

Leica EG F

Heatable forceps

Instructions for Use
English

Order No.: 14 0388 83101 – Revision K

Always keep this manual with the instrument.
Read carefully before working with the instrument.

CE



The information, numerical data, notes and value judgments contained in this Instructions for Use represent the current state of scientific knowledge and state-of-the-art technology as we understand it following thorough investigation in this field.

We are under no obligation to update the present Instructions for Use periodically and on an ongoing basis according to the latest technical developments, nor to provide our customers with additional copies, updates etc. of this Instructions for Use.

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Statements, drawings, illustrations and other information regarding the contents or technical details of the present Instructions for Use are not to be considered warranted characteristics of our products.

These are determined only by the contract provisions agreed between ourselves and our customers.

Leica reserves the right to change technical specifications as well as manufacturing processes without prior notice. Only in this way is it possible to continuously improve the technology and manufacturing techniques used in our products.

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For the instrument serial number and year of manufacture, please refer to the nameplate on the back of the instrument.



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Assembly contracted to Leica Microsystems Ltd. Shanghai

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1. Important Information

1.1 Symbols in the text and their meanings

Symbol: 	Title of the symbol: Description:	Warning Warnings appear in a white box, orange header and are marked by a warning triangle.
Symbol: 	Title of the symbol: Description:	Note Notes, i. e. important user information, appear in a white box, blue header and are marked by an information symbol.
Symbol: → "Fig. 7-1"	Title of the symbol: Description:	Item number Item numbers for numbering illustrations. Numbers in red refer to item numbers in illustrations.
Symbol: 	Title of the symbol: Description:	Warning, hot surface Instrument surfaces which become hot during operation are marked with this symbol. Avoid direct contact with these surfaces – they may cause burns.
Symbol: 	Title of the symbol:	Alternating current
Symbol: 	Title of the symbol: Description:	Manufacturer Indicates the manufacturer of the medical product.
Symbol: 	Title of the symbol: Description:	Manufacturing date Indicates the date when the medical device was manufactured.
Symbol: 	Title of the symbol: Description:	Caution Caution, consult the instructions for use for cautionary information.
Symbol: 	Title of the symbol: Description:	WEEE Symbol Symbol for labeling electrical and electronic equipment in accordance with Section 7 of the German Electrical and Electronic Equipment Act (ElektroG). ElektroG is the law regarding the sale, return and environmentally sound disposal of electrical and electronic equipment.
Symbol: 	Title of the symbol: Description:	Country of Origin The Country of Origin box defines the Country where the final character transformation of the product has been performed.

1 Important Information

Symbol:



Title of the symbol:

CE Compliance

Description:

The CE marking is the manufacturer's declaration that the product meets the requirements of the applicable EC directives and regulations.

Symbol:



Title of the symbol:

UKCA

Description:

The UKCA (UK Conformity Assessed) marking is a new UK product marking that is used for goods being placed on the market in Great Britain (England, Wales and Scotland). It covers most goods which previously required the CE marking.

Symbol:



Leica Microsystems (UK) Limited
Larch House, Woodlands Business Park, Milton Keynes,
England, United Kingdom, MK14 6FG

Title of the symbol:

UKRP

Description:

The UK Responsible Person acts on behalf of the non-UK manufacturer to carry out specified tasks in relation to the manufacturer's obligations.

Symbol:



Title of the symbol:

China RoHS

Description:

Environmental protection symbol of the China RoHS directive. The number in the symbol indicates the "Environment-friendly Use Period" of the product in years. The symbol is used if a substance restricted in China is used in excess of the maximum permitted limit.

Symbol:



Title of the symbol:

Consult Instructions for Use

Description:

Indicates the need for the user to consult the Instructions for Use.

Symbol:



Title of the symbol:

Article number

Description:

Order number for standard delivery or accessories.

Symbol:



Title of the symbol:

Serial number

Description:

Designates the serial number of the instrument.

Symbol:



Title of the symbol:

Fragile, handle with care

Description:

The package contents are fragile and must be handled with care.

Symbol:



Title of the symbol:

Keep dry

Description:

The package must be kept in a dry environment.

Symbol:

Title of the symbol:

Regulatory Compliance Mark (RCM)

**Description**

The Regulatory Compliance Mark (RCM) indicates a device's compliance with applicable ACMA technical standards of New Zealand and Australia – that is, for telecommunications, radio communications, EMC and EME.

Required information for all inquiries

A name plate with the instrument serial number is attached to the side panel of the instrument.

1.2 Qualification of personnel

- The Leica EG F (heatable forceps) may be operated by trained laboratory personnel only. The instrument is intended for professional use only.
- All laboratory personnel designated to operate this instrument must read these Instructions for Use carefully and must be familiar with all technical features of the instrument before attempting to operate it.

1.3 Intended use of instrument

The Leica EG F is an electrical heatable forceps used for transferring and orienting histological tissue samples.

**Warning**

Any use of the instrument other than its designated use is considered improper.

**Note**

These Instructions for Use must be appropriately supplemented as required by the existing regulations on accident prevention and environmental safety in the operator's country.

2. Safety



Warning

The safety and caution notes in this chapter must be observed at all times. Be sure to read these instructions, even if you are already familiar with the operation and use of other Leica products.

2.1 Safety instructions

These Instructions for Use include important instructions and information related to the operating safety and maintenance of the instrument.

In order to maintain this condition and ensure safe operation, the operator must observe all the instructions and warnings contained in this instruction manual.

This instrument has been built and tested in accordance with the safety requirements for electrical equipment for measurement, control, and laboratory use.

To maintain this condition and ensure safe operation, the user must observe all notes and warnings contained in these Instructions for Use.



Note

These Instructions for Use must be appropriately supplemented as required by the existing regulations on accident prevention and environmental safety in the operator's country.



Warning

- The protective devices located on the instrument and the accessories must not be removed or modified. Only service personnel qualified by Leica may repair the instrument and access the instrument's internal components.
- Use only the provided power cable – this must not be replaced with a different power cable. If the power plug does not fit in your socket, contact our service.

Residual risks

- The instrument has been designed and constructed with the latest state-of-the-art technology and according to recognized standards and regulations with regard to safety technology. Operating or handling the instrument incorrectly can place the user or other personnel at risk of injury or can cause damage to the instrument or other property. The instrument may be used only as intended and only if all of its safety features are in proper working condition. Malfunctions that impede safety must be remedied immediately.



Note

For current information about applicable standards, please refer to the CE Declaration of Conformity and UKCA Certificates on our Internet site:

<http://www.LeicaBiosystems.com>

2.2 Warnings

To ensure perfect operation of the instrument, the following safety instructions and warnings must be observed:



Warning

- The instrument must be connected to mains only with one of the supplied power cords and only to grounded sockets. Do not interfere with the grounding function by using an extension cord without a ground wire.
- Extreme temperature fluctuations between storage facility and setup site as well as high humidity may cause condensation to form. In this case, a two-hour waiting period must be maintained before switching on the instrument. Failure to observe the waiting period may result in damage to the instrument.
- The instrument may only be operated by trained laboratory personnel.
- It must only be operated for the purpose of its designated use and according to the instructions contained in these Instructions for Use.
- The instrument may be opened for maintenance or repair work by authorized service technicians only.
- Switch the instrument off and unplug it before each cleaning.
- Do not use any solvent containing acetone or xylene for cleaning.
- When using cleaners, please comply with the safety instructions of the manufacturer and the laboratory safety regulations.
- The instrument must not be operated in hazardous locations.
- Before replacing the fuses, switch the instrument off and pull the power plug from the wall socket.
- The instrument is de-energized when the power cable is disconnected from the power supply (power supply circuit breaker).
- Do not use any fuses other than factory-installed fuses.
- For corresponding fuse specifications see Chapter (→ p. 17 – 4.3 Technical Data).

Hazards – safety regulations on the instrument itself



Warning

- Markings on the instrument showing the warning triangle indicate that the correct operating instructions (as defined in these Instructions for Use) must be followed when operating or replacing the item marked.
- Failure to adhere to these instructions may lead to accidents causing personal injury and/or damage to the instrument or accessories or destroyed, unusable specimens.

3 Installation

3. Installation

3.1 Unpacking instructions



Warning

When the instrument is delivered, check the packaging first. Check the shipment for possible damage and note this on the shipping documents if necessary.



Fig. 1



Fig. 2



Fig. 3

1. Carefully cut through the adhesive tape at the indicated locations (→ Fig. 1).
2. Remove the provided bag with documents (including the User Manual etc.) and replacement fuses.
3. Then carefully take the control unit (→ Fig. 3) out of the packaging.
4. Unpack the forceps (→ Fig. 3).
5. Unpack the cable loom provided. The country specific power cord needs to be ordered separately.

Necessary assembly work

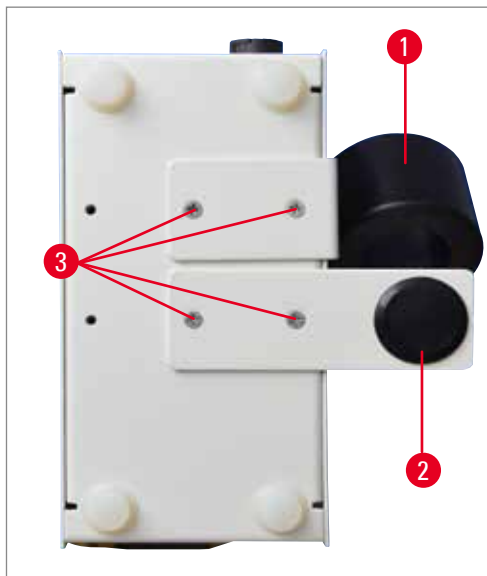


Fig. 4

Proceed as follows to make the instrument ready for use:

- Forceps holder (→ Fig. 4-1) with paraffin collecting tray (→ Fig. 4-2) is factory-installed on the right side.
If it needs to be installed on the left hand side, follow these steps:
 1. Loosen the four Phillips screws (→ Fig. 4-3) on the bottom of the instrument.
 2. Remove forceps holder/collecting tray, reverse it and fasten it to the opposite side (insert screws in corresponding holes on opposite side).

3.2 Standard delivery

Qty.		Part No.
1	Transformer station EGF	14 0388 45440
1	Tweezers unit, assy.	14 0388 45438
2	Fuses, 2x T1.25 A L250 V	14 6943 01250
1	Instructions for Use (printed in English with additional languages on data carrier 14 0388 83200)	14 0388 83001

The country specific power cord needs to be ordered separately. Please find a list of all power cords available for your device on our website www.LeicaBiosystems.com within the product section.



Note

- Carefully check the delivery against the packing list, delivery note and your order.
- Should there be any discrepancy, please contact the Leica sales unit handling your order or your Leica dealer.

3 Installation

3.3 Setting up the instrument/Site requirements



Warning

- Do not operate the instrument in rooms with explosion hazard.
- To ensure proper function of the instrument, it must be set up while maintaining a minimum distance of 10 cm from walls and furniture.

- The instrument requires an installation area of approx. 150 x 200 mm.
- The substrate must have a sufficient load capacity and rigidity with respect to the weight of the instrument.
- Relative humidity: 20 to 80 % – non-condensing.
- Room temperature consistently between +18 °C and +40 °C.
- Elevation: up to a max. 2000 m above sea level.
- The instrument is designed for indoor use only.
- Avoid vibrations, direct sunlight and heavy variation in temperature!
- The power supply must be within the range of the length of the power cable. No extension cable may be connected.
- The instrument **MUST** be connected to a grounded power socket.
- Use only one of the provided power cables that is intended for the local power supply.

3.4 Electrical connection

The Leica EG F can be connected to different electrical power systems (voltage and frequency-dependent, refer to Chapter ([→ p. 17 – 4.3 Technical Data](#))).

Please observe the following notes to prevent damage to the instrument:



Warning

- The instrument **MUST** be connected to a grounded mains socket.
- Only the power cord intended for the local power supply (socket) may be used.
- Do not use an extension cord!

The instrument can be connected to the following voltages:

100 to 120 V and 220 to 240 V~, 50/60 Hz.

The instrument is factory-set to 220 to 240 V~ (→ Fig. 5). If the voltage needs to be changed, insert a screwdriver in the slot (→ Fig. 5-4) and move the setting to the desired value.

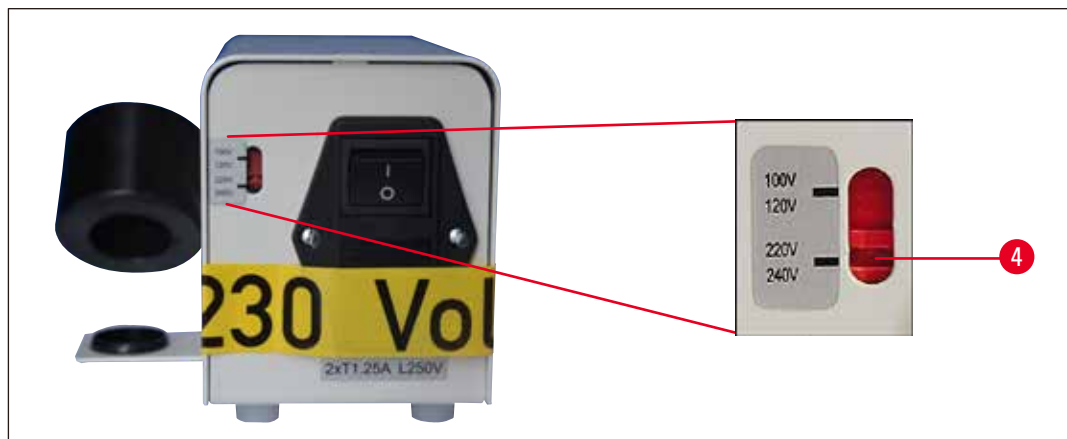


Fig. 5

Connecting to mains



Warning

- Before connecting the instrument to the mains, ensure that the voltage selector switch is set to the correct local voltage!
- An incorrect setting of the voltage selector can cause serious damages to the instrument!
- The instrument must be disconnected from mains before changing the voltage selection.

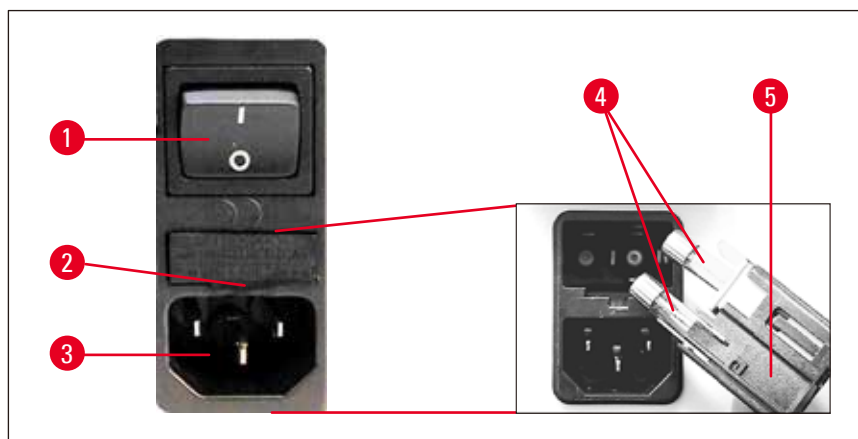


Fig. 6

3 Installation

Connecting the power cord

- Before connecting the power cord, ensure that the mains switch (→ Fig. 6-1) to Off = 0.
- From the cable set, select the power cable with the plug suitable for your power socket.



Warning

The instrument must be connected to mains only with the supplied power cord and only to a grounded socket.

- Connect the plug of the power cord to the connecting socket (→ Fig. 6-3) on the rear of the control unit.
- Connect the plug of the power cord to the power socket.

Replacing fuses



Warning

Switch the instrument off and unplug it. Use only the supplied replacement fuses.

- Insert a small screwdriver into the cutout (→ Fig. 6-2) and carefully pry out the insert.
- Remove the fuse housing (→ Fig. 6-5) along with the fuses (→ Fig. 6-4).
- Replace the defective fuses, reinsert the fuse housing in the instrument and press down until it snaps into place (with an audible click).

4. Instrument Characteristics

4.1 Overview – instrument components/functions

Control instrument (front view)



Fig. 7

Control unit (rear view)



Fig. 8

- | | |
|---|--------------------------|
| 1 Control panel | 5 Mains switch |
| 2 Heatable forceps (tip width 1 mm), with cable | 6 Socket for power cable |
| 3 Forceps holder | 7 Voltage selector |
| 4 Paraffin collecting tray | |

4.2 Instrument components/functions

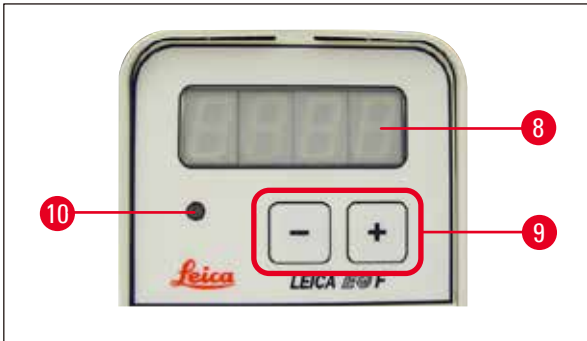


Fig. 9

The control panel on the front side of the control unit consists of a membrane keypad with push buttons (→ Fig. 9-9), a single-line display (→ Fig. 9-8) and an LED (→ Fig. 9-10) which flashes yellow during the warm-up phase. If the preselected operating temperature is reached, this indicator lights permanently, thereby signaling its readiness.

Temperature display

Two options are available for selecting the temperature display:

- Temperature in °C



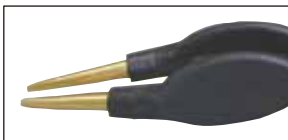
- Temperature in °F

**Changing the temperature unit**

- Switch off mains switch of the control unit.
- Switch on the control unit **WHILE HOLDING** the   key pressed.

Changing the temperature

- Change the temperature value by pressing the  or  key.

**Warning****Important!**

The forceps holder will become hot. Risk of burning!

4.3 Technical Data

General data

Approvals:	The instrument-specific approval marks are on the side of the instrument next to the type plate.
Nominal supply voltage:	100 - 120/220 - 240 V
Nominal supply frequencies:	50/60 Hz
Mains input fuses:	2x T 1.25 A L250 VAC
Power consumption:	10.5 VA
Relative humidity (transit/storage):	20 to max 80 %, non-condensing
Temperature (operation) (min/max):	+18 °C to +40 °C
Adjustable temperature range:	+55 °C to 70 °C
Temperature (storage) (min/max):	+5 °C to +50 °C
Means of protection to IEC 61010-1:	Protection class 1
Pollution degree to IEC 61010-1:	Pollution degree 2
Overvoltage category to IEC 61010-1:	Category II
Heat emission:	10.5 J/s
EMC class:	Class A
Operating altitude (meters above sea level) (min/max):	Maximum of 2000m above sea level
A-weighted noise level, measured at 1 m distance:	<70 dB (A)
Degree of protection to IEC 60529:	IP20
Ambient pressure:	from 740 hPa to 1100 hPa applicable

Dimensions and weight

Overall size of device in operating mode (Width x Depth x Height, mm):	130 x 180+ x 110mm
Overall size serial packaging (Width x Depth x Height, mm):	242 x 315 x 148 mm
Empty weight (without accessories, kg):	Approx. 1.5kg
Device weight including packaging (kg):	3 kg

Programmable parameters in the display

Temperature ranges displayed in °C or °F

5. Maintenance and Cleaning**Warning**

- Before any maintenance, switch off the instrument and unplug it from power supply.
- To clean the exterior surfaces, use a mild and pH-neutral commercial household cleaner. You may **NOT** use: Alcohol, cleaning materials containing alcohol (glass cleaner!), abrasives, or solvents containing acetone or xylene! The lacquered surfaces and the control panel are not resistant to xylene or acetone!
- While working and during cleaning, no liquid may get into the interior of the instrument.

6. Warranty and Service

Warranty

Leica Biosystems Nussloch GmbH guarantees that the contractual product delivered has been subjected to a comprehensive quality control procedure based on the Leica in-house testing standards, and that the product is faultless and complies with all technical specifications and/or characteristics warranted.

The scope of warranty depends on the contents of the individual contract concluded, being regarded as binding only the warranty conditions of your local Leica sales unit or of the company from which you acquired the product.

Technical service information

If you require technical service, please contact your Leica sales office or dealer who sold the product. This instrument is dealt with in the warranty without spare parts via a graduated credit note in a Technical Service Bulletin (TSB).

Please provide the following information:

- Model name and serial number of the instrument.
- Location of the instrument and name of the person to contact.
- Reason for the service call.
- Date of delivery.

Decommissioning and disposal

The instrument or parts of the instrument must be disposed of in compliance with the local laws.

7. Decontamination Confirmation

Every product that is returned to Leica Biosystems or that requires on-site maintenance must be properly cleaned and decontaminated. You can find the dedicated template of the decontamination confirmation on our website www.LeicaBiosystems.com within the product menu. This template has to be used for gathering all required data.

When returning a product, a copy of the filled and signed confirmation has to be enclosed or passed on to the service technician. The responsibility for products that are sent back without this confirmation or with an incomplete confirmation lies with the sender. Returned goods that are considered to be a potential source of danger by the company will be sent back at the expense and risk of the sender.

www.LeicaBiosystems.com



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