

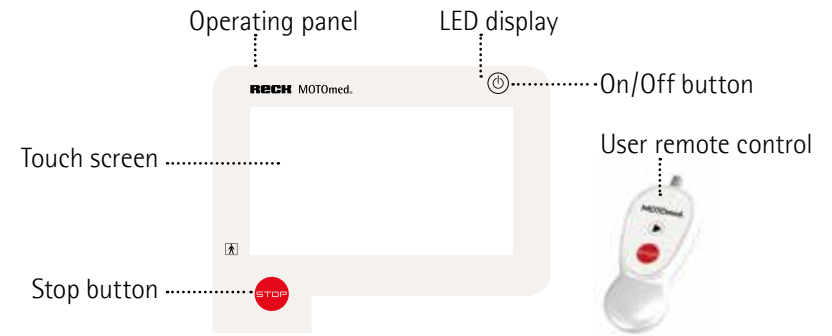
# Instruction Manual

## MOTomed<sup>®</sup> layson edition



MOTomed layson.I with expandable chassis

**RECK**

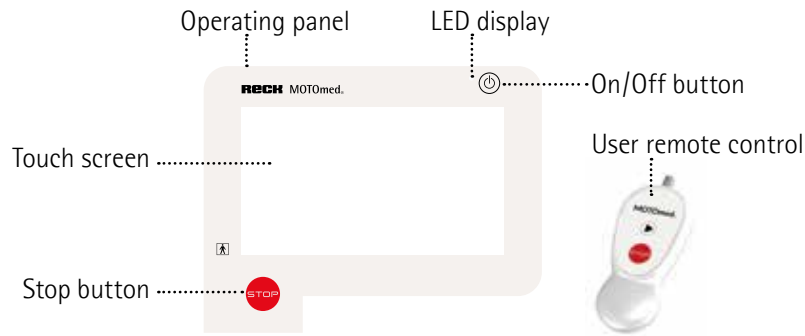


### MOTomed layson.Ia

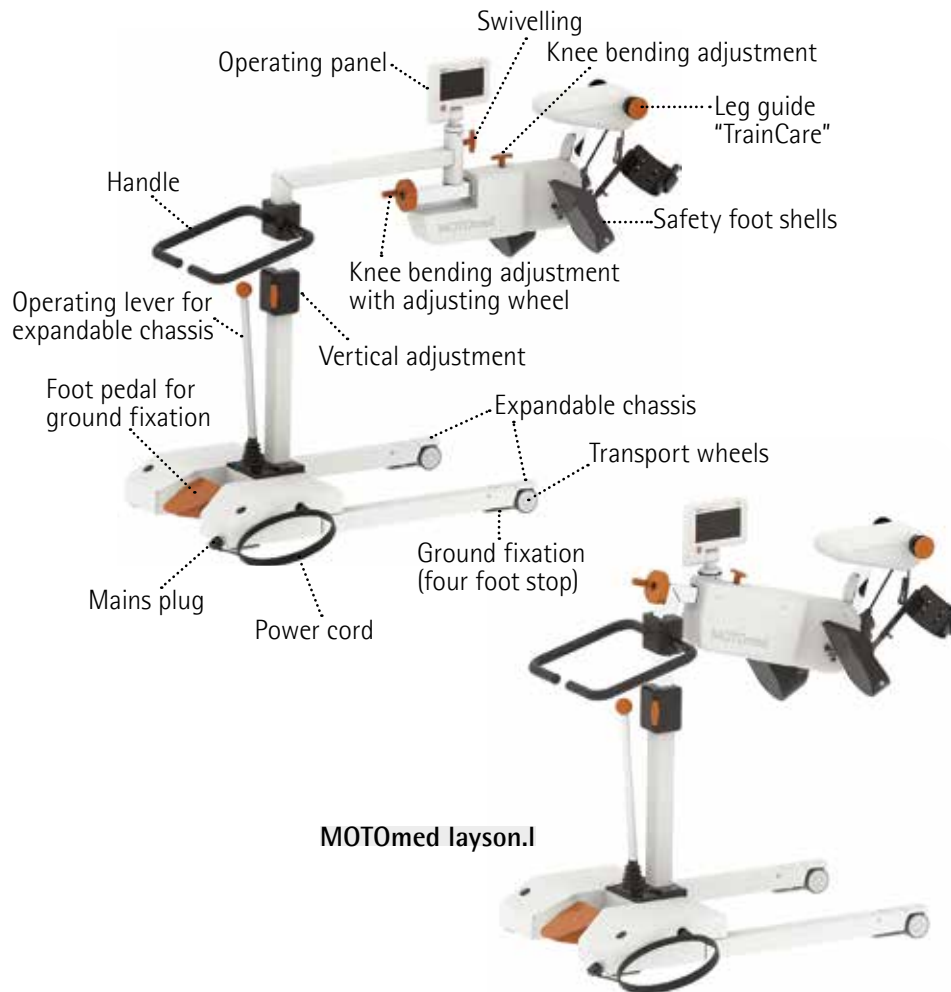


### MOTomed layson.I





### MOTOMed layson.la



### MOTOMed layson.l

- en Please use the MOTOMed only after you have read the instruction manual. If you should not understand the language of the present version, please request the instruction manual in your national language.
- de Benutzen Sie das MOTOMed erst, nachdem Sie die Gebrauchsanweisung gelesen haben. Sollten Sie die vorliegende Sprachversion nicht verstehen, fordern Sie bitte eine Anleitung in Ihrer Landessprache an.
- fr Avant de commencer votre entraînement MOTOMed, veuillez lire les instructions d'utilisation. Si ces instructions d'utilisation ne correspondent pas à votre langue, n'hésitez pas à nous demander une autre traduction.
- es Utilice el MOTOMed sólo después de haber leído las instrucciones de uso. Si no entiende el idioma de la presente versión, por favor exija un manual en su lengua nacional.
- pt Use o MOTOMed somente, depois de ter lido as instruções de operação. Em caso que você não compreenda a língua desta instrução, peça por favor uma orientação em sua língua nacional.
- it Per un ottimo funzionamento del MOTOMed leggere le istruzioni per l'uso. Se riscontrate qualche difficoltà riguardo la vostra lingua madre consultate il vostro servizio assistenza.
- nl Neem uw MOTOMed pas in gebruik nadat u de gebruiksaanwijzing hebt gelezen. Indien de gebruiksaanwijzing niet overeenstemt met uw moedertaal, aarzel dan niet ons te contacteren en een andere taalversie aan te vragen.
- sv Använd MOTOMeden endast, efter du har läst fungerande anvisningen. Om dig bör inte förstå den tillgängliga språkversionen, förfrågan var god a vägledning i ditt nationella språk.
- da MOTOMed må først anvendes, når brugsanvisningen er gennemlæst. Forstår du ikke vedlagte brugsanvisning, rekvirer en dansk vejledning hos ProTerapi.
- pl Przed skorzystaniem z urządzenia MOTOMed prosimy zapoznać się z instrukcją obsługi. Jeśli instrukcja obsługi jest napisana w języku obcym ządajcie Państwo instrukcji w języku przez Państwa znanym.
- ru Используйте MOTOMed только после того, как прочитаете инструкцию по эксплуатации. Если Вам не понятен язык, на котором написана инструкция, запросите, пожалуйста, на родном языке.

## gentle, attractive and intelligent ...

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Congratulations! You have made an excellent choice by purchasing your MOTOMed. This movement therapy device provides outstanding performance. Supported by the latest computer technology, it is an innovative RECK quality product "Made in Germany".

The MOTOMed is a motor-assisted exercise therapy device that thinks with you. Enjoy a daily therapy with positive effects.

This instruction manual will help you to get to know the MOTOMed. It will guide you through the functions and give some suggestions and tips on how to use your new movement therapy system so as to gain optimal benefit from the training. Before starting the MOTOMed, please note the *safety precautions* listed in section 2.

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If you have any further questions or comments, please don't hesitate to call your MOTOMed representative or the RECK customer service team.

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Enjoy the training with your MOTOMed!



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## Information about this manual

Read this instruction manual carefully before first use and note the points listed. Keep the manual for future use.

The instructions for use in this manual apply to all models of the MOTOMed layson edition:

MOTOMed layson.la (expandable chassis)	Order-No. 261.130
MOTOMed layson.la (parallel chassis)	Order-No. 261.030
MOTOMed layson.l (expandable chassis)	Order-No. 261.110
MOTOMed layson.l (parallel chassis)	Order-No. 261.010
MOTOMed layson kidz.la (expandable chassis)	Order-No. 261.330
MOTOMed layson kidz.la (parallel chassis)	Order-No. 261.230
MOTOMed layson kidz.l (expandable chassis)	Order-No. 261.310
MOTOMed layson kidz.l (parallel chassis)	Order-No. 261.210
MOTOMed layson.l dia (expandable chassis)	Order-No. 261.119
MOTOMed layson.la prof (expandable chassis)	Order-No. 261.139

This manual contains safety information that helps you to identify and prevent hazards.

Two signal words and the associated symbols highlight potential dangers:

### WARNING



Indicates a potential hazard with medium risk, which could result in death or (serious) bodily injury if it is not avoided.

### CAUTION



Indicates a low-risk hazard which could result in minor or moderate personal injury or property damage if it is not avoided.

Can also be used to warn of property damage.



The following symbols indicate additional or further information:



Additional information about operating the MOTOMed, accessories and MOTOMed software.

Page 77 Reference to further information or illustrations elsewhere (here on page 77 for example).

## Intended purpose

MOTOMed is intended exclusively for passive, assistive and active movement of the lower and upper extremities of persons in a supine position. During use, MOTOMed can be controlled via an operating panel. The MOTOMed is mobile and can therefore be used at different locations.

## Patient target group

The MOTOMed layson is suitable for young people and for adults. The typical patient is over 15 years old, 140–200 cm tall, has a maximum weight of 135 kg and is bed bound due to illness.

## Intended use

The user trains on the MOTOMed lying in bed or on a couch. During this process the MOTOMed must be fixed in place with the ground fixation and the user's legs must be securely attached in the foot shells. The bed or couch must be braked or fixed in place.

No further setting/change to the bed or couch (height, position ...) may be undertaken once the MOTOMed has been moved up to the bed or couch.

Beds or couches which are not readily accessible (end too wide or with insufficient ground clearance) are not suitable. The MOTOMed layson.la or the MOTOMed layson kidz.la must be used for beds or couches which can only be approached from the side.

Only accessories approved by the manufacturer or explicitly approved equipment may be attached or connected.

### **General**

The use of the MOTOMed is only permitted if the measures and safety instructions described in this manual are observed and none of the therapeutic contraindications listed here, or determined by the physician, are present.

Adjustments and changes, with the exception of the operation of the operating panel, are only permitted if the pedal or arm cranks do not move and the legs or arms are not inserted or not fixed.

The MOTOMed is suitable for environments in professional health care settings and a home health care environment.

### **Disclaimer**

The manufacturer and its distribution partners assume no liability for consequences of:

- improper, incorrect, unintended use
- disregard of this manual
- wilful damage or gross negligence
- over-intensive training, e.g. for competitive sports
- application contrary to the specifications of the responsible specialist or therapist
- mounting of unauthorised accessories

- repairs or other interventions on the MOTOMed by persons not authorised by the manufacturer
- use of a power cord other than the one supplied by the manufacturer to operate the MOTOMed
- use of a power cord other than the one supplied by the manufacturer
- connection of external devices to the MOTOMed
- connection of the patient remote control or the removable operating panel to external devices

## **Treatment goals**

Avoidance, reduction, improvement of (consequential) damage due to loss of movement or lack of exercise in the following main indications:

## **Indications (clinical pictures)**

- for neurological disorders affecting the musculoskeletal system such as infantile cerebral palsy, cerebral palsy, stroke, Parkinson's disease, multiple sclerosis, primarily with spastic components
- for neuromuscular disorders such as progressive muscular dystrophy
- for degenerative disorders such as osteoarthritis and following knee replacements
- for neurodegenerative disorders such as Alzheimer's disease
- for heart and circulatory disorders such as arteriosclerosis and high blood pressure
- for breathing disorders such as chronic obstructive bronchitis, chronic obstructive pulmonary disease (COPD)
- for autoimmune disorders such as chronic rheumatic disorders
- for patients in intensive care for immobile and multimorbid patients
- for patients who are seriously ill following traumatic brain injury
- for patients in the dialysis centre during dialysis

- for patients with lymphoedemas in the post-operative phase following cancer
- for patients with vascular diseases such as peripheral artery occlusive disease (PAOD)

## Contraindications

Contraindications resulting in the exclusion of a subject from the studies did not occur during the clinical evaluation.

On the basis of a risk analysis and many years of experience in the field of movement therapy, the following indications/symptoms must be discussed with the physician and therapist before beginning the training session:

- all acute febrile illnesses
- acute pain
- acute thrombosis
- recent fractures, recent joint injuries, recent fitting of joint replacement/prosthetics, recent cruciate ligament rupture, recent total knee and hip endoprosthesis
- osteoporosis in advanced stages (grades 2 and 3)
- pregnancy from 12 weeks onwards
- subarachnoidal haemorrhage (in the brain)
- signs of chest pain
- patients with known angina pectoris, threatened infarctions, cardiac arrhythmias and heart failure
- severe knee and hip arthrosis, stiffened joints, extreme muscle shortening, risk of a hip and shoulder dislocation (e.g. dislocated shoulder)
- high blood pressure (stage 2 according to WHO)

## Undesirable side effects

Training with the MOTOmed movement therapy device has given rise to no **undesirable side effects** and none are known.

### **Notes on the residual risk:**

The principle of the MOTOmed movement therapy device is based on the function of electric motors, which drive the cranks of the arm or leg trainer with defined forces. The manufacturer has taken extensive measures to ensure the electrical and functional safety of the MOTOmed, so that the residual risk is minimal if all safety instructions are observed.

It is important to note, however, that rotating cranks can cause injury if the user is negligent, fails to follow the safety instructions, or misuses the MOTOmed.

Users who are unable to personally implement the safety instructions or are unable to recognize and avoid hazardous situations themselves may only train under qualified supervision.

## Serious incident

### **Note according to Regulation (EU) 2017/745:**

If a serious incident in connection with the product should occur or could have occurred either directly or indirectly (e.g. temporary or permanent serious deterioration in the state of health of a user/patient), the manufacturer ([vigilance@motomed.com](mailto:vigilance@motomed.com)) and the responsible body within the member state in which the user and/or patient is located must be informed of this without delay.

CAUTION



Page 13

**When using the MOTOmed, be sure to observe the safety precautions listed in section 2.**



# Safety precautions

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## General information

Adjust the MOTomed training to the individual clinical picture. Training tips by the manufacturer or its distribution partners are not binding. We cannot specify exactly how you should use the MOTomed for the various diseases. This also applies to the details of the training functions, as the possible settings are dependent on age, height, individual fitness, postoperative resilience and general condition of the user.

The MOTomed should always be used for the first time under the instruction and supervision of specialized personnel. Prior to the first training, be sure to discuss the nature, extent, intensity, and timing of the training with the physician and therapist. When starting the device, also note the presets of the selected MOTomed training program.

Make sure that the lying position is correct during training. The bed or couch should stand in a straight line or at a right angle (MOTomed layson.la) to the MOTomed. The head part of the bed/couch should be at a slight angle.

The movement range (more bending or more stretching) of the knee and hip joints depends on the distance between the trainer unit and the user.

The distance between the user and the MOTomed should be selected dependent on the mobility of the joint. The user should start the training process with a short distance to the MOTomed in order to prevent overstretching and therefore locking of the knee joints. Only insert the legs in the foot shells in a lying position.

If you have too little grip with signs of paralysis or severe cramps (spasticity), the "Train Care" leg guide must be used for the legs and the quick foot fastening system "QuickFix" may be required along with forearm shells for the arms.

Make sure that the user understands the functions and operation of the MOTOMed and can independently operate and stop the MOTOMed during training via the removable operating panel or the patient remote control. Permanent supervision is otherwise required.

Unauthorised persons (visitors, assistants, etc.) must not make any changes to the bed, couch or MOTOMed during the training. After starting the device, reduce the speed if the health of the user does not allow MOTOMed training with a maximum speed of 20 rpm.

The hand grips, or the foot shells and calf shells of the leg guides, may generally come into contact with intact skin.

When using fastening straps, socks and/or shoes, wear long trousers or similar textiles. This avoids the direct contact of the skin with the foot shells or fastening straps and thus prevents bruises, skin irritations and abrasions.

Training is not recommended if there is a risk of skin abrasions, pressure points or other injuries that are dependent on the illness, foot position and adjustment of the leg movements. If the device is nevertheless used under these circumstances, the user must take appropriate safety precautions (insertion of buffer material, etc.) in consultation with the physician and therapist.



In the case of open wounds or the risk of decubitus (e.g. due to sensitive tissue or skin condition), especially on the body parts that are in contact with the therapeutic device, MOTOMed training is allowed only after consultation with the doctor and therapist, or at own risk of the user. The device manufacturer is not liable for injuries that may occur if these instructions are not followed.

There may be an increased health risk if the user is under the influence of alcohol, drugs or medicine. In this case, the use of MOTOMed is not recommended.

In case of pain, nausea, poor circulation, etc., stop training immediately and consult a doctor. The manufacturer or his sales partners do not assume any responsibility in case of incorrect or too intensive use by the user.

One-sided training, either with only one leg or arm or with large weight differences of the limbs, should initially only be performed in the presence of a caregiver. Only carry out one-sided training with a high braking resistance or using a counterweight provided by the manufacturer.

## **Arm/upper body training**

### **Safety precautions for upper limb ergometry:**

In children, bone stability is still relatively low, which can easily lead to fractures or so-called bulge fractures (incomplete fractures). To reduce the risk of such an injury, ensure that the wrist is well supported during upper limb ergometry.

Make sure that the hand, wrist and arm adjustments recommended by your clinic are always used.

Also make sure that the child remains seated as upright as possible and avoid turning of the forearm and wrist.

If the correct connection of the MOTOMed is not clear to you or if you have any questions, please contact our staff at

Page 79 MOTOMed Service Centre.

## Safety and technical information

The MOTOMed is a highly specialized motion therapy device which is not designed for use in high-performance sports and for making diagnoses. We recommend using approved and calibrated ergometers or treadmills for this purpose.

The indicated values only show a trend and give psychological feedback to the user.

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As an electrically powered medical device, the MOTOMed is subject to special precautions regarding EMC. The EMC instructions must therefore be observed during installation and commissioning.

Children are not allowed to train on the MOTOMed without supervision.

Keep unattended children away from the MOTOMed.

Keep animals away from the MOTOMed to avoid injury to the animal.

Train only when the MOTOMed has been switched on.

Do not alter the position and location of the MOTOMed during exercise or when the legs or arms have been inserted or attached.

**CAUTION****Risk of injury due to falling device**

Do not load the MOTOMed sideways. Do not load the hand grips and handles with the partial or total body weight (e.g. by supporting or pulling up). The hand grips must only be for holding firmly with the hands while exercising.

Climbing on the device is not permitted!

**CAUTION****Risk of injury from parts of the device moving inadvertently**

All adjustable elements are provided with an orange locking handle for securing in position. Make sure that there is no sudden unwanted movement of device parts when releasing the locking handles. Secure the positions set by activating the locking handles.

**CAUTION****Risk of injury due to rotating pedal cranks and moving parts of the device**

Do not make any mechanical adjustments to the MOTOMed while the pedal cranks are rotating.

When operating the buttons on the operating panel, also pay attention to the rotating pedal cranks.

Be careful not to insert your fingers between the housing and the crank while the pedal cranks are rotating.

Never reach into a piece of equipment that moves!



If the MOTOMed cannot be switched off with the red stop button or the On/Off button, immediately reduce the speed to 1 rpm and end the training or disconnect the mains cable from the socket. A new training is only possible if the fault has been eliminated.



Portable and mobile RF communication devices, such as mobile phones or amateur radio stations, can affect the function of the MOTOMed. Corresponding devices are marked with the adjacent symbol and can be thus identified.

CAUTION



**Danger of overheating the housing parts**

Parts of the housing may overheat if permanently exposed to direct sunlight, so place the MOTomed appropriately.



The surface temperature of the operating panel housing is up to 13 °C above the ambient temperature due to the heat dissipation of the electronic components. Even if not exposed to direct sunlight, the buttons of the operating panel temperatures may reach up to 53 °C at the maximum permissible ambient temperature (40 °C). Users who may be harmed by brief contact with this temperature, should take appropriate measures for protection.

CAUTION



**Danger of damage to motor and electronics**

Do not actively press against the passively specified rotary motion.

CAUTION



**Risk of damage to the device**

When using the wired patient remote control/removable operating panel, make sure that the cable is not in the area close to the rotating foot shells or hand grips and is instead fed along the bed. It is particularly important that you ensure that the cable does not become stretched when using the patient remote control/removable operating panel as it could find its way into the rotation range of the foot shells or hand grips.

WARNING



**Risk of injury due to electric shock**

Never operate the MOTomed with the panel removed. Never open the housing or reach into the MOTomed with metal objects.

Opening the MOTomed is only permitted for persons with corresponding specialist training. Before opening the MOTomed, always unplug the power plug!

Never operate the MOTomed in a wet or humid environment.

The MOTomed must not come into contact with water or steam.

If any object or liquid enters the MOTomed, have it checked by qualified personnel before continuing to use it.

Make sure that no oil gets into the drive parts.

Repairs should only be carried out by or under the direction and supervision of professionals who, by virtue of their training, knowledge and experience, are capable of assessing repairs and identifying potential effects and risks.

The MOTOMed must not be altered without the manufacturer's permission.

Only original parts and original accessories may be used for the attachment or conversion.

In commercial facilities, the accident prevention regulations of the employer's liability insurance association for electrical installations and equipment must be observed.

**WARNING**



**Risk of injury due to packaging material**

Do not leave the packaging material lying carelessly around. Plastic films, plastic bags, styrofoam parts, etc. can be dangerous if used as a toy by children.

If you should pass on the MOTOMed to other persons, please enclose this instruction manual.



### **Instructions for visual inspection of the MOTOMed before starting the training**

Your MOTOMed is a high quality medical device and is designed and manufactured according to the highest medical and safety standards. In accordance with the legal requirements, the manufacturer of a medical device has to give the user a multitude of safety instructions, which can be found on the following pages.

Please note that the large number of safety instructions does not imply that using the MOTOMed carries a higher risk than other appliances used in everyday life. Rather, most instructions are a consequence of adherence to the particularly strict regulations applicable to medical devices to guarantee the safety of users and patients, which we are happy to follow and implement conscientiously in the interests of our customers.

Even if some instructions may seem obvious, we would still like to ask you to read the following pages carefully and to strictly follow the instructions, so that your MOTOMed remains a valuable aid that provides the highest level of safety for a long time to come.

Please carry out the visual inspection before starting the training to ensure that the device is in proper condition. The checks described below are done in a few moments.

Test step	Measures if errors are detected during the visual inspection	Reason for the test step
<b>1. Control of the power supply and the PSU</b>		
<p>Is the power cord free of damage, e.g. abrasions, pressure points, porous spots or kinks?</p>	<p>The power cord must be replaced if signs of damage are visible.</p> <p>Repairing the damaged power cord is not permitted, so it must be replaced immediately with an original RECK spare part, which has been tested and approved for the MOTOMed. For this, contact the service partners of RECK.</p>	<p>If the power cord is damaged, there is a risk of electric shock, either if the damaged area is touched directly or if the damaged area comes into contact with the MOTOMed housing.</p> <p>Damaged power supply cables must therefore not be used under any circumstances!</p>
<p>Is the power supply cord laid out so that:</p> <p>a) it does not have any contact with the device?</p> <p>b) it is not overrun or crushed by other objects/devices?</p> <p>c) it cannot be caught up by the cranks?</p> <p>d) it cannot otherwise be mechanically damaged?</p> <p>e) nobody can trip over the line?</p> <p>f) it is freely accessible at all times?</p>	<p>Never use power cords which have bare wires or damaged insulation!</p> <p>The power cord must be laid in such a way that nobody can trip over it or the cord cannot be mechanically damaged in any way.</p> <p>The power cord must be routed so that it is freely accessible at all times.</p>	<p>If the power cord is damaged, there is a risk of electric shock, either if the damaged area is touched directly or if the damaged area comes into contact with the MOTOMed housing.</p> <p>In the event of a malfunction of the MOTOMed, the supervising person must be able to disconnect it from the mains without hindrance.</p>
<b>2. Control of the device status</b>		
<p>Are the device and the operating panel and the accessories used free of visible damage?</p>	<p>Check whether defective parts can be repaired or whether they need to be replaced.</p>	<p>If parts of the device are damaged, their safe function can no longer be guaranteed. If there is recognizable damage (cracks, demolition of housing parts) on the operating panel, it must be replaced.</p>



Test step	Measures if errors are detected during the visual inspection	Reason for the test step
Is the surface coating of the hand grips or foot shells undamaged?	Have the hand grips or foot shells replaced by the manufacturer's service department.	The PVC coating of the hand grips or foot shells offers the user additional protection against electrical voltages.
Is the device free from contamination?	Contaminants should be removed before using the device according to the care instructions.	Removing contaminants reduces the risk of transmitting pathogens.
Are optional accessories suitable and appropriate for the user?	For example, if the optional arm cuffs are too small or too large, we ask you to replace them with suitable accessories. Accessories should be selected and used so that chafing on the skin is avoided for example.	Accessories that have been incorrectly selected can in some cases not fulfil their intended purpose or lead to a risk of injury. This must therefore be considered before starting the training. For users who cannot perform this assessment independently, the caregiver must make the assessment.
Is the user wearing appropriate clothing for the training?	Measures must be taken to ensure that wide trousers, long shawls, scarves, long collars, jewellery, long hair, etc. cannot wrap around the pedals (especially when using the arm trainer). Do not wear shoes with laces. Tie up long hair appropriately before using the arm/upper body trainer or protect it with a head covering.	Inappropriate garments can get wound around the foot shells/cranks and cause injuries. If garment or hair gets caught in the cranks, immediately press the red Stop button or the On/Off button so that the movement of the cranks is interrupted and the detected parts can be released without further danger.
Is the device set up and adjusted so that the intended movements can be carried out without encountering other objects such as bed frames?	Position the MOTOMed in such a way by the bed or couch with height and distance adjustment that no collision can occur.	To exclude any risk of injury, the MOTOMed should be positioned and adjusted so that the user does not collide with other objects in the area during training.

Test step	Measures if errors are detected during the visual inspection	Reason for the test step
Are all orange locking handles for setting the height and distance fully tightened?	Check the locking handles for height adjustment and horizontal distance adjustment and tighten them so that the setting on the MOTomed cannot change by itself.	Loose locking handles may cause parts to detach or partially come away from the device during exercise. Should parts of the device become loose during the training, the training should be stopped immediately by pressing the Stop button and the loose part properly fastened.
<b>3. Checking the optimal training conditions</b>		
Is the device on a level surface and can it not wobble, tip over or fall over?	Choose a suitable location so that the device cannot wobble, tip over, or fall over while exercising. Make sure that the ground fixation is locked with a foot pedal and all 4 stop feet are on the ground.	The device must not wobble, tilt or fall over, as this results in a risk of injury to the user/patient.
Does the floor surface provide sufficient adhesion so that the device cannot move?	Select a non-slip surface to ensure that the device stands securely.	The MOTomed can shift if it is standing on a smooth surface (tiles, laminate, parquet, etc.).
Can the cranks/foot shells move freely and is there no danger of the cranks getting caught and winding other items during the subsequent training session?	Please remove any objects around the cranks that could later get caught up by the cranks or interfere with the crank movement. Make especially sure that the cable of the removable operating panel or the patient remote control for example cannot get caught in the cranks.	In the case of rotating parts driven by motors, special care must be taken to ensure that nothing can get caught in the rotating parts. Here the same precautions must be taken as for example with kitchen appliances or hand drills.
If the user is training the arm/upper body, are the legs/arms of the user securely fixed in the foot shells or forearm shells?	Fix the legs/arms as described in the section "Preparation" (page 43 and 44).	The legs/arms should not move inadvertently from the foot shells or forearm shell during training.

Test step	Measures if errors are detected during the visual inspection	Reason for the test step
<p>Are other mains-operated electrical devices that are not approved as medical devices within reach of the patient?</p>	<p>Remove all other electrical devices that are not approved as medical devices from the reach of the user (patient area).</p>	<p>If other mains-powered electrical devices are touched by the patient during training, protection against electric shock can no longer be ensured by the high protection insulation of the MOTomed, but by the properties of the other device which the user has touched.</p> <p>To ensure that the patient is effectively protected during training by the high medical device safety standard of MOTomed, no mains-connected devices, which are not approved as medical devices, may be within the reach of the user.</p>



- 28 **Structure, initial commissioning**
- 29     Set swivelling stop
- 29     Fit hand grips
- 30     Fit safety foot shells
- 30     Fit removable operating panel (product configuration)
- 31     Set track width on the parallel chassis
- 32     Fine adjustment of the running rails

### 33 **Transport**

### 35 **Positioning**

- 35     Moving up to the bed/couch
- 36     Expandable chassis
- 37     Ground fixation
- 38     Lateral moving up to the bed/couch
- 40     Knee bending adjustment
- 40     Knee bending adjustment with adjusting wheel  
    (product configuration)
- 42     Leg guide "TrainCare" (accessories)
- 43     Preparation leg training
- 44     Preparation arm/upper body training

### 46 **Commissioning**

### 46 **Standby**

## Structure, initial commissioning

### Scope of delivery:

- MOTOmed layson  
consisting of expandable or parallel chassis, vertical column and extension arm with operating panel
- Power supply cable, length 5 m
- Cable reel for cable, length 2.9 m (for models with removable operating panel)
- Hand grips with quick change technology (for MOTOmed layson.la)
- Safety foot shells with quick change technology (for MOTOmed layson.la)
- User remote control with cable
- MOTOmed layson edition user manual



The settings and installation work described below may only be carried out by qualified specialist staff!



As an option the MOTOmed layson can be supplied partially dismantled and it then has to be assembled on site in accordance with the construction instructions supplied.

A cable tie ① is attached to the lifting column of the assembled (Fig. 4.1) and partially assembled (Fig. 4.2) variants of the MOTOmed layson to secure it during transportation. This prevents inadvertent extension of the lifting column, even if a locking handle is released ②.

Make sure that the locking handle ② is tightened and only then remove the cable tie ①.

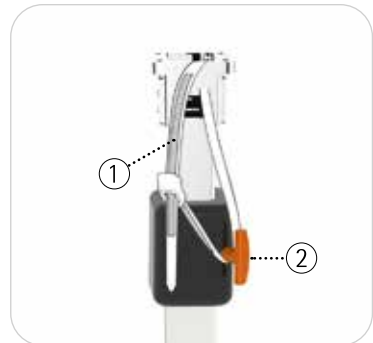


Fig. 4.1, 4.2

## Set swivelling stop

The MOTomed layson.la and the MOTomed layson kidz.la are delivered in a special transport position. The device must be placed in the training position prior to use.

Turn the locking screw ① on the swivel joint ② of the side arm ③ right out with an SW4 Allen key and retain it. Release the locking handle ④ and move the training unit ③ out of the transport position so that it is straight and in alignment with the chassis of the MOTomed. Turn the locking screw ① all the way in again.



Fig. 4.3, 4.4

## Fit hand grips

With the MOTomed layson.la the hand grips are supplied unfitted. They must be fitted prior to training.

Page 44 For this purpose follow the description '*Preparation arm/upper body training*', '*Fit hand grips*'.

## Fit safety foot shells

With the MOTOMed layson.la and the MOTOMed layson kidz.la, the safety foot shells are supplied unfitted. They must be fitted prior to training.

Page 43 For this purpose follow the description '*Preparation leg training*', '*Fit foot safety shells*'.

## Fit removable operating panel (product configuration)

See Fig. 4.5 The removable operating panel ① is supplied unfitted. For commissioning of the device it is essential that the operating panel holder ② is fitted.

Take the cover disc which is provided ③ out of the separate bag and push it onto the operating panel holder ②.

Insert the RJ45 plug which protrudes out of the device ④ into the internal socket of ⑤ the operating panel holder from below.

Ensure that the cover disc is placed ③ correctly before inserting the operating panel ① vertically into the fitting aperture from above.

You must ensure that the wire ⑥ is not kinked or jammed.

Take the clamping screws provided ⑦ out of the separate bag. For fixing in place turn both the clamping screws ⑦ with an SW 4 Allen key so that the operating panel ① can still just about turn.



Fig. 4.5, 4.6



**Note:**

If the operating panel still rotates too easily, the clamping screws will have to be tightened. During this process make sure that the operating panel can still be rotated as before.

This also applies for the *fixed operating panel* used as standard!

**Set track width on the parallel chassis**

If the track width of the MOTomed chassis is too small to go under the bed/couch, this can be increased by a maximum of 30 cm with the Allen keys SW 4, SW 5 and SW 6.

**CAUTION****Danger of running rails moving inadvertently**

Make sure that the running rails do not suddenly move unexpectedly when opening the fixing screws!

See Fig. 4.7, 4.8

Pull the protective cap ① upwards and away.

Carefully tilt the chassis through 90° so you can reach the fixing ② screws. Release them with the appropriate Allen keys.

See Fig. 4.9

Pull the running rails ③ out as far as necessary.

**CAUTION****Danger of property damage**

Do not pull the running rails out more than 15 cm on each side.

**No pull-out safety device present!**

See Fig. 4.8

Re-tighten all fixing screws ② and put the protective cap ① back in place.

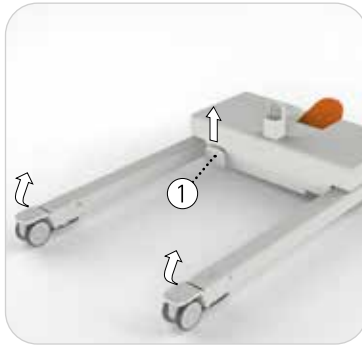


Fig. 4.7, 4.8

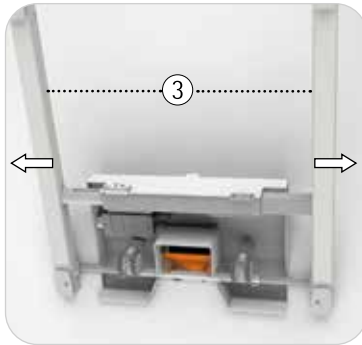
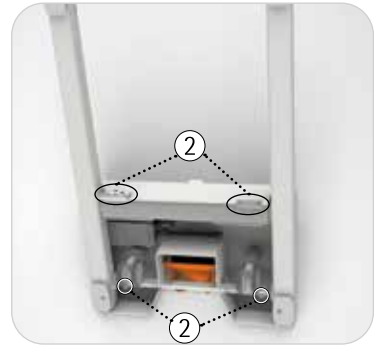


Fig. 4.9

### Fine adjustment of the running rails

If the chassis should remain unstable following adjustment of the track width or one of the rollers is not on the ground, fine adjustment of the running rails will be necessary.

See Fig. 4.10, 4.11 Pull the protective cap (1) upwards and away. Release the two lower fixing screws (2) with an SW 6 Allen key.

#### *Upwards adjustment of the running rail:*

See Fig. 4.11 Turn the adjustment screw (3) in a clockwise direction with an SW 6 Allen key and the adjustment screw (4) anticlockwise to the same extent.

### *Downwards adjustment of the running rail:*

Turn the adjustment screw (4) in a clockwise direction and the adjustment screw (3) anticlockwise to the same extent.

Once the chassis is stable, re-tighten both fixing screws (2) and then the adjustment screws (3) and (4).

Put the protective cap (1) back in position.

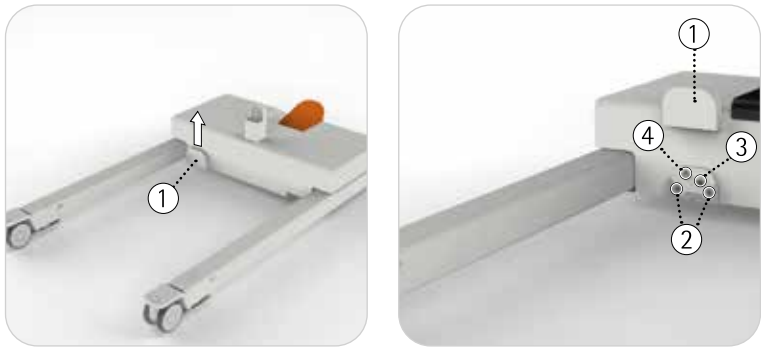


Fig. 4.10, 4.11



With the *expandable chassis* feature you can adjust the track width without any tools. Fine adjustment of the running rails can be made as described previously.

## Transport

The MOTomed is equipped with four transport wheels, enabling easy transport within a building.

To avoid damage to sensitive surfaces, the transport wheels are provided with a rubber running surface.

See Fig. 4.12 Before transport, remove the mains connection cable (1) completely. Rewind the mains connection cable completely and hang it on one of the two (2) handles. To transport the MOTomed you release the ground fixation with the foot pedal (3) and hold the MOTomed at both transport handles. It is now possible to push the MOTomed.

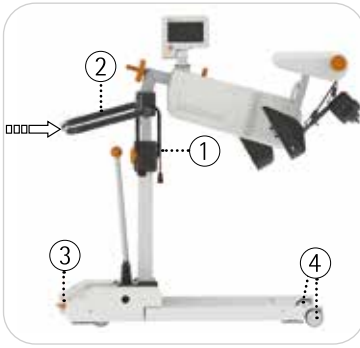


Fig. 4.12

When crossing thresholds, make sure that you push the MOTomed in front of yourself and that the transport wheels ④ roll over the threshold simultaneously (in parallel).

**CAUTION**



**Danger of property damage**

If the MOTomed is equipped with an expandable chassis, transport may only occur with the running rails in a parallel position so that tilting of the MOTomed and 'collision' with the running rails is prevented. With the MOTomed layson.la, the training unit must be aligned in the direction of travel and in line with the running rails.

**CAUTION**



**Danger of property damage due to vibrations**

Do not transport the MOTomed on uneven ground (e.g. paving stones). This may cause damage to the electronics or housing of the MOTomed.

## Positioning

### Moving up to the bed/couch

Move the MOTOMed up to the foot of the bed or couch. For height adjustment, release the locking handle ① on the vertical column and bring the training unit ② to a suitable height so it can move over the edge of the bed.



The side arm moves upwards independently due to the action of the integral gas spring. If necessary you can encourage this movement by pulling the handle ③ slightly upwards. Push the rear end of the handle downwards to lower the MOTOMed.

#### CAUTION



#### Danger of property damage due to tilting

When approaching the bed/couch with the MOTOMed layson.la, make sure that the vertical lifting column is as close to the foot of the bed/couch as possible. The MOTOMed stands more stably in position as a result of this and will not tilt in the event of e.g. severe spasticity.

Push the MOTOMed up to the bed so that the foot shells ④ are located above the user's shins. The training unit should be positioned centrally to the bed or user. Bring the foot shells to the bed at the desired height and lock the locking handle ① once again. Make sure that the foot shells do not touch the mattress in their lowest position.



Fig. 4.13

## Expandable chassis

The optional expandable chassis on the MOTOMed makes it possible to adjust the chassis of the bed quickly and easily.

**Note:** The ground fixation must not be activated when adjustment of the expandable chassis is taking place!

See Fig. 4.14 To do this pull the operating lever ① slightly backwards to release it from its locked position.

See Fig. 4.15, 4.16 The running rails are expanded outwards thanks to lateral movement of the operating lever to the left. Movement to the right moves the running rails inwards. Release the operating lever following adjustment (it springs forward on its own) and let it lock into one of the locking positions provided.

**Note:** Inward expansion of the running rails is *not* possible on the MOTOMed layson.la models. Do *not* move the operating lever forcefully over the stop to the right!

Activate the foot pedal for ground fixation ② prior to starting training.

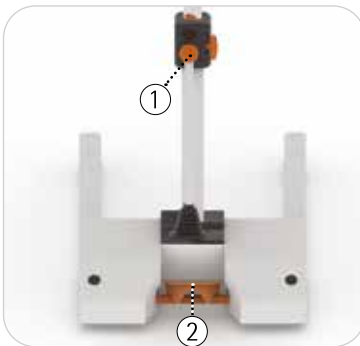


Fig. 4.14

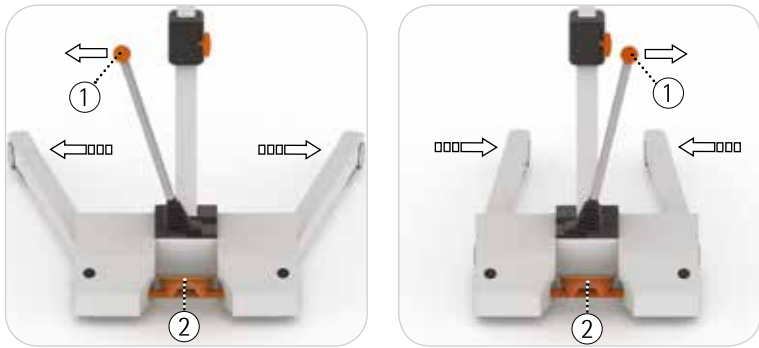


Fig. 4.15, 4.16

### Ground fixation

Activate the ground fixation by placing the complete foot on the foot pedal and pressing its front half ① downwards. This guarantees a high level of stability during training.

To release the ground fixation, place the complete foot on the foot pedal and press the rear half ② downwards.

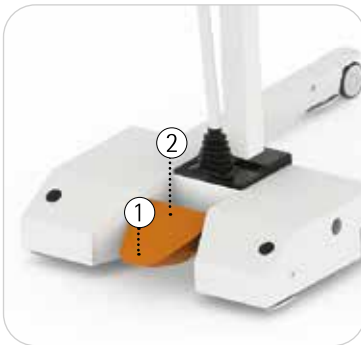


Fig. 4.17

### CAUTION



#### Danger of property damage

Prior to activating the ground fixation make sure that no objects (e.g. cables) are located under the legs and that the MOTomed is not located over a threshold. Failure to heed this can result in damage to the ground fixation.

**CAUTION**



**Risk of injury!**

Neither the height adjustment nor the ground fixation may be operated while training is in progress.

**Lateral moving up to the bed/couch**

The MOTomed layson.la can be moved through 90° in both directions thanks to the training unit's swivelling facility so it can also be brought up to the bed/couch sideways. Swivel the training unit into the desired position before moving it up to the bed.

**CAUTION**



**Danger of property damage due to tilting**

Do *not* move the MOTomed layson.la sideways up to the bed/couch if the user is loading the device with his/her whole bodyweight due to severe spasticity for example. This can result in the MOTomed becoming unstable.

See Fig. 4.18

Release the locking handle ② and swivel the training unit ① in the desired direction until it comes to a stop. Lock the locking handle once again.

Move the MOTomed up to the bed/couch sideways. Push the MOTomed up to the bed so that the foot shells are located above the user's shins.

Set the appropriate height where necessary by releasing the locking handle ③ on the vertical column and then bringing the foot shells to the bed at the desired height. Lock the locking handle ③ once again. Make sure that the foot shells do not touch the mattress in their lowest position.



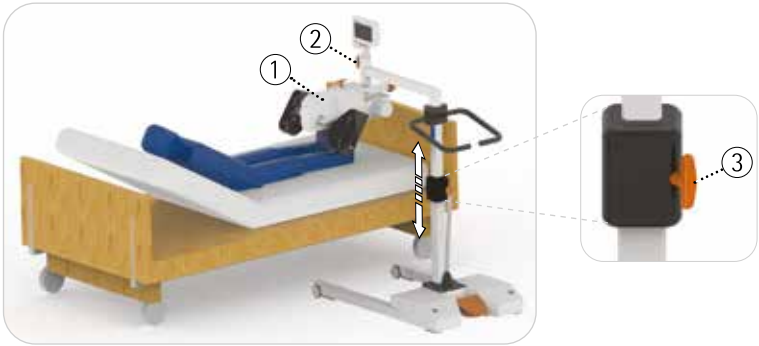


Fig. 4.18

**Note:** The training unit must again be swivelled and locked in the direction of travel if the MOTomed layson.la is to be transported.

Release the locking handle (2) and swivel the training unit (1) in the direction of travel. Lock the locking handle once again.



The exact positioning occurs automatically while you tighten the locking handle. There is no stop for alignment of the training unit in the direction of travel.



Fig. 4.19

## Knee bending adjustment

CAUTION



### Risk of injury!

The training unit *does not have* an automatic stop function and it must be secured against sudden lowering following release of the locking handle. The training unit will not fall down as it has an end stop.

Release the locking handle prior to inserting the legs ① and hold the training unit firmly with the other ② hand.

Push the training unit into the desired position in line with the arrows shown. Please bear in mind that the user's knee joints should always be slightly bent during the training process (with the distance of the foot shell to the user at its greatest). Lock the locking handle once again.

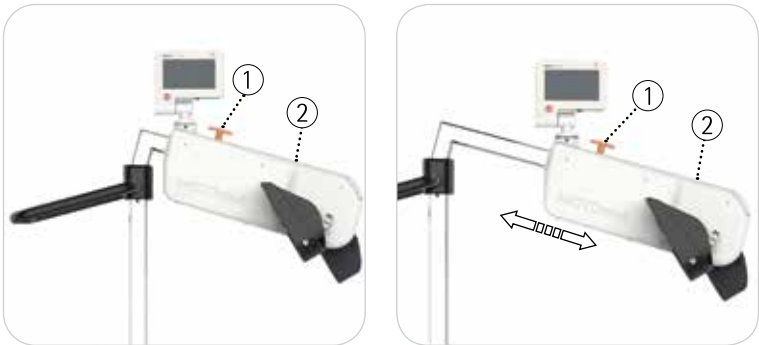


Fig. 4.20, 4.21

## Knee bending adjustment with adjusting wheel (product configuration)

The knee bending adjustment has an adjusting wheel as an *option* with the MOTomed layson.l and MOTomed layson kidz.l while this comes as *standard* with the MOTomed layson.la and MOTomed layson kidz.la. This means you can adjust the knee bend during the training session as well.

See Fig. 4.22, 4.23 Release the locking handle ①. Turning the adjusting wheel ③ enables you to bring the training unit ② into the desired position. Please bear in mind that the user's knee joints should always be slightly bent during the training process (with the distance of the foot shell to the user at its greatest). Lock the locking handle once again.

**CAUTION**



**Danger of property damage**

If the training unit is fully retracted, do not continue to rotate the adjusting wheel forcefully as this could cause damage to the internal mechanism. Make sure that the locking handle is released if you wish to operate the adjusting wheel.

MOTOmed layson.l

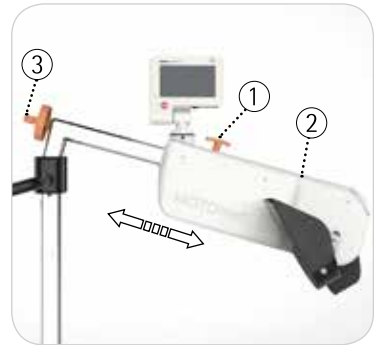
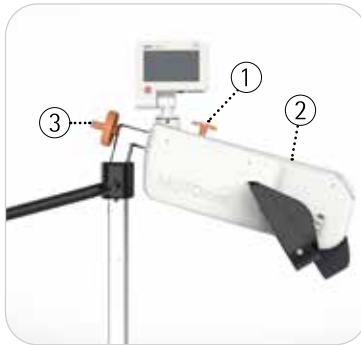


Fig. 4.22, 4.23

MOTOmed layson.la

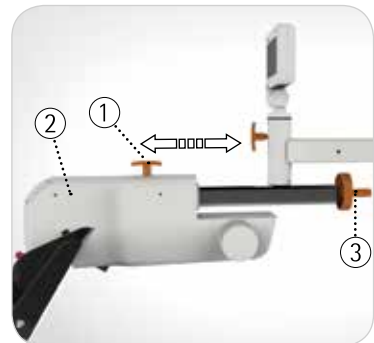
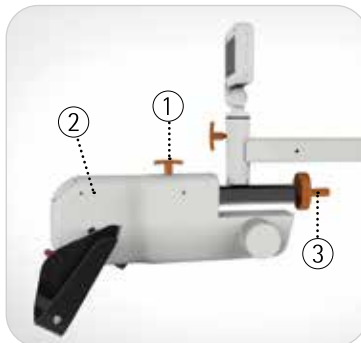


Fig. 4.24, 4.25

## Leg guide "TrainCare" (accessories)

See Fig. 4.26, 4.27

If the MOTomed is to be equipped with the "TrainCare" leg guide, this must be inserted into the aperture on the ① training unit. For this purpose open the cover plate carefully ② until it comes to a stop and insert the rectangular profile ③ of the "TrainCare" into the aperture provided until it comes to a stop.

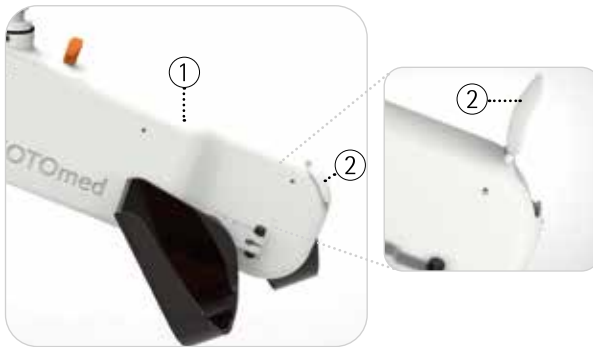


Fig. 4.26

Hang the hooks of the expanders ④ on the attachments ⑤ provided on the calf shells.



Fig. 4.27, 4.28

## Preparation leg training

### Fit safety foot shells

If the hand grips are attached to the MOTomed layson.la, replace these with safety foot shells. The quick change technology enables tool-free replacement.

Open the safety bracket ① and take the hand grips ② away.



Fig. 4.29

Attach the safety foot shells ④ and close the safety bracket ⑤ again.



Fig. 4.30

Place the feet in the safety foot shells ① and also in the calf shells ② of the "TrainCare" leg guide if fitted. Fix the feet in the safety foot shells with the fixing straps provided and the lower legs in the calf shells.

Please bear in mind that the user's knee joints should always be slightly bent during the training process (with the distance of the safety foot shell to the user at its greatest).

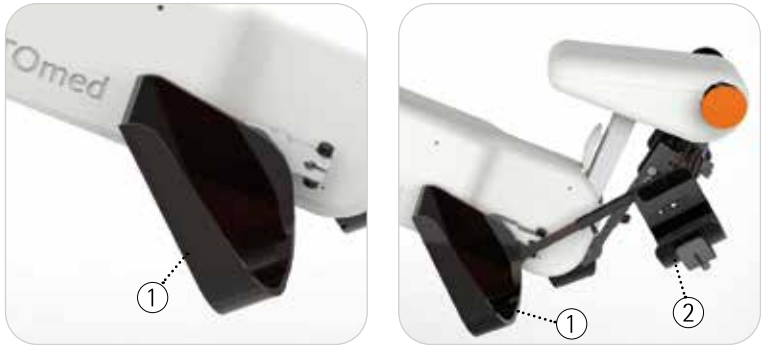


Fig. 4.31, 4.32

## Preparation arm/upper body training

### Fit hand grips

If the safety foot shells are attached to the MOTomed layson.la, replace these with hand grips. The quick change technology enables tool-free replacement.

See Fig. 4.33 Open the safety bracket ① and take the safety foot shells ② away. If the leg guide "TrainCare" is attached, remove the hooks ③ of the expanders from the attachments on the calf shells ④ and remove the safety foot shells together with the calf shells.



Fig. 4.33

If the *leg guide* "TrainCare" is attached, pull the rectangular profile ⑤ out of the aperture and place the "TrainCare" at a secure location.

Close the cover plate on the ⑥ training unit.  
Attach the hand grips ⑦ and close the safety bracket ⑧ again.



Fig. 4.34

Guide the hands onto the hand grips. Fix the hands in position with appropriate accessories if necessary (e.g. *wrist cuff, forearm shells*). Please bear in mind that the user's elbows should always be slightly bent during the training process (with the distance of the hand grips to the user at its greatest).

## Commissioning

After a long journey, allow the MOTomed to stand at room temperature for at least 3 hours before first use.

See Fig. 4.35 You can fold the operating panel out until it comes to a ① stop, or incline and swivel it to a position suitable for you.



Fig. 4.35

## Standby

See Fig. 4.36 First of all connect the power cord ① to the IEC connector ② to the lower right on the chassis of your MOTomed. Make sure that the connection is secure. Next, insert the mains plug ③ of the power cord ① into a power outlet in your room. The power plug ③ and the IEC connector ② must be freely accessible at all times so that the MOTomed can be connected and disconnected without any obstacles.



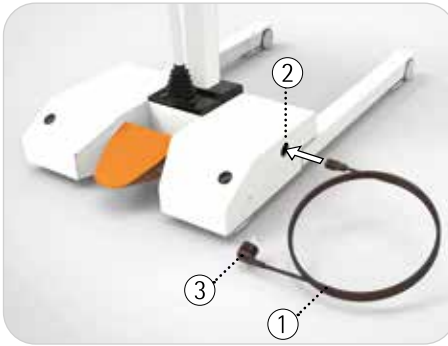


Fig. 4.36

The MOTomed is now in standby mode.

You will recognize this by the green LED indicator (4) on the operating panel.

Press the 'On/Off' button (5) to turn on the MOTomed. The MOTomed is ready for operation no later than 30 seconds after switching on. The main screen appears. Press the 'On/Off' button (5) again to switch off the screen.

The MOTomed is now in sleep mode. To put the MOTomed completely into standby mode, press the 'On/Off' button (5) for at least 3 seconds.

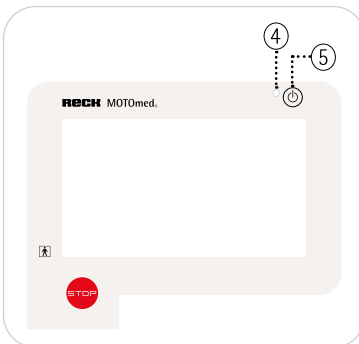


Fig. 4.37

To save energy, the screensaver will appear 15 minutes after the end of the training session or after the last input.

See Fig. 4.37 It can be reactivated ⑤ via the 'On/Off' button. If no action takes place, the MOTomed moves to standby mode after a further 15 minutes.

The MOTomed is designed for continuous standby operation. Unplug the power cord when carrying out repair, cleaning or transport tasks to ensure complete interruption of the power supply.

50 **Operating panel**

- 51 Rotating operating panel with user remote control
- 52 Removable operating panel with user remote control
- 53 Activate interface for user remote control

56 **Training mode**

- 56 Free training
  - 56 MOTOMed layson.l/layson kidz.l/layson.l dia
  - 57 MOTOMed layson.la/layson kidz.la/layson.la prof
  - 58 Active/passive training
  - 58 Motor speed
  - 58 Resistance

## Operating panel

Use the 'On/Off' button ② to switch your MOTomed on and off. You can interrupt the training at any time by pressing the red 'Stop' button ③. The various training modes can be selected via the touchscreen ④ and this can also be used to access training data or make adjustments. The corresponding selection possibilities are largely self-explanatory.

On the underside of the housing there is ① a USB interface ⑤, a serial interface ⑥ and the interface for the user remote control ⑦. A memory stick can be connected to the USB interface ⑤. This is for storing training data and for software updates.



Fig. 5.1

### CAUTION Risk of damage to the device



Only accessories approved by RECK may be connected to interface connections on the operating panel.

### Rotating operating panel with user remote control

See Fig. 5.2 The MOTomed is equipped with an operating panel ① which you can fold open until it comes to a stop or tilt it to a position suitable for you. It is possible to rotate the operating panel through 235°, which means that operation from both sides of the bed/couch is feasible.

With the operating panel there is a user remote control ②, which the patient can use to stop the training session independently at any time. The interface must be activated in the settings so that the user remote control ② can be used.

Page 53 For this purpose follow the description '*Activate interface for user remote control*'.



Fig. 5.2, 5.3

#### CAUTION



#### Risk of damage to the device

When using the user remote control, make sure that the cable is not in the area close to the rotating foot shells or hand grips and is instead fed along the bed. It is particularly important that you ensure that the cable does not become stretched when using the user remote control as it may find its way into the rotation range of the foot shells or hand grips.

#### Removable operating panel with user remote control

See Fig. 5.4, 5.5 People undergoing training can operate the MOTOméd themselves with models with a removable operating panel ①.

With the operating panel there is a user remote control ④, which the patient can use to stop the training session independently at any time.

The interface must be activated in the settings so that the user remote control ④ can be used.

Page 53

For this purpose follow the description '*Activate interface for user remote control*'.

Take the operating panel ① away from the operating panel ② holder. The cable can be pulled out a ③ maximum of 2.9 m via the cable reel.



Fig. 5.4, 5.5

#### CAUTION



#### Risk of damage to the device

When using the removable operating panel/user remote control, make sure that the cables are not in the area close to the rotating foot shells or hand grips and are instead fed along the bed. It is particularly important that you ensure that the cables do not become stretched when using the removable operating panel/user remote control as they may find their way into the rotation range of the foot shells or hand grips.

See Fig. 5.6

If the removable operating panel ① is no longer required, put it back on the operating panel holder ②. The operating panel fixes itself in place there magnetically. Press the button ③ on the cable reel ④ and let the cable roll up completely.



Fig. 5.6

### Activate interface for user remote control

The associated interface must be activated beforehand so that the user remote control can be used.



The setting of the interface for user remote control remains saved even when the MOTomed is restarted.

If the interface is activated, the training can only be started if the user remote control is connected.

The interface must be deactivated once again if the user remote control is no longer to be used.

See Fig. 5.7, 5.8 Connect the user remote control (2) to the associated interface (3) on the operating panel via the cable (1).



Fig. 5.7, 5.8

Press the 'settings' button on the home screen ①.

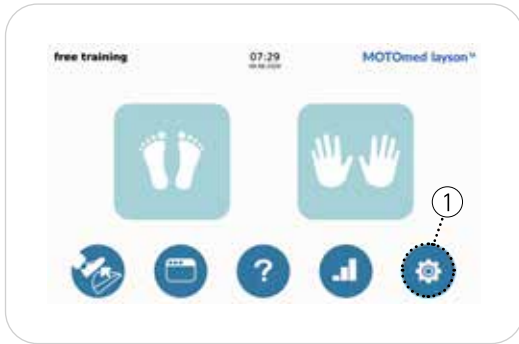


Fig. 5.9

Select the button 'interface' ② and then the button 'user remote control' ③.



Fig. 5.10





Fig. 5.11

Press the 'on' ④ button and confirm the entry with ✓.

The interface for user remote control is thereby activated.

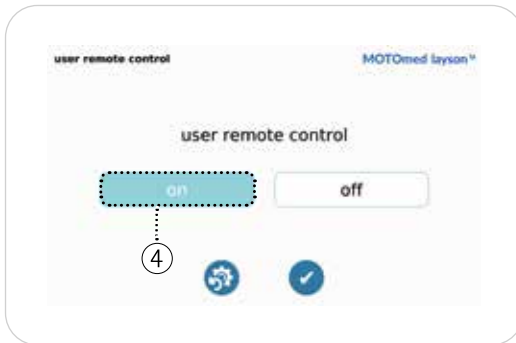


Fig. 5.12

## Training mode

### Free training

Press the 'On/Off' button on the operating panel to turn on your MOTOMed.

The MOTOMed starts up and goes into standby mode.

The home screen appears.

## MOTOmed layson.l/layson kidz.l/layson.l dia

The button for the leg trainer appears on the home screen.

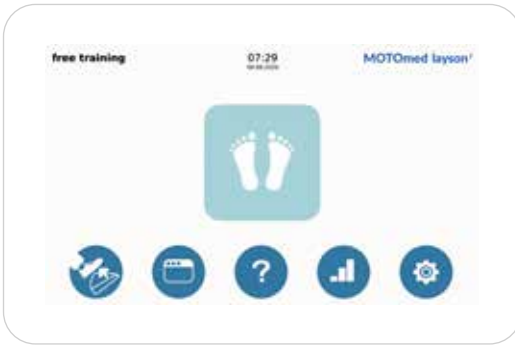


Fig. 5.13

The training session starts after activating the leg trainer button. The foot shells will now slowly start moving at the set passive speed.

### Testing user remote control

With the user remote control connected ①, check its function by pressing the 'Stop' button ②. If the training is stopped, the user remote control is active. The training can be restarted by pressing the 'Start' button ③.



Fig. 5.14

## MOTOmed layson.la/layson kidz.la/layson.la prof

The buttons for the leg trainer and arm/upper body trainer appear on the home screen. The buttons can each be selected directly.

### Note:

Page 43 The safety foot shells must be fitted prior to selection of the leg trainer. For this purpose follow the description *'Preparation leg training', 'Fit safety foot shells'*.

Page 44 The hand grips must be fitted prior to selection of the arm/upper body trainer. For this purpose follow the description *'Preparation arm/upper body training', 'Fit hand grips'*.

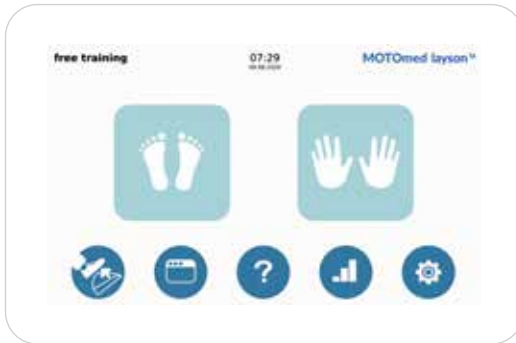


Fig. 5.15

The training session starts after activating the leg or arm/upper body trainer button.

The foot shells or hand grips will now slowly start moving at the set passive speed.

Page 56 If the user remote control is connected, follow the description *'Testing user remote control'*.

### CAUTION




### Risk of injury due to rotating pedal cranks

Do not touch the foot shells or hand grips while the pedal cranks are rotating.


### Active/passive training


The user can continue to move passively (passive training) with the motor, or he/she can start to move actively (active training) at any time.

### Motor speed


In passive training mode, you can change the speed from 1-60 rpm with the button .

### Resistance

In active training mode you can change the resistance from 0-20 with the button .

See Fig. 5.1 You can interrupt the training at any time by pressing the red 'Stop' button  on the operating panel.

You can access the home screen by pressing the button .

You can go back one step by pressing the button .

- 60 **Leg guide "TrainCare"**  
Order-No. 261.500 "TrainCare", Order No. 261.502 "TrainCare kidz"
- 62 **Quick foot fastening system "QuickFix"**  
Order No. 265.004
- 63 **Docking station for removable operating panel**  
Order No. 261.523
- 63 **Wrist cuff**  
Order No. 562.000 size L, Order No. 562.030 size M,  
Order No. 562.020 size S
- 64 **Tetra hand grips with quick change technology**  
Order No. 555.200
- 64 **Vertical hand grips with quick change technology**  
Order No. 557.200
- 65 **Ergo hand grips with quick change technology**  
Order No. 372.200
- 65 **Forearm shells with quick change technology**  
Order No. 356.200
- 66 **Hook grip**  
Order No. 567.000

## Leg guide "TrainCare"

The "TrainCare" leg guide ① with calf shells ② guarantees secure positioning of the lower leg and prevents unintended sideways movement. Overstretching and locking of the knee joints is also prevented.



**The "TrainCare" leg guide is essential for paralysed and unconscious users.**



Fig. 6.1

The ② radial adjustment attached to the calf shells ③ can be set individually for the right or left side.

The radial adjustment can be set in such a way that the user has the legs held in the best possible way during training with the MOTomed. The legs are thus prevented from slipping sideways.

see Fig. 6.2, 6.3 Stop the movement of the MOTomed to set the radial adjustment ③. Release the two locking screws attached to the rear ④. Set the angle of the radial adjustment on both sides and then re-tighten the locking screws.

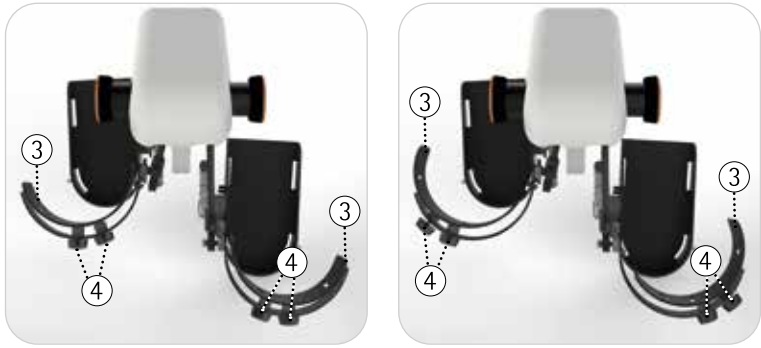


Fig. 6.2, 6.3

Prior to starting the MOTomed, check whether the set angles provide the user's legs with sufficient support. Lateral evasive movement of the legs should be prevented.

The lifting force of the "TrainCare" leg guide can be set independently for each leg. A stronger or a weaker lifting force may be required depending on the position of the user in the bed or the weight of the legs.

See Fig. 6.4, 6.5 To increase the lifting force, wind the expanders ① by turning the handles ② so that overstretching of the knee joints is prevented. By pressing the handles ② you can reduce the expander tension once again.

**CAUTION**



**Risk of injury!**

Make sure that you hold the depressed handle down firmly. The leg guides may otherwise fall down abruptly with legs inserted.

**CAUTION**



**Risk of injury due to worn or damaged expanders!**

The expanders may tear as a result of wear and possibly cause injuries. Check the expanders regularly and replace them if required.

See Fig. 6.4 Only wind the expanders in the direction shown as they may otherwise be damaged.

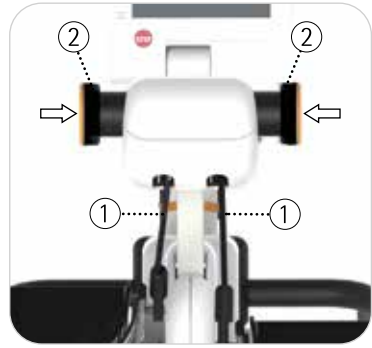


Fig. 6.4, 6.5

## Quick foot fastening system "QuickFix"

With the quick foot fastening system "QuickFix" you can quickly fasten the feet in the safety foot shells and release them again.

Open the "QuickFix" by pushing down or pulling up the control lever (1) and insert the feet. Press down on the foam pad (2) by hand until you reach a position with comfortable pressure on the foot. The padded bar (3) engages audibly at short intervals and is securely fixed to each of these locking positions.

At the end of the workout, open the "QuickFix" by pushing down (1) or pulling up the control lever.

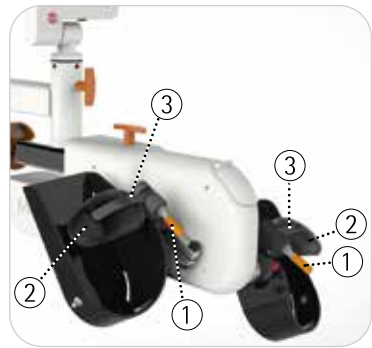
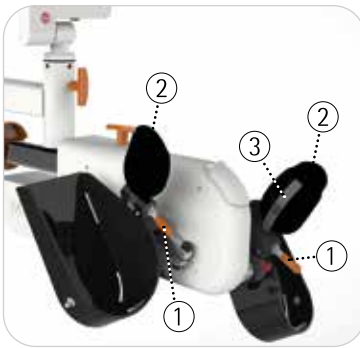


Fig. 6.6, 6.7



## Docking station for removable operating panel

You can attach the docking station ① to the removable operating panel ②.



Fig. 6.8

## Wrist cuff

The wrist cuff ① for hand fixation allows easy and fast fixation of a paralysed (weak) hand to the various hand grips.



Fig. 6.9

## Tetra hand grips with quick change technology

The tetra hand grips ① allow easy and independent insertion of the arms. The forearm support ③ can be flexibly adjusted with the setting screw ②.

The quick change technology ④ enables easy, tool-free exchange of the hand grips. Open the bracket ⑤ and remove the hand grip. Insert the desired hand grip and close the bracket completely ⑥.



Fig. 6.10

## Vertical hand grips with quick change technology

The vertical hand grips ① are suitable for users who can hold on to some extent but do require a hand rest. The vertical hand grips are equipped with slip protection ② on the inside.

See Fig. 6.10 For the way of functioning of the quick change technology see *Tetra hand grips*.



Fig. 6.11

## Ergo hand grips with quick change technology

The Ergo hand grips ① allow an individual hand position without modification. The user can choose from 3 handle holding positions.

See Fig. 6.10 For the way of functioning of the quick change technology see *Tetra hand grips*.



Fig. 6.12

## Forearm shells with quick change technology

See Fig. 6.13 The forearm shells ① allow attachment and fixation of the arms in severe paralysis. For the lateral balancing movement of the forearms, the forearm shells are pivotally mounted in the horizontal plane. Open the thumbscrew ② at the bottom of the forearm shell ① and set the cross hand grip ③ in the desired direction. Tighten the thumbscrew ② in the selected position.

See Fig. 6.10 For the way of functioning of the quick change technology see *Tetra hand grips*.

### CAUTION



Pay attention to the minimum insertion depth of the cross hand grip ③ of 2.5 cm.

**CAUTION**



Make sure that hands (and fingers) are fixed so that they cannot touch the pedal cranks. Training with arms and hands inserted and fixed in the forearm shells may only be carried out under supervision.



Fig. 6.13

## Hook grip

The hook grip ① for hand fixation allows easy and fast fixation of a paralysed (weak) hand on the hand grip.



Fig. 6.14

- 68 **Safety requirements for troubleshooting**
- 68 **The MOTMed does not run or the operating panel does not respond**
- 68 **The MOTMed runs unevenly**
- 69 **Possible effects of electromagnetic interference on the MOTMed**

## Safety requirements for troubleshooting

WARNING



**Only authorised qualified personnel are allowed to carry out repairs on the MOTomed.**

**For safety reasons, it is essential to disconnect the power plug from the socket before carrying out any maintenance work in order to interrupt the power supply.**

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If a malfunction has occurred that cannot be resolved and is not listed below or if you have questions, please contact the RECK service centre or an authorised partner.

### **The MOTomed does not run or the operating panel does not respond**

Page 46

Make sure the power supply cable is correctly plugged into the mains socket and the IEC connector on the chassis of the MOTomed. Check that the green LED on the operating panel lights up.

Also check the function of the mains socket (by plugging in another electrical device).

For the MOTomed with removable operating panel, check whether both plugs of the cable reel are correctly inserted.

### **The MOTomed runs unevenly**

Please check the following points:

1. Position and posture of the user.  
You should lie safely and aligned to the MOTomed. The distance should be chosen so that the knees are not stretched when pedalling.
2. In stroke patients, differently affected body sides may cause the device to run unevenly (especially if the resistance is low).
3. If the uneven movement continues when the legs are not inserted, a check must be carried out by qualified personnel.

## Possible effects of electromagnetic interference on the MOTomed

Possible effects	Corrective action
The training session stops	Start training again
The MOTomed switches off	Switch MOTomed back on
Selected training switches to a different training mode	Stop training and start the desired training again
The training speed changes	No action required, automatic recovery after fault end
Acoustic error signals occur	No action required, automatically rectified after the end of the fault
Visual error signals occur	No action required, automatically rectified after the end of the fault





# Cleaning, maintenance, recycling

---

## Cleaning

**WARNING**



**Danger of injury due to electrical voltage!**

For safety reasons, the power supply of the MOTOMed movement therapy device must be disconnected by removing the power plug before cleaning and disinfection!

The MOTOMed may only be cleaned or disinfected using suitable wipes.

**CAUTION**



**Risk of damage to the MOTOMed!**

Spray disinfection and disinfectant showers are not allowed due to the sensitive electronic connections and the unsealed moving parts!

Basically, no fixed cleaning interval is prescribed.

The cleaning takes place according to needs and hygiene requirements. In areas where multiple users use the MOTOMed, application parts and other parts that could come into contact with injured parts of the user's body (e.g. open wounds or decubitus ulcer) should be cleaned after each use and disinfected with a suitable disinfectant.

Do not use harsh, corrosive, solvent or active chlorine cleaning agents. When cleaning, pay particular attention to all stickers affixed to the MOTOMed so that they are not damaged.



Recommended disinfectants and cleaning agents are e.g.

- Meliseptol surface disinfectant,
- Sagrotan all-purpose cleaner,

## Maintenance

The MOTOMed does not require regular maintenance/servicing. Before the training session, a visual inspection in accordance with section 3 must be carried out. Worn wear parts (e.g. foot shell linings, hand grips, expanders) must be replaced.

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## Recycling

The MOTOMed is made in high-quality all-metal construction: It is durable, environmentally friendly and recyclable. Please dispose of the device according to the Waste Electrical and Electronic Equipment Directive 2012/19/EU.

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If you have any questions, please contact the MOTOMed consulting team.

# Technical data, signs

## Dimensions and weight

MOTOmed model	Dimensions (external dimensions in cm min./max.)			Weight (in kg)
	Length	Width	Height	
layson.l/layson kidz.l expandable chassis	110-125	62-100	113-157	80
layson.l/layson kidz.l Parallel chassis	110-125	62-92	113-157	80
layson.la/layson kidz.la expandable chassis	142-155	67-105	131-166	98
layson.la/layson kidz.la Parallel chassis	142-155	67-97	131-166	92
layson.l dia	110-125	62-100	113-157	80
layson.la prof	142-155	67-105	131-166	105

## Connected values (mains voltage, mains frequency)

100-240V~/max. 120VA  
47-63 Hz

## Power input

In Stand-by <1 W

## Environmental conditions for operation

Temperature +5 °C to +40 °C  
Humidity 15 % to 90% relative humidity,  
non-condensing, but without the required  
vapour partial pressure of more than 50 hPa  
Air pressure >783.8 hPa to 1060 hPa  
Operating altitude <2000 m above sea level

### **Environmental conditions for storage and transport**

Temperature	-25 °C to +70 °C
humidity	relative humidity of up to 90%, without condensation at +5 °C to +35 °C water vapour pressure up to 50 hPa at >+35 °C to +70 °C
Air pressure	not specified

**Protection class** IP21

**Classification** protection class II, type BF

**Classification according to MDD**  
II a

**Classification according to MDR**  
II a, appendix VIII, regulation 9

**NBOG Code** 1108 active rehabilitation devices

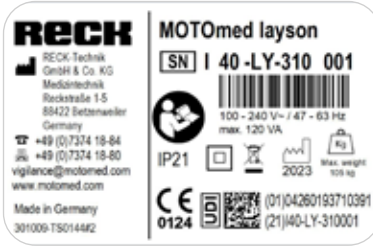
**FDA product code** BXB - exerciser powered

**Maximum permissible user weight**  
135 kg

The handles are coated with PVC.

All-pole shutdown of the MOTomed is ensured by pulling the mains plug.

## General signs and symbols



Name plate fitted on the chassis of the MOTomed. The presentation just serves as an example; the actual serial number **SN** can be read on the MOTomed!



Marking on the removable operating panel.



Marking on the patient remote control.



Indicates the manufacturer of the medical device.



Serial number of the device.



Follow the instructions for use.

**IP21**

The MOTOmed complies with IP21 protection class:  
Protected against the penetration of solid foreign parts  
and vertically dripping liquids.



Device of protection class II.



Observe appropriate disposal  
WEEE-Reg.-No. DE 53019630.



2018

Year of construction, in which the MOTOmed was  
manufactured (e.g. 2018).



Max. weight  
105 kg

Weight including safe workload in kilogrammes.



The MOTOmed complies with the  
Medical Devices Directive 93/42/EEC.



"For note on remote control".



Lateral pushing, leaning on or pushing of the MOTOMed is not permitted.



Climbing on the MOTOMed or training in a standing position are not permitted.



Application parts of type BF

Application parts are components which – when the device is used as intended – have contact with the user and must therefore comply with special safety criteria. The following application parts (type BF) can be mounted on the MOTOMed and must be checked regularly:

- operating panel
- patient remote control
- hand grips
- foot shells
- leg guides with calf shells

## Expected service life

The expected service life cannot be generally indicated because it is determined by the operating environment, the frequency of use and the type of use.

The expected service life is therefore considered to be the period during which the device is to maintain operational readiness since initial start-up. This service life is fixed at 10 years, unless otherwise specified in the technical specifications of the variants and accessories.





# Service

We are of course available if you have any questions. Please call us – your questions and suggestions are very welcome. We are also happy to call you back. Please always give us the device number **SN** (SN). This can be found on the nameplate on the chassis of the MOTOmed.

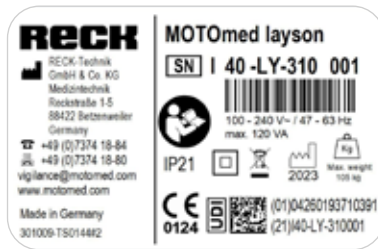


Fig. 10.1

The presentation just serves as an example; the actual serial number **SN** can be read on the MOTOmed!

## Your service contacts in Germany

Phone 07374 18-84  
Fax 07374 18-80  
E-mail [service@MOTOmed.de](mailto:service@MOTOmed.de)

Or call us free of charge on 0800 6 68 66 33

## Your international service contacts

Phone +49 7374 18-85  
Fax +49 7374 18-480  
E-Mail [service@MOTOmed.com](mailto:service@MOTOmed.com)



- 82 **Manufacturer's Declaration –  
Electromagnetic emissions**
- 83 **Manufacturer's Declaration –  
Electromagnetic immunity**
- 85 **Recommended safety distances**

The manufacturer declares compliance with the requirements of EN 60601-1-2:2016-05 for the mains connection cable of the MOTOMed.

The use of accessories and wiring other than those specified or provided by the manufacturer of this equipment may result in increased electromagnetic emissions or reduced electromagnetic immunity of the equipment and may result in incorrect operation.

## Manufacturer's Declaration – Electromagnetic emissions


The MOTOMed is intended for use in the electromagnetic environment specified below. The customer or the user of the MOTOMed should ensure that it is used in such an environment.

Disturbance emission measurements	Compliance	Electromagnetic environment – guidelines
RF emissions according to CISPR 11	Group 1	The MOTOMed uses RF energy only for its internal function. Therefore, its RF transmission is very low and it is unlikely that neighbouring electronic devices will be disturbed.
RF emissions according to CISPR 11	Class B	The MOTOMed is intended for use in all types of facilities, including residential areas, which are directly connected to a public power grid that also supplies buildings used for residential purposes.
Harmonics emissions according to IEC 61000-3-2	Class A	
Emission of voltage fluctuations/flicker according to IEC 61000-3-3	met	

## Manufacturer's Declaration – Electromagnetic immunity

The MOTOMed is intended for use in the electromagnetic environment specified below. The customer or the user of the MOTOMed should ensure that it is used in such an environment.

Immunity tests	IEC 60601 test level	Electromagnetic environment – guidelines
Static electricity discharge (ESD) according to IEC 61000-4-2	±8 kV contact discharge ±15 kV air discharge	Floors should be wood, concrete or ceramic tile. If the floor is covered with synthetic material, the relative humidity must be at least 30%.
Fast transient electrical interference/bursts according to IEC 61000-4-4	±2 kV 100kHz repetition frequency	The quality of the supply voltage should be that of a typical business or hospital environment.
Surges according to IEC 61000-4-5	±0.5 kV, ±1 kV Line against line	The quality of the supply voltage should be that of a typical business or hospital environment.
Voltage dips, short-term interruptions and fluctuations in the supply voltage according to IEC 61000-4-11	0% UT; ½ period at 0, 45, 90, 135, 180, 225, 270 and 315 degrees  0% UT; 1 period Single-phase: at 0 degrees  70% UT; 25/30 periods Single phase: at 0 degrees  0% UT; 250/300 periods	The quality of the supply voltage should be that of a typical business or hospital environment. If the user of the MOTOMed requires continued operation even in the event of power interruptions, it is recommended that the MOTOMed be powered from an uninterruptible power supply or a battery.
Magnetic field at the supply frequency (50/60 Hz) according to IEC 61000-4-8	30A/m	Magnetic fields at the mains frequency should correspond to the typical values found in commercial and hospital environments.
Note: UT is the mains AC voltage before the application of the test levels.		

Immunity tests	IEC 60601 test level	Electromagnetic environment – guidelines
<p>Conducted RF interference according to IEC 61000-4-6</p> <p>Radiated RF interference according to IEC 61000-4-3</p>	<p>3V<sub>eff</sub> 0.15 MHz to 80 MHz</p> <p>6V<sub>eff</sub> in ISM and amateur radio frequency bands between 0.15 MHz and 80 MHz 80% AM at 1 kHz</p> <p>10V/m 80 MHz to 2.7 GHz 80% AM at 1 kHz</p>	<p>Use of this device immediately adjacent to other equipment should be avoided, as this could result in improper operation. If it is nevertheless necessary to use in the manner described above, observe this device and the other devices to make sure they are working properly.</p> <p>The field strength of stationary radio transmitters should be lower than the test level at all frequencies, in accordance with an on-site survey<sup>a</sup>. Interference is possible in the vicinity of devices that carry the following icon .</p>
<p>Note: These guidelines may not be applicable in all cases. The spread of electromagnetic quantities is influenced by absorption and reflection of buildings, objects and people.</p>		
<p>a) The field strength of stationary transmitters, such as base stations of radio telephones and land mobile radios, amateur radio stations, AM and FM radio and television stations cannot be theoretically predicted exactly. In order to determine the electromagnetic environment with respect to the stationary transmitters, a study of the location should be considered. If the measured field strength at the location where the MOTOMed is used exceeds the above compliance levels, the MOTOMed should be observed to verify proper function. If unusual features are observed, additional measures may be required, such as changing the orientation or location of the MOTOMed.</p>		

## Recommended safety distances between portable and mobile HF telecommunications equipment and the MOTOMed

The MOTOMed is intended for use in an electromagnetic environment in which the RF interference is controlled.

Portable RF communications equipment (radio devices) (including their accessories such as antenna cables and external antennas) should not be used more than 30 cm (or 12 inches) away from the MOTOMed parts and wiring specified by the manufacturer. Failure to do so may result in a reduction in the performance of the device.

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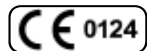
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