



Instructions for use for

Pedal crank ergometer of the motion cardio line 900 & motion cardio line 900 med



motion cycle 900
motion cycle 900 med



motion relax 900
motion relax 900 med



motion body 900
motion body 900 med

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1. General



Read this user manual with all safety instructions and warnings carefully **before using** the training equipment for the **first time to ensure** safe and proper use. Keep this document for future reference and give it to others if you pass on the equipment.

The purpose of the equipment is cardiopulmonary training and the reproducible loading of the body, e.g. for diagnostic and therapeutic measures. The equipment is mainly used by users in cardiology, physiotherapy, sports medicine and in the home. Another application is the use to build up and strengthen skeletal muscles, as well as to increase mobility in the joints affected during training. The equipment enables reproducible physical loading of the human body and the cardiovascular system for the purposes of prevention, rehabilitation and diagnosis.

Text with a grey background indicates text sections that deal exclusively with equipment features of the fitness line.

2. Classification of the devices

- The devices of the *cardio line 900 med* are medical products **MD** according to the directive 93/42 EWG, classified in class IIa. In the control range of the brake, the display accuracy is +/- 5% or +/- 3 watts for loads below 50 watts.
- The devices of the *cardio line 900* comply with the standard DIN EN ISO 20957-1 and DIN EN ISO 20957-5; application class S (commercial use/studio) and H (home use) of accuracy class A +/- 10 % and are designed exclusively for the fitness and sports sector.

Only 1 person can exercise with the equipment at a time; the maximum user weight according to the type plate must not be exceeded.

3. Safety instructions

Safe placement of the units

motion cycle 900
motion cycle 900 med



Fig.1: Device view motion cycle 900 & motion cycle 900 med with designation of the essential elements and application parts

motion relax 900
motion relax 900 med



Fig.2: Device view motion relax 900 & motion relax 900 med with designation of the essential elements and application parts

motion body 900
motion body 900 med

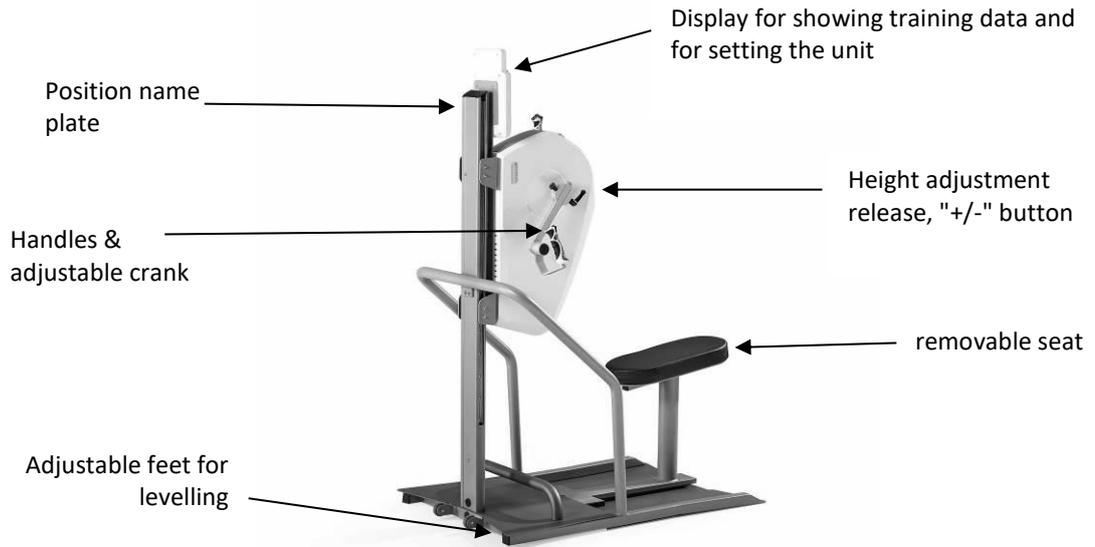


Fig.3: Device view motion body 900 & motion body 900 med with designation of the essential elements and application parts

motion body 900 WM
motion body 900 med WM

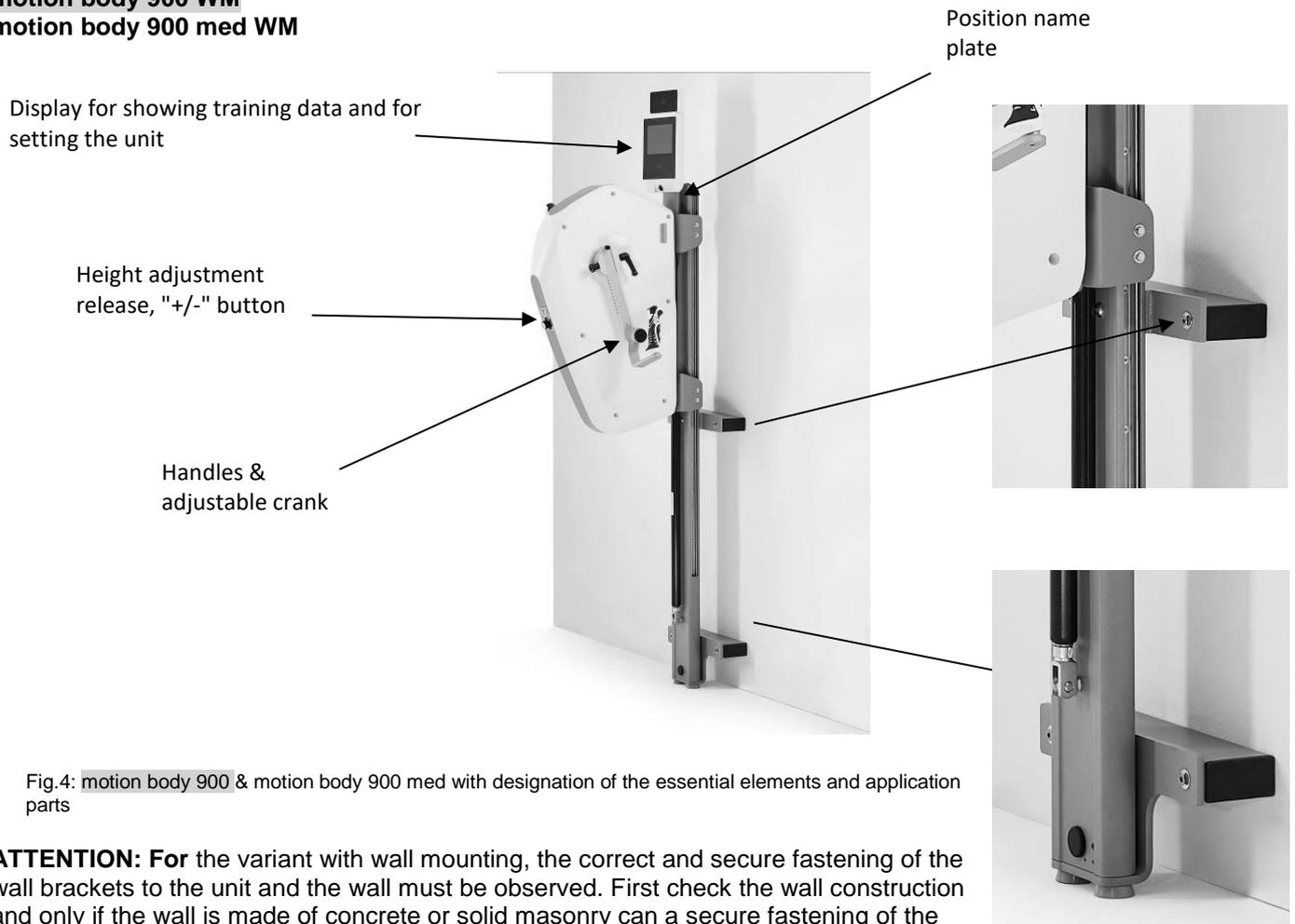
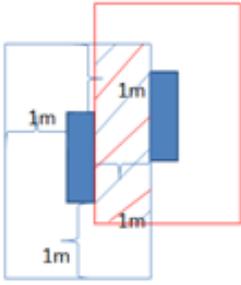
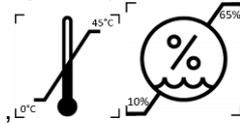


Fig.4: motion body 900 & motion body 900 med with designation of the essential elements and application parts

ATTENTION: For the variant with wall mounting, the correct and secure fastening of the wall brackets to the unit and the wall must be observed. First check the wall construction and only if the wall is made of concrete or solid masonry can a secure fastening of the unit be achieved with standard dowels. For each screw connection, at least 1000 N horizontal tensile load must be guaranteed so that the unit's strength is permanently maintained under all conditions. The fastening must be carried out by a specialist company that also gives a guarantee on its work; the procurement of the fastening material should also be carried out by the specialist company and adapted to the wall condition. As an example, we recommend using Fischer long-shaft anchors SXRL 14x80 mm and matched FUS screws 10 mm Ø.



- Place the unit on a firm, horizontal, level and non-slip surface and level the unit with the adjusting screws so that it does not wobble.
- The clearance area around the unit must be at least 1 m larger than the movement range of the unit to ensure safe access and egress from the unit even in emergencies. However, the safety clearances may overlap (see picture).



- Only place the appliance in dry rooms at 10°C.
- Make sure that there is no electromagnetic radiation, e.g. from radio antennas, radiating fluorescent tubes, etc., as these can affect the pulse measurement.
- The underside of the frame must always be free for sufficient ventilation.
- All the pedal ergometers mentioned here are mains-independent. They generate the power themselves during operation or are supplied with power during programming by the standard built-in capacitor. The capacitor is charged by the training and has a service life of > 20000 cycles.
- Attention: Please always follow the instructions for care, maintenance and servicing in chapter 5 of this manual.

Safe training

- Before starting training, the fitness for training should be checked by an authorised person, e.g. a doctor. Please note the point "Indications and contraindications".
- Note that excessive exercise can be harmful.
- If nausea or dizziness occurs, stop training immediately and consult a doctor.
- Training on the equipment is only permitted with intact skin.
- When training, tight-fitting, lightweight sports clothing is preferable so that it cannot get caught in parts of the device during training. Always wear suitable sports shoes for a secure footing on the pedals.
- Before starting the training, check the unit for safe standing, defective parts or possible manipulations. If you find any defects or are not sure, ask the supervisor before starting the training.
- Before starting training, make sure that nobody is near the moving parts in order to avoid endangering third parties. In particular, unsupervised children must be kept away from the equipment.
- **cycle/relax:** For biomechanically correct training, the knee should never be fully extended; adjust the seat of the device accordingly. With the **cycle 900 / 900 med**, both the horizontal and the vertical sitting position can be changed. For the vertical seat position, pull the locking bolt on the front of the seat post and adjust the height manually. For an easier increase of the seat position, the seat post can be pulled upwards without unlocking the locking bolt. The locking bolt automatically engages in the nearest lower hole. By pulling the locking bolt, the seat post can be adjusted further down. **Safety:** Make sure that the locking bolt engages firmly and audibly before putting any load on the saddle. The saddle position is indicated by a scale on the side of the seat post so that the personal saddle height can be found more easily during repeated training. The saddle height should be chosen in such a way that there is still a knee flexion of about 10° in the lowest pedal position.



Fig.5: Horizontal and vertical adjustment of the seat position on the **cycle 900** & **cycle 900 med**

- For horizontal positioning on the **cycle**, the yellow rubberised clamping handle behind the saddle must be loosened. The saddle can then be moved forwards or backwards. The horizontal position of the saddle affects the inclination of the upper body and the load that rests on the arms during the workout.



Fig.6: Handlebar adjustment on **cycle 900** & **cycle 900 med**

- With the optionally available handlebar adjustment, care must be taken to ensure that the yellow rubberised clamping handle is screwed tight again after adjustment and before training.



Fig.7: Horizontal and backrest adjustment of the seat position on the **relax 900** & **relax 900 med**

- For horizontal positioning on the **relax**, the yellow release lever must be pulled upwards. Then the seat unit can be moved to the desired position. Make sure that the seat unit snaps firmly back into place. Adjust the backrest to the desired position. Here, too, make sure that it engages in the correspondingly provided holes.



Fig.8: Vertical adjustment of the drive unit and the adjustable crank on the **body 900** & **body 900 med** or **body 900 WM** and **body 900 med WM**

- **body:** In order to be able to train biomechanically correctly with the body, move the drive unit so that the crank holder on the machine is positioned at about shoulder joint height. Then adjust the crank length on the adjustable cranks accordingly. The locking bolt of the adjustable crank must be re-engaged after adjustment and the clamping lever must then be tightened.

-  **Warning:** The heart rate monitoring system is susceptible to failure due to the system. Excessive exercise can lead to dangerous injuries or death. If you feel unwell, stop exercising immediately and consult your doctor or therapist.
-  **Warning:** The appliance may only be operated with a housing and in dry rooms.
-  **Warning for optional power connection:** Use only approved power supply units that have been tested according to IEC 60601-1 and approved by the unit manufacturer. Make sure that the power supply is installed in such a way that it is difficult to disconnect it (e.g. by means of floor tanks, installation under the unit or cable ducts, position of the power supply in areas that are difficult to access).
-  **Warning:** If the medical device is modified, appropriate investigations and tests must be carried out to ensure continued safe use. Do not modify the device without the permission of the manufacturer.

Indications and contraindications

Before starting training, please consult a doctor or therapist to ensure fitness for training.

Example indications

- Mobility of the musculoskeletal system
- Strengthening the musculature
- Strengthening the cardiovascular system

Example contraindications

- Cardiovascular diseases
- Pain of the musculoskeletal system
- During the training:
 - Chest pain
 - Malaise
 - Nausea
 - Dizziness
 - Shortness of breath

Ask the doctor if you are taking medication.

4. Operating the display

Various training and test programmes enable individual and varied training with the motion cardio line 900 and motion cardio line 900 med machines.

	body 900 / 900 med	relax 900 / 900 med	cycle 900 / 900 med
Basic equipment	Quickstart, timed training, pulse training		
incl. programme package	Quickstart Qualifying Pulse training + 7 more programmes	Quickstart Qualifying Pulse training + 7 more programmes + 4 motion balance programmes	Quickstart Qualifying Pulse training + 7 more programmes + 4 motion balance programmes + 6 test programmes

Overview display/key functions



Fig. 9: Monitor view, explaining the button functions, actual view may vary in colour, button assignment is the same.

Explanation of the buttons:

- The **Home button** is a physical button below the display glass. It is pressed to enter the main menu. Pressing the HOME button for a long time (at least 6 seconds) resets the monitor electronics.
- Press the **PAUSE** button (⏸) to pause the training.
- Pressing the **PLAY** button (▶) starts or resumes the training.
- The **COOL** button (❄) stops the training immediately. A summary of the training results is immediately generated, displayed and, if necessary, sent to a compatible training control software.
- Use the **"+" key or "-" key** to increase or decrease the parameters or power values to be set.
- Use the **arrow keys** to navigate through the corresponding menus and confirm values or settings.
- Swipe/swipe gestures navigate through the programme selection.

Depending on the programme, some of the following parameters are displayed:

- Programme name.
- Time: Training time completed or remaining.
- Pulse: Heart rate indicator, when using a compatible pulse transmitter belt. The pulse indicator display shows the current pulse range for programmes with target or maximum pulse. The profile indicator in the display shows the progression of the intensity range during training.
- Watt: Power is displayed in watts. In parallel, the intensity is clarified via a graphic display in the profile.
- km/h: Fictitious speed is displayed in km/h.
- Speed: Pedal revolutions per minute.
- L/R (not with body 900/900 med): The force ratio of the left and right leg is displayed here in %.
- HRV: Heart rate variability is displayed via the RMSSD value (requires **POLAR** H10 sensor).

- resp: Breathing rate (requires **POLAR** H10 sensor)
- km: Added or remaining distance. The display is in metres; from 1000 m in 10 m steps (1.00 km).
- K-Cal: Added or remaining calorie consumption.
- Level: Intensity level 1 - 21.
- Ø: If the parameters are completed with this symbol, they are average values.

Results

After completion of a training programme or premature termination via COOL (❄️), the results are displayed in the monitor and a 3 minute cool-down takes place. This can be cancelled via the HOME button.

Some of the values are averaged (Watt, Km/h, RPM, Pulse, Altitude/ min), some are cumulated (Km, K-Cal, Time, Altitude). The average values are marked with the symbol Ø.

These results make it possible to monitor personal performance development and thus serve as motivation.

Programme selection

The desired training programme can be selected in the main menu by tapping the corresponding symbol. You will then be taken to the configuration page where you can set the corresponding training parameters. Press the **PLAY** button (▶) to confirm your entry and start the training. You can return to the main menu via the home icon or the home button.

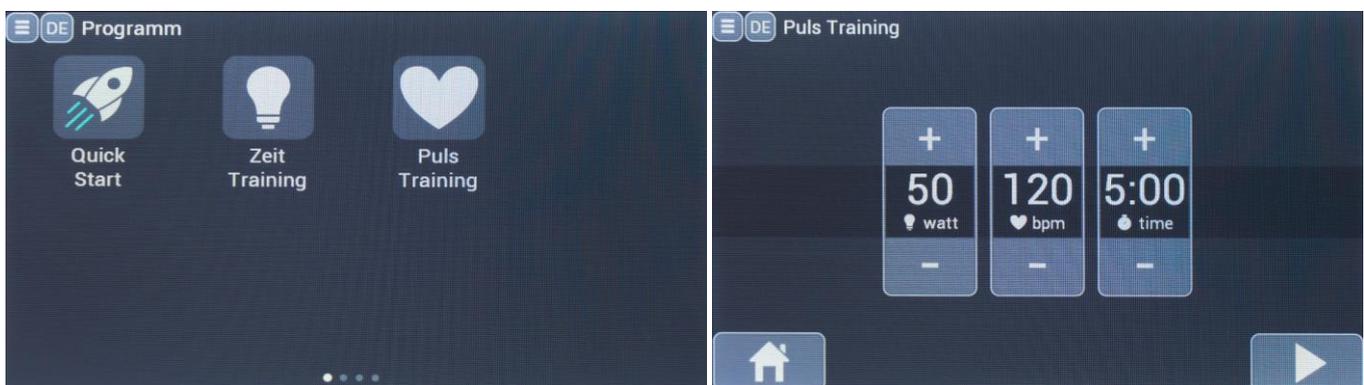


Fig. 10: Programme selection and configuration for manual training.

Pulse systems

The devices of the motion cardio line 900 and the motion cardio line 900 med have the original **POLAR** pulse system, in which the signal acquisition takes place by means of a chest strap as standard. This enables individual training in various programmes. The wireless data transmission to the display electronics is coded (either via 5kHz or **Bluetooth**). The new **POLAR** "Auto-Pairing" technology is based on secure and interference-free data transmission via Bluetooth. This technology requires the use of the H10 or H9 transmitters. Other parameters, such as HRV and respiratory rate, are also transmitted to the monitor via the **Bluetooth** connection.

If the old transmitters are used, e.g. T31coded, there is downward compatibility. It should be noted, however, that there may be interference with the signal transmission via the 5 kHz technology.

The colour of the flashing heart symbol gives an indication of the technology used.

light blue=Bluetooth green=5kHz

ANT+

The devices of the motion cardio line 900 and motion cardio line 900 med allow, in addition to the transmission of the heart rate via 5kHz/**Bluetooth**, an optional data transmission via **ANT+**. The performance package is required for this.

By default, Polar 5kHz/**Bluetooth** technology is activated. To activate transmission via **ANT+**, the "ANT+" switch in the info box (☰) must be switched on (marked yellow here). After that, a connection to a transmitter unit that sends the heart rate via **ANT+** can be established. A dark blue flashing heart symbol confirms the heart rate transmission via **ANT+**.

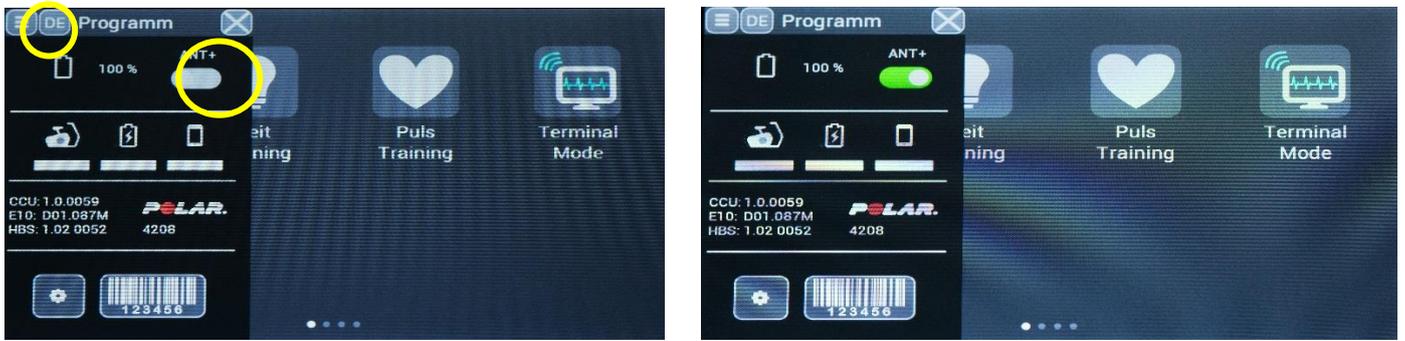


Fig. 11: Activation of ANT+ for heart rate transmission

Safety instruction according to DIN EN ISO 20957

Warning. Heart rate monitoring systems can be inaccurate. Excessive exercise can cause serious damage to health or death. Stop exercising immediately if you feel dizzy or weak.

Inductive charging (optional)

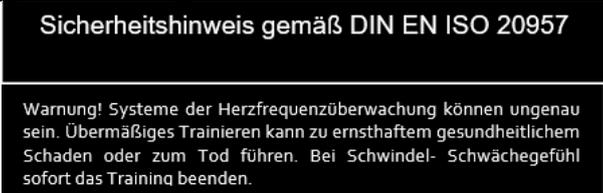
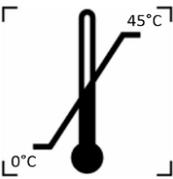
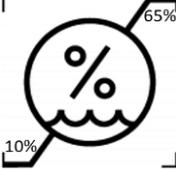
An optional inductive charging module can be activated on all motion **cardio line 900** and motion cardio line 900 med units via the "connect package". This allows mobile devices that comply with the Qi standard (Φ) to be charged without contact. Wearers of pacemakers or implanted defibrillators (ICDs) are recommended to keep a minimum distance of 10 cm from the charging coil.

5. Care, maintenance and servicing

All cardio equipment from emotion fitness is durable and requires little maintenance to function as training equipment for a long time. However, it is imperative that the necessary care is carried out conscientiously.

⚠ Warning: The unit may only be opened by an authorised specialist

Symbols and meaning

Safety sign	Reference	Title
	ISO 7010-P017	Pushing prohibited
	ISO 7010-W012	Warning, electricity
	ISO 7000-1641	Instructions for use
	DIN EN ISO 20957	Safety Notice Heart Rate Monitoring
	ISO 7000-3082	Manufacturer
	ISO 7000-2497	Date of manufacture
	ISO 7000-0632	Temperature limit
	ISO 7000-2620	Air humidity, limitation
	ISO 7010-W001	General warning sign

	ISO 7010-M002	Follow the operating instructions
	IEC 60417-5840	Type B applied part (concerns saddle, pedals and handlebars)
	ISO 15233	Medical device

The safety level of the units can only be maintained if the units are regularly checked for damage and wear. Defective parts must be replaced immediately and the unit must be shut down until it is repaired.

Fault diagnosis

The following error messages may occur. If the error is displayed repeatedly, the measures listed below can help. If these do not lead to success, the manufacturer/dealer and, if necessary, the software manufacturer should be contacted.

Error message	Measure/s	Affected unit types
"RFID Error"	<ul style="list-style-type: none"> RFID number, i.e. number on transponder is too short or too long. An error occurred while reading the RFID number. → use a different transponder 	All ergometers
"Heart Sensor?"	The monitor wants to start a programme that requires a heart rate sensor to be worn. If no sensor is found, this message is displayed.	All ergometers
"USB Problem"	The radio message was successfully sent from the radio module of the monitor to the radio module of the PC (i.e. the receiver module acknowledged receipt of the message), but there was no response from the PC after the specified time period: → Restart the PC and plug the USB dongle into the PC again. If necessary, restart the software service.	All ergometers
"Radio Problem"	<ul style="list-style-type: none"> The unit does not receive a response from the USB dongle. <p>Attention! This error message can also be displayed if the message sent from the dongle to the monitor is faulty (e.g. wrong format or message incomplete). → Restart the PC and plug the USB dongle into the PC again. If necessary, restart the software service.</p>	All ergometers
"NDEF err: length"	<ul style="list-style-type: none"> The message found on the NFC tag (i.e. the message transmitted from the smartphone) is too long. → Contact the software manufacturer or device manufacturer 	All ergometers
"NDEF err: verify"	<ul style="list-style-type: none"> The NFC tag could not be accessed. This is an authorisation problem when accessing the NFC tag through the monitor using the super password. → Contact the manufacturer or software producer 	All ergometers
Missing value: XX (XX=number)	<ul style="list-style-type: none"> A necessary setting parameter was not sent to the ergometer by the PC software → Contact the manufacturer or software producer. 	All ergometers
Value XX out of Range (XX=number)	<ul style="list-style-type: none"> A necessary setting parameter was sent outside the permissible range from the PC software to the unit → contact the manufacturer or software producer 	All ergometers

Fault detection (malfunction) guide

If any faults occur on the equipment that you cannot classify, please contact emotion fitness GmbH & Co.KG. For each error message, you should have the serial number and model type of the defective device ready, as this could be important in order to be able to make the correct diagnosis and, above all, to provide the appropriate replacement parts for you!

Maintenance instructions for the operator

Ideally, visually inspect the unit before each use, but at least daily, and pay particular attention to defective parts, loose connections and atypical noises.

The following checks must be carried out at least every 6 months:

- Visually inspect all visible joints, as well as welds.
- Clean the unit thoroughly.
- Check all screw connections for tightness.
- Check the integrity of the saddle and seat post and ensure that the saddle is replaced after 2 years to prevent material fatigue.
- Check the integrity and strength of the pedals and cranks.

Generally speaking:

- Clean the plastic casing and frame parts regularly as required with a damp cloth and mild soap, then wipe dry again.
- The use of spray bottles with cleaning agents is not permitted; it has been shown that the units never become dry in inaccessible places. Rust infestation cannot be ruled out by this procedure.
- Make sure that no liquid gets into the monitor housing,
- For any necessary disinfection of the devices, please use only mikroZid® sensitive wipes disinfectant wipes (<http://www.schuelke.com/>).
- The monitor display may show a capacitor voltage that is too low, at which a function without braking current cannot be safely guaranteed. You can recharge the capacitor by pedalling with a higher load or a power supply unit approved by the device manufacturer.
- Check the housing fixings for tightness.
- Check the detent pins regularly for function.
- We recommend a regular visual inspection of all parts of the unit, especially screws, bolts, welds and other fixings.
- Check that the feet of the appliance are firmly seated.
- Check whether the cranks are still firmly connected to the axle. You will need a 14 mm socket spanner for this.
- Important: Retighten after the first 10 hours of use! Damaged cranks and axles due to loosening of the cranks are not covered by the warranty!
- Check the seat post for damage due to overloading.
- Clean the seat post and seat slide extension parts, then spray with silicone spray and rub dry again.
- Check the pedal loops for damage.
- Only use original spare parts - contact us for this.

Attention: Retighten the cranks

After the first 10 hours of operation, the cranks must be tightened.

If the cranks are not tightened, irreparable damage to the axle or cranks may occur, in which case there is no longer any warranty.

Maintenance by authorised specialist

In the event of problems with the device that you cannot solve yourself in a simple manner, always contact the emotion fitness service department. The authorised service will help you quickly and competently or provide you with instructions.

Calibration/Maintenance

All medical pedal ergometers are subject to a **MTK obligation** (MPBetreibV, §14) and must be checked **every 24 months**.

In addition, we recommend **maintenance** with inspection of the safety-relevant components (STÜ) by authorised employees/partners **every 12 months**.

This section refers to the legal situation in Germany. Please check the applicable laws for operating medical devices in your country.

Devices with the suffix "med" are in accordance with the Medical Devices Directive 93/42/EEC. They thus bear the CE mark and the number of the notified body.

The distributor/operator is responsible for carrying out maintenance, servicing and calibration, as well as possible inspections in accordance with applicable regional laws and regulations at the location of the units!

Your local authorised dealer can also provide further information.

6. Technical data*

Device type	Dimensions (L/W/H)	Weight	Max. user weight	Safe workload
motion cycle 900 motion cycle 900 med	119 cm x 65 cm x 145 cm	58 kg	150 kg; boosted: 200 kg	208 kg; boosted:258 kg
motion relax 900 motion relax 900 med	173 cm x 65 cm x 133 cm	80 kg	150 kg; boosted: 200 kg;	230 kg; boosted: 280 kg;
motion relax 900 boosted 250kg motion relax 900 med boosted 250kg	173 cm x 78 cm x 133 cm	104 kg	boosted:250 kg	boosted: 354 kg
motion body 900 motion body 900 med	116 cm x 78 cm x 155 cm	98 kg	150 kg; boosted: 200 kg	248 kg; boosted: 298 kg
motion body 900 WM motion body 900 med WM	63 cm x 56 cm x 155 cm	48 kg	150 kg; boosted: 200 kg	198 kg; boosted: 248 kg

Resistance system: Mains-independent braking system

Performance area:

cycle/relax: speed-independent: 15-500 watts (optionally 7-950 watts); speed-dependent: 15-1,000 watts

body: speed-independent: 15-500 watts (optionally 7-550 watts); speed-dependent: 15- 750 watts

Freewheel: available for cycle and relax

The following EU directives are fulfilled:

2001/95/EC General Product Safety Directive

93/42/EEC Medical Devices Directive Class IIa (only fulfilled for devices with the suffix med)

2014/30EU EMC Directive

The following standards were used:

DIN EN ISO 20957-1 Accuracy class A, use class SH; DIN EN ISO 20957-5;

DIN EN 60601-1:2013; DIN EN 60601-1-2

* Values may vary due to unit changes and options.

We reserve the right to make technical and optical changes as well as printing errors.

7. Disposal

With the conclusion of the purchase contract, it shall be deemed agreed that business customers will dispose of the EU Directive 2002/96/EU on waste electrical and electronic equipment themselves.

8. Warranty

This is based on the statutory warranty.

emotion fitness GmbH & Co KG as the manufacturer of this product will provide free replacement for defective parts for 24 months from the date of invoice by emotion fitness for professional users if the proper use and care listed in this user manual can be proven.

As a rule, the cost of labour for a warranty service during the first 12 months is paid by the respective dealer in your country. Please contact your respective dealer if you have any questions about this.

The warranty will be void if the product has been serviced or repaired by unauthorised persons. As soon as a warranty claim occurs, you should immediately inform emotion fitness GmbH & Co KG or your dealer in writing or by e-mail.

Information about the serial number of the equipment, the date of purchase, a detailed description of the fault and the source of supply must be provided by the owner of the equipment.

emotion fitness GmbH & Co. KG or your distributor will arrange for service, but reserves the right to determine the type of service.

The following procedures are possible:

1. the service will be carried out on site by an authorised service technician.
2. we send the requested spare part.
3. we send a replacement unit.

The defective parts are returned to us immediately by the customer at no charge. Otherwise the customer will be charged

of the delivered spare parts.

If the causes lie outside the warranty area, emotion fitness GmbH & Co KG reserves the right to charge all repair costs.

Some wearing parts are not covered by the warranty. These are in particular the saddle, cranks and crank attachment, pedals, pedal loops, upholstery fabrics and the rubber grip on the handlebars. The **POLAR** pulse systems come with the legal warranty.

These warranty provisions shall in no way affect the general statutory claims.

Our General Terms and Conditions of Export, as amended from time to time, can be viewed and downloaded from our website at

www.emotion-fitness.de and can be downloaded.

CE 0633

Thank you for your trust!

emotion
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