kept focused even though the zooming magnification is changed. This adjustment ensures sharp image throughout the zooming range.

# OBSERVATION & USE OF MICROSCOPE (CONTINUED)

## 10.3 IPD ADJUSTMENT

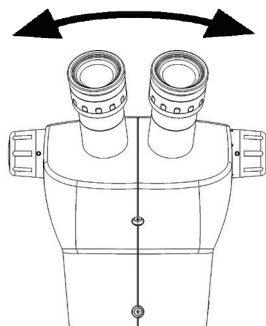


Fig.10

This adjustment should be performed every time the observer is changed since the interpupillary distance differs between individuals. Adjust the interpupillary distance so that the view field for each eye is merged into one. Move while holding each sleeve with both hands.

## 10.4 FOCUSING OF MICROSCOPE

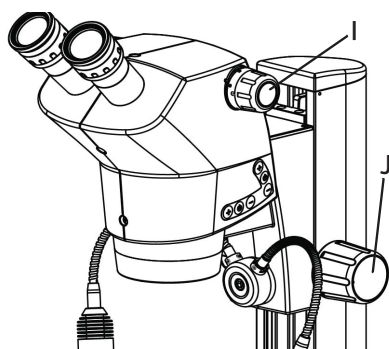


Fig.11

1. Switch on the desired illumination as per specimen selected.
2. Adjust both eye pieces at 0 diopter reading.
3. Adjust IPD to user convenience.
4. Place any specimen on Black & White plate or on DF/BF base as per configuration provided.
5. Setup the magnification factor at highest magnification of zoom pod using knob (I).
6. Looking through the eyepieces, adjust the focusing of microscope head using coarse knob (J) to focus the specimen.
7. Bring the image into critical focus.
8. Change magnification factor from highest to lowest.
9. At this stage image should remain in focus. This setting is called as par-focal of microscope.
10. Microscope is ready to use.

## 10.5 FOCUSING TORQUE ADJUSTMENT

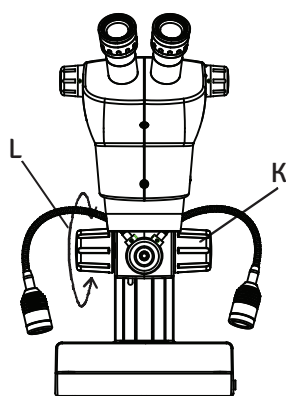


Fig.12

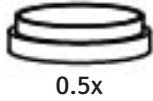
Luxeo 6z Microscope's focusing torque is pre-adjusted to maximum limit to withstand a max. force of 20kg with standard Binocular or Trinocular.

Torque of focusing mechanism can be loosened if required as per following procedure per user's convenience:

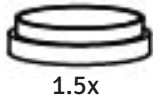
1. Hold firmly the right knob shown as (K). Refer Fig.12.
2. Rotate left knob (L) to clockwise to loosen torque of the focusing mechanism of microscope.
3. As explained above, torque cannot be tightened further, but it can be loosened to user's convenience if required.

# OBSERVATION & USE OF MICROSCOPE (CONTINUED)

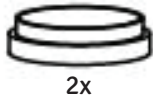
## 10.6 USE OF AUXILIARY OBJECTIVES



0.5x



1.5x



2x

Fig.13

Following Auxiliary objectives can be threaded in through Ring Light.

1. 0.5x - To be used with PL stand only as working distance is high.
2. 1.5x & 2x - To be used with all Luxeo 6z stands.

# 11. OBSERVING EXTRA HEIGHT SPECIMEN

## 11.1 PL STAND

PL Stand application is useful in:

1. Observation of extra height objects.
2. For lower magnification using 0.5x Auxiliary objectives.

## 11.2 ASSEMBLING PL STAND LUXEO 6Z

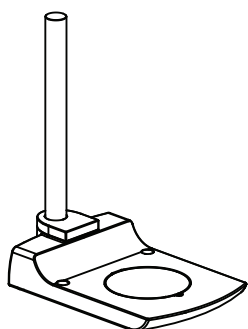


Fig.14

Place the Stand on the level surface.

Fit the zoom pod with bracket to the pillar as shown and tighten it with clamping knob provided on the bracket. Refer figure 15 & 16.

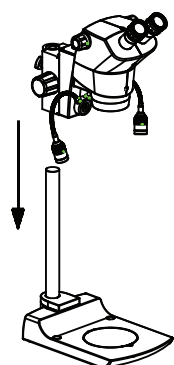


Fig.15

Connect Power Supply output (B) to the Inlet socket (A) on the top of Zoom bracket. Refer figure 17.

Connect Power Supply to the microscope (C). Refer figure 17

Follow procedure and refer steps as mentioned on page no. 12 & 17 to setup the microscope.

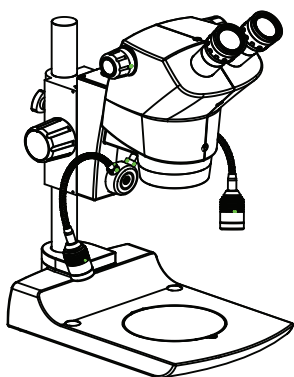


Fig.16

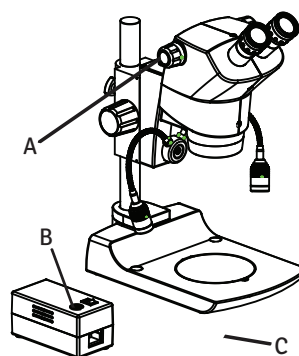
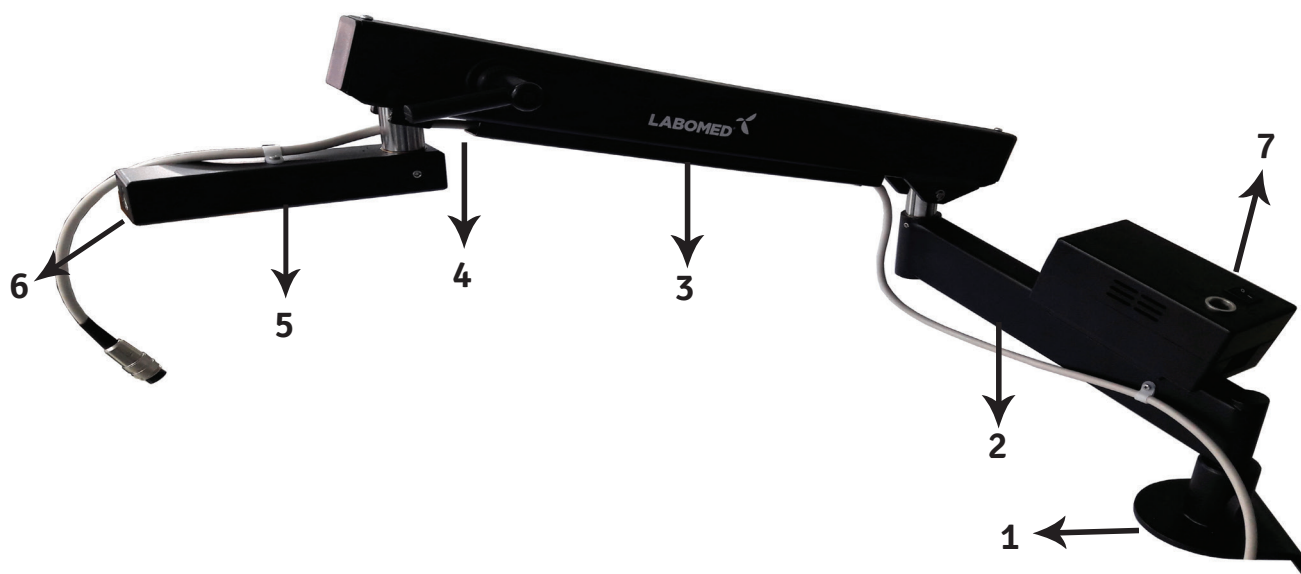


Fig.17

## 12. OVERVIEW OF LABOMED FLEXIBLE ARM STAND F 360



### 1. Table Clamp

- Tabletop thickness up to 100mm
- Min. space required on table: 100 x 105mm

### 2. Rotatable arm

- Can be rotated 360°
- Fixed at 15° angle to facilitate freedom of movement of specimen.

### 3. Flexible arm

- Can be rotated 360°
- Weight balance: 1.5 - 7 kg (factory setting 2.7kg)
- 470 mm height adjustment
- Smooth guide adjustment

### 4. Fastening lever for height adjustment

### 5. Horizontal Arm

### 6. Connection to the focusing arm

- Allows connection of focusing arms with standard pin diameter of 16mm

### 7. Power Supply


- Output - 24 Volts
- Input - 100 - 240 V Universal Power Supply

## 13. ASSEMBLY AND USE

### TABLE CLAMP

#### Instructions for safe assembly

 The table clamp is designed for tabletops with a thickness of up to 100mm.

 Before installation, ensure that the selected table top is strong enough to carry the weight. Otherwise the microscope may not function properly or user may get injured and damage to microscope specimen may happen.

#### Assembling the Table Clamp

1. Push the table clamp over the tabletop Completely.
2. Tighten the two clamp screws shown as (a) Referring Fig.-1.
3. Insert the flexible arm into the table clamp.
4. Tighten the clamping knob shown as (c) Referring Fig.- 2.

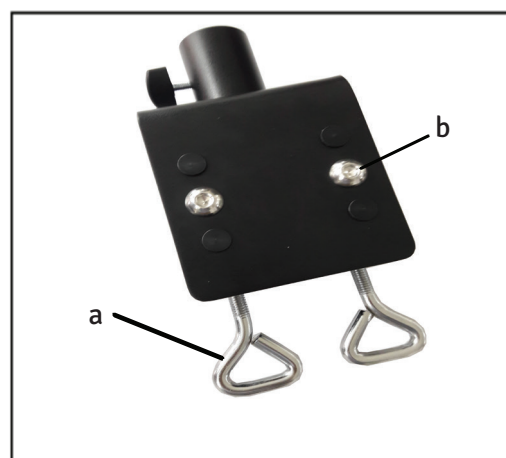


Fig. 1

#### Adjusting the TABLE Clamp

Table Clamp has 6 holes (4 are covered with a hole plug) to adjust according to table thickness. If the table clamp does not fit the thickness of the tabletop, you can adjust it by unscrewing the two screws shown as (b) and move the loose part of the clamp as required and refix the hole plug referring Fig.- 1.





Fig. 2

# ASSEMBLY AND USE (CONTINUED)

## FLEXIBLE ARM STAND AND FOCUSING ARM

### Load Capacity

 This flexible arm stand is designed for a load Capacity of ranging 1.5 - 7 kg to keep the Stereo microscope in balance without tightening the fastening lever.

 You can lock the working height if necessary by tightening the fastening lever.

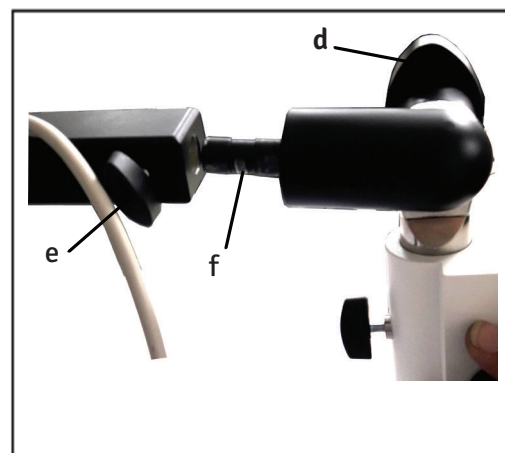


Fig. 3

### Assembly

1. Unscrew clamping knob (e) on the horizontal arm.
2. Loosen the knob (d) of UMS and tilt the Connecting pin (f) in 90° as shown as Fig.- 3.
3. Push in the connecting pin (f) completely and clamp the knob (e) as shown in Fig.- 4.

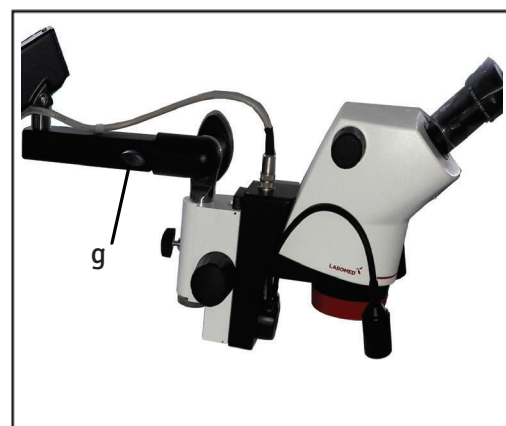


Fig. 4

### Working Height Adjustment

1. Move the flexible arm to the desired height according to the object under inspection.
2. Tighten the fastening lever (h) if necessary to protect the stereo microscope from unwanted height adjustment as shown in Fig.- 5.

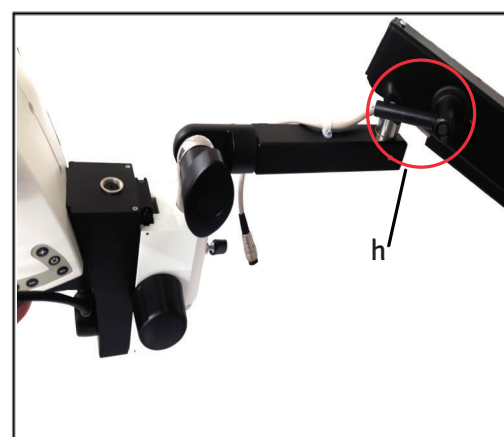


Fig. 5




## 14. SPRING TENSION ADJUSTMENT

### Tool Requirement

- 13 millimeter socket wrench  
(not included in the delivery package)

### Factory settings

 The spring force for the flexible arm is factory set to approx. 2.7kg and can be adjust by turning screw clockwise referring Fig.- 8.

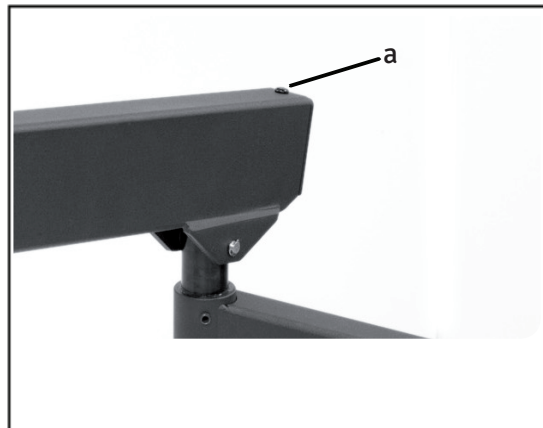


Fig.6

### Adjusting the Spring force

1. Remove the socket screw (a) above the cover by using allen wrench 2.5mm as shown in Fig.-6.
2. Remove the cover.
3. Unscrew the fastening lever shown as (b) in Fig.- 7.
4. Change the spring force using the screw in the interior as shown in Fig.-8.

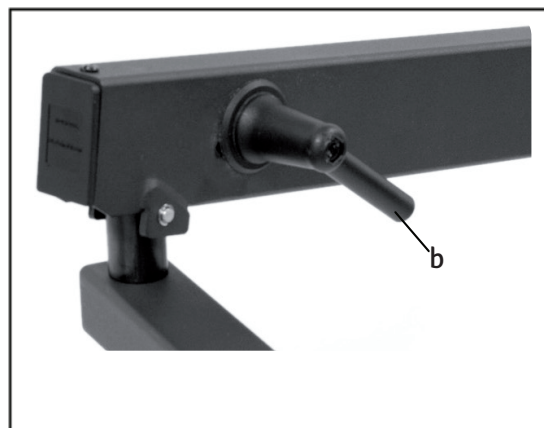


Fig.7

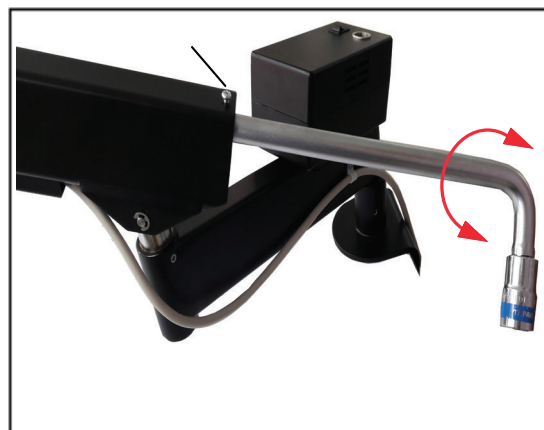
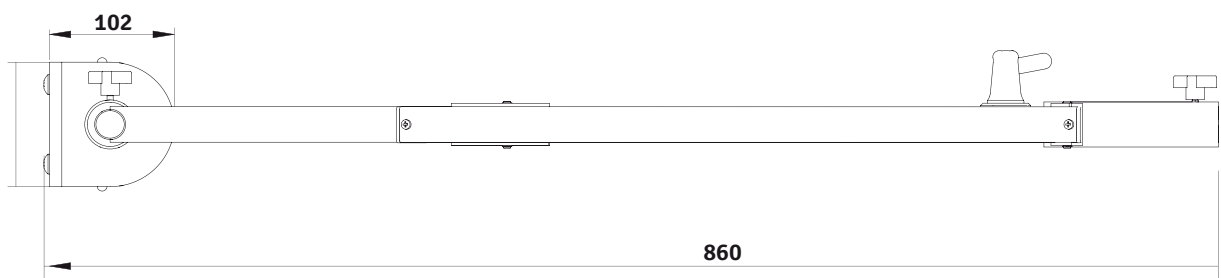
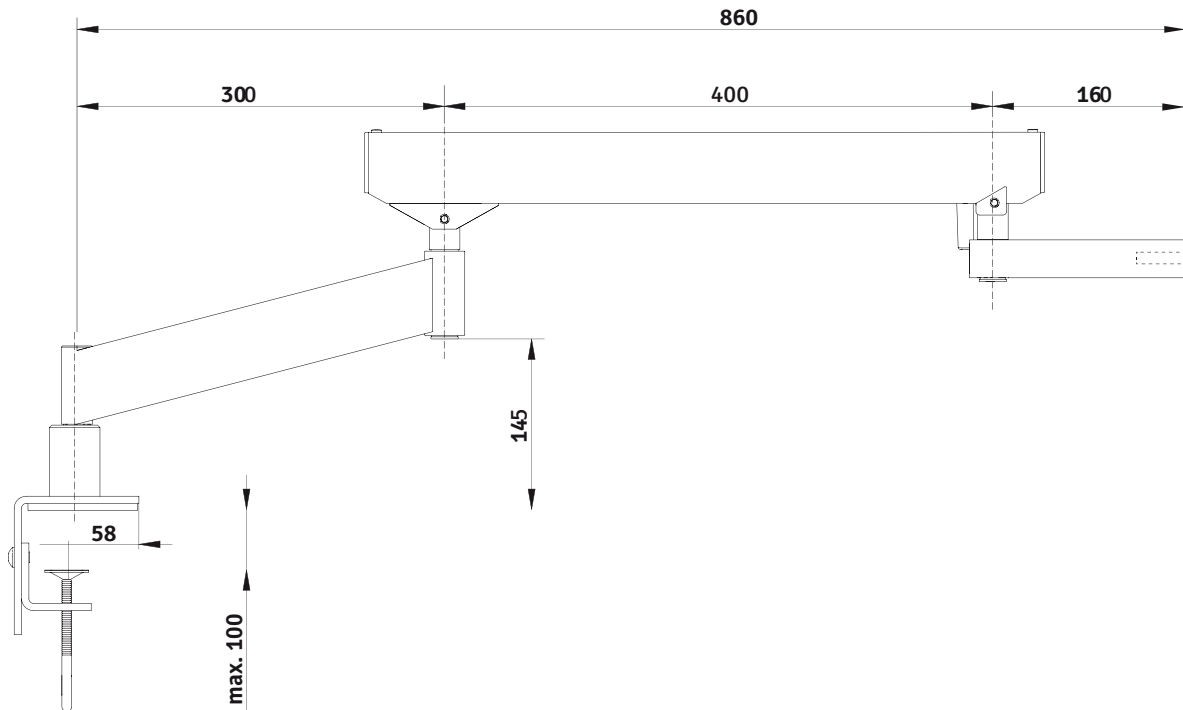


Fig.8

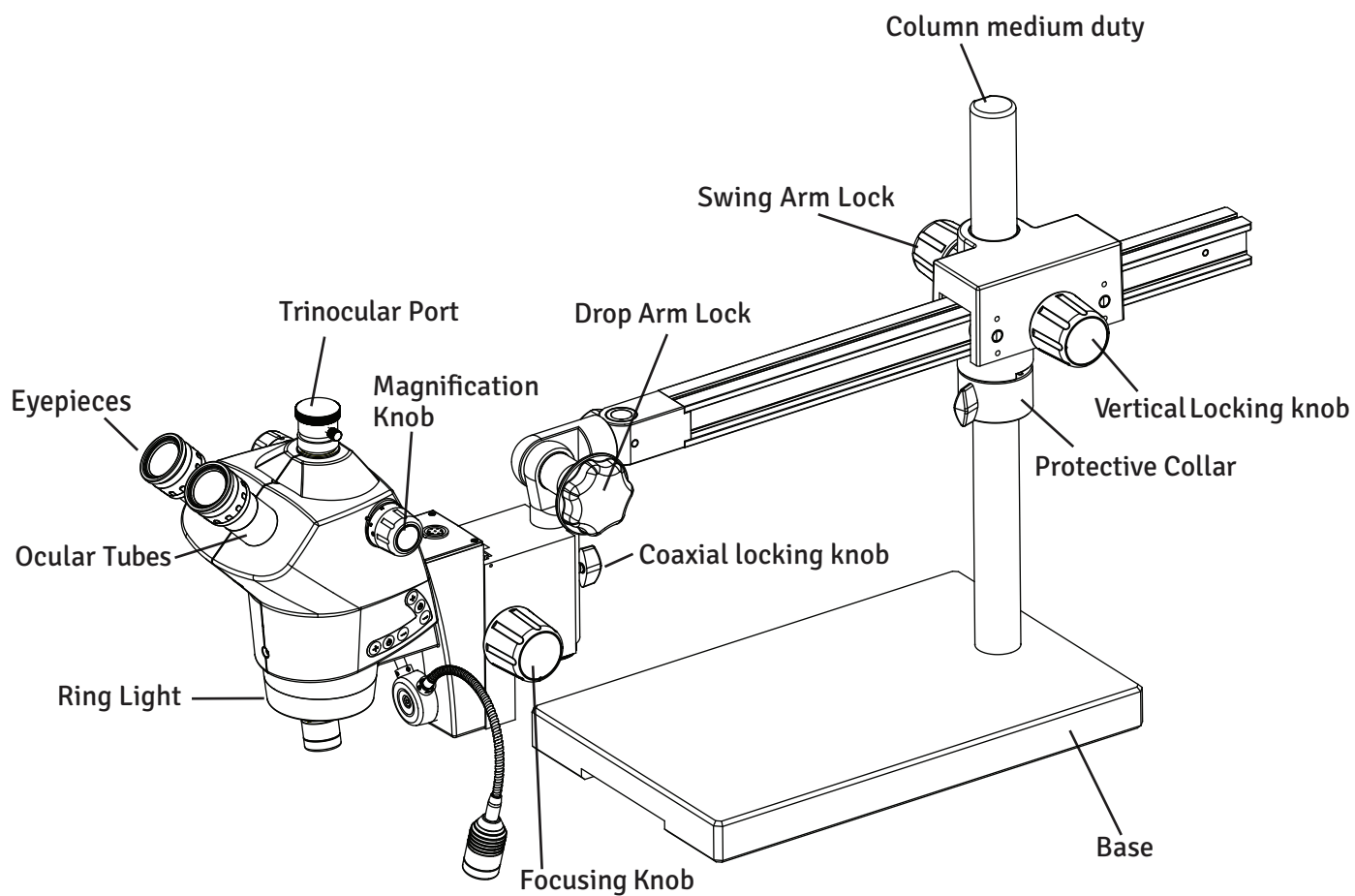
# 15. DIMENSIONS



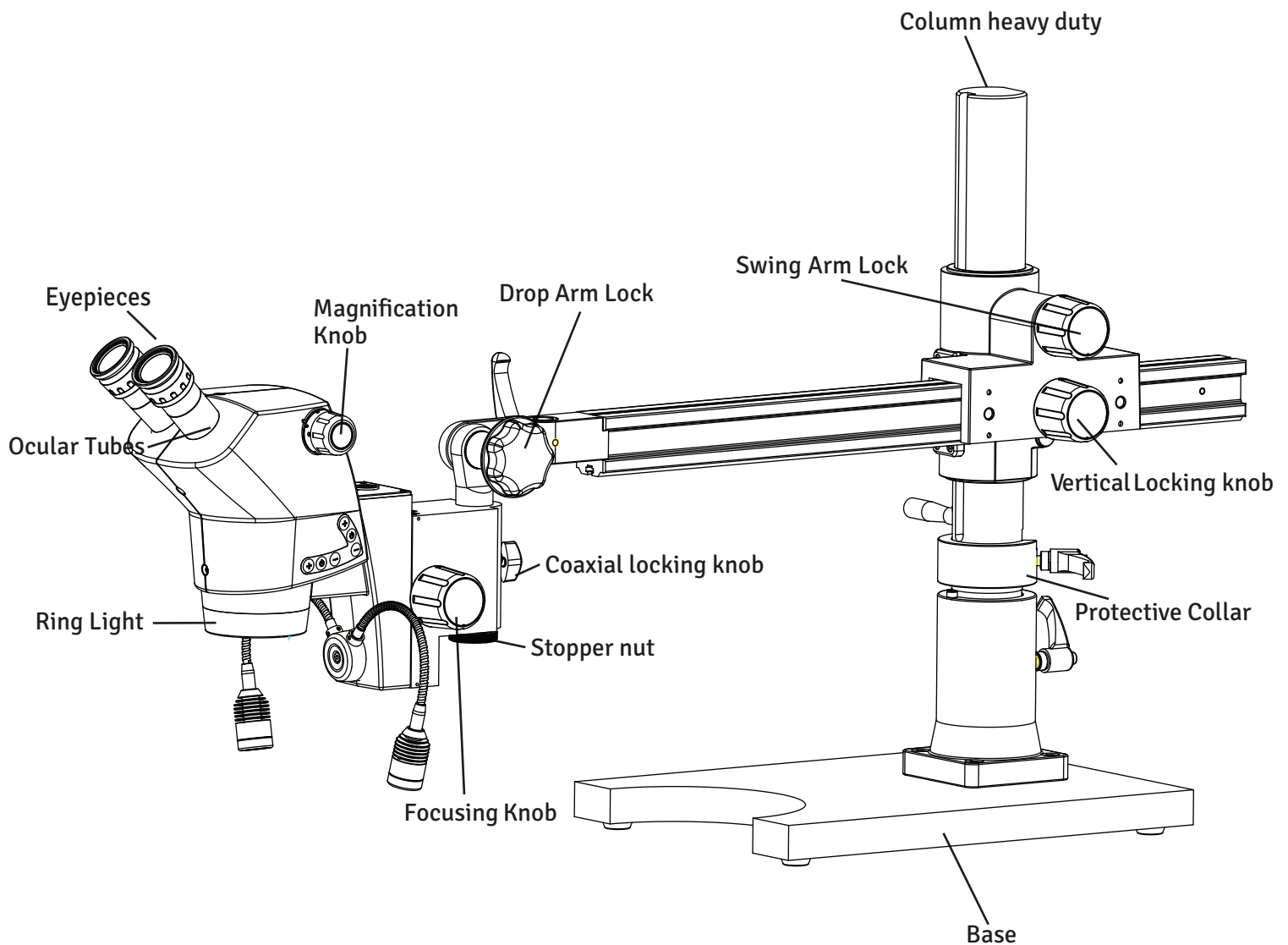
## 16. DIRECTIONS FOR USE

- Use of this flexible arm stand is only by persons qualified to do so.
- Always ensure availability of this manual at work place.
- Carry out regular audits to ensure that trained and authorized users are following required safety Procedures.
- For new users, explain thoroughly the meanings of the warning signs and messages.
- Allocate responsibilities for commissioning, operation and maintenance. Compliance with this.
- Inform your Labomed representative immediately of any product defect that could potentially cause injury or harm.
- The use of accessories or cables other than those specified, with the exception of those sold by the manufacturer as replacement parts for the immunity of the equipment or system is not Recommended.
- If this instrument is modified, appropriate inspection and testing must be conducted to ensure Continued safe use of this instrument.
- Only original Labomed replacement parts may be used in servicing the product.
- Modifications to this instrument are not allowed. Any modification to this unit must be authorized by Labomed or serious injury to the operator may occur.

# 17A . LUXEO 6Z- B/T (SWING ARM MEDIUM DUTY)



# 17B . LUXEO 6Z- B/T (SWING ARM HEAVY DUTY)



## 18. DEFINITION OF PARTS

**Adjustable Trinocular Port**

Threaded port with adjustable length of attachment of digital or video camera.

**Swing Arm**

Stand for the microscope that allows the head to be moved in physical space in various directions.

**Continuous Zoom**

A microscope head with a knob to change magnification through a range.

**Diopter**

Allows the focus to be perfected for both eyes, independent of each other.

**Focusing Knob**

Used to move the microscope head vertically to bring the sample into focus.

**Gooseneck Illuminator**

Illuminator independent of the unit that allows movement of one or two necks for controlled lighting.

**Magnification Knob**

Changes the magnification of the lenses on a continuous zoom microscope.

**Microscope Head**

Contains the objective lens, eyepiece ocular tubes, and prisms used to magnify.

**Ocular Tube**

Tube designed to hold the eyepieces or camera in place.

**Ring Light**

An illuminator that mounts directly onto the objective to emit even light on the sample below.

**Table Stand**

A stand which sits on the table and holds the head directly above the sample without moving.

## 19A. ASSEMBLY FOR MEDIUM DUTY

Swing Arm Luxeo6z is packed in 3 different cardboard boxes:

Box 1: Base

Box 2: Column & Swing Arm Assembly

Box 3: Zoom POD Assembly

1. Open the Box and take out Base from cardboard carton, after taking out the EPE Sheets.

2. Open the box marked with swing arm assembly. Swing Arm is packed in EPE cut outs by splitting in two parts :

i) Column

ii) Swing Arm

3. Open the microscope box and take out the microscope & power supply .

4. Check the packing list to ensure that you have received all items. Please note that this can vary depending on which model you've purchased.

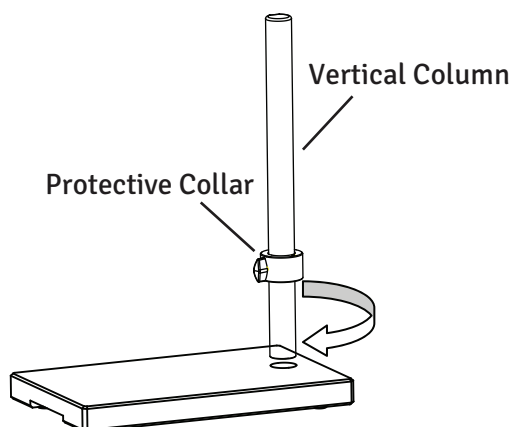
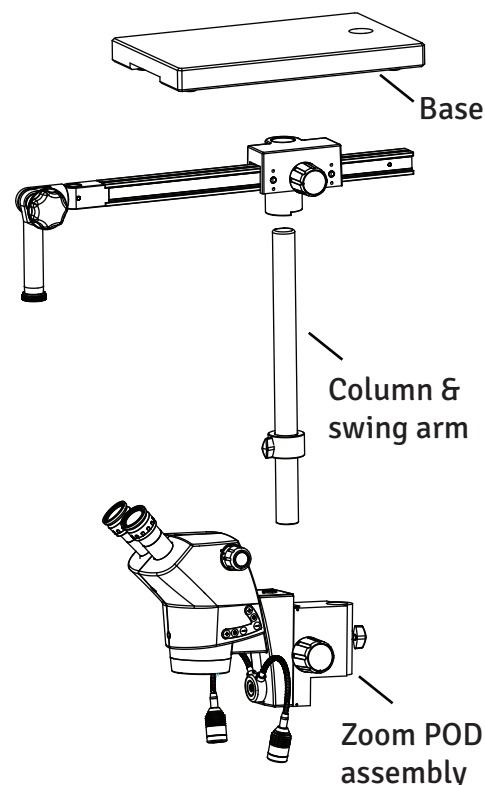


Fig.1

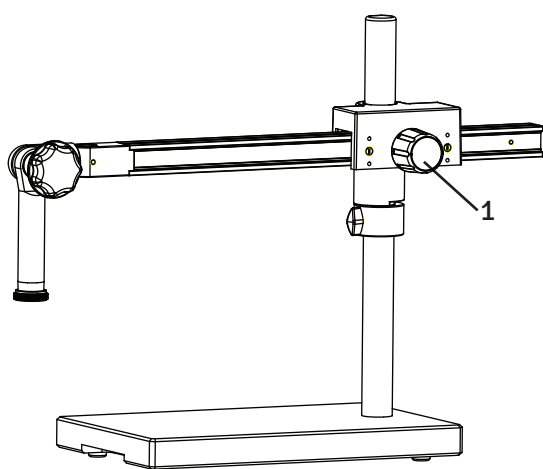


Fig.2

### 5. Installation of the Swing Arm Stand.

5.1 Insert the vertical column into the base stand and screw the pole securely with 10mm allen wrench provided with it as shown in Fig-1.

5.2 Loose the knob on protective collar and adjust the collar to the proper height. Tighten the knob. Fig-1.

5.3 Loosen the knob (1) and place the horizontal arm's housing onto the vertical pillar. Rest the housing over Protective collar and set the arm as shown in fig-2. Tighten knob(1).

## 19B. ASSEMBLY FOR HEAVY DUTY

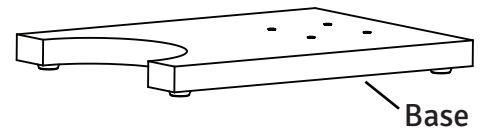
Swing Arm Luxeo6z is packed in 3 different cardboard boxes:

Box 1: Base

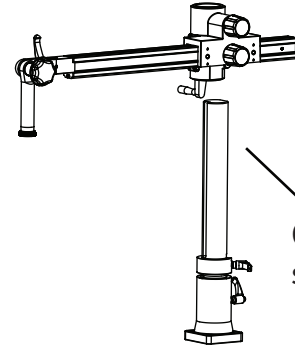
Box 2: Column & Swing Arm Assembly

Box 3: Zoom POD Assembly

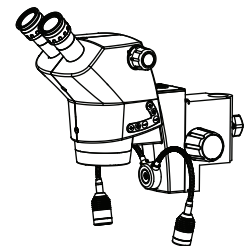
1. Open the Box and take out Base from cardboard carton, after taking out the EPE Sheets.
2. Open the box marked with swing arm assembly. Swing Arm is packed in EPE cut outs by splitting in two parts :
  - i) Column
  - ii) Swing Arm
3. Open the microscope box and take out the microscope & power supply .
4. Check the packing list to ensure that you have received all items. Please note that this can vary depending on which model you've purchased.



Base



Column & swing arm



Zoom POD assembly

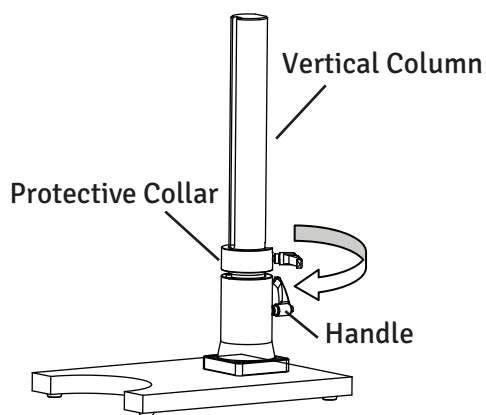


Fig.1

### 5. Installation of the Swing Arm Stand.

5.1 Insert the vertical column into the base stand and screw the pole securely with handle as shown in Fig-1.

5.2 Loosen the knob on protective collar and adjust the collar to the proper height. Tighten the knob. Fig-1.

5.3 Loosen the knob (1) and place the horizontal arm's housing onto the vertical pillar. Rest the housing over Protective collar and set the arm as shown in fig-2. Tighten knob(1).

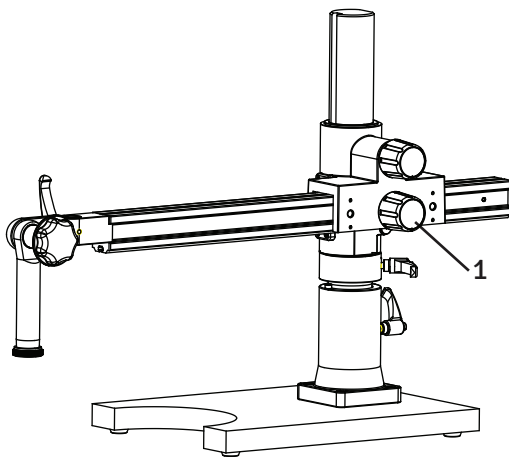


Fig.2



## 20. ZOOM POD ASSEMBLY FOR MEDIUM/HEAVY DUTY

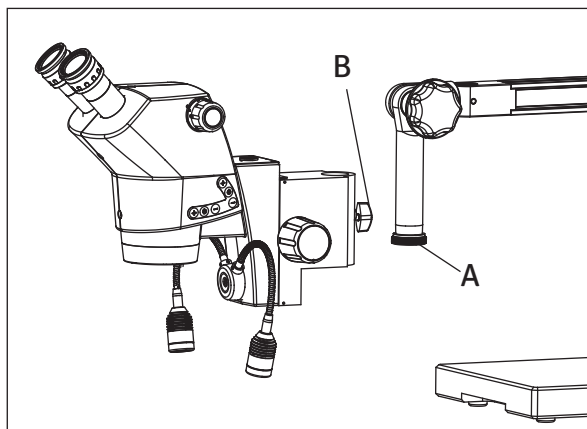


Fig.3

5.4 Remove Stopper nut 'A' and put the head into the Zoom spoodle, put stopper 'A' back to place. Tighten the lock knob (B) as shown in Fig-3 & 3a.

5.5 For the Trinocular models, screw the photo port onto the top of the microscope head (trinocular C-mount port).

5.6 An external light source is included, connect the light source to the microscope at Port 'C' in fig 3a. Plug in the microscope and turn it on. If no light emerges from the light source, adjust the Membrane switch fig-3a.

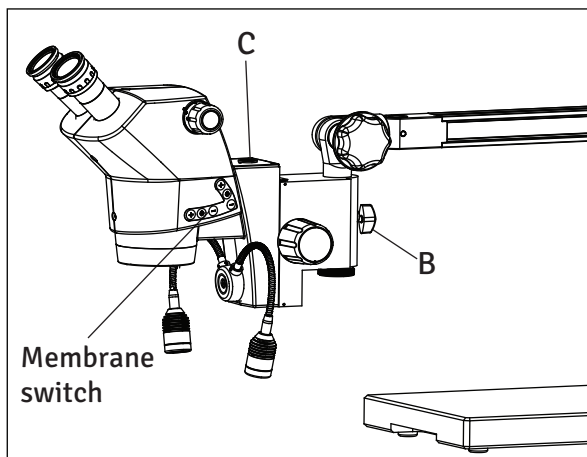


Fig.3a

## 21. MAGNIFICATION CHART

<b>Luxeo 6Z Greenough Zoom 6:1</b>							
Objectives	WD (mm)	Eyepieces					
		W.F. 10x/22		W.F. 16x/16		W.F. 20x/12	
		Field $\Phi$ mm	Magnification x	Field $\Phi$ mm	Magnification x	Field $\Phi$ mm	Magnification x
None	110	4.40 to 27.50	50 to 8	3.2 to 20	80 to 12.8	2.4 to 15	100 to 16
0.5x	220	8.8 to 55	25 to 4	6.4 to 40	40 to 6.4	4.8 to 30	50 to 8
1.5x	50	2.93 to 18.30	75 to 12	2.13 to 13.33	120 to 19.2	1.6 to 10	150 to 24
2.0x	45	2.20 to 13.75	100 to 16	1.60 to 10	160 to 25.6	1.2 to 7.5	200 to 32

## 22. SPECIFICATIONS

Optical System	Greenough
Magnification	Zoom 6:1
Eyepieces	WF 10x/22mm
Diopter Correction	±5D
IPD	50 - 75 mm
Viewing Angle	Binocular, 45°
Working Distance	110mm
Magnification range	8x to 50x
Object field diameter	4.4 to 27.50mm
Eyegaurds	Foldable
Illumination control	Incident Light-LED Ring Light with options of ARC and circular Illumination with intensity control  Front Angle Arc illumination with cluster of 11 LEDs  Rear Angled Arc illumination with cluster of 12 LEDs  Circular Illumination with cluster of 23 LEDs  Goose neck for extra illumination  Transmitted Light: DF/BF (Dark field/ Bright field) base with On Off control

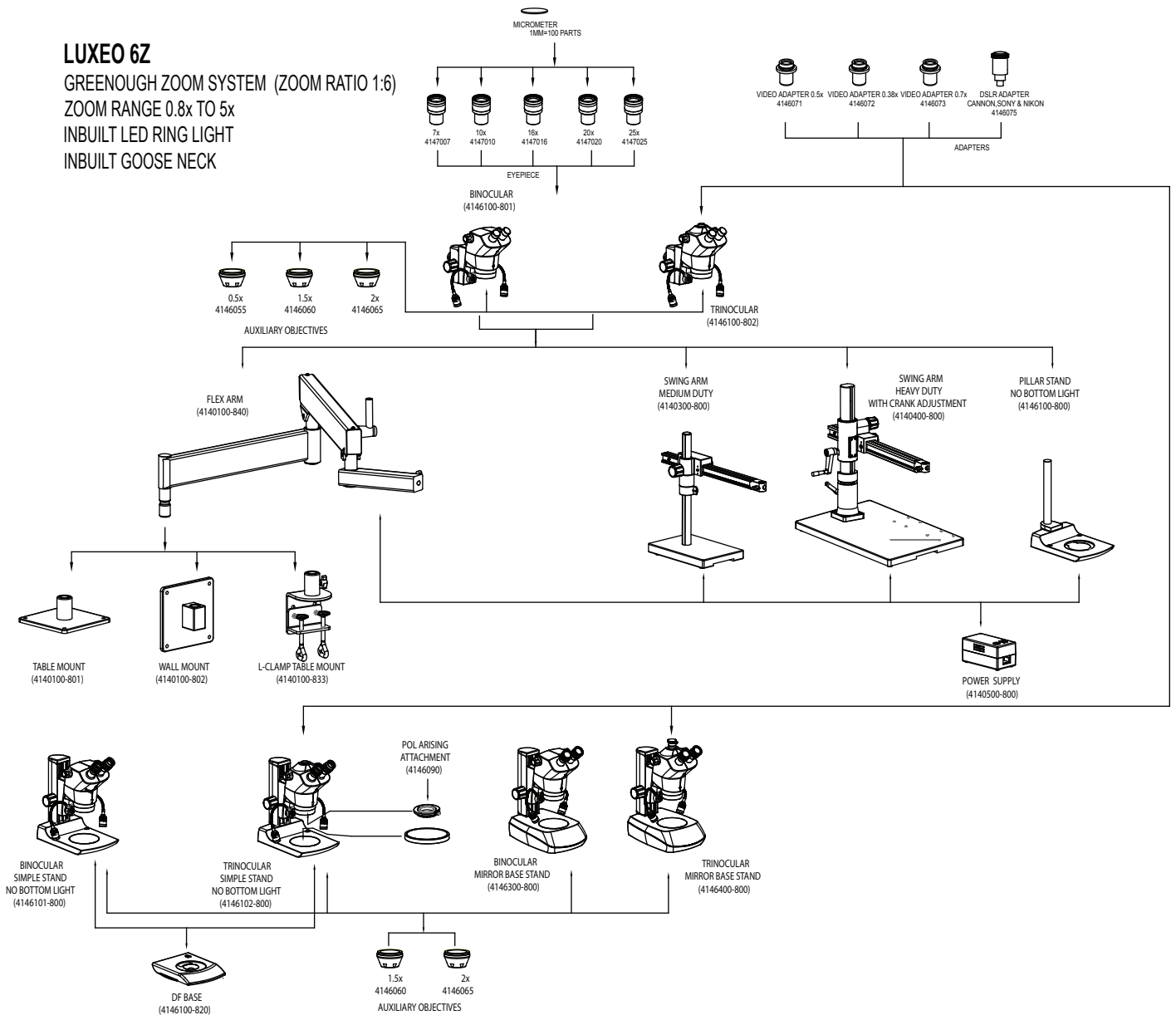
## 23. ELECTRICALS

Input rating	100V - 240V / 50 - 60Hz	
Output rating	24V - 2.7A	
Fuse rating	250V / 1.4A	
Voltage fluctuation	+/- 10% (Fluctuation more than +/- 10% may damage to the instrument. In high voltage fluctuating regions voltage stabilizing provisions are recommended for longer life of the instrument.)	
Internal fuse	1.4A / 250V	
Fuse rating	250V / 1.4A	
Operational Environment	Altitude	2000m max.
	Temperature	0° - 40°C (indoor use only)
	Relative humidity	85% max. (no condensation)
	Pollution level	Degree 2
	Installation	C
Storage environment	Temperature	20° to 60°C
	Relative humidity	90% max. (no condensation)
Protection Class	Class 1	
Power cord	Use only the recommended power supply cord. Using the wrong power cord could result in danger or fire. The protection class1equipment should be connected to PE (protective earth) terminal.	

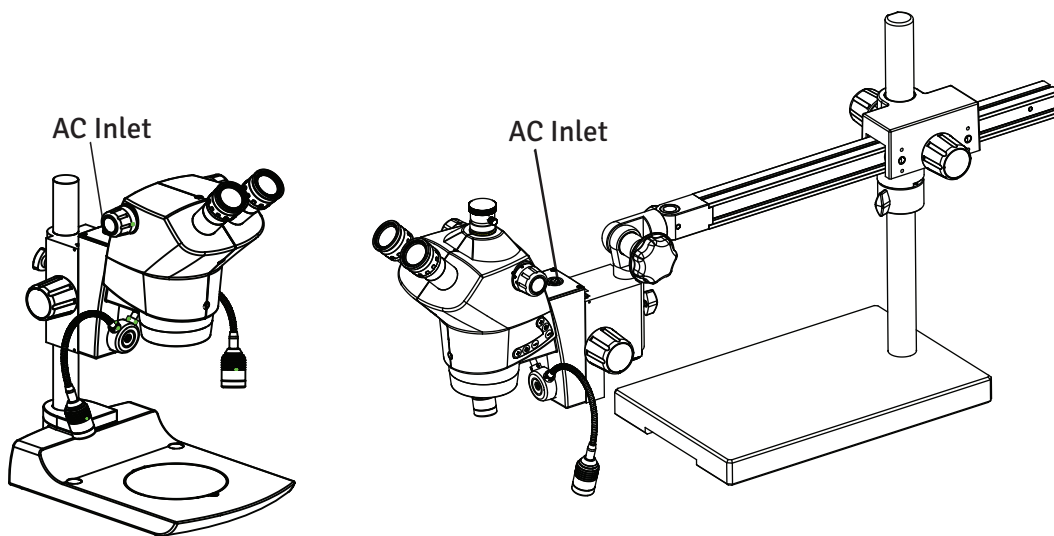
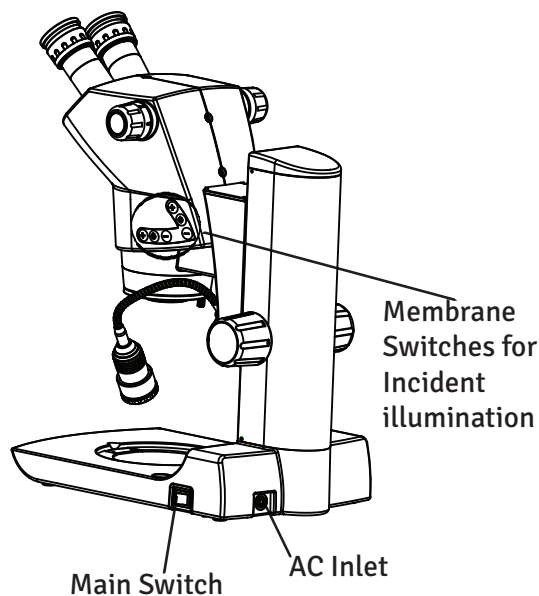
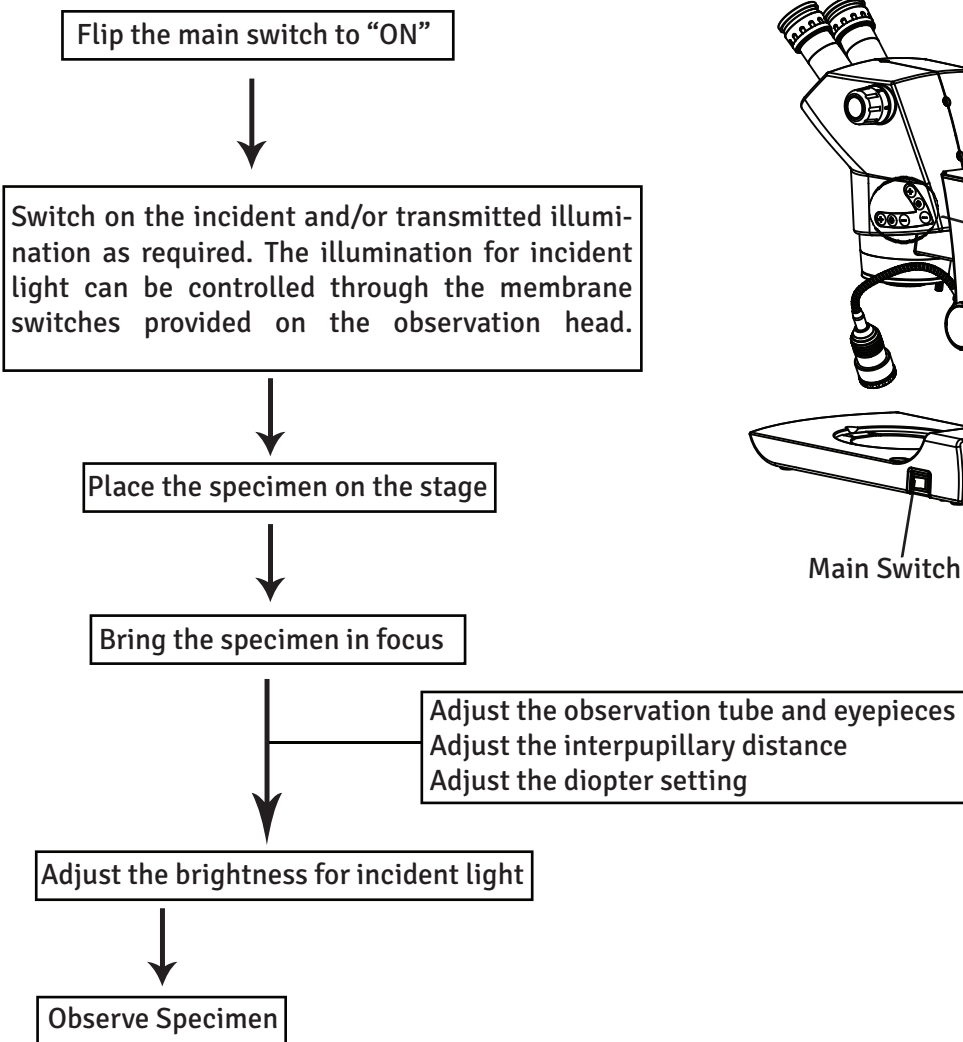
# 24. SYSTEM DIAGRAM

## LUXEO 6Z

GREENOUGH ZOOM SYSTEM (ZOOM RATIO 1:6)  
 ZOOM RANGE 0.8x TO 5x  
 INBUILT LED RING LIGHT  
 INBUILT GOOSE NECK



# 25. SUMMARY OF OBSERVATION PROCEDURE



## 26. TROUBLESHOOTING GUIDE

Under certain conditions, performance of the unit may be adversely affected by factors other than defects. If problems occur, please review the following list and take remedial action as needed. If you cannot solve the problem after checking the entire list, please contact Labomed for assistance.

OBSERVATION	CAUSE	REMEDY
Uneven brightness in observation field	The incident illumination is low. The transmitted illumination is blocked by the specimen.	Increase the incident illumination Place an opaque specimen or move the specimen. Use incident light.
All LED's are not glowing in incident light.	The LED control is wrongly select.	Press the button to glow all LED's, 11 front LED's or 12 rear LED's.
The LED does not glow.	The power cord id not attached. The LED are not switched on. The power button is not switched on. The fuse is blown.	Check the power cord. Attach is Precisely. Switch on the LED's. Switch indicator will glow when the power is on. Check the fuse. If blown, replace with a live fuse. Adhere caution!!
The specimen does not focus	The specimen is not focused properly. The specimen is too small. The specimen is too big.	Focus the specimen first on the lowest magnification. Achieve best focus using the coarse adjustment knob. The specimen is too small. Slide with micro dissection are not visible on stereo microscopes. The Specimen is too big to focus. Use smaller specimen.



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**CE**



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