

Foot Control Panel FCP Interface & FCP WL Interface



User Manual

G-30-1707-en

Version 1.0

11.07.2008



About this manual The user manual is part of the scope of delivery.

- Carefully read it before using the device.
- Keep it at the site of use of the foot control panel.
- Store it for the entire service life of the foot control panel.
- Pass it on to every subsequent owner or user of the foot control panel.

Orientation aids

- The chapter overview at the beginning of the user manual provides a summary of all subjects.
- The contents of each chapter are specified in detail at the beginning of each chapter.
- A keyword index at the end of the manual facilitates the search for specific terms.

Applicable area This user manual applies to the foot control panel with the following identification:

- Rating label numbers:
304970-9100-000 / 304970-9300-000
304970-9200-000 / 304970-9400-000

Information on the manufacturer:







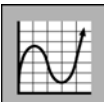

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Safety measures



We would like to provide you with information about safety aspects which must be observed when handling this foot control panel. This chapter contains a summary of the most important information concerning matters relevant to instrument safety.

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Key to the symbols in this user manual

Hazard symbols

The following safety information has been incorporated in the user manual. Please note this information and be particularly careful in these cases.



Indicates a hazard which **can lead to death** or **severe injury** if it is not prevented.





Indicates a hazard which can cause **slight** and **medium injury** if it is not prevented.



Indicates a hazard which can cause **damage to material** if it is not prevented.

The following symbols indicate special hazards to persons, property or the environment.

	Warning of a general hazard
	Warning of explosion risk

Information symbols

The following information symbols are used in this user manual:

- Listing
- ✓ Prerequisite for an action
- Prompt for action
- Result of an action



Additional information and tips.
No warnings of hazards are provided.

Directives and standards

The foot control panel described in this manual has been designed and tested in accordance with Carl Zeiss safety standards as well as German and international standards. This guarantees a high degree of safety.

The foot control panel has been designed in compliance with the requirements of:

- EN (European standard)
- IEC (International Electrotechnical Commission)
- UL (Underwriters Laboratories)

In accordance with Directive 93/42/EEC for medical devices, the complete quality management system of the company Carl Zeiss Surgical GmbH, 73446 Oberkochen, Germany, has been certified by DQS Deutsche Gesellschaft zur Zertifizierung von Managementsystemen GmbH, a notified body, under registration number 250758 MP23.

Target group

This user manual is intended for physicians, nurses and other medical staff who prepare, operate or maintain the foot control panel after appropriate training and in accordance with the instructions given in this manual. Installation and service work not described in this manual must only be performed by specialists from Carl Zeiss.

Field of application

Intended use

This foot control panel permits either cordless or corded operation of up to 14 different functions of a surgical microscope, including its options, by foot control.

Typical misuse

The foot control panel must only be operated in combination with devices from Carl Zeiss.

Notes for the operator

The correct use of the foot control panel is absolutely vital for safe operation. Therefore, please thoroughly familiarize yourself with the content of this user manual before starting up the foot control panel. Please also observe the user manuals of the other devices used. Further information is available from our service department or from authorized representatives.

Duties of the operator

Notes on the foot control panel

- Make sure that the installation conditions and the use of the foot control panel meet microsurgical requirements:
 - low vibration
 - clean environment
 - avoidance of extreme mechanical stress.
- Observe the legal regulations for accident prevention and occupational health and safety applicable in the country concerned.
- Do not operate the components contained in the delivery package
 - in explosion-risk areas,
 - if inflammable anesthetics or volatile solvents such as alcohol, benzine or similar chemicals are present at a distance of less than 25 cm.
- Switch off the connected foot control panel and remove the batteries if you notice any smoke, sparks or unusual noise. Do not use the foot control panel until it has been repaired by our service team.
- Do not force cable connections. If the male and female parts do not readily connect, make sure that they are appropriate for one another. If any of the connectors are damaged, have our service representative repair them.
- Over long distances (e.g. removal, return for repair, etc), the foot control panel must always be transported in the original packaging or in special return packaging. For details, please contact your dealer or the Carl Zeiss service team.
- Use the foot control panel only for the application described.

- Operate the foot control panel only with the components included in the delivery package. If you wish to use other components, make sure that Carl Zeiss or the manufacturer of the components has verified and confirmed that these components meet the respective safety standards and can be used without risk.
- If a failure occurs which you cannot correct with the aid of the chapter "What to do in the event of malfunctions", attach a sign to the foot control panel stating it is out of order and contact our service representative.

The foot control panel is a high-grade technological product. To ensure optimum performance and safe working order, we recommend having it checked by our service representative as part of regular scheduled maintenance.

Notes on EMC (Electromagnetic Compatibility)

The foot control panel complies with the EMC requirements of IEC 60601-1-2. For operating the foot control panel, observe the EMC precautions specified below.

- Only use options approved by Carl Zeiss for this foot control panel.
- Do not use any portable or mobile HF communication equipment in the vicinity of the foot control panel as this may lead to an impairment of the foot control panel's function.
- The foot control panel meets the RFI requirements of Class B. It cannot be ruled out, however, that interferences may occur in HF receivers (e.g. TV or radio sets) in the vicinity. If such interferences are noticed, please inform the Carl Zeiss Service Dept.

Information on exposure to radio frequency radiation in accordance with FCC

The emitted output power of the component is far below the FCC limit values for radio frequency exposure. Nevertheless, the component should be used in such a way that potential contact with persons during normal operation is kept to a minimum.

NOTE

Class

This Class B digital component complies with Canadian standard ICES-003.

NOTE**Limit values for digital devices**

This component has been tested and found to comply with the limits for a Class B digital device in accordance with Part 15 of FCC regulations. These limits have been stipulated to provide adequate protection against harmful exposure when the component is operated in residential areas. This component generates and uses radio frequency energy and may emit such energy. If not installed and used in accordance with the relevant instructions, it may cause interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this component causes interference with radio and TV reception, which can be determined by turning the component off and on, the user should try to correct the interference by one or several of the following measures:

- Relocate or reorient the receiving antenna.
- Move the component further away from the receiver.
- Plug the component into a different outlet so that it is not on the same circuit as the receiver.
- Consult an experienced radio/TV technician.

NOTE**Part 15 of FCC regulations**

This component complies with Part 15 of FCC regulations [and with the Industry Canada RSS-210 standard].

Operation of the component is subject to the following two conditions:

- the component must not cause any harmful interference and
- the component must accept any interference received, including interference that may cause undesired operation

NOTE**Modification or conversion**

Any modification or conversion not explicitly approved by Carl Zeiss will invalidate the FCC license for the operation of this component.

Requirements to be met by the user

- The foot control panel must only be used by staff who have undergone appropriate training and instruction. It is the duty of the customer or institution operating the component to provide training and instruction for the relevant staff.
- Please keep the user manual where it is easily accessible at all times for the persons operating the system.
- Modifications and repairs of the foot control panel or any components operated together with the foot control panel may only be performed by our service representative or by other authorized persons.

Warranty and liability

Warranty and liability depend on the applicable contractual stipulations.

NOTE

Loss of warranty

The manufacturer is not liable for any damage caused by unauthorized persons tampering with the foot control panel. Furthermore, this will forfeit any rights to claim under warranty.

Requirements for operation

Our service representative or an expert authorized by us will install the foot control panel. Please ensure that the following requirements are met for further operation:

- ✓ The connecting components have been properly connected. The screw connections have been firmly tightened.
- ✓ All cables and plugs are in perfect condition.

Before every use

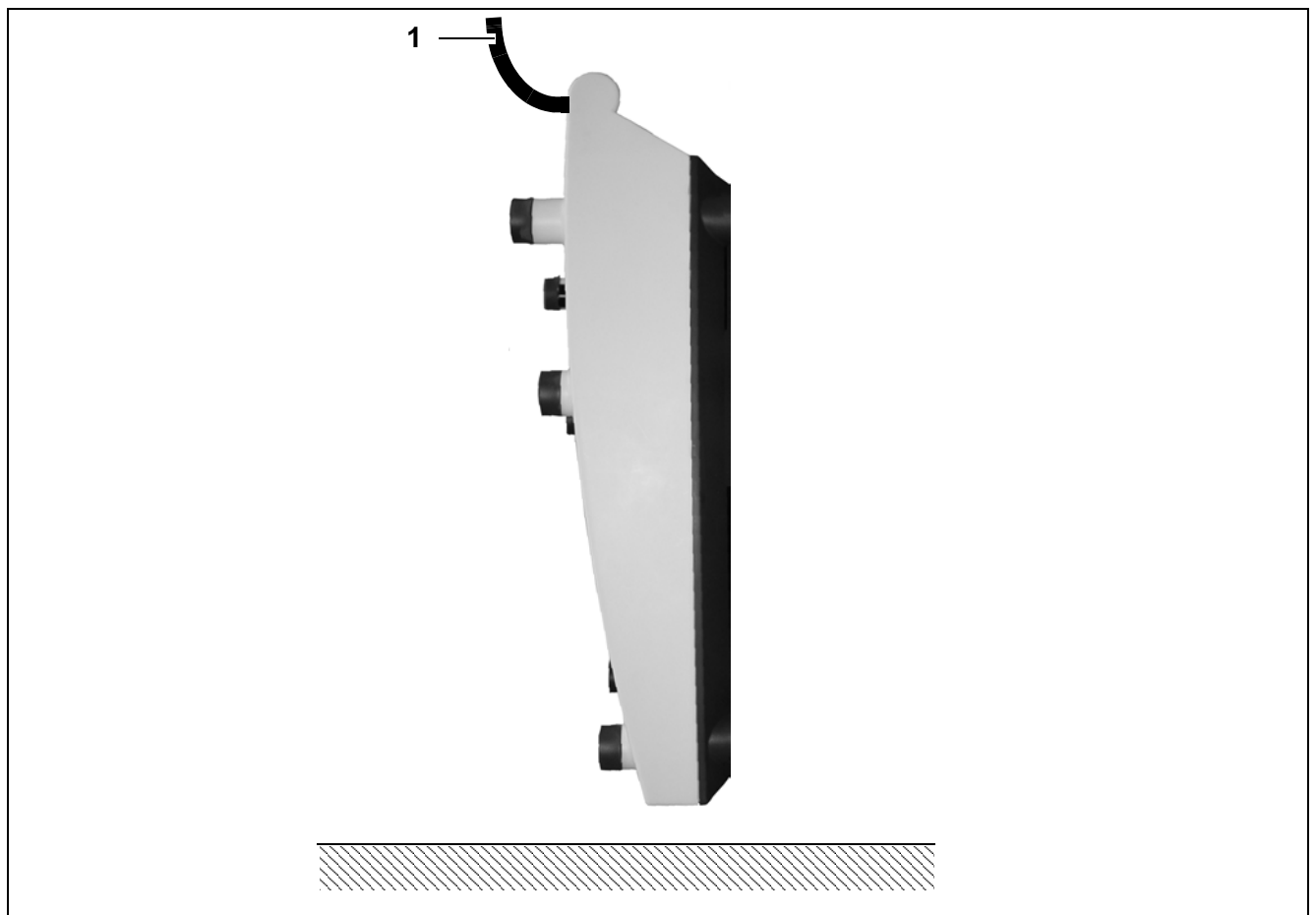
- Make sure that all "Requirements for operation" are fulfilled.
- Go through the checklist.
- Reattach any covers or caps that were removed from the foot control panel. Close any existing openings with the corresponding caps.

During use

- Constantly monitor the foot control panel during use.

After every use

- Put the foot control panel in its rest position by attaching its bracket e.g. to the suspension system (1).
- The foot control panel is shut down in the rest position to save energy.



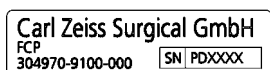
Warning labels and notes



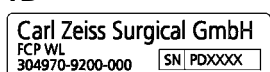
Note the warning labels and notes!

- If you notice that any label on your foot control panel is missing or has become illegible, please contact us or one of our authorized representatives. We will supply a replacement.

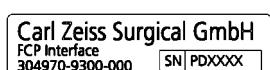
1A



1B



1C



1D



1 Type label

A - label for the corded version of the FCP

B - label for the cordless version of the FCP

C - label for the corded version of the FCP interface

D - label for the cordless version of the FCP interface

– Manufacturer (company name)

– Product name

– Catalog number

– Serial number

2 Label "Observe the user manual"

Observe the user manual or further applicable documents.

3 "Observe disposal regulations" label

Electrical or electronic devices must not be disposed of as normal domestic waste. For more information on the disposal of electrical and electronic devices, please see the chapter "Maintenance and care".

4 Radio approval identification

(for FCP WL only)



! 5 "Ready for use" status indicator



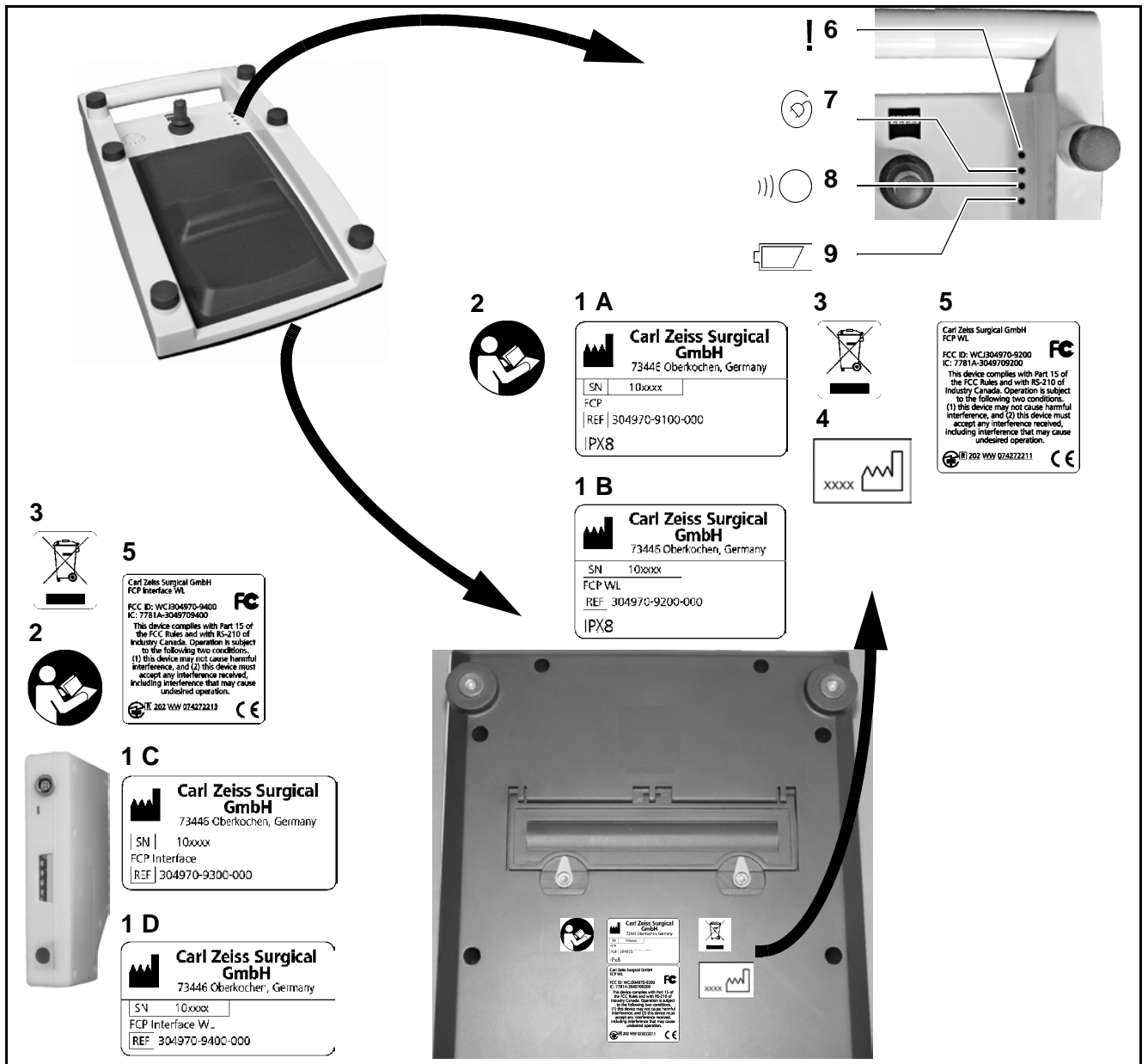
6 Cable connection status indicator



7 Radio link status indicator



8 Battery status indicator



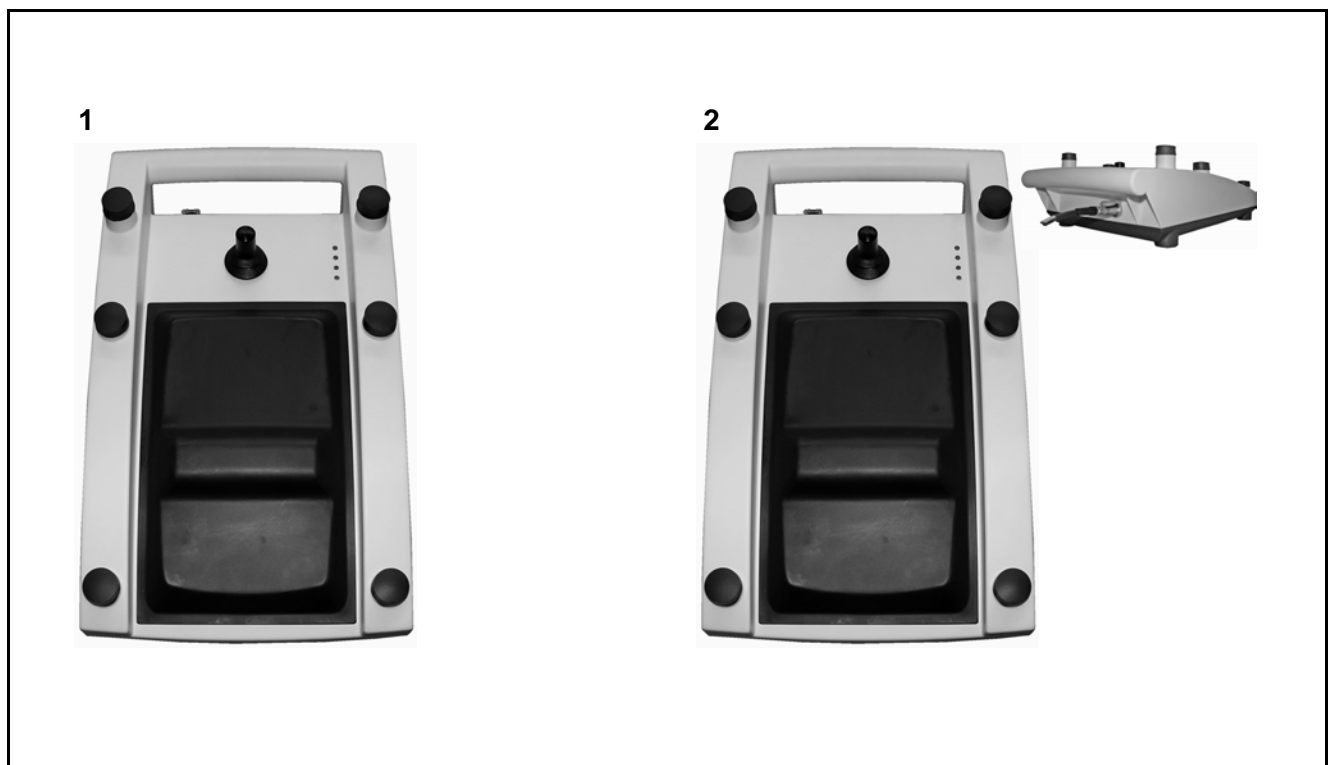
Design and function



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Versions of the foot control panel

- 1 [Cordless foot control panel with 14 functions](#)
- 2 [Corded foot control panel with 14 functions](#)



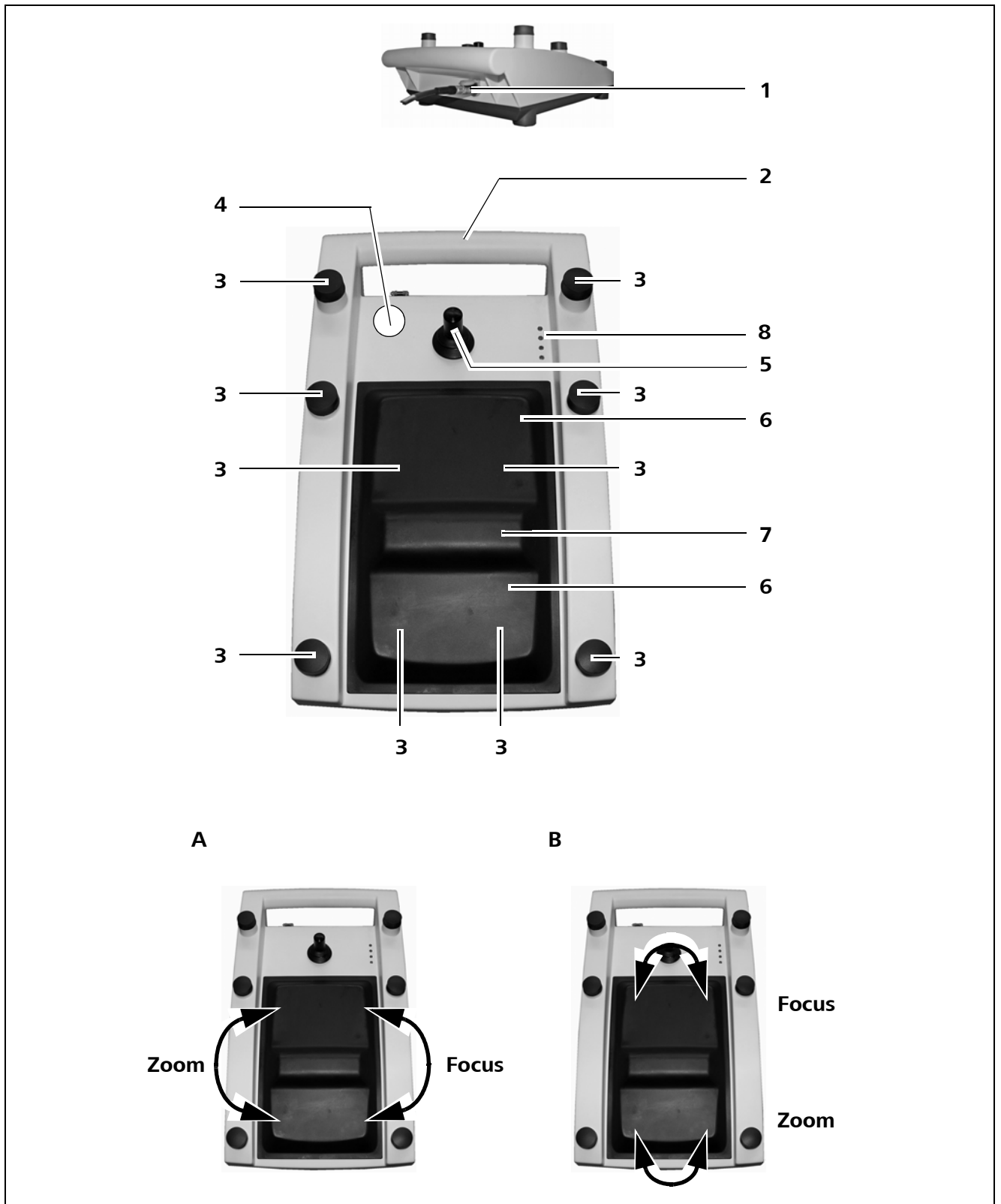
Components of the foot control panel

- 1** Connection cable
Connects the foot control panel to the appropriate connector on a suspension system or wall-mounted control panel.
- 2** Bracket
Allows you to hang up the foot control panel on the floor stand or on the wall when not in use.
- 3** Controls
Buttons operated with your foot.
- 4** Indicator
The indicator is adjustable. It indicates the assignment to a surgical microscope after pairing.
- 5** Joystick
Permits you to control e.g. an X-Y coupling or the motorized lateral and front-to-back tilt of the surgical microscope.
- 6** Rocker switch
The two rocker switches are used to operate the "Zoom" and "Focus" functions. For this, each of the rocker switches contains two switching elements, allowing you to control the functions by toe and heel movement without the need to shift your foot.

You can optionally assign the "Zoom" and "Focus" functions to the switching elements of the rocker switches using the relevant switch of the upgrade module (see page 30).

A Longitudinal configuration:
The left elements of the rocker switches are used to operate the "Zoom" function. The right elements of the rocker switches are used to operate the "Focus" function. For more information, please see page 26.

B Transverse configuration:
The elements of the front rocker switch are used to operate the "Focus" function. The switching elements of the back rocker switch are used to operate the "Zoom" function. For more information, please see page 28.
- 7** Foot rest
The bridge between the two rocker switches (6) serves as a support to rest your foot on.
- 8** Status indicators
Indicate different statuses by shining/not shining.



Functions of the status indicators



- During cordless operation, the "ready for use", "radio link" and "battery" status indicators are only lit if two buttons are simultaneously pressed, one on the left and one on the right side of the foot control panel.
- During corded operation via the connection cable, the "ready for use" and "cable connection" status indicators are permanently lit.

1



1 "Ready for use" status indicator

- Shining green: the foot control panel is ready for use, no error is present.
- Shining red: the foot control panel is not ready for use, an error is present.

2



2 Cable connection status indicator

- Shining: the connection cable has been connected, power supply is present.
- Not shining: the foot control panel operates in the cordless mode.

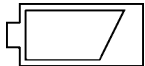
3



3 Radio link status indicator

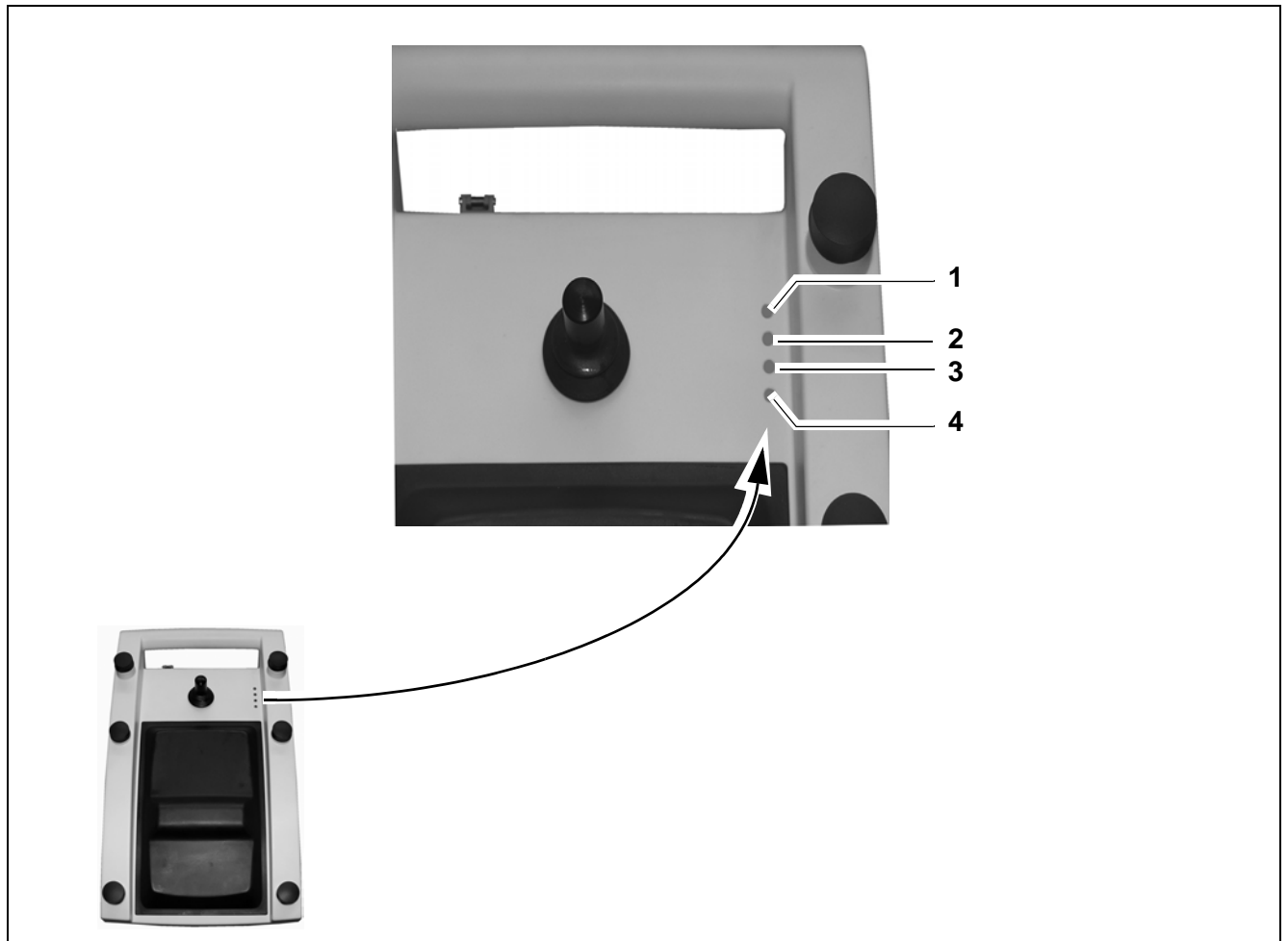
- Shining green: very good radio link
- Shining yellow: reduced radio link, e.g. due to slight interference, shielding or too large a distance between the suspension system and foot control panel.
- Shining red: no radio link, e.g. due non-existent pairing with the suspension system (see page 38), shielding or too large a distance between the suspension system and foot control panel.
- Flashing yellow: while pairing with the suspension system is being performed.

4



4 Battery status indicator

- Shining green: batteries are OK.
- Shining yellow: warning that batteries will not last much longer.
- Shining red: batteries are depleted and need to be replaced immediately.



Meaning of the acoustic signals

Signal	Cause	Remedy
Beep	Confirms a function	--
Beep-beep	Warning	<ul style="list-style-type: none"> Put the foot control panel in its rest position (vertical position, see page 42). Check the status indicators
Beep-beep-beep	Malfunction	see "Troubleshooting"

Standard assignment in the longitudinal configuration

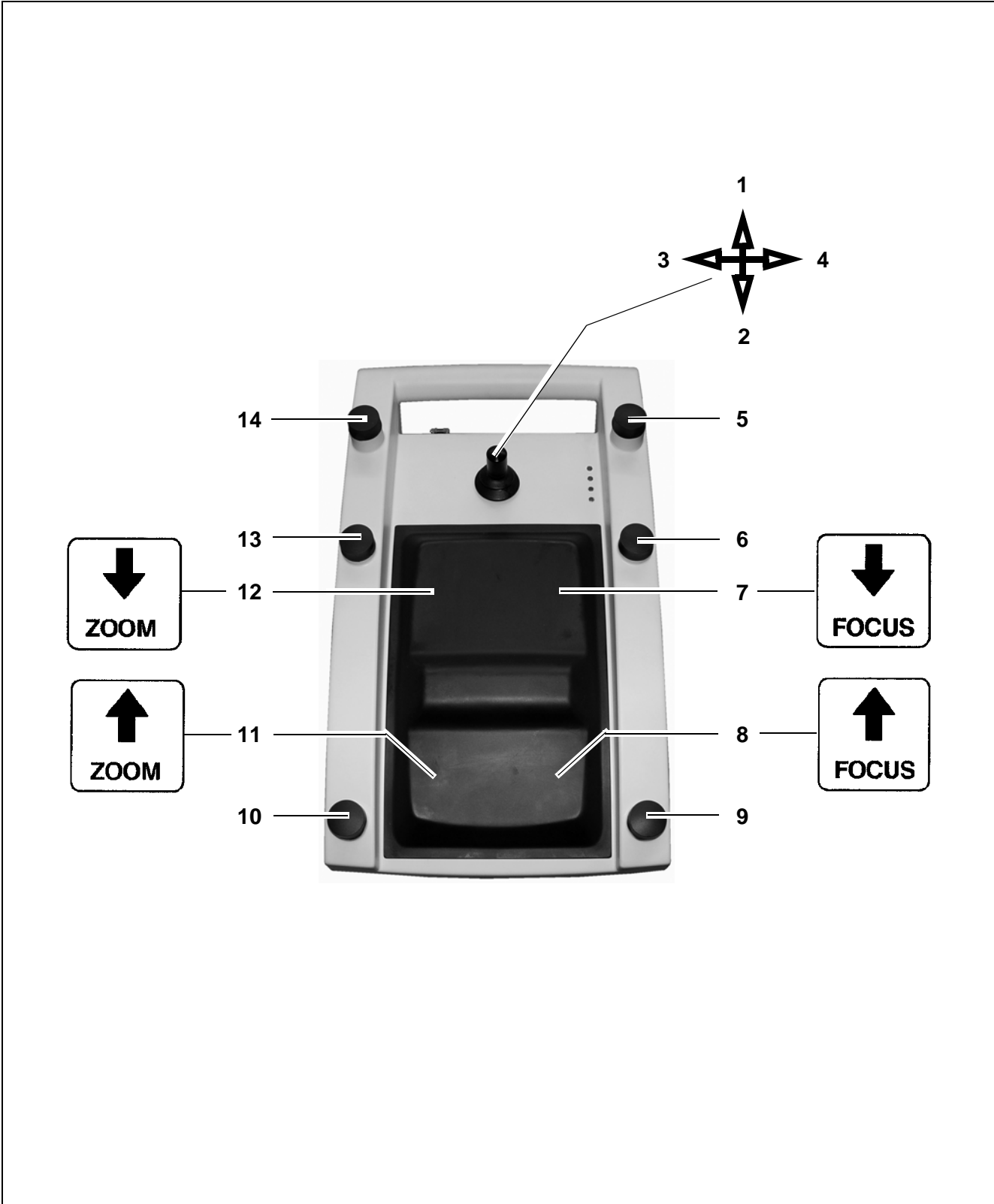


The longitudinal configuration refers to the focus and zoom functions.

Joystick

The joystick permits control in the following four directions:

- 1 front.
- 2 back.
- 3 left.
- 4 right.
- 5 Switch
Function depending on surgical microscope used
- 6 Switch
Function depending on surgical microscope used
- 7 Focus down
Focusing on a lower plane, the working distance is increased
- 8 Focus up
Focusing on a higher plane, the working distance is reduced
- 9 Switch
Function depending on surgical microscope used
- 10 Switch
Function depending on surgical microscope used
- 11 Zoom in
Increasing magnification, the field of view is reduced
- 12 Zoom out
Reducing magnification, the field of view is increased
- 13 Switch
Function depending on surgical microscope used
- 14 Switch
Function depending on surgical microscope used



Standard assignment in the transverse configuration

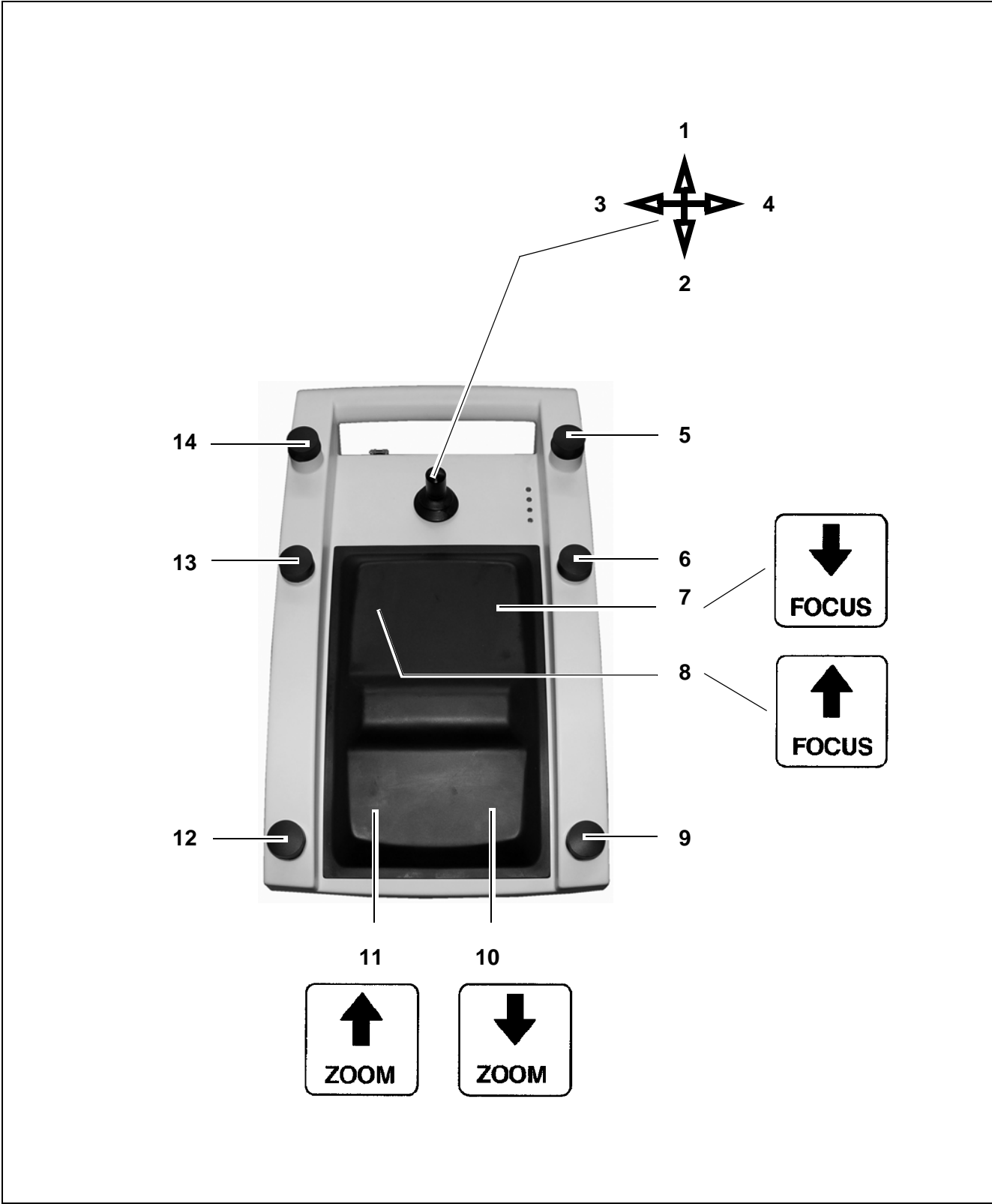


The transverse configuration refers to the focus and zoom functions.

Joystick

The joystick permits control in the following four directions:

- 1 front.
- 2 back.
- 3 left.
- 4 right.
- 5 Switch.
Function depending on surgical microscope used
- 6 Switch
Function depending on surgical microscope used
- 7 Focus down
Focusing on a lower plane, the working distance is increased
- 8 Focus up
Focusing on a higher plane, the working distance is reduced
- 9 Switch
Function depending on surgical microscope used
- 10 Zoom out
Reducing magnification, the field of view is increased
- 11 Zoom in
Increasing magnification, the field of view is reduced
- 12 Switch
Function depending on surgical microscope used
- 13 Switch
Function depending on surgical microscope used
- 14 Switch
Function depending on surgical microscope used






Upgrade module

NOTE

Upgradable surgical microscopes

- **Surgical microscopes on the S7, S8, S81, S88, NC4 and NC33 suspension systems as well as OPMI Pentero** do not feature an integrated radio module. The radio module can be retrofitted.
- Other systems than those specified above cannot be upgraded.

Components of the upgrade module

- | | | |
|---|---|---|
| 3 | ! | <p>3 <u>"Ready for use" status indicator</u></p> <ul style="list-style-type: none"> – Shining green: the foot control panel is ready for use, no error is present. – Shining red: the foot control panel is not ready for use, an error is present. |
| 4 |  | <p>4 <u>Cable connection status indicator</u></p> <ul style="list-style-type: none"> – Shining: the connection cable has been connected, power supply is present. – Not shining: the foot control panel operates in the cordless mode. |
| 5 |  | <p>5 <u>Radio link status indicator</u></p> <ul style="list-style-type: none"> – Shining green: very good radio link – Shining yellow: reduced radio link, e.g. due to slight interference, shielding or too large a distance between the suspension system and foot control panel. – Shining red: no radio link, e.g. due to non-existent pairing with the suspension system, shielding or too large a distance between the suspension system and foot control panel. – Flashing yellow: while pairing with the suspension system is being performed. |
| 6 |  | |

6 Battery status indicator

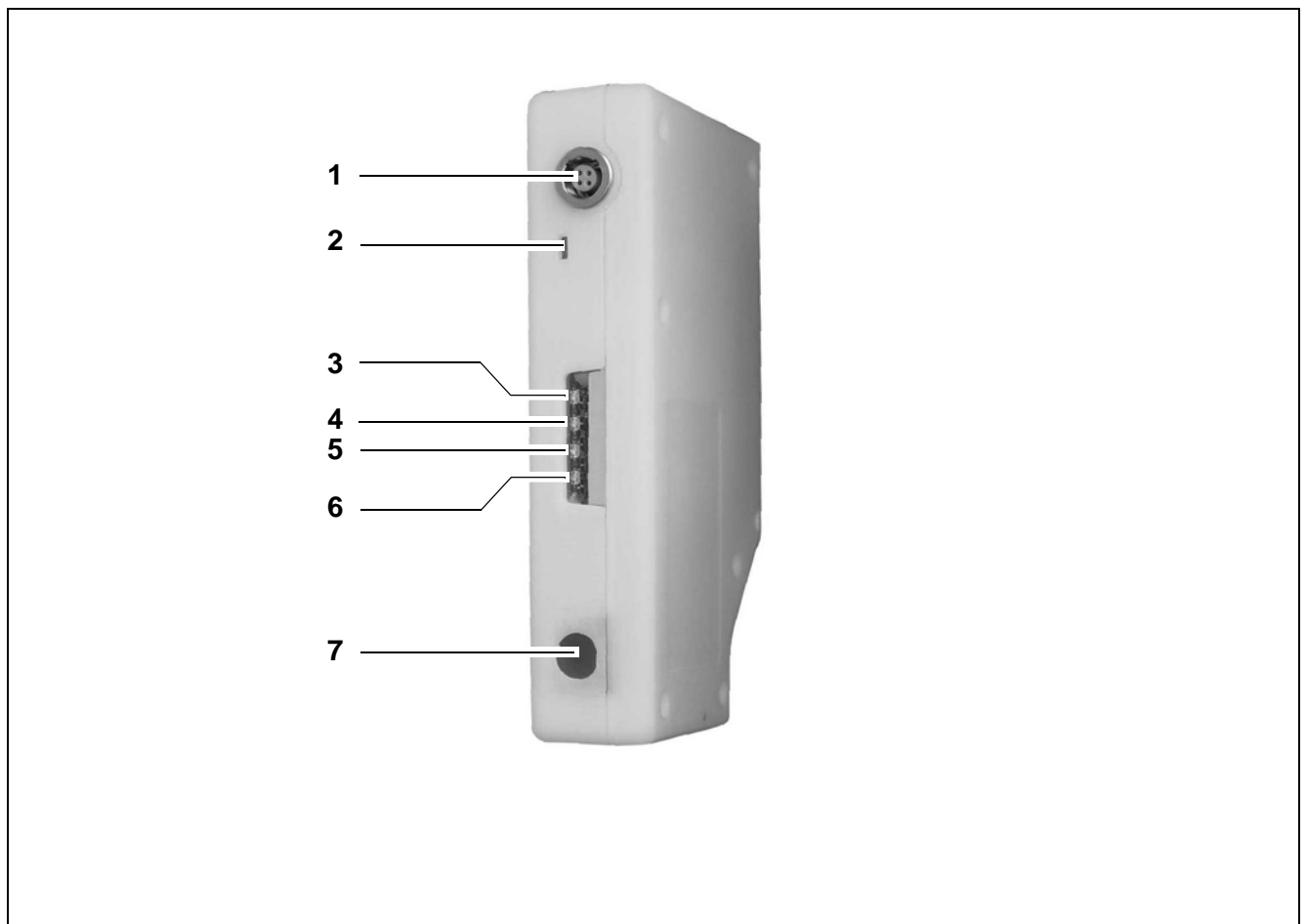
- Shining green: batteries are OK.
- Shining yellow: warning that batteries will not last much longer.
- Shining red: batteries are depleted and need to be replaced immediately.

7 Pairing button

A press of this button, starts the pairing process between the foot control panel and suspension system.



Pairing means the fixed relative assignment of the suspension system and foot control panel.



Preparations for use



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Installing the upgrade module

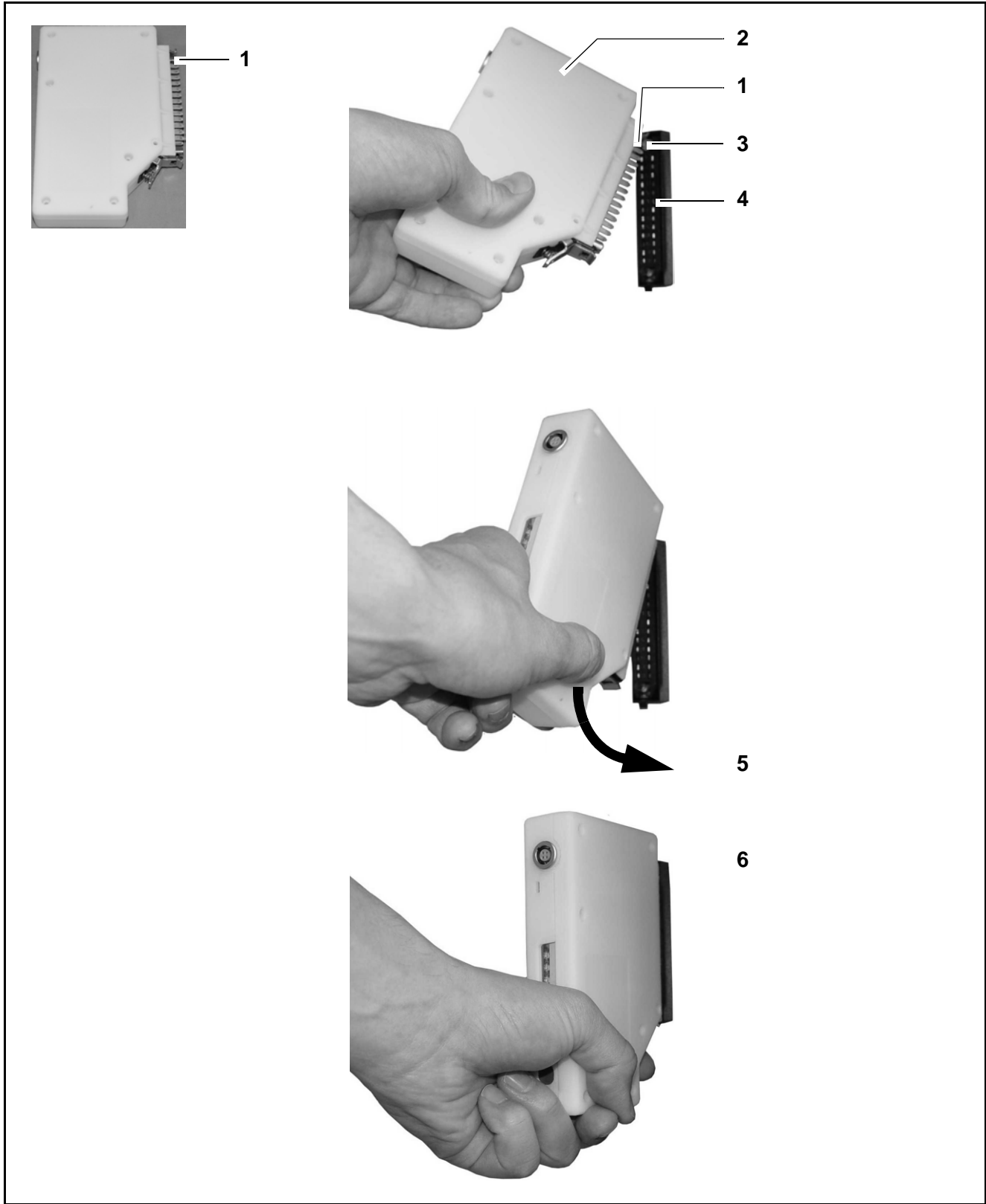
NOTE

Upgradable surgical microscopes

- **Surgical microscopes on the S7, S8, S81, S88, NC4 and NC33 suspension systems as well as OPMI Pentero** do not feature an integrated radio module. The radio module can be retrofitted.
 - Other systems than those specified above cannot be upgraded.
-
- ✓ The suspension system must feature a multi-point connector (4).
 - ✓ The suspension system and surgical microscope must be powered down.
 - Align head (1) with counterpart (3) on the multi-point connector.
 - Push upgrade module (3) against the multi-point connector, see (5), until you hear the upgrade module snap into position.
- The upgrade module is now operational (6).



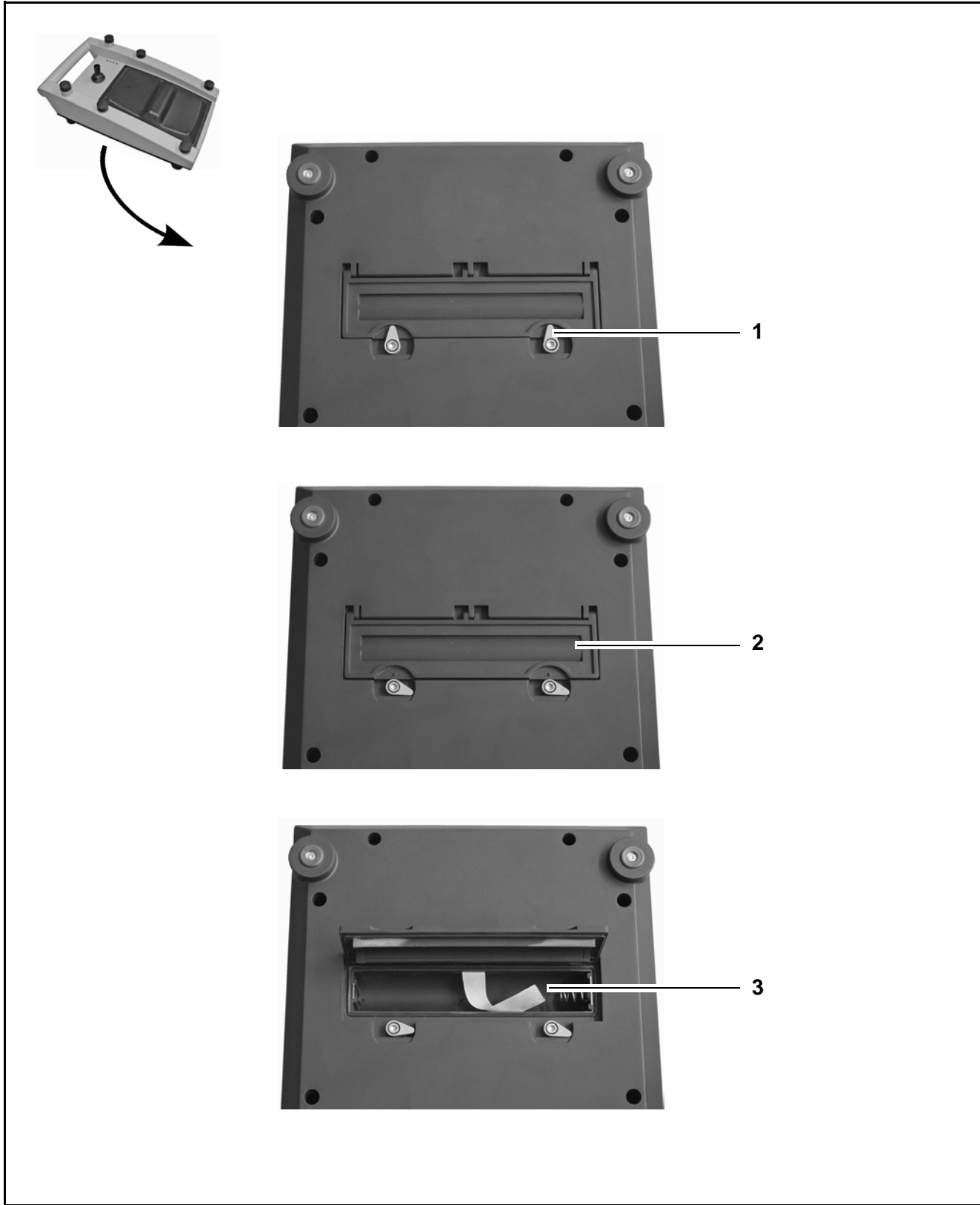
The functions of the foot control panel can be configured via the suspension system.



Inserting the batteries for cordless operation

NOTE**Risk of damaging the foot control panel by using wrong batteries**

- The wrong type of batteries may damage the foot control panel or impair its function.
 - Only use C type 1.5 V alkaline-manganese batteries, also see the chapter "Technical data".
 - Do not use any rechargeable batteries. The operating duration with rechargeable batteries has not been defined.
-
- Turn the two locks (1) on the battery compartment from the 12 o'clock position to the 3 o'clock position.
 - Open the cover of the battery compartment (2).
 - Insert three C type batteries in the battery compartment, ensuring that the polarity is correct. The polarity is shown at the bottom of the battery compartment (3).
 - Close the cover of the battery compartment (2).
 - Turn the two locks (1) on the battery compartment from the 3 o'clock position back to the 12 o'clock position.



Pairing with the suspension system

NOTE

The foot control panel may be disabled.

- If pairing is performed incorrectly or not at all, the foot control panel may be disabled, or activation of a control may trigger functions on a different suspension system not assigned to the foot control panel.



Pairing means the fixed relative assignment of the suspension system and foot control panel.

Pairing must be performed for cordless operation.

- Put the foot control panel in its rest position (1) in the immediate vicinity of the suspension system (1).
- Start the pairing process on the suspension system or press "Pairing" button (2) on the radio module.
 - "Radio link" status indicator (3) on the radio module flashes yellow.
- Press one of the buttons (4) on the foot control panel for about 5 seconds.
 - "Radio link" status indicator (3) on the radio module starts flashing.
- Release button (4) on the foot control panel.
 - "Radio link" status indicator (3) continues flashing for a few seconds.

Pairing was successful

- A beep indicates that pairing has been successfully completed.
- The "radio link" status indicator (3) shines green for about 1 second.



You can also check whether pairing was successful by simultaneously pressing two buttons on the foot control panel. "Radio link" status indicator (3) will be lit.

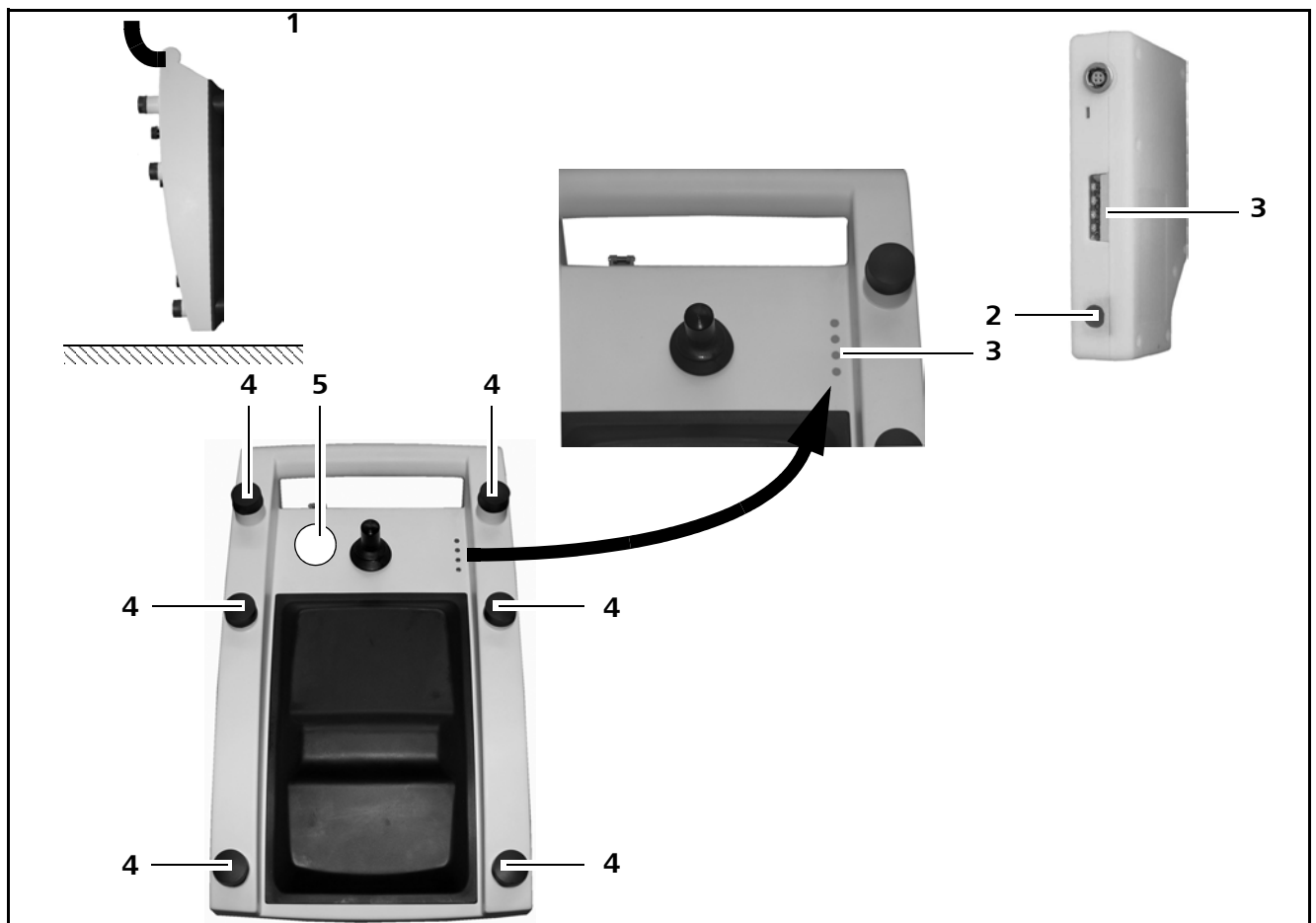
Pairing was not successful

- Three beeps indicate that pairing has not been successfully completed.
- "Radio link" status indicator (3) shines red for about 1 second.
- "Radio link" status indicator (3) on the radio module shines red.

- Repeat the pairing process as described above.

NOTE**Risk of confusion when using multiple foot control panels**

- The use of several foot control panels may lead to confusion and, as a result, to malfunction.
- After pairing, mark the associated suspension system with a number (stickers provided in the delivery package) and set indicator (5) on the foot control panel to the number assigned to the suspension system.
- Make sure that the assigned identification is unique in the entire operation area.



Connecting the connection cable



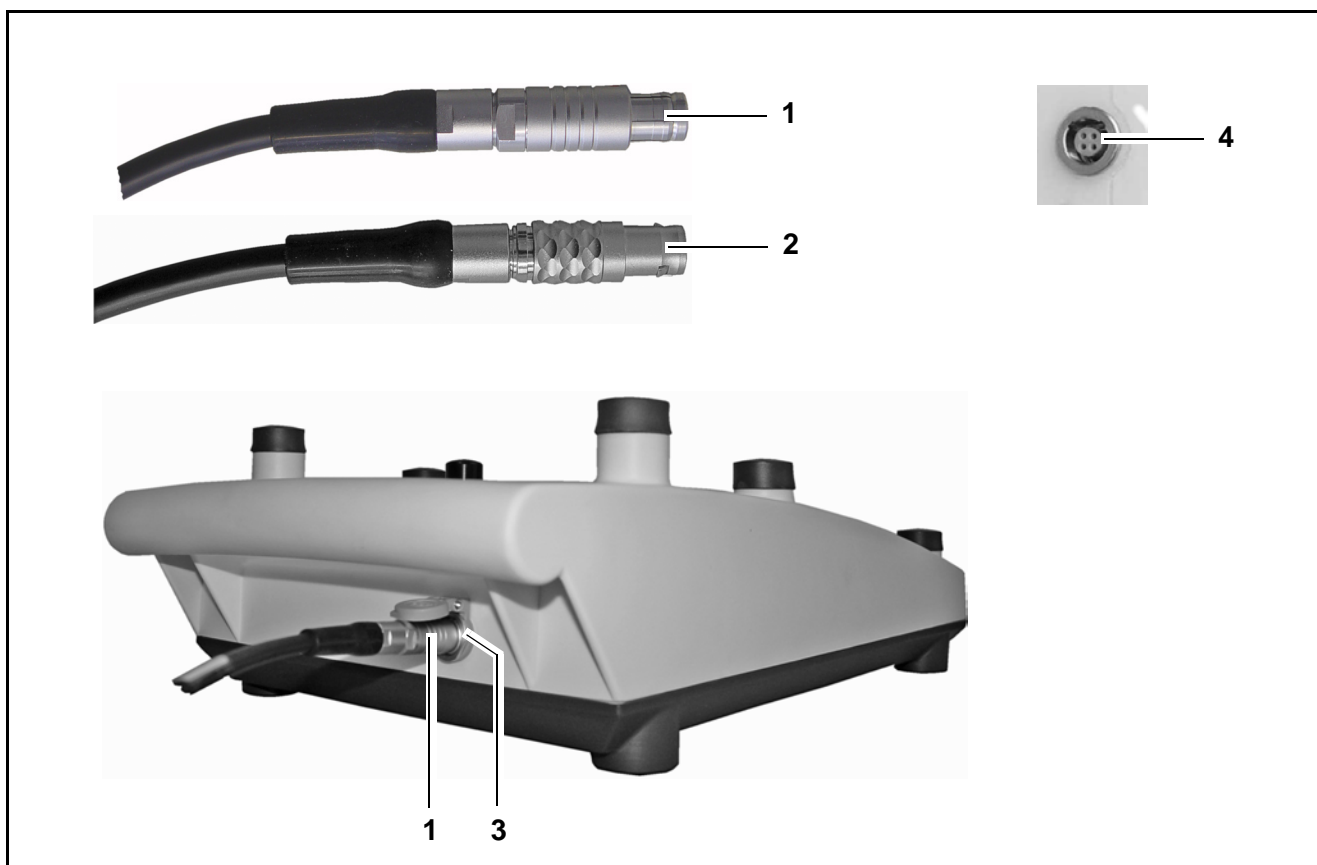
The connection cable is required for corded operation of the foot control panel.



Only use

- Cable 304970-8730-000 with a 3 m length or
- Cable 304970-8760-000 with a 6 m length

- Insert 6-pin connector (1) in socket (3) on the foot control panel.
- Insert 4-pin connector (2) in socket (4) on the upgrade module.



Exchanging the joystick head



The delivery package of the foot control panel includes an extension for the joystick and a joystick knob. You can use these items to suit your personal work style.

- Remove joystick extension (1) by pulling it upward.
- Push joystick knob (2) into position as far as it will go.

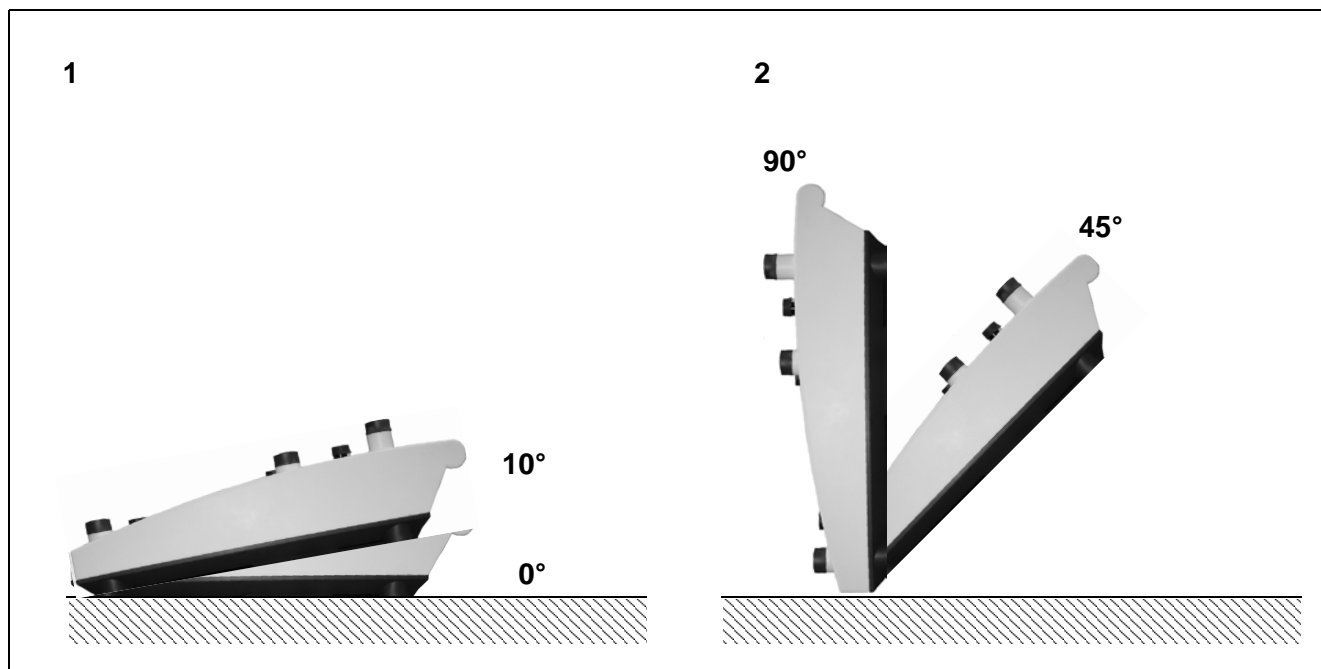


Bringing the foot control panel into its working position

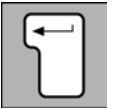
- Bring the foot control panel into its working position (1).
 - Working position: 0° ... 10°
 - Rest position: 45° ... 90°



In its rest position (2), the foot control panel is completely disabled. It shuts down to save energy.



Operation



Checklist..... 44

Checklist

- Always check the function of the foot control panel before surgery (without patient!) using the following checklist:

CAUTION

Failure of functions!

If a function fails, do not use the foot control panel for safety reasons.

- If possible, correct the malfunction (see "Troubleshooting") or contact the Zeiss service department.

Prerequisites

- ✓ The foot control panel is in its working position.
- ✓ The batteries have been inserted with correct polarity.
- ✓ The suspension system has been powered on.
- ✓ The connection cable is undamaged and ready for operation.
- ✓ The foot control panel has been paired with the suspension system or the connection cable has been connected to the upgrade module.
- ✓ The number in the indicator of the foot control panel is identical to that on the suspension system.
- ✓ The freely programmable buttons have been configured.
- ✓ The foot control panel has been connected to the suspension system.
- Check all functions of the foot control panel.
- The suspension system and the surgical microscope must perform the defined functions.

What to do in the event of malfunctions



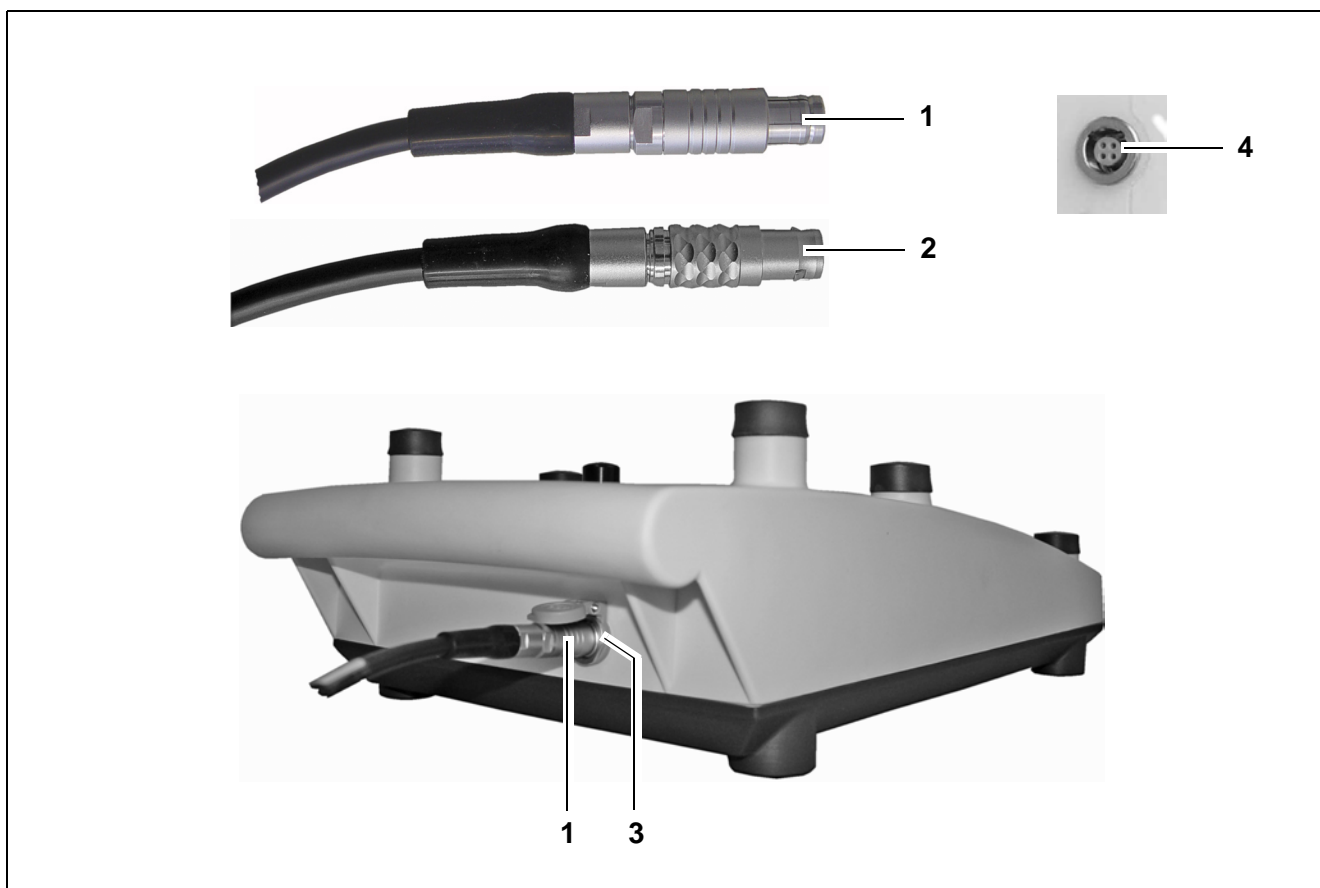
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What to do in an emergency

Failure of the cordless foot control panel

The suspension system or the surgical microscope does not respond to the activation of any of the controls on the foot control panel.

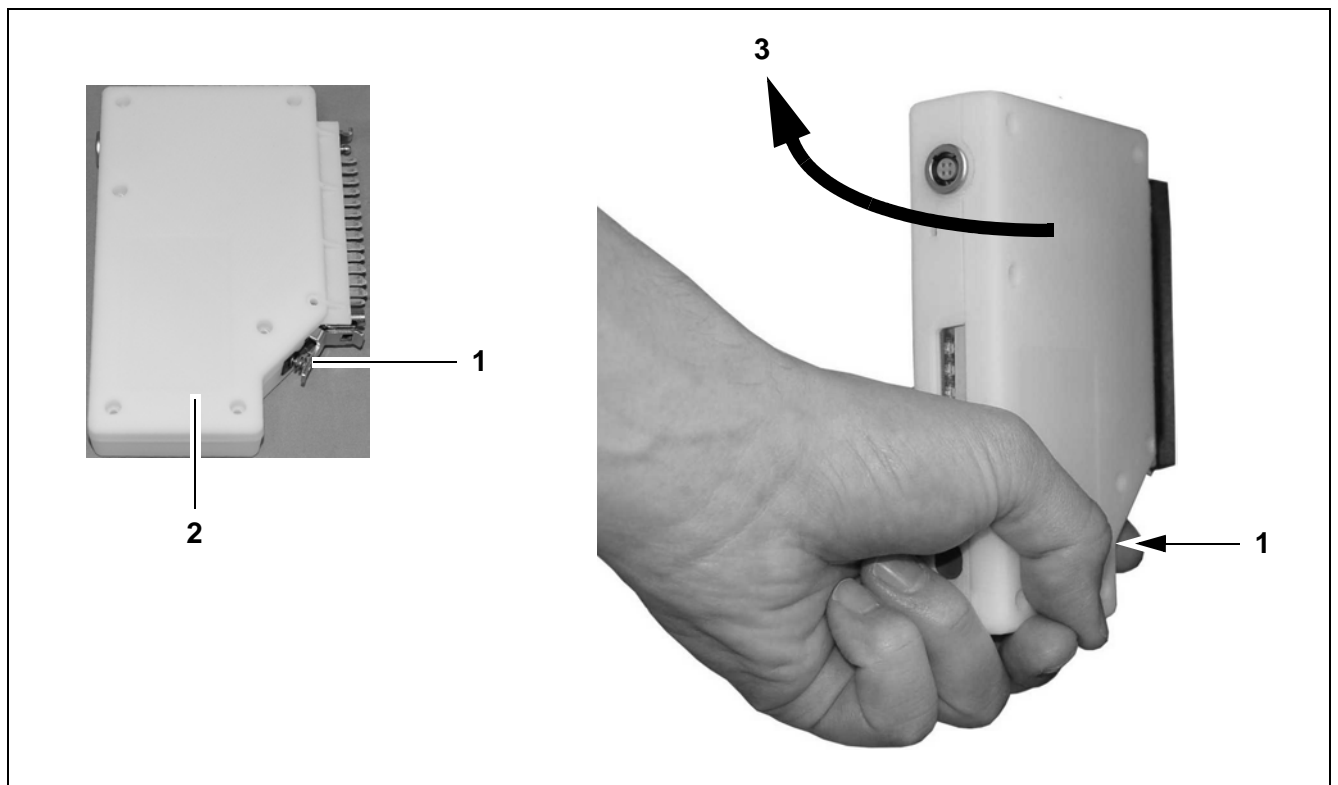
- Insert 6-pin connector (1) of the connection cable in socket (3) on the foot control panel.
 - Insert 4-pin connector (2) of the connection cable in socket (4) on the upgrade module.
- The foot control panel now operates in the corded mode.



Removing the upgrade module

The triggered functions cannot be completed, the suspension system or the surgical microscope does not stop moving.

- Press clip (1) on upgrade module (2).
 - Pull off the upgrade module in an upward direction, see (3).
- The foot control panel is disabled.



Troubleshooting

For your safety

This device is a high-grade technological product. To ensure optimum performance and safe working order, we recommend having it checked by our service representative as part of regular scheduled maintenance.

- If a failure occurs which you cannot correct with the aid of the chapter "What to do in the event of malfunctions", attach a sign to the device stating it is out of order and contact our service representative.

Malfunction of the foot control panel

Problem	Possible cause	Remedy	See
Foot control panel is inoperative	Connection cable not connected to suspension system	Connect via connection cable	page 40
Limited performance during operation	Batteries are depleted	Replace batteries	page 36
	Use of rechargeable batteries	Replace batteries	page 36
	Failure of individual button functions	Contact service dept.	--
	Failure / malfunction of radio link in cordless foot control panel	Make connection via cable	page 40
	Position switch always detects rest position	Make connection via cable	page 40
	Interference in radio link	Make connection via cable	page 40
	Weak radio signal	Make connection via cable	page 40

Problem	Possible cause	Remedy	See
Unwanted mechanical movements	Button got jammed after activation	Cordless: put foot control panel in rest position	page 15
		Corded: disconnect cable Contact service dept.	page 40
	Foot control panel sends incorrect activation signal	Cordless: put foot control panel in rest position Cordless: remove radio module from suspension system Corded: disconnect cable	page 15
Wrong foot control panel		Check whether the identifications on the suspension system and in the indicator of the foot control panel are identical.	--
		Perform pairing with the suspension system	page 38

Care and maintenance



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Care of the device

Cleaning



Contamination of the foot control panel

- If possible, clean the foot control panel and its components directly after use.
- Contaminations should not be allowed to dry on the objects, as this would make cleaning and disinfecting more difficult.

Cleaning mechanical surfaces

All mechanical surfaces of the foot control panel and its components can be cleaned by wiping them with a damp cloth. Do not use any aggressive or abrasive cleaning agents.

Clean off any residue using a mixture of 50% ethyl alcohol and 50% distilled water plus a dash of household dish-washing liquid.

Disinfection

CAUTION

Observe the manufacturer's instructions for use.

- Use MELISEPTOL in accordance with the manufacturer's specifications and observe the instructions for use provided with the product.
 - Wear disposable plastic gloves to prevent skin contact with the disinfectant.
-

It may be necessary to disinfect the foot control panel to permit its use in the OR, for example.

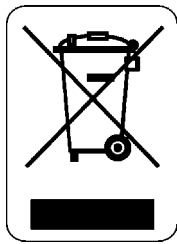
We recommend using MELISEPTOL disinfectant from B. Braun, Melsungen AG.

MELISEPTOL is available from Carl Zeiss, and you can also obtain it locally in many countries from representatives of B. Braun, Melsungen AG.

Environmental protection measures

Note on disposal

User information on the disposal of electrical and electronic devices



This symbol means that the product must not be disposed of as normal domestic waste.

The correct disposal of electrical or electronic devices helps to protect the environment and to prevent potential hazards to the environment and/or human health which may occur as a result of improper handling of the devices concerned.

For detailed information on the disposal of the product, please contact your local dealer or the device manufacturer or its legal successor. Please also note the manufacturer's current information on the Internet. In the event of resale of the product or its components, the seller is required to inform the buyer that the product must be disposed of in accordance with the applicable national regulations currently in force.

For customers in the European Union

Please contact your dealer or supplier if you wish to dispose of electrical or electronic devices.

Information on disposal in countries outside the European Union

This symbol is only applicable in the European Union. For the disposal of electrical and electronic devices, please observe the relevant national legislation and other regulations applicable in your country.

Disposal of batteries

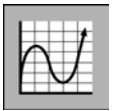
WARNING**Risk of explosion!**

- Never throw batteries into a fire.

Please observe the local directives relating to the disposal of batteries, or contact your local sales organization for further information.

The batteries must not be disposed of as normal domestic waste. Use an appropriate facility for the disposal of batteries.

System data



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Technical data

Mechanical data

Component	Feature
Dimensions L x W x H	approx. 415 x 245 x 110 mm
Weight	approx. 2.4 kg


Electrical data

Electrical data, cordless operation

Component	Feature
Power supply	3 x C type 1.5 V alkaline-manganese batteries
Current consumption	max. 100 mA
Service life of batteries	approx. 2 - 6 months
Electrical standard	Complying with IEC 60601-1; UL 60601-1; Protection class I, degree of protection IPX8 Type B equipment 
Cable connection	Remote socket for CANbus cable

The device has been designed for continuous operation.

Electrical data, corded operation

Component	Feature
Power supply	15 VDC \pm 10 %
Power consumption	max. 200 mA
Electrical standard	Complying with IEC 60601-1; UL 60601-1; Protection class I, degree of protection IPX8 Type B equipment 
Cable connection	Remote socket for CANbus cable

The device has been designed for continuous operation.

Radio module

Component	Feature
Transmission frequency	2402 ... 2480 MHz
Receiving power	-82 ... 0 dbm
Transmission power	0 dbm - max. 2.5 mW - Class 2
Approval	Only in combination with the suspension systems specified on page 30

Ordering data

Foot control panel with 14 functions - cordless and corded

Description	Cat. No.
Foot control panel with 14 functions, corded	304970-9100-000
Foot control panel with 14 functions, cordless	304970-9200-000
Joystick knob	304970-8807-000
Joystick extension	304970-8808-000
3 C type 1.5 V alkaline-manganese batteries	000000-0035-244
CANbus cable, 3 m	304970-8730-000
CANbus cable, 6 m	304970-8760-000
Upgrade module, corded	304970-9300-000
Upgrade module, cordless	304970-9400-000
Upgrade kit, cordless, 14 functions	304970-9060-000
Upgrade kit, corded, 14 functions	304970-9070-000

Disinfection - Meliseptol

Description	Cat. No.
1 l MELISEPTOL in vario bottle	000000-0103-907
MELISEPTOL HBV spray, 250 ml	000000-0103-910
MELISEPTOL HBV cloths	000000-0103-911

Disposable gloves

Description	Cat. No.
Size 1 (large) size 8-9	000000-0117-736
Size 2 (medium) size 7-8	000000-0117-737

Approval verification

Description	Identification
EMC requirements	The foot control panel meets the EMC requirements in accordance with IEC 60601-1-2. The system meets the RFI requirements of Class B.
FCC	The foot control panel meets the requirements of Part 15 of FCC
EG	The foot control panel meets the requirements of EC Directive 1999/5/EC
ARIB	The foot control panel meets the requirements of ARIB

Ambient conditions

For operation

Feature	Admissible range
Temperature	+ 10 °C ... + 40 °C
Rel. humidity	30 % ... 75 %
Air pressure	700 hPa ... 1060 hPh

For transportation and storage

Feature	Admissible range
Temperature	- 25 °C ... + 70 °C
Rel. humidity (without condensation)	10 % ... 90 %
Air pressure	500 hPa ... 1060 hPh

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B

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