



**Instructions for use**  
for the  
*motion cycle 100 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 anyone who passes it on .

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 devices enable reproducible physical stress on the human body and the cardiovascular system for the purpose of prevention, rehabilitation and diagnosis.

## 2 Classification of the units

The motion cycle 100 med is a medical device **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 power ratings below 50 W.

The unit is designed exclusively for supervised areas in accordance with DIN EN ISO 20957.

Only 1 person can exercise with the machine at a time; the max. user weight of the exerciser must not exceed 130 kg.

## 3 Assembly for partially dismantled delivery

To enable cost-saving transport, ergometers of this design can also be delivered partially dismantled so that up to 3 units can fit on a 120x80 cm pallet. In this case, the unit must first be assembled as follows after delivery:



1. First check the main components for completeness....



2. ...then the screw set:  
**8 x collar screw M5**  
**8 x plastic washer**



3. Place the unit with the U-shaped bar on the feet and fix them with 4 collar screws M5 **and** a plastic washer each!



4. Now mount the pedals. The sides of the pedals are marked with R and L. Screw them in by hand and then tighten them with a 15 mm open-end spanner. **Note the left and right-hand threads!**



5. Assign the handlebars to the correct side according to the hole pattern (must be on the back).



6. A 4-edge bar is loosely preassembled with two countersunk screws in the handlebar mount. Remove only the left-hand bolt, insert the left-hand handlebar part...



7. ...and fix this part loosely again with the countersunk screw.



8. then loosen the right-hand screw and repeat the previous two steps with the right-hand side.



9. Now align the handlebars so that the grips are parallel to the monitor front ....



10. ...or steeper if you want a more upright training position.

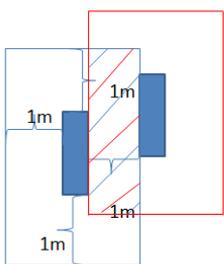
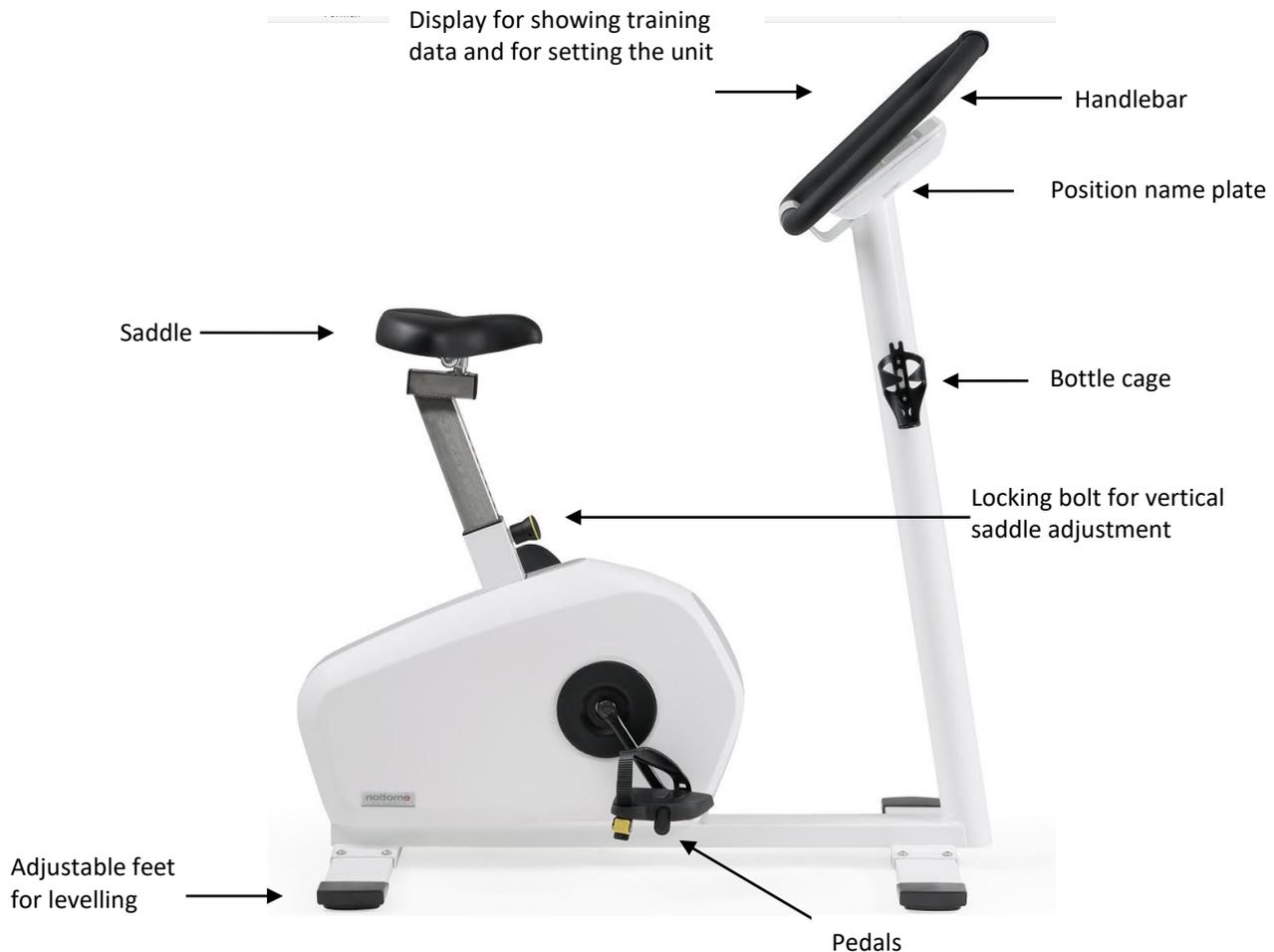


11. ...Now tighten the countersunk screws so that the handlebars can no longer be twisted.

Done! 😊

## 4 Safety instructions

### Safe installation of the unit



- Place the unit on a firm, 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 area of the unit to ensure safe access and egress from the unit even in emergencies. However, the safety clearances may overlap; see Fig.
- Only set up the unit in dry rooms (<65% humidity, >0 <45°C room temperature).
- Make sure that the units do not stand on thick "rubber mats" into which the frames press. The underside of the frame must always be free for sufficient ventilation.
- All devices of the cardio line - except for the treadmill - are mains-independent. They generate the power themselves during operation or are supplied with power during

programming by the standard built-in battery pack. The batteries should provide the necessary starting current for approx. 2 years. For battery replacement, see item "Care, maintenance and servicing".

- **Attention:** Please always follow the instructions on "Care, maintenance and servicing" in 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 "Contraindications" further down in this chapter.
- 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 exercising, tight-fitting, lightweight sports clothing that cannot get caught in parts of the equipment during exercise is preferable. 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 to avoid endangering third parties. In particular, unsupervised children must be kept away from the equipment.
- The stop button is always active as a safety function and reduces the movement when the button is pressed.
- To train biomechanically correctly, settings must be made on the device. The vertical seat position can be changed on the motion cycle 100 med. To do this, pull the locking bolt on the front of the seat post and adjust the height manually. **Safety:** Make sure that the locking bolt engages firmly and audibly before putting any weight 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 easily found 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.
- **Warning:** The heart rate monitoring system is susceptible to interference if there are strong magnetic fields in the vicinity. Continuously strong fluctuations of the displayed heart rate indicate faulty measurements. In this case, check the position of the chest strap sensor or moisten the electrode surfaces.
- **Warning:** Exercising too intensively can lead to significant hazards and even death. If you feel bad, stop exercising immediately.
- **Warning:** The unit may only be operated with the housing.
- **Warning for optional power connection:** Use only medically approved power supplies which have been tested according to IEC 60601-1 and approved by the device manufacturer.

## Indications and contraindications

### Indications

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

### Contraindications

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

**Ask your doctor if you are taking medication.**

## 5 Operating the display

Three training programmes enable an individual and high-quality training with the motion cycle 100 med.

### Polar - Pulse systems

The motion cycle 100 med has the original Polar® pulse system, in which the signal acquisition is carried out by means of a chest strap as standard (the chest strap transmitter is not included in the scope of delivery). The wireless data transmission to the display electronics is coded. The Polar® technology is based on signal transmission through a magnetic field. This magnetic field can be disturbed by many factors. The most common causes are the use of chest straps that are not 100% compatible with Polar®, some of which have very long ranges. Mobile phones, loudspeakers, TVs, power cables, fluorescent tubes and motors with high power can also interfere.

The pulse rate measurement is ECG accurate. Only when using coded chest belts, such as the transmitter belt T31C, the pulse rate is also transmitted coded. If you use an uncoded chest strap (T31), the transmission is uncoded.

#### Safety instruction according to DIN EN ISO

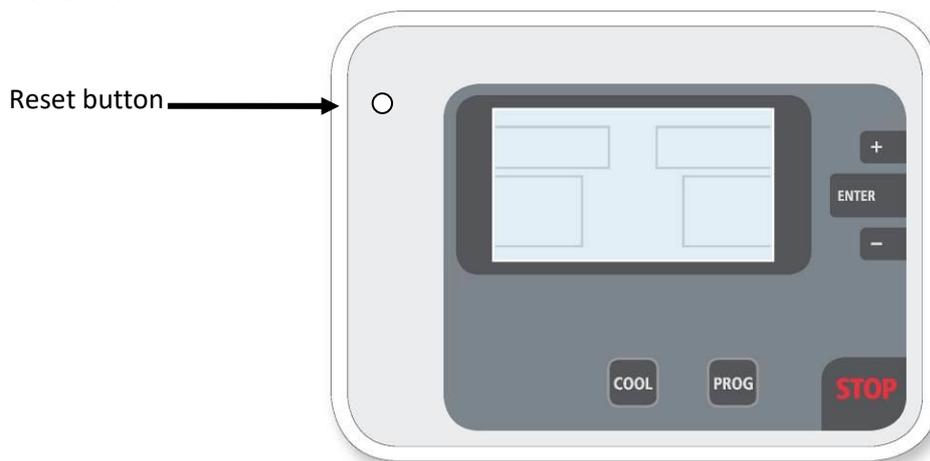
Warning. Heart rate monitoring systems can be inaccurate. Excessive exercise can cause serious damage to health or death. Stop exercising immediately if you feel dizzy or weak.

### Backlight

The motion cycle 100 med is equipped with a monochrome backlight for the LCD display.

The backlight switches on automatically after a few seconds and is operated dimmed depending on the braking resistor. Backlighting improves the readability of the display even in unfavourable lighting conditions.

## Overview display/key functions



Explanation of the buttons clockwise starting from the stop button:

- The **STOP** button stops the workout immediately at any point and activates the electronic brake, which brings the movement to 0 for 8 seconds with strong brake application, after which you can use the COOL function to perform COOL DOWN with light intensity. No results are stored.
- The **PROG** button is pressed to access the selection of training programmes unless a programmed storage device is used.
- With the **Cool** button you can stop a workout early, go into COOL mode and finish your workout at low load. The training results are displayed and saved on the storage medium if you have called up the training with it.
- The reset button: At first, the reset button is not visible to the user. It is located in the extension of the upper edge of the display to the left. Due to the permanent power supply via the batteries, an automatic reset is only possible to a limited extent. If the system should ever malfunction, you have the option of restarting the processor with this button.
- Use the **+** button to change the parameters or power values.
- Press the **ENTER** key to confirm values or displays and move to the next programming step.
- Use the **-** button to change the parameters or power values.

## Display

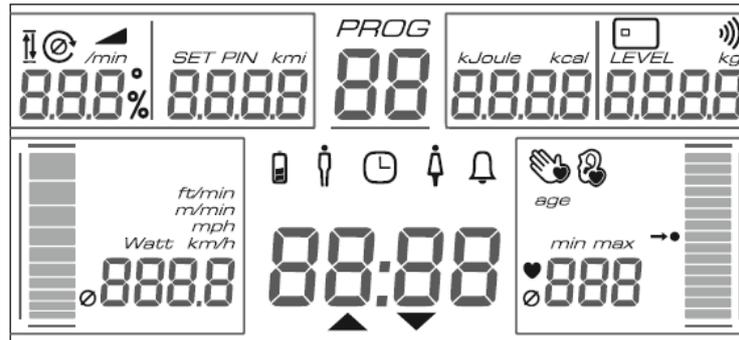


Fig.1: In this illustration, all segments of the LCD display can be seen. In normal operation, only the relevant information is shown.

You will see the following parameters displayed depending on the programme:

- Programme: Programme number
- Time: Current training time added or remaining effective training time. An arrow symbol shows the counting direction.
- Pulse: Heart rate display if you are wearing a pulse transmitter belt. Hand or ear pulse systems are not available with the motion cycle 100 med. The pulse indicator display clearly shows which pulse zone you are in. At pulse 130, the bar display is filled to the middle. In programmes with pulse presets, the centre of the bar display represents the respective target pulse rate.
- Watt: The power is shown in watts on the display. In parallel to the digital display, the intensity is also shown in a graphic bar graph.
- Km/h: The fictitious speed is displayed in km/h. The speed is also shown on a bar graph. In parallel to the digital display, the speed is also indicated by a graphic bar graph.
- Speed: Pedal revolutions per minute
- KM: Depending on the programme, the added or remaining distance is shown in the display field. The display is in metres; from 1000m in 10m steps (1.00 km).
- K-Cal: Depending on the programme, the added or remaining calorie consumption is shown in the display field.
- Level: Display of the current intensity level 1 - 21.
- Chip card: The chip card symbol appears when a storage medium is inserted.
- Ø: If this symbol is added to the digital displays, these are average values of the training session.

## QuickStart

The display panel is activated by the start of pedalling, or the LCD panel is on and still powered by the battery pack.

If you simply start training, you are in the QuickStart programme, in which you can train without making any further entries. The resistance can be adjusted in the QuickStart programme using the +/- buttons.

## Programming on the monitor

Programming is started with **Prog**, then the desired programme is selected with **+/-**. The programme number flashes in the corresponding display field.

**ENTER** confirms the programme selection. All necessary parameters are now requested. The parameter to be set flashes. The display values are changed with **+/-**. Confirm with **ENTER**. When the last entry is confirmed, the programme starts automatically.

## Changing the resistance

Except for the fully automatic pulse programme, the resistance can be changed manually at any time with the +/- button. In the speed-dependent QuickStart programme this is done via a gear/step selection from 1-21, in the speed-independent wattage programme by entering the desired wattage.

### Control by means of storage medium

The storage medium is included as standard with all units. The control via the storage medium serves as an operator facilitation for training. It accompanies and supports you during all your training activities.

The system consists of the monitor unit with reader. The slot for the medium is located on the right side of the monitor. An acoustic signal confirms the recognition of the storage medium.

The system makes training with the equipment even easier and more efficient. The programming of the medium can be done directly on all types of equipment. Initially, the results are only output via the display on the machines.

The training plan can optionally also be created with a PC software. The individual training programmes are then transferred to the medium. All training results are saved and can then be analysed on the PC.

### Training plan creation on the device, without PC software

- Sit on the unit and start pedalling or activate the display by pressing a button.
- The individual programme data must be entered manually on the unit. Then the programme is started.
- If the display LOS appears, the trainer medium is inserted briefly. The unit gives an acoustic signal when the medium has been detected.
- The client medium is inserted. Now the max. number of training units (1 - 255) can be set and confirmed with ENTER. Setting 255 units corresponds to cancelling the limitation. After the signal tone, the programme data is stored and the client medium is functional.
- Plug in the client medium again. Training can now begin. When the released training units have been completed, a new programme must be uploaded.

The client medium is intended for the exerciser. After saving the desired training programme, the medium is inserted into the card reader for training.

The training now runs automatically without any further input being necessary. All training results are saved on the medium after the training is finished.

### Special function of the trainer medium: Deleting the data

If you want to delete the complete card content including the training plan, insert the trainer medium twice in succession into the chip card reader. Then insert your client medium and all data is deleted.

As soon as the client card is inserted, the "Total results" can be deleted without the trainer card by pressing the + and - buttons simultaneously for approx. 3 seconds. Only the results are deleted, but not the training plan.

### How the member card works

Sit on the machine and start pedalling. Insert the programmed medium, the added training results of all cardio machines (total) and those of the currently used machine are displayed for 4 sec. each. You can therefore see your cumulative or average training results.

Your personal training is then automatically called up and your individual training can begin. Only remove the medium after the training is finished or has been cancelled with the COOL button. The end of a training session is always indicated by a beep.

The training results of the training session are immediately shown on the display. Likewise, all results are stored on the medium. After a few seconds, the time starts counting up again, the Cool-Down begins.

### Results

The completion of a training programme is followed by a Cool-Down with low load. The exercise can be stopped at any time after the end of the training programme, which is indicated by a beep. The exercise can be stopped at any time by pressing the COOL button.

The results are displayed via the parameter displays and are partly averaged (Watt, Km/h, RPM, pulse), partly cumulated (Km, K-Cal, time). The average values are marked with the symbol Ø.

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

If you train with a storage medium, the results of each training device are stored separately on the medium. The reading of the results can be done on the device or on the PC if the appropriate software is available.

### Motion cycle 100 med programmes

Programmes	Manual selection	Storage medium
1 Quick	x	x
2 Watt	x	x
3 Pulse	x	x

### **Quick**

The programme allows you to start training immediately. You start pedalling, the display switches on and the Quick Start is called up. No further programme steps are necessary.

The +/- buttons can be used to vary the level - i.e. the intensity level - throughout the training.

The programme works speed-dependent, i.e. the power changes depending on the speed.

The programme is ended by pressing the cool-down button and the training results are displayed.

### **Watt**

The programme exclusively controls the duration of the training and works independent of speed, i.e. the power remains constant with increasing speed.

After activating the display, press the Prog button to access the programme selection. If you select the timed training, the training duration in minutes is preselected with +/- and confirmed with ENTER. The initial load is always 50 watts and can be changed at any time in 5 watt increments up to 500 watts using the +/- buttons. If the speed is too low to generate the set power/watt, the speed display flashes.

After the end of the training or a training interruption via the COOL button, the relevant results are shown in the display.

### **Pulse**

Pulse training is a very intelligent training programme that guarantees that the training is optimally dosed without the need for manual intervention. At the beginning, the desired target pulse rate is set - depending on the training goal - and the device then controls the resistance so that this pulse rate is reached but not exceeded. Furthermore, the programme can assess the performance based on the pulse development in order to optimally adjust the further programme control, especially the warm-up phase.

If the initial load is set above a certain watt limit, the warm-up phase is skipped, and the load is immediately adjusted according to the desired pulse rate.

This programme operates in speed-independent mode.

The following parameters must be entered for the pulse programme:

- Training pulse
- Initial load in watts (usually 25-50 watts)
- Training duration in the effective range

Everything else is done by the programme control. The entered training duration refers to the effective training time during which the heart rate is in the defined target pulse range, i.e. the warm-up time is not included in the time measurement.

The +/- buttons are always active during the training. If the initial load is increased to more than 45 watts in the first 2 minutes, there is an immediate step increase to reach the effective pulse range as quickly as possible. In this way, there is the possibility of cross-training, where the resistance is set to the expected wattage resistance and the ergometer only takes over the fine gradation in the range of the target pulse.

Once the target pulse range is reached, the +/- buttons are used to change the target pulse.

At the end of the training, the results are displayed as average or cumulative values.

### **Pulse controlled training**

For information on how the pulse-controlled training programmes work, please refer to the "motion pulse manager" brochure, which can be requested from the manufacturer.

### **Interface PC**

The ergometer is equipped with an RS 232 interface - without galvanic isolation. This allows control by PC, ECG, spirometer, etc., provided the devices use e.g. the ergo200/800 protocol. The unit's brake generates sufficient current. However, this means that pedalling must be started for communication to be established.

Note that electrical safety must be observed for medical use.

Ask your salesperson if you have any questions about this.

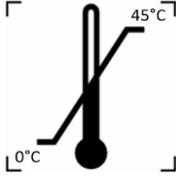
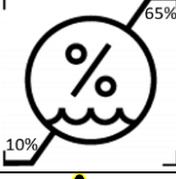
## **6 Care, maintenance and upkeep**

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 must 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
<p><b>Sicherheitshinweis gemäß DIN EN ISO 20957</b></p> <p>Warnung! Systeme der Herzfrequenzüberwachung können ungenau sein. Übermäßiges Trainieren kann zu ernsthaftem gesundheitlichem Schaden oder zum Tod führen. Bei Schwindel- Schwächegefühl sofort das Training beenden.</p>	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	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 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 to be able to make the correct diagnosis and, above all, to provide the appropriate replacement parts for you!

### Maintenance instructions for the operator

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

Despite an excellent quality system, you must carry out the following checks every 6 months and document them in the product manual for devices with medical approval:

- 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 trim and frame parts regularly as needed with a damp cloth and mild soap to remove aggressive sweat residue. Then rub 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, as this can damage sensitive electronic components.
- Please use only acryl-des® disinfectant wipes for any necessary disinfection of the equipment.
- If necessary, the monitor display shows a battery voltage that is too low, at which a function without braking current cannot be safely guaranteed. Then change the 3 x AA batteries by loosening the 4 connecting screws of the two monitor housing halves. Open the monitor housing and change the batteries in the front half of the housing. Make sure that the batteries are inserted according to the instructions. Please dispose of empty batteries in accordance with the legal regulations. There is an obligation to return the batteries; the customer can choose whether to hand them over to the regional waste disposal company or to the appliance distributor for disposal free of charge.
- Please ensure that the units do not stand on thick rubber mats into which the frames press. The underside of the frame must always be ventilated.
- Check the housing fixings for tightness.
- Check the detent pins regularly for function.
- If the equipment is used regularly for training, we recommend a weekly visual inspection of all equipment parts, especially screws, bolts, welds and other fastenings.
- Check that the feet of the appliance are firmly seated.
- Check that the cranks are firmly connected to the axle.
- 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, please contact us for this.

### Attention: Retighten the cranks and pedals

After the first 10 hours of operation, the cranks and pedals must be tightened. This is done with a 14mm socket spanner. If the pedals and cranks are not tightened, damage to the axle, cranks or pedals may occur, in which case there is no longer any warranty.

### Maintenance by an authorised specialist

In case of problems with the device that you cannot solve yourself in a simple way, always contact the emotion fitness service. 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 equipment!

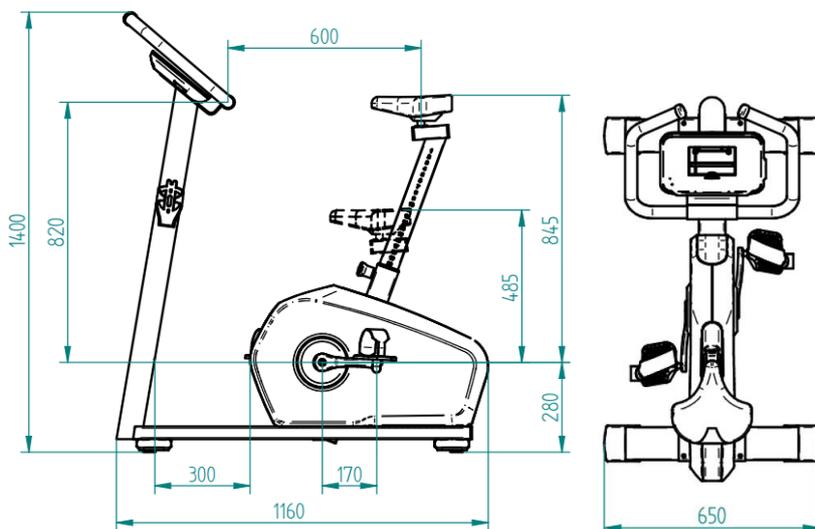
Your local authorised dealer can also provide further information.

## 7 Technical data

- Dimensions and weights may vary due to changes in equipment.

Dimensions	Weight	Max. user weight	Safe workload
117 cm x 65 cm x 144 cm (L/W/H)	58 kg	130 kg	188 kg

- Resistance system: mains-independent hybrid braking system
- Buffer battery: 3 x AA - Mignon cell
- Power range: 25 - 300 Watt/speed-independent
- Freewheel: available
- The following EU directives are fulfilled:  
DIN EN ISO 20957-1 SA  
DIN EN ISO 20957-5 SA  
DIN EN 60601-1  
2001/95/EC General Product Safety Directive  
93/42/EEC Medical Devices Directive



## 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 costs of labour for a warranty service during the first 12 months are 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 delivered spare parts will be charged.

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 [www.emotion-fitness.de](http://www.emotion-fitness.de).

**CE** 0633

**Thank you for your trust!**



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