OPTIKA®
ITALY

ACCESSORIES Series

INSTRUCTION MANUAL

Model
M-635
M-666
M-1144
M-1190H
ST-666

Ver. 1.0 2024

Table of contents

1. Warning

This illuminator is a scientific precision instrument designed to last for many years with a minimum of maintenance. It is built to high optical and mechanical standards and to withstand daily use. We remind you that this manual contains important information on safety and maintenance, and that it must therefore be made accessible to the instrument users. We decline any responsibility deriving from incorrect instrument use uses that does not comply with this manual.

2. Safety Information

Avoiding Electrical Shock

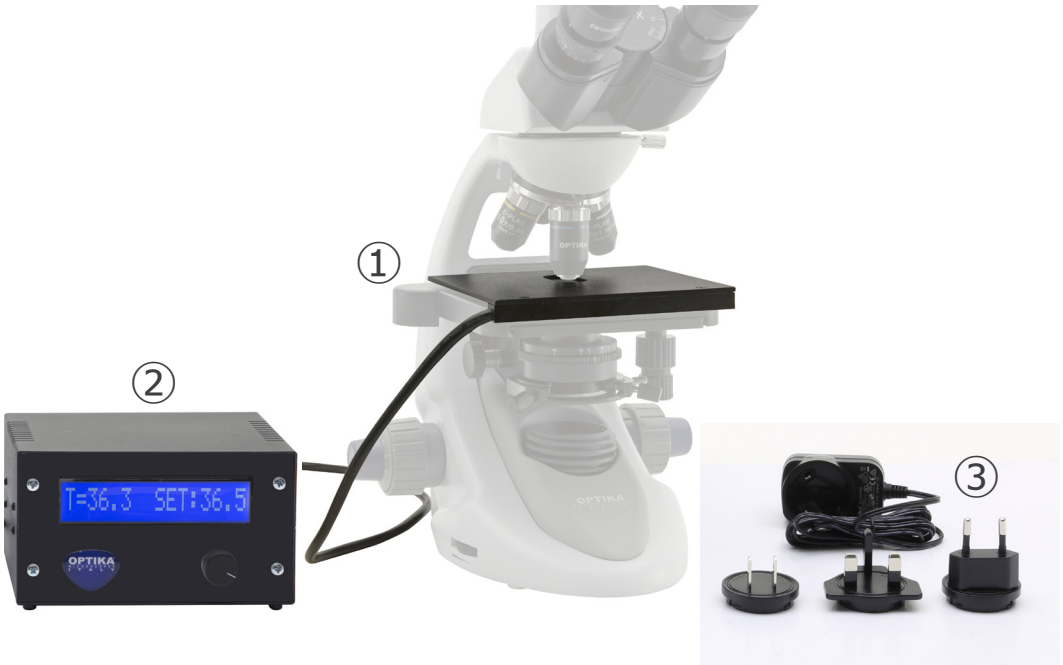
Before plugging in the power supply, make sure that the supplying voltage of your region matches with the operation voltage of the equipment and that the lamp switch is in off position. Users should observe all safety regulations of the region. The equipment has acquired the CE safety label. However, users have full responsibility to use this equipment safely. Please follow the guidelines below, and read this manual in its entirety to ensure safe operation of the unit.

3. Package content

3.1 M-635

① Heating stage (installed on the microscope)
② Temperature controller
③ Power supply

3.2 M-666 / M-666.290



① Heating stage (installed on the microscope)
② Temperature controller
③ Power supply

3.3 M-1144

① Heating stage
② Temperature controller
③ Power supply

3.4 M-1190H

① Heating stage
② Temperature controller
③ Power supply

3.5 ST-666

① Heating stage
② Temperature controller
③ Power supply

4. Unpacking

The device is housed in a moulded Styrofoam container. Remove the tape from the edge of the container and lift the top half of the container. Take some care to avoid that the optical items (objectives and eyepieces) fall out and get damaged. Using both hands (one around the arm and one around the base), lift the illuminator from the container and put it on a stable desk.

Do not touch with bare hands optical surfaces such as lenses, filters or glasses. Traces of grease or other residuals may deteriorate the final image quality and corrode the optics surface in a short time.

5. Intended use

Standard models

For research and teaching use only. Not intended for any animal or human therapeutic or diagnostic use.

IVD Models

Also for diagnostic use, aimed at obtaining information on the physiological or pathological situation of the subject.

6. Symbols and conventions

The following chart is an illustrated glossary of the symbols that are used in this manual.

CAUTION

This symbol indicates a potential risk and alerts you to proceed with caution.

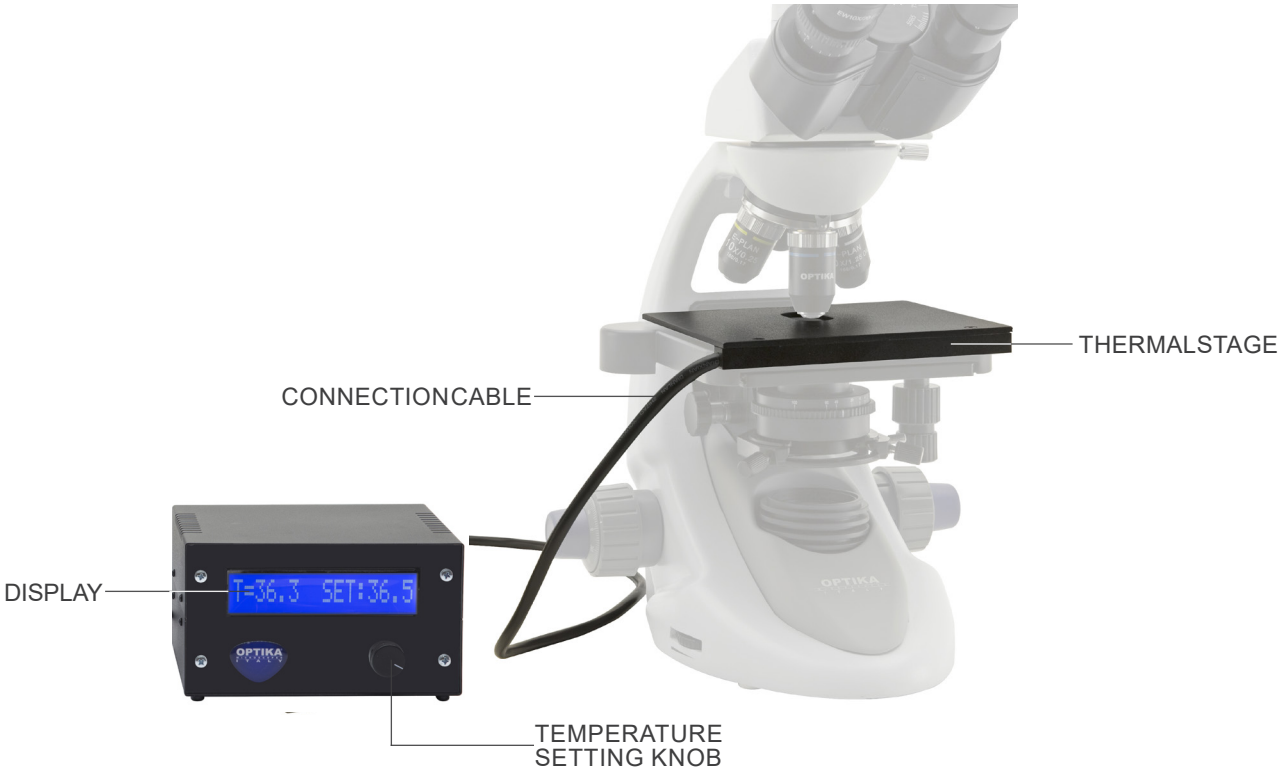
ELECTRICAL SHOCK

This symbol indicates a risk of electrical shock.

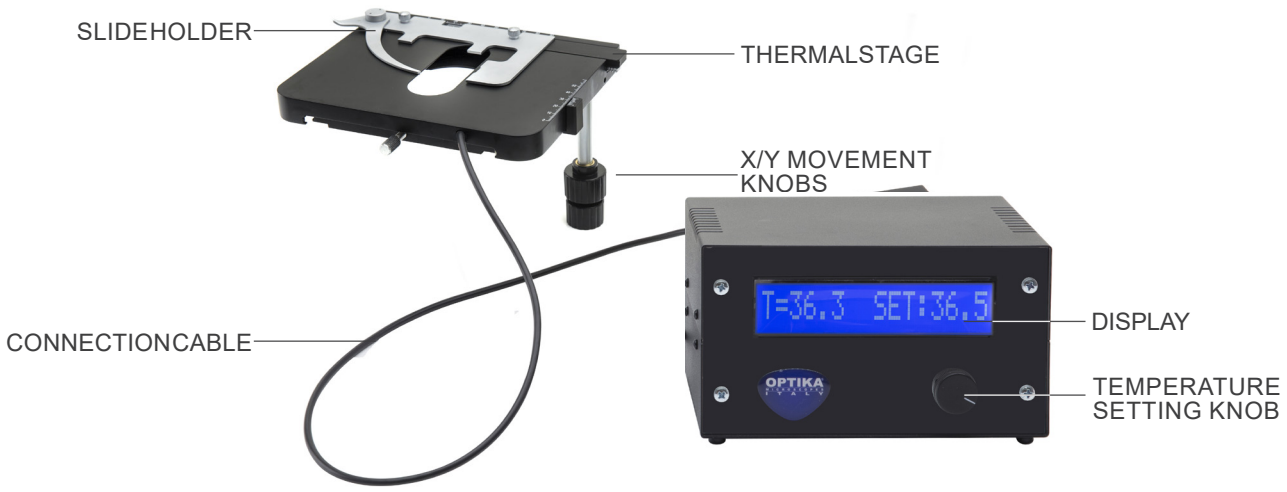
7. Instrument description

7.1 M-635

7.2 M-666

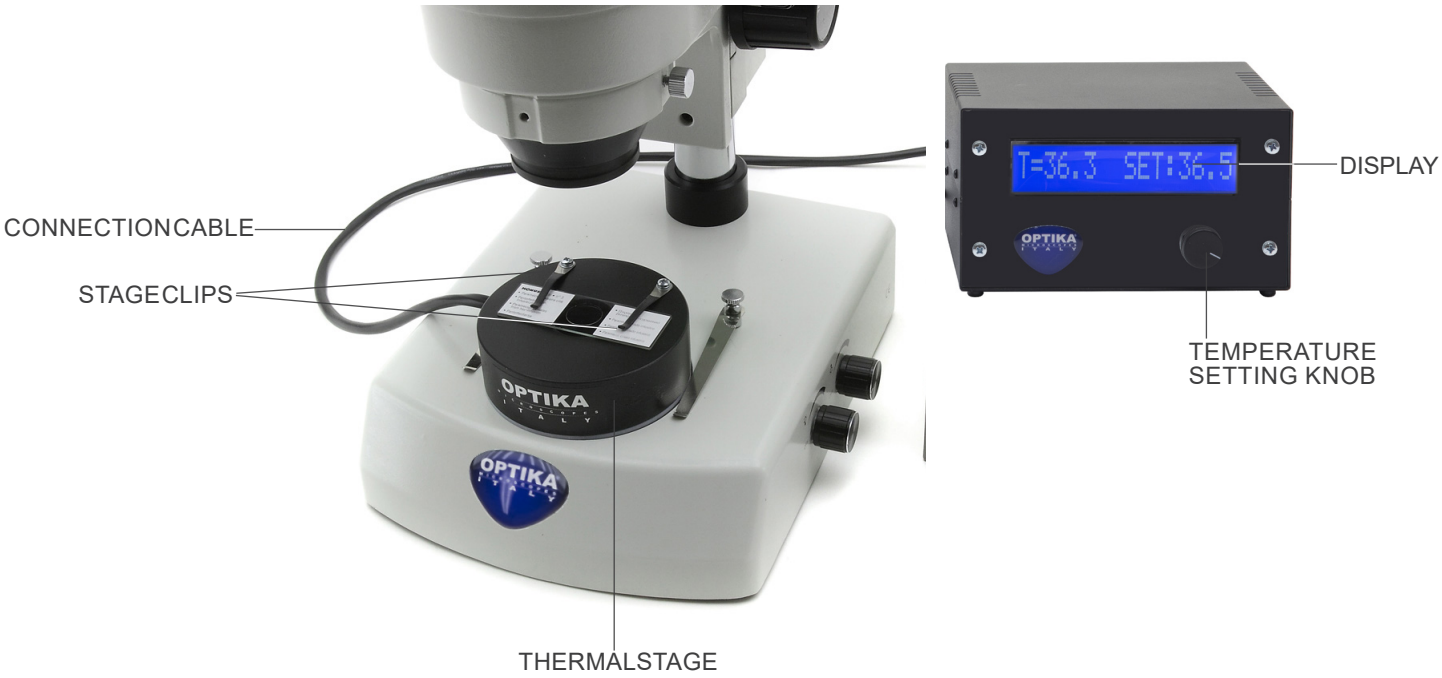


7.3 M-1144



7.4 M-1190H

7.5 ST-666



All models: temperature controller back panel

8. Assembling

8.1 Stage assembling

8.1.1 M-635 / M-1190H

The stage comes already installed on the microscope from the factory. No further installation procedure is required.

8.1.2 M-666.290

The stage comes already installed on the microscope from the factory. No further installation procedure is required.

8.1.3 M-666

Assemble the stage according to the type of microscope owned by the user.

8.1.4 M-1144

1. Lower the stage holder using the coarse focus knob, then place the stage and firmly tighten the lock screw ①. (Fig. 1)

2. Plug the jack of the heating stage cable into the socket ② in the back side of the controller.
3. Plug the jack of the power supply into the socket ③ in the back side of the controller. (Fig. 2)

8.1.5 ST-666

1. Remove the stage plate from the microscope base.
2. Place the bottom of the heating stage in the empty hole. (Fig. 3)
3. Plug the jack of the thermal stage cable into the socket ② in the back side of the controller.
4. Plug the jack of the power supply into the socket ③ in the back side of the controller. (Fig. 2)

9. Use of the heating stage

9.1 Switching the stage

1. Operate on the main switch ① to turn ON / OFF the controller. (Fig. 5)

Fig. 4

9.2 Temperature setting

1. Operate on the temperature setting knob ② to set the desired temperature. The value “SET” will change accordingly on the LED display. (Fig. 5)
2. Once the desired temperature has been set, the controller is activated to reach the set temperature.
- The current temperature value can be read on the left side of the LED display “T=xxx”.
3. Once the desired temperature is reached, the controller maintains the stage at the set temperature.

Fig. 5

10. Maintenance

Microscopy environment
This microscope is recommended to be used in a clean, dry and shock free environment with a temperature of 5°-40°C and a maximum relative humidity of 75 % (non condensing). Use a dehumidifier if needed.

To think about when and after using the microscope

- The microscope should always be kept vertically when moving it and be careful so that no moving parts, such as the eyepieces, fall out.
- Never mishandle or impose unnecessary force on the microscope.
- Never attempt to service the microscope yourself.
- After use, turn off the light immediately, cover the microscope with the included dust-cover, and keep it in a dry and clean place.

Electrical safety precautions

- Before plugging in the power supply, make sure that the supplying voltage of your region matches with the operation voltage of the equipment and that the lamp switch is in off-position.
- Users should observe all safety regulations of the region. The equipment has acquired the CE safety label. However, users do have full responsibility to use this equipment safely.

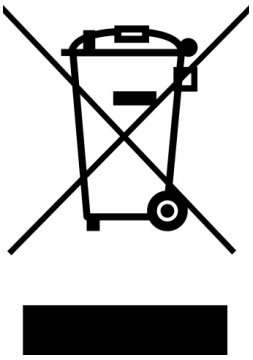
Cleaning the optics
- If the optical parts need to be cleaned try first to: use compressed air.
- If that is not sufficient: use a soft lint-free piece of cloth with water and a mild detergent.
- And as a final option: use the piece of cloth moistened with a 3:7 mixture of ethanol and ether.
- **Note: ethanol and ether are highly flammable liquids. Do not use them near a heat source, near sparks or near electric equipment. Use these chemicals in a well ventilated room.**
- Remember to never wipe the surface of any optical items with your hands. Fingerprints can damage the optics.
- Do not disassemble objectives or eyepieces in attempt to clean them.

For the best results, use the OPTIKA cleaning kit (see catalogue).

If you need to send the microscope to Optika for maintenance, please use the original packaging.

Equipment disposal

Art.13 Dlsg 25 July 2005 N°151. “According to directives 2002/95/EC, 2002/96/EC and 2003/108/EC relating to the reduction in the use of hazardous substances in electrical and electronic equipment and waste disposal.”



The basket symbol on equipment or on its box indicates that the product at the end of its useful life should be collected separately from other waste. The separate collection of this equipment at the end of its lifetime is organized and managed by the producer. The user will have to contact the manufacturer and follow the rules that he adopted for end-of-life equipment collection. The collection of the equipment for recycling, treatment and environmentally compatible disposal, helps to prevent possible adverse effects on the environment and health and promotes reuse and/or recycling of materials of the equipment. Improper disposal of the product involves the application of administrative penalties as provided by the laws in force.

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