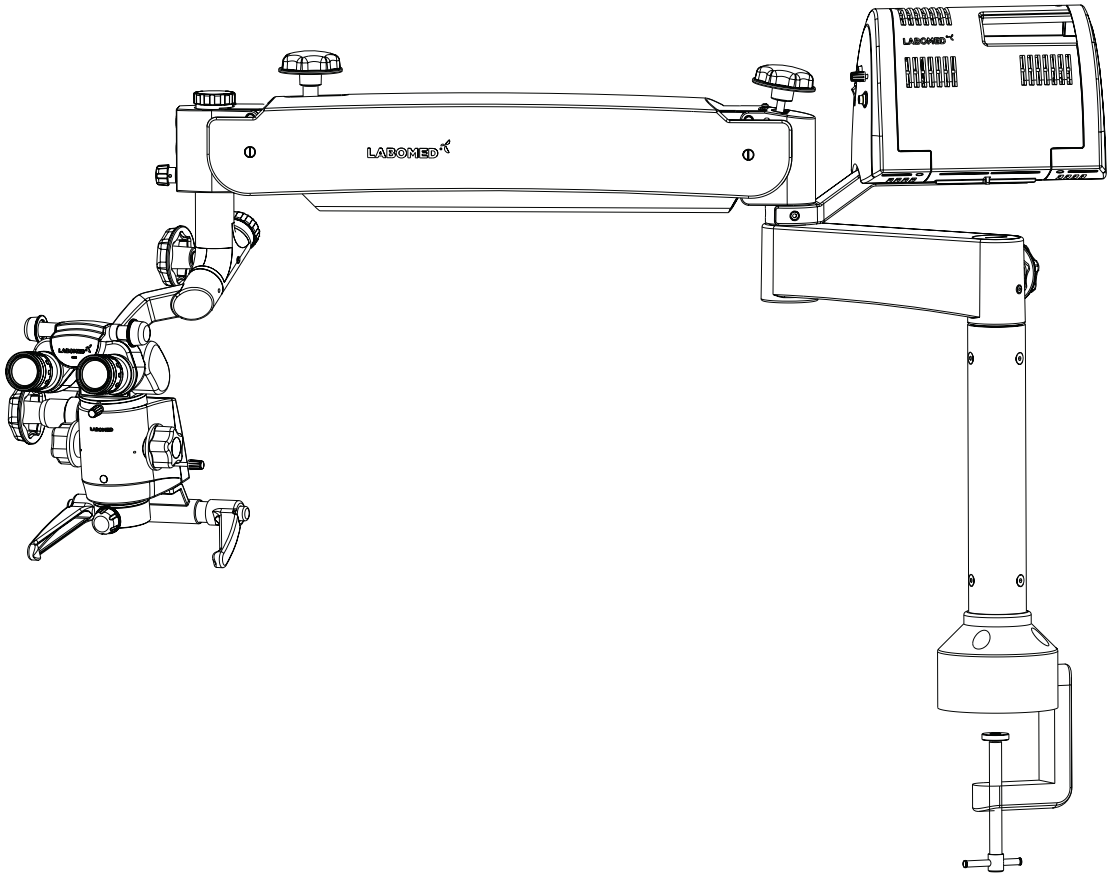
LABOMED
ideas for vision

PRIMA Trainer
Surgical Training Microscope

User Manual



To ensure correct use of this instrument and to avoid injury during operation, read this manual completely before use.

Part No.:
6167500-795

Issue 1.7 Printed
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WARNINGS & CAUTIONS

LABOMED is not responsible for the safety and reliability of this instrument when:
- Assembly, disassembly, repair or modification is carried out by unauthorized dealers or persons.
- The instrument is not used in accordance with this user manual.

A WARNING is an instruction that draws attention to the risk of injury or death.



WARNING: UNITED STATES FEDERAL LAW AND EUROPEAN REGULATIONS REQUIRE THAT THIS DEVICE BE PURCHASED ONLY BY A PHYSICIAN OR A PERSON ACTING ON BEHALF OF A PHYSICIAN.

WARNING: USE THIS INSTRUMENT IN STRICT ACCORDANCE WITH THE INSTRUCTIONS IN THIS USER MANUAL. THE SAFETY OF THE OPERATOR AND THE PERFORMANCE OF THE INSTRUMENT CANNOT BE GUARANTEED IF IT IS USED IN A MANNER NOT SPECIFIED BY LABOMED.

WARNING: DO NOT REPAIR OR SERVICE THIS INSTRUMENT WITHOUT AUTHORIZATION FROM THE MANUFACTURER. ANY REPAIR OR SERVICE MUST BE PERFORMED BY EXPERIENCED PERSONNEL OR DEALERS TRAINED BY LABOMED; OTHERWISE SERIOUS INJURY TO THE OPERATOR OR PATIENT MAY OCCUR.

WARNING: MODIFICATIONS TO THIS INSTRUMENT ARE NOT ALLOWED. ANY MODIFICATION TO THIS UNIT MUST BE AUTHORIZED BY LABOMED; OTHERWISE SERIOUS INJURY TO THE OPERATOR OR PATIENT MAY OCCUR.

WARNING: IF THIS INSTRUMENT IS MODIFIED, APPROPRIATE INSPECTION AND TESTING MUST BE CARRIED OUT TO ENSURE ITS CONTINUED SAFE USE.

WARNING: TO AVOID THE RISK OF ELECTRIC SHOCK, THIS EQUIPMENT MUST ONLY BE CONNECTED TO A SUPPLY MAINS WITH PROTECTIVE EARTH; OTHERWISE DAMAGE TO THIS INSTRUMENT AND/OR INJURY TO THE OPERATOR OR PATIENT MAY OCCUR.

WARNING: MAKE SURE THAT THE VOLTAGE APPLIED TO THE UNIT IS THE SAME AS THE VOLTAGE INDICATED ON THE DATA PLATE; OTHERWISE THE UNIT MAY BE DAMAGED.

WARNING: THIS INSTRUMENT MUST BE PLUGGED INTO AN OUTLET WITH AN EARTH GROUND. DO NOT REMOVE OR DEFEAT THE EARTH GROUND CONNECTION ON THE POWER INPUT CONNECTOR OR POWER CORD, OR DAMAGE TO THE INSTRUMENT AND/OR INJURY TO THE OPERATOR OR PATIENT MAY OCCUR.

WARNING: THE EQUIPMENT OR SYSTEM SHOULD NOT BE USED ADJACENT TO OR STACKED WITH OTHER EQUIPMENT. IF ADJACENT OR STACKED USE IS NECESSARY, OBSERVE THE EQUIPMENT OR SYSTEM TO VERIFY NORMAL OPERATION IN THE CONFIGURATION IN WHICH IT WILL BE USED.

WARNING: THIS INSTRUMENT IS NOT SUITABLE FOR USE IN THE PRESENCE OF FLAMMABLE ANESTHETIC MIXTURES WITH OXYGEN OR NITROUS OXIDE.

WARNING: BECAUSE PROLONGED INTENSE LIGHT EXPOSURE CAN DAMAGE THE RETINA, THE USE OF THE DEVICE FOR OCULAR EXAMINATION SHOULD NOT BE UNNECESSARILY PROLONGED, AND THE BRIGHTNESS SETTING SHOULD NOT EXCEED WHAT IS NEEDED TO PROVIDE CLEAR VISUALIZATION OF THE TARGET.

WARNINGS & CAUTIONS (continued)



A CAUTION is an instruction that draws attention to the risk of damage to the product.

CAUTION: THE INTERNAL CIRCUITRY OF THE INSTRUMENT CONTAINS ELECTROSTATIC-SENSITIVE DEVICES (ESD) THAT MAY BE DAMAGED BY STATIC CHARGES FROM THE HUMAN BODY. DO NOT REMOVE THE COVERS WITHOUT TAKING PROPER ESD PRECAUTIONS.

CAUTION: DO NOT USE SOLVENTS OR STRONG CLEANING SOLUTIONS ON ANY PART OF THIS INSTRUMENT, AS DAMAGE TO THE UNIT MAY OCCUR. SEE THE CLEANING AND SERVICING SECTION FOR DETAILED CLEANING INSTRUCTIONS.

CAUTION: MEDICAL ELECTRICAL EQUIPMENT NEEDS SPECIAL PRECAUTIONS REGARDING ELECTROMAGNETIC COMPATIBILITY (EMC) AND MUST BE INSTALLED AND SERVICED ACCORDING TO THE EMC INFORMATION PROVIDED IN THE ACCOMPANYING DOCUMENTS.

CAUTION: PORTABLE AND MOBILE RF COMMUNICATIONS EQUIPMENT CAN AFFECT MEDICAL ELECTRICAL EQUIPMENT.

CAUTION: DO NOT USE THIS INSTRUMENT NEAR HIGH-FREQUENCY SURGICAL EQUIPMENT.

CAUTION: THIS INSTRUMENT IS NOT INTENDED TO BE CONNECTED TO EQUIPMENT OUTSIDE LABOMED'S CONTROL UNLESS IT IS TESTED TO THE APPLICABLE IEC OR ISO STANDARDS.

CAUTION: DO NOT OPERATE THE DEVICE WITHOUT THE SILICONE COVERS ON THE HANDLES AND ALL KNOBS.

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DIMENSIONS

1 INTRODUCTION

The LABOMED Prima Trainer is designed for training programs in ENT, dental and ophthalmology labs and adapts to different needs without compromising performance.

The microscope delivers very high optical image quality, good depth of focus and a wide field of view for precise work. Illumination control, the built-in tilt and the adjustable observation head help reduce user fatigue and allow comfortable use over long periods.

Key features of this microscope:

1. The observation head can be positioned easily with the suspension arm.
2. An advanced 5-step magnification changer lets the user choose the optimal magnification for each procedure from five magnifications.
3. A high-intensity 50 W LED provides cold-light illumination through a fiber-optic light guide. The brightness is adjusted with the intensity control knob on the suspension arm, within easy reach of the user.
4. When the microscope is not in use, the suspension arm can be folded over the main body for compact storage.

Report any serious incident involving this device to Labotech Microscopes India Pvt. Ltd. or to your national health authority.

2 SAFETY INSTRUCTIONS

SAFETY

The instrument described in this manual has been developed and tested in accordance with LABOMED safety standards and with national and international regulations. This ensures a high degree of instrument safety.

This manual contains information on the safety aspects of using this product and a brief summary of important precautions for the user.

Additional safety notes appear in other parts of this manual; they are marked with a warning triangle containing an exclamation mark, as shown here. Pay special attention to these safety notes.

Safety is ensured only when this instrument is operated correctly. Read this manual carefully before switching the instrument on. Also read the user manuals of the other equipment used with this instrument. Further information is available from our service representatives.

DIRECTIVE / REGULATIONS:

- Regulation (EU) 2017/745
- IEC 60601-1, edition 3.1 (2012)
- IEC 60601-1-2, 3rd edition (2014)
- EN 55011:2016

CLASSIFICATIONS

- For Europe, under MDR 2017/745 the unit is a Class I instrument per Rule 13, Annex VIII.
- For the United States, the FDA classification is Class I.
- Observe all applicable accident prevention regulations.
- IP code: IP 20

3 SPECIAL INSTRUCTIONS FOR INSTALLATION & USE

SAFE WORKING ORDER

• Do not operate the supplied equipment in:

• Areas with a risk of explosion or fire, or in the presence of flammable anesthetics or volatile solvents such as alcohol, benzene or similar chemicals.

• Do not install, store or use the instrument in damp rooms. Protect the instrument from humidity, wet conditions, water splashes and water sprays.

• Do not use the instrument if you notice electrical arcing, sparks, abnormal noises, smoke or fumes. Unplug it immediately and contact an authorized LABOMED service representative.

Make sure that the power outlet is properly grounded

• Do not force cable connections. If the male and female parts do not connect easily, make sure they belong together. If any connector is damaged, have our service representative repair it.

• The effects of radio waves and interference on medical imaging systems and equipment are unpredictable. Do not use mobile phones or radios near the equipment.

- All repairs, customization and upgrades of this instrument must be carried out by an authorized LABOMED representative; otherwise the LABOMED product warranty does not apply.
- Operate the instrument only for its intended use and only after fully understanding the operating instructions or after training in its use by an authorized LABOMED representative.
- Use the instrument only with the accessories supplied. If you wish to use other accessories, make sure that LABOMED or the equipment manufacturer has certified that their use will not impair the safety of the instrument.
- Keep the user manual accessible at all times.
- **Do not pull at the light source cable, at the power cord or at the other cable connections.**

We recommend having the instrument checked once every 12 months to ensure optimum performance.

Requirements for operation

Only an authorized LABOMED agent or representative may install the instrument. Make sure the following requirements for operation continue to be met:

- All mechanical connections relevant to safety (details in the user manual) are properly made and all screw connections are tightened.

- All cables and plugs are in good working condition.

- The voltage setting of the instrument matches the rated voltage of the local power supply.

- The power cord used is the one designed for use with this instrument.

Before every use after re-equipping the instrument

- Make sure all “Requirements for operation” are met.

- Go through the checklist.

- Refit or close any covers, panels or caps that have been removed or opened.

- Pay special attention to warning symbols on the instrument (triangular warning signs with exclamation marks), labels and any parts painted red, such as screws or surfaces.

For every use of the instrument

- Avoid looking directly into the light source, e.g., into the microscope objective lens or a light guide.

- All light radiation affects skin and biological tissue. For your own protection, keep the light level to the absolute minimum required for your procedure.

Warning!

Use only the correct configuration of the LABOMED Prima Trainer microscope for the related procedure.

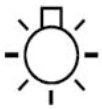
4 WARNING LABELS AND NOTES



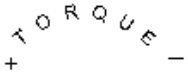
Caution:
Observe all warning labels and notes!
If a label is missing from your instrument or has become illegible, contact us or one of our authorized representatives. We will supply the missing labels.



Instrument label plate
The instrument label plate indicates the following:
- name of the unit
- cat. no.
- rated voltage and current consumption
- serial number
- safety compliance
- brand name



Brightness control
Once the illumination is switched on, you can adjust the brightness of the fiber illumination continuously by turning the knob.



Balance setting
Turn the screw to adjust the balance setting of the suspension arm.



Maximum load
When surgical microscopes are mounted on the suspension system, the total weight of the microscope including accessories and coupling must not exceed a maximum of 7.5 kg. See the user manual of the suspension system for the permissible maximum load.



Consult the accompanying documents

REF

Catalog number



Protective earth



This way up: indicates the correct upright position of the transport package.



Keep dry: keep the transport package away from rain.



Compliance with the Medical Device Regulation (EU) 2017/745 (MDR).



Manufacturer



Fragile: the contents of the transport package are fragile and must be handled with care.

MD

Medical device

EC REP **Authorized European representative**

SN **Serial no. (YY year, MM month, XXXX serial no.)**

REF **Model no.**



Max. safe load 9 kg

IP 20 Ingress protection

5 UNPACKING

The device is delivered in pre-assembled modules, together with one installation kit and one instruction/service manual.

When unpacking, check for the following:

1. Table mount

2. Column

3. Swivel arm and suspension arm assembly with fiber-optic cable

4. eVALUX illumination box

5. Inclined coupling with magnification changer assembly and objective (as ordered)

6. Observation head (inclined or ergo), as ordered

7. Pair of eyepieces, as ordered

8. Power cord

9. Set of sterilizable caps

10. Installation kit

    a) Allen wrench 5.00 mm
    b) Allen wrench 8.00 mm

11. Instruction and operating manual / service manual

6 DESCRIPTION OF PARTS

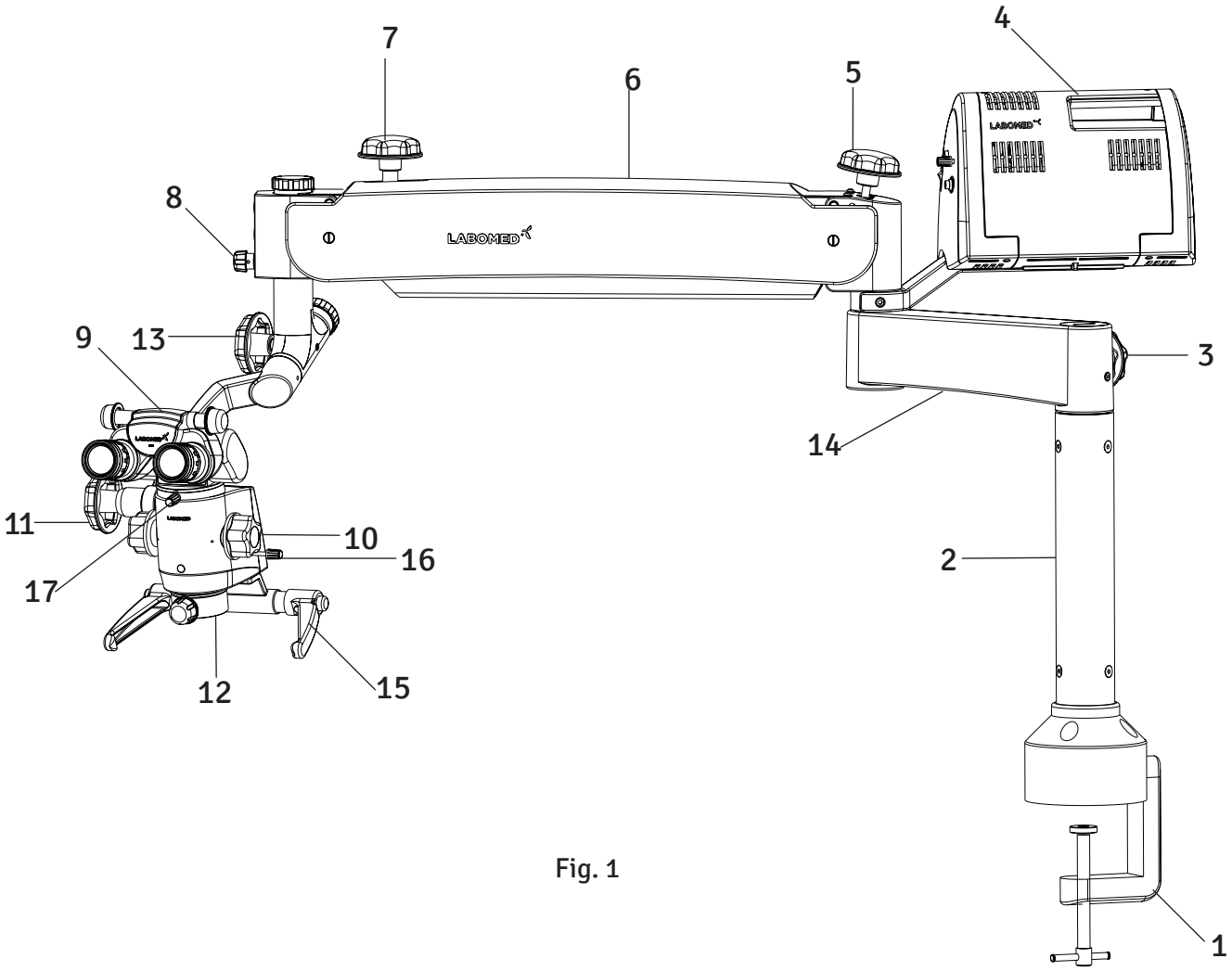
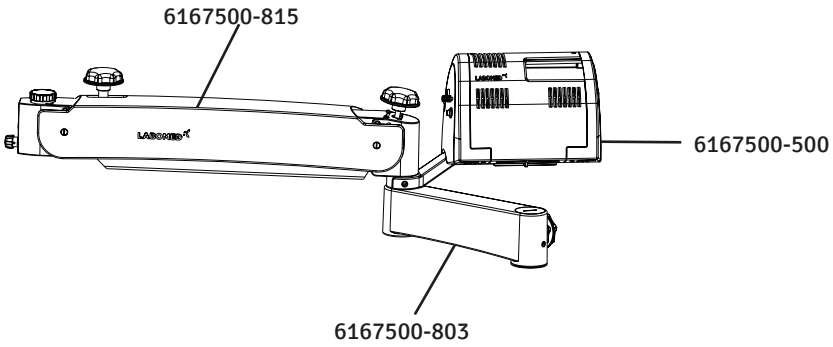
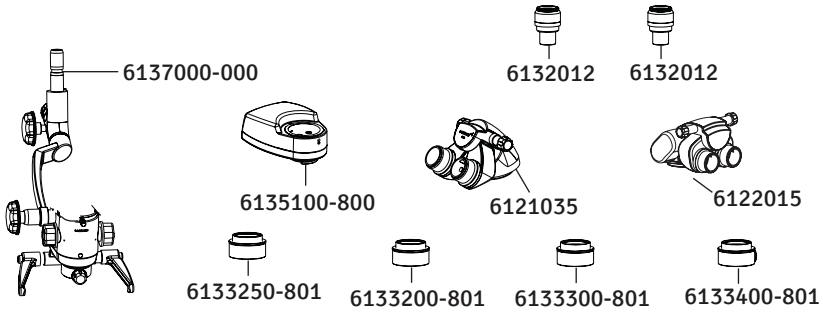


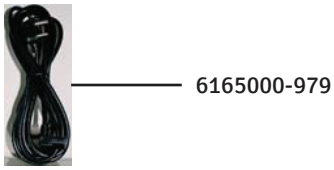
Fig. 1

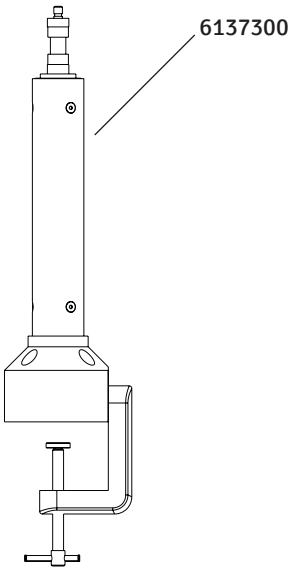
1. Table clamp
2. Column
3. Swivel arm locking knob
4. eVALUX illumination box
5. Tension adjustment knob
6. Suspension arm
7. Suspension arm hydraulic movement lock
8. Illumination control knob
9. Binocular head with eyepieces
10. Magnification changer knob
11. Magnification changer locking knob
12. Common main objective
13. Carrier locking knob
14. Swivel arm
15. Handles
16. Filter knob
17. Binocular head locking knob

7 SYSTEM DIAGRAM









PART NUMBERS AND DESCRIPTIONS

	PART NO.	DESCRIPTION
1.	6167500-803	Swivel arm
2.	6167500-815	Suspension arm assembly
3.	6167500-500	eVALUX illumination box
4.	6137000-000	Microscope carrier and magnification changer assembly
5.	6132012	12.5× eyepiece
6.	6132010	10× eyepiece
7.	6121035	45° inclined binocular head
8.	6122015	210° straight binocular tube
9.	6133250-801	250 mm objective
10.	6133200-801	200 mm objective
11.	6133300-801	300 mm objective
12.	6133400-801	400 mm objective
13.	6137300	Table mount
14.	6135100-800	iVU S5 digital camera module
15.	6165000-979	Indian power cord
16.	6165000-974	Schuko power cord
17.	6165000-973	US power cord
18.	6162086-972	Australian power cord

8 INSTALLATION

8.1 Mount the column on the tabletop and tighten the clamping screw from below, as shown at (A) in Fig. 2.

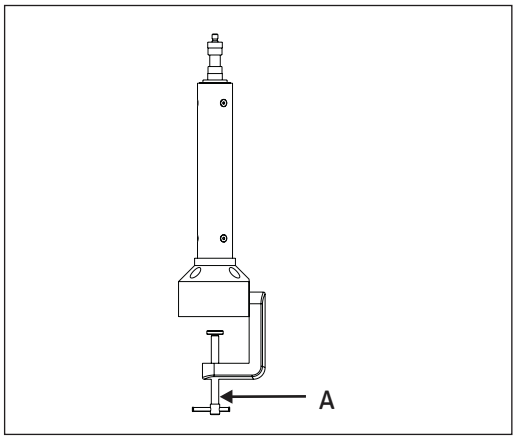


Fig. 2

8.2 Take the swivel arm and suspension arm assembly out of the packing box.

Make sure the swivel arm locking knob (A) is loose. Install the swivel arm assembly on the upright column (1), Fig. 3.

Tighten screw (2) as shown in Fig. 3 to secure the swivel arm with the suspension arm.

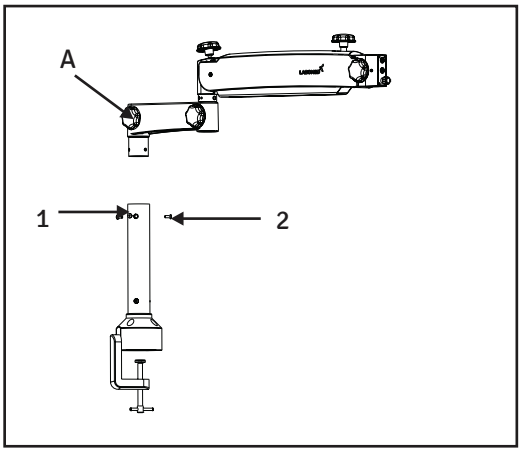


Fig. 3

8.3 Take the eVALUX illumination box with the small column assembly out of the packing box.

Fit it between the swivel arm and suspension arm assembly as shown in Fig. 4 and secure it with the screws provided.

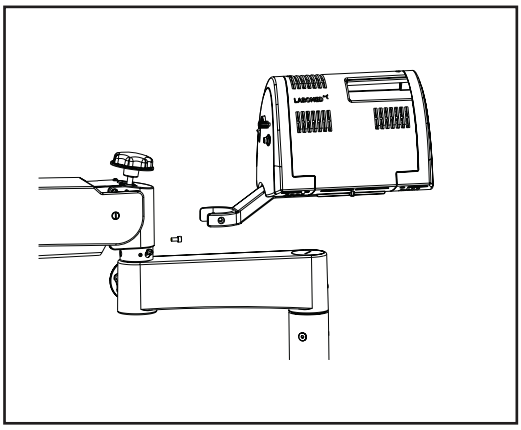


Fig. 4

8.4 Take the carrier assembly out of the packing box and proceed as follows (see Fig. 5).

- Install the coupling on the suspension arm by sliding the guide shaft (1) into the suspension arm.
- Lock the inclined coupling with the threaded plug (3).
- Make sure the magnification changer handles (M) have their silicone covers.

Make sure the safety screw is tightened in place at position (2) so that the coupling cannot fall. The safety screw is tagged inside the arm.

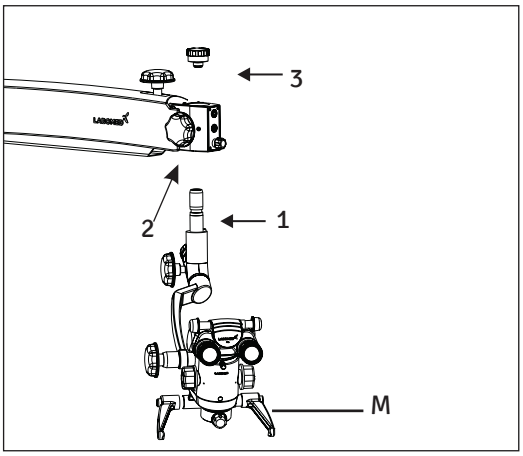


Fig. 5

8.5 Mounting the light guide

- Switch off the illumination system.
- The light guide is pre-routed through the eVALUX illumination box (which houses the LED illumination system) and the suspension arm.
- Insert the light guide into the receptacle in the microscope until it clicks into position, as shown at A in Fig. 6. The fiber cable must index into position when it is inserted into the fiber-optic mount.
- Route the light guide so that the carrier system and the microscope are not obstructed and can move through their entire range of movement without stretching, kinking or twisting the light guide.

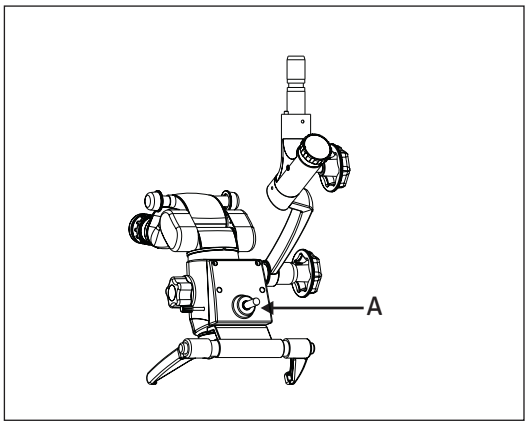


Fig. 6

8.6 Install the binocular head and eyepieces on the magnification changer. Secure the binocular head with the head locking screw, shown as (A) in Fig. 6a.

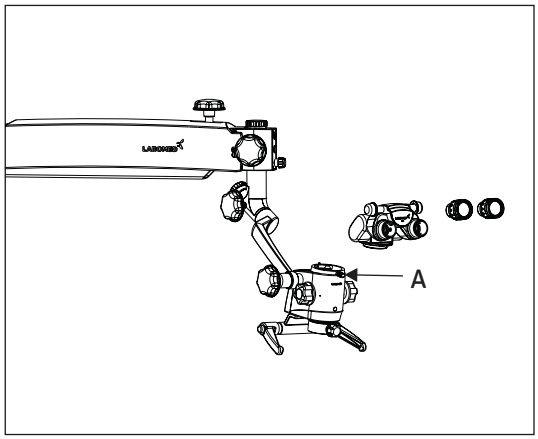


Fig. 6 a

9 ELECTRICAL CONNECTIONS

Connect the power cable to the AC inlet socket (2) on the back of the illumination box, shown as (1) in Fig. 7.

Switch on the power with the ON/OFF switch on the front of the illumination box.

Note: The power supply has a universal input of 100–240 V AC, 50/60 Hz. Before plugging in, follow the instructions on the electrical label at the bottom of the arm, shown as (3) in Fig. 7.

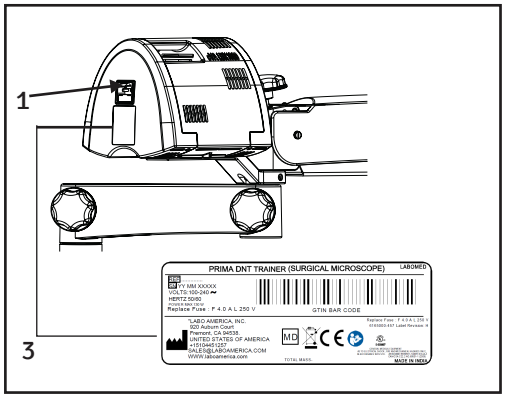


Fig. 7

10 CONTROLS

10.1 ON/OFF switch
The switch is on the front of the illumination box, shown as (A) in Fig. 8a. In the “ON” position the green LED lights and the cooling fan runs. Set the intensity control knob to minimum before switching on the system.

To extend the life of the LED, switch the unit OFF when the microscope is not in use for long periods.

10.2 Intensity control knob
The knob is on the front of the suspension arm, shown as (A) in Fig. 8. Use it to adjust the brightness of the field of view as required.

10.3 Swivel arm locking knob
Turn this knob, shown as (B) in Fig. 8, clockwise to lock the swivel arm in the desired position after initial focusing on the treatment area.

10.4 Camera and potentiometer output (center), shown as D in Fig. 8

10.5 Camera output, shown as E in Fig. 8

10.6 Camera potentiometer inlet, shown as G in Fig. 8a

10.7 Yellow filter (swing in and out), shown as F in Fig. 8a

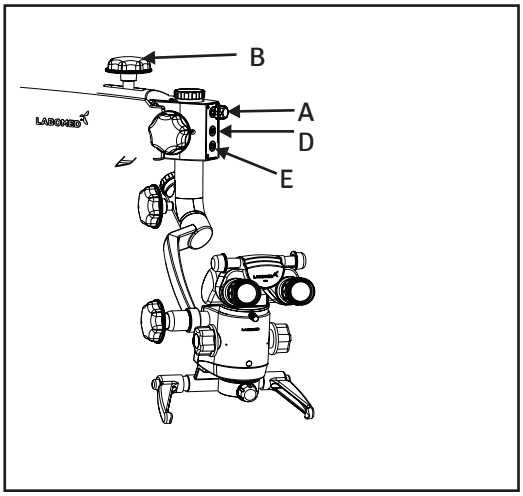


Fig. 8

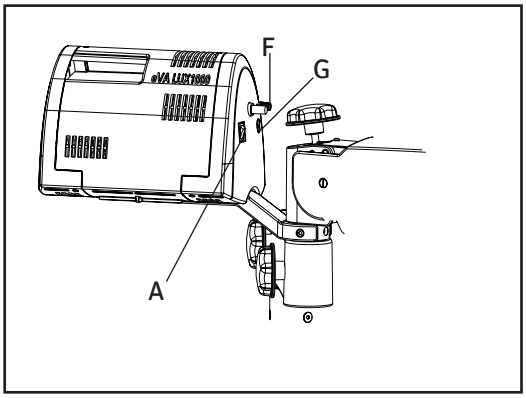


Fig. 8a

11 INSTRUCTIONS FOR USING THE MICROSCOPE

Setting up the microscope:

1. Clamp the table mount securely to the table.

2. The tension of the microscope is factory set for the ordered configuration. The user can still adjust the up and down force by turning knob (B) clockwise or counterclockwise.

3. After coarse focusing on the treatment area, lock the up and down movement of the suspension arm with locking knob (C) in Fig. 10.

4. Adjust the interpupillary distance on the IPD scale as required.

5. The illumination is controlled with the control knob (A), Fig. 9. Turn it clockwise or counterclockwise to obtain the desired illumination level. For the functional setup, keep it at minimum.

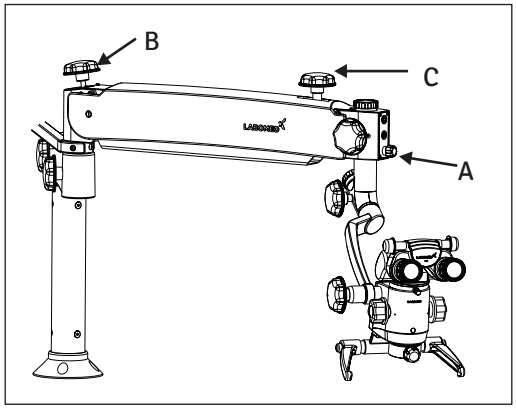


Fig. 9

Setting the magnification (see Fig. 10)

1. Set the highest magnification with one of the rotating knobs (10a) on the magnification changer.

2. Fine focusing is done with the knob (10b) on the objective, as shown in Fig. 10.

3. Center the observation area precisely in the field of view with the handle (10c).

4. Make sure the magnification changer is engaged at the index point (click stop position).

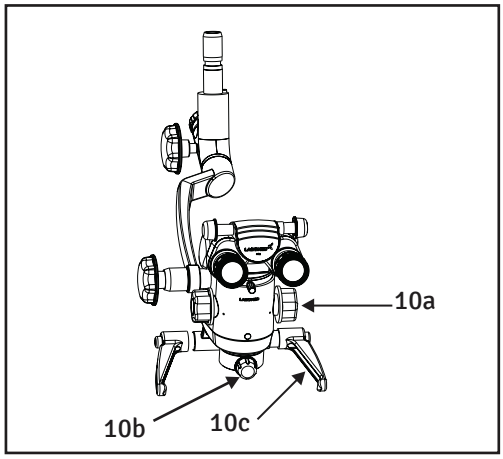


Fig. 10

11 INSTRUCTIONS FOR USING THE MICROSCOPE

Intended use:

The PRIMA Trainer microscope is designed for teaching procedures in ENT, dental and ophthalmology training labs and meets the special requirements of these disciplines.

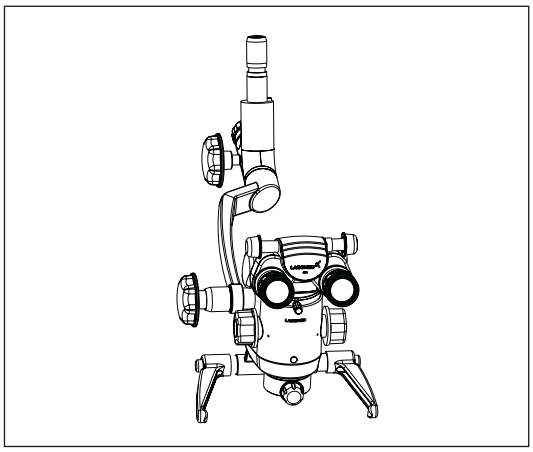


Fig. 11

Description of the modules

Main microscope

The MaxLite-coated optics of the main microscope provide superb optical quality. The microscope image shows optimum contrast and excellent detail recognition with a large depth of field. The bright microscope image is a particular benefit in vitreoretinal surgery.

The standard objective lens has a focal length of f = 250 mm and a fine focusing knob; objective lenses with f = 200 mm, 300 mm and 400 mm are available as options for different working distances.

The ergonomic 210° tiltable binocular tube is provided for the main user.

The standard equipment includes eyepieces with a magnification of 10× (option: 12.5×).

12 CHANGING THE OBJECTIVES AND EYEPIECES

1. To remove the objective, turn it counterclockwise. To install it, screw it in clockwise.

2. To install the eyepieces, insert them in the eye tubes of the observation head.

3. A range of objectives and eyepieces is available to choose from.

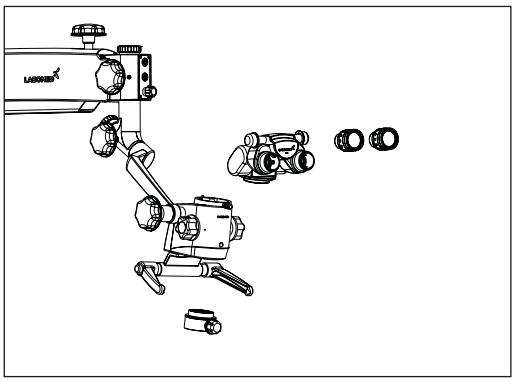


Fig. 12

13 REPLACING THE ILLUMINATION SOURCE

Loosen the screws of the eVALUX illumination box as shown in Fig. 13. Detach the fiber-optic cable and replace the illumination assembly A with a new assembly. Refit the illumination box with its screws.

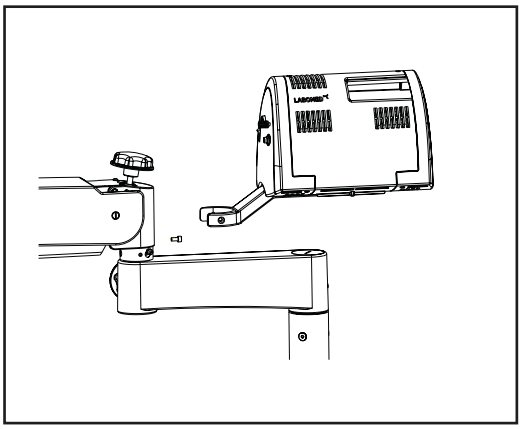


Fig. 13

14 FUSE REPLACEMENT

The fuse holder is part of the AC inlet on the back of the illumination box, as shown in Fig. 14. Open the fuse compartment with a flat-head screwdriver. The compartment holds two fuses: the live fuse and a spare. Replace the blown fuse with the spare and close the fuse compartment.
For the fuse rating, see the label next to the AC inlet, as shown in Fig. 14.

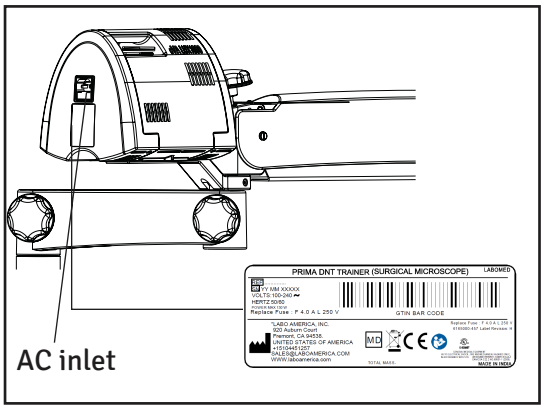


Fig. 14

15 ADJUSTMENT OF TENSION WHILE USING ACCESSORIES

After supplementary accessories are mounted, compensate for the additional load on the suspension arm by turning the tension control knob (B) on the suspension arm clockwise or counterclockwise.

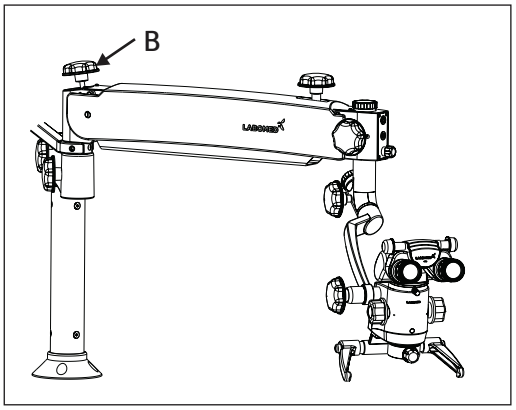


Fig. 15

16 THERMAL CUT-OFF

The instrument is designed for safe operation, with sufficient cooling from natural and forced air circulation by the fans in the electrical box. It also has a built-in “auto thermal cut-off” safety mechanism that acts if the LED temperature exceeds 70 °C. If the thermal cut-off fails, there is no risk to the instrument; at most the LED may fail. The user then only needs to replace the LED, and the thermal cut-off works again. To replace the LED, call LABOMED service personnel or an authorized dealer.

LED specifications: 3.7 V, 13.5 A

17 CLEANING AND SERVICING

17.1 CLEANING OPTICAL SURFACES:

The MaxLite multilayer coating of the optical components (e.g., eyepieces and objective lenses) ensures optimum image quality. Even slight contamination impairs image quality. To protect the internal optics from dust, never leave the system without the objective lens, binocular tube and eyepieces. After use, cover the system to protect it from dust. Always store optical components and accessories that are not in use in dust-free cases.

Clean the external surfaces of optical components as required.
Never spray fumigants directly onto the instrument or optical surfaces.

17.2 CAUTION:

Do not use chemical detergents or aggressive substances. They may damage the optical surfaces.

- Remove coarse dirt (splashes, blood, etc.) with distilled water to which a dash of household dishwashing liquid has been added. Wipe the surface only with a damp cloth, never with a wet one. Any remaining marks can be removed easily with the following aids.
- For thorough cleaning of optical surfaces, use the optics cleaning set or damp optics cleaning wipes (available from specialized dealers).
- Remove minor contamination such as dust or streaks with a clean microfiber cleaning cloth (available from specialized dealers).

17.3 CLEANING MECHANICAL SURFACES:

All mechanical surfaces of the equipment can be cleaned by wiping them with a damp cloth. Do not use aggressive or abrasive detergents.
Wipe off any residue with a mixture of 50% ethyl alcohol and 50% distilled water plus a dash of household dishwashing liquid.

17.4 STERILIZATION

The asepsis sets available from LABOMED contain rubber caps, sleeves and grips that can be sterilized in an autoclave. We recommend the following sterilization program:

Sterilization temperature: 134 °C
Sterilization time: 10 minutes
Instrument: standard autoclave

AMBIENT CONDITIONS

For Operation	Temperature Rel. Humidity (without condensation) Air Pressure	+10 °C to +40 °C 30% to 90% 700 hPa to 1,060 hPa
For Transportation and Storage	Temperature Rel. Humidity (without condensation) Air Pressure	-40 °C to +70 °C 10% to 100% 500 hPa to 1,060 hPa

The device has been subjected to the conformity assessment procedure in accordance with Article 52(7) and technical documentation in accordance with Annexes II and III of Regulation (EU) 2017/745. These devices are Class I (without a measuring function and non-invasive) per Rule 1, Annex VIII of Regulation (EU) 2017/745 (MDR). The CE mark on the microscope indicates conformity with the legal requirements.

18 TROUBLESHOOTING TABLE

This instrument is a high-quality technical product and requires no special periodic maintenance if handled carefully. To ensure optimum performance and safe working order, check its safety once every 12 months. We recommend having this check performed by our service representative as part of regular maintenance. If a fault occurs that you cannot correct with the troubleshooting table, attach a sign to the instrument stating that it is out of order, and contact our service representative for service, parts or circuit diagrams.

Problem	Possible Cause	Remedy
No illumination	Power cable not plugged in	Plug in power cable
	Power switch in OFF position	Set the power switch to ON
	Defective instrument fuse	Change the fuse
	Defective power cable	Change the power cable
	Line power failure	Contact the in-house technician
	Failure of suspension system electronics	Contact the service department
	Light guide not properly inserted in the microscope arm	Insert the light guide properly to get maximum illumination
Insufficient illumination	Brightness level set too low	Adjust the brightness control knob
	Light guide not properly inserted in the microscope arm	Insert the light guide properly to get maximum illumination
	Defective light guide (illumination not uniform)	Change the light guide
Surgical field illumination not working	Surgical field illumination not working	Insert the light guide as far as it will go
	Failure of electronics	Illuminate the surgical field with an alternative illuminator and contact the service department
	Switched off by the limit switch on the suspension arm system	Move the suspension system into the working position
	The thermal cut-off in the lamp housing is contaminated	Clean the thermal cut-off with a dry brush or blow it clean with compressed air
	Defective fan; failue of system electronics	Contact the service department

Problem	Possible Cause	Remedy
Up and down motion of the knob on the suspension system is too stiff	The friction adjustment screw on the suspension system is tightened too firmly	Loosen the friction adjustment screw on the suspension system as needed
No image visible in the field of view	Magnification changer not indexed properly	Index the magnification changer properly

19 DISPOSAL

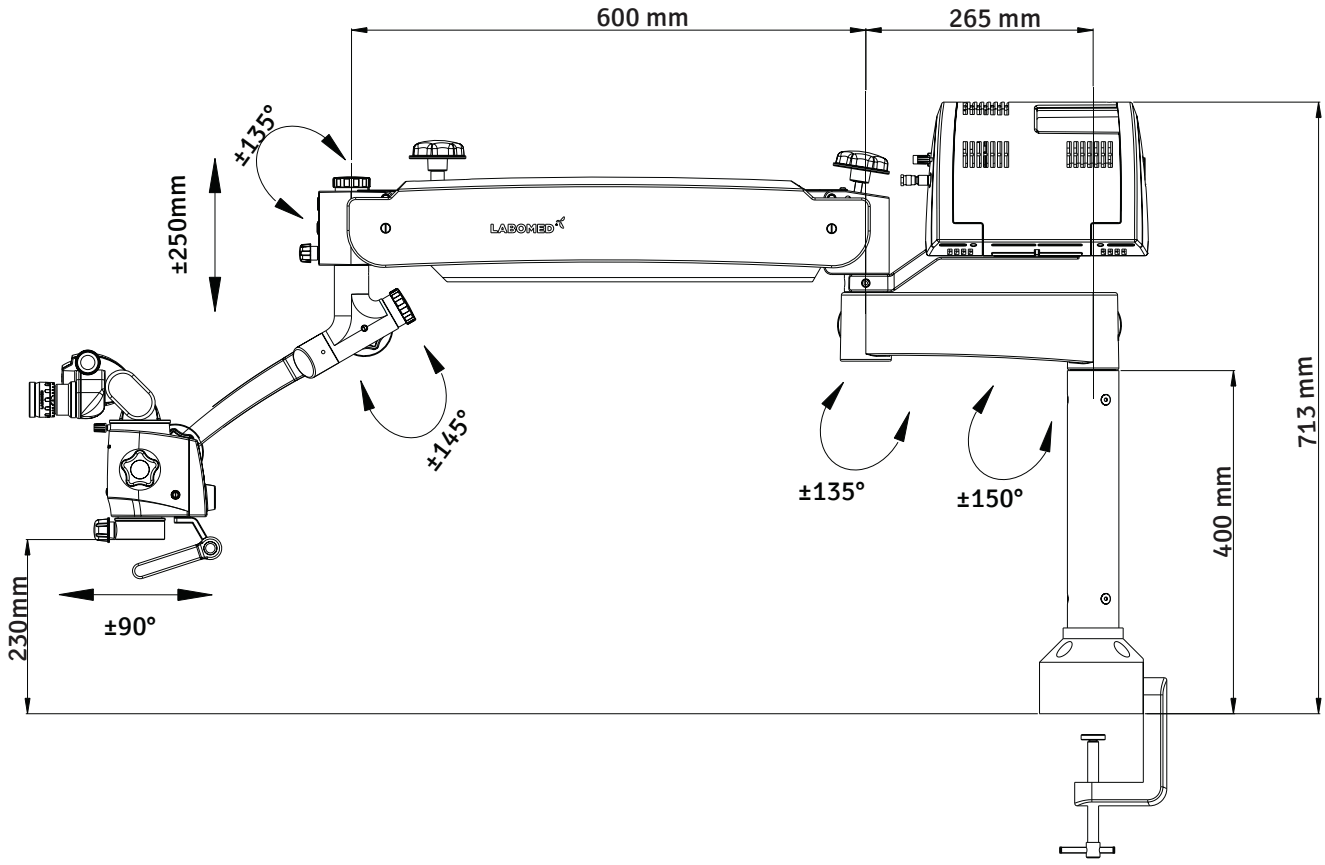
Disposal of the instrument must comply with locally applicable laws and regulations.

20 SPECIFICATIONS

Binocular tubes	210° or 45° inclined head
Eyepieces	WF 10×/16 mm with eyecups; optional WF 12.5×/16 mm
Apochromatic magnification changer	0.4×, 0.6×, 1.0×, 1.6× and 2.5×
Objective	f = 250 mm, manual fine focus (optional f = 200, 300 or 400 mm)
Light source	50 W LED
Built-in filters	Green and yellow
Vertical movement of arm	550 mm
Microscope carrier	Straight carrier
Accessories	iVu S5 beam splitter with integrated digital camera module
Type:	Table mount
Pillar height:	400 mm
Weight of complete microscope:	22 kg approx.
Elevation stroke:	500 mm
Stand height in horizontal position:	713 mm

21 DIMENSIONS

TABLE MOUNT



Revision History

Rev. No.	Date of Release	DCR #	Change	App. By
1.2	**Aug, 2024**	**DCR/11/2024**	**Regulatory Information**	**S.Bal**
1.3	**Sep, 2024**	**DCR/12/2024**	**Symbols updated per EU MDR 2017/745 & ISO 15223**	**S Bal**
1.4	**Jan, 2025**	**DCR/01/2025**	**Max. Safe load symbol added**	**S Bal**
1.5	**June, 2025**	**DCR/14/2025**	Typo corrected (MDR Regulation (EU) 2017/745) and caution for fiber-optic cable indexing added	**S Bal**
1.6	**July, 2025**	**DCR/16/2025**	Silicone cover instructions added	**S Bal**
1.7	**Feb, 2026**	**DCR/04/2026**	IP code added	**S Bal**

LABOMED
ideas for vision

Manufacturer: Labotech Microscopes India Pvt. Ltd.
Sales and Distribution:
Labo America Inc.
920 Auburn Court
Fremont, CA
94538
U.S.A.

Phone: 510-445-1257
Email:
sales@laboamerica.com
www.laboamerica.com

EC REP

Labomed Europe b.v
Essebaan 50
2908 LK Capelle aan den IJssel
The Netherlands
Tel: +31 (0)10 4584222
E-mail: info@labomedeurope.com
www.labomedeurope.com

CE

DQS Inc.
Labo America Inc.
Registered to ISO 9001:2015
BR Number 10005565

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LABOTECH MICROSCOPES INDIA Pvt Ltd