Instructions for use
for

Elliptical trainer *of the motion cardio line 900 & motion cardio line 900 med*

motion cross 900
motion cross 900 med

Contents

1. General information

Read these instructions for use, including all safety instructions and warnings, carefully **before using** the training equipment for the **first time** to ensure that it is used safely and as intended. Keep this document for future reference and pass it on if you pass on the device.

The purpose of the devices is cardiopulmonary training and reproducible stress on the body, e.g. for diagnostic and therapeutic measures. The equipment is mainly used by users in cardiology, physiotherapy, sports medicine and at home. They are also used to build up and strengthen skeletal muscles and to increase mobility in the joints affected during training.
The equipment enables reproducible physical stress on 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 appliances.

2. Classification of the devices

- The *cardio line 900 med* devices are medical products MD in accordance with Directive EU 2017/745, categorised in Class IIa. In the control range of the brake, the display accuracy is +/- 5% or +/- 3 watts for loads below 50 watts.
- The *cardio line 900* devices comply with the DIN EN ISO 20957-1 and DIN EN ISO 20957-5 standards; 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 one person can train on the equipment at a time; the maximum user weight stated on the rating plate must not be exceeded.

3. Safety instructions

Safe installation of the devices

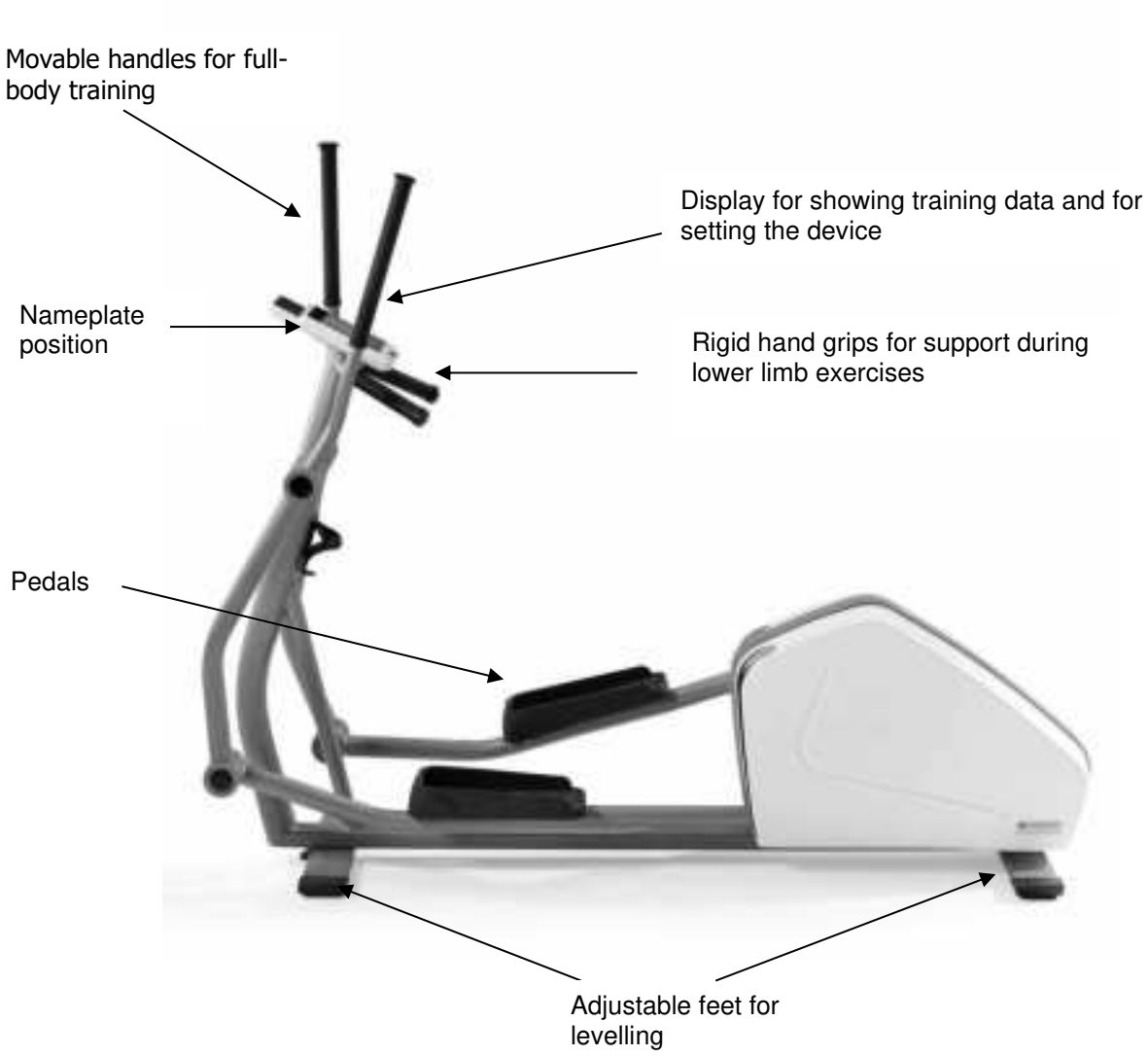
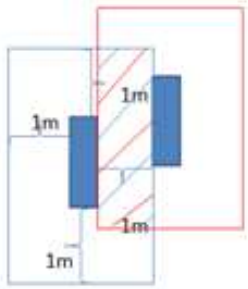
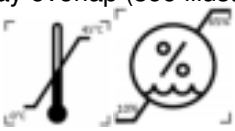


Fig.1: Device view motion cross 900 & motion cross 900 med with labelling of the main elements



- Place the appliance on a firm, horizontal, level and non-slip surface and level the appliance with the adjusting screws so that it does not wobble.
- The free area around the appliance must be at least 1 metre larger than the movement area of the appliance to ensure safe access and egress from the appliance, even in emergencies. However, the safety clearances may overlap (see illustration).
- Only place the appliance in dry rooms at ,  .
- Make sure that there is no electromagnetic radiation, e.g. from radio antennas, radiating fluorescent lamps, etc., as these can affect the pulse measurement.
- The underside of the frame must always be clear to ensure adequate ventilation.
- All the devices listed here are mains-independent. They generate their own power during operation or are supplied with power during programming by the capacitor installed as standard. The capacitor is charged during training and has a service life of > 20000 cycles.
- Attention: Please always observe the care, maintenance and servicing instructions 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 refer to the section "Indications and contraindications".
- Please note that excessive training can be harmful.
- If you experience nausea or dizziness, stop training immediately and consult a doctor.
- Training on the equipment is only permitted with undamaged skin.
- When training, it is advisable to wear tight-fitting, lightweight sports clothing that cannot get caught in parts of the device during training. Always wear suitable sports shoes to ensure a secure footing on the pedals.
- Before starting training, check the device for stability, defective parts or possible manipulation. If you have discovered any defects or are unsure, ask the supervisor before you start training.
- Before starting training, it must be ensured that nobody is in the vicinity of the moving parts in order to avoid endangering third parties. In particular, unsupervised children must be kept away from the equipment.
- The cross trainer has no freewheel. The exercise can therefore not be stopped abruptly by the user. Therefore, use the pause/stop button on the display or allow the movement to run out slowly.
- The pause/stop button is always active as a safety function and brakes the movement immediately when the button is pressed. The device also has a speed limit, which is set to 80 rpm as standard. If you try to go above 80 rpm, the speed is pushed back below the limit by means of brake intervention. If you wish to adjust the limit, please contact our service department.
- No adjustments need to be made to the device in order to train biomechanically correctly. Just make sure that your feet are completely on the pedals and that the moving handles are gripped at about shoulder height. Avoid a hunched back or a cross-legged position during training and never keep your knee and elbow joints in an unbent position (0=position).
- Use the fixed handles to train the lower extremities only. Please note that the movable handles swing with you and could injure you.

- **Warning:** The heart rate monitoring system is prone to malfunctions. Excessive training can lead to dangerous injuries or death. If you feel unwell, stop training immediately and consult your doctor or therapist.
- **Warning:** The appliance may only be operated with the housing and in dry rooms.
- **Warning for optional power connection:** Only use approved power supply units that have been tested in accordance with IEC 60601-1 and approved by the appliance manufacturer. Ensure that the plug is installed in such a way that it is difficult to disconnect it (e.g. through floor boxes, installation under the appliance or cable ducts, position of the power supply unit in areas that are difficult to access).
- **Warning:** If the medical device is modified, suitable tests and inspections must be carried out to ensure continued safe use. The device must not be modified without the manufacturer's authorisation.

Indications and contraindications

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

Exemplary indications

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

Examples of contraindications

- Cardiovascular diseases
- Pain of the musculoskeletal system
- During training:
    - Pain in the chest area
    - Discomfort
    - Nausea
    - Dizziness
    - Shortness of breath

Ask your 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.

	cross 900 / 900 med
Basic equipment	Quickstart, time training, pulse training
incl. programme package	Quickstart Qualifying Pulse training + 7 further programmes + 4 motion balance programmes

Overview of display/button functions

Fig. 2: Monitor view, to explain 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 access the main menu. A long press (at least 6 seconds) on the HOME button resets the monitor electronics.
- Press the **PAUSE** button (▯▯) to pause the training session.
- Training can be started or resumed by pressing the **PLAY** button (▷).
- The **COOL** button (❄) ends the training session immediately. A summary of the training results is immediately created, displayed and, if necessary, sent to compatible training control software.
- Use the "**+" button or "-" button to** increase or decrease the parameters or power values to be set.
- Use the **arrow buttons to** navigate through the corresponding menus and confirm values or settings.
- You can navigate through the programme selection by swiping/swiping gestures.

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

- Programme name.
- Time: Training time completed or remaining.
- Heart rate: Heart rate display when using a compatible heart rate transmitter belt. The heart rate indicator shows the current heart rate range for programmes with a target or maximum heart rate. The profile indicator in the display shows the progression of the intensity range during training.
- Watt: Power is displayed in watts. At the same time, the intensity is shown graphically in the profile.
- km/h: Fictitious speed is displayed in km/h.
- Speed: Pedal revolutions per minute.
- L/R (not for 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: Respiratory rate (requires POLAR H10 sensor)
- km: Added or remaining distance. The display is in metres; from 1000 m in 10 m increments (1.00 km).
- K-Cal: Added or remaining calorie consumption.
- Level: Intensity level 1 - 21.
- Ø If the parameters are supplemented with this symbol, these are average values.

Results
After completing a training programme or by prematurely cancelling it via COOL (❄), the results are displayed in the monitor and a 3-minute cool-down is performed. This can be cancelled using the HOME button.
Some of the values are averaged (watts, km/h, speed, heart rate, altitude metres/min), others are cumulated (km, K-Cal, time, altitude metres). 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 icon. You will then be taken to the configuration page where you can set the relevant training parameters. Press the **PLAY** button (▷) to confirm your entry and start the training programme. You can return to the main menu via the home icon or the home button.

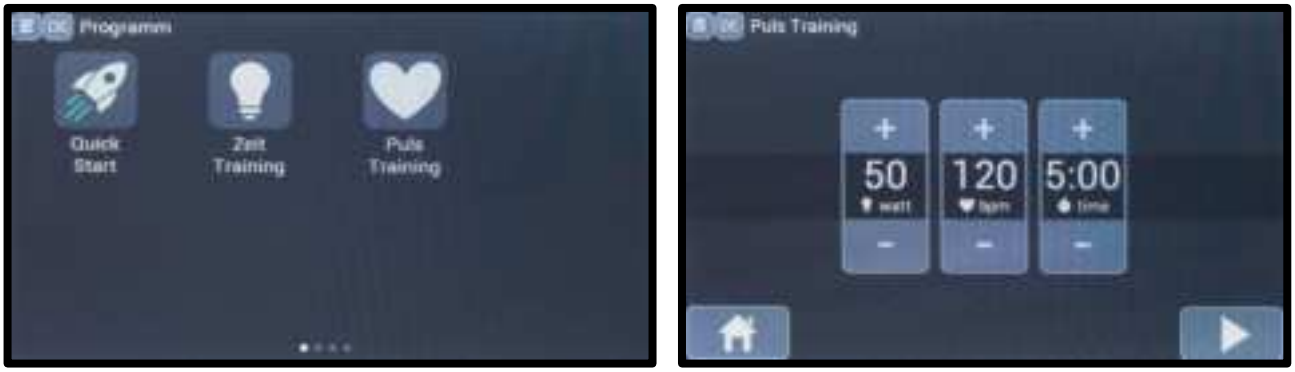


Fig. 3: Programme selection and configuration for manual training.

Pulse systems
The motion cardio line 900 and motion cardio line 900 med devices are equipped with the original POLAR pulse system, which uses a chest strap to record signals 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, e.g. T31coded, are used, there is downward compatibility. However, it should be noted that there may be interference during signal transmission via 5 kHz technology.
The colour of the flashing heart symbol indicates the technology used.

light blue=Bluetooth green=5kHz dark blue= (optional see below)

ANT+

The motion cardio line 900 and motion cardio line 900 med devices enable optional data transmission via in addition to heart rate transmission via 5kHz/Bluetooth . The performance package is required for this. The motion cardio line 900 and motion cardio line 900 med devices automatically recognise a

Polar 5kHz/Bluetooth signal or signal. To pair a sensor, the user must already be in the desired training programme and the corresponding sensor must be presented near the integrated radio antenna in the monitor.

A dark blue flashing heart symbol confirms the heart rate transmission via .

Fig. 11: Pairing an ANT+ sensor for heart rate transmission

Safety instructions in accordance with DIN EN ISO

Warning! Heart rate monitoring systems can be inaccurate. Excessive training can lead to serious damage to health or death. Stop exercising immediately if you feel dizzy or faint.

Inductive charging (optional)

An optional inductive charging module can be activated on all motion cardio line 900 and motion cardio line 900 med devices via the "connect package". This enables contactless charging of mobile devices that fulfil the Qi standard ( ). Wearers of pacemakers or implanted defibrillators (ICDs) are recommended to keep a minimum distance of 10 cm from the charging coil.

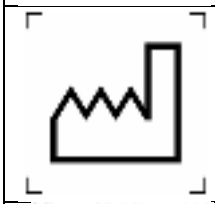
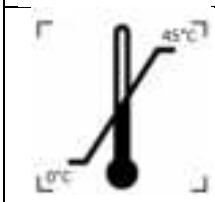
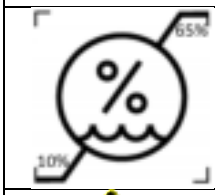
5. Care, maintenance and servicing

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

Warning: The device 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**
Sicherheitshinweis gemäß DIN EN ISO 20957	**DIN EN ISO 20957**	**Safety instructions for heart rate monitoring**

	**ISO 7000-3082**	**Manufacturer**
	**ISO 7000-2497**	**Date of manufacture**
	**ISO 7000-0632**	**Temperature limitation**
	**ISO 7000-2620**	**Humidity, limitation**
	**ISO 7010-W001**	**General warning sign**
	**ISO 7010-M002**	**Follow the instructions for use**
	**IEC 60417-5840**	**Type B application part (applies to saddle, pedals and handlebars)**
	**ISO 15233**	**Medical device**

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

Fault diagnosis

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

Error message	Measure/s	Device types affected
"check 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. → Check the pulse sensor.	All motion cardio line 900 devices
"FBB:Incomplete frame"	FBB (Fly-By-Bluetooth®) error; when the end of a message to be transmitted is reached but it is not yet complete. → Contact the software manufacturer or device manufacturer.	All motion cardio line 900 devices → only occurs with system integration
"FBB:Bad packet type"	FBB error; unknown message type was sent by the PC software. → Contact the software manufacturer or device manufacturer.	All motion cardio line 900 devices → only occurs with system integration
"FBB:Bad block check"	FBB error; block check (generated checksum) does not match the expected block check. → Contact the software manufacturer or device manufacturer.	All motion cardio line 900 devices → only occurs with system integration
"FFB:Missing ETX"	FBB error; the end of the message does not correspond to the "End of message" character. →Contact the software manufacturer or device manufacturer.	All motion cardio line 900 devices → only occurs with system integration
"FBB:Parser failed"	FBB error; message from PC does not correspond to a defined message format. → Contact the software manufacturer or device manufacturer.	All motion cardio line 900 devices → only occurs with system integration
"FBB:UID mismatch"	FBB error; the user ID sent in the login message does not match the user ID from the programme message. → Contact the software manufacturer or device manufacturer.	All motion cardio line 900 devices → only occurs with system integration
"Program not allowed"	FBB error; the software has sent a programme that is not enabled in the device. → Select a different programmein the PC or Contact the device manufacturer to purchase this.	All motion cardio line 900 devices → only occurs with system integration
"FBB:Missing input: ##"	FBB error, parameter ## is missing in the programme message, but is required (programme is not started). → Contact the software manufacturer or device manufacturer.	All motion cardio line 900 devices → only occurs with system integration
"Par ## out of range: ###<###<###"	A required setting parameter was sent to the device by the PC software outside the permissible range. → Contact the software manufacturer.	All motion cardio line 900 devices → only occurs with system integration
"Profile> 50 steps"	Error message if a profile with too many steps is to be played. → Reduce the number of interval steps in the PC programme (only for interval programme) or contact the software manufacturer or device manufacturer.	All motion cardio line 900 devices → Only occurs with system integration and selected interval programme
"Infocode: ### (sometimes with additional text)	Error number of the MCU6 motor control unit is displayed. → Contact the device manufacturer.	h/p/Cosmos treadmill
"Sprintex Err: A##:###"	Error number of the Sprintex controller is displayed. → Contact the device manufacturer.	Sprintex treadmill
"Sprintex Err: $-$"	Error number of the Sprintex controller is displayed.	Sprintex treadmill

	→ Contact the device manufacturer.	
"Sprintex Err: no reply"	The monitor receives no response from the Sprintex controller. → Contact the device manufacturer.	Sprintex treadmill

Instructions for fault status detection (fault)

If errors occur on the devices that you cannot categorise, 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 you with the right spare parts!

Maintenance instructions for the operator

Ideally, visually inspect the appliance 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 check all visible connections and weld seams.
- Clean the appliance thoroughly.
- Check all screw connections for tightness.
- Check the integrity and strength of the pedals and cranks.

In general:

- Clean the plastic panelling 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 appliances never become dry in inaccessible places. Rust infestation cannot be ruled out with this procedure.
- Make sure that no liquid gets into the monitor housing
- Only clean the monitor display with recommended display cleaners (https://www.schupp.shop/therapie-praxisbedarf/praxisbedarf/reinigung-hygiene/displayreiniger?number=3912)
- Please only use mikrozid® sensitive wipes disinfectant wipes (http://www.schuelke.com/) for any necessary disinfection of the devices.
- The monitor display may indicate that the capacitor voltage is too low, at which point it cannot be guaranteed that the device will function without braking current. You can recharge the capacitor by pedalling with a higher load or by using a power supply unit approved by the device manufacturer.
- Check that the housing fastenings are tight.
- We recommend a regular visual inspection of all appliance parts, especially screws, weld seams and other fastenings.
- Check that the appliance feet are firmly seated.
- Only use original spare parts - please contact us for this.

Maintenance by authorised specialist

In the event of device problems that you cannot easily solve yourself, always contact the emotion fitness service centre. The authorised service team will help you quickly and competently or provide you with instructions.

Calibration/maintenance

No MTK is prescribed by law for the operator of elliptical and stair climbing equipment (cross and stair). This is due to the fact that the body weight of these devices has an influence on the resulting power. emotion fitness GmbH & Co. KG offers to calibrate the braking power on request.

In addition, we recommend that the safety-relevant components are **serviced** and checked by authorised employees/partners **every 12 months.**

This section refers to the legal situation in Germany. Please check the applicable laws on the operation of medical devices in your country.

Devices with the suffix "med" are in accordance with the Medical Devices Directive EU 2017/745. They are therefore labelled with 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 devices!

Further information can also be obtained from your local authorised dealer.

6. Technical data*

Device type	Dimensions (L/W/H)	Weight	max. user weight	Safe workload
motion cross 900 motion cross 900 med	200 cm x 65 cm x 169 cm	101 kg	150 kg; boosted: 200 kg	251 kg; boosted: 301 kg

Resistance system: Mains-independent braking system

Power range: speed-independent: 100-500 watts (optional 100-950 watts); speed-dependent: 100-1,000 watts

Freewheel: not available

The following EU directives are fulfilled:

2001/95/EC General Product Safety Directive

EU 2017/745 Art. 120 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, utilisation class S; DIN EN ISO 20957-5;

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

* The values may vary due to device modifications and options.

Subject to technical and visual changes and printing errors.

Note on the wattage of the motion cross 900:

The mechanical power is measured electronically at the drive axle. The physical power demanded of the user differs from the purely mechanical power, which is why the power display in watts often raises questions among users. Especially when evaluating the braking behaviour of the system and comparing it with the sensation on the cycle ergometer. On a cycle ergometer, the power is measured at the drive axle, which is applied more or less effectively via the force applied to the pedals. The system is easy for the user to understand. With the cross, the power display is not only based on the braking power, but also on the movement power, which can be roughly calculated physically. The user performs the movement standing up and raises their centre of gravity for each step - approximately half the difference in level between the treads. In addition, the design of the device and the rigid axis support the movement. You can calculate with about 1/3 of the calculated power. The power output depends on the cadence and, of course, body weight also plays a major role. Higher performance on the crosstrainer requires additional resistance from the brake. Over the years, we have carried out tests comparing the heart rate behaviour on different types of ergometers. The watt values were checked and "adjusted" at the same heart rate. With the cross, the wattage at the same heart rate is approx. 30% higher than with the cycle ergometer. A user weight of 75 kg was assumed in order to realise simple operation.

Example: 6oU/min = 120 strokes; body weight = 75KG; watt = 1 joule/second; 1 joule = 1 newton x metre = 9.8kgf x metre; 75KG x 9.8 x 0.4m = 294 watts; according to our empirical values, this means a power of approx. 100 watts in the example calculation.

7. Waste disposal

With the conclusion of the purchase contract, it is agreed that business customers are responsible for the disposal of the WEEE Directive 2012/19/EU on waste electrical and electronic equipment themselves.

8. Guarantee

This is based on the statutory warranty.
As the distributor of this product, emotion fitness GmbH & Co. KG provides free service for 12 months on parts and labour for professional users if the proper use and care specified in this user manual can be proven. For a further 12 months, emotion fitness GmbH & Co. KG will replace spare parts free of charge.
The warranty claim expires if the product has been serviced or repaired by unauthorised persons. As soon as a warranty claim occurs, you should inform emotion fitness GmbH & Co. KG immediately in writing or by e-mail. Information about the serial number of the device, the time of purchase, a detailed description of the fault and the source of supply must be provided by the owner of the device.
emotion fitness GmbH & Co. KG will arrange a service, but reserves the right to decide on the type of service.

The following procedures are conceivable:

1. the service is carried out on site by our service department.
2 We will send you the required spare part.
3. we will send a replacement device.

The defective parts shall be returned to us immediately by the customer. Otherwise the delivered spare parts will be invoiced.
If the causes lie outside the scope of the warranty, 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 are covered by the statutory warranty.

These warranty provisions shall in no way affect general statutory claims.
The current version of our General Terms and Conditions of Delivery can be viewed and downloaded from our website at www.emotion-fitness.de.

CE 0633

Thank you for your trust!

emotion FITNESS

Manufacturer
emotion fitness GmbH & Co KG
Trippstadter Str. 68
67691 Hochspeyer, Germany
Tel +49 (0) 6305-71499-0
Fax +49 (0) 6305-71499-111
Internet: www.emotion-fitness.de
E-mail: info@emotion-fitness.de
Manufacturer EUDAMED SRN: DE-MF-000016584