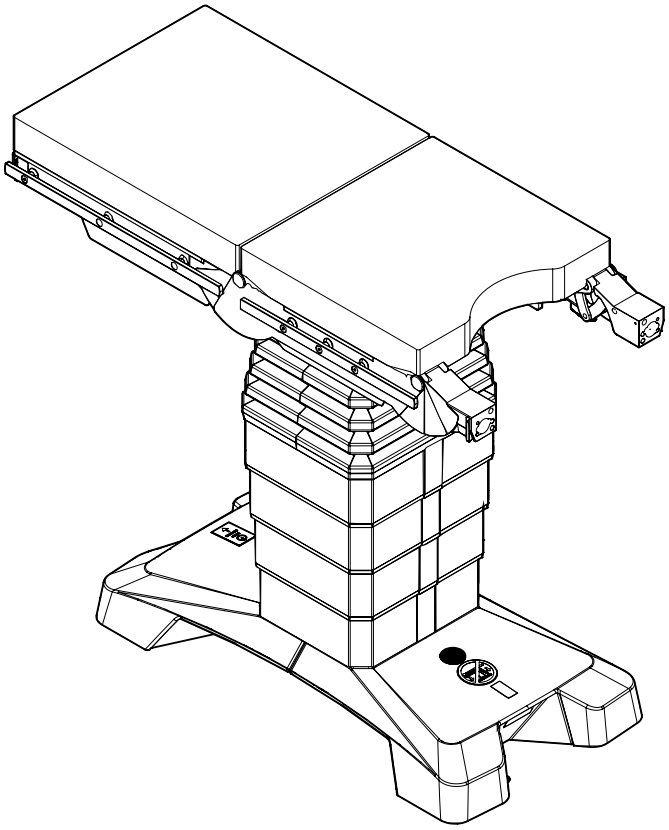
Practico Operating Table User Manual



Document ID: DO1141-1-0.en
Version: 1.0 –14.11.2019

Complete: 12.11.2019 Original document
Type: Instructions

Contents

1 Warnings, cautions and notes 6
1.1 Overview 6
1.2 General warnings 6
1.3 Mains warnings 8
1.4 Internal battery warnings 10
1.5 Patient handling warnings 11
1.6 High frequency equipment and EMC warnings 12
1.7 Hand control unit warnings 13
1.8 Accessories warnings 13
1.9 Operating table adjustment warnings 14
1.10 Care and cleaning warnings 15
1.11 Recycling warnings 16

2 General 17
2.1 User training 17
2.2 Standards and directives 17
2.3 Intended use 17
2.4 Operating characteristics 17
2.5 Table models and configuration 18
2.6 User identification 19
2.7 Liability 20
2.8 Package label 21

3 Use 23
3.1 Before use 23
3.2 Construction 24
3.2.1 Main parts 24
3.2.2 Symbols and label markings 25
3.3 Control devices and functions 26
3.3.1 Main switch 26
3.3.2 Electrical connections and powering up the table 27
3.3.3 Recharging of battery and mains use 29
3.3.4 Hand control unit 30
3.3.5 Locking system 31
3.3.5.1 Lock 31
3.3.5.2 Unlock 31
3.3.5.3 Brake emergency release 32
3.3.6 LED indicator lights and sounds 33
3.4 Table top configurations 35
3.4.1 Practico back sections 36
3.4.2 Integrated kidney bridge back section 37
3.4.3 Practico beach chair back section 38
3.4.4 Eye-ENT back section 39
3.4.5 Attaching and removing table top sections 39
3.4.5.1 Attach 39
3.4.5.2 Remove 40
3.4.6 Mattresses 40
3.4.6.1 Visco-elastic foam (VEF) mattresses 41
3.4.7 Practico leg sections 42
3.4.7.1 Motorised and non-motorised leg sections 42
3.4.7.2 Undivided one-piece leg sections 42
3.4.7.3 Divided leg sections 43
3.4.7.4 Combined leg sections and foot extensions 43
3.4.8 Transporting a patient on the table 44
3.4.9 Precautions before adjusting the operating table 45
3.4.10 Adjusting operating table 49
3.4.10.1 5th wheel 50

3.4.10.2 -0- position adjustment 50
3.4.10.3 Trendelenburg and Anti-Trendelenburg adjustment 51
3.4.10.4 Height adjustment 51
3.4.10.5 Lateral tilt 51
3.4.10.6 Back section adjustment 52
3.4.10.7 Leg section adjustment 53
3.4.10.8 Longitudinal shift (slide) 53
3.4.10.9 Flex and reflex positions 54
3.4.10.10 Head section adjustment 54
3.4.11 Position preset 55
3.4.12 Back-up control panel 56
3.4.12.1 Function buttons 57
3.4.13 Foot control unit 58
3.4.13.1 Foot control unit functions 58
3.4.13.2 Connect foot control unit 58
3.4.13.3 Disconnect foot control unit 59
3.4.13.4 Using the foot control unit 60

4 Practico operating table accessories 61
4.1 Operator table accessory warnings 61
4.2 Recommended accessories 62

5 Technical data 68
5.1 Identification plate 68
5.2 Labeling and symbols 69
5.2.1 Symbols and label markings 69
5.3 Specifications 71
5.3.1 Environmental specifications 71
5.3.2 Electrical specifications 71
5.3.3 Classification data 71
5.3.4 Surface materials 72
5.3.5 Adjustment ranges 72
5.3.5.1 -0- position 73
5.3.5.2 Approvals 73
5.3.6 Weights and dimensions 74

6 Cleaning 77
6.1 Cleaning warnings and cautions 77
6.2 Cleaning 78
6.2.1 Cleaning mattresses and plastics 78
6.2.2 Cleaning metal parts 79
6.3 Disinfection 80
6.3.1 Disinfecting mattresses and plastics 80
6.3.2 Disinfecting metal parts 80

7 Recycling 82
7.1 Metals and plastics 82
7.1.1 Gas springs 82
7.1.2 Electronic waste and batteries 83

8 Maintenance and service 84
8.1 Safety during maintenance procedures 84
8.2 Before starting any service or maintenance work 85
8.2.1 Daily maintenance 85
8.3 Monthly maintenance (by Merivaara trained service personnel only) 87
8.4 Annual maintenance (by Merivaara trained service personnel only) 89
8.5 Troubleshooting 91
8.5.1 Possible situations 91
8.6 Contact information 93

9 Guidance and manufacturer's declaration 94

9.1 Electromagnetic compatibility 94

User training guidelines T404658–2 98

1 Warnings, cautions and notes

1.1 Overview

To ensure optimal patient safety, all users must read this user manual carefully and be familiar with the correct use of the product as well as all warnings, cautions and notes.

Warnings and notes found in this user manual are indicated with symbols as follows:

⚠ WARNING

Please observe to ensure user, maintenance personnel and patient safety.

⚠ CAUTION

Please observe in order to avoid causing damage to the equipment or its parts.

Note: Please observe in order to improve equipment properties.

1.2 General warnings

⚠ WARNING

Use the Practico table only in facilities made for medical purposes. Read this manual thoroughly, and be familiar with its content before using this equipment.

⚠ WARNING

Any serious incident that has occurred in relation to the device must be reported to the manufacturer and the competent authority of the state in which the user and/or patient is established

⚠ WARNING

You can adjust the operating table with several active control units: with a cabled hand control unit, foot switch and back-up panel. The movement of the table stops, if another control unit is used simultaneously. Only one person can be responsible for adjusting the table

⚠ WARNING

The antistatic properties of the table require the use of original brand mattresses.

⚠ WARNING

Use only permitted table top configurations that are illustrated in this manual.

⚠ WARNING

Use only accessories recommended by Merivaara Corp.

⚠ WARNING

The table weighs about 225 kg.

⚠ WARNING

Note that the safe working load (SWL) of a Practico operating table may vary according to the chosen leg section.

⚠ WARNING

IP X4 classification is valid only when the mains cable is disconnected.

⚠ WARNING

No modification of this equipment is allowed.

⚠ WARNING

Do not use combustible anaesthetic gases with the Practico operating table.

⚠ WARNING

Always follow manufacturer instructions when using electrosurgery devices to ensure proper precautions and to minimize risks regarding patient burns, explosions and electric shock to the patient or surgeon.

⚠ WARNING

Make sure that the table is used, transported and stored as described in this manual.

⚠ WARNING

Make sure there are no exposed metal portions of the operating table (especially the leg and back section pivots, or accessory rails), that the patient or the surgical personnel can touch during electrosurgery. Hazard of burn injuries when using return electrodes!

⚠ WARNING

The operating table must only be used in the electromagnetic environment specified in the EMC guidance. The customer or the user of the operating table must assure that it is used in such an environment.

⚠ WARNING

The Practico operating table has been tested according to IEC/EN 60601-1 to ensure proper electromagnetic compatibility. Other products used in the vicinity of the Practico operating table must also comply with this standard. If they do not comply, interference between products may occur. Please contact the appropriate manufacturer if any problems arise.

⚠ WARNING

Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment (Merivaara Corp.) can result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment. This can result in inproper operation.

⚠ WARNING

Portable and mobile radio frequency (RF) communications equipment can affect the Practico operating table.

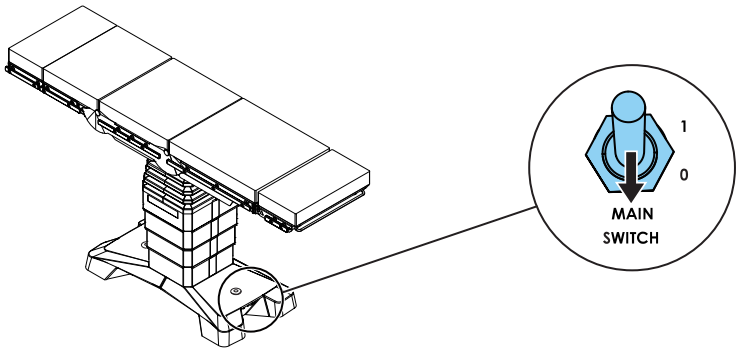
⚠ WARNING

Portable RF communications equipment (including peripherals such as antenna cables and external antennas) must not be used no closer than 30 cm (12 inches) to any part of the ME equipment or ME system, including cables specified by the manufacturer. Otherwise, the table may not work properly.

1.3 Mains warnings

⚠ WARNING

In case of malfunction, use the main switch to stop all table functions and disconnect the mains cable from the wall socket. The main switch is located on the table base casing. To stop all table movements, turn the switch lever to OFF position (the lever tip pointing downwards) and disconnect the mains cable.



⚠ WARNING

Use only mains cables rated as 250 V, 10 A, 5 m.

⚠ WARNING

If the main switch is turned to OFF position (downwards), all table functions are blocked.

⚠ WARNING

Do not block mains inlet with external item(s).

⚠ WARNING

Disconnect the mains cable from the table and set the main switch to OFF position before cleaning the table. Hazard of electric shock!

⚠ WARNING

Disconnect the mains cable from the table before any service procedures. 100–240 V~ is used in power unit in the table base. Hazard of electric shock.

⚠ WARNING

When you recharge the battery, first plug the mains cable to the operating table inlet, then to a wall outlet and turn the main switch on.

⚠ WARNING

When recharging is completed, disconnect the mains cable first from the wall outlet and then from the table inlet.

⚠ WARNING

Set the main switch to OFF position (downwards) when the table is not in use or if it is stored for a longer period of time. This eliminates the possibility of unintended use and saves the battery capacity.

⚠ WARNING

Use of alternative isolation transformer model (for example, transformer is integrated in the operating room electrical power network) is accepted, if on-site verification is performed before operating table is used in surgical operation:

- Leakage currents must be measured according to IEC/EN 62353.
- Measured leakage currents must fulfill limits according to IEC/EN 60601-1.

⚠ WARNING

Do not simultaneously touch the operating table external electrical connections and the patient during the operation.

⚠ WARNING

The antistatic properties of the table require the use of original brand mattresses.

⚠ WARNING

Use the potential equalization conductor with patient monitoring equipment. The conductor terminal is located next to appliance inlet at the back side end of the lower frame. Look at the Medical Electrical System requirements as specified in *standard IEC/EN 60601-1, Clause 16*.

⚠ WARNING

When using high frequency surgical equipment, for example, diathermy or defibrillation equipment, prevent the patient from coming into contact with metal parts of the table or accessories. Do not place the patient on wet or damp surfaces or electrically conductive pads. Hazard of burn injuries!

⚠ WARNING

The operator and other personnel must not touch the patient or the operating table or any other equipment which is in contact with the patient during defibrillation. Always follow the instructions for use provided by defibrillator manufacturer when you defibrillate a patient on the operating table.

1.4 Internal battery warnings

⚠ WARNING

The operating table must only be operated on its internal battery if the integrity of the protective earth conductor arrangement is in doubt.

⚠ WARNING

If the operating table has been in the cold, allow it to warm up at room temperature for at least 6 hours before recharging the battery or switching it on, to allow any condensation formed to evaporate.

⚠ WARNING

Recharge the battery before use.

⚠ WARNING

When you recharge the battery, first plug the mains cable into the table appliance inlet and then to the wall outlet and turn the main switch on.

⚠ WARNING

When recharging is completed, disconnect the mains cable first from the wall socket, after that from the table appliance inlet.

Note: Recharge the battery overnight after a day's use. This way the table will be always ready for use and the battery will have a longer service life. Typical service life for the battery is about 3 years if recharged properly.

Note: If the main switch is turned to the OFF position (downwards), all table functions are blocked, including recharging of the battery. When the power is ON, the green battery status LED on the hand control unit and back-up control unit light up.

1.5 Patient handling warnings

⚠ WARNING

Adjust the table top to the horizontal position (-0- position) with the hand control unit before transporting a patient.

⚠ WARNING

Place the patient in the longitudinal centre of the table top only.

⚠ WARNING

Use extreme caution when transporting the table with a patient on. Transporting of the table with a patient on requires two persons. To maximize patient safety utilize proper restraint methods during transport.

⚠ WARNING

When using high frequency surgical equipment, for example diathermy or defibrillation equipment, take care to prevent the patient from coming into contact with metal parts of the operating table or accessories.

⚠ WARNING

Do not place the patient on wet or damp surfaces or electrically conductive pads. Hazard of burn injuries.

⚠ WARNING

Do not transport the table over thresholds higher than 10 mm.

⚠ WARNING

The instructions for use provided by the defibrillator manufacturer must always be followed when defibrillating a patient on the operating table. The operator and other personnel must not touch the patient or the operating table or any other equipment that is in contact with the patient during defibrillation. The patient must not be in contact with any metal parts of the operating table during defibrillation.

⚠ WARNING

Max. patient weight with the sliding seat or basic section is 280 kg.

1.6 High frequency equipment and EMC warnings

⚠ WARNING

Always follow the manufacturer's instructions when using high frequency equipment, for example diathermy or defibrillation equipment.

⚠ WARNING

The operating table must only be used in the electromagnetic environment specified in the EMC guidance. The customer or the user of the operating table must assure that it is used in such an environment.

⚠ WARNING

The operating table has been tested according to IEC/EN 60601-1 to ensure proper electromagnetic compatibility. Other products used in the vicinity of the operating table must also comply with this standard. If they do not comply, interference between products may occur. Please contact the appropriate manufacturer if any problems arise.

⚠ WARNING

Portable and mobile radio frequency (RF) communications equipment can affect the operating table.

⚠ WARNING

When using high frequency surgical equipment, prevent the patient coming into contact with metal parts of the operating table or accessories. Always follow the equipment manufacturer's instructions. Do not place the patient on wet or damp surfaces or electrically conductive pads. Hazard of burn injuries.

⚠ WARNING

Use a potential equalization conductor with patient monitoring equipment. Place the connector at the base of the table.

Note: The emissions characteristics of this equipment make it suitable for use in industrial areas and hospitals (CISPR 11 class A). If it is used in a residential environment (for which CISPR 11 class B is normally required), this equipment might not offer adequate protection to radio-frequency communication services. The user might have to move the operating table to another place or different position.

1.7 Hand control unit warnings

⚠ WARNING

Use the back-up control panel (override panel) functions in the case of hand control unit malfunction.

⚠ WARNING

Keep the hand control unit on the lever under the head section, especially during transport.

1.8 Accessories warnings

⚠ WARNING

Use only accessories recommended by the table manufacturer.

⚠ WARNING

Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment (Merivaara Corp.) can result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment. This can result in inproper operation.

⚠ WARNING

Always follow manufacturer instructions when using electrosurgery devices to ensure proper precautions and to minimize risks regarding patient burns, explosions and electric shock to the patient or surgeon.

⚠ WARNING

Ensure that all accessories are properly mounted and not damaged or worn.

⚠ WARNING

Check the function of the accessory locking and adjustments.

⚠ WARNING

Use potential equalization conductors with patient monitoring equipment. The terminal is on the table base.

See Medical Electrical System requirements as specified in standard *IEC/EN 60601- 1, Clause 16*.

⚠ WARNING

The head and leg section gas springs can be disposed of as metal waste after nitrogen gas and oil has been removed. Instructions for gas releasing are available from your sales representative.

⚠ WARNING

Use of the operating table adjacent to or stacked with other equipment can result in improper operation. If the operating table is used in that way, compatibility with the other equipment must be observed to verify proper operation.

⚠ WARNING

The operator and other personnel must not touch the patient or the operating table or any other equipment which is in contact with the patient during defibrillation. Always follow the instructions for use provided by defibrillator manufacturer when you defibrillate a patient on the operating table.

1.9 Operating table adjustment warnings

⚠ WARNING

Activate the floor lock before adjusting the table.

⚠ WARNING

Avoid collision between accessories and external obstacles.

⚠ WARNING

Keep the patient’s fingers, hands or other parts of the body away from the edges of the back, leg or seat section frames and pivoting points.

⚠ WARNING

Check that the latches of the table top sections lock correctly. Incorrect attachment of table sections can cause injury or damage the equipment.

⚠ WARNING

Downwards adjusted leg or back section may hit the table base or column casings depending on the used height, Trendelenburg or tilt angle adjustments. Risk of causing damage to the operating table and creating pinching hazard.

⚠ WARNING

Do not place any objects on the base or under table top section. This can damage the equipment during adjustments.

⚠ WARNING

If the table top seat section is adjusted towards the leg section, adjustment of the back section stops automatically before colliding to the column.

⚠ WARNING

If the leg section of the table is pressed down without a patient load, play can be felt on the operating table top. Under normal operating conditions, a patient is positioned on the table top which eliminates the play and therefore causes no issues for normal use.

⚠ WARNING

Activate the floor lock before adjusting the table. Only Trendelenburg adjustments can be made if the floor lock is not activated.

1.10 Care and cleaning warnings

⚠ WARNING

Disconnect the mains cable from the table and turn the main switch to the OFF position before cleaning the table.

⚠ WARNING

Clean mattresses with neutral detergent (ph 7–8) only. The antistatic properties of the operating table require the use of original brand mattresses and antistatic flooring.

⚠ WARNING

Clean the Velcro tapes on table top plates with pressurized air. Replace when necessary; spare parts and instructions are available from your sales representative.

⚠ WARNING

Do not use pressurized water: the table has been classified as splash proof equipment only. Cleaning and disinfecting must be done according to this manual.

1.11 Recycling warnings

⚠ CAUTION

Gas springs can be disposed of as metal waste after nitrogen gas and oil has been removed. Instructions for releasing the gas is available from your sales representative.

Note:

Batteries contain lithium, and if replaced, need to be recycled in accordance with local environmental regulations.

Cardboard packing material is recyclable. Wood and plastics are energy waste.

2 General

2.1 User training

The end user (nurse, medical doctor or other personnel who is involved in using the product) must be trained by an authorized trainer before using the product. Also the relevant technical personnel must be trained. (IEC 62366).

The following trainings are available:

- End user training
- Technical personnel training

For more information on user training, please refer to the document *T404658 User training guidelines*.

2.2 Standards and directives

As a manufacturer of medical devices and products for health care, Merivaara Corp. pays the greatest attention to the quality of both its products and its operational processes. Merivaara's products are CE-labelled and the company's quality management system complies with EU directives for medical devices, and is certified according to ISO 9001 and ISO 13485 standards. The company's environmental management system is ISO 14001 certified.

The product meets the following standards: IEC/EN 60601-1, IEC/EN 60601-2-46 and IEC/EN 60601-1-2 (EMC). The table complies with a directive 93/42/EEC (MDD) product class I, and bears a CE marking based on this classification.

2.3 Intended use

The operating table is intended to be used for supporting a patient during surgical procedures. The table must be used in an operating room environment by trained health care professionals only.

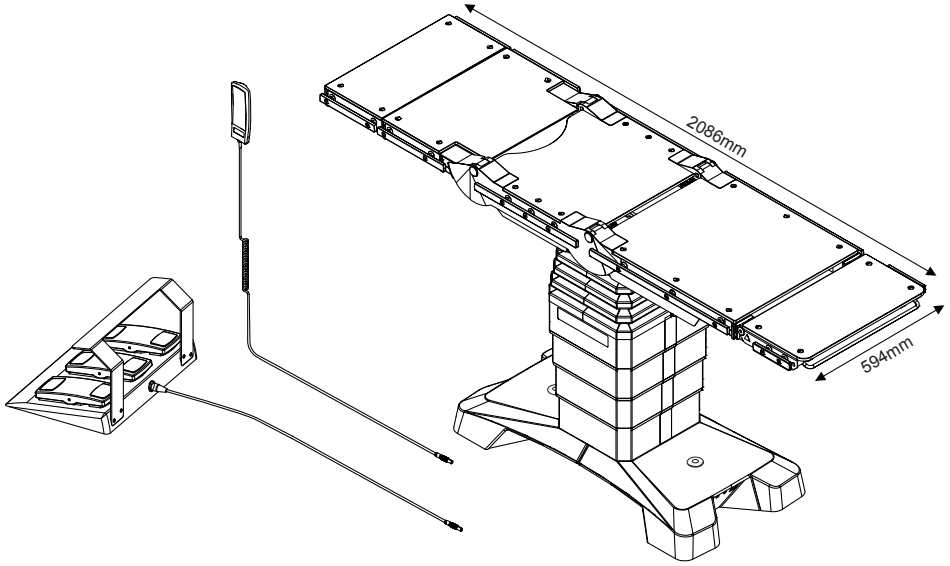
2.4 Operating characteristics

Practico is a transportable electro-mechanical battery and mains-operated operating table. Its safe working load (SWL) is 280 kg. Product modularity and wide adjustment ranges make it flexible and easy to use. The table can be connected to a 100– 240 VAC mains power system. The secondary voltage is 33 VDC. The table electronics are grounded and equipotential connection provides additional (max 33 VDC) potential equalization.

The Practico table top consists of a fixed or sliding seat section combined with a back section selected from the 4 factory-installed options. Different types of head and leg

sections can be used depending on the surgical concept and operation. The width of the table top is 594 mm and maximum length is 2086 mm, when standard table top sections are used. Table top plates are x-ray translucent.

Practico is adjusted using a wired hand control unit. Foot control is an optional accessory. There is a back-up control panel on the table column to ensure safe operation in the case of hand control unit malfunction.



Safe and fault-free use and maintenance of the table requires that you read these instructions carefully. When using and mounting accessories, follow their instructions carefully. Always keep the instructions of the accessories together with this manual. Use original Merivaara operating table accessories for maximum performance.

2.5 Table models and configuration

The Practico operating table has been constructed from the modules specified in the table below. The table top consists of two factory-installed components which are not interchangeable. These are:

- Back section
- Leg section according to the functionality type

The other modules are presented in the table below. The final product is named with a model name if it is selected from the pre-selected sales packages. The modules and the serial number are indicated on the identification plates.

Frame model	• Without slide • With slide (longitudinal shift of the operating table top)
Lifting column	• Basic version • Low version • High version

Leg sections	• All Practico leg sections • Electrically adjustable (motorised) standard leg sections • Additional leg sections from Merivaara
Leg section functionality	• Motorised leg sections — with actuators for the leg section, with inductive sensors for the leg section • Non-motorised leg sections — No actuators for the leg section, no inductive sensors for the leg section
Back section	• Basic • Beach Chair • Eye-ENT • Kidney Bridge
Head sections and headrests	• All standard head sections defined for Practico • Additional head sections from Merivaara • Special head sections with back section adapter
Accessory rails	EUR, UK, USA
Mains cable	Configured by mains supply system (medical grade)
Optional accessories	• 5th wheel • Foot Control Unit

2.6 User identification

The Merivaara Practico operating table and these operating instructions are intended to be used by:

- medical personnel and qualified technicians working at hospitals or at qualified legal agencies
- medical surgeries who have acquired working skills by undergoing medical training and who are in possession of necessary authorisation where required.

Mandatory personnel training for the use of the Merivaara Practico operating table must be carried out.

Because of importance of personal safety, read the safety precautions in chapter Warnings, cautions and notes before using the product.

Qualified personnel of the product owner must perform the necessary adjustments in accordance with the safety rules and precautions described in this manual.

In case of malfunctions or loss of essential performance, contact technical personnel immediately. Nursing staff or the persons involved in treatment or surgical procedures must not perform maintenance that requires technical training (technical personnel only).

Product cleaning and disinfection must be done by duly trained personnel according to the best practices in use at the facility, strictly following the instructions given in this manual.

Always disinfect the operating table before use.

In order to ensure optimal safety, all users should carefully read the Merivaara OpenOR user instructions T402952 before using the Practico operating table with the OpenOR system.

Disregarding the guidelines presented in this manual is interpreted as a user error and results in the loss of the product warranty.

2.7 Liability

The contents of this manual may be amended by Merivaara, without prior notice or any further obligations, in order to make changes and improvements. The reproduction, including partial reproduction, or translation of any part of this manual is forbidden without the written consent of Merivaara.

Merivaara reserves the right to change, cancel or otherwise amend the data contained in this document at any time and for any reason without prior notice because Merivaara is constantly seeking new solutions which lead to product evolution. Merivaara therefore reserves the right to make changes to the supplied product in terms of shape, fittings, technology and performances.

With regard to translations into languages other than English, reference must always be made to the English edition of this manual. To be able to use the operating table safely and efficiently, we recommend that you read this manual and inspect the included images.

Merivaara does not take responsibility of the consequences if the system contains other suppliers' material or components. All parts of the system must be tested according to IEC/EN 60601-1.

This user manual is regarded as a part of the product. It must be kept in close vicinity of the product at all times.

Copyright © 2019 Merivaara Corp. All rights reserved.

2.8 Package label

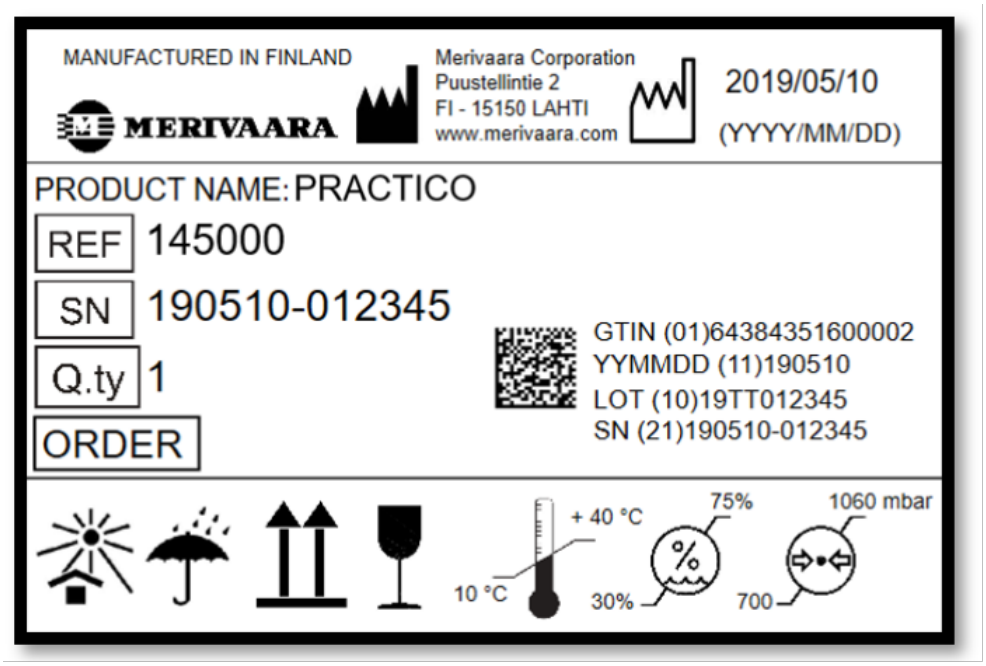


Table 1. Package labels

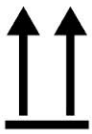
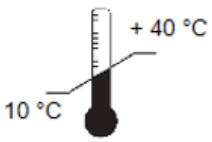
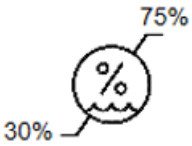
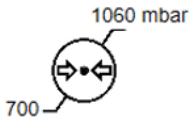
	Keep away from sunlight
	Keep dry
	This side up
	Fragile, handle with care
	Temperature limit

Table 1. Package labels (continued)

	Humidity limitation
	Atmospheric pressure limitation

3 Use

3.1 Before use

To ensure optimal surgical safety, all users must read these instructions carefully and be familiar with the correct use as well as all warnings and observations.

Using the product for other than health care or medical purposes is strictly prohibited.

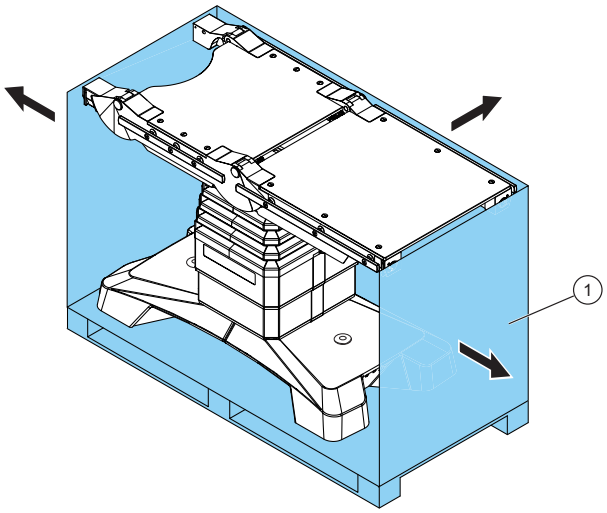
⚠ WARNING

Two people are required to unpack/pack the operating table. Be careful, the table weighs about 230 kg.

The operating table is shipped pre-assembled excluding removable table top sections and control units.

1. Check the package for possible transport damages.
2. Remove strapping around the package and the plywood top cover.
3. Remove covering plastics and other components.
4. Remove packing materials and sides (1) of the package.
5. Remove the two brackets (M10 bolts, SW 17 nuts).
6. Remove the plywood plates from the leveling blocks on the crate, plates fixed with TX 30 screws, 2 pcs.
7. Lift the table at least to a height of 6.5 cm, over the leveling blocks.
8. Lower the table steadily on a flat surface.
9. Clean and disinfect the table before use according to the instruction in Chapter 6.2 Cleaning, page 78.

Note: Cardboard packing materials are recyclable. Wood and plastics are energy waste.

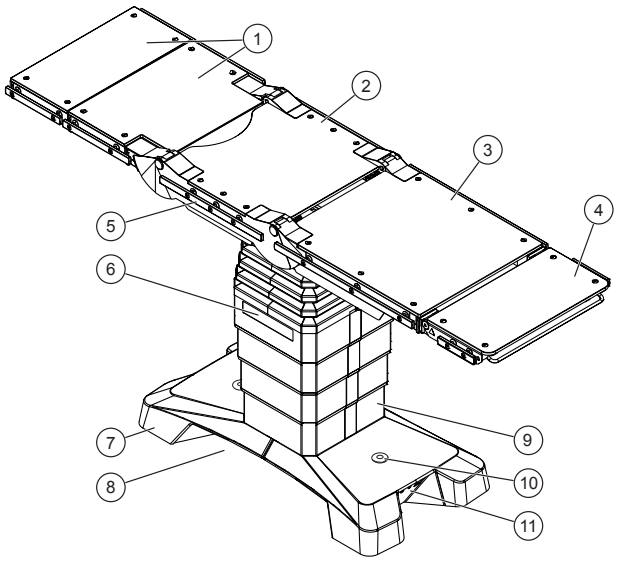


⚠ CAUTION

If the table has been in cold temperatures during transport or storage, allow it to warm up to room temperature for at least 6 hours before recharging the battery or connecting power. This ensures that the possible condensed humidity has time to evaporate

3.2 Construction

3.2.1 Main parts



1. Leg section or (lower leg section with foot extension)
2. Seat section
3. Back section (standard)
4. Head section with optional accessory rails
5. Accessory rail(s)

6. Back-up control panel
7. Table base casing with floor lock
8. Drive wheel/directional wheel
9. Lifting column
10. IR remote sensor
11. Main switch (ON/OFF) and electrical connections

3.2.2 Symbols and label markings

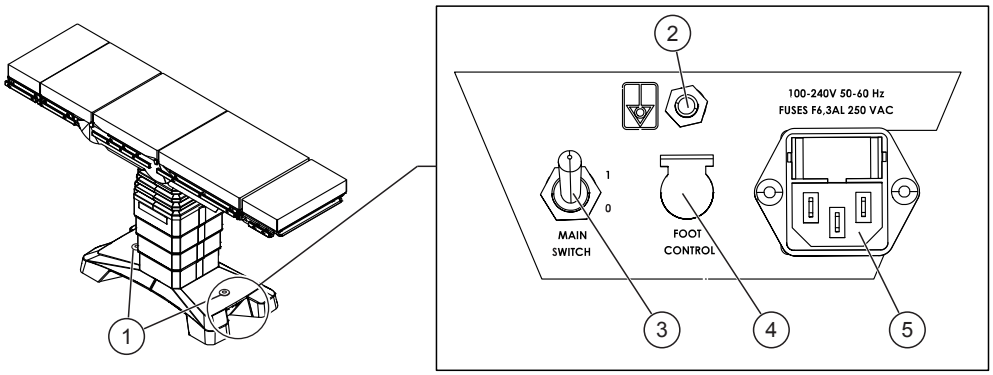
Table 2. Mains power connection and fuses

Input voltage range	100 to 240 V
Alternating Current, AC	~
AC frequency range	50/60 Hz
Mains fuses	F6.3AL / 250 VAC Ø5 X 20 (2 pcs)

Note: The Medical Electrical System requirements are specified in standard *IEC/EN 60601-1, clause 16*.

3.3 Control devices and functions

3.3.1 Main switch

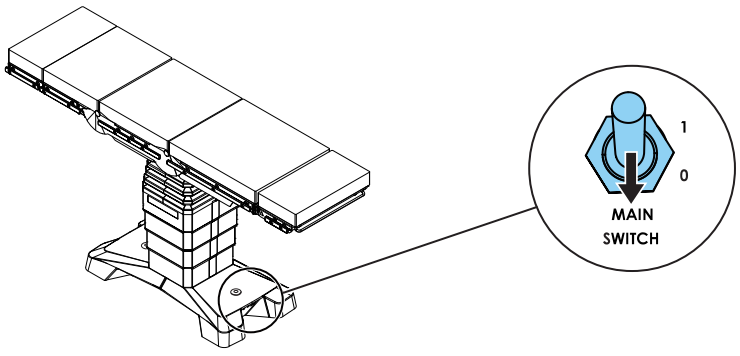


The main switch is located on the table base on the head section side of the table.

1. IR receivers
2. Equipotential connector
3. Main switch
   - I - ON upwards
   - 0 - OFF downwards
4. Foot control unit socket
5. Mains inlet with fuse box

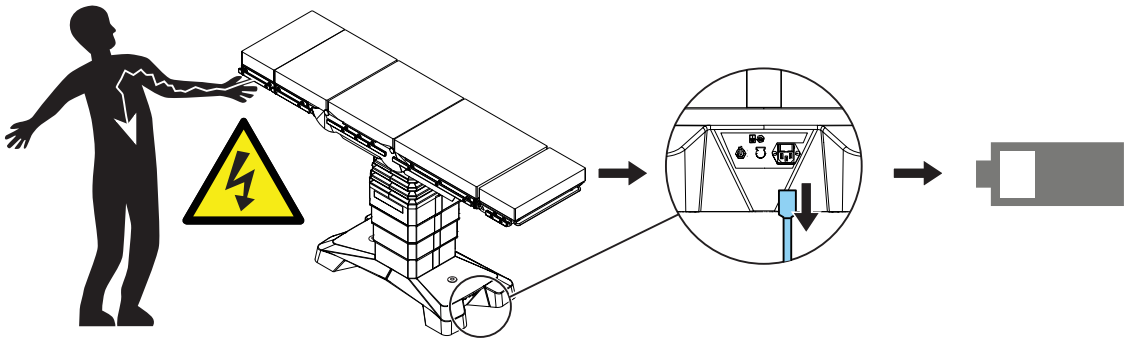
⚠ WARNING

The main switch is located on the table base on the head section side of the table. You can stop all table movements immediately by setting the main switch to the OFF position (lever tip pointing downwards and disconnect the mains cable.



⚠ WARNING

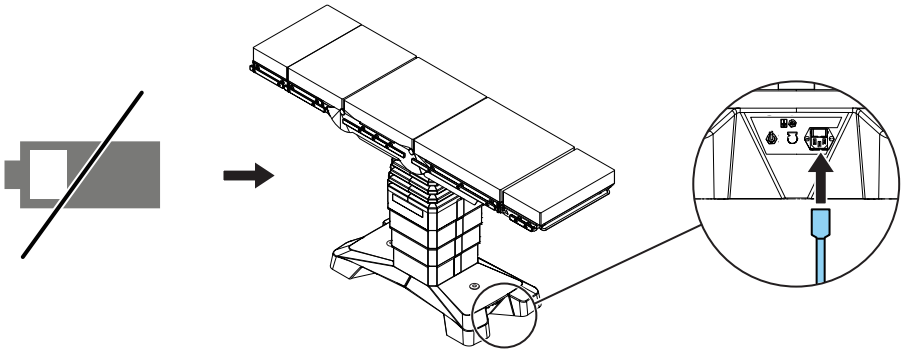
IF PROTECTIVE GROUND IS SUSPECTED TO BE UNRELIABLE.



Disconnect the mains cable and use the operating table in battery mode.

⚠ WARNING

IF POWER SUPPLY FAILURE OCCURS DURING BATTERY MODE AND IN CASE OF BATTERY MALFUNCTION.



Connect the mains cable to the mains inlet and isolated wall socket.

3.3.2 Electrical connections and powering up the table

1. Make sure that the main switch is in the OFF position.

⚠ WARNING

To avoid voltage surges, switch the power OFF before connecting/disconnecting any cables.

2. Check the mains cable condition.

⚠ WARNING

Never use a damaged cable. Only use a cable rated 250 V, 10 A

3. Plug the mains cable to the mains inlet.

4. Connect the other end of the mains cable to an earthed wall outlet. This powers the table in mains mode.

⚠ WARNING

Use earthed wall outlet only.

5. Power up the operating table by setting the main switch to the ON position.

Charging starts automatically when the main switch is set to the ON position. The start of charging is indicated with a buzzer NOTE notification sound, and the yellow battery LED starts to blink SLOW FLASH. The table can be used during charging.

⚠ WARNING

Do not move the table during surgery and if the mains cable is connected.

⚠ WARNING

Disconnect the mains cable from the table before any service procedures. 100-240 VAC ~ used in the control unit placed inside table base. Hazard of electric shock.

⚠ WARNING

Use potential equalization when using patient monitoring equipment. The connector for potential equalization is next to the appliance inlet. See manufacturer's instructions for more information. Cable available on request, order number 7134261, 5 m.

⚠ WARNING

Switch the power OFF if the table is not in use or is going to be stored for a longer period of time. This will save battery capacity and eliminate the possibility of unintended use.

Note: Switching the power OFF will stop all table functions including charging.

Note: Charge the table battery before use.

3.3.3 Recharging of battery and mains use

Recharge the battery overnight after day's use to have the table ready for the next day and for a longer service life. Typical service life for the battery is about 3 years if recharged properly.

- The table can be adjusted during charging.

Note: When recharging is completed, disconnect the mains cable first from the wall socket and then from the table inlet.

Note:

Use of an alternative isolation transformer model (e.g. transformer is integrated in the operating room electrical power network) is accepted if on-site verification is done before the table is used for surgical operations.

Leakage currents must be measured according to IEC/EN 62353

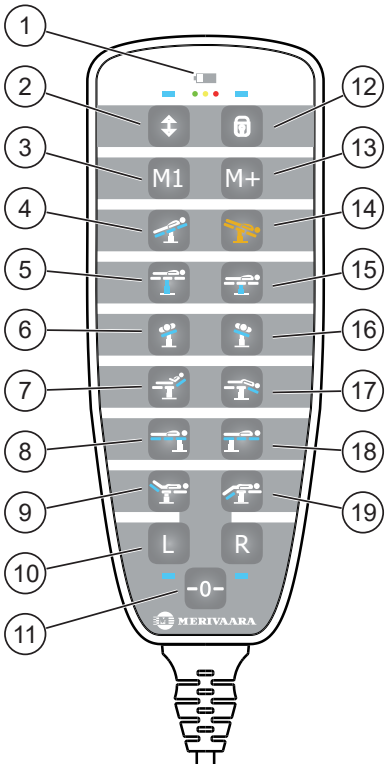
Measured leakage currents must fulfil limits according to IEC/EN 60601-1.

Note: Batteries contain lithium and if replaced, they must be recycled in accordance with local environmental regulations.

3.3.4 Hand control unit

The hand control unit is the primary control device for the table.

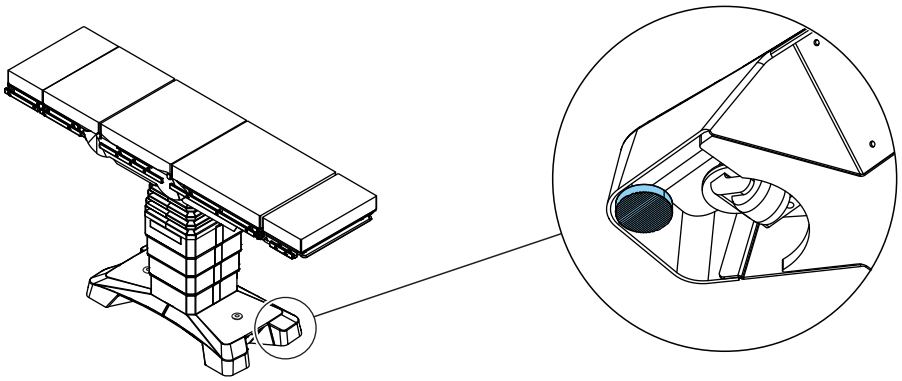
There are four types of hand control units available for the table. The one presented here is for the fully equipped Practico. The one delivered with your table might contain fewer functions.



1	Charging / battery status LEDs		
2	5th wheel	12	Floor lock
3	Preset	13	Store settings to preset
4	Anti-Trendelenburg	14	Trendelenburg
5	Height adjustment Up	15	Height adjustment Down
6	Lateral tilt Left	16	Lateral tilt Right
7	Back section Up	17	Back section Down
8	Reverse “Slide” (longitudinal shift)	18	Forward “Slide” (longitudinal shift)
9	Leg section UP	19	Leg section DOWN
10	Individual controls for each leg adjustment		
11	–0– position		

3.3.5 Locking system

The floor lock function cannot be switched off inadvertently when the operating table is connected to the mains.



3.3.5.1 Lock

To activate the floor lock, press continuously the floor lock button on the hand control unit or on the back-up control panel to lower the table onto the locking feet. The movement stops when you release the button.

A blue blinking light of the floor lock button and a beeping sound indicate that the brake actuator is between defined positions.

When the brake actuator reaches the floor lock position, the movements stops with a long beep and floor the floor lock LED is constantly on.

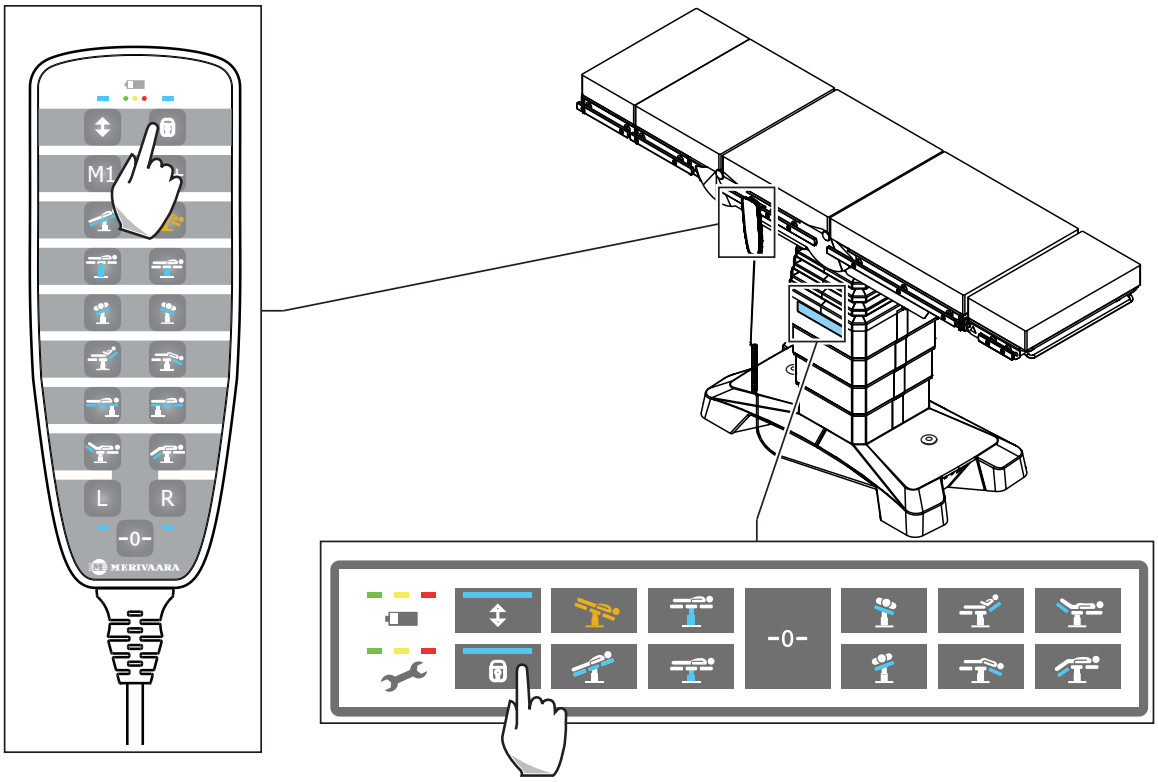
3.3.5.2 Unlock

To lift the table off from the locking feet, press the 5th wheel button continuously. The movement stops when you stop pressing the button. A blue blinking light of the floor lock button and a beeping sound indicate that the brake actuator is between defined positions.

When the brake actuator reaches the neutral wheels area, the movements stops with a long beep. Both the 5th wheel and the floor lock LEDs are constantly on.

Press the 5th wheel button again to continue and to activate the 5th wheel. A blue blinking light of 5th wheel and a beeping sound indicate that the brake actuator is between defined positions. The movement stops with a long beep after the 5th wheel position is reached and the 5th wheel LED is constantly on.

.



⚠ WARNING

Do not release the floor lock during the operation. Hazard of the operating table tipping.

3.3.5.3 Brake emergency release

If, for any reason, the normal unlocking and release of brakes does not work, you can use the emergency release mechanism.

⚠ WARNING

The patient must no be on the table when the emergency release is used. It must be used for moving the table only.

Important

Use the brake emergency release only when you are sure that normal unlocking is not possible.

1. Break the brake emergency release labels (2 pcs) at both ends of the table base.
2. Remove the white plastic plug that covers the hole in the base by turning it counterclockwise.
3. The release nuts are exposed in the holes.

4. Turn the bolts using a 13 mm socket wrench until the table is standing on its wheels.
5. Adjust the height of the table to the transport position (690 mm), if possible.
6. Move the table to the required place.
7. Turn the brake emergency release nuts back to their original positions.
8. Paste a new intact sticker on top of the hole.

3.3.6 LED indicator lights and sounds

Indicator LEDs

When the power is ON, the green battery status LED on the hand control unit and back-up control unit light up. Maintenance indicators light up.

When the mains cable is disconnected and the power is OFF, all table functions are stopped, including charging.

Figure 1. Hand control unit battery LED indicators

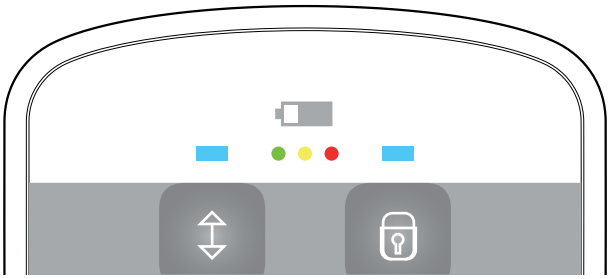


Figure 2. Back-up panel battery and maintenance LED indicators

Battery level indicator:

- Red = Low, charging required. Only Trendelenburg adjustments available.
- Yellow = Charging recommended, not mandatory
- Green = Battery full

Lock indicator:

- Blue = Table in Floor lock position

5th wheel indicator:

- Blue = 5th wheel down

Charging indicator:

- Green = Battery full (capacity over 90%)
- Yellow blinking SLOW FLASH = Charging in progress

Status indicator:

- Indicator light OFF = Operating table is in power saving mode

Maintenance indicator lights (back-up control panel only):

- Green = Operation table is ready to use
- Yellow = The operating table is usable with some limitations. Some functions are restricted. Recommended to contact Merivaara Service.
- Red = Operation table is out of order. Contact Merivaara Service.

Indicator sounds

Continuous beeping:

- Automatic adjustment is ongoing.

Continuous beeping, backup panel:

- Adjustment is done with Back-up panel.

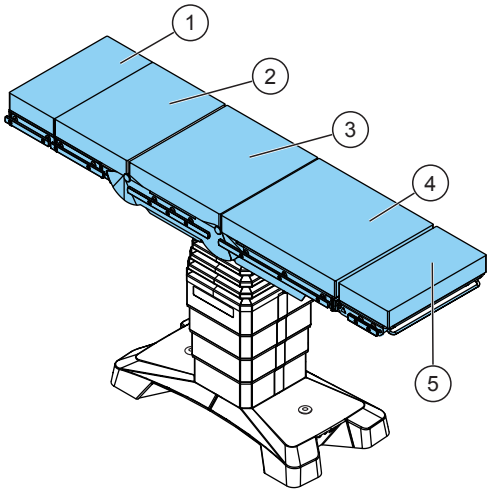
Double beep:

- You will hear the SOFTWARE RESTRICTION beep if adjustment is restricted or restriction is activated.

Single beep:

- NOTE beep: Activated function has reached the end position.

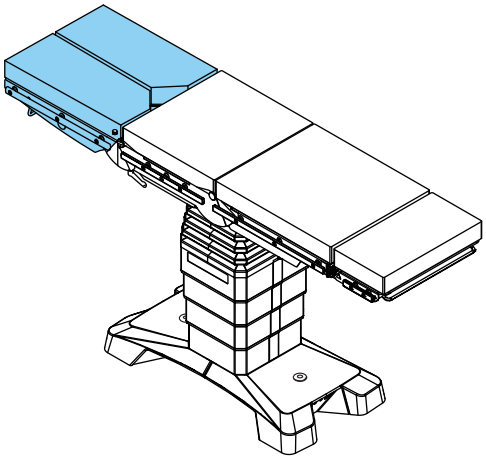
3.4 Table top configurations



Maximum number of sections in one configuration is 5. The leg section can be divided.

1	Foot extension
2	Leg section
3	Seat section
4	Back section
5	Head section

Figure 3. Operating table with divided leg sections



Illustrations above show the recommended configurations. Place the patient so that the weight is divided on the table top as evenly as possible.

⚠ WARNING

Extended leg section means Promerix 40-section plus divided leg section configurations. Safe Working Load (SWL) for this kind of setup is 160 kg when the extended leg section is used as an extension for the following sections: 40, 40–gyn, 25 or 25–gyn. In addition, the SWL is always 160 kg when the extended leg section is used with the four-part leg section 60484. Reason for this limitation is stability. The table overbalances when the load is more than 160 kg when slide is at the maximum position in the leg end.

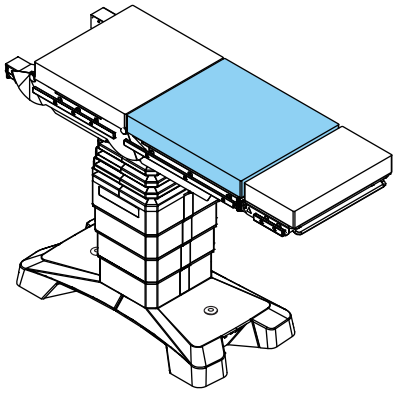
⚠ WARNING

Reverse positioning of the patient is not allowed. Use recommended table top configurations only.

3.4.1 Practico back sections

The back section model is selected when ordering the table from the factory. The back section is electrically adjustable in all factory-assembled models and it can include special features (for example for shoulder arthroscopy).

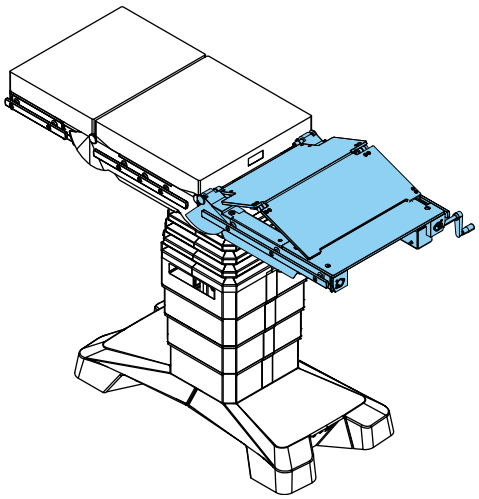
Figure 4. Operating table frame with standard/basic back section



3.4.2 Integrated kidney bridge back section

The factory-assembled kidney bridge back section adds more versatility to the use the table on thorax area procedures. Adjust the kidney bridge using crank handle. Make sure you are familiar with using the kidney bridge with the body elevator system before operation.

Figure 5. Operating table frame with integrated kidney bridge back section



1. Insert the crank handle fully into the slot on the right-hand side of the kidney bridge.
2. Turn the crank slowly counterclockwise to rise the section to the desired angle.

Note: Keep the crank handle in a safe place and remove it before operation or transportation.

Adjust the back section angle using the hand control unit or the back-up control panel.

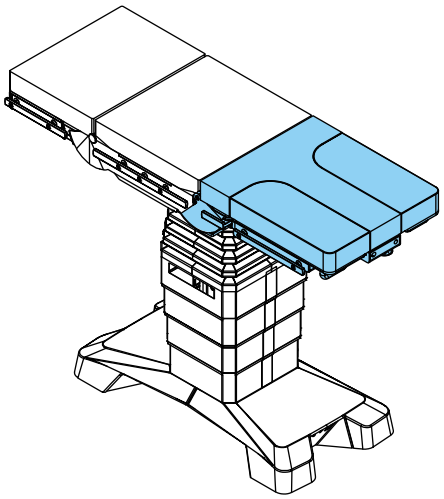
The long combined seat and back section mattress are used with the kidney bridge back section system.

⚠ WARNING

Pinch point hazard if adjustment is made carelessly.

3.4.3 Practico beach chair back section

Figure 6. Operating table frame with beach chair back section



To remove the shoulder sections:

1. Press the release knob with you thumb.
2. Hold the section with the other hand and lift it up slightly.
3. Pull the section towards yourself when it is in the outermost position (approx. 45° from the table top).

To attach the shoulder section:

1. Put the fixing groove to the bracket bar below the back section top plate edge.
2. Lift and push the section up until the fixing pin “clicks” into the fixing slot.

The headrests are fixed to the beach chair back section with a single easy-to-use knob system. Merivaara headrests, for example the special headrest 20126 for shoulder arthroscopy or 18101 for general surgery, give a good support to the head (ordered separately).

⚠ WARNING

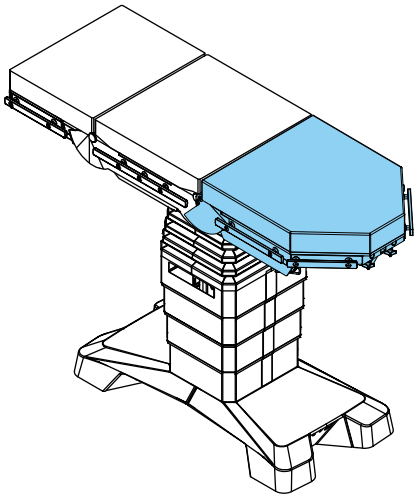
Always use both hands when you attach or remove the shoulder section. Ensure that the shoulder section and headrest are locked properly.

⚠ WARNING

To avoid injury to the patient or user, do not attach large accessories to the rails of the headrest or head section.

3.4.4 Eye-ENT back section

Figure 7. Operating table frame with back section for Eye-ENT



A back section for ENT (Ear, Nose and Throat) as well as for eye care and eye surgery.

3.4.5 Attaching and removing table top sections

Attach or remove leg and head sections to construct the table top to meet the requirements of the surgical operation.

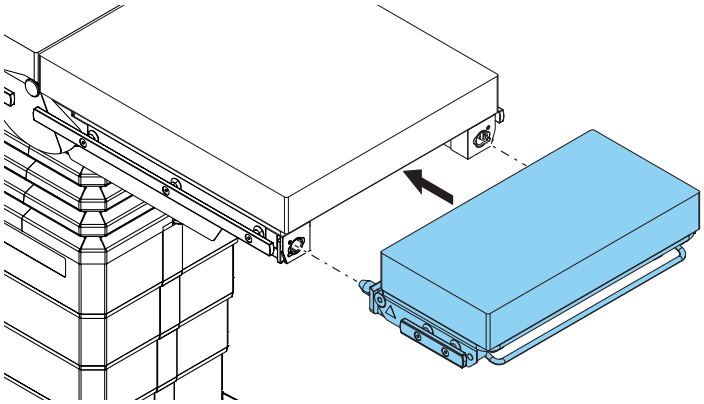
⚠ WARNING

Check that table top section latches are correctly locked to avoid injury or damage to the equipment!

3.4.5.1 Attach

1. Insert the guide pins on the head or leg sections evenly to the holes in the table sections.

- When the attached section is fully inserted, the locking latches will snap into place.



⚠ CAUTION

Attach maximum two sections to the leg side of the column and one head section or headrest to the back side.

⚠ WARNING

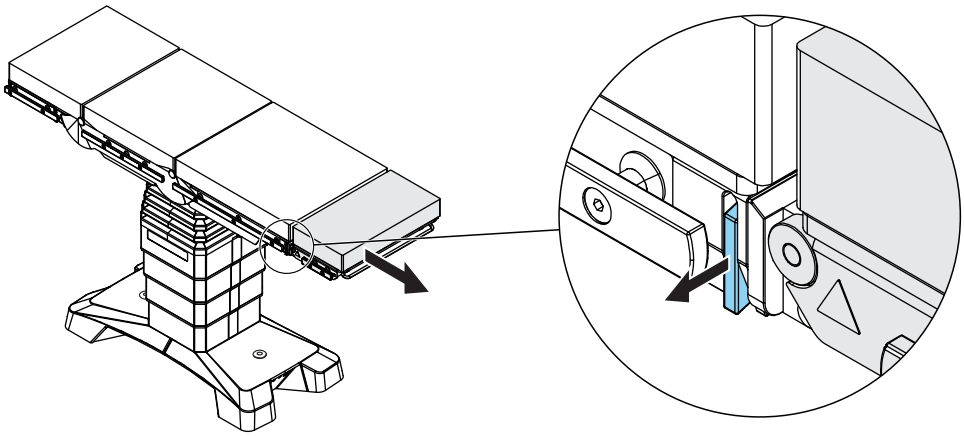
Do not attempt to remove or attach more than one section at a time. Always handle sections by the rails on the side, especially the headrest.

⚠ WARNING

Make sure that table top sections latches lock correctly. Incorrect attachment of table sections can create a hazardous situation which can cause personal injury or equipment damage.

3.4.5.2 Remove

1. On both sides, pull the locking latches outwards.
2. Using your both hands, hold the section which is to be removed and pull it towards yourself.



3.4.6 Mattresses

⚠ WARNING

Pay special attention to overweight patients. Ensure sufficient supports for patient safety. Recommended Safe Working Load (SWL) for mattresses is 135 kg. Hazard of nerve injuries during long surgical operations.

⚠ WARNING

To prevent surface leakage, check the condition of the mattresses daily. Aged or damaged mattresses must be replaced for patient safety. Clean the mattresses according to the cleaning instructions presented in the Cleaning section.

⚠ WARNING

Use only original mattresses. Do not use the table if the original mattresses can not be used.

⚠ WARNING

An additional cushioning is needed with the original mattress set if the patient is heavier than 135 kg.

⚠ CAUTION

Surface of the mattresses is electrically conductive. Clean the mattresses using neutral detergent (pH 7–8) and warm water applied with a single-use wipe.

⚠ CAUTION

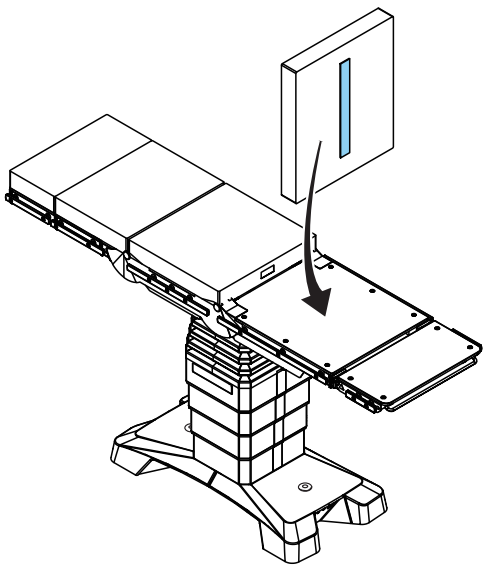
Check the condition of the mattress fixing slots and the surface before operation. Replace old or damaged mattresses for patient safety.

3.4.6.1 Visco-elastic foam (VEF) mattresses

Visco-elastic foam (VEF) mattresses are fixed with a durable Velcro hook and loop tape.

Clean Velcro hook and loop tapes on table top plates with pressurized air.

Velcro tape can also be replaced easily. Spare parts and instructions are available from Merivaara After Sales.



To ensure antistatic properties of the operating table:

- use original mattresses only
- the table must stand on a conductive floor surface

3.4.7 Practico leg sections

3.4.7.1 Motorised and non-motorised leg sections

Leg sections fall into two categories, based on the adjustment method:

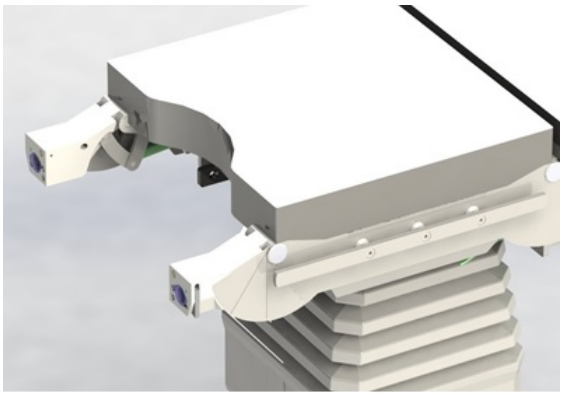
- Seat section with motorised leg section joints. The leg section is adjusted with the hand control unit.
- Seat section with non-motorised leg section joints. The leg section is adjusted with the adjusting bar. The adjustment is gas spring assisted.

Motorised leg sections are adjustable from -105° to +70°.

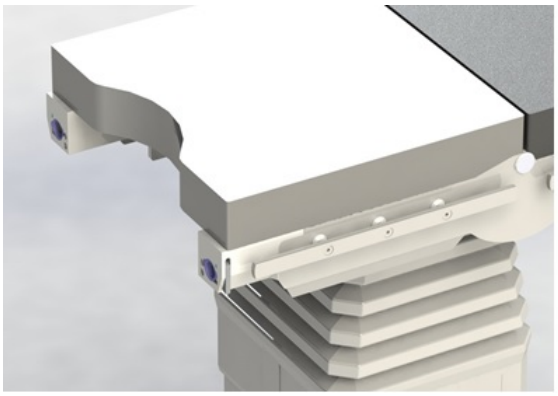
Non-motorised leg sections are adjustable from -90° to +20°.

See 3.4.10.7 Adjusting leg sections, page 53

Seat section with motorised leg section joints



Seat section with non-motorised leg section joints



3.4.7.2 Undivided one-piece leg sections

Undivided one-piece leg sections are vertically and horizontally adjustable and attached with a quick latch mechanism (see 3.4.5 Attaching and removing table top sections, page 39).

You can adjust undivided one-piece leg sections as one piece, as opposed to divided leg sections (see below).

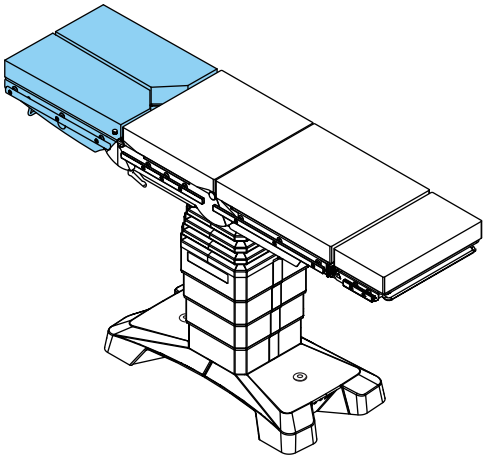
One-piece leg sections can be motorised or non-motorised (see above):

- If you have a motorised one-piece leg section, use the hand control unit to adjust the leg section.
- If you have a non-motorised one-piece leg section, use the adjustment bar to adjust the gas-spring assisted leg section. The position is locked when the adjustment bar is released.

See 3.4.10.7 Adjusting leg sections, page 53

Note: One-piece lag sections that have foot rest extensions or other extensions are still considered one-piece leg sections.

3.4.7.3 Divided leg sections



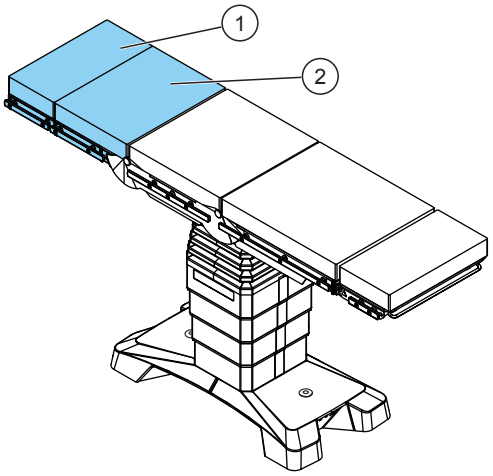
- Divided leg sections are vertically and horizontally adjustable and attached with a quick latch mechanism (see 3.4.5 Attaching and removing table top sections, page 39).
- If you have a motorised divided leg section, vertical adjustment (-105° to +70°) is done using the hand control unit.
- If you have a non-motorised, gas-spring assisted divided leg section, use the adjustment bar for vertical adjustment (-90° to +20°). The position is locked when the adjustment bar is released.

See 3.4.10.7 Adjusting leg sections, page 53

3.4.7.4 Combined leg sections and foot extensions

There are many different options for Practico leg sections and foot rests. You can attach foot rests to different kind of leg sections.

Leg sections and foot rests can be easily changed (see 3.4.5 Attaching and removing table top sections, page 39). The change operation is the same for 3.4.7.1 motorised and non-motorised leg sections, page 42.



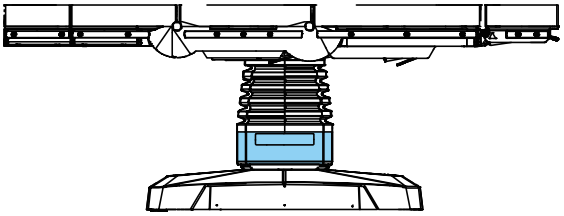
1 Foot rest (25-section 60250)

2 Leg section (40-section 60440)

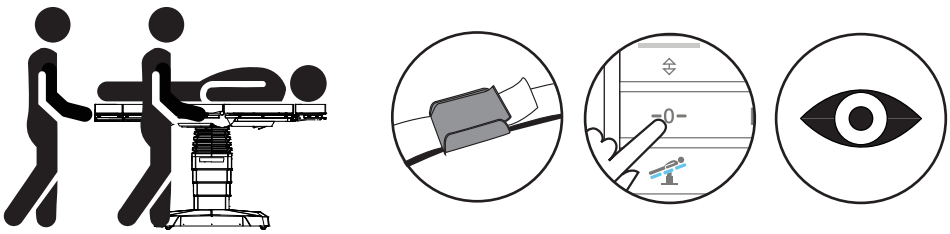
3.4.8 Transporting a patient on the table

Transporting a patient requires two persons.

1. Place the patient in the longitudinal center of the table top.
2. Fix restraints as necessary. Use at least two restraints during the patient transport.
3. Adjust the table top to horizontal position (-0- position).
4. Adjust the height of the table to the transport position (690 mm).



5. Pay extra attention to the patient during transportation.



⚠ WARNING

Remove all accessories (for example the kidney bridge crank handle), so that they will not cause any damage during transportation.

⚠ WARNING

Do not move the table during surgery and if the mains cable is connected.

⚠ WARNING

Transporting patient weighing up to 200 kg (440 lbs) is only allowed when table top is in horizontal position (-0- position) and only 1 column casing is visible. Transporting height limit for the table is 690 mm.

⚠ WARNING

Low ground clearance. The maximum surpassable threshold height is 10 mm measured from the floor lock feet pads on the table base corners, and 25 mm measured from the bottom of the base plate to the ground.

3.4.9 Precautions before adjusting the operating table

⚠ WARNING

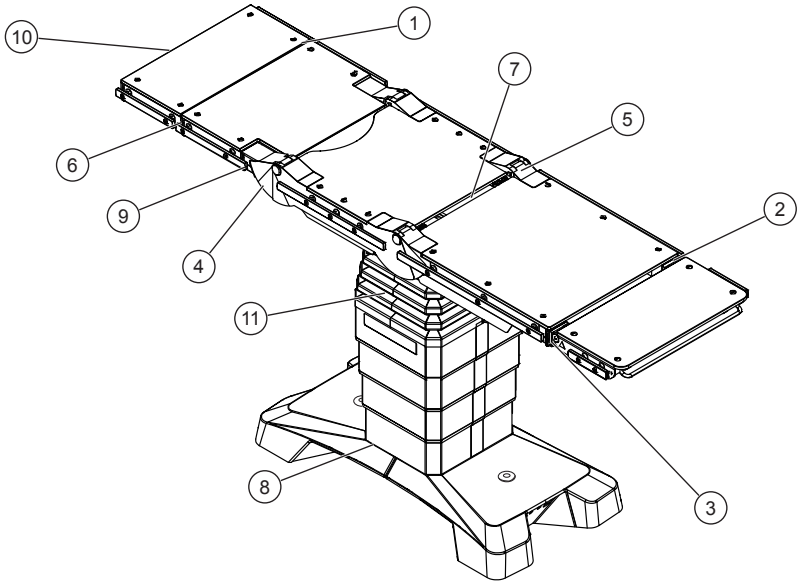
Risk of pinching and patient falling. When adjusting the operating table, make sure fingers, hands or other parts of the body of the patient are not placed between the edges of back, leg or seat section frames and pivoting points.

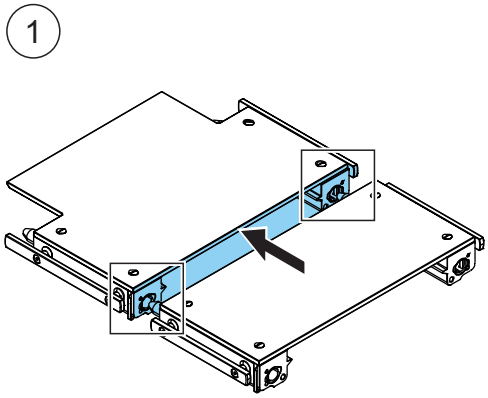
Note:

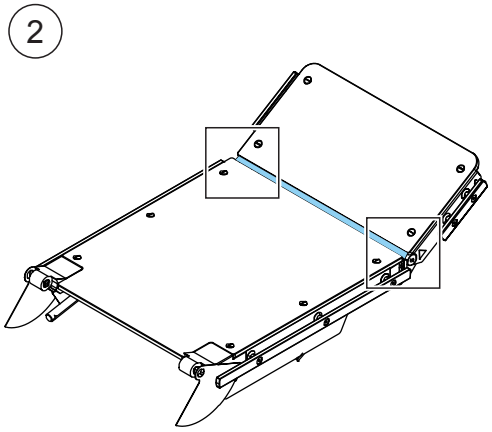
Before surgical procedures, ensure that the control unit cables are not damaged and that all adjustments are working properly.

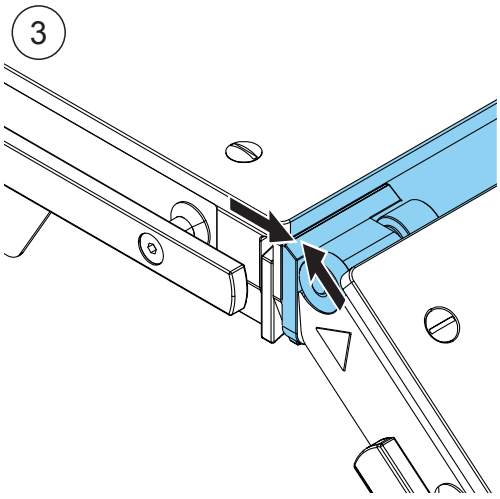
If the table is not adjusted within four minutes, energy saving mode is activated and the table status LEDs will go out. Maintenance indicators are illuminated when the power is on.

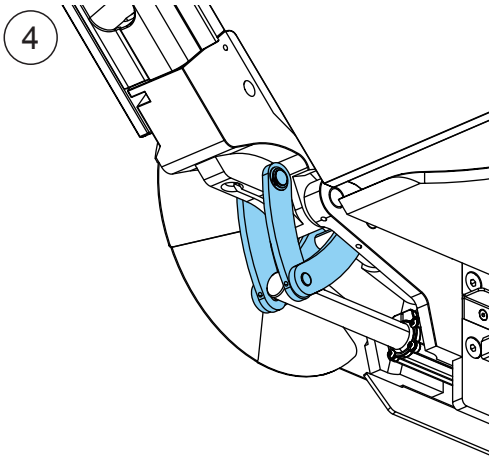
1. Make sure that fingers, hands or other parts of the body of the patient or user are not placed between section frames and pivoting points.

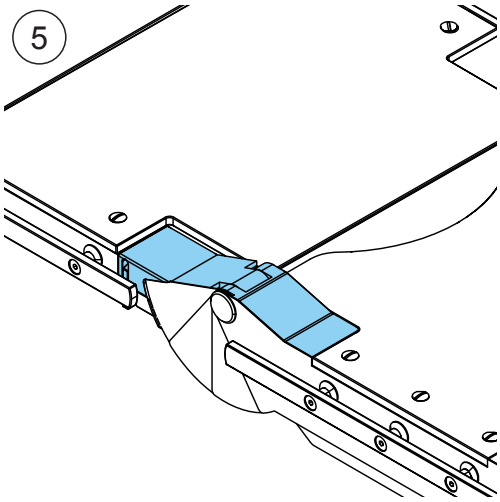

10
1
7
5
6
9
2
4
11
8
3

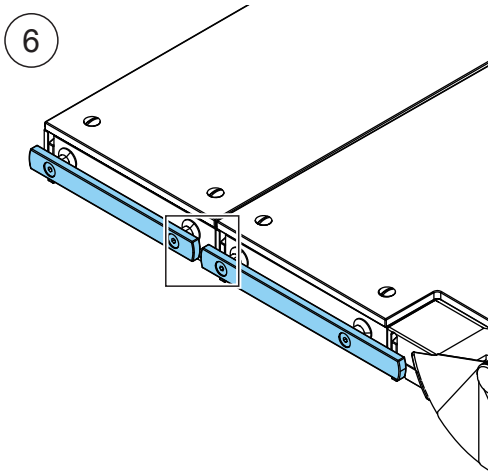

1

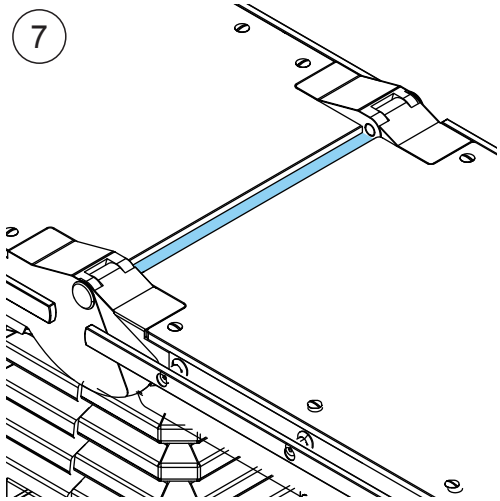

2

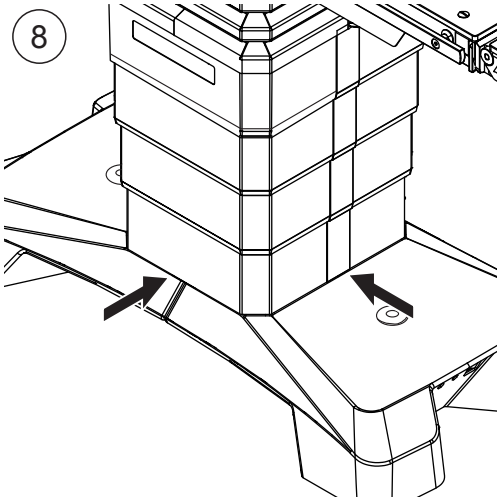

3


4

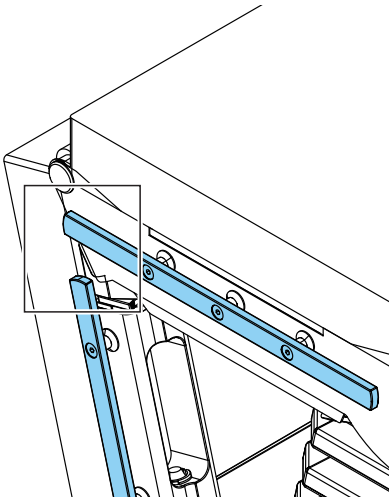

5


6

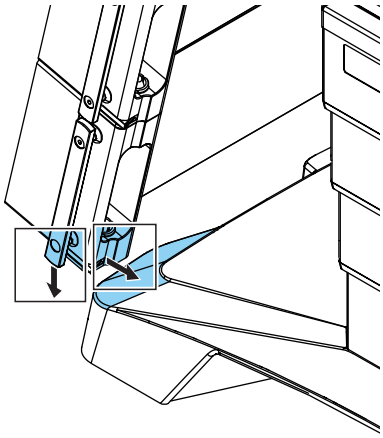

7


8

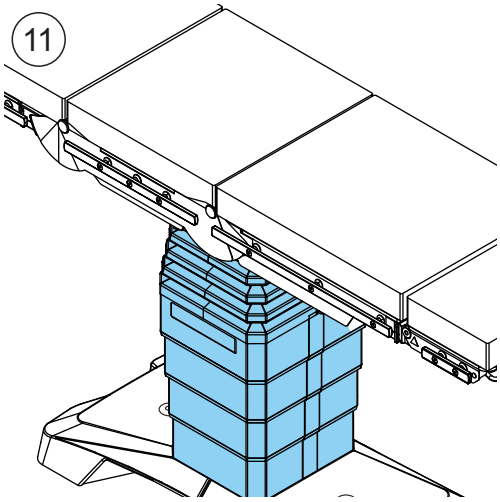
9



10



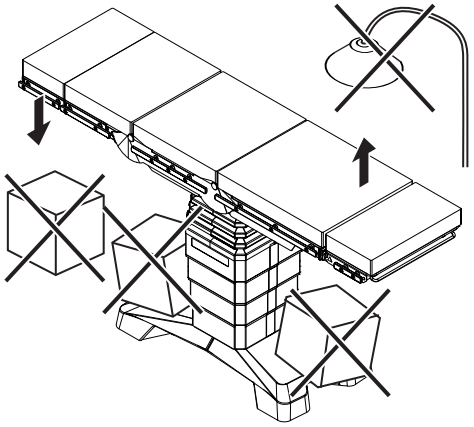
11



2. Set the table top high enough to avoid the leg or back section colliding with the table base.

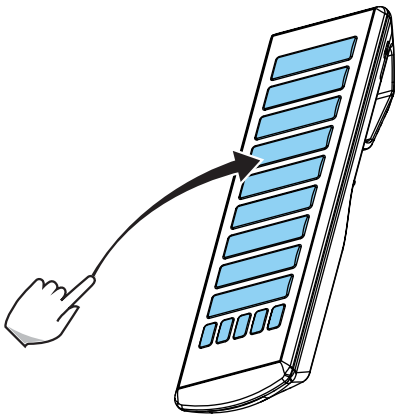
   Make sure that table top will not hit external obstacles during adjustment.

3. Make sure that no items are placed on the table base or under the top section to avoid equipment damage during adjustments.



3.4.10 Adjusting operating table

1. Keep any of the hand control unit buttons pressed for at least 0.2 seconds to start adjusting the table. Adjust the table top longitudinal position before other adjustments.



2. Keep the button pressed until the desired position is reached.
   - The adjustment continues as long as the limiting point is reached.
   - To continue user-activated movements, the operation table adjusts other movements to prevent possible internal collisions. During automatic adjustments you will hear the "AUTO DRIVE" beeping sound.
   - The movement stops if -0- position is reached during adjustment.
   - You will hear the “SOFTWARE RESTRICTION" beep if adjustment is restricted or restriction is activated.

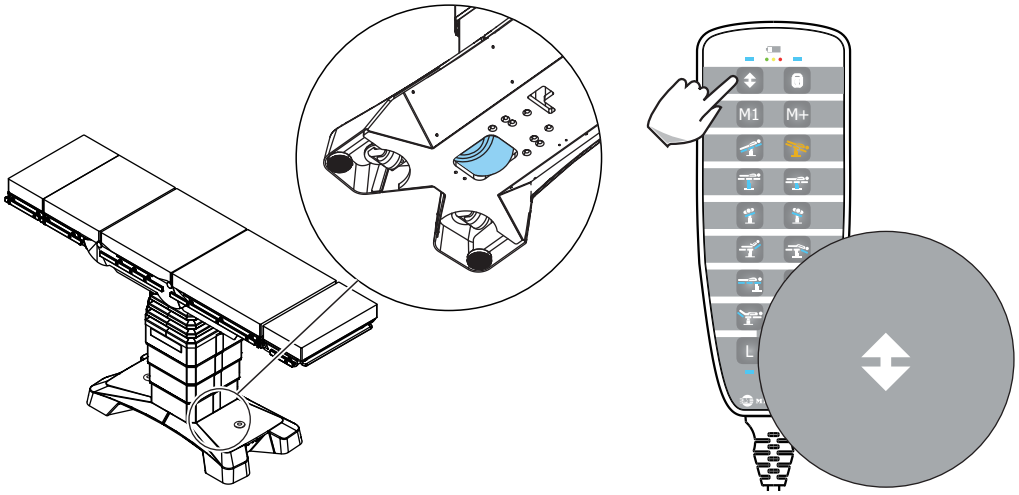
Note: The maximum unstretched length of the hand control unit cable is approximately 0.8 m.

⚠ CAUTION

Do not exceed the duty cycle ensuring sufficient motor resting time during adjustment.

3.4.10.1 5th wheel

1. Press the 5th wheel button on the hand control unit to release the floor lock.
2. Press the 5th wheel button to lower the 5th wheel to steering position.
3. Steer the table by hand when necessary (use the side of the table top for steady grip).

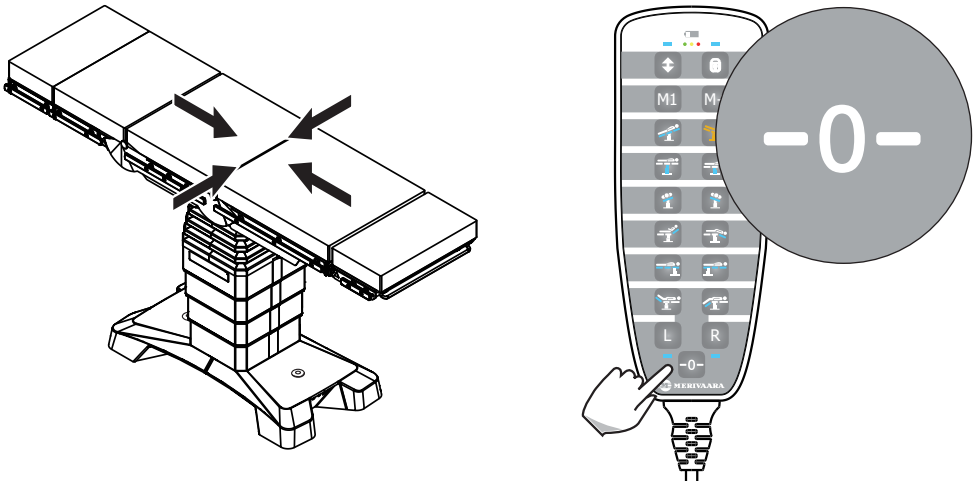


3.4.10.2 -0- position adjustment

The automatic -0- positioning function aligns table top seat section vertically and horizontally.

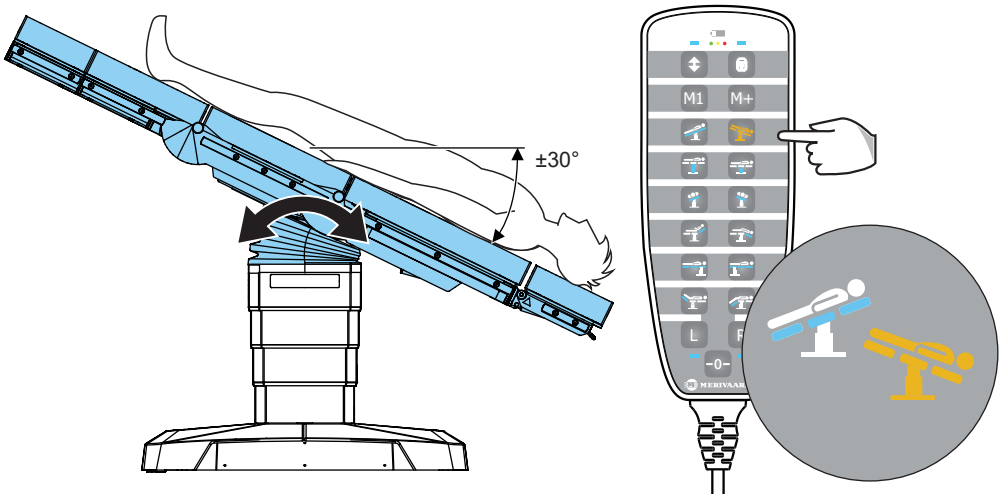
1. Press and hold the adjustment button until you reach the -0- position. You hear a NOTE beep when the -0- position has been reached.

Note: There is a continuous beeping sound while you press the button if the actuators' hall sensors give misinformation. You hear the POSITION LOST buzzer. If the -0- position is not set at all, you hear the 0-POSITION MISSING buzzer. Contact the service to set the table to the -0- position correctly.



3.4.10.3 Trendelenburg and Anti-Trendelenburg adjustment

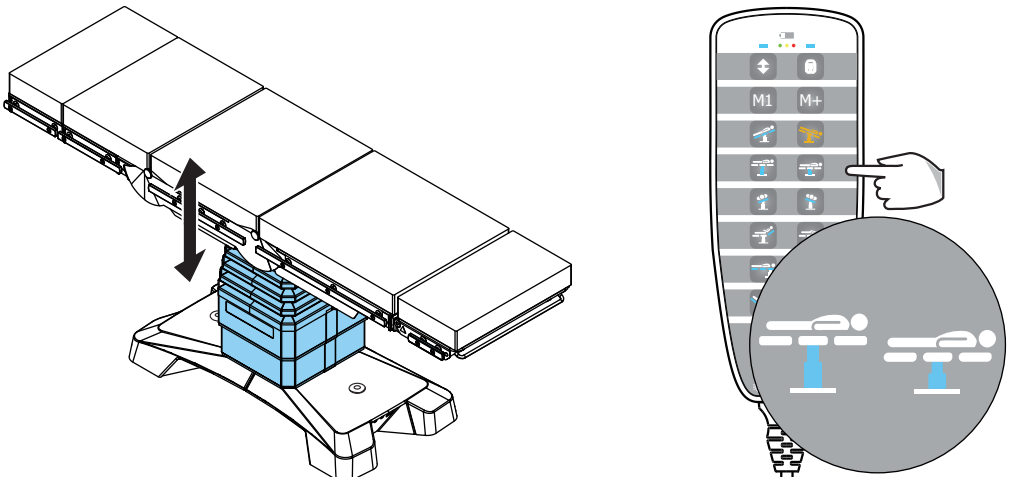
The Trendelenburg adjustment range is -30° and the Anti-Trendelenburg adjustment +30° from horizontal position.



For full Trendelenburg adjustment range, the table top must be higher than the first 130 mm of the height adjustment range. Tilt must be adjusted to horizontal position. Otherwise the table top will rise automatically to the minimum height to enable the full range of adjustment when you keep the Trendelenburg adjustment button pressed. This is indicated by a continuous beeping sound.

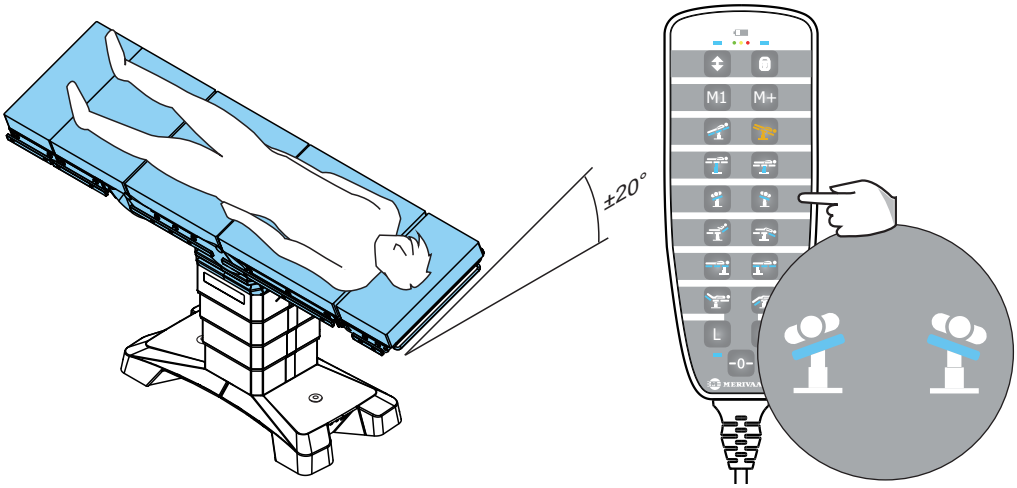
3.4.10.4 Height adjustment

Adjust the table top for optimal working height or to the transport height.



3.4.10.5 Lateral tilt

The table top can be tilted laterally ±20° to make, for example, getting on/off the table easier or to positioning the patient better. Use this function to ease patient handling with a flat sheet.



The tilt range is limited if the table top is within the first 130 mm of the height adjustment range and if the Trendelenburg adjustment angle is steep.

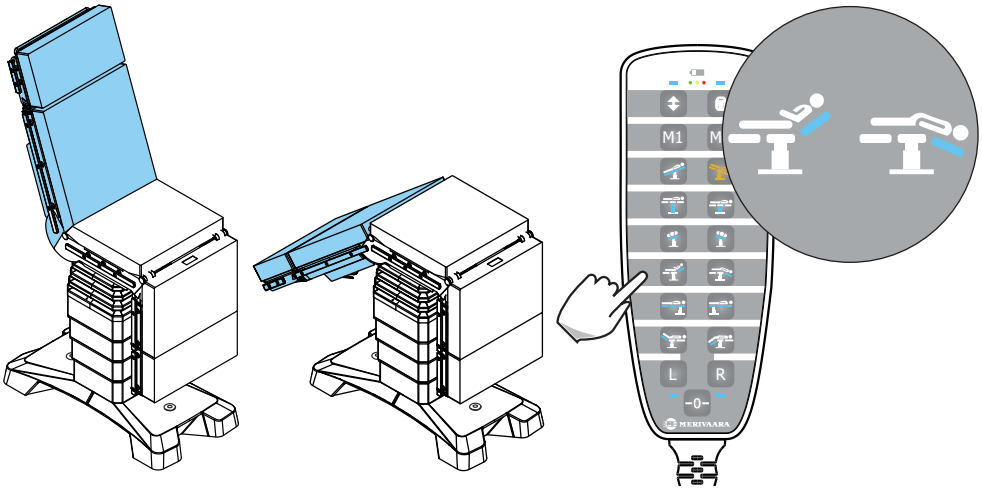
⚠ WARNING

The patient must be supported and tied to the table before adjusting the lateral tilt.

For full tilt adjustment range, the table must be at a height of over 130 mm. Otherwise the table top will rise automatically to the minimum height to enable the full range of adjustment when you keep the Tilt adjustment button pressed. This is indicated by a continuous beeping sound.

3.4.10.6 Back section adjustment

The back section adjustment range is from -40° to +70°.



The longitudinal shift (slide) position can limit back adjustments when you try to adjust the back section below the horizontal position. The table automatically adjusts the slide to allow back section to go below the horizontal position. During automatic adjustments you will hear the "AUTO DRIVE" beep.

⚠ WARNING

To prevent the back section from colliding with the table base or any objects below, do not use the height adjustment downwards when the back section is in a low position.

3.4.10.7 Leg section adjustment

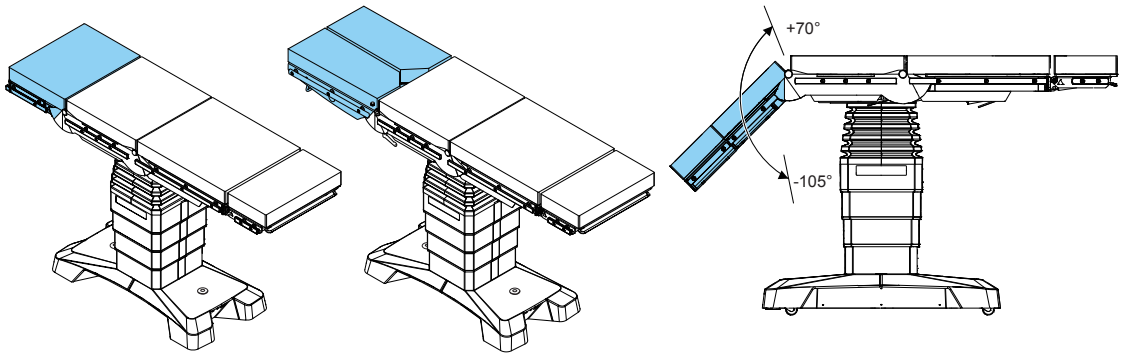
Leg section adjustment differs depending on whether the leg section is motorised or not (see 3.4.7.1 Motorised and non-motorised leg sections, page 42). There are two options:

- Seat section with motorized leg section joints. Adjusted with the hand control unit.
- Seat section with non-motorized leg section joints. Adjusted with the adjusting bar, gas spring assisted.

Motorised leg sections are vertically adjustable from -105° to +70°.

Non-motorised leg sections are vertically adjustable from -90° to +20°.

With non-motorised leg sections, the horizontal position is adjusted (0° to +90°) using the tensioning screw on the section joint.



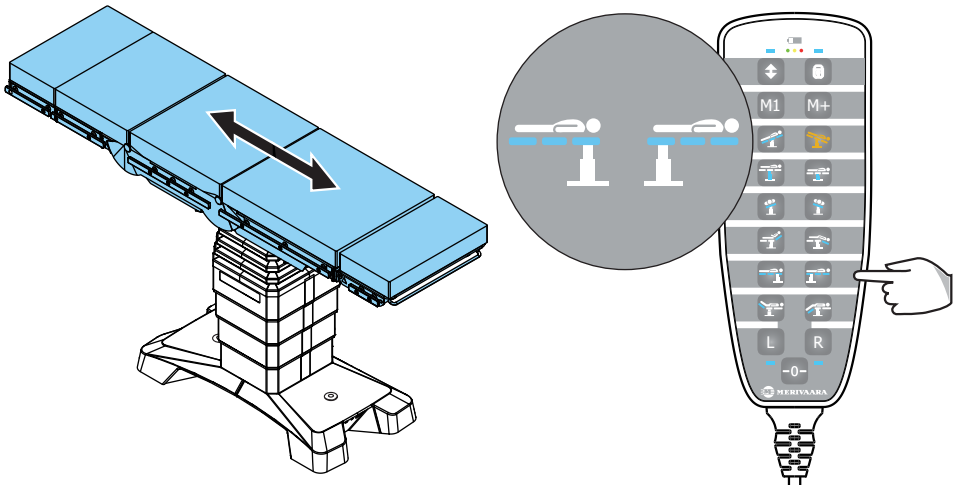
Divided leg sections and undivided one-piece leg sections are adjusted in the same way.

3.4.10.8 Longitudinal shift (slide)

Practico table top can be adjusted longitudinally towards the head or leg sections. The whole trajectory is 390 mm. Place the patient in the longitudinal center of the table and adjust the table top longitudinally before other adjustments.

- The longitudinal adjustment affects the adjustment range of the motorized leg section and the back section. You will hear the "AUTO DRIVE" beep when automatic adjustments are made.
- Adjust the table top longitudinal shift towards the leg side if the leg sections are going to be adjusted -50° – -105°. Reference for the table top setup can be defined from the table -0- position.
- The longitudinal adjustment towards the head section is limited if the leg section is adjusted over -50°.
- The longitudinal adjustment towards the leg section is limited if the back section is adjusted below 0 "dec".
- When the leg section is driven down, the table top slides automatically. This is indicated by a continuous beeping AUTO DRIVE sound.

- When you slide towards the head section, the leg sections will rise automatically. This is indicated by a continuous beeping AUTO DRIVE sound.

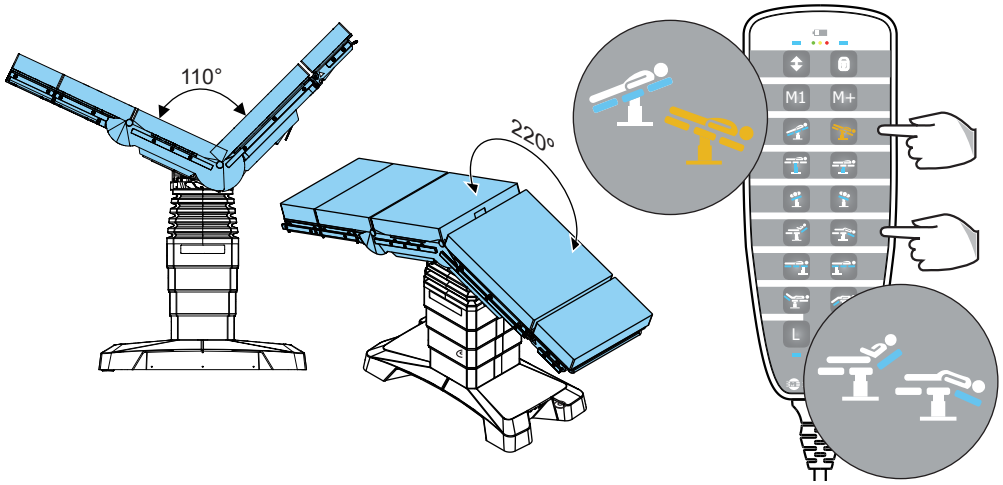


⚠ WARNING

Risk of losing table stability if using the longitudinal shift when the patient is not positioned in the longitudinal center.

3.4.10.9 Flex and reflex positions

Adjust the flex and reflex positions using the back section and Trendelenburg buttons.



The maximum adjustment range:

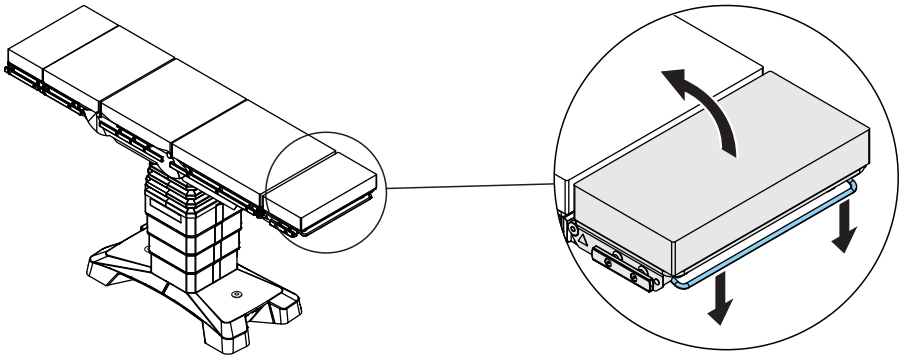
- Flex: 220°
- Reflex: 110°

3.4.10.10 Head section adjustment

Standard head section is gas spring assisted. To adjust the angle of the head section (-45° to +45°):

1. Press or push the handle.

2. Lift or raise the head section to the desired the angle.
3. Release the handle to lock the head section to the adjusted position.



E.g. the double-articulated headrest (optional) has additional adjustments.

Merivaara optional accessories include different types of head rests selectable according to the surgical needs. See www.merivaara.com for more information.

⚠ WARNING

Use extreme caution while adjusting the head section or the head rest to avoid patient or user injury. Never press the release bar without controlling the head rest movement or when it is not connected to the table. Always keep fingers away from articulating joint pinch points.

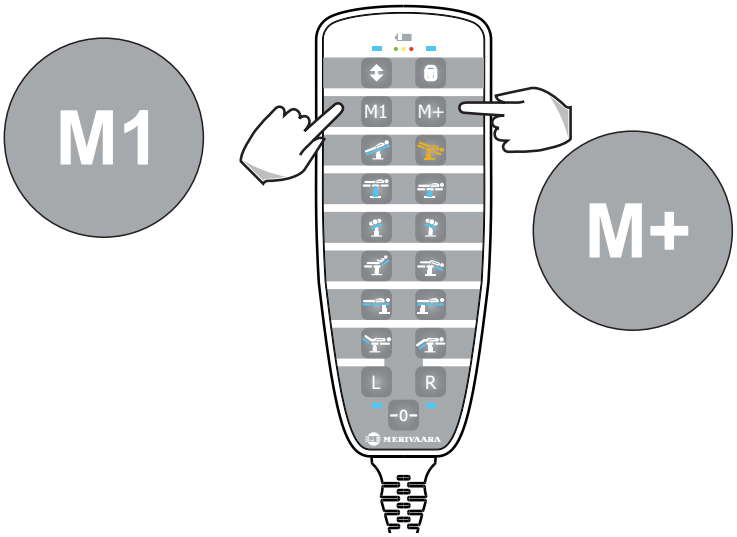
⚠ CAUTION

Fully activate the gas spring releasing lever before moving the relevant adjustment. Inadequate releasing combined with movement can damage the gas spring.

3.4.11 Position preset

To save the current position:

1. Press the **M+** button.
2. Press the memory position button while pressing M+ to save the position.

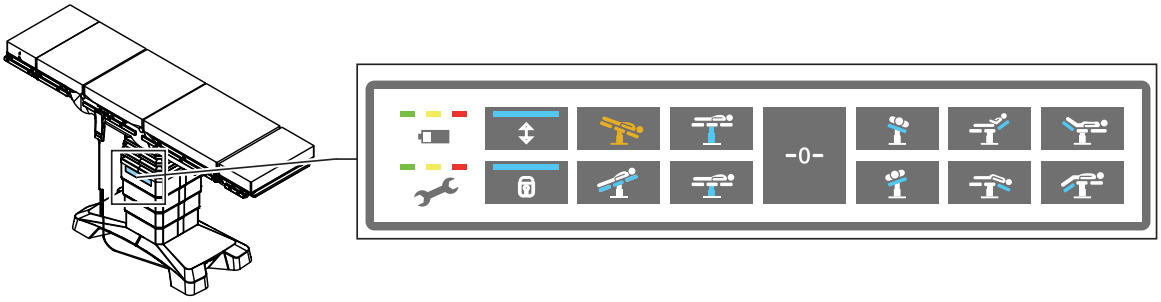


To use the preset position, keep the **M1** memory position button pressed until the table reaches the saved position.

When the saved position is reached, you will hear the "NOTE" beep.

3.4.12 Back-up control panel

The back-up control panel has the same adjustments as the hand control unit except for longitudinal shift (look at the corresponding adjustments described in 3.4.10 Adjusting operating table, page 49). The membrane keyboard gives maintenance indicators and information on charging and battery status and operation table's maintenance status. Use this control panel, if the hand control unit or other control devices are not responding.



⚠ WARNING

Keep fingers, hands and other body parts clear of the back/leg/seat section edges and pivoting points when you adjust the table. Pay attention to the patient and personnel during adjustment.

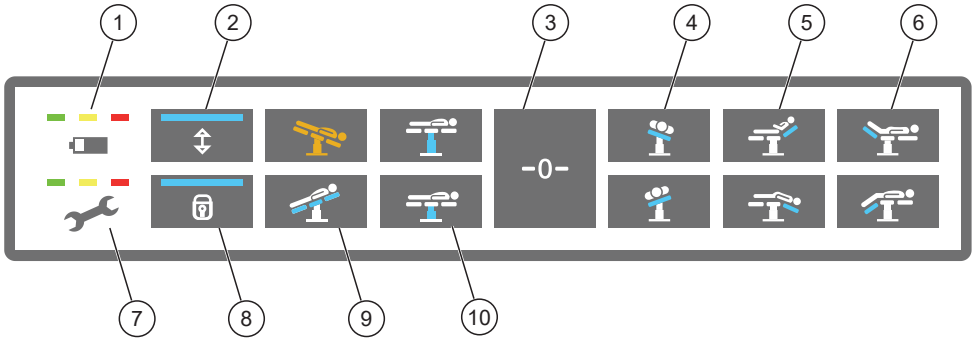
⚠ CAUTION

Do not strain the shield plates of back or leg section joints by pushing or pulling. Check that there are no obstacles between the shields during adjustment.

3.4.12.1 Function buttons

Keep a function button pressed until the desired position is reached. You will hear a continuous beeping sound from the backup panel during adjustment.

Figure 8. Backup control panel function buttons



1 Battery and charging indicator LEDs

2 5th wheel

3 -0- position

4 Lateral tilt

5 Back section

6 Leg section

7 (Maintenance indicator LEDs)

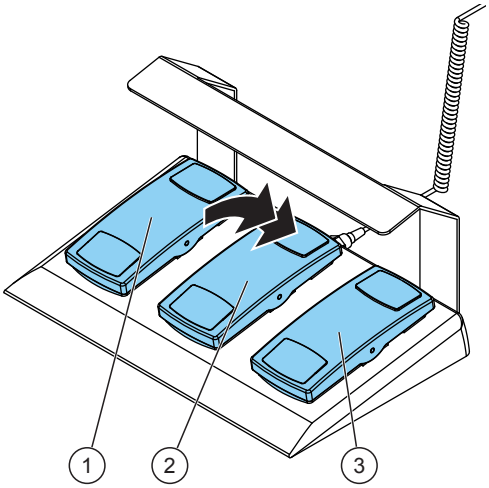
8 (Floor lock)

9 Trendelenburg

10 Height

3.4.13 Foot control unit

3.4.13.1 Foot control unit functions



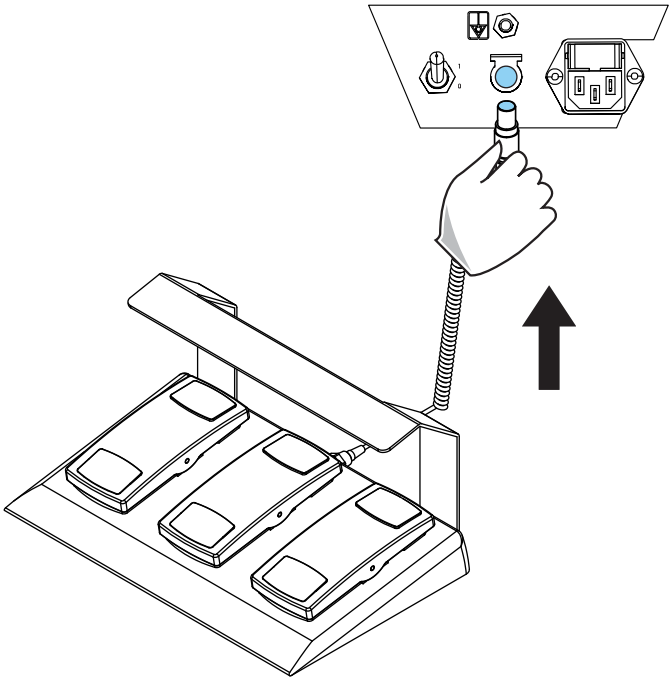
1 Trendelenburg

2 Height

3 Lateral tilt

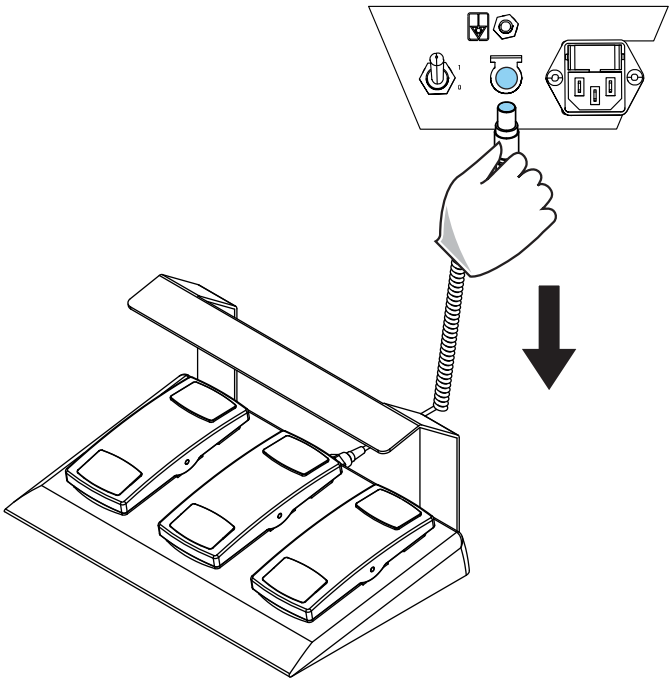
3.4.13.2 Connect foot control unit

1. Align the red dots on the plug and on the socket.
2. Put the plug all the way into the socket on the table base.



3.4.13.3 Disconnect foot control unit

1. Support the socket with your hand.
2. Disconnect the plug by pulling the plug, not the cable.



3.4.13.4 Using the foot control unit

Before using the foot control unit:

- Test the foot control unit functions.
- Check that the plug is properly inserted.
- Check that the cables are not damaged
- Make sure that there is enough room for the table top to move freely.

To use the foot control unit:

- Keep pressing the pedal until you reach the desired position. The movement stops when you release the pedal.

The foot control remains active for 5 seconds after the last adjustment.

⚠ WARNING

Keep the patient's fingers, hands and other body parts clear of the back/leg/seat section edges and pivoting points when adjusting the table.

Note: The foot control unit cable maximum unstretched length is approximately 1.1 m.

4 Practico operating table accessories

4.1 Operator table accessory warnings

Use original Merivaara accessories for ideal performance. See Merivaara accessory brochure or www.merivaara.com for more information. Ensure compatibility.

⚠ WARNING

Use of the operating table adjacent to or stacked with other equipment can cause improper operation. If the operating table is used in that way, compatibility with the other equipment must be observed to verify proper operation.

⚠ WARNING

Do not use worn or damaged accessories.

⚠ WARNING

Make sure that all accessories are properly mounted to the table and locked in place. If the accessory cannot be installed to the standard accessory rails, the Practico extension rail can be used.

⚠ WARNING

When using accessories, make sure there is access to table controls and to all adjustments if the position of the patient needs to be reset or undone.

⚠ WARNING

Risk of losing table stability and tipping. Make sure that the attached accessories do not jeopardize the table stability or patient safety.

4.2 Recommended accessories

⚠ WARNING

- The maximum load on an accessory rail on one side of the table is 50 Nm.

⚠ WARNING

- Follow the instructions in each accessory user manual.

Table 3. Arm rests

100000125	Arm rest 125, with straps 110
100019180	Arm rest 19180, with straps 110
100019185	Arm Rest 19185 w. radial clamp, ball joint
100011801	Easy Arm board 11801, with straps
100011802	Lateral Arm board 11802
100000151	Arm rest 151, pair

Table 4. Supports and straps

100000107	Wrist straps 107, pair
100000110	Straps 110 for arm rests 125 and 19180, 19185
100011081	Patient restraining strap 11081
100010886	Leg / body strap, wide, Velcro-type
100000120	Side support 120
100011651	Lateral brace 11651 with round pad and clamp
100011652	Lateral brace 11652 with rectangular pad and clamp
100019129	Shoulder supports 19129, pair
100011295	Shoulder braces 11295, pair
100020127	Support Belt for Beach Chair
100010368	Supporting Roll, vertical
100010369	Supporting Roll, horizontal
100060485	Arm / Leg Shield, including pad

Table 5. Head rests

100000141	Wide head rest 141
100000142	Narrow head rest 142
100000144	Neurosurgical head section 144
100018101	Head section 18101
100018143	Special head rest 18143, for ENT-surgery
100018150	Special head rest 18150, for ENT / ophtalmology
100018151	Special head rest 18151 for ophtalmology
100030126	Special Head Rest for Beach Chair
100030128	Helmet type Head Rest for Beach Chair
100333010	DORO Set 1
100333020	DORO Set 2
100333030	DORO Set 3
100301100	DORO® Side Rail Adaptor
100060146	Adapter 60146 for special head rests

Table 6. Foot rests

100000118	Leg rests with straps 118, pair
100020118	Leg rests with straps, Goebel-type, pair
100011181	Knee crutches 11181, with extra soft pad and straps
100012551	Leg holders 12551, pair
100012552	Leg support, "The Prepper" 12552
100012581	Stirrup system 12581, with extra soft pad
100012583	Gas spring assisted stirrups 12583, pair
100010353	Arthroscopic Leg holder 10353
100012530	Arthroscopic Stress Post 12530
100012585	Total knee stabilizer 12585, including clamp
100012586	Replacement pad 12586 for 12585
100012012	Thigh Holder (single)
100060201	Light foot rest 60201, Promerix
100060203	Light leg section for non-motorized legs

Table 6. Foot rests (continued)

100060204	Light leg section for motorized legs
100060482	Powered Leg Holders for Promerix

Table 7. Anesthesia screens and infusion rod

100000111	Anaesthesia screen 111
100000116	Extension arm 116, for 111
100011001	Anaesthesia screen 11001, flexible
100000749	Infusion rod 749, for EUR-rail, 2 hooks
100000749	Infusion rod 749, for EUR-rail, 4 hooks

Table 8. Arm and hand tables

100000111	Hand operating table 10390
100010392	Traction device 10392
100010393	Hand fixation device 10393
100011911	Arm and hand table 11911
100011912	Carpa table 11912

Table 9. Bowls

100201501	Bowl 201501, 6 L, without drainage
100201502	Bowl 201502, 6 L, with drainage
100201571	Bowl 201571 6 L + attachment, fixed to the side without drainage
100201572	Bowl 201572 6 L + attachment, fixed to the side with drainage
100061580	Holder for 6 l Bowl, fixed under the base, Promerix
100061581	Bowl 6 l without Drainage + Holder, fixed under the base, Promerix
100061582	Bowl 6 l with Drainage + Holder, fixed under the base, Promerix
100018159	Screen 18159 for bowls, 6 L

Table 10. Other accessories

100000126	Cassette tray 126
100018168	Push handles to foot end

Table 10. Other accessories (continued)

100018173	Side rails, Chrome plated, auto lock
100018174	Side rails, epoxy coated, auto lock
100020593	Push Bar, head end
100060850	Foot Control device (height, trend, tilt)
100020114	Foot Rest / Table extension, without the mattress
100020114	Foot Rest / Table extension, with IS-mattress with pin screws
100020114	Foot Rest / Table extension, with VEF-welded mattress with Velcro
100010659	Table width extender 10659, 500 mm
100060484	Divided leg plates, 4-sectional
100060525	Beach Chair Back Rest for shoulder arthroscopy
100019280	Back and kidney elevator 19280 with mattress

Table 11. Clamps

100010200	Accessory Clamp 10200, Universal D16
100010300	Radial Accessory Clamp 10300, Universal D16-D20
100010308	Radial Clamp
100011042	Easy lock Socket 11042, max. D 18 mm
100011043	Rail clamp 11043
100019128	Accessory rail extension 19128
100010355	Accessory Extension Rail, L=400 mm
100010356	Accessory Extension Rail, angled
100010359	Angular accessory rail, L=250 mm

Table 12. Pads and mattresses

100019400	Transfer Mattress
100019497	D-Pillow, Visco-elastic, includes fixing straps
100060750	Mattress set for prone position
100060751	Prone Head pillow
100040201	Donut head pad 40201
100040402	Gel pad, small 40402

Table 12. Pads and mattresses (continued)

100040204	Horseshoe head pad 40204
100040308	Large arm board pad 40308, size: 61 x 16.5 x 1 cm
100040617	Patient positioner, flat bottom 40617
100040100	O.R. Overlay, medium, size: 117 x 50 x 1.3 cm
100040105	O.R. Overlay, small, size: 50 x 50 x 1.3 cm
100040202	Donut head pad 40202, Paediatric
100040205	Horseshoe head pad 40205, Paediatric
100040213	Contoured Head Pad, size: 18 x 18 x 8 cm
100040300	Arm board Pad, short, size: 38 x 10 x 0.6 cm
100040301	Arm board Pad, long, size: 61 x 11.5 x 1 cm
100040601	Auxiliary Roll Cover, with hook & loop, size: 43 x 30.5 x 1.3 cm
100066002	Closed head ring / 140 x 60 x 35 mm/
100066003	Closed head ring / 200 x 75 x 4 5 mm/
100066012	Open head ring / 140 x 60 x 35 mm/
100066013	Open head ring / 200 x 75 x 45 mm/
100066021	Table pad / 500 x 500 x 10 mm
100066022	Table pad / 1170 x 500 x 10 mm
100066096	Patient positioner / 380 x 125 x 63 mm
100066042	Chest roll with flat bottom surface / 405 x 150 x 100 mm
100066072	Arm board pad /600 x 125 x 20 mm
100066031	Heel support pads, pair / 200 x 110 x 70 mm
100066801	Crutch stirrup pads-pair / 315 x 220 x 10 mm
100066081	Contoured headrest / 190 x 190 x 60 mm
100066110	Head pad / 270 x 230 x 70 mm
100066111	Prone headrest / 280 x 230 x 145 mm

Table 13. Special devices

100030154	Proctology attachment
100019220	Accessory stand 19220 (including 4 wire baskets)
100060500	Carbon fibre Backrest, long, 950 mm
100060501	Mattress for long carbon fibre section, 950 mm, VEF 80 mm

Table 13. Special devices (continued)

100060510	Arm rest, Carbon fibre
100060511	Pad for carbon fibre arm rest, VEF 80 mm
100060600	Knee Chest device for spinal surgery
100019300	Orthopedic Extension Device

Table 14. Optional accessories for 19300

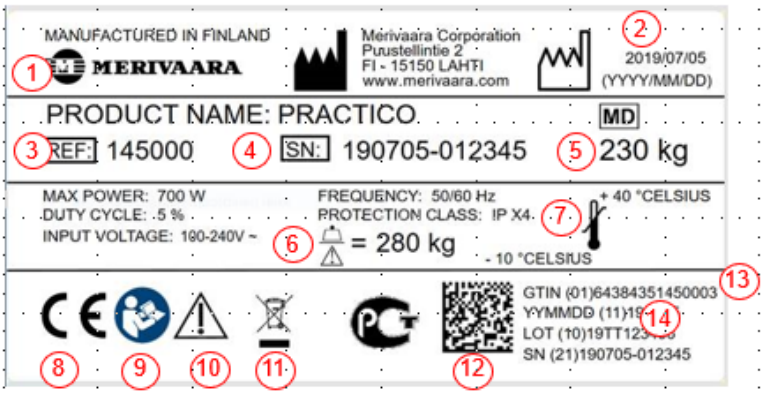
100000138	90° knee support 138
100019112	Femoral counter traction post 19112
100019114	Stirrup Clamp with rotation 19114
100019118	Knee Crutch 19118
100019120	Leg rest with padding 19120
100019124	Knee support 19124
100019126	Calf support 19126
100019128	Accessory rail extension 19128
100019131	Traction boots, children's 19131
100019134	Clamp 19134 for the extension bar (Ø 19 mm hole)
100019132	Supporting post for plaster cast 19132
100019135	Rail clamp 19135 for wide arm
100019285	Cart for Orthopedic device and Knee Chest device
100019313	Short Support Arm for 19300
100019348	Leg plates for Orthopedic device 19300

5 Technical data

5.1 Identification plate

The identification plates are on the table base and under the seat section. Check the product information printed on the identification plate before use.

Pictures on this page are for illustrative purposes only.



1 Manufacturer
2 Date of manufacture
3 Product catalogue number
4 SN (Serial Number)
5 Weight of the operating table
6 SWL (Safe Working Load)
7 Transport temperature
8 CE mark
9 Follow instructions for use
10 Caution
11 Recycling
12 QR tag
13 GTIN (Global Trade Item Number)
14 LOT (Lot number)

Note: Safe working load (SWL) is 280 kg (617 lbs).

5.2 Labeling and symbols

	Equipotential bonding
	B-type applied part (operating table top)
	Emergency release nuts for brakes are found under the stickers at both ends of the base.
	Follow instructions for use
= 280 kg	Maximum safe working load (includes patient, mattress and accessories.
CE	Marking in accordance with European Council Directive 93/42 EEC (all Practico models)

5.2.1 Symbols and label markings

Table 15. Mains power connection and fuses

Input voltage range	100 to 240 V
Alternating Current, AC	~
AC frequency range	50/60 Hz
Mains fuses	F6.3AL / 250 VAC Ø5 X 20 (2 pcs)

Note: The Medical Electrical System requirements are specified in standard IEC/EN 60601-1, clause 16.

Table 16. Packaging labels

↑↑	This way up

	Fragile

	Keep dry

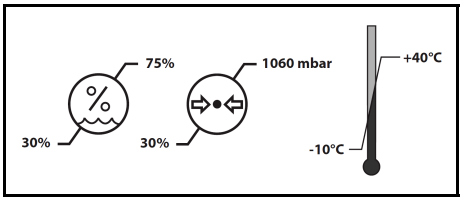
	Limitations regarding humidity, atmospheric pressure and temperature

Table 17. Warning labels

	Warning label for vertical adjustments Do not adjust the height of the operating table downwards or to the anti-Trendelenburg position if the table leg or back section is adjusted downwards!
	Warning label for pinch point hazard Keep hands and fingers clear during adjustment.
	Warning label for leg sections Do not sit or place extra weight on the gas spring assisted leg section(s). If the locking load limit of the gas springs is reached, the leg section will not stay in place horizontally.
	Brake emergency release label If, for any reason, the normal unlocking and release of brakes does not work, you can use the emergency release mechanism. Break the brake emergency release labels at both ends of the table base to release the brakes.

5.3 Specifications

5.3.1 Environmental specifications

Ambient temperature	+10 to +40 °C
Ambient pressure	700 to 1060 mbar
Relative humidity	30 % to 75 %
Transport temperature	- 10 to +40 °C
Storage temperature	+10 to +40 °C

5.3.2 Electrical specifications

Input voltage	100-240 VAC~
Frequency	50/60 Hz
Secondary voltage	33 VDC
Lithium batteries	24 VDC 2.25 Ah x 2
Max. power consumption	700 W for 80 sec
Main fuses	F6.3AL / 250 VAC Ø5 X 20 (2 pcs)
Normal recharging time	Approximately 10 h
Operation time with full battery	Approximately 180 min
Max. uninterrupted operating	• In battery mode 1 min continuous / 19 min resting time (Duty cycle 5 %) • When connected to mains 2 min continuous / 18 min resting time (Duty cycle 10%)

5.3.3 Classification data

Practico operating table is classified according to EN 60601-1 as follows:

Electric shock protection	Class I equipment, internally powered
Degree of electric protection	B-type
Protection against liquids	IP X4 / Splash proof equipment
Cleaning and disinfecting	According to instructions in this manual
Operating rate	Intermittent operation / duty cycle 5%

Protection against flammable anaesthetic gases	Do not use with combustible gases
Safe working load (SWL)	280 kg incl. patient, mattresses and accessories
Expected lifetime	10 years

5.3.4 Surface materials

Surface materials used in the Practico operating table with possibility to skin contact.

Surface	**Material**
Base frame construction	Epoxy coated steel
Seat section frames	Anodized aluminium
Accessory rails, column casings, frame constructions	Stainless steel
Pivots	Stainless steel
Table top plates	High pressure laminate
Mattresses	PUR
Table top section sides	Stainless steel and Al
Hand control unit cover	ABS
Hand control unit cable	PVC
Bellows	EPDM rubber
Base and castor covers	ABS+PMMA or stainless steel
Actuator covers	ABS and Al
Back-up-control panel	Polyester
Main switch, main switch fixings	Stainless steel

5.3.5 Adjustment ranges

	FIXED SEAT	**SLIDING SEAT**
Height	550 to 1040 mm	540 to 1030 mm
Longitudinal shift	–	390 mm
Lateral tilt	± 20°	± 20°
Back section (standard)	-40° to +70°	-40° to +70°
Leg section	-105° to +70°	-105° to +70°

	FIXED SEAT	SLIDING SEAT
Trendelenburg and anti-Trendelenburg	± 30°	± 30°
Headrest (Std.)	± 45°	± 45°
“Beach chair” back section (Optional)	-15° to +70°	-15° to +70°
Kidney-bridge back section (Optional)	-15° to +70°	-15° to +70°
Eye-ENT back section (Optional)	-15° to +70°	-15° to +70°

5.3.5.1 -0- position

Table top section adjustments and adjustment tolerances in the -0- position:

ADJUSTMENT	-0- POSITION	TOLERANCE*
Lateral Tilt	0°	+/- 2° to 4°
Back section	+1°	+1.5/- 0.5°
Trendelenburg	0°	+/- 2° to 4°
Leg section	+1°	+1.5/- 0.5°

*Tolerance depends on the load, higher load causes greater deviation.

Note: Reset the control unit and do 0-position calibration according to the instruction *T401803*.

5.3.5.2 Approvals

- Quality certificates: ISO 9001, ISO 13485, ISO 14001
- Complies with IEC/EN 60601-1:2005 + A1:2012 with US and CAN deviations, IEC/ EN 60601-2-46:2016, IEC/EN 60601-1-2 (EMC)
- Practico has class I classification according to European Council Directive 93/42/ EEC Class I

(Annex IX).

5.3.6 Weights and dimensions

Table 18. Weights and dimensions

	Fixed seat section	**Sliding seat section**
Table top sections	4 or 5	4 or 5
Weight of the table	~220 kg	~225 kg
Length (A) with 5 sections	2086 mm	2086 mm
Width (B) with side rails	594 mm	594 mm
Height (C) low to high	550 to 1040 mm	540 to 1030 mm
Length of the base (D)	1040 mm	1040 mm
Table top width without rails (E)	540 mm	540 mm
Floor clearance (F)	5.5 to 30 mm	5.5 to 30 mm
Max height of the base (G)	160 mm	160 mm
Width of the base (H)	594 mm	594 mm
Distance between the wheels (I)	860 mm	860 mm
Wheels Ø	50 mm	50 mm

Table 19. Operating table height (h)

	Height (h) with fixed seat section	**Height (h) with sliding seat section**
Practico Max Lo height	553–1043 mm	540–1030 mm
Practico Max Hi height	653–1143 mm	640–1130 mm
Practico General height	598–898 mm	585–885 mm

Figure 9. Table dimensions with motorised leg section

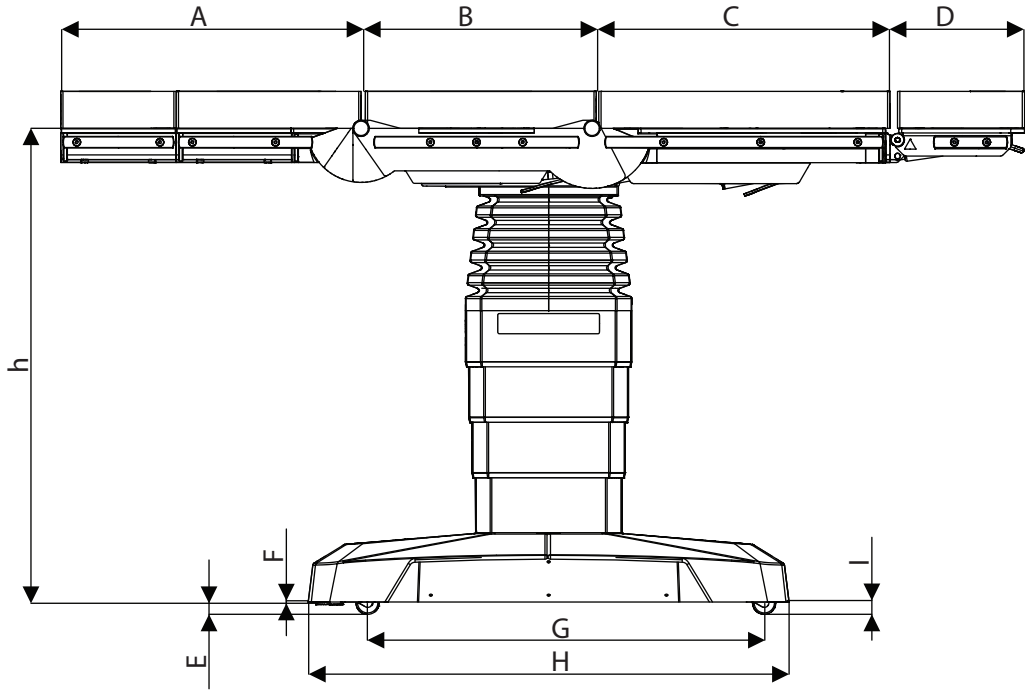


Table dimensions with motorised leg section (mm)	
A	650
B	500
C	635
D	301
E	245
F	55
G	960
H	1140
I	30

Figure 10. Table dimensions with manual leg section (mm)

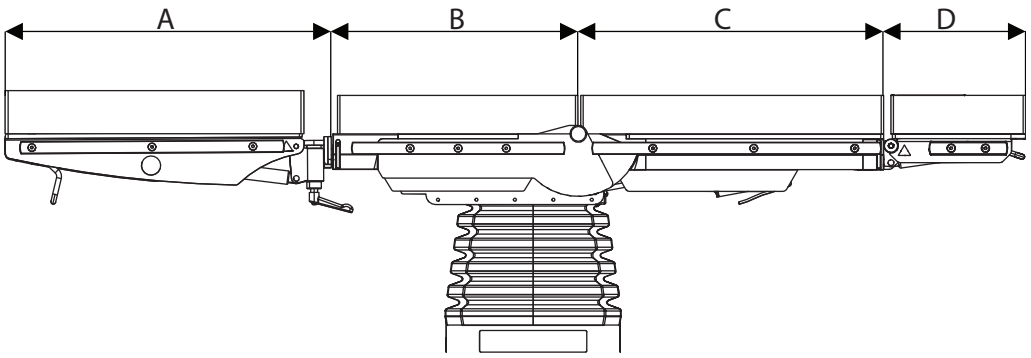


Table dimensions with manual leg section (mm)	
A	678
B	510
C	635
D	301

6 Cleaning

6.1 Cleaning warnings and cautions

⚠ WARNING

Cleaning and disinfecting must be done as described in this manual.

⚠ WARNING

Set the main switch to the OFF position and disconnect the mains cable from the wall socket before cleaning.

⚠ CAUTION

Clean the stainless steel surfaces on a regular basis, in order to maintain the best possible corrosion resistance. A thin layer of passive oxide film — which occurs on the surface of clean steel by the effect of chromium oxidation reactions — protects the stainless steel. Leaving stains, secretions, blood, dehydration or other contamination on the surface will weaken the stainless steel's corrosion resistance, and cause adverse changes that lead to corrosion.

⚠ CAUTION

Do not use detergents or disinfectants that contain chlorine or chlorine compounds that release chloride ions.

⚠ CAUTION

Cl-1, natrium, caustic, peroxide or sodium concentrated cleaning solutions or bleaching detergents, and also other corrosive detergents, including detergent vapours in the air will damage the passive chromium oxide film on the stainless steel.

⚠ CAUTION

Always remove the cleaning and disinfectant residues by rinsing with a small amount of clean warm water, or a damp cloth. Dry the surfaces carefully and, in particular, note the table joints as well as junctions of the table structure. Also check out whether there are cuts on the surfaces.

⚠ CAUTION

Machine disinfection of the operating table is prohibited.

⚠ CAUTION

Clean and disinfect the control panels and control units only when necessary. Wipe with a small amount of suitable detergent. Ensure that the connections of the control units remain dry during the cleaning process.

⚠ CAUTION

The operating table has been classified as splash-proof equipment. Never use pressurized water or an intense spray to clean or disinfect the operating table. Follow the guidance in this user manual when cleaning and disinfecting the operating table.

⚠ CAUTION

The surface of mattresses is electrically conductive. Always clean the mattresses using a neutral detergent.

⚠ CAUTION

Disregarding of the guidelines presented in this user manual can result in loss of product warranty.

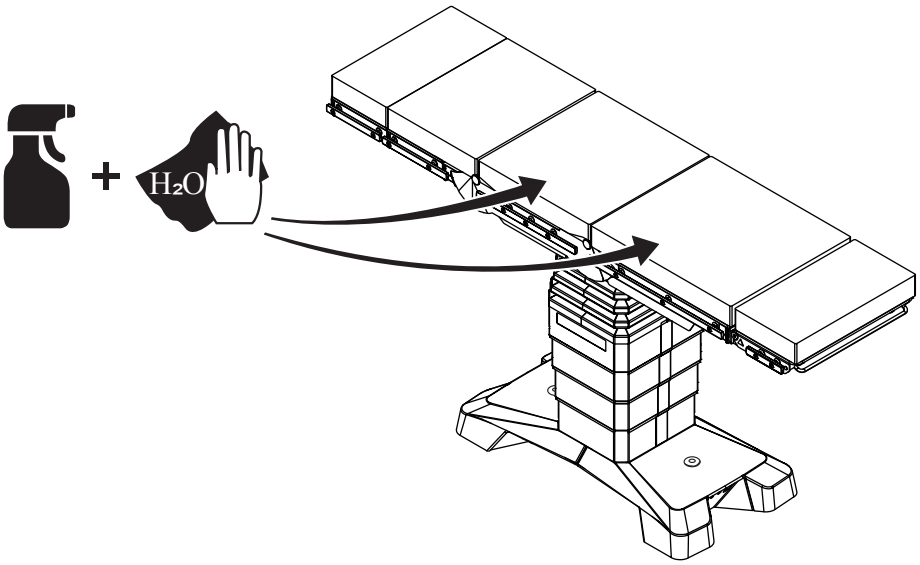
⚠ CAUTION

Clean the table carefully after every surgical procedure. If necessary, protect the inner parts of the column before cleaning.

6.2 Cleaning

6.2.1 Cleaning mattresses and plastics

1. Remove accessories.
2. Clean by wiping with a slightly alkaline detergent (pH 7-8).
   - It is recommended to use detergent which contains phosphate or tensides.
   - Clean difficult stains and heavily soiled surfaces with a small amount of undiluted detergent.
3. Remove excess detergent by gently rinsing or with a damp cloth.
4. Dry the surfaces carefully immediately after cleaning or disinfecting.

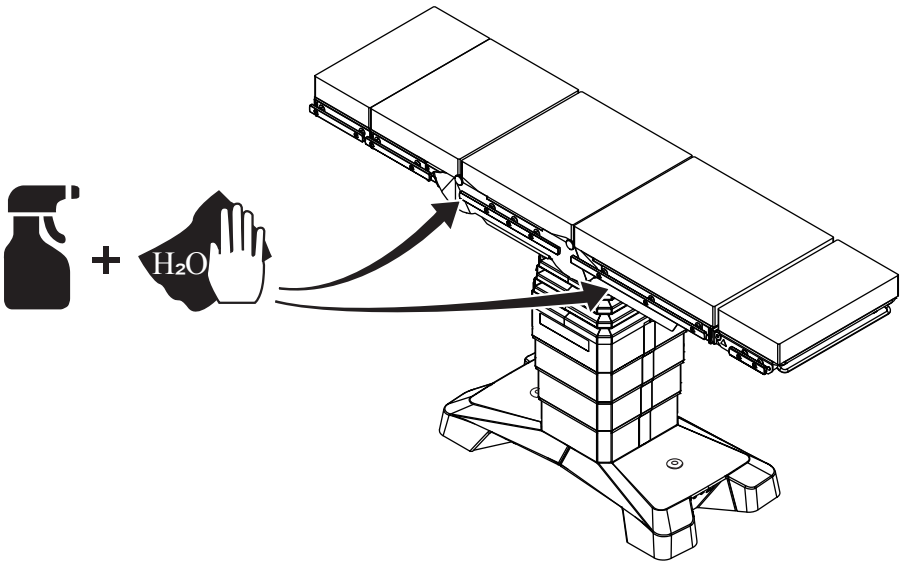


⚠ WARNING

Clean the mattresses only with a neutral detergent (pH 7–8). The antistatic properties of the operating table require the use of original brand mattresses and antistatic flooring.

6.2.2 Cleaning metal parts

1. Wipe the surfaces with a damp cloth and use a non-abrasive detergent.
   - Use only neutral detergent or soap suitable for stainless steel (pH 7 to 8).
2. Remove excess detergent by rinsing gently or with a damp cloth.
   - Remaining substance on the surface material forms a chemical pair which may lead to the emergence of general, crevice or pitting corrosion, also on stainless steel-made parts.
3. Dry the surface carefully after cleaning to keep the product in good visual condition.



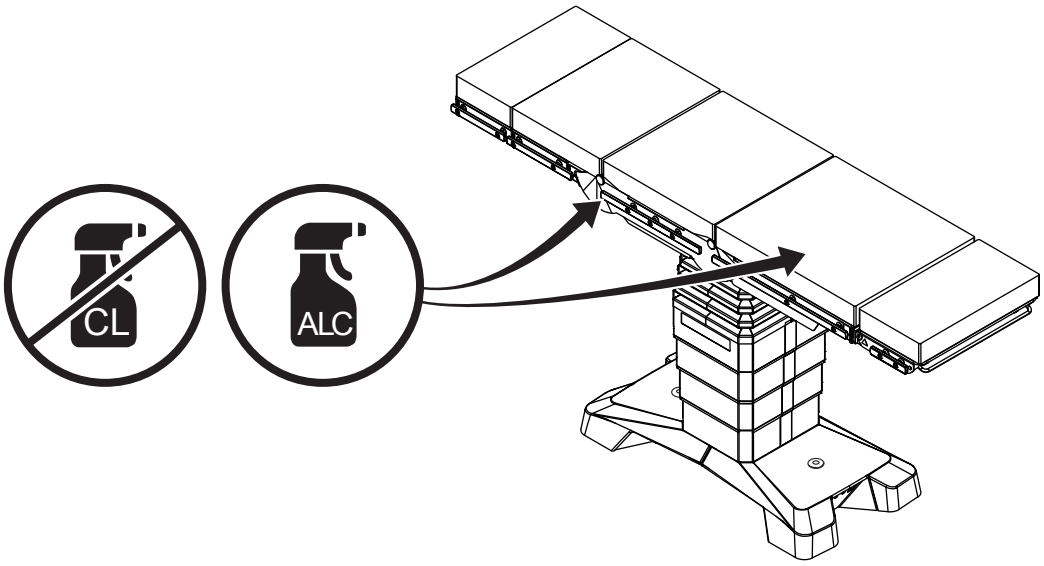
6.3 Disinfection

6.3.1 Disinfecting mattresses and plastics

1. Remove accessories.
2. Wipe the surface with disinfectant according to disinfection instructions. Do not use a surface disinfectant that contains phenols and alcohol, which can corrode plastic parts and mattresses.
3. Remove the disinfectant residues gently by rinsing with lukewarm water or by using a damp cloth.
4. Dry the product carefully immediately after cleaning or disinfecting.

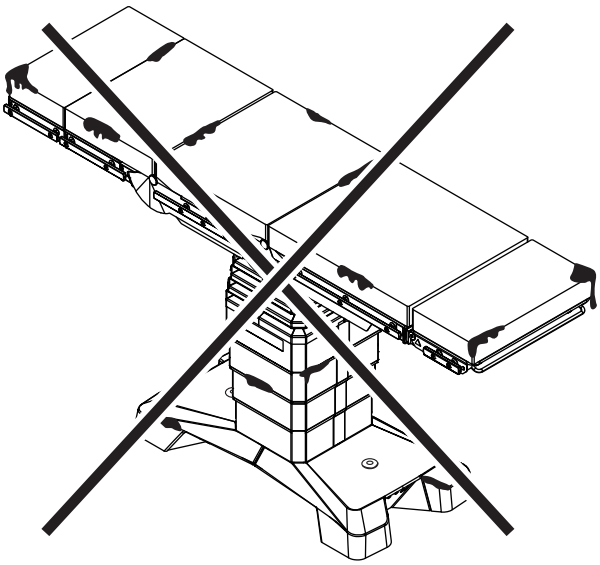
6.3.2 Disinfecting metal parts

- Do not use disinfectants that contain chlorine or release chlorine compounds. These cause corrosion even on stainless steel surfaces.
- Alcohol-based disinfectants can be used for stainless steel.



Gently rinse or wipe with a damp cloth to remove disinfectant residues from stainless steel parts, such as accessory rails, seat joints and joint cover plates, latches, and taple top screw heads.

- Keep surfaces as clean as possible: Residues of detergents may weaken the stainless steel material properties which protect the surfaces from corrosion.
- Prevent long-term exposure to any type of liquids.
- Use disinfectants only moderately. Remaining substances in structural cavities and galvanic seams can cause surface corrosion.



- Do not use metal tools to clean stainless steel. This may lead to scratches and corrosion. Also avoid iron rich water.

The most effective disinfectants for stainless steel surfaces are detergents that contain the following compounds:

- aldehydes
- quaternary compounds (ammonia)
- guanidine derivatives (cyanamide)

⚠ WARNING

Do not use the operating table in an environment where toxic chemicals (for example Sterisol) compounds are sprayed in the air using fogging devices or other automated systems. This will lead to corrosion and harm sensitive electronics inside the table. Transfer the table to an environment where it is not exposed to this kind of disinfecting applications and procedures.

⚠ CAUTION

When in long-term storage, treat the steel surfaces with a protective agent intended for stainless steels. Please also note the environmental conditions of storage specified in this user manual.

⚠ CAUTION

Clean chemically treated surfaces, for example epoxy coating, as described in this manual. Make sure that the cleaned surface is not worn or damaged. General corrosion, contamination, crevice or pitting can occur on damaged surfaces.

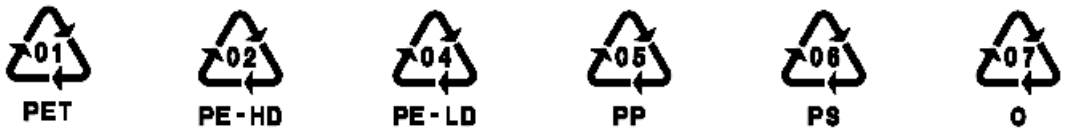
7 Recycling

7.1 Metals and plastics

When disposing of a product or replacing any of its parts, check the recyclability of each item. A majority of the metal used in the operating table and its accessories is stainless steel or epoxy/zinc coated steel. Other metals used are anodized aluminium.

When recycling plastic parts, determine the material type. Refer to the table in section to confirm whether or not recycling is possible. For more information about recycling, contact your local waste management facility or visit related sites on the internet.

The recycling symbols below are marked on parts that are made of plastic. Parts marked with these symbols can be used as energy waste.



7.1.1 Gas springs

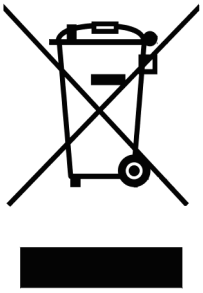
⚠ WARNING

Releasing of nitrogen gas is strictly prohibited! Recycle the gas springs according to your local recycling regulations. Dismantling is only allowed by a professional. Do not open – high pressure.

7.1.2 Electronic waste and batteries

Electronic components and devices should be disposed of according to local waste regulations.

The symbol below informs that the product contains electronic devices and cannot be disposed of with general waste. In such cases, the product must be separately disposed of; it cannot be included in municipal waste.



Note: Lithium batteries need to be disposed of according to local waste regulations.

8 Maintenance and service

8.1 Safety during maintenance procedures

⚠ WARNING

Only authorized service personnel are allowed to maintain and repair this equipment.

⚠ WARNING

Only authorized service personnel are allowed to change the battery pack.

⚠ WARNING

Only Merivaara-licensed electricians are allowed to service the electronics of the table.

⚠ WARNING

Before any maintenance and repair, disconnect the mains cable from the wall socket and turn the main switch to the OFF position. This completely isolates the operating table and its electrical components from supply voltage. There is 100-240 VAC~ voltage inside the table base. Hazard of electric shock.

⚠ WARNING

Turn the main switch to the OFF position before connecting or disconnecting any electronic components in order to protect them against voltage surges. Disconnect the mains cable.

⚠ WARNING

Static charges can cause sparks harming sensitive electronic components. Ground yourself to metallic parts of the table before touching electronic components.

⚠ WARNING

Always wear disposable gloves and a mask when working on used tables, due to a risk of infection or disease. If the table appears to have an excess of bio waste, clean and disinfect the table before the service. The service personnel must be trained to use the personal protective equipment.

⚠ CAUTION

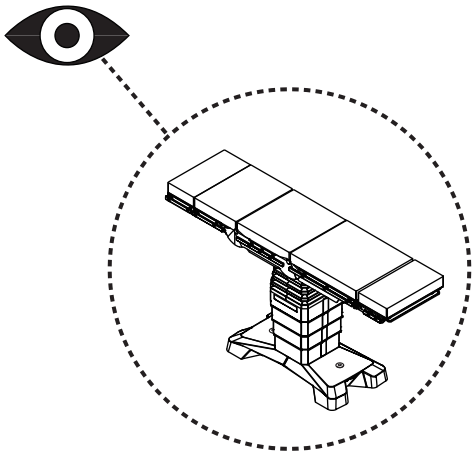
Do not modify routing of cables during maintenance procedures.

8.2 Before starting any service or maintenance work

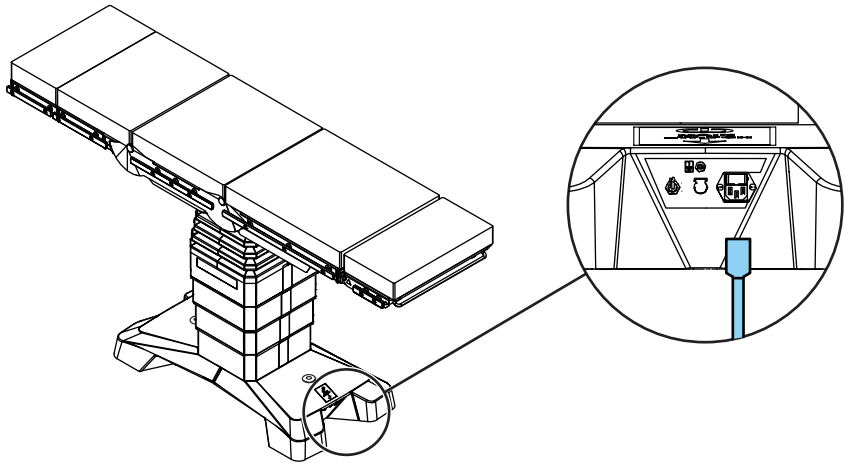
1. Set the main switch to the OFF position.
2. Disconnect the mains cable.

8.2.1 Daily maintenance

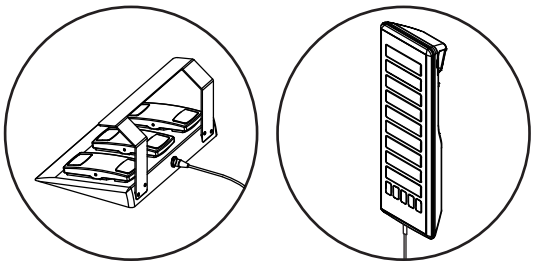
1. Check the condition of the table and mattresses. Do not use broken or worn mattresses. Contact service personnel if needed.



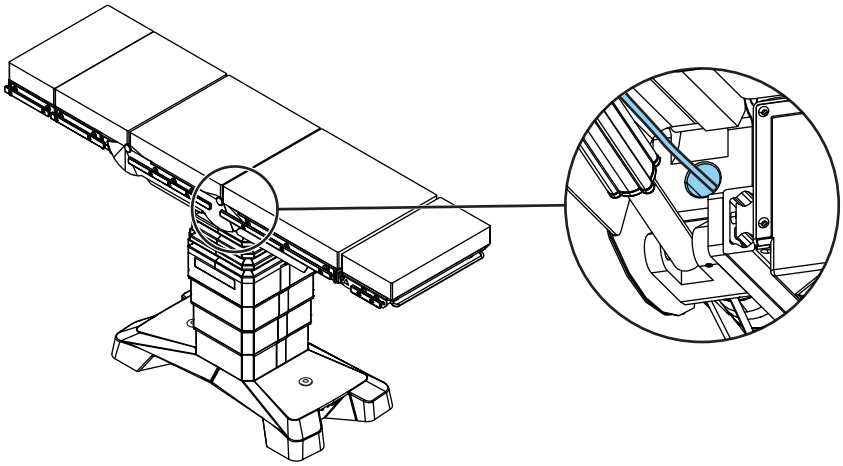
2. Disconnect the mains cable and check its condition. Do not use a damaged cable.



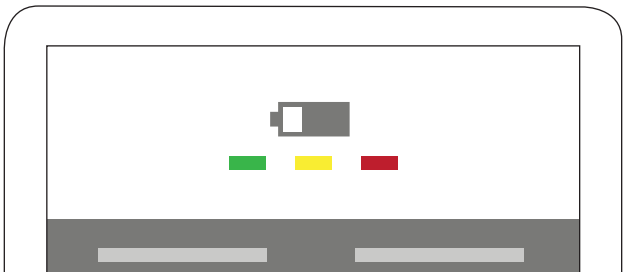
3. Check the functionality and the cables of the foot and hand control units.



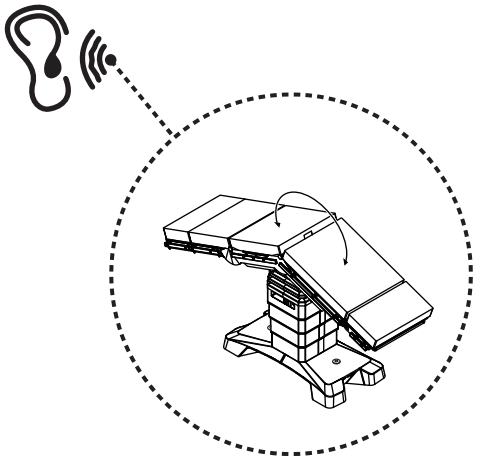
4. Check the condition of the back section actuator cables in the joint pivoting area between the seat and back section.



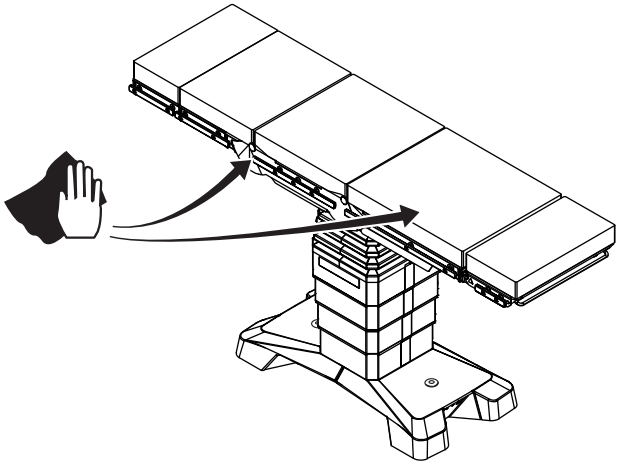
5. Charge the table battery to ensure sufficient charge level and long service life.



6. Check that there is no abnormal noise during adjustments.

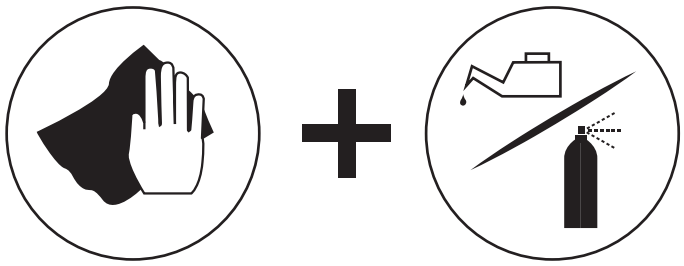


7. Clean the table after maintenance and each surgical procedure.

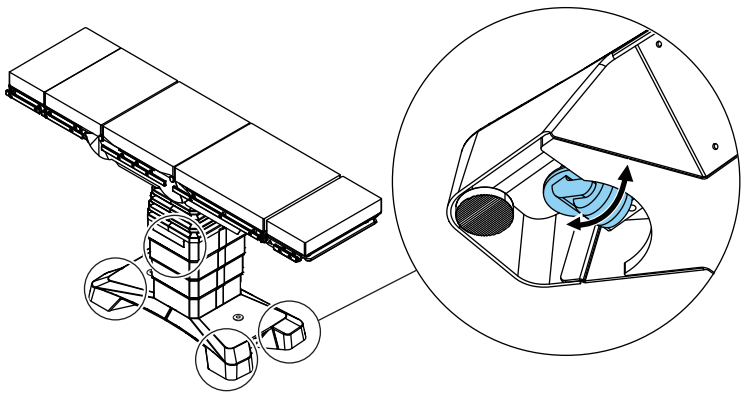


8.3 Monthly maintenance (by Merivaara trained service personnel only)

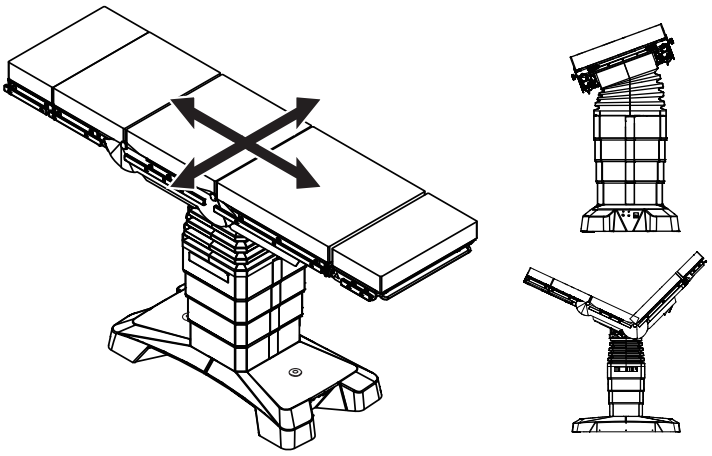
1. Using light machine oil or Vaseline spray, clean and lubricate:
   - guide pins
   - latches
   - spring-loaded pins
   - pivoting points of the back section



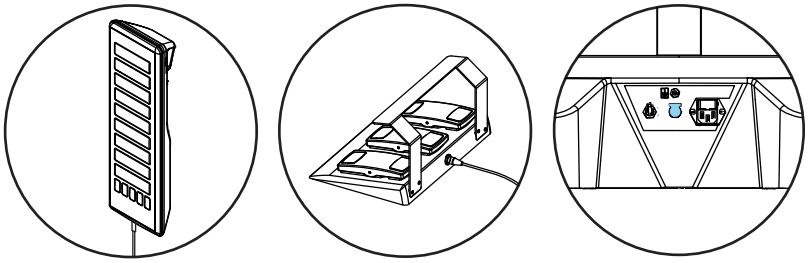
2. Check that the wheels roll smoothly and the floor lock operates correctly.



3. Extend and retract all table adjustments and check the -0- positioning function.

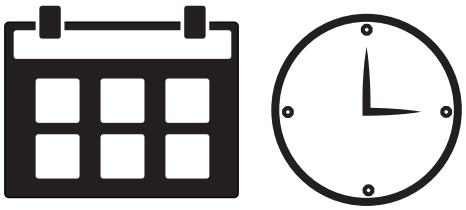


4. Check hand control unit and foot switch cables, connectors and receptacles.

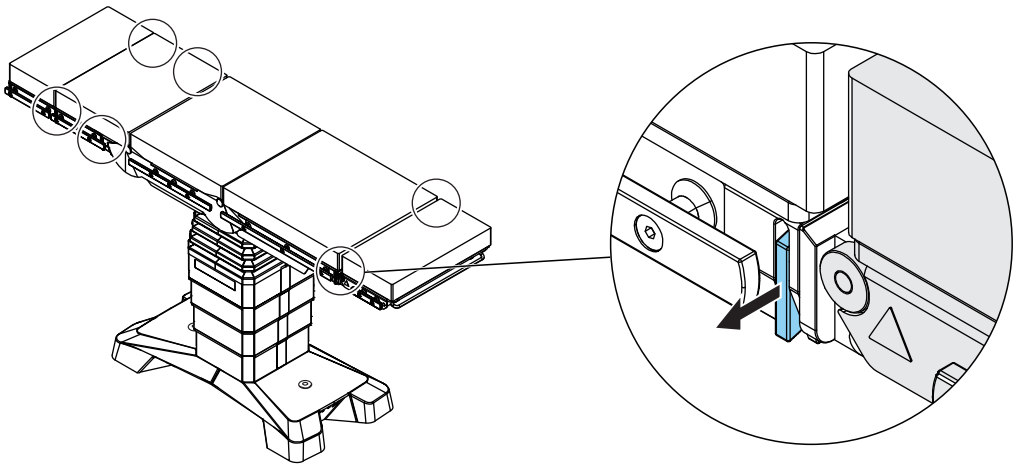


8.4 Annual maintenance (by Merivaara trained service personnel only)

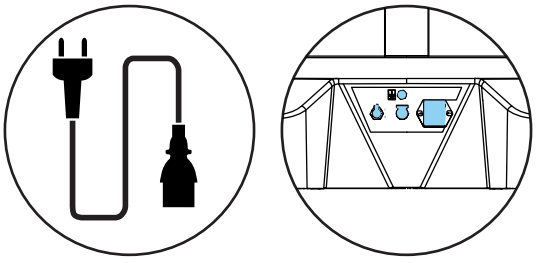
1. Perform all daily and monthly service actions.



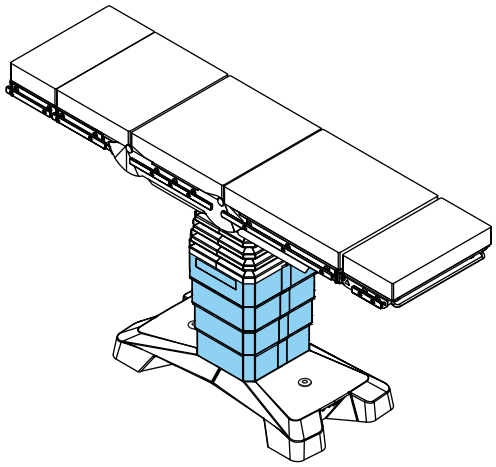
2. Check that the table section's latches are operational.



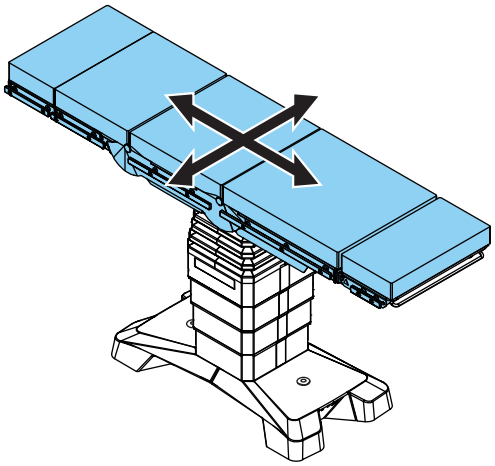
3. Check cables and connectors.



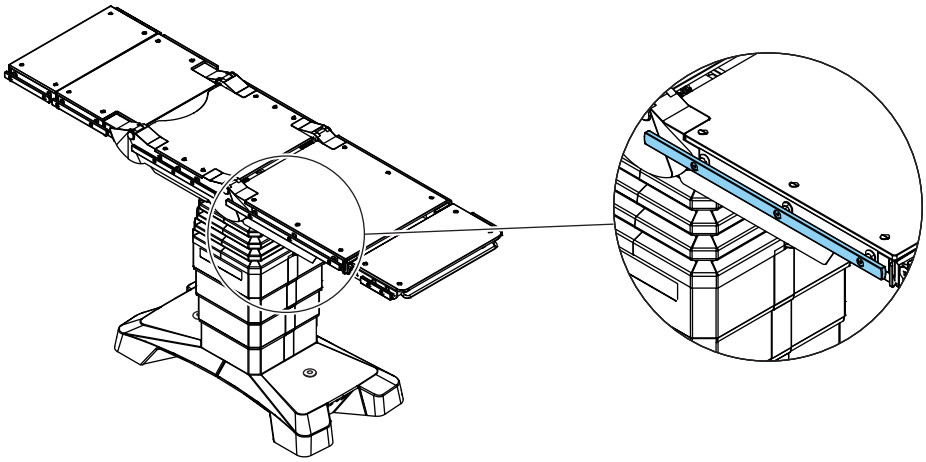
4. Check the operating table column construction.
   - Do not use the table if the column is damaged or crooked.



5. Check the -0- position. Calibration is needed if:
   - table position parameters are not set correctly
   - adjustment sets the table into an incorrect position
   - -0- position is not within range



6. Ensure that accessory rails are properly mounted and not worn.



8.5 Troubleshooting

When troubleshooting, check the following items first:

1. Does the malfunction affect all table control functions?
2. Does the malfunction affect one control function only?
3. If the problem affects one control function only, does it do so in both directions?
4. Does the table move?
5. Does the table maintain its position?

Malfunction in one of the following components affects all control functions:

1. Hand control unit or control box
2. Battery
3. Power source/battery

Malfunction in one of the following components usually affects only one function:

1. Motor
2. Gas spring
3. Hand control unit or control box

8.5.1 Possible situations

PROBLEM	**Table does not work when pressing an adjustment button**	**PROCEDURE**
CAUSE	Main switch in the OFF position	Set to the ON position
	Foot control unit not connected properly	Check the connection

PROBLEM	**Table does not work when pressing an adjustment button**	**PROCEDURE**
	Faulty hand control unit	Contact service. In emergency situations, use the back-up control unit
	Broken hand control unit cable	Contact service
	Table battery not charged	Connect mains cable to a wall socket
	Faulty control unit	Contact service
	Faulty motor	Contact service
	End position already reached	Check table positioning
	Making restricted table adjustments	Check table positioning

PROBLEM	**Table movement does not stop when function button is released**	**PROCEDURE**
CAUSE	Severe failure of electronics	**WARNING!** Switch power OFF and disconnect mains cable.
	Faulty hand control unit	**WARNING!** Switch power OFF and disconnect mains cable.

PROBLEM	**Incorrect table adjustment when control unit button is pressed**	**PROCEDURE**
CAUSE	Incorrect control box connections	Check and install correct cables

PROBLEM	**Leg section cannot be adjusted horizontally**	**PROCEDURE**
CAUSE	Faulty gas springs	Contact service

PROBLEM	**Adjustment is not in range or tolerance**	**PROCEDURE**
CAUSE	Actuator hall sensor normal variation	Fully extend and retract all adjustment back and forth.

PROBLEM	**Actuator moves when pressing adjustment button, but "Beep- Beep-Beep-Beep..." is heard**	**PROCEDURE**
CAUSE	-0- position calibration is not performed	Contact service
	-0- position memory is corrupted	Contact service

PROBLEM	**Actuator moves when pressing adjustment button and stops automatically within 1 to 2 seconds. Actuator motion is not continuous**	**PROCEDURE**
CAUSE	Actuator's Hall sensor is broken	Contact service
	Actuator's load current limit exceeded	Check the actual load and the safe working load (SWL) and a possible collision between the table top and the surroundings. Decrease the load and clear the operating table surroundings to prevent possible collisions.

8.6 Contact information

Further information on service and spare parts is available from your local dealer or from Merivaara After Sales.

Merivaara Corp.	+358 3 3394 611
Merivaara After Sales fax	+358 3 3394 6249
E-mail	service@merivaara.com
Internet	www.merivaara.com

9 Guidance and manufacturer's declaration

9.1 Electromagnetic compatibility

This operating table has been tested according to IEC/EN 60601-1 to ensure proper electromagnetic compatibility. Portable and mobile RF communications equipment can affect the Practico operating table.

Other products used in the vicinity of the operating table should also comply with this standard.

Practico may emit levels of EM energy that cause EMI in other devices in the vicinity, and can potentially cause RF emissions that affect other devices.

⚠ WARNING

Extremely strong EM disturbances may cause unintented movement of the table. Also abnormal operation in indication lights may occur.

⚠ WARNING

Use the operating table only in facilities that are made for medical purposes and that are equipped with an electromagnetic environment specified in this guide. The customer or the user of the operating table must assure that ensure that the operating tables are used in such an environment.

⚠ WARNING

Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment (Merivaara Corp.) can result in:

- increased electromagnetic emissions
- decreased electromagnetic immunity
- improper operation.

⚠ WARNING

Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the ME equipment or ME system, including cables specified by the manufacturer. Otherwise, the performance of this equipment may degrade.

Note: The emissions characteristics of this equipment make it suitable for use in industrial areas and hospitals (CISPR 11 class A). If it is used in a residential environment (for which CISPR 11 class B is normally required) this equipment might not offer adequate protection to radio-frequency communication services. The user might need to take mitigation measures, such as relocating or re-orienting the equipment.

Guidance and manufacturer's declaration - Electromagnetic emissions		
Emissions test	**Compliance**	**Electromagnetic environment - guidance**
Conducted and radiated RF emissions CISPR 11	GROUP 1 CLASS A	Operating table does not intentionally create RF energy. Therefore, its RF emissions are low and are not likely to cause any interference in nearby electronic equipment.
Harmonic distortion IEC 61000-3-2	CLASS A	
Voltage fluctuations and flicker Complies with IEC 61000-3-3		

Guidance and manufacturer's declaration - Electromagnetic immunity			
Operating table is intended for use in the electromagnetic environment specified below. The customer or the user of the operating table must assure that it is used in such an environment.			
Immunity test	**IEC/EN 60601-1–2 test level**	**Compliance level**	**Electromagnetic environment - guidance**
Electrostatic discharge (ESD) IEC/EN 61000-4-2	+/- 8 kV contact +/- 15 kV air	+/- 8 kV contact +/- 15 kV air	The antistatic properties of the table depend on the use of the original mattress set and the use of conductive floor material.
Electrical fast transient/ burst immunity test IEC/EN 61000-4-4	±2 kV for power supply lines	±2 kV for power supply lines	Mains power quality should be that of a typical hospital environment. The table is mainly operated with an internal battery.
Surge immunity test IEC/EN 61000-4-5	Line to line 1kV Line to ground 2 kV	Line to line 1kV Line to ground 2 kV	Mains power quality should be that of a typical hospital environment. Table is mainly operated with an internal battery.
Immunity to conducted disturbances, induced by radio-frequency fields IEC/EN 61000-4-6	0.15 - 80 MHz 3V 6V in ISM bands	0.15 - 80 MHz 3V 6V in ISM bands	Portable and mobile RF communications equipment can affect the operating table and should be used no closer to any part of the operating table, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.

Guidance and manufacturer's declaration - Electromagnetic immunity			
Power frequency magnetic field immunity test IEC/EN 61000-4-8	30 A/m	30 A/m	The operating table can be used together with medical devices complying IEC/EN 60601-1
Voltage dips, short interruptions and voltage variations immunity test IEC/EN 61000-4-11	30 % 500 ms 100 % 10 ms 100 % 5000 ms 100 % 20 ms	30 % 500 ms 100 % 10 ms 100 % 5000 ms 100 % 20 ms	Mains power quality must be that of a typical hospital environment. The operating table is mainly operated with internal battery.
Radiated RF EM fields IEC 61000-4-3	3 V/m 80 MHz – 2.7 GHz 80 % AM at 1 kHz	3 V/m 80 MHz – 2.7 GHz 80 % AM at 1 kHz	
Proximity fields from RF wireless communications equipment IEC 61000-4-3	See table *Test specifications for immunity to RF wireless communications equipment* below.	See table *Test specifications for immunity to RF wireless communications equipment* below.	Recommended separation distance: $E = \frac{6}{d}\sqrt{P}$ Where P is the maximum power in W, d is the minimum separation distance in (m), and E is the IMMUNITY TEST LEVEL in V/m.

Test specifications for immunity to RF wireless communications equipment							
Test frequency (MHz)	**Band (MHz)**	**Service**	**Modula-tion**	**Maximum power (W)**	**Distance (m)**	**Immunity test level (V/m)**	**Remarks**
385	380-390	Tetra 400	Pulse modulation 18 Hz	1.8	0.3	27	
450	430-470	GMRS 460, FRS 460	FM ± 5 kHz deviation 1 kHz sine	2	0.3	28	
710, 745, 780	704-787	LTE Band 13, 17	Pulse modulation 217 Hz	0.2	0.3	9	
810, 870, 930	800-960	GSM 800/ 900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation 18 Hz	2	0.3	28	
1720, 1845, 1970	1700-1990	GSM 1800; CDMA 1900;	Pulse modulation 217 Hz	2	0.3	28	

Test specifications for immunity to RF wireless communications equipment							
		GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS					
2450	2 400-2 570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation 217 Hz	2	0.3	28	
5240, 5500, 5785	5 100-5 800	WLAN 802.11 a/n	Pulse modulation 217 Hz	0.2	0.3	9	

User training guidelines T404658–2

Product	
Date of implementation	
Serial number	
Customer reference number	

Location:		**Date of product user training:**	

Scope
The end user (nurse, anesthesist nurse CRNA, medical doctor, surgeon or other hospital personnel who use the product) must be trained according to these instructions by the person authorized or in charge of the end user´s organization before use of the product (IEC 62366). The training scope also includes technical personnel training

Content of end user training

- Overview of the product
- Intended use
- Complete adherence of the user manual
- Cleaning and disinfecting procedures
- Daily maintenance intervals
- Patient and personnel safety factors
- Emergency use and call for service in case of malfunction
- Rights and liabilities, and who is in charge of actions and corrective actions, maintenance, cleaning, and inspections
- Warranty terms and conditions
- At the end of the training, participants will take a test to verify their understanding of the training content.

Documentation

- Responsibility for registration of the participants and maintaining records in the register lies with the end user’s organization.

Duration

- The training should last approximately 1 hour. It is recommended to renew the training at least once every 3 years.

Content of technical personnel training

- Overview of the product
- Patient and personnel safety factors
- Start-up of the product, power supply, mains switch and fuses
- Cleaning after service
- Maintenance program: Inspection form, maintenance intervals
- Troubleshooting
- Maintenance in practice (required tools etc.)
- Replacing damaged parts
- Support services, contact information and subscription content, list of available spare parts
- At the end of the training, participants will take a test to verify their understanding of the training content.

Documentation

- Responsibility for registration of the participants and maintaining records in the register lies with the end user's organization.

Duration

- The training should last approximately 1 hour. It is recommended to renew the training at least once every 3 years.

⚠ WARNING

Disregarding these measures will void the warranty and may jeopardize the safety matters concerned which cannot be otherwise guaranteed.

I assure that the mentioned training measures are completed in accordance with the requirements given:		
Number of participants:		
Date	**Signature/Stamp**	**Name of trainer**