Owner's manual

XRCISE LINE MED

Please read this manual carefully before use and keep it in a safe place for future reference.
For further information about ERGO-FIT products please contact:

cardiowise GmbH
Blocksbergstraße 165
66955 Pirmasens
Germany
Phone: +49 (6331) 2461-37
Fax.: +49 (6331) 2461-55
Mail: contact@cardiowise.com
http: www.cardiowise.com

Development and production of all devices of the MED series according to the European Medical Device Directive 93/42/EWG. They thus show the CE marking and the number of the notified body.

© 2019 by ERGO-FIT GmbH & Co. KG. All rights reserved.
This user manual has been created with greatest possible diligence. Please inform us of any details that do not correspond to your training device so we can take care of this as quickly as possible.

This document is protected by copyright. All rights originating from this, particularly the right of copying, duplication, distribution as well as translation and reprint, even copies in extract, are reserved. No part of this manual may be reproduced, manifold or distributed for any purposes or in any form, by any means, (print, photocopy, microfilm, or any other information-saving mechanisms) without prior written permission of ERGOFIT GmbH & Co. KG.

Trade marks: ERGO-FIT and the ERGO-FIT Logo are registered trade marks of ERGO-FIT GmbH & Co. KG. POLAR is a registered trade mark of POLAR Electro GmbH. All other trademarks used/shown in this text are trademarks of their respective owners and are thus protected.

Technical and optical modifications as well as misprints reserved.

Version: XRCISE LINE MED-20190315-en
Printed in Germany
Dear customer,
Thank you for purchasing an cardiowise training device. You are now the owner of a state-of-the-art training system that combines highest technical standards with easy-to-use functionality.

This user manual provides information on several models. This means that you may find explanations that do not directly apply to your training device.

This user manual contains important information on how to operate and use your training device. We recommend that you read this user manual carefully before starting with your workout in order to become familiar with your training device quickly and to understand its correct and safe operation.

Should you have any further questions that are not answered in this manual, please contact us. Cardiowise will try to help as quickly as possible.

The cardiowise team can also advice you on compatible ECG equipment.
Table of contents

1 General Information .............................................................................................................. 1
2 Safety Instructions ............................................................................................................... 5
3 Quick Reference ................................................................................................................... 15
4 Intended Use ....................................................................................................................... 17
5 Transport and Installation ................................................................................................. 21
6 Setup .................................................................................................................................. 33
7 Operation ............................................................................................................................ 53
8 Workout ............................................................................................................................... 75
9 Maintenance .......................................................................................................................... 79
10 Troubleshooting ................................................................................................................ 89
A Appendix .............................................................................................................................. 99

Please note:
This user manual provides information on several devices.
Details may vary depending on your model!
Chapter 1 General Information

1.1 Cardiowise XRCISE LINE at a Glance ................................................................. 2
1.2 General Information on this Manual ................................................................. 3
1.3 Parts Included in the Delivery ............................................................................ 3
1.4 Customer Service .............................................................................................. 3
1.5 Disposal .............................................................................................................. 4

Please note:
This user manual provides information on several devices. Details may vary depending on your model!
1  General Information

1.1  Cardiowise XRCISE LINE at a Glance

Cardiowise XRCISE LINE MED machines are intended to provide a cardiovascular workout while simultaneously exercising small (e.g. CIRCLE) and large (e.g. CROSS) muscle groups. Cardiowise cardio machines offer you best training possibilities, regardless of your age, gender or fitness level.

Among others, the optimal regulation of the workout intensity and the precise workout control are highlights of the whole product line. In addition, quiet operation, ease of use and the consideration of customer-specific requirements demonstrate cardiowise’s focus: High technical standard, optimum workout environment and precise workout control, combined with user-friendly operation.

However, technology is not the only crucial factor for outstanding workout equipment. The machines must also meet biomechanical and medical requirements: The health of our users is what matters most! Thus, a sophisticated training and testing system can only be developed by combining technical and electronic expertise with the latest results in sports medicine and coaching science. ERGO-FIT devices clearly meet this target.

Our XRCISE LINE MED: Workout equipment especially designed for medical purposes

The lifetime of the equipment is 6 years.

Your benefits...
Regular workout on these machines reduces the risk of cardiovascular diseases and improves physical fitness in an optimal way - even at an advanced age. Consequently, this training and testing system represents an essential tool for injury prevention and rehabilitation. You will feel fit, more powerful, more attractive, and more balanced.

*A list of compatible external equipment can be obtained from cardiowise.*
1.2  General Information on this Manual

Whether you are already familiar with cardiowise workout equipment or whether you have not used our machines yet: This manual gives you important information.

You can easily find the information you are looking for by searching the table of contents. Users who are already familiar with cardiowise equipment might find the Quick Reference helpful. However, if you are an experienced user and only rely on the Quick Reference please make sure that you nevertheless review the safety guidelines.

The manual contains many tips and tricks to help you get familiar with your cardio machine as quickly as possible.

Please always keep the manual at hand to avoid unnecessary and time-consuming calls at the customer service and to quickly fix problems on your own.

1.3  Parts included in the Delivery

Please check if all parts are included in the delivery and inform our sales department immediately of any missing parts.

Please ensure that the following parts are included in your delivery:

1. The correct machine (model, series)
2. One power cord per machine
3. Hard copy of the manual or digital version on CD ROM

1.4  Customer Service

Contact our customer service for troubleshooting services, technical support, spare parts delivery and information.

In case of technical questions and service orders, please call us at:
Zentrale: Telefon: +49 (6331) 2461-37
+49 (6331) 2461-20
+49 (6331) 2461-45
Fax: +49 (6331) 2461-55
1.5 Disposal

These machines are appliances according to the Electronic Equipment Act. They do not belong into the regular household waste but must be disposed of by a certified company. For more information on responsible bodies please see:

stiftung elektro-altgeräte register (EAR)
Benno-Strauß-Straße 1
D-90763 Fürth
Phone: +49 (911) 766650
Fax: +49 (911) 766650
Mail: info@stiftung-ear.de
Web: www.stiftung-ear.de
Chapter 2  Safety Instructions

2.1 What You Need to Know When Using Your Workout Equipment ............... 6
2.2 Instructions for Safe Operation ............................................................... 11
2.3 How to Avoid Electric Shocks ................................................................. 12
2.4 Choosing the Right Place of Installation .............................................. 12
2.5 What Needs to be Considered in Case of Repair? ................................. 12
2.6 Things to be Avoided ........................................................................... 13
2.7 Contraindications ................................................................................ 13

Please note:
This user manual provides information on several devices. Details may vary depending on your model!
2 Safety Instructions

Please read the following chapter carefully and respect all safety instructions before you start using your workout equipment. Please keep this manual in a safe place in order to pass it over to future owners if you sell your workout device.

For evidence of ownership, please complete the following form.

Model/series ____________________________
Serial number ____________________________
Date of purchase ____________________________

You will need this information in case of warranty.

The following symbols designate important information.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caution!</td>
<td>This warning draws the attention to hazards that could result in personal injury or death.</td>
</tr>
<tr>
<td>Warning!</td>
<td>This warning draws attention to hazards that could result in property damage.</td>
</tr>
<tr>
<td>Attention!</td>
<td>Attention, Switch off and unplug the machine.</td>
</tr>
<tr>
<td>Tip!</td>
<td>This hint contains important information and tips to improve operation.</td>
</tr>
</tbody>
</table>

2.1 What You Need to Know When Using your Workout Equipment

The information in this section applies to all XRCISE LINE MED machines.

General Information

⊙ Carefully read this manual prior to using your product.
⊙ Familiarize yourself with the machine before you start your workout.
⊙ It’s the owner’s responsibility to inform the users of all warnings and instructions provided with the equipment.
⊙ Please consult your physician before you start using the machine and note the contraindications (see Chapter 2.7).
⊙ Caution! The heart rate control system may be faulty. Excessive training may cause dangerous injury or even lead to death. Immediately stop training in case of an
unusually strong reduction of your physical performance!

Before using the machine please perform a proper function test (see chapter 7.3). For safety reasons inspect the machine (loose screws, worn parts) and the power cord for signs of damage before each use. If the machine is damaged do not use it until it is repaired.

In order to reduce risk of injury please wear appropriate clothes and footwear for exercise.

In case of nausea, dizziness, pain in the chest, limbs or joints, stop workout immediately and see your trainer or a doctor.

If you wear a cardiac pacemaker or have health problems please consult your doctor before using the machine. Discuss your workout program with him. Only use MANUAL mode.

Your workout machine is not a toy! Children must be supervised if they are near the equipment. Children cannot always predict possible hazards. Parents or other supervisors should always be aware of their responsibility because the playful and adventurous nature of children may lead to situations that the workout machine is not intended for.

The machine is only to be used on instruction of a physician and / or a supervisor. The machine must not be used without the presence of a supervisor.

Make sure that third parties do not stand close to moving parts.

Do not place any beverages or food on your training machine. Use the bottle holder.

Do not stand on the casing of the machine and do not lean on the control panel or the handle bar.

Start the training slowly and gradually increase the intensity until you reach the desired level.

Do not jump from the exercise machine during your workout except in emergency cases (see Chapter 6.3.7). Only get off the machine when all moving parts have stopped completely. Otherwise you might fall.

Do not touch the USB port, RS232 port or audio port during the training.

Maintain the workout port, RS232 port or audio port during the entire workout.

Please review the additional safety and operational instructions in this manual.

All safety instructions in this manual are based on many years of experience and selfconception.

Machine Specific Information

**XRCISE CIRCLE MED**

When folding the seat the gap for the seatpost should be free of obstacles. Otherwise there is a risk of injury.

When using the seat watch out for handles and moving parts. There is a risk of blunt injuries (e.g. hitting).
When adjusting the revolving unit use the adjusting lever on the yellow casing to avoid pinching.

Please stay away from the crank handles.

Warning! Do not exceed the maximum user weight of 200 kg.

Before each use, inspect the seat, the crank handles and the casing for damage. In case of damage, have the machine repaired immediately.

**XRCISE CROSS MED**

- Before each use, inspect the pedals (footrest) and the casing for damage. In case of damage, have the machine repaired immediately.
- Warning! Do not exceed the maximum user weight of 200 kg.
- Do not take your feet off the foot rests during workout and do not trespass the protection element.
- Do not stop the foot rests against the direction of rotation.
- Do not change the motion direction of the foot rests during movement. You may change the direction only after the foot rests have come to a complete stop.
- Keep the motion area next to the foot rests and the handles clear.
- Note: There are dangerous areas where you might get squeezed in the motion area of the pedals, which increase the risk of accident.

**XRCISE CYCLE MED**

- Warning! Do not exceed the maximum user weight of 200 kg.
- Before each use, inspect seat, handle bar, pedals and casing for damage. In case of damage, have the machine repaired immediately.
- Do not lean over the handlebar and do not lean to the side. The machine might fall over.
- Do not take your feet off the pedals during training.
- Tighten the pedals and the pedal cranks after 3 to 5 operating hours. Otherwise there is a risk of injury. Note that the left pedal has a left-handed thread and the right pedal has a right handed thread, see Chapter 9.1.3 and 9.1.5 for a more detailed description.
- Tighten the seat and handlebar clamp after adjusting the seat and handlebar. Otherwise there is a risk of injury.

**XRCISE MIX MED**

- Warning! Do not exceed the maximum user weight of 200 kg.
- Note: There are dangerous areas where you might get squeezed in the motion area of the pedals, which increase the risk of accident.
- Before each use, inspect pedals (footrest), guides, seat and casing for damage. In case of damage, have the machine repaired immediately.
- Do not take your feet off the pedals during training.
- Do not stop the pedals against the direction of rotation.
Do not change the motion direction of the pedals during movement. You may change the direction only after the pedals have come to a complete stop.

Keep the motion area next to the pedals and the seat clear.

Get on / off the machine only when the pedals are not in motion.

**XRCISE RECUMBENT MED**

- Warning! Do not exceed the maximum user weight of 200 kg.
- Before each use, inspect seat, pedals and casing for damage. In case of damage, have the machine repaired immediately.
- Tighten the pedals and the pedal cranks after 3 to 5 operating hours. Otherwise there is a risk of injury. Note that the left pedal has a left-handed thread and the right pedal has a right handed thread, see Chapter 9.1.3 and 9.1.5 for a more detailed description.
- Make sure to tighten the seat clamp after adjusting the seat. Otherwise there is a risk of injury.
- Do not take your feet off the pedals during training.

**XRCISE STAIR MED**

- Warning! Do not exceed the maximum user weight of 200 kg.
- Before each use, inspect the pedals (footrest) and the casing for damage. In case of damage, have the machine repaired immediately.
- Keep the motion area next to the pedals clear.
- Do not take your feet off the pedals during training.
- Warning! There are dangerous areas where you might get squeezed in the motion area of the pedals, which increase the risk of accident.

**XRCISE RUNNER MED**

- Note: Do not exceed the maximum user weight of 200 kg.
- Before each use, inspect running deck, handles and casing for damage. In case of damage, have the machine repaired immediately.
- Do not turn round, stop or jump on the treadmill if it is in motion.
- Note: Keep away from the dangerous pull in area at the rear end of the treadmill! Keep away long hair, loose clothes, jewelry, shoestrings towels etc. from this area. Make users aware of this danger.
- For safety reasons, make sure to leave enough space behind the machine (2 m length and 1 m width).
- Check the emergency stop function before starting the machine.
- Press the emergency stop button only when you are about to fall.
- If the display indicates an overheating of the isolating transformer (for further information on error messages see chapter 10.2), perform the procedures described in chapter 10.2.
Use the safety cord!

After pulling the safety cord you need to turn off the machine by pressing the on/off switch before you reinsert the magnet!

**Blood pressure module**

- The machine must not be used in hazardous areas. The blood pressure measuring machine must not be exposed to strong vibrations. It must be protected against moisture and dust. The machine may only be used in dry rooms.

- The machine must be placed in such a way that it can be easily disconnected from the power supply. The machine can be disconnected at any time by unplugging the mains cable and enabling the safe mode.

- The machine should not be operated in the immediate vicinity of strong alternating current fields and heat sources. Do not use the machine in the vicinity of HF surgery. Avoid strong ambient noise.

- Cellular phones in the immediate vicinity can significantly interfere with the operation of the machine.

- The cuff must not be placed on a limb to which an IV is connected. Inflating the cuff can interrupt the infusion process, which could jeopardize the patient’s health.

- In order for the blood pressure to be measured, the cuff must briefly suppress the blood flow in the limb. The pulse can no longer be measured below the cuff during the measurement process. The tube must not be bent in order to ensure proper flow. Measurements taken too frequently can result in circulatory disorders.

- The blood pressure cuff must not be worn on the arm on the mastectomy side in order to prevent congestion and avoid disturbing the lymphatic flow.

- The blood pressure measurement can be influenced by the position of the patient (lying, sitting, standing), by physiological exertion and by the emotions of the patient.

- The METRONIK BL-6 should not be used in the following cases:
  - for patients who tend to bruise.
  - for patients who are expected to develop skin lesions.
  - if the cuff would have to be put on injured skin
  - for newborn infants

- According to the Medical Device Operator Ordinance, a metrological control procedure must be carried out every 2 years at the latest. Calibration and repair can only be performed by the manufacturer, by METRONIK SUESS OHG or by a service provider authorized by METRONIK. An annual interval is recommended for the STK.

- We would like to emphasize the fact that if some parts become worn or if they need to be repaired, only METRONIK BL-6 original spare parts must be used.
SPO$_2$-Module

- Do not use this module near any MRT or X-ray devices.
- Keep the SPO2 module away from flammable gases.
- Check all components of the SPO2 module (finger clip, cables etc.) for damages. In case of damages do not use the device until it is repaired.
- Keep the SPO2 module away from any liquid as well as any condensations.
- Nail polish or artificial nails can influence the SPO2 measurement. Remove nail polish or artificial nails before using the sensors.
- Do not attach the SPO2 sensor to limbs with blood pressure cuff.
- Taking medicine that changes the blood color, the administration of intravascular dyes or a high concentration of dysfunctional hemoglobin can lead to incorrect results. Intense light such as OP lamps, bilirubin lighting, fluorescent lamps, infrared heat lamps and direct sun light can lead to incorrect SPO2 results.
- Using third-party parts can cause malfunction and loss of biocompatibility. Only use original parts and sensors.
- Do not use the device if you suffer from edemas, skin irritations or have an open wound.

2.2 Instructions for Safe Operation

- After delivery, make sure that the machine has not been damaged during transport. In case of doubt, contact our customer service and do not start the machine.
- Slots and openings on the machine serve as ventilation. Do not cover these openings, because this can cause the components to overheat.
- Always check the power cord for damages before starting the machine.
- Switch off the machine after the workout and disconnect it.
- When setting up the machine make sure that there is a safety distance of at least 1 m around the machine to prevent danger to others. This also prevents dysfunction of the heart rate control.
- Equipment of the XRCISE LINE MED, series are protected against harmful ingress of water and solid objects according to IP21
- For XRCISE LINE MED the protection guidelines according to EN 60601-1:2006 apply.
- If you connect additional devices to the XRCISE LINE MED line you are committed to comply to the system standard EN 60601-1-1.
2.3 How To Avoid Electrical Shocks

⊗ Do not use damaged power cords.
⊗ Do not unplug by pulling on the cord.
⊗ Switch off and unplug the machine before you open it.
⊗ If liquid gets inside the machine, unplug the machine immediately and call the customer service.
⊗ Do not insert any objects in the ventilation slots. This may cause a short circuit.
⊗ Don’t run the supply cable under the machine, neither between the mobile parts or devices of the machine (e.g. tiltable seat with the XRCISE CIRCLE). The insulation could be damaged unconsciously.
⊗ Warning! To avoid electric shocks these devices must only be connected to mains with protective earth conductors.

2.4 Choosing the Right Place of Installation

⊗ The machine can be set up on any level and stable floor. Make sure that it stands firmly on the floor.
⊗ Never put wood, cardboard or similar materials underneath the machine to compensate for unlevel surface. This increases the risk of accident.

2.5 What Needs to be Considered in Case of Repair?

⊗ Electric parts may only be replaced by original parts.
⊗ Repairs must be carried out by a qualified technician only. If you do not have the necessary qualifications, contact cardiowise Service Center. Electrical or mechanical modifications or alterations performed by unauthorized personnel may void the warranty.
⊗ Do not open the drive system and control system. This will void the warranty.
2.6 Things to be Avoided

⊗ Only use the machine for the purposes it was intended for. If you use the cardiowise for other than the intended purpose, you will be charged for all damages resulting from this. In this case any warranty is void!

⊗ When exercising, you should never go beyond your current fitness level. This may cause serious health problems.

⊗ Never lean on the machine except on the handrails intended for this, and do not make inappropriate movements. Otherwise you might fall.

Refer to the appendix for a list of the most important safety guidelines. Attach this list near the machine where it is clearly visible. All users of the machine must familiarize themselves with the dangers and safety regulations. The manufacturer will not be liable for personal injury or property damage.

2.7 Contraindications

To avoid overstress of the athlete and subsequent serious diseases of the cardiovascular system the following contraindications must be observed during performance of an endurance training, i.e. if one of the following symptoms is already known before the training is started in no case an endurance training may be performed on a machine of the XRCISE LINE MED:

Absolute contraindications:

⊗ angina pectoris
⊗ cardiac arrhythmia and/or Decompensated heart failure
⊗ distress respiratory, sense of oppression
⊗ circulatory disorder with rest pain in affected extremeties
⊗ hypertonia (constantly raised blood pressure) (in this case, please contact your doctor)
⊗ coronarsklerosis
⊗ stress pain in your legs when walking less than 100 m
⊗ acute respiratory infections)
⊗ feverish infections
⊗ circulatory problems, feeling of dizziness
⊗ nausea, Vomiting
⊗ acute coronary syndrome
⊗ acute myocardial infarction
⊗ symptomatical severe aortic stenosis
⊗ decompensated cardiac insufficiency
⊗ acute ulmonary embolism
⊗ acute carditis (Myo-, Endo-, Pericarditis)
⊗ acute phlebothrombosis of the upper extremeties
⊗ acute aortic dissection
If the following symptoms occur the training must immediately be stopped to avoid an overstretch of the human organism!

- distress respiratory, sense of oppression
- angina pectoris (chest pain in sudden attacks)
- maximum heart rate > 200-age
- nausea, emesis
- circulatory problems
- illness (heavily tiredness, lassitude, feeling of dizziness)
- rapidly decreasing heart rate
- rapidly decreasing/increasing blood pressure
- main artery disease
- moderate cardiac valve diseases
- electrolyte imbalance
- arterial hypertension (RR > 200/110 mmHg)
- tachyarrhythmie oder Bradyarrhythmie
- hypertrophic-obstructive cardiomyopathy and other forms of outflow tract obstruction
- advanced AV-blockages
- anemia
- physical and/or mental health problems
- arrhythmias
Chapter 3   Quick Reference

Please note:
This user manual provides information on several devices. Details may vary depending on your model.
3 Quick Reference

After delivery of your cardio machine, please check if the serial number (see name plate) is identical with the one indicated on the delivery note and if all components listed in chapter 1.3 (“Parts included in the delivery”) are included in the delivery.

After the machine has been plugged in and switched on, the software version is displayed. Then the main menu will appear.

The control panel provides the UP and DOWN (XRCISE RUNNER MED only) PLUS, MINUS, START, STOP and BP buttons in this order.

The liquid-crystal display (LCD) is illuminated and shows the elapsed training time (min:s), your heart rate, Bloodpressure (BP) systolic and diastolic and the oxygen saturation (SPo₂). The display of the XRCISE RUNNER additionally shows the distance (m or km), the speed (km/h) and the incline (%), instead the displays of the other machines shows the speed range (1/min) and the power (Watt).

When starting the workout on your cardio machine, the main menu will always appear first. Hold the PLUS or MINUS button until MANUAL is highlighted and confirm your selection with START. You are now in the manual mode.

In this mode you can select any workout time and choose any workload level. The workout parameters will be displayed during the whole workout.

Press STOP to stop your workout. The workout parameters remain on the display. Press the STOP button again to return to the main menu. The display will also automatically return to the main menu after 2 minutes if no action is carried out.

Please note!
For workouts in Profile or Cardio-/System also using the bloodpressure- and oxygen measurement please read the detailed instructions.
Chapter 4

Intended Use

4.1 XRCISE LINE MED ................................................................. 18
4.2 Models ............................................................................................. 18
4.2.1 XRCISE CIRCLE MED ......................................................... 18
4.2.2 XRCISE CROSS MED .......................................................... 18
4.2.3 XRCISE CYCLE MED ........................................................... 18
4.2.4 XRCISE MIX MED ............................................................... 19
4.2.5 XRCISE RECUMBENT MED ................................................... 19
4.2.6 XRCISE STAIR MED ........................................................... 19
4.2.7 XRCISE RUNNER MED ........................................................ 19

Please note:
This user manual provides information on several devices. Details may vary depending on your model.
4 Intended Use

4.1 XRCISE LINE MED

The XRCISE LINE MED have been designed to meet highest expectations.

This product line offers stationary equipment for cardio-vascular workout. It does not only allow for precise workout control, diagnostics, and therapy of cardio-vascular diseases but also provides features for performance diagnostics. The machines are to meet all applicable medical requirements and thus have to offer precise measuring methods in addition to the workout capabilities. Explicit result analysis helps to optimize and track any fitness and health training. To ensure measuring accuracy, metrological controls need to be carried out on the XRCISE CYCLE, XRCISE RECUMBENT and XRCISE CIRCLE line at regular intervals (every second year, in compliance with LMKM = Leitfaden zu messtechnischen Kontrollen von Medizinprodukten mit Messfunktion by Physikalisch-Technische Bundesanstalt). If the device is equipped with a blood pressure monitor, a metrological control is also required.

4.2 Models

For optimum results all product lines are subdivided into different models in order to perfectly adapt to the customers’ individual needs. Additional components, such as blood pressure measurement, SPO₂ detection or POLAR pulse receivers, are also optionally available for the machines. Please refer to the product catalog to find out what components are available for which machine.

4.2.1 XRCISE CIRCLE MED

XRCISE CIRCLE is an upper body ergometer. Workout is performed in seated or standing position by arm movements. The workout intensity can be modified in order to achieve optimum cardio-vascular results.

4.2.2 XRCISE CROSS MED

XRCISE CROSS an elliptical trainer which allows for a continuous, two-way alternate, elliptical movement of feet and arms. It is equipped with an additional motion device for the arms. The workout intensity can be modified in order to achieve optimum cardio-vascular results.

4.2.3 XRCISE CYCLE MED

XRCISE CYCLE is an exercise bike for workout with pedaling movements. The workout intensity can be modified in order to achieve optimum cardio-vascular results.
4.2.4 **XRCISE MIX MED**

XRCISE MIX is an elliptical trainer which allows for a continuous, two-way alternate, elliptical movement of feet and arms in semi-recumbent position. The workout intensity can be modified in order to achieve optimum cardio-vascular results.

4.2.5 **XRCISE RECUMBENT MED**

XRCISE RECUMBENT is an exercise bike for workout with pedaling movements in a semireclined position. The workout intensity can be modified in order to achieve optimum cardio-vascular results.

4.2.6 **XRCISE STAIR MED**

XRCISE STAIR is a workout device that allows for alternate movements similar to climbing stairs. Both pedals move independently of each other. The workout intensity can be modified in order to achieve optimum cardio-vascular results.

4.2.7 **XRCISE RUNNER MED**

XRCISE RUNNER MED is a treadmill for walking or running. The workout intensity can be modified in order to achieve optimum cardio-vascular results.
# Chapter 5  Transport and Installation

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1 Transport</td>
<td>22</td>
</tr>
<tr>
<td>5.1.1 XRCISE CIRCLE MED</td>
<td>22</td>
</tr>
<tr>
<td>5.1.2 XRCISE CROSS MED</td>
<td>22</td>
</tr>
<tr>
<td>5.1.3 XRCISE CYCLE MED</td>
<td>23</td>
</tr>
<tr>
<td>5.1.4 XRCISE MIX MED</td>
<td>23</td>
</tr>
<tr>
<td>5.1.5 XRCISE RECUMBENT MED</td>
<td>24</td>
</tr>
<tr>
<td>5.1.6 XRCISE STAIR MED</td>
<td>24</td>
</tr>
<tr>
<td>5.1.7 XRCISE RUNNER MED</td>
<td>24</td>
</tr>
<tr>
<td>5.2 Setup Location and Installation</td>
<td>24</td>
</tr>
<tr>
<td>5.3 Ambient Temperature</td>
<td>25</td>
</tr>
<tr>
<td>5.4 Plugging In</td>
<td>26</td>
</tr>
<tr>
<td>5.4.1 Power Supply</td>
<td>27</td>
</tr>
<tr>
<td>5.4.2 Cabling</td>
<td>27</td>
</tr>
<tr>
<td>5.4.3 Safety cord</td>
<td>27</td>
</tr>
<tr>
<td>5.5 Potential compensation</td>
<td>28</td>
</tr>
<tr>
<td>5.6 Components</td>
<td>29</td>
</tr>
<tr>
<td>5.6.1 XRCISE CIRCLE MED</td>
<td>29</td>
</tr>
<tr>
<td>5.6.2 XRCISE CROSS MED</td>
<td>29</td>
</tr>
<tr>
<td>5.6.3 XRCISE CYCLE MED</td>
<td>30</td>
</tr>
<tr>
<td>5.6.4 XRCISE MIX MED</td>
<td>30</td>
</tr>
<tr>
<td>5.6.5 XRCISE RECUMBENT MED</td>
<td>31</td>
</tr>
<tr>
<td>5.6.6 XRCISE STAIR MED</td>
<td>31</td>
</tr>
<tr>
<td>5.6.7 XRCISE RUNNER MED</td>
<td>32</td>
</tr>
</tbody>
</table>

---

**Please note:**
This owner's manual contains information on multiple gym machines. There may be variations in detail according to the type of machine!
5 Transport and Installation

5.1 Transport

In order to avoid damage, cardiowise machines are transported by ERGO-FIT GmbH & Co. KG directly or by an authorized freight forwarding company. After delivery, packaging will be collected and disposed by ERGO-FIT GmbH & Co. KG. If cardiowise machines are delivered by a freight forwarder, the customer must dispose the packaging himself or may send it back to ERGO-FIT GmbH & Co. KG (transportation costs are on behalf of the customer).

The machines do not have any shipping locks!

5.1.1 XRCISE CIRCLE MED

In order to avoid transport damages the XRCISE CIRCLE frame cover will be delivered separately and must be attached subsequently. Use the provided rounded head screws ISO 7380 M8 x 20 (4), washers DIN 125 Ø 8,4 (4) and Allen wrench SW 5 (1) for proper attachment. Bring the machine to its dedicated location:

1. Stand behind the machine so that you can see the display.
2. With both hands, grasp the machine at the lower frame and lift it slightly. You can now easily roll it to the intended position.
3. Place the cover on the frame and align the holes with the frame threads. Insert the provided rounded head screws ISO 7380 M8 x 20 and the washers DIN 125 Ø 8,4, (see figure) and tighten them with the Allen wrench SW 5 in order to attach the cover.

5.1.2 XRCISE CROSS MED

1. Stand behind the machine so that you can see the display.
2. Grasp the bottom side of the machine and lift it slightly. You can now easily roll it to the intended position.
3. Please make sure that the center foot is securely positioned on the floor for a safe stand of the machine.
5.1.3 XRCISE CYCLE MED

1. Position yourself so that you can see the rear of the display.
2. Grasp the handlebar with both hands and slightly lift the machine forward. You can now easily roll it to the intended position.
3. Do not lift the machine by its seat to avoid damaging the pneumatic spring.
4. For transportation up or down stairs or similar obstacles use the bottom tubes of the base frame.

5.1.4 XRCISE MIX MED

In order to avoid transport damages the XRCISE MIX has a foldable display holder. Use the provided rounded head screw ISO 7380 M8 x 20 (1) and washer DIN 125 Ø 8,4 for proper attachment. Bring the machine to its dedicated location:

1. Position yourself so that you can see the rear of the display.
2. Grasp the foot rest surfaces with both hands and slightly lift the machine. You can now easily roll it to the intended position:
3. Make sure to leave enough space behind the machine (approx. 40 - 45 cm) so that the user can easily adjust the backrest.
4. At the lower end of the monitor bracket you will find a hinge. Release the screw at the hinge to avoid damages. Then bring the monitor bracket into its training position.

Insert the supplied rounded head screw ISO 7380 M8 x 20 and the nut DIN 125 Ø 8,4 as illustrated below.

5. Stand on the control panel side (you look on the display) and check if the display functions properly. If this is not the case, make sure you followed the steps above correctly. In addition, verify if the socket is live.
First tighten the hinge screw and then the rounded head screw to fasten the monitor bracket.

5.1.5  XRCISE RECUMBENT MED
1. Position yourself so that you can see the display.
2. Lock the seat of your exercise machine in the rearmost position.
3. Grasp the seat with one hand and the guide bar with the other. Lift the machine slightly. You can now easily roll it to the intended position.
4. Once the machine is in its intended position, it is absolutely necessary to adjust the foot (see chapter 5.6.5) since it is the machine’s center support.

5.1.6  XRCISE STAIR MED
1. Position yourself so that you can see the display.
2. Grasp the bottom side of the lateral support bars with both hands. You can now easily roll the machine to the intended position.

5.1.7  XRCISE RUNNER MED
Machine installation and setup should always be performed directly by ERGO-FIT or by an authorized service technician. This guarantees for a safe and proper operation.
1. Inspect the running belt after setup or relocation and adjust it if necessary (see maintenance guidelines in chapter 9.1.7). The belt should always be centered between the two shafts.
2. For safety reasons, make sure to leave enough space behind the machine (2 m length and 1 m width).

5.2  Setup Location and Installation
⊗ Make sure that the surface underneath the machine is level and flat.
minor unevenness can be compensated by means of the adjustable screw feet. Adjust the leveling screw feet until the machine stands safely. It is mandatory to adjust the levelling foot because it is the machine's support. (For a detailed description of the levelling feet please see Chapter 5.5, “Components). Set up the machine so that power switch and plug can easily be disconnected. Please make sure that the distance between the machines is at least one meter. Otherwise the POLAR heart rate receiver might not function correctly. For safety reasons, please leave enough space around the machine for the user to move safely and to avoid that bystanders are hurt by moving parts: Seen from the access orientation, maintain a clearance of at least the training space plus 0,6 m. Provide enough space for an emergency disassembly. Adjacent machines may use the same clearance. High-frequency and magnetic interference signals (e.g. radios, TV sets, mobile phones etc.) in close proximity to your cardio equipment may also interfere with the heart rate control. In rare cases, strong electromagnetic fields in some locations may interfere with the transmission of the heart rate (e.g. high voltage circuit or tramway contact wires). You may check this with a POLAR pulse watch in case of doubt. In case of interference or if you suspect an interference with the heart rate transmission, under no circumstances perform a cardio control workout (CARDIO mode).

Leveling: Think about stability when setting up the XRCISE CYCLE MED. Consider the following.

1. Attach the provided foot caps by clipping them on the corresponding tubes.
2. Push the foot caps all the way to the stop.
3. Adjust the foot caps by twisting them in either direction to avoid rocking movements of the workout equipment.

Foot caps  
To the stop  
Twisting

5.3 Ambient temperature

Your cardiowise exercise machine may be used at an ambient temperature of +5°C to +40°C, a relative humidity of 10% to 80% (non-condensing) and an atmospheric pressure of 700 hPa to 1060 hPa without causing any problems. Operating height below 2000 m.
5.4 Plugging in

1. Perform a visual inspection of the power cord and the input connector (power entry module) before using the machine. Damaged power cords and connectors need to be replaced immediately.

2. Plug the power cord into the appropriate power entry module. To reach the power supply or the RS 232 interface of the XRCISE CYCLE MED you have to lift the machine to the side. To avoid injuries one person must lift the machine while another person connects the machine. Plug the other end of the cable into the power outlet.

3. Switch on the machine by pressing the power button (I = On, O = Off). To switch on the XRCISE RUNNER MED model use the button at the automatic circuit breaker (see chapter 6.1).
4. After your exercise machine has been connected to mains and switched on, it automatically carries out an operating check. During this operating check, you will be able to read the software version of the unit on the display. Thereafter the main menu will appear.

5. Stand on the side of the control panel (view onto the display) and check if the display works. If this is not the case, make sure you followed the steps above correctly. In addition, verify if there is electricity in the mains socket.

5.4.1 Power supply

Use your exercise machine only with earthed (grounded) power sockets with 230 VAC / 50-60 Hz (see chapter A5). If you have any doubts about the power supply at the setup location, ask your energy provider. For XRCISE RUNNER MED you have in any case to obtain the permission of your energy provider. Only use commercial 10 ampere (16 ampere with XRCISE RUNNER MED) automatic circuit breakers (type B tripping characteristic). In the rare event that these automatic circuit breakers should switch off when you switch on your machine, the circuit needs to be fused with 10 A (16 A with XRCISE RUNNER MED) lead fuses or with a different type of tripping fuse (e.g. K-automat). In case of doubt, ask your electrician.

Before connecting your cardiowise Gerätes exercise machine to your power supply system compare the acceptable voltage and frequency on the name plate (next to power entry module / power switch on XRCISE CYCLE MED) with your local data. Always connect your machine directly to the power outlet. If its possible do not use extension cables or multi-outlet power strips unless they are EN 60601-1 certified.

We recommend DC-isolated cables for the connection of external equipment to a XRCISE LINE machine.

5.4.2 Cabling

If you have connected several cardiowise, machines to one circuit never switch on multiple machines.

☆ Make sure that nobody can step on or stumble across the power cord.
☆ Do not place any objects on the cord as it might get damaged.

5.4.3 Safety cord

For the safety of our customers, the XRCISE RUNNER MED has been equipped with a safety cord. It is attached to the user’s clothes by a clamp. If you should fall, for example, the safety cord detaches from the corresponding magnet and the treadmill stops immediately.
Attaching the Safety Cord

Step 1: Take the safety cord out of the transparent plastic bag.
Step 2: Attach the magnet to the magnet contact switch.

Please note: The treadmill can only be operated if the magnet is attached to the magnet contact switch.

5.5 Potential compensation

To avoid disturbances, a potential compensation cable may be attached to the machine. This potential equalisation is not standard equipment. If required, ask the service to install this feature. In this case, communicate with the service department or the field staff. The XRCISE CYCLE MED is already prepared for the potential compensation feature. The earthing plug for potential compensation at the XRCISE CYCLE MED is positioned near the RS232 connector and the power supply.

Never connect the potential compensation line to the water or gas supply line or any other kind of pipe. Always use the appropriate potential compensation connection only.
5.6 Components

5.6.1 XRCISE CIRCLE MED

1. Ball handle
2. Adjusting lever for revolving unit
3. Handle adjustment
4. Foldable seat
5. Leveling feet (on both sides of the oval tubes)
6. Power entry module
7. Control panel
8. End Stop

5.6.2 XRCISE CROSS MED

1. Handlebar
2. Safetybar (optional contact heart rate electrodes)
3. Foot rest
4. Leveling feet (at the front, in the middle and at the back end of the machine)
5. Power entry module
6. Control panel
7. Bottle holder
5.6.3 XRCISE CYCLE MED

1. Patient display
2. Vertical seat adjustment
3. Handlebar
4. Adjustment of handlebar
5. Seat
6. Horizontal seat adjustment
7. Netzschalter
8. Leveling feet
9. Power entry module
10. Pedals
11. Control panel with patient display (can be rotated 180°)

5.6.4 XRCISE MIX MED

1. Seat
2. Seat back
3. Neck support
4. Power entry module
5. Leveling feet
6. Pedals
7. Handlebar
8. Control panel
5.6.5  XRCISE RECUMBENT MED

1  Handlebar (optional contact heart rate electrodes)
2  Seat
3  Seat back
4  Leveling feet (on both sides of the oval tubes and at the back end of the machine)
5  Pedals
6  Power entry module
7  Control Panel
8  Bottle holder

5.6.6  XRCISE STAIR MED

1  Support bar
2  Pedals
3  Leveling feet (in both sides of the oval tubes)
4  Power entry module
5  Bottle holder
6  Control panel
XRCISE RUNNER MED

1. Support bar
2. Running belt
3. Leveling feet
4. Power entry module
5. Key switch
6. Automatic circuit breaker
7. RS232 port
8. Control panel with Patient display (can be rotated 180°)
9. Emergency stop
## Chapter 6 Setup

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1</td>
<td>Switching On</td>
<td>34</td>
</tr>
<tr>
<td>6.2</td>
<td>Switching Off</td>
<td>34</td>
</tr>
<tr>
<td>6.3</td>
<td>The Right Workout Technique</td>
<td>34</td>
</tr>
<tr>
<td>6.3.1</td>
<td>XRCISE CIRCLE MED</td>
<td>34</td>
</tr>
<tr>
<td>6.3.2</td>
<td>XRCISE CROSS MED</td>
<td>36</td>
</tr>
<tr>
<td>6.3.3</td>
<td>XRCISE CYCLE MED</td>
<td>37</td>
</tr>
<tr>
<td>6.3.4</td>
<td>XRCISE MIX MED</td>
<td>39</td>
</tr>
<tr>
<td>6.3.5</td>
<td>XRCISE RECUMBENT MED</td>
<td>40</td>
</tr>
<tr>
<td>6.3.6</td>
<td>XRCISE STAIR MED</td>
<td>40</td>
</tr>
<tr>
<td>6.3.7</td>
<td>XRCISE RUNNER MED</td>
<td>41</td>
</tr>
<tr>
<td>6.4</td>
<td>The Control Panel</td>
<td>42</td>
</tr>
<tr>
<td>6.4.1</td>
<td>The Buttons</td>
<td>44</td>
</tr>
<tr>
<td>6.4.2</td>
<td>The Display</td>
<td>45</td>
</tr>
<tr>
<td>6.4.3</td>
<td>Connections</td>
<td>46</td>
</tr>
<tr>
<td>6.4.4</td>
<td>Connectors and buttons on the blood pressure module</td>
<td>49</td>
</tr>
<tr>
<td>6.4.5</td>
<td>The patient display</td>
<td>50</td>
</tr>
<tr>
<td>6.4.6</td>
<td>Blood pressure module installation and mount options</td>
<td>51</td>
</tr>
</tbody>
</table>

**Please note:**

This user manual provides information on several devices. Details may vary depending on your model!
6 Setup

6.1 Switching On

⊗ Before switching on your exercise machine, make sure the machine is plugged in.

If you have connected several cardiowise machines to one circuit never switch on multiple machines at the same time. Otherwise technical problems might occur.

⊗ Now switch on your machine by pressing the switch next to the power entry module (not applicable with XRCISE RUNNER MED, see next paragraph). The switch must be in position I. If the switch is in position O the machine is switched off.

⊗ The XRCISE RUNNER MED model is switched on by activating the circuit breaker. Please make sure that the key switch is set to position 1 and that the emergency stop button is unscrewed. The key switch protects the treadmill against unauthorized operation.

⊗ The illumination of the display shows you immediately if the machine is switched on.

6.2 Switching Off

⊗ Switch off your machine by pressing the switch next to the power entry module (not applicable with XRCISE RUNNER MED, see next paragraph). The switch must be in position O.

Take care that the switch-on and switch-off intervals don’t fall below a time of 3 sec.

⊗ The XRCISE RUNNER MED model needs to be turned off by switching off the automatic circuit breaker. If you fall or in case of an emergency use the emergency stop button in the middle front. The treadmill will stop immediately. For this reason, use the emergency stop button only in case of an emergency. To restart the machine, turn the emergency stop button to unlock it.

With the XRCISE RUNNER MED model, make sure to wait for at least 30 seconds between switching on and switching off. Otherwise the treadmill’s motor control may be malfunctioning.

6.3 The Right Workout Technique

The heart rate controlled workout based on the ERGO-FIT point system makes sure that you exercise with optimum intensity. However, you should also take into account biomechanical considerations when exercising. This section provides information on relevant aspects for every cardio exercise machine

6.3.1 XRCISE CIRCLE MED

1. You can sit down or fold away the seat to perform standing exercises or wheelchair workout. Grasp the handle below the seat and fold it forwards or backwards. Please note that the GMT buffer (end stop, see Chapter 5.6.1 „Parts“) is set in such a way that the seat pad does not touch the casing when the seat is tilted forward as it may otherwise cause pad abrasion. Turn the end stop counterclockwise until it reaches the correct position. See the safety instructions in chapter 2.
2. Adjust the revolving unit (handle and control panel) to your height or workout position (sitting or standing):

Stand in front of the machine or sit down. At the lower end of the swiveling axis you will see a lever. Grasp the yellow casing of the lever with one hand and press it down / pull it up. With the other hand you press / pull one of the handles. Just release the adjusting lever to lock the unit in its current position. For better orientation you find a scale at the right side of the revolving unit.

3. For perfect radial even run of the crank handle, the length of the crank handle must be well adjusted to the length of your arms. Adjust the crank handle so that even at the farthest position your arm is still slightly bend.

For workout in sitting position sit down straight with your knees bent at 90 degrees. Grasp the handles at the ball and bring the crank handles into horizontal position. Release the ball lock by turning the star knob counterclockwise. Adjust the length of the crank handle to your arm length by moving the handle. Then turn the star knob clockwise to lock it.

For workout in standing position stand straight and adjust the crank handle so that your arm is still slightly bent at the furthest point of the movement. In order to release the crank handle release the star knob, adjust the crank handle length and tighten the star knob again. For orientation use the scale at the guide and the red mark to keep your own crank handle length in mind.

4. Get into training position and move the crank handles as if you were cycling (pushing and pulling). In standing position make sure that you stand with feet shoulder width apart. Stand on the platform.
5. If you use a machine with ring handles, make sure that the handle length is set at 12 maximum in order to avoid damaging the casing. (In theory, it is possible to adjust the handle length to a setting beyond the scale.)

6. Maintain the workout position described here during the whole workout.

7. Change the position of the handles in diagonal or parallel direction. Release the ball lock by turning the star knob counterclockwise. Bring the crank handle back into the desired position and tighten the star knob by turning it clockwise.

6.3.2 XRCISE CROSS MED

1. The elliptical trainer is a combination of a stepper and a treadmill. It allows for an elliptical low-impact leg movement. You can select whether to perform arm exercises. Thus the machine becomes a full-body workout machine where the arms are trained with low work effort.

2. Step on the pedals and grasp the handholds. Keep your upper body upright.

3. Right from the start and during exercise, always make sure to stand firmly on the pedals. Always press the STOP button to stop your workout session and wait until the pedals have come to a complete stop before you step off.

4. The recommended running direction is forward. However, advanced users may also want to run backwards to improve co-ordination (different muscle groups can be trained this way). Changes of direction should be carried out only after the machine has come to a complete stop.

5. The intensity is controlled through the pedaling frequency. You can choose any pedaling frequency. The speed is not controlled by the machine. Step on the machine and start running after choosing your preferred program with your individual and comfortable pedaling frequency. If you want to increase the intensity press PLUS (see chapter 6.4.1). If you want to reduce the intensity press MINUS (see chapter 6.4.1). The intensity is displayed as step symbol with value indication. It is important that you maintain your individual pedaling frequency. Avoid repeated variations of your frequency.

6. For CARDIO training, consider that CROSS controls the intensity via the brake resistance. At the beginning the brake resistance is set according to the minimum and maximum heart rate. The user starts with a comfortable pedaling frequency. If
the heart rate is too low the resistance will be increased. If the heart rate is too high
the resistance will be decreased. If the maximum / minimum speed has been
reached and the heart rate is not yet out of range the user will be asked to increase/
decrease the speed. This is indicated by the faster/slower arrows.

7. Maintain the workout position described here during the whole workout.

6.3.3 XRCISE CYCLE MED

1. First you have to determine the correct seat height. The height of the seat is
essential for sitting comfortably and performing a radial even run. To find the right
seat height, sit on the seat and put one heel on a pedal. In the lowest pedal position,
you should be able to extend your leg completely.

2. To adjust the seat, sit in the machine and press the switch on the right side of the
control panel (see chapter 5.5.3).

Press the Up arrow to automatically raise the seat. To lower the seat, press the
Down arrow. To lock the seat at the desired height, release the button.

The star knob beneath the seat is used to adjust the seat in horizontal direction.
Turn the star knob counterclockwise and bring the seat into the desired position.
Then tighten the star knob by turning it clockwise.
Please note the maximum time for the Linear operation of the seat adjustment: for a maximum continuous operation of two minutes you have to consider a cool down period of 18 minutes. Do not press the button permanently if you have reached the highest seat position. If the lifting motor overheats, it might get stuck and the lifting feature will fail. In this case allow the motor to cool down. Ist function will usually recover.

3. Now adjust the handlebar to your needs. You can turn the handlebar by 360° to individually adjust it to the height of the user and allows for most efficient workout in both upright or racing position. With the lever beneath the control panel you can adjust the angle of the handle bar. Turn the lever clockwise until you can move the handlebar. Bring the handlebar into the desired position. Then turn the lever back to its original position to lock the handlebar.

The XRCISE CYCLE MED control panel can be rotated 180°. Grab the panel with both hands and turn it into the desired direction.

4. During CARDIO and points training make sure the number of rotations is higher than 50 rpm; otherwise the workload may become too high. For this purpose,
the speed range. The arrow upwards means you should pedal faster whereas the arrow downwards asks you to pedal more slowly. The higher the number of rotations the lower the stress on the joints

5. The intensity control is not linked to the rotational speed.

6. Maintain the workout position described here during the whole workout.

### 6.3.4 XRCISE MIX MED

1. At the right side of the seat you find a dip switch, the so called seat console. Stand next to the machine and lower the seat by pressing the DOWN-key located on the seat console until you can sit down easily.

   The maximum time for the lifting motor to power on is 15 % and the maximum continuous operation is two minutes at a maximum of 5 switching cycles per minute. This means that for a maximum continuous operation of one minute you have to consider a cool down period of 7 minutes. If the lifting motor overheats, it might get stuck and the lifting feature will fail. In this case allow the motor to cool down. Its function will usually recover.

2. Step over the left pedal with your right foot and sit down.

   To make things easier bring the left pedal to the lowest position.

3. Put your right foot on the right pedal and the left foot on the left pedal.

4. You are now sitting on the exercise machine. Now lean against the back rest. If you have back problems use your hands to support your body.

5. Now adjust the neck support to your needs. You can easily push it up and down.

6. The distance between the reclining area and the pedals can be adjusted. Press the UP and DOWN buttons on the seat console to lift or lower the reclining area (see chapter 6.5). In correct workout position the knees cannot be stretched completely.

   You can also adjust the height of the reclining area to modify the intensity.

7. The recommended to move forward. However, advanced users may also want to pedal backwards to improve co-ordination (different muscle groups can be trained this way). Changes of direction should be carried out only after the machine has come to a complete stop.

8. The intensity is controlled through the pedaling frequency. You can choose any pedaling frequency. The speed is not controlled by the machine. Step on the machine and start exercising after choosing your preferred program with your individual and comfortable frequency. If you want to increase the intensity press PLUS (see chapter 6.4.1). If you want to reduce the intensity press MINUS (see chapter 6.4.1). The intensity is displayed as step symbol with value indication. It is important that you maintain your individual pedaling frequency. Avoid repeated variations of your frequency. CARDIO workout is not controlled by the rotational speed.

9. Try not to move your upper body during the workout.
10. Make sure that the rotational speed is higher than 40 1/min. Otherwise, the intensity may become very high. This results in increased stress on the joints.

11. Maintain the workout position described here during the whole workout.

When starting the machine, it might produce running noise. They will decrease after a short period of time.

### 6.3.5 XRCISE RECUMBENT MED

1. Prior to exercise bring your seat into a comfortable sitting position. Pull up the adjustment lever on the right side of the seat to adjust the sitting position. Adjust your seat so that the knee joint is extended completely at the furthest position when one heel stands on the pedal (also see CYCLE). To lock the seat in the desired sitting position, release the adjustment lever to bring it back to its initial position.

2. The focus of the workout lies on the lower body. The upper body is not involved. For this reason, try not to move your upper body during workout.

3. During CARDIO and points training make sure the number of rotations is higher than 50 rpm; otherwise the workload may become too high. For this purpose, watch the speed range (the arrow upwards means you should pedal faster, whereas the arrow downwards asks you to pedal more slowly).

4. The intensity control is not linked to the rotational speed.

5. Maintain the workout position described here during the whole workout.

### 6.3.6 XRCISE STAIR MED

This exercise machine allows for a movement similar to stair climbing without putting stress on the joints. With STAIR the focus lies on the lower body.

1. Step on the pedals and hold on to the support bars.

2. When designing these support bars, all body types parts were equally considered.
This means the user can exercise in his/her optimal position and find a good balance. Use the support bars to keep your balance. Do not lean on the bars. This affects the movement pattern in a negative way and makes workout less efficient.

3. Once you have reached a certain fitness level you should be able to exercise without the bars. The arms should swing synchronously to the stepping movement.

4. Always keep your upper body upright during exercise (do not arch your spine) and never extend your legs completely.

5. Do not press the pedals down actively but rely on your body weight instead. When the pedal moves downwards you have to reduce the pressure on the other pedal by lifting the foot without losing the contact to the pedal itself. The pedals move independently of each other.

6. Rubber buffers are placed underneath the pedals to absorb the impacts on the joints as soon as the pedals reach the lowest position. Please make sure not to perform the motion pattern up to the limit when exercising on the stepper. The pedals should not stop completely on either the upwards or the downwards motion. Only this way can a linear motion sequence be maintained.

7. The intensity is controlled through the pedaling frequency. The machine controls the speed. Step on the machine and start exercising after choosing your preferred program with your individual and comfortable frequency. If you want to increase the speed press PLUS (see chapter 6.4.1). If you want to reduce the speed press MINUS (see chapter 6.4.1). It is important that you maintain your individual pedaling frequency. Avoid repeated variations of your frequency.

8. Maintain the workout position described here during the whole workout.

Additional information for STAIR: A body weight of more than 60 kg may affect the actual walking speed.

6.3.7 XRCISE RUNNER MED

1. You can walk or run on the treadmill. Make sure that you maintain a flexing foot action during training and keep your upper body upright.

2. Before you start with your workout step on the front area of the treadmill and attach the safety cord. Increase the speed of the treadmill slowly to avoid falling and to get used to the intensity. During workout, make sure not to get too close to the end of the running belt. The risk of falling increases in this area.

3. If you have problems keeping your balance use the support bars. However, you should not use them for other purposes. Swing your arms to keep the balance.

4. You can modify the intensity by increasing / decreasing the incline between 0% and 20% (press UP and DOWN, see chapter 6.4.1).

5. The workload is controlled via the speed. You can select any speed between 0.2 and 25 km/h. The speed of the running deck is controlled by the machine. Step on the machine, select a program and start at a comfortable speed. If you want
to increase the speed press PLUS (see chapter 6.4.1). If you want to reduce the speed press MINUS (see chapter 6.4.1). It is important that you maintain your individual running speed. Avoid repeated variations of your running speed:

The maximum time for the lifting motor to power on is 10 % and the maximum continuous operation is one minute. This means that for a maximum continuous operation of one minute you have to consider a cool down period of 9 minutes. If the lifting motor overheats, it might get stuck and the lifting feature will fail. In this case allow the motor to cool down. Its function will usually recover.

Additional precaution for XRCISE RUNNER MED: Do not turn around and do not stop on the running surface when it is in motion! You might get seriously injured.

In case of a device failure or an emergency (e.g. if you tumble) get off the machine as described below: Immediately press the emergency stop button. Grab the two side handrails and jump on the left and right foot rails. Then slowly walk to the end of the device and get off.

Additional precaution for TRAC: A body weight of more than 75 kg might lead to speed reductions and synchronization problems when running at more than 16km/h (This depends on the functional state of the treadmill and the actual body weight of the user).

### 6.4 The Control Panel

cardiowise exercise equipment is known for its outstanding ease of use. XRCISE LINE machines for example are equipped with a user guidance system that is simple and easy to understand. The consistent control panel design provides highest comfort and guarantees easy handling. So, if you know one model you can easily operate all other models of the same series.

On the control panel you find a display and several buttons. Before you take a closer look at the control panel please consider the following aspects:

1. Do not lean on the control panel or the display. It may get damaged.
2. Do not exert pressure on the display.
3. Only press the buttons lightly. When you press a button you will hear a beep.
4. The chip card reader of the XRCISE LINE is a very sensitive component. To avoid failure during long-term usage make sure to carefully insert chip cards into the card reader. When you insert the card you have to be able to read the labeling when standing / sitting on the machine. The arrows on the left of the corporate symbol indicate the direction of insertion. The chip card reader's lifetime is about 100 000 insertion cycles.
Cockpit XRCISE LINE MED (not XRCISE RUNNER MED)
6.4.1 The Buttons

Depending on the model you will find the following buttons on the control panel:

- **PLUS**: Increase the intensity or change parameters.
- **MINUS**: Decrease the intensity or change parameters.
- **START**: Confirm workout mode selections or parameter settings.
- **STOP**: Cancel a function or stop the machine.
- **BP**: Starting the bloodpressure measurement. (only XRCISE CYCLE MED, XRCISE RECUMBENT MED and XRCISE MIX MED)
6.4.2 The Display

The exercise machines of the XRCISE LINE MED series are equipped with an LCD that consists of a monochrome graphic display. In the section below you will find model-specific information on displays, measuring units and their meanings.

Workout Parameters

<table>
<thead>
<tr>
<th>Model</th>
<th>Display</th>
<th>Explanation</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIRCLE*</td>
<td>SPO₂</td>
<td>Oxygen saturation</td>
<td>%</td>
</tr>
<tr>
<td>CYCLE</td>
<td>1/MIN</td>
<td>Rounds per minute, steps per minute (XRCISE STAIR)</td>
<td>1/min</td>
</tr>
<tr>
<td>RECUMBENT</td>
<td>WATT</td>
<td>Current performance</td>
<td>Watt</td>
</tr>
<tr>
<td>STAIR*</td>
<td>TIME</td>
<td>Workout time</td>
<td>00:00 (min:sek)</td>
</tr>
<tr>
<td></td>
<td>BP SYS</td>
<td>Systolic blood pressure value</td>
<td>mmHg</td>
</tr>
<tr>
<td></td>
<td>BP DIA</td>
<td>Diastolic blood pressure value</td>
<td>mmHg</td>
</tr>
<tr>
<td></td>
<td>PULSE</td>
<td>Current heart rate per minute</td>
<td>1/min</td>
</tr>
</tbody>
</table>

* without blood pressure values

<table>
<thead>
<tr>
<th>Model</th>
<th>Display</th>
<th>Explanation</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>only</td>
<td>DIST.</td>
<td>Distance traveled</td>
<td>m, km</td>
</tr>
<tr>
<td>CROSS*</td>
<td>KM/H</td>
<td>Speed</td>
<td>km/h</td>
</tr>
<tr>
<td>only MIX</td>
<td>%</td>
<td>Incline</td>
<td>%</td>
</tr>
<tr>
<td>RUNNER</td>
<td>SPO₂</td>
<td>Oxygen saturation</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>TIME</td>
<td>Workout time</td>
<td>00:00 (min:sek)</td>
</tr>
<tr>
<td></td>
<td>PULSE</td>
<td>Current heart rate per minute</td>
<td>1/min</td>
</tr>
</tbody>
</table>

⊗ UP (XRCISE RUNNER MED only): Increase the incline
⊗ DOWN (XRCISE RUNNER MED only): Decrease the incline
6.4.3 Connections

At the back of the control panel of any XRCISE LINE MED machine you can connect devices to measure the blood pressure or the oxygen saturation (optional). Moreover you will find a USB port.

**Cockpit XRCISE CYCLE MED AND XRCISE RUNNER MED**

* not on XRCISE RUNNER MED
Cockpit XRCISE LINE MED (without XRCISE CYCLE MED and XRCISE RUNNER MED)

* not on XRCISE CIRCLE MED, XRCISE STAIR MED and XRCISE CROSS MED
**SPO₂**
Connect the 9-pin cable to the corresponding connector. To disconnect just pull the plug from the connector.

Please note: For the SPO₂ module only use finger clips that have been accepted by the manufacturer. You can order them at cardiowise.

**Blood pressure**
Connect the cable (power inlet) for blood pressure measurement at the specified location. When disconnecting the cable consider the following: Loosen the power inlet by pressing the small black button on the connector head before removing the cable.

**USB**
The USB port is needed to update the device software. Format any USB sticks that you want to use for updating the software in order to avoid damages to the operating system.

*Please review the additional safety and operational instructions in this manual!*
6.4.4 Connectors and buttons on the blood pressure module

**Air pressure port**
Insert the air pressure port of the blood pressure cuff at the specified position. When removing, please pull the grooved ring.

**Microphone connector**
Insert the microphone connector of the blood pressure cuff at the specified position.

**Power Inlet**
Connect the cable (power inlet, connects the cockpit with the blood pressure module) to ensure power supply at the specified location. When disconnecting the cable consider the following: Loosen the power inlet by pressing the small black button on the connector head before removing the cable.
**STOP button:**
By pressing the STOP button during a measurement procedure, the blood pressure measurement can be aborted and stopped immediately. The system deflates, and the machine returns to the Ready state.
If you press the STOP button while the machine is in the idle state, i.e. when no measuring is performed, the system will be reset. A reset resets the basic state of the BL-6 device and sets the MEASUREMENT PROFILE to NORMAL.

**LED light:**
The LED light indicates whether the blood pressure module is receiving power. When the LED light is on, it means that the power supply is enabled.

### 6.4.5 The patient display
At the back of the XRCISE CYCLE MED control panel you will find an additional patient display. Here the patient can see relevant information if the control panel display is used by the medical staff. The icons used on the display (Up and Down arrow) provide feedback to the patients so they know if they have to increase or decrease the pedal frequency.

- Orange light left/Up arrow: Pedal frequency too low
- Orange light right/Down arrow: Pedal frequency too high
- Green lights: Pedal frequency OK
6.4.6 Blood pressure module installation and mount options

Installing the blood pressure module using the example of the XRCISE CYCLE:
The holes in the retaining plate have openings that allow the blood pressure module to be
installed vertically or horizontally in the sockets. (See the next figure)
XRCISE CYCLE

XRCISE MIX
### Chapter 7 Operation

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.1</td>
<td>Operation Modes</td>
<td>54</td>
</tr>
<tr>
<td>7.1.1</td>
<td>MANUAL</td>
<td>54</td>
</tr>
<tr>
<td>7.1.2</td>
<td>PROFILES</td>
<td>55</td>
</tr>
<tr>
<td>7.1.3</td>
<td>CARDIO</td>
<td>58</td>
</tr>
<tr>
<td>7.1.4</td>
<td>WHO-PROFILES</td>
<td>60</td>
</tr>
<tr>
<td>7.1.5</td>
<td>ECG CHOICE</td>
<td>61</td>
</tr>
<tr>
<td>7.2</td>
<td>Device-Specific Behavior After the Workout</td>
<td>62</td>
</tr>
<tr>
<td>7.3</td>
<td>Functional Test</td>
<td>62</td>
</tr>
<tr>
<td>7.3.1</td>
<td>XRCISE CIRCLE MED</td>
<td>62</td>
</tr>
<tr>
<td>7.3.2</td>
<td>XRCISE CROSS MED</td>
<td>63</td>
</tr>
<tr>
<td>7.3.3</td>
<td>XRCISE CYCLE MED</td>
<td>63</td>
</tr>
<tr>
<td>7.3.4</td>
<td>XRCISE MIX MED</td>
<td>63</td>
</tr>
<tr>
<td>7.3.5</td>
<td>XRCISE RECUMBENT MED</td>
<td>64</td>
</tr>
<tr>
<td>7.3.6</td>
<td>XRCISE STAIR MED</td>
<td>64</td>
</tr>
<tr>
<td>7.3.7</td>
<td>XRCISE RUNNER MED</td>
<td>64</td>
</tr>
<tr>
<td>7.4</td>
<td>Default settings</td>
<td>65</td>
</tr>
<tr>
<td>7.5</td>
<td>Heart Rate Control</td>
<td>66</td>
</tr>
<tr>
<td>7.5.1</td>
<td>POLAR Belt and POLAR Transmitter</td>
<td>67</td>
</tr>
<tr>
<td>7.5.2</td>
<td>Potential Interferences</td>
<td>68</td>
</tr>
<tr>
<td>7.6</td>
<td>Blood pressure measurement</td>
<td>68</td>
</tr>
<tr>
<td>7.6.1</td>
<td>Cuff Size Table</td>
<td>69</td>
</tr>
<tr>
<td>7.6.2</td>
<td>Using the cuff</td>
<td>69</td>
</tr>
<tr>
<td>7.6.3</td>
<td>Measuring Method</td>
<td>72</td>
</tr>
<tr>
<td>7.6.4</td>
<td>Measuring Process</td>
<td>73</td>
</tr>
<tr>
<td>7.7</td>
<td>SPO₂ measurement</td>
<td>74</td>
</tr>
</tbody>
</table>

**Please note:**
This user manual provides information on several devices. Details may vary depending on your model!
7 Operation

7.1 Operation Modes

When you power on the device the first thing you see is the main menu with the following options:

- MANUAL
- PROFILES
- CARDIO
- WHO-PROFILES (XRCISE CYCLE MED only)
- ECG CHOICE (XRCISE CYCLE MED only)

To return to the main menu press the STOP button once or several times.

*Note! Pacemaker patients are recommended to only use the MANUAL mode!*

7.1.1 MANUAL

In this mode you can choose any workout time and workload.

1. Press PLUS/MINUS until MANUAL is highlighted. Confirm your selection with START.

2. The MANUAL submenu is displayed. Enter your body weight (XRCISE STAIR MED and XRCISE RUNNER MED only) by pressing PLUS/MINUS (default: 70 kg). Confirm your selection with START.

3. You now access the workout mode. Here you can change the workload by pressing PLUS/MINUS. If you want to change the workload substantially, press and hold PLUS/MINUS. On the TRAC you can also change the incline by pressing UP and DOWN.

4. Stop the workout by pressing the STOP button. The workout parameters (Watt, 1/min etc.) remain on the display and are visually demonstrated in the workout profile. By pressing STOP again you return to the main menu.

In MANUAL mode you select any minimum/maximum workload. The workload limits are as follows (depending on the device):
Instead of showing the default speed setting (1/min) the CROSS display indicates the current pedaling frequency (actual value).

7.1.2 PROFILES

Choose from five different predefined profiles (60 minutes). The profiles provide different workload sequences, comparable with a hilly landscape.

The five predefined profiles (1 - 5) are:

**Profile 1:**

![Profile 1 Graph](image-url)
Profile 5:

**How to choose a predefined user profile (1 - 5):**

1. Press PLUS/MINUS until PROFILES is highlighted. Confirm your selection with START.
2. Confirm PROFILES by pressing START.
3. The PROFILE submenu is displayed. Enter your body weight (XRCISE STAIR MED only) by pressing PLUS/MINUS (default: 70 kg). Confirm your selection with START.
4. Select a profile by pressing PLUS/MINUS. Confirm your selection with the START button.
5. Now you have to enter the minimum/maximum workload. Press PLUS/MINUS to change the values. If you change the minimum value the system changes the maximum value accordingly. Confirm the workload values with START.
6. The default workout time is 60 minutes. For the profile sections you can choose between 10 to 60 minutes (default time 20 minutes) by pressing PLUS/MINUS. Confirm your selection by pressing START.
7. You now access the workout mode. Here you can change the workload by pressing PLUS/MINUS. You can only use values within the previously defined workload range. On the TRAC you can also change the incline by pressing UP and DOWN.
8. The training will stop automatically after the defined workout time has elapsed. You can also stop the training at any moment by pressing the STOP button. In either case the workout parameters (Watt, 1/min etc.) remain on the display and are visually demonstrated in the workout profile. By pressing STOP again you return to the main menu.
7.1.3 CARDIO

For a CARDIO workout (heart rate controlled training) you need a chest belt with POLAR transmitter. This is the only way to monitor the heart rate and to automatically adapt the workload. In CARDIO/SYSTEM you can control the intensity via the heart rate in order to maintain a steady optimum heart rate throughout the workout.

You need to set the following parameters before training:
- PULSMAX = maximum heart rate during workout
- PULSMIN = minimum heart rate during workout
- START LOAD = workload at the beginning of the workout

Workout:
1. Press the PLUS/MINUS buttons until the CARDIO program is highlighted. Confirm your selection with START.
2. The CARDIO submenu is displayed. Select the desired workout mode (CARDIO or CARDIO COUNTDOWN) by pressing the PLUS or MINUS button. Confirm your selection with START.

CARDIO
3. Now you can modify the “Age” parameter (“Body Weight” and „Age“ for XRCISE RUNNER MED). Press the PLUS/MINUS button to change the default value to your age or weight and confirm with START.
4. Now set the maximum heart rate. Change the default value by pressing PLUS or MINUS (the system changes the minimum heart rate accordingly). PULSMAX increases/decreases in single increments. Confirm your individual maximum heart rate by pressing START.
5. Now you can modify your minimum heart rate by pressing the PLUS and MINUS buttons (default: minus 10 beats off the maximum heart rate; less than 10 beats is not possible due to training relevance). Confirm your selection with START.
6. Now set the initial workload for the workout. Press the PLUS and MINUS buttons and confirm with START. For the XRCISE RUNNER MED model you must set the maximum speed instead of the initial workload.
7. Now the CARDIO mode is displayed. Your current heart rate is determined. This may take a few seconds. When the heart rate is displayed workout starts with the initial workload.
8. You are now in the workout mode. The workout section is marked by two horizontal lines. Press the PLUS and MINUS buttons to modify the workload. On the XRCISE RUNNER MED you can also change the incline by pressing UP and DOWN.

9. Stop the workout by pressing the STOP button. The training parameters (Watt, l/min etc.) remain on the display. The progression of the heart rate is displayed as a graphic. Press the STOP button again to return you to the main menu.

CARDIOCOUNTDOWN

3. Now you can modify the “Age” and “Time” parameters (“Body Weight”, „Age“ and Time” for XRCISE RUNNER MED). Press the PLUS and MINUS buttons to enter your age and confirm with START. Select the “Time” parameter to enter the maximum workout time. You can choose between different workout times from 5 to 60 minutes (default time: 20 minutes). Confirm with START.

4. Now set the maximum heart rate. Change the default value by pressing PLUS or MINUS (the system changes the minimum heart rate accordingly). PULSMAX increases/decreases in single increments. Confirm your individual maximum heart rate by pressing START.

5. Now you can modify your minimum heart rate by by pressing the PLUS and MINUS buttons (default: minus 10 beats off the maximum heart rate; less than 10 beats is not possible due to training relevance). Confirm your selection with START.

6. Now set the initial workload for the workout. Press the PLUS and MINUS buttons and confirm with START. For the XRCISE RUNNER MED model you must set the maximum speed instead of the initial workload.

7. Now the CARDIO mode is displayed. Your current heart rate is determined. This may take a few seconds. When the heart rate is displayed workout starts with the initial workload.

8. You are now in the workout mode. The workout section is marked by two horizontal lines and the timer counts down the previously defined workout time. Press the PLUS and MINUS buttons to modify the workload. On the XRCISE RUNNER MED you can also change the incline by pressing UP and DOWN

9. The workout stops automatically when the set time has elapsed. You can also stop the workout at any time by pressing the STOP button. The workout parameters (Watt, l/min etc.) remain on the display. The progression of the heart rate is displayed as a graphic. Press the STOP button again to return you to the main menu.
7.1.4  WHO-PROFILES (XRCISE CYCLE MED ONLY)

The WHO profiles are step profiles defined by the World Health Organization (profiles with stepping strain increase).

WHO-Profile: stepping strain increase (step profile)
Initial strain: Strain of the first strain level [W]
Time: Duration of each strain step [min]
Strain step: Intensity of each strain step [W]
Recovery: Strain in recovery phase [W]

Please proceed as follows:

1. Push the PLUS/MINUS buttons until the programme WHO-PROFILES is selected. Confirm your choice with the START button.

2. You are now in the WHO PROFILE mode where you can see the settings. Press the START button to start with the WHO PROFILE with preset settings for Time, Load etc. ACTIVE will be shown on the display.

3. If you want to change the settings, select the settings in the WHO PROFILE mode by pressing the STOP button. Then change them by pressing the PLUS/MINUS buttons. Press the STOP button again to activate the WHO PROFILE.

4. Press the STOP button to stop the strain phase and to proceed to the recovery phase (PASSIVE).

5. By pushing the STOP-button one more time, you will return to the main menu.

The automatic strain increase in the preset as well as in the individual WHO profiles can be interrupted during operation by pressing the START button. The displayed information changes from ACTIVE to HOLD. In the HOLD mode, the performance can be modified manually with the PLUS and MINUS buttons. If you want to reactivate the automatic strain increase, press the START button again. The display changes from HOLD to ACTIVE. In both modes, you can change from the strain phase to the recovery phase by pressing the STOP button. The display changes to PASSIVE. This allows the doctor to adjust the strain for his patient more precisely than before.
7.1.5 ECG CHOICE (XRCISE CYCLE MED only)

An external connection and a serial interface (RS232) is standard equipment on the XRCISE CYCLE MED. The interface cable is not included in the delivery.

Please note! Some ECG devices cannot be connected with the XRCISE CYCLE MED. Call +49 (6331) 24610 for more information.

Control of the ergometer by external devices:
Use the interface cable to connect the bike ergometer with the external device (ECG, PC etc.). Then the correct data protocol needs to be set:

Choosing data protocols:
1. Switch your machine off and after 30 s on for a restart.
2. Simultaneously press the PLUS and MINUS buttons to open the menu of the serial data protocols.
3. Choose the desired protocol (P01, P02 ...) with the PLUS and MINUS buttons and confirm this with START. The protocol will be stored for further applications.

If the initialisation is received through the interface, the ergometer automatically changes to the operating mode „external control“ („ECG no.“ and the protocol number will be shown in the middle of the display). It is not necessary to select the menu item. In addition, the recognised control characters will be displayed for checking purposes. Unknown commands will be shown as „ / “. Printing is not supported during external control.

If disturbances occur between the ECG device and the bike ergometer, potential compensation can be installed (see Chapter 5.5).
7.2 Device-Specific Behavior after the Workout

**XRCISE CIRCLE/CYCLE/RECUMBENT/STAIR MED:**
You do not need to observe any special instructions at the end of the workout. Just stop the workout. There is no increased risk due to coasting.

**XRCISE CROSS MED, XRCISE MIX MED:**
Stop the workout by pressing the STOP button. This is the only way to stop the pedals. Without a coasting feature there is an increased risk of injury.

**XRCISE RUNNER MED.**
When you press the STOP button continue moving until the running belt has come to a complete stop. When you use the emergency stop feature remember to step on the side foot plates. Read the safety instructions in the appendix:

*Please also read the safety instructions in the appendix!*

7.3 Functional Test

For a functional test please proceed as follows:

7.3.1 **XRCISE CIRCLE MED**

**Brakes**
⊗ Switch on the device. The display lights up as soon as the machine is ready.
⊗ Select MANUAL mode.
⊗ Move the crank handle at the lowest speed (see the arrows!). The resistance increases. Increase the speed to its maximum. The resistance will decrease (see the arrows!). If this is the case the rpm-independent operation works fine. Please check that the crank handles stop immediately after you release them. If the drive system works ok they should not continue moving. Please stay away from the crank handles during the functional test.

**Heart Rate**
⊗ Check the heart rate control (see chapter 7.5).

**Related Functions**
⊗ Before getting on the machine please check that the seat securely locks in the upper end position and does not move backwards or to the side. Make sure that the crank handles are locked (see chapter 6.3.1).
⊗ Make sure that the seat easily folds forward. The gap for the seatpost should be free of obstacles. There is an increased risk of injury.
⊗ Make sure that the seat easily folds forward. The gap for the seatpost should be free of obstacles. There is an increased risk of injury.
⊗ Move the crank handles forward and backwards to check their function:
7.3.2 XRCISE CROSS MED

Brakes

⊗ Switch on the device. The display lights up as soon as the machine is ready.
⊗ Choose MANUAL mode and select the lowest power value possible (see Chapter 7.1.1).
⊗ You can easily increase the walking speed.
⊗ Press the STOP button. The resistance increases noticeably and workout becomes almost impossible. If this is the case the brakes work fine.

Heart Rate

⊗ Check the heart rate control (see chapter 7.5).

Related Functions

⊗ Move the pedals forward and backwards to check their function.

7.3.3 XRCISE CYCLE MED

Brakes

⊗ Switch on the device. The display lights up as soon as the machine is ready.
⊗ Select MANUAL mode and increase the power range (see Chapter 7.1.1).
⊗ Move the pedals at the lowest speed (see the arrows!). The resistance increases. Increase the speed range to its maximum. The resistance decreases. If this is the case the rpm-independent operation works fine.

Heart Rate

⊗ Check the heart rate control (see chapter 7.5).

Related Functions

⊗ Make sure that the seat can be adjusted easily.
⊗ Make sure that the handlebar can be adjusted easily.

7.3.4 XRCISE MIX MED

Brakes

⊗ Switch on the device. The display lights up as soon as the machine is ready.
⊗ Choose MANUAL mode and select the lowest power value possible (see Chapter 7.1.1).
⊗ You can easily increase the walking speed.
⊗ Press the STOP button. The resistance increases noticeably and workout becomes almost impossible. If this is the case the brakes work fine.

Heart Rate

⊗ Check the heart rate control (see chapter 7.5).
Related Functions
⊗ Make sure that the seat can be adjusted easily.
⊗ Move the pedals forward and backwards to check their function.

7.3.5 XRCISE RECUMBENT MED

Brakes
⊗ Switch on the device. The display lights up as soon as the machine is ready.
⊗ Select MANUAL mode and increase the power range (see Chapter 7.1.1).
⊗ Move the pedals at the lowest speed (see the arrows!). The resistance increases.
Increase the speed range to its maximum. The resistance decreases. If this is the case the rpm-independent operation works fine.

Heart Rate
⊗ Check the heart rate control (see chapter 7.5).

Related Functions
⊗ Make sure that the seat can be adjusted easily.

7.3.6 XRCISE STAIR MED

Brakes
⊗ Switch on the device. The display lights up as soon as the machine is ready.
⊗ Select MANUAL mode and increase the power range (see Chapter 7.1.1).
⊗ Walk at a constant speed. The resistance will adapt to the desired speed automatically (e.g. select 60 1/min = one step of 20 cm/s).
⊗ Reduce the set speed. The resistance increases and sets the new speed. If this is the case the brakes work fine.

Heart Rate
⊗ Check the heart rate control (see chapter 7.5).

7.3.7 XRCISE RUNNER MED

Speed Control
⊗ Switch on the device. The display lights up as soon as the machine is ready. On models equipped with a lifting device the lifting motor automatically addresses the point of reference.
⊗ Select MANUAL mode and increase the speed constantly (see Chapter 7.1.1).
⊗ The speed increases constantly to the set value and remains on this level

Emergency Stop
⊗ Switch on the device. The display lights up as soon as the machine is ready. On models equipped with a lifting device the lifting motor automatically addresses the point of reference.
Select MANUAL mode and increase the speed constantly (see Chapter 7.1.1).

The speed increases constantly to the set value and then remains on this level.

Press the emergency stop button. The running belt will stop immediately. The display turns off. If this is the case the emergency stop function works fine. If you want to use the XRCISE RUNNER MED again turn the emergency stop button clockwise until it releases

Safety Cord

Switch on the device. The display lights up as soon as the machine is ready. On models equipped with a lifting device the lifting motor automatically addresses the point of reference.

Select MANUAL mode and increase the speed constantly (see Chapter 7.1.1).

The speed increases constantly to the set value and then remains on this level.

Now pull the safety cord. The running belt will stop immediately and the display returns to the main menu. If this is the case the safety cord function works fine. If you want to use the treadmill again reinsert the magnet.

Operation Properties / Lubrication

Switch on the device. The display lights up as soon as the machine is ready. On models equipped with a lifting device the lifting motor automatically addresses the point of reference.

Select MANUAL mode, increase the set speed to at least 10 km/h and run at a constant speed (see chapter 7.1.1). The speed should not decrease noticeably when setting the foot on the belt. If the running belt moves at a constant speed lubrication and power supply are fine.

If the speed decreases when setting the foot on the belt check the lubrication (see chapter 9.1.7) as well as the power supply.

Heart Rate

Check the heart rate control (see chapter 7.5).

7.4 Default Settings

For changing the default settings, you can use the following buttons:

PLUS: You can you can navigate in the menu and increase settings
MINUS: You can you can navigate in the menu and decrease settings
START: You can confirm your selections or settings
STOP: You can cancel a function or leave the menu

Language settings:

In the main menu simultaneously press PLUS and MINUS to open the “Service” menu. Select the function “Language”. Here you can change the language.
Date and Time settings:
In the main menu simultaneously press PLUS and MINUS to open the “Service” menu. Select “Time and Date”. Here you can change the settings.

Service Settings (XRCISE RUNNER MED only)
In the main menu simultaneously press PLUS and MINUS to open the “Service” menu. Select “Service Settings”. The service menu provides system information, e.g. the total mileage. Please note that a certain mileage may be displayed due to a factory test run of several hours!

Setting the cool down time in the service menu (XRCISE RUNNER MED only)
You may set a cool down time from 20 s to 60 s (time from the maximum speed until the running belt stops completely).

Setting the oil change intervals in the service menu (XRCISE RUNNER MED only)
Options: 1500 km, 1000 km, 500 km, 0 km

0 km disables the display of oil change intervals. When selecting 1500/1000/500 km an oilcan is displayed to the right of the set speed when the set distance is reached. After setting a new interval the icon disappears. The default setting is 1000 km. During the interval the remaining distance (km) until the next oil service is displayed in this menu. The set value (e.g. 1000 km) is counted down to zero.

External Control of the Training Bike:
Connect the training bike to an external device (ECG, computer etc.) using an interface cable. Then you must select the data protocol.

Setting of the External Data Protocol:
In the main menu simultaneously press PLUS and MINUS to open the “Service” menu. Select “RS232”. Press PLUS/MINUS to select the protocol (00, 01, 02 etc.) and confirm with START. The protocol selection is stored. Press STOP to return to the main menu.

When the Initialize icon appears above the interface the training bike automatically changes to external control mode. For further control additional icons are displayed. Unknown commands are listed as “/”.

Note: Not all ECG devices are compatible to CARDIO LINE 4000/4100. For further information please call +49 6331 2461-0 in Germany.

7.5 Heart Rate Control
For optimal results we recommend heart rate controlled workout. With a POLAR transmitter you can always display the current heart rate and adapt the workout accordingly. Heart rate measurement is also possible with bloodpressure measurement or the SPO₂-Module. These heart rate measurement are for information only. For CARDIO workouts or tests you
must use a chest belt system.

Heart rate monitoring devices are tested at our factory before delivery. The displayed heart rate is compared to the corresponding displays of a Polar heart rate monitor. Only certified heart rate monitors and receivers are used for the test

CAUTION! The heart rate control system may be faulty. Excessive training may cause dangerous injury or even lead to death. Immediately stop training in case of an unusually strong reduction of your physical performance.

7.5.1 POLAR Belt and POLAR Transmitter

Moisten the electrodes (the two finned rectangular areas on the bottom side) carefully before use. To provide optimal contact with the skin you can use a contact gel as it is used in ECG measurements. Adjust the belt below the chest muscle so that it has close but comfortable contact with the skin. The belt must not loosen during workout. Check the proper orientation of the belt – you must be able to read the POLAR logo when looking at it.

Make sure that the two electrodes are not buckled. Heart rate measurement is only possible with correct alignment of the chest belt. Otherwise "E" is displayed (error or no signal). In this case check the correct position of the chest belt.

Clean the transmitter, especially the electrodes, after the workout using warm water and mild soap. Dry them thoroughly. Never brush the electrodes! Do not use alcohol for cleaning!

Operation Range of the POLAR Transmitter

The operation range of the emitter is approx. 80 cm. If you have more than one ERGO-FIT exercise machine make sure to keep a distance of at least 100 cm between the machines to avoid interference of the transmitters.

Note: We cannot guarantee for medically correct heart rate values, but the obtained values are a good basis for a safe workout.
POLAR Transmitter Battery
If heart rate measurement is only possible within a very short distance between transmitter and receiver or is not possible at all you should check the batteries (operation time appr. 2500 hours).

Send the transmitter with the empty batteries to the following address:
POLAR Electro GmbH Deutschland
Am Seegraben 1
64572 Büttelborn/Klein-Gerau

Against charge you receive your transmitter with a new battery. Do not replace the battery yourself!

7.5.2 Potential Interferences
⊗ Monitors, electric engines
⊗ High voltage lines (e.g. trains)
⊗ Nearby fluorescent lamps
⊗ Radiators
⊗ Other electric appliances

Move the machine to another place to increase the distance to the potential source of interference. In some cases it is even sufficient to change the direction of the machine by a few degrees.

If the heart rate is displayed irregularly despite faultless technical conditions, check your heart rate manually. In case of doubt, you should see your doctor.

7.6 Blood pressure measurement
With some of the XRCISE LINE MED devices you can perform an auscultatory blood pressure measurement. This is only possible during workout (e.g. manual workout).

Make sure that the blood pressure module is correctly connected to the machine, that the cable and air hose are secured (see Chapters 6.4.3 and 7.6.2), and that it is securely mounted in the provided base (see Chapter 6.4.6.). Select a cuff size adapted to the upper arm (see the table below). The cuff must be completely deflated before it is placed on the arm. Measure the blood pressure quietly over the clothes! Under no circumstances should a shirt, blouse or sweater sleeves be pushed up or wrapped up, as this can hinder blood flow and lead to incorrect measurement results. The blood pressure cuff can always be placed over the sleeves of shirts, blouses, or thin sweaters. This does not affect the accuracy of the measurement results. Please note that the clothing directly under the microphone is tight and has no wrinkles. Measuring the blood pressure over clothing saves time and protects the cuff. When placing the cuff on the arm, pay attention to the location of the microphone and make sure that the cuff fits well.
7.6.1  Cuff Size Table

<table>
<thead>
<tr>
<th>Typ</th>
<th>Upper arm circumference</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult</td>
<td>29 cm - 40 cm</td>
<td>D-ring cuff</td>
</tr>
<tr>
<td>Small Adult</td>
<td>25 cm - 31 cm</td>
<td>D-ring cuff</td>
</tr>
<tr>
<td>Large Adult</td>
<td>up to 56 cm</td>
<td>Velcro cuff</td>
</tr>
</tbody>
</table>

7.6.2  Using the cuff

Position the microphone on the inside of the upper arm between m.Biceps and m.Triceps. The microphone must be clean. The elbow must be completely free, and there should be a two-finger distance between the elbow and the cuff:

Important: The microphone must be clean.
The cuff is infinitely adjustable to fit almost all shape of upper arms - from cylindrical to conical. Adjustment for conical upper arms is done by adjusting the angle of the bracket in the cuff using the „adjustable cone“ rear strap. There should always be a finger-wide distance up top and at the bottom:

Please note:

☉ The blood pressure cuff must be free and must not be in contact with the machine during the measurement procedure.

☉ The blood pressure cuff tubes must be secured to the forearm and the machine to prevent pendulum or swinging motions. Please use the attached tie-down loops for this purpose.

☉ The tube output of the cuff may not bend.

☉ For persons who are particularly muscular in the upper arm, the position of the microphone must be pulled slightly to the side of the biceps in order to obtain a perfect measurement.

☉ Measurement results should only be interpreted by medical personnel with appropriate training.

☉ Single measurement results must never be used as a diagnostic tool to initiate treatment.

☉ The cuff pressure should not exceed 300 mmHg, a safety mechanism will make the system deflate as soon as pressure greater than 330 mmHg is detected.

☉ The patient can be relieved at any time after excessive pressure was applied by pressing the STOP button, pulling off the cuff tube or opening the cuff.

☉ The measuring time should not exceed 2 minutes.
Blood pressure can be measured again under rest conditions after a recovery time of at least 2-5 minutes.

Make sure that the machine is not affected by unnecessary shock or vibrations.

Do not expose the machine to excessive dirt and moisture.

Be careful not to damage rubber parts with sharp objects.

The blood pressure cuff must be cleaned before it is used on another patient.

The following figures show the blood pressure measurement with a correctly applied cuff and securing the cuff tube with tie-down loops on XRCISE CYCLE and XRCISE MIX (the latter is circled).
7.6.3 Measuring Method

The METRONIK BL-6 works according to the auscultatory measurement method (RR method) with an upper-arm cuff where a microphone is built in. The Riva-Rocci Korotkoff RR method is the gold standard for noninvasive blood pressure measurement. As a result, METRONIK sphygmomanometers measure extremely accurately and robustly, as in the case of stethoscope measurement.

The METRONIK BL-6, designed for cardiowise, is specifically adapted for use in ergometry and works by default according to a practice-proven method, referred to as ERGO measurement profile in this document. In this measurement profile, the sensitivity of the microphone amplifier is muted during the active phase.

In the event of an impact during ergometric examinations, the shape of the pulse wave - and thus the frequency components of the Korotkoff tones - change. As a result, pulse wave noises are audible even under diastolic pressure during exercise. Noise and motion are also sharply increased. In order to minimize these issues, the ERGO filter is switched on after the second measurement following a reset. It is an analog filter developed for optimum filtering of Korotkoff noise under Ergo conditions. As a result, automatic measurement results are much more reliable.

Please note the following.

Due to the strong filter component, the useful signal can also be trimmed during rest measurements with an activated ERGO filter. A sleep measurement with an activated ERGO filter can result in incorrect readings.

The Korotkoff sounds detected by the module are acoustically displayed by a digital signal generator. The module signals that the measurement is in progress.

Additional digital beeps may also be caused by environmental noise (such as cuff tube motions). This may invalidate the blood pressure measurement results. This can be avoided by securing the tube (see Chapter 7.6.2) and creating an optimal, quiet measuring environment. By monitoring these sounds during the measurement, the user can become assured with each measurement that the Korotkoff sounds have occurred simultaneously with the blood pressure and that the automatic measurement works comprehensively and correctly.

The default ergometry filter (from the third measurement) attenuates the noise and pulse wave noise that occur during exercise. The built-in pressure chamber compensates for mechanical motion during ergometry.

The blood pressure cuff is to be understood as a single-tube system, although it is made with double tubes. One tube is used to inflate and deflate the air, and the other one connects the microphone cable. The microphone is integrated in the cuff bladder (also called the „soul“) for optimal low-interference and robust measurements. There are two robust connectors at the tube end of the blood pressure cuff that ensure quick and easy connection with the blood pressure monitor BL-6.
ERGO measuring profile:
ERGO measuring profile means that the ERGO filter is automatically switched on during active testing.
Measuring profile setting - recommended for active testing:

Start of an active test:
1. Blood pressure measurement: Rest measurement  
Normal measuring profile
2. Blood pressure measurement: Pressure start  
Normal measuring profile
From the 3rd measurement (the body is under pressure)  
ERGO measuring profile
Each additional pressure measurement  
ERGO measuring profile

After 3:30 (min:sec) Measurement break switches BL-6 back.

The sequence is reset either after the preset time for inactivity (downtime) or by pressing the STOP key.

Number of leading rest measurements (factory setting 2), downtime for resetting (factory setting 3 min 20 s), acoustic signal reproduction and other measuring profile parameters can be changed or adjusted individually using the BPControl service program. For more information regarding BPControl, please contact Ergo-Fit Customer Service. You can find the necessary contact details in Chapter A.1.

7.6.4 Measuring Process
Press the BP button on the control panel of the machine. The blood pressure cuff will inflate, and the measurement process will start. Measurement control is now indicated by the display of the current cuff pressure on the control panel. An acoustic feedback takes place after switching to the measuring mode. The current cuff pressure is displayed cyclically in the „BP SYS“ display field after the cuff starts inflating and until the end of the measurement process. In addition, the detected heartbeat is played back (acoustically) in the module. Keep your arm as steady and straight as possible during the measurement process.

After a short period of time, the display will show systolic (50 to 250 mmHg) and diastolic (20 to 150 mmHg) values, as well as the heart rate (40 to 200 BPM). These values will be displayed until the next measurement starts.
Please note:

⊙ Maximum deviation of blood pressure values: +/- 3 mmHg from 0 to 300 mmHg.
⊙ Measurement results on the left and right arm may vary.
⊙ If you attach the blood pressure cuff for a longer period, check the circulation of the respective limb

7.7 SPO₂ measurement

With the XRCISE LINE MED devices you can also measure the oxygen saturation (SPO2). This is only possible during workout (e.g. manual workout).

The SPO₂ module must be correctly connected to the machine (see chapter 6.4.3. Connections). Attach the finger clip to forefinger, thumb or little finger. With the XRCISE CIRCLE MED SPO2 measurement on the fingers is not possible due to the rotation of the arms. If measurement is needed attach the clip to the big toe.

The patient’s skin on the finger must be dry and clean. Open the clip and put the finger as far as possible into the opening. Release the clip to lock it. Guide the cable along the arm and fasten it with tape, if necessary. Now you can perform the measurement. Do not move the hand during the measurement.

The measurement will now be performed automatically and permanently. The display shows the measurement values (70% to 100%) as well as the heart rate (20 to 300 BPM in whole beats (1 bpm)). These values will be displayed until you remove the finger clip or disconnect the SPO₂ module.

Please note:

⊙ With an oxygen saturation between 70% and 100% the maximum deviation of the measurement values is 2,3%.
⊙ The maximum heart rate deviation is +/- 3bpm.

Please review the additional safety and operational instructions in this manual!
Chapter 8  
Workout

8.1  The Effect of the Workout ................................................................. 76
8.2  Cardiovascular Workout ................................................................. 76
8.3  Choosing the Right Intensity ............................................................. 77
8.4  Workout Routine - Aspects to be Considered .................................. 77
8.5  Weight Reduction – the Benefits ...................................................... 77

Please note:
This user manual provides information on several devices. Details may vary depending on your model!
8 Workout

8.1 The Effect of the Workout

If you lead a modern life you are usually not performing sufficient physical activity to stay healthy and in good shape. Cardiovascular diseases are still the most common cause of death.

This fact should make cardiovascular training a top priority.

All exercises that increase the heart rate for at least 15 to 20 minutes are called „aerobic“.

8.2 Cardiovascular Workout

To benefit most from your workout you should be familiar with some training principles. Your fitness depends to a great extent on your body's ability to provide oxygen to your muscles. Oxygen is the key to the energy stored in the muscles.

Let us take a closer look at some of the factors that are crucial to this process: The heart acts like a very complex pump and is responsible for the blood circulation in the body. Regular aerobic training will increase the heart's stroke volume, i.e. with every beat it will transport blood through your body. This means that the heart works more efficiently not only during training but also at rest.

When oxygen enters the lungs it will be mixed with blood in tiny air sacs, the so-called alveoli. Regular aerobic training will improve the efficiency of the alveoli and thus blood is supplied with more oxygen to be transported to the muscles.

Hemoglobin is the substance of the blood that absorbs the oxygen. Regular aerobic training will increase the hemoglobin in the blood which in turn leads to an improved oxygen supply of the muscles.

It is a fact that regular exercise reduces the risk of heart diseases.

In other words, regular workout improves the oxygen supply of the body and reduces the risk of cardiovascular diseases. For this reason, cardiowise workout equipment is used in training facilities and rehabilitation centers.
8.3 Choosing the Right Intensity

The workout intensity should be adapted to your heart rate. In order to determine your heart rate you need to do a performance evaluation. Our cardio training machines allow you to control your heart rate constantly even during training.

If you are a beginner you should exercise in the lower part of your aerobic training zone until your fitness has improved.

8.4 Workout Routine - Aspects to be Considered

If you exercise for the first time or resume training after a longer period of time you should structure your workout routine according to the following example:

1. Warm up: Exercise for five minutes at low intensity to prepare your body for the workout.
2. Stretching: Get off the exercise machine and stretch the targeted muscle groups
3. Main sequence: Now you are well prepared for the aerobic sequence which should last at least 15 to 20 minutes. Focus on maintaining your heart rate continuously at the target level.

8.5 Weight Reduction – the Benefits

Most beginners primarily wish to reduce body weight, the adipose tissue. Regular training stimulates the metabolism and helps to burn more calories both during workout and at rest.

Most beginners get the most aerobic benefit from an intensity level of 70% of the maximum heart rate. With increasing fitness you have to adapt the workout intensity. However, the assumption „The harder the training the greater the progress in fitness“ is wrong. If a certain limit is exceeded you will lose the benefits of an aerobic workout because the body can no longer provide the muscles with oxygen and instead produces large amounts of lactic acid, and this will make us stop training very quickly.

Workout just below the anaerobe limit increases the overall workout time significantly. Thus you burn more fat and strengthen our aerobic system optimally.
# Chapter 9 Maintenance

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.1</td>
<td>Maintenance and Care</td>
<td>80</td>
</tr>
<tr>
<td>9.1.1</td>
<td>XRCISE CIRCLE MED MED</td>
<td>80</td>
</tr>
<tr>
<td>9.1.2</td>
<td>XRCISE CROSS MED</td>
<td>81</td>
</tr>
<tr>
<td>9.1.3</td>
<td>XRCISE CYCLE MED</td>
<td>81</td>
</tr>
<tr>
<td>9.1.4</td>
<td>XRCISE MIX MED</td>
<td>81</td>
</tr>
<tr>
<td>9.1.5</td>
<td>XRCISE RECUMBENT MED</td>
<td>81</td>
</tr>
<tr>
<td>9.1.6</td>
<td>XRCISE STAIR MED</td>
<td>81</td>
</tr>
<tr>
<td>9.1.7</td>
<td>XRCISE RUNNER MED</td>
<td>82</td>
</tr>
<tr>
<td>9.1.8</td>
<td>Bloodpressure module</td>
<td>86</td>
</tr>
<tr>
<td>9.1.9</td>
<td>SPO₂-Module</td>
<td>86</td>
</tr>
<tr>
<td>9.2</td>
<td>Cleaning</td>
<td>86</td>
</tr>
</tbody>
</table>

Please note:
This user manual provides information on several devices. Details may vary depending on your model!
9 Maintenance

All exercise machines used for commercial purposes need to undergo regular maintenance and safety inspections (cardiowise advises an inspection every 12 month).

Regular, thorough care and appropriate maintenance in particular help to maintain the value of your exercise machine and to extend its lifetime. For this reason, we recommend regular inspections of the machines. Before every use, inspect the casing, seat and guides, handlebar, crank handles, footrests, pedals, pedal straps, running belt and handholds for damage. If the machine is damaged, have it repaired immediately. These regular inspections are essential in case of guarantee claims. In case of a malfunction please contact our service team. Technicians and engineers at cardiowise are pleased to assist you.

Before switching on the machines, always inspect power cord, power plug, power socket and power input (machine) for defects.

The following situations make immediate maintenance necessary:

- excessive mechanical stress (sharp impact, defect cabling, inappropriate tension)
- liquid has entered the device
- cables, connectors or casing are damaged,
- covers have dropped off.

Maintenance of the machine may be carried out by the cardiowise customer service. We also offer maintenance contracts.

9.1 Maintenance and Care

Cardiowise machines are low-maintenance products.

The following chapters outline important inspections and maintenance procedures for different models. You should carry out these tasks regularly.

Switch off and unplug the machine before you perform maintenance tasks or open its casing.

9.1.1 XRCISE CIRCLE MED

- This model requires very little maintenance.
- Do not apply oil or grease to the external parts of the machine.
9.1.2 XRCISE CROSS MED
⊗ Do not apply oil or grease to the external parts of the machine.

9.1.3 XRCISE CYCLE MED
⊗ This model is almost maintenance-free.
⊗ Moving parts need no further oiling or greasing.
⊗ Once per week, remove dust from the guide rod of the seat.
⊗ Regularly apply a teflon spray to the guide rod (we recommend “Fin super aerosol” by Interflon).

Treadle
⊗ As screws tend to loosen over time, you should check the treadles and pedals after 3 to 5 operational hours for the first time, then every month. Note that the left pedal has a left-handed thread and the right pedal has a right handed thread.
⊗ If a treadle loosens tighten it immediately. Remove the black cap from the crankshaft and retighten the screw underneath with a 14 mm socket spanner. The pedal may be retightened to the crankshaft with a 15 mm open-end spanner.

9.1.4 XRCISE MIX MED
⊗ This model requires very little maintenance.
⊗ Do not apply oil or grease to the external parts of the machine.
⊗ Once per week, remove dust from the chrome bar of the seat.

9.1.5 XRCISE RECUMBENT MED
⊗ This model is almost maintenance-free.
⊗ Moving parts need no further oiling or greasing.
⊗ Once per week, remove dust from the guide rod of the seat.

Treadle
⊗ As screws tend to loosen over time, you should check the treadles and pedals after 3 to 5 operational hours for the first time, then every month. Note that the left pedal has a left-handed thread and the right pedal has a right handed thread.
⊗ If a treadle loosens tighten it immediately. Remove the black cap from the crankshaft and retighten the screw underneath with a 14 mm socket spanner. The pedal may be retightened to the crankshaft with a 15 mm open-end spanner.

9.1.6 XRCISE STAIR MED
⊗ This model requires very little maintenance.
⊗ Do not apply oil or grease to the external parts of the machine.
9.1.7 XRCISE RUNNER MED

ERGO-FIT recommends servicing every two years or after 30.0000 km.

Adjusting the Running Belt

The rear drive shaft is a dangerous area because here the running belt is drawn into the machine. Therefore keep hair and clothes away from the drive shaft.

Never adjust the running belt alone. For your safety, adjustment of the belt must always be carried out by two persons. In case of emergency the second person has to press the emergency stop button.

Fine-tuning the running belt may be performed by adjusting the left adjustment screw on the drive shaft while the treadmill is in operation. Use the included 6 mm Allen spanner.

1. The running belt should run at approx. 12 km/h (no incline).
2. Observe the running belt for at least two minutes.
3. The running belt’s ideal location is in the middle of the shaft. If this is not the case, proceed as follows:
4. If the running belt tends to run to the right, turn the right adjustment screw to the right. If the running belt tends to run to the left, turn the right adjustment screw to the left. For minor deviations turn the screw ¼ turn. For greater deviations turn the screw ½ turn.
5. After each adjustment, observe the running belt for two minutes. In order to check its function the treadmill should also run at 5 and 20 km/h.
6. Adjustment is complete when the running belt stays in the middle of the shaft even after running at 12 km/h for a longer period of time.
7. Hill running and other running styles may cause a dislocation of the running belt. As long as the running belt centers again when running in normal mode at 12 km/h adjustment is not necessary. The running belt stays in its position for several months if it is adjusted correctly.
8. If you want to tighten the running belt, turn the left and right adjustment screws evenly. The running belt should never be over tightened!
Checking the Running Belt Tension
Unplug the machine before you open the control panel or remove the cover!

The belt may loosen after longer use or when adjusted improperly. It will decelerate when jumping on it because the front drive shaft looses contact with the belt.

In this case, check the belt tension as follows:
1. Open the front cover. Do not touch the internal parts of the machine.
2. Press the START button to confirm the MANUAL mode and accelerate the belt to 2 km/h with the PLUS button.
3. Stand behind the treadmill and carefully try to block the running belt with your foot.
4. If the running belt blocks, it needs to be tensioned.

If the running belt is blocked for too long, the motor control will switch off due to overcurrent. This is indicated by a flashing alarm LED on the motor control. In this case, switch off the machine and wait for 5 minutes before you switch it on again.

Retensioning the Running Belt
The tension of the running belt must never exceed 0.5 %, as this may damage the belt, shafts and bearings. Make sure to unplug the machine before tensioning the running belt!

Proceed as follows:
1. The correct belt tension is 0.3 to-0.4%. Apply a length marking of 1000 mm on both sides of the untensioned running belt. This marking should extend to 1003 to 1004 mm when the belt is tensioned correctly.
2. Turn the left and right adjustment screws with a 6 mm Allen spanner clockwise until the correct tension is reached (see section 1.) Make sure that the running belt stays between the two arrows on the back part of the treadmill frame.
3. You can also tension the belt until the drive shaft stops spinning freely when the belt is blocked (see section „Checking the Running Belt Tension”).

Tensioning the Drive Belt
The poly-v-drive belt is equipped with a belt tensioner and should not require any manual tensioning. However, if the drive belt needs more tension, make sure to unplug the machine plug first.

You may check the belt's tension as instructed in „Checking the Running Belt Tension” by blocking the running belt. When doing so, make sure the motor is not idling but has full contact with the belt!

The drive belt is equipped with an adjustment device in case it needs to be tensioned.
Oiling

The oil film underneath the running belt needs to be checked at the latest when the oil can symbol appears on the display or if you hear grinding noises. In this case perform oiling and reset the oil interval distance.

The intervals differ depending on the use:

- physiotherapy / low utilization, ca. 500 km
- training facility / average utilization, ca. 1000 km
- training facility / high utilization, ca. 1500 km

Use the provided special oil and a 10ml-syringe. Only use the provided special oil (special oil is available on demand at ERGO-FIT)! Other oils or lubricants may damage the running belt and bearing surface and the treadmill might get damaged. Two syringes of 10 ml special oil are needed for every maintenance procedure.

Proceed as follows:

Make sure not to come into contact with the running belt! For your safety, adjustment of the belt must always be carried out by two persons. In case of emergency the second person has to press the emergency stop button.

1. Now switch on the treadmill and select MANUAL mode. Set the belt’s running speed to approx. 2 km/h.
2. Fill the provided syringe with the special oil.
3. Beneath the running belt on the side you will see a board with the injection hole. Insert the syringe into the injection hole and slowly press the oil into the hole.
4. Refill the syringe and repeat step 3.
5. Then fill the syringe with air and press the air into the hole to make sure that the oil has completely entered the system.
6. After oiling, let the treadmill run at 5 km/h for another 5 minutes while no one is running on the belt to allow the oil to spread on the running belt.
Cleaning and Adjusting the Photo Sensor

The photo sensor and the slitting disk are needed to control the speed. Carefully clean them every 6 months, using a damp cloth and ethyl alcohol. If you prefer not to remove the slitting disk you may also use a brush dampened with ethyl alcohol to clean the optical components between disk and photo sensor.
When adjusting the photo sensor, make sure to keep the air gap between the disk and the casing of the photo sensor:

- axial gap: approx. 1 mm (see fig.)
- radial gap: approx. 1 mm left and right

Make sure that the virtual extension of the photo sensor continues through the centre of the motor shaft.

9.1.8  Blood pressure module

- If the device is equipped with a blood pressure monitor, a metrological control and, if necessary, calibration must be carried out for it no later than every 2 years.
- Cardiowise recommends replacing the cuff cover every 6 months

9.1.9  SPO2-module

- This module is almost maintenance-free.

9.2  Cleaning

Sweat, dust and dirt can damage your exercise equipment even after a few weeks. Metal and aluminum surfaces may deteriorate when getting into contact with sweat. Therefore you should clean the equipment every day.

We recommend “Ecolab P3-steril” or “Scarabig” for cleaning. You can obtain these detergents at the following suppliers:

Ecolab Deutschland GmbH (www.ecolab.com)
Reisholzer Werftstraße 38-42 / Postfach 13 04 06 - 40554 Düsseldorf

SCARAPHARM chem.-pharm. Produkte GmbH (www.scarapharm.de)
Wachmannstraße 86 - 28209 Bremen

Consider the following aspects for cleaning:

- Make sure to disconnect the mains plug before cleaning your machine.
- Clean your machine with a damp cloth, mild cleaning agent or soap and dry it with a soft cloth.
- Do not apply oil or grease to the external parts of the machine.
- For the XRCISE RUNNER MED model the internal components should also be cleaned. To do so, remove the 7 screws on the front cover. Pull the cover up to
remove it. Make sure not to damage the automatic circuit breaker. Remove any dirt inside the treadmill with a vacuum cleaner, in particular on the ventilation grille of the drive motor.

During training with chip card regularly clean the chip cards and chip-card readers with a cloth and isopropanol. Special cleaning sets are also available with ERGO-FIT.

**Cleaning the blood pressure cuff:**

Only clean the cuff once you have disconnected it from the blood pressure module.

- The cuff can be cleaned with a damp cloth to cleanse the surface of dust and dirt.
- Before cleaning the cuff, disconnect the inflation part and microphone from the cuff cover. Before washing it, fold the cover so that the Velcro and hook strap are positioned on top of each other.
- The cuff is made of PU and can be washed at 40°C on a gentle cycle with mild detergent. The cuff can be pre-cleaned with a sponge or a soft brush with mild detergent and then rinsed with water. Dry cleaning: treat like delicate clothes.

**Disinfecting the blood pressure cuff:**

The cuff can be treated with the following recommended disinfectants: Cidex, sporicidin, microcid, 70% isopropyl alcohol, 70% ethanol, Buraton liquid. After disinfecting it, rinse the cuff in clear water and allow it to air dry.

**Never autoclave the cuff!**

The cuff can be cleaned and disinfected multiple times. Should the disinfection procedure result be unsatisfactory, or if the cuff does not look presentable, the cuff cover should be replaced. It is available separately as a spare part.

**Preparing for cleaning or replacing the cuff**

The cuff consists of a cuff bladder (including microphone, microphone cable and plug, cuff tube and QuickConnect), clamping yoke, strap and cuff cover.

If the cuff cover can no longer be used because of too much dirt, material fatigue or wear, it can be replaced separately, while the other components can still be used.

To clean or replace the cuff cover, open the „adjustable cone“ strap (see Figures 1 & 2).

![Fig.1: Closed cuff](image1)

![Fig.2: Cuff with an open strap](image2)
Then pull the strap out of the bracket and open the cuff as shown in Fig. 3.

Fig. 3: Sketch of a cuff cover

Then pull the strap out of the bracket and open the cuff as shown in Fig. 3.

On the lower right side, the Velcro can be opened up to the tube inlet. Then the cuff bladder can be pulled out to the right, and the clamping yoke can be pulled down from the cuff cover.

Follow the reverse procedure to install a new cuff cover:
First put on the cuff cover as shown in Fig. 3, and then thread the clamping yoke from the right to the far left. Then open the Velcro fastener on the lower right side completely and thread the cuff bladder back into the cover in such a way that the microphone in the bladder is positioned at the level of the marking. The bladder closes flush with the „Index“ marking on the left side. The bladder should be flush, it must not be bent over, twisted or overlapping. If the bladder fits properly, the Velcro fastener can be closed. Finally, the „adjustable cone“ strap is threaded through the clamping yoke and closed with the Velcro.

As described, a cuff cover can also be removed, washed and re-attached to the bladder.

Cleaning the SPO$_2$ Clips:
Before cleaning the SPO2 module disconnect the connectors at the control panel.

⊙ Clean the sensor with a soft, damp cloth and a mild detergent. The manufacturer recommends Klenzyme by Steris Corporation.

⊙ Do not use aggressive disinfectants. Sensors can be damaged. The manufacturer recommends isopropanol (70%) or high level disinfection with CIDEX OPA by Johnson and Johnson Corporation.
Chapter 10  Troubleshooting

10.1  Finding the Error ................................................................. 90
10.2  Error Messages ................................................................. 96
10 Troubleshooting

Despite the high quality of ERGO-FIT products malfunctions may occur. In this chapter you find troubleshooting information. If you suspect a technical malfunction do not operate the machine. If you can repair the machine yourself nevertheless inform us of the malfunction. This allows us to record the failure in the model's documentation file and to further improve the quality of our products.

For safety reasons, unplug the machine before work is carried out or the machine is opened!

10.1 Finding the Error

Malfunctions may have simple reasons but sometimes a faulty component is the problem. This chapter provides you with guidelines to resolve possible problems. If the recommendations listed are not successful, please contact our service department immediately. Our service team will be pleased to help you.

Please proceed as follows in case of failure:

The machine does not react (no signal when switching on, empty display)

- Check the fuse box. A fuse may be defective or a circuit breaker may have switched off.
- Did you use an extension cable or a multi-outlet power strip? Always connect your machine directly to the power socket.
- Has the emergency stop button been activated (XRCISE RUNNER MED only)?
- Check the power socket. Plug in another electric device to check the socket.
- Pull the power plug out of the socket and visually inspect the power supply cord.

An error message is displayed

- Write down the information displayed in the error message.
- Check if the error has occurred frequently. If so, when and how often?
- Check if multiple electric devices were connected at the same time. If so, which?
- Check if a button was pressed when the error message was displayed.
- Check if the machine can be started by pressing the START button or if this is possible after complete switch off only.
- If you were not present when the error message was displayed, ask the user...
what exactly happened.

⊗ Try to fix the error yourself (see: error messages) or contact the cardiowise service center.

**Possible malfunction of the SPO₂ module:**

<table>
<thead>
<tr>
<th>No oxygen measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>⊗ Wrong sensor</td>
</tr>
</tbody>
</table>

**SPO₂ measurement returns zero**

⊗ Operating voltage too high or too low.
⊗ Operating temperature too high or too low.
⊗ Malfunction because of alternating electric voltage.
⊗ Too much ambient light.
Possible malfunctions of the blood pressure module:

No pressure build-up possible within 5 seconds after START (pump running)

⊗ no cuff attached ---> connect the cuff
⊗ cuff not properly attached ---> check the cuff connector
⊗ cuff too loose or not attached ---> put the cuff on tight
⊗ cuff leaking ---> change the cuff
⊗ leakage in the module ---> servicing required
⊗ After module failure ---> perform the metrological control and calibration procedure

No pressure build-up within 5 seconds after START, pump is not running

⊗ Control LED does not come on ---> Check power supply, servicing is required
⊗ Control LED comes on ---> Check wiring/control panel, servicing is required
⊗ Error in the module ---> servicing is required
⊗ After module failure ---> perform the metrological control and calibration procedure

No measured values are displayed after the rest measurement

⊗ Cuff applied incorrectly, microphone does not detect Korotkoff sounds.
  ---> See chapter 7.6.
⊗ Microphone does not detect Korotkoff sounds.
  ---> Measure the blood pressure on the other arm
⊗ The ERGO filter is set, the Korotkoff sounds are attenuated electronically.
  ---> reset the ERGO filter. Rest measurement with the ERGO filter is not permitted
  (see Chapter 7.6.3)
⊗ Microphone, microphone cable or microphone plug defective, no sound
  transmission  Microphone may also be defective due to mechanical fault.
  ---> Check by tapping the cuff with a finger during the measurement procedure,
  this will simulate a Korotkoff sound. In case of failure, replace or repair the
cuff.
⊗ Pressure is released too fast, there are too few Korotkoff noises.
  ---> Automatic measurement requires at least four consecutive Korotkoff tones
    . Reduce pressure release rate. (Only possible with BP service program)
The displayed resting blood pressure values are not plausible

⊗ The cuff is attached incorrectly, the microphone is not above the artery, Korotkoff sounds are not recorded clearly. See Chapter 7.6.
   ---> The Korotkoff sounds should be clearly audible in the rest condition and no tube movements should be picked up (see Chapter 7.6.2 and Chapter 7.6.3). (Control over digital beeps)

⊗ Wrong cuff size was used.
   ---> Please select the correct cuff size (see Chapter 7.6.1)

⊗ Strong arm movement or the patient talks during the measurement
   ---> Please perform rest measurement in quiet conditions

⊗ Upper arm with the cuff is pressed to upper body during the measurement process.
   ---> Heart pulsations can be transmitted to the cuff via the upper part of the body and be mistakenly interpreted as Korotkoff sounds.

⊗ Pressure is released too fast, cuff pressure difference between two heartbeats is too high.
   ---> Reduce pressure release rate. (Only possible with BP service program).
   Blood pressure value can only be measured at the time of heartbeat. The choice of pressure release rate correlates with the current pulse frequency

Displayed blood pressure values are generally too high

⊗ The cuff that was used is too small.
   ---> Please select the correct cuff size (see Chapter 7.6.1)

⊗ Methodological/basic error:
   - tube fails during the measurement process,
   - arm movement is too strong,
   - other loud noise sources in the area
   ---> The cause of the noise must be looked into.

⊗ Is the module defective? ---> Carry out a metrological check

Displayed blood pressure values are generally too low

⊗ The cuff that was used is too big.
   ---> Please select the correct cuff size (see Chapter 7.6.1)

⊗ The cuff is incorrectly attached. The microphone is not positioned accurately on the artery, and not all Korotkoff sounds are detected.
   ---> See chapter 7.6.2.
The displayed active blood pressure values are not plausible

⊗ Is the module defective? ---> Carry out a metrological check
⊗ Resting blood pressure measurement issues.  
  ---> Measuring active blood pressure is only possible when resting blood pressure measurement is taken correctly.
⊗ Things to note when putting on the cuff during exercise.  
  ---> The cuff tube must be carefully attached to the arm. An additional cuff strap must also secure the tube at the forearm. The cuff tube should hang freely and should not hit anything during the measurement process.
⊗ Instructions for the patient.  
  ---> As soon as the patient recognizes that a blood pressure measurement process is about to start, they must keep the arm relaxed, they should not bend or stretch it too much, the cuff must not have any upper body contact. The movement on the ergometer should be even and soft.

The displayed systolic values are too high when active  
(At a cuff pressure above systole, the microphone picks up the noise and interprets it as Korotkoff sound)

⊗ Methodological/basic error:  
  - tube fails during the measurement process,  
  - arm movement is too strong,  
  - other loud noise sources in the area --->  
  The cause of the noise must be looked into.
⊗ The cuff is attached incorrectly, the microphone is partly not touching the skin.  
  ---> Put the cuff on properly (microphone must be completely in place, and it must not protrude, otherwise it will pick up sounds in the room).
The displayed diastolic values are too low when active
(With a cuff pressure below the diastole, the microphone picks up pulse wave noise or noise and interprets it as Korotkoff sound).

Methodological/basic error:
- tube fails during the measurement process,
- arm movement is too strong,
- other loud noise sources in the area
----> The cause of the noise must be looked into.

When active, systolic values are too low and diastolic values are too high
(The Korotkoff noise is too low and sounds too quiet)

Cuff microphone is not positioned accurately. ---> See chapter 7.6.1.

The patient has physiologically very quiet Korotkoff sounds; it is also very difficult to take their measurements with a stethoscope.
----> Measure on the other arm or re-position the microphone.

Pressure release rate is clearly too high.
-----> Reduce the pressure release rate. (Only possible with BP service program)

Blood pressure device was remotely started from the PC, but no measured values were

See "No readings at rest".
----> If the control panel displays no values, none can be transmitted

Data transfer emulation is not compatible.
-----> Try another combination of protocol selection in the PC ECG and on the control panel of the machine.

Software error.
----> Try to isolate, understand and document the error. Provide detailed information about the error to the manufacturer/service partner/software developer.

Note: If the BL-6 is integrated into the ECG system, use only the ECG software to start the blood pressure measurement process and not the BP button on the control panel.
10.2 Error Messages

The following section lists the most common error messages, their causes and solutions:

Message: End of training sequence or wrong date
Problem: The training sequence stored on the chip card has ended, i.e. since the first test, 8 (training) weeks have passed. If this is not the case, the model’s date or time settings are probably wrong.
Solution: In this case, please go to the main menu and press PLUS and MINUS simultaneously. You will then be able to enter the correct date and the present time using the PLUS and MINUS buttons. Confirm your choice by pressing the START button.

Message: To (“Timeout”)
Problem: The machine cannot communicate with the card reader.
Solution: Switch off the unit, wait for about 5 seconds and switch it back on. If the issue is not solved, check if the cable between the machine and the card reader (located inside the machine) is connected. (If you do not know how to proceed, please contact the service technician before opening the control panel.

Message: CS
Problem: The data on the chip card is damaged or data transmission to the card reader has malfunction.
Solution: First, check if the chip card has been inserted correctly. If this is not the case, please insert it correctly and repeat the procedure. If the issue is not solved, check if the card reader works by inserting a different card. If you receive another error message, please check if the cable between the machine and the card reader (located inside the machine) is connected. (If you do not know how to proceed, please call a service technician before opening the control panel). If the card reader works fine with a different card, the data is probably damaged. Use the appropriate ERGO-FIT software to rewrite the data on the card.

Message: NO ID 01, NO ID 17, NO ID 19 or NO ID 20
Problem: The chip card used has not been evaluated.
Solution: Evaluate the chip card using the ERGO-FIT analysis software first. You can only perform the ERGO-FIT point training with an evaluated card.
### Message: NO ID 02 or NO ID 18

- **Problem:** The card is a training card, i.e. a card which has not been initialized for a test. You cannot carry out an ERGO-FIT test using a training card.
- **Solution:** If you need a new test evaluation, please initialize the chip card for a test using the ERGO-FIT software and then use this chip card for the test.

### Message: NO ID 55

- **Problem:** There is no data on the chip card - the chip card has possibly never been used, or the chip itself is damaged.
- **Solution:** Reinitialize the card. If the issue is not solved, please use a new chip card and restart the initialization.

### Message: Error 16

- **Problem:** The machine cannot find a card in the card reader.
- **Solution:** Make sure the card has been inserted correctly.

### Message: Error 01, Error 17, Error 32, Error 33, Error 48 oder Error 49

- **Problem:** The machine cannot communicate with the chip card.
- **Solution:** First, check if the chip card has been inserted correctly. If this is not the case, please insert it correctly and repeat the procedure. If the issue is not solved, check if the card reader works by inserting another card. If you receive another error message, please check if the cable between the machine and the card reader (located inside the machine) is connected. (If you do not know how to proceed, please call a service technician before opening the control panel.

### Message: Device ID xxx: Please extract chipcard

- **Problem:** The machine is not listed on the workout schedule.
- **Solution:** Enter the device in the workout schedule by using the ERGO-FIT software.

### Error messages XRCISE RUNNER MED:

- **Message:** STOP (blinkt in der Mitte der Anzeige)
- **Problem:** A converter malfunction has occurred.
- **Solution:** Stop the workout and switch off the machine (power off for a minimum of 30 s).

- **Problem:** The cut-off temperature of the transformer has been exceeded (built-in temperature monitor: 115°).
- **Solution:** Stop the training, switch off the machine and allow it cool down.
Please note:
This user manual provides information on several devices. Details may vary depending on your model!

<table>
<thead>
<tr>
<th>Chapter A</th>
<th>Appendix</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>Customer Service ................................................................. 100</td>
</tr>
<tr>
<td>A.2</td>
<td>Spare Parts .................................................................................. 100</td>
</tr>
<tr>
<td>A.3</td>
<td>Technical Specifications ............................................................ 100</td>
</tr>
<tr>
<td>A.4</td>
<td>Electromagnetic Emission and Interference Immunity ..................... 108</td>
</tr>
<tr>
<td>A.5</td>
<td>Safety Regulations ........................................................................ 112</td>
</tr>
<tr>
<td>A.5.1</td>
<td>Safety Instructions ................................................................. 112</td>
</tr>
<tr>
<td>A.5.2</td>
<td>Mark of Conformity ....................................................................... 114</td>
</tr>
<tr>
<td>A.5.3</td>
<td>Symbols ......................................................................................... 115</td>
</tr>
<tr>
<td>A.6</td>
<td>Error Margins ................................................................................ 116</td>
</tr>
<tr>
<td>A.7</td>
<td>Warranty ....................................................................................... 117</td>
</tr>
<tr>
<td>A.8</td>
<td>Entry in Medical Devices Registry ............................................... 119</td>
</tr>
<tr>
<td></td>
<td>Safety Instructions ....................................................................... 123</td>
</tr>
</tbody>
</table>
Appendix

A.1 Customer Service

If you cannot resolve a malfunction yourself please contact our customer service.

Service: Phone: +49 (6331) 2461-37
          +49 (6331) 2461-20
          +49 (6331) /2461-45
Telefax:  +49 (6331) /2461-55
E-Mail:   service@cardiowise.com

Cardiowise machines are repaired by highly qualified service technicians. Only original spare parts are used for repairs.

A.2 Spare Parts

For Spare parts and up-to-date exploded views please contact the customer service at cardiowise:

Service: Phone: +49 (6331) 2461-37
          +49 (6331) 2461-20
          +49 (6331) /2461-45
Telefax:  +49 (6331) /2461-55
E-Mail:   service@cardiowise.com

Please specify the following:
⊙ Model
⊙ Serial number
⊙ Spare parts name
⊙ Spare parts number

A.3 Technical Specification

This chapter lists the technical specifications of your cardio machine. The tables contain information for XRCISE LINE MED.
## Description

<table>
<thead>
<tr>
<th>Description</th>
<th>XRCISE CIRCLE MED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply voltage 48-60 Hz</td>
<td>230 V ~</td>
</tr>
<tr>
<td>Power input</td>
<td>0,3 A</td>
</tr>
<tr>
<td>Fuses</td>
<td>T 1,6 A</td>
</tr>
<tr>
<td>Power input on standby mode</td>
<td>0,003 kW/h</td>
</tr>
<tr>
<td>Power input on 50 W/40 rpm</td>
<td>0,005 kW/h</td>
</tr>
<tr>
<td>Power input on maximum performance</td>
<td>0,016 kW/h</td>
</tr>
<tr>
<td>Standards and directives</td>
<td>All applied standards and directives you can get on request</td>
</tr>
<tr>
<td>Protection class</td>
<td>1, IP21</td>
</tr>
<tr>
<td>Tested for use in</td>
<td>Medical therapy</td>
</tr>
<tr>
<td>Accuracy</td>
<td>5% to 200 W, from 200 W 10% (in clockwise rotation)</td>
</tr>
<tr>
<td>Brake system</td>
<td>Eddy current brake</td>
</tr>
<tr>
<td>Inertia</td>
<td>11 +/- 2kg·m²</td>
</tr>
<tr>
<td>Dimension in cm (L/W/H)</td>
<td>165,5/63,5/152</td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 115 kg</td>
</tr>
<tr>
<td>RPM</td>
<td>20 - 120 rpm</td>
</tr>
<tr>
<td>Power Range</td>
<td>15 - 400 W</td>
</tr>
<tr>
<td>Increments</td>
<td>5 W</td>
</tr>
<tr>
<td>Workout programs</td>
<td>MANUAL, CARDIO, PROFILES</td>
</tr>
<tr>
<td>Activation</td>
<td>rpm-independent</td>
</tr>
<tr>
<td>Max. user weight</td>
<td>200 kg</td>
</tr>
<tr>
<td>Interface</td>
<td>RS 232</td>
</tr>
<tr>
<td>Specific equipment</td>
<td>SPO₂-measurment, POLAR-transmitter (single channel)</td>
</tr>
<tr>
<td>Adjustments possible</td>
<td>length of crank handles, diagonal/parallel handle position, height adjustable revolving unit</td>
</tr>
<tr>
<td>Description</td>
<td>XRCISE CROSS MED</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Supply voltage 48-60 Hz</td>
<td>230 V ~</td>
</tr>
<tr>
<td>Power input</td>
<td>0,3 A</td>
</tr>
<tr>
<td>Fuses</td>
<td>T 1,6 A</td>
</tr>
<tr>
<td>Power input on standby mode</td>
<td>0,003 kW/h</td>
</tr>
<tr>
<td>Power input on 80 W/80 rpm</td>
<td>0,005 kW/h</td>
</tr>
<tr>
<td>Power input on maximum performance</td>
<td>0,016 kW/h</td>
</tr>
<tr>
<td>Standards and directives</td>
<td>All applied standards and directives you can get on request</td>
</tr>
<tr>
<td>Protection class</td>
<td>1, IP21</td>
</tr>
<tr>
<td>Tested for use in</td>
<td>Medical therapy</td>
</tr>
<tr>
<td>Accuracy</td>
<td>-</td>
</tr>
<tr>
<td>Brake system</td>
<td>Eddy current brake</td>
</tr>
<tr>
<td>Inertia</td>
<td>-</td>
</tr>
<tr>
<td>Dimension in cm (L/W/H)</td>
<td>205/67/170</td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 160 kg</td>
</tr>
<tr>
<td>RPM</td>
<td>15 - 200 steps</td>
</tr>
<tr>
<td>Power Range</td>
<td>15 - 200 workload levels</td>
</tr>
<tr>
<td>Increments</td>
<td>Increments of 5</td>
</tr>
<tr>
<td>Workout programs</td>
<td>MANUAL, CARDIO, PROFILES</td>
</tr>
<tr>
<td>Activation</td>
<td>rpm-dependent</td>
</tr>
<tr>
<td>Max. user weight</td>
<td>150 kg</td>
</tr>
<tr>
<td>Interface</td>
<td>RS 232</td>
</tr>
<tr>
<td>Specific equipment</td>
<td>SPO2-measurement, POLAR-transmitter (single channel)</td>
</tr>
<tr>
<td>Adjustments possible</td>
<td>-</td>
</tr>
</tbody>
</table>
## Description of XRCISE CYCLE MED

<table>
<thead>
<tr>
<th>Description</th>
<th>XRCISE CYCLE MED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply voltage 48-60 Hz</td>
<td>230 V ~</td>
</tr>
<tr>
<td>Power input</td>
<td>0,4 A; 0,8 A (seat lifting motor)</td>
</tr>
<tr>
<td>Fuses</td>
<td>T 3,15 A</td>
</tr>
<tr>
<td>Power input on standby mode</td>
<td>0,003 kW/h</td>
</tr>
<tr>
<td>Power input on 50 W/40 rpm</td>
<td>0,006 kW/h</td>
</tr>
<tr>
<td>Power input on maximum performance</td>
<td>0,016 kW/h</td>
</tr>
<tr>
<td>Standards and directives</td>
<td>All applied standards and directives you can get on request</td>
</tr>
<tr>
<td>Protection class</td>
<td>1, IP21</td>
</tr>
<tr>
<td>Tested for use in</td>
<td>Medical therapy</td>
</tr>
<tr>
<td>Accuracy</td>
<td>5%, DIN VDE 0750-238</td>
</tr>
<tr>
<td>Brake system</td>
<td>Eddy current brake</td>
</tr>
<tr>
<td>Inertia</td>
<td>11 +/- 2kg\cdot m²</td>
</tr>
<tr>
<td>Dimension in cm (L/W/H)</td>
<td>128/62/146</td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 65 kg</td>
</tr>
<tr>
<td>RPM</td>
<td>20 - 130 rpm</td>
</tr>
<tr>
<td>Power Range</td>
<td>15 - 1100 W</td>
</tr>
<tr>
<td>Increments</td>
<td>5 W</td>
</tr>
<tr>
<td>Workout programs</td>
<td>MANUAL, CARDIO, PROFILES, WHO-PROFILES, ECG CHOICE</td>
</tr>
<tr>
<td>Activation</td>
<td>rpm-independent</td>
</tr>
<tr>
<td>Max. user weight</td>
<td>200 kg</td>
</tr>
<tr>
<td>Interface</td>
<td>RS 232</td>
</tr>
<tr>
<td>Specific equipment</td>
<td>Bloodpressure measurement, SPO₂-measurement, POLAR-transmitter (single channel)</td>
</tr>
<tr>
<td>Adjustments possible</td>
<td>horizontal and vertical seat adjustment, Handlebar, Control Panel</td>
</tr>
</tbody>
</table>
## Description

<table>
<thead>
<tr>
<th>Description</th>
<th>XRCISE MIX MED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply voltage 48-60 Hz</td>
<td>230 V ~</td>
</tr>
<tr>
<td>Power input</td>
<td>0,3 A</td>
</tr>
<tr>
<td>Fuses</td>
<td>T 1 A</td>
</tr>
<tr>
<td>Power input on standby mode</td>
<td>0,003 kW/h</td>
</tr>
<tr>
<td>Power input on 50 W/40 rpm</td>
<td>0,006 kW/h</td>
</tr>
<tr>
<td>Power input on maximum</td>
<td>0,016 kW/h</td>
</tr>
<tr>
<td>Standards and directives</td>
<td>All applied standards and directives you can get on request</td>
</tr>
<tr>
<td>Protection class</td>
<td>1, IP21</td>
</tr>
<tr>
<td>Tested for use in</td>
<td>Medical therapy</td>
</tr>
<tr>
<td>Accuracy</td>
<td>-</td>
</tr>
<tr>
<td>Brake system</td>
<td>Eddy current brake</td>
</tr>
<tr>
<td>Inertia</td>
<td>-</td>
</tr>
<tr>
<td>Dimension in cm (L/W/H)</td>
<td>200/70/166</td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 160 kg</td>
</tr>
<tr>
<td>RPM</td>
<td>20 - 120 rpm</td>
</tr>
<tr>
<td>Power Range</td>
<td>25 - 400 W (for CARDIO/SYSTEM), 1 - 29 rpm (for MANUELL)</td>
</tr>
<tr>
<td>Increments</td>
<td>-</td>
</tr>
<tr>
<td>Workout programs</td>
<td>MANUAL, CARDIO, PROFILES</td>
</tr>
<tr>
<td>Activation</td>
<td>rpm-independent, rpm-dependent</td>
</tr>
<tr>
<td>Max. user weight</td>
<td>200 kg</td>
</tr>
<tr>
<td>Interface</td>
<td>RS 232</td>
</tr>
<tr>
<td>Specific equipment</td>
<td>Bloodpressure measurement, SPO2-measurement, POLAR-transmitter (single channel)</td>
</tr>
<tr>
<td>Adjustments possible</td>
<td>Seat height, neck support</td>
</tr>
</tbody>
</table>
## XRCISE RECUMBENT MED

<table>
<thead>
<tr>
<th>Description</th>
<th>XRCISE RECUMBENT MED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply voltage 48-60 Hz</td>
<td>230 V ~</td>
</tr>
<tr>
<td>Power input</td>
<td>0,3 A</td>
</tr>
<tr>
<td>Fuses</td>
<td>T 1,6 A</td>
</tr>
<tr>
<td>Power input on standby mode</td>
<td>0,003 kW/h</td>
</tr>
<tr>
<td>Power input on 50 W/40 rpm</td>
<td>0,005 kW/h</td>
</tr>
<tr>
<td>Power input on maximum performance</td>
<td>0,016 kW/h</td>
</tr>
<tr>
<td>Standards and directives</td>
<td>All applied standards and directives you can get on request</td>
</tr>
<tr>
<td>Protection class</td>
<td>1, IP21</td>
</tr>
<tr>
<td>Tested for use in</td>
<td>Medical therapy</td>
</tr>
<tr>
<td>Accuracy</td>
<td>5% to 400 W, from 400 W 10%</td>
</tr>
<tr>
<td>Brake system</td>
<td>Eddy current brake</td>
</tr>
<tr>
<td>Inertia</td>
<td>11 +/- 2kg·m²</td>
</tr>
<tr>
<td>Dimension in cm (L/W/H)</td>
<td>160/54/125</td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 75 kg</td>
</tr>
<tr>
<td>RPM</td>
<td>20 - 120 rpm</td>
</tr>
<tr>
<td>Power Range</td>
<td>15 - 600 W</td>
</tr>
<tr>
<td>Increments</td>
<td>5 W</td>
</tr>
<tr>
<td>Workout programs</td>
<td>MANUAL, CARDIO, PROFILES</td>
</tr>
<tr>
<td>Activation</td>
<td>rpm-dependent</td>
</tr>
<tr>
<td>Max. user weight</td>
<td>200 kg</td>
</tr>
<tr>
<td>Interface</td>
<td>RS 232</td>
</tr>
<tr>
<td>Specific equipment</td>
<td>Bloodpressure meassurement, SPO₂-meassurement, POLAR-transmitter (single channel)</td>
</tr>
<tr>
<td>Adjustments possible</td>
<td>Seat position</td>
</tr>
</tbody>
</table>
## XRCISE STAIR MED

<table>
<thead>
<tr>
<th>Description</th>
<th>XRCISE STAIR MED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply voltage 48-60 Hz</td>
<td>230 V ~</td>
</tr>
<tr>
<td>Power input</td>
<td>0,3 A</td>
</tr>
<tr>
<td>Fuses</td>
<td>T 1,6 A</td>
</tr>
<tr>
<td>Power input on standby mode</td>
<td>0,003 kW/h</td>
</tr>
<tr>
<td>Power input on 50 W/40 rpm</td>
<td>0,007 kW/h</td>
</tr>
<tr>
<td>Power input on maximum performance</td>
<td>0,016 kW/h</td>
</tr>
<tr>
<td>Standards and directives</td>
<td>All applied standards and directives you can get on request</td>
</tr>
<tr>
<td>Protection class</td>
<td>1, IP21</td>
</tr>
<tr>
<td>Tested for use in</td>
<td>Medical therapy</td>
</tr>
<tr>
<td>Accuracy</td>
<td>-</td>
</tr>
<tr>
<td>Brake system</td>
<td>Eddy current brake</td>
</tr>
<tr>
<td>Inertia</td>
<td>-</td>
</tr>
<tr>
<td>Dimension in cm (L/W/H)</td>
<td>110/77/181</td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 110 kg</td>
</tr>
<tr>
<td>RPM</td>
<td>15 - 155 steps/min*</td>
</tr>
<tr>
<td>Power Range</td>
<td>15 - 155 workload levels</td>
</tr>
<tr>
<td>Increments</td>
<td>Increments of 5</td>
</tr>
<tr>
<td>Workout programs</td>
<td>MANUAL, CARDIO, PROFILES</td>
</tr>
<tr>
<td>Activation</td>
<td>-</td>
</tr>
<tr>
<td>Max. user weight</td>
<td>200 kg</td>
</tr>
<tr>
<td>Interface</td>
<td>RS 232</td>
</tr>
<tr>
<td>Specific equipment</td>
<td>SPO₂-measurement, POLAR-transmitter (single channel)</td>
</tr>
<tr>
<td>Adjustments possible</td>
<td>-</td>
</tr>
</tbody>
</table>

*For users with a body weight of more than 60kg walking speed may vary*
<table>
<thead>
<tr>
<th>Description</th>
<th>XRCISE RUNNER MED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply voltage 48-60 Hz</td>
<td>230 V ~</td>
</tr>
<tr>
<td>Power input</td>
<td>12 A</td>
</tr>
<tr>
<td>Fuses</td>
<td>B 16 A</td>
</tr>
<tr>
<td>Power input on standby mode</td>
<td>0,02 kW/h (load 75kg)</td>
</tr>
<tr>
<td>Power input on 8 km/h</td>
<td>0,66 kW/h (load 75kg)</td>
</tr>
<tr>
<td>Power input on 25 km/h</td>
<td>1,75 kW/h (load 75kg)</td>
</tr>
<tr>
<td>Standards and directives</td>
<td>All applied standards and directives you can get on request</td>
</tr>
<tr>
<td>Protection class</td>
<td>1, IP21</td>
</tr>
<tr>
<td>Tested for use in</td>
<td>Medical therapy</td>
</tr>
<tr>
<td>Accuracy</td>
<td>Speed: 5%, Incline: 10%</td>
</tr>
<tr>
<td>Brake system</td>
<td>Eddy current brake</td>
</tr>
<tr>
<td>Inertia</td>
<td>-</td>
</tr>
<tr>
<td>Dimension in cm (L/W/H)</td>
<td>210/82,5/140, Running surface 150 x 50</td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 220 kg</td>
</tr>
<tr>
<td>RPM</td>
<td>-</td>
</tr>
<tr>
<td>Power Range</td>
<td>0,2 - 25 km/h</td>
</tr>
<tr>
<td>Increments</td>
<td>0,1 km/h</td>
</tr>
<tr>
<td>Workout programs</td>
<td>MANUAL, CARDIO, PROFILES</td>
</tr>
<tr>
<td>Activation</td>
<td>-</td>
</tr>
<tr>
<td>Max. user weight</td>
<td>200 kg</td>
</tr>
<tr>
<td>Interface</td>
<td>RS 232</td>
</tr>
<tr>
<td>Specific equipment</td>
<td>SPO₂-measurement, POLAR-transmitter (single channel)</td>
</tr>
<tr>
<td>Adjustments possible</td>
<td>Adjustable incline</td>
</tr>
<tr>
<td>Incline</td>
<td>0 - 20 %</td>
</tr>
<tr>
<td>Noise emission</td>
<td>&lt; 70 dB (A)*</td>
</tr>
</tbody>
</table>

*The noise emission under load is higher than without load
### Description of Blood Pressure Module

**Measurement Method**
- Auscultatory, RR method, systole detection at the first Korotkoff sound, diastole detection at the last audible Korotkoff sound (Korotkoff Phase V)

**Measurement accuracy**
- Meets or exceeds the requirements of DIN EN ISO 81060-2:2014 for non-invasive accuracy (± 5 mmHg mean deviation, 8 mmHg standard deviation)

**Calibration Procedure**
- Measuring accuracy of BL-6 in terms of pressure and display must be checked every 2 years. (According to the Medical Device Operator Ordinance, a metrological check and, if necessary, a calibration procedure must be performed every 2 years at the latest. Calibration procedure is only required if the machine did not pass the metrological check.)

**Systole measuring range**
- 40 - 300 mmHg

**Diastole measuring range**
- 30 - 160 mmHg

**Pulse measuring range**
- 30 - 230 bpM

**Static pressure deviation**
- Max +/- 3 mmHg

**Power supply**
- 12 V DC, 1,2 A

---

### A.4 Electromagnetic Emission and Interference Immunity

CARDIOWISE machines were developed in accordance with DIN EN 60601-1-2: 2015 standard for electromagnetic interference, requirements and tests. This standard provides basic safety information and covers the essential performance characteristics in the presence of electromagnetic disturbances and the electromagnetic disturbances emanating from the medical devices, depending on the electromagnetic environment in which the machines are used. Locations for the intended use of CARDIOWISE devices are professional healthcare facilities, except in the vicinity of RF surgical equipment and outside the RF shielded room of a ME system for magnetic resonance imaging, as well as in home healthcare areas (e.g. medical practices that are associated with the public supply network).

As is the case with any electrically operated device, 100% fault-free operation cannot be guaranteed. Interactions or disturbances may occur in certain areas with high intensity interferences. The following warnings should be observed:

**WARNING:**
- ⊗ Danger of malfunction!
  - Avoid operating the machine immediately next to other devices or when stacked with other devices. If such use becomes necessary, CARDIOWISE equipment and other equipment must be monitored to ensure proper operation.
- ⊗ Possibility of increased electromagnetic emissions and reduced electromagnetic immunity of this device! Danger of malfunction! Do not use accessories or cables
other than those specified or supplied by the manufacturer. (12-volt line for the blood pressure module, machine connection cable, interface cable (network))

⊗ Deteriorated performance of the machine!
Portable RF communications equipment (including such accessories as antenna cables and external antennas) must be at least 30 cm (12 inches) away from any part of the CARDIOWISE system, including the cables specified by the manufacturer.

Please also refer to Chapter 7.5 Heart Rate Measurement and Other Hazard Notices. If electromagnetic interference should occur in connection with a device, we recommend the following measures:

⊗ Change the orientation or location of the neighboring device.
⊗ Increase the distance between the devices.
⊗ Connect the monitor and the other devices to sockets of different circuits.
⊗ Contact the manufacturer or a service technician.

These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

**Electromagnetic emission and immunity, compliance and test level**

Cardiowise products are intended for use in the areas specified above. Please make sure to only use the product in appropriate environments. The product uses HF processes only for internal functions. Since the machine complies with the requirements of class B, its RF emissions are rather low, and it is unlikely that neighboring electronic devices will be affected. When determining the limit values according to DIN EN 61000-3-2, it is assumed that the device is used professionally.

<table>
<thead>
<tr>
<th>Electromagnetic Interference Measurements</th>
<th>Required &lt; Criterion</th>
<th>Observed &lt; Criterion</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF emissions in compliance with CIS-PR 11, German version in compliance with DIN EN 55011, conducted radio interference voltage</td>
<td>Class B</td>
<td>Class B</td>
</tr>
<tr>
<td>RF emissions in compliance with CIS-PR 11, German version in compliance with DIN EN 55011, radiated radio interference voltage</td>
<td>Class B</td>
<td>Class B</td>
</tr>
<tr>
<td>Distortion due to harmonics in compliance with IEC 61000-3-2</td>
<td>Class A</td>
<td>Met</td>
</tr>
<tr>
<td>Voltage fluctuations and flicker in compliance with IEC 61000-3-3</td>
<td>Pt &lt; 1</td>
<td>Pt &lt; 1</td>
</tr>
</tbody>
</table>
## Electromagnetic interference immunity, compliance and test level

<table>
<thead>
<tr>
<th>Electromagnetic Interference immunity Measurements</th>
<th>Required</th>
<th>Observed</th>
</tr>
</thead>
</table>
| Static electricity discharge (ESD) in compliance with IEC 61000-4-2 | Contact ±8 kV  
Air ±2 kV, ±4 kV, ±8 kV, ±15 kV | Contact ±8 kV  
Air ±15 kV |
| RF radiation in compliance with IEC 61000-4-3 | 3 V/m or 10 V/m  
80 MHz to 2.7 GHz | 10 V/m  
80 MHz to 2.7 GHz |
| RF radiation in the immediate vicinity of wireless communication devices in compliance with IEC 61000-4-3 | see the following table | see the following table |
| Magnetic field for supply frequency (50/60 Hz) in compliance with IEC 61000-4-8 | 30 A/m  
50 Hz or 60 Hz | 100 A/m  
50 Hz |
| Fast transient electrical disturbances/bursts in compliance with IEC 61000-4-4 | +/- 2 kV / 100 kHz repetition frequency for power cable | +/- 2 kV / 100 kHz repetition frequency for power cable |
| Surges in compliance with IEC 61000-4-5 | Line - Line: ±0.5 kV, ±1 kV  
Line - PE: ±0.5 kV, ±1 kV, ±2 kV | Line - Line: ±0.5 kV, ±1 kV  
Line - PE: ±0.5 kV, ±1 kV, ±2 kV |
| Conducted RF interference in compliance with IEC 61000-4-6 | 6 Vrms  
150 kHz to 80 MHz | 6 Vrms  
150 kHz to 80 MHz |
| Voltage dips, brief voltage interruptions and voltage fluctuation in compliance with IEC 61000-4-11 | 30 % 10 ms → B  
60 % 100 ms → C  
>98 % 5000 ms → C | 30 % 10 ms → A  
60 % 100 ms → A  
>98 % 5000 ms → A |
<table>
<thead>
<tr>
<th>Test Frequency</th>
<th>Range (MHz) Service</th>
<th>Max. Power (W)</th>
<th>Distance (m)</th>
<th>Test level required (V/m)</th>
<th>Test level achieved (V/m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>385</td>
<td>380 – 390 TETRA 400</td>
<td>1.8</td>
<td>0.3</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td>450</td>
<td>430 – 470 GMRS 460, FRS 460</td>
<td>2</td>
<td>0.3</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>710 745 780</td>
<td>704 – 787 LTE Band 13, 17</td>
<td>0.2</td>
<td>0.3</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>810 870 930</td>
<td>800 – 960 GSM 800 /900, TETRA 800, iDEN 820, CDMA 850, LTE Range 5</td>
<td>2</td>
<td>0.3</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>1720 1845 1970</td>
<td>1700 – 1990 GSM 1800, CDMA 1900, GSM 1900, DECT, LTE Range 1, 3, 4, 25, UMTS</td>
<td>2</td>
<td>0.3</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>2450</td>
<td>2400 – 2570 Bluetooth, WLAN 802.11 b/g/n, RFID 2450, LTE Range 7</td>
<td>2</td>
<td>0.3</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>5240 5500 5785</td>
<td>5100 – 5800 WLAN 802.11 a/n</td>
<td>0.2</td>
<td>0.3</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>
A.5 Safety Regulations

A.5.1 Safety Instructions

For user safety the VDE (Verband der Elektrotechnik e.V.) has issued special instructions for medical premises and electro-medical devices.

According to these instructions, devices with mains connection must be equipped not only with a reliable insulation of live parts but also with an additional protective measure to protect the user against the transfer of the supply voltage to touchable metal parts.

For this purpose, VDE subdivides so-called protection classes.

Of the protection classes allowed for electro-medical devices, in most cases protection class I (protective measures with protective earth conductor) as well as protection class II (protective measures without protective earth conductor but double insulation) are used: In protection class I devices, metal casing parts are connected with the protective earth conductor of the grid through its earthing contact. In case of insulation failure, the upstream circuit breaker will close the circuit.

The cardiowise devices of the XRCISE LINE MED are classified as protection class I devices.

The use of electro-medical devices is restricted to safety-relevant innocuousness taking account of the state of the art, health and safety regulations and accident prevention. Protective measures must be taken to avoid both direct and indirect contact. Covers, coatings, insulation of energized parts in combination with protective measures using protective earth conductors (in compliance with protection class I), melting fuses, as well as the observation of distances between devices are all part of this.
For cardiowise machines the most suitable distance to be maintained is 1.5 meters. With this distance, two training devices cannot be connected conductively by a person and it is unlikely that users will receive an electric shock during workout.

The instructions in this chapter refer to the German safety model. These instructions may vary in other countries.
A.5.2 Mark of Conformity

The cardiowise exercise machines of the XRCISE LINE MED are manufactured in accordance with highest safety and quality standards and are designed for commercial use.

All standards and directives applied during the development are listed in the declarations of conformity which you can get on request.

On the machine’s type label you can find the information listed in the below diagram (here XRCISE CYCLE MED):

<table>
<thead>
<tr>
<th>MADE IN GERMANY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typ</td>
</tr>
<tr>
<td>XRCISE CYCLE MED</td>
</tr>
<tr>
<td>Baujahr</td>
</tr>
<tr>
<td>2013</td>
</tr>
<tr>
<td>Benutzer-</td>
</tr>
<tr>
<td>gewicht</td>
</tr>
<tr>
<td>max. 200 kg</td>
</tr>
</tbody>
</table>

Contact protection: with finger
Foreign matter protection: medium-sized objects (diameter greater than 12.5mm)
Water protection: Water dripping vertically

Electrical waste

Please note user manual
A.5.3 Symbols

The symbols used for cardiowise machines comply with the IEC 417 and IEC 878 standards.

The following symbols are used:

- Alternate current
- Protective earth conductor
- Grounded
- Potential equalization
- Protection class II classified
- Refer to documentation!
- Off (supply connection)
- On (supply connection)
- Type B classified
- Type BF classified
- Hazardous electrical voltage
- Please note user manual
- Electrical waste
- Contact protection: with finger
- Foreign matter protection: medium-sized objects (diameter greater than 12.5mm)
- Water protection: Water dripping vertically
A.6 ErrorMargins

In compliance with DIN VDE 0750-238 the following error margins apply for XRCISE CYCLE MED and XRCISE RECUMBENT MED:

1. The read-out error for power (p) may not exceed ± 5 % of the displayed value. It may not fall below ± 3W.

2. The read-out error for speed (n) is set to a maximum of ± 2 min⁻¹ above 40 min⁻¹.

3. The measurement device to assess the output calculated on the base of brake torque and rotational speed of the treadle ergometer must not exceed an error margin of 1 %.

The following figure shows the characteristic curve of the brake torque control:

![Characteristics curve of brake torque control](image)

The work capacity is displayed as follows:

<table>
<thead>
<tr>
<th>Models</th>
<th>VDE 750-238</th>
<th>EN 957</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display right of rpm/speed</td>
<td>5% range</td>
<td>10% range</td>
</tr>
<tr>
<td>Points</td>
<td>10% range</td>
<td>10% range</td>
</tr>
<tr>
<td>Arrows</td>
<td>Deviation &gt; 10%</td>
<td>Deviation &gt; 10%</td>
</tr>
</tbody>
</table>
A.7 Warranty

2-year warranty (see general terms and conditions, point 8.1 guarantee „ERGO-FIT grants 2 years guarantee for its own products. In the first year the travel expenses and occurring working hours within Germany are borne in addition to the spare parts. In the second year only the spare parts. For merchandise the guarantee provisions of the respective manufacturer apply accordingly“)

The supplier shall be liable for defects of the supply, among them the lack of expressively assured properties, but excluding further claims as follows:

1. All those parts showing to be unserviceable or to be essentially restricted in their usability within a period of 24 months after delivery, by circumstances to be traceable prior to the transmission of risks - especially due to faulty design, bad quality of the material or faulty manufacture - shall be repaired or replaced, at the own discretion of the supplier. The decision if the fault may be repaired or should be replaced will be at the seller's discretion.

2. The limitation of the purchaser's right to claim for defects shall be 24 months after transfer of the object in every and each case.

3. No warranty is offered for damage that arises for the following reasons: inappropriate or improper use, faulty assembly or faulty startup carried out by the purchaser or a third party, natural wear, faulty or careless handling, inappropriate equipment or replacement materials, faulty construction works, chemical, electrochemical or electric influences, except in the event that they are due to the suppliers fault. Purchaser shall bear the expense and the risk of the delivery even if delivery freight paid has been agreed.

4. The supplier reserves the right of two reworks or replacements. Should these fail, the purchaser has the right of reduction or conversion within the framework of legal provisions. The seller will have a period of six weeks for reworks, beginning with the notice of defect.

5. Improper modifications or repairs carried out by the purchaser or a third party without prior permission of the supplier will void the warranty.

6. Goods are exported, warranty will be restricted to the availability of loose spare parts ex factory within the warranty period. Packaging costs, freight charges and labor will be at the expense of the purchaser. In case the purchaser demands on-site repair by a technician of the factory or another service center, the purchaser will bear the travelling expenses and labor costs.

7. All merchandise that has not been produced by the supplier is subject to legal provisions
Wear parts such as those listed below are excluded for warranty:

- pedal straps
- handle bar tube
- seat
- driving belt
- adjusting lever
- pedals
- running belt
- seat and foot plates, handles
- fuses
- sensor SPO₂-module
- Cuff bloodpressure module
- cabel bloodpressure module
- freewheel

Improper maintenance will void the warranty!
A.8 Entry in Medical Devices Registry

In compliance with §11 section 7 and §7 of the regulation on the erection, operation, and use of medical devices („MPBetreibV“) as of June 29, 1998 (BGBt 1. p. 1762), the person who carries out metrological controls must immediately record the measured values, the measuring method, as well as other evaluation results into the registry of medical devices. As during metrological control of your medical device the registry of medical devices was not available, we ask you to use the following data for your documentation.

Operator:

Facility: __________________________________________
Contact:  __________________________________________
Adress:   __________________________________________
Zip, City:  __________________________________________

Manufacturer:

ERGO-FIT GmbH & Co. KG, Blocksbergstraße 165, D-66955 Pirmasens

Device Identification

Device name: ___________________________________________
Model:   ___________________________________________
Serial-number: ___________________________________________

Measuring method and evaluation:

☐ Guide to metrological controls (LMK)
☐ Appendix 15 or Appendix 23 of calibration regulations (EQ 15 or EQ 23)
☐ Remarks:: ___________________________________________

Used standards: ___________________________

Measured values see following page(s)

☐ Metrological control i.o.; annual designation of sealing:
☐ Metrological control not i.o.; old sealing obliterated

_______________________________
Signature
Measuring method and evaluation:

- Guide to metrological controls (LMK)
- Appendix 15 or Appendix 23 of calibration regulations (EQ 15 or EQ 23)
- Remarks:: _______________________________________

Used standards: ___________________________

Measured values see following page(s)

- Metrological control i.o.; annual designation of sealing:
- Metrological control not i.o.; old sealing obliterated

_______________________________
Signature

Measuring method and evaluation:

- Guide to metrological controls (LMK)
- Appendix 15 or Appendix 23 of calibration regulations (EQ 15 or EQ 23)
- Remarks:: _______________________________________

Used standards: ___________________________

Measured values see following page(s)

- Metrological control i.o.; annual designation of sealing:
- Metrological control not i.o.; old sealing obliterated

_______________________________
Signature
Registration of medical devices add-in card

Operator:

__________________________________________
__________________________________________
__________________________________________

1. Designation of the medical device:

_________________________________________________________________

2. Functional test and introduction:

Functional test carried out
on: ________________ by: _________________________________________

Introduction carried out
on: ________________ by: _________________________________________

Introduces person: ____________________________________________

_________________________________________________________________

3. Metrological controls: at least every two years

Next inspection: ______________________________________________

by (person’s name): ______________________________________________

4. Maintenance and safety inspection (subject to MBetreibV): recommendation every 12 months

Next inspection: ______________________________________________

by (person’s name): ______________________________________________

5. Date, type and consequence of the defect and repeated identical operating fault:

_________________________________________________________________

_________________________________________________________________

_________________________________________________________________

6. Reports of incidents to authorities and manufacturer:

_________________________________________________________________

_________________________________________________________________
Safety Instructions  
XRCISE CIRCLE MED

⊙ Read the user manual carefully before you start.
⊙ Before starting the exercise please check the power supply cord.
⊙ Check the wiring to external devices prior to workout.
⊙ Always connect the equipment to the power supply before using it and only use it after a proper functional test.
⊙ The machine is only to be used on the instruction of a physician and/or a supervisor. The machine must not be used without the presence of a supervisor.
⊙ Switch off the machine after the workout and disconnect it.
⊙ Wear only appropriate clothing and footwear during workout.
⊙ Never lean on the control panel or the casing and do not make inappropriate movements.
⊙ Never start with maximum workout intensity but increase slowly.
⊙ Check the right position of the seat before getting on the machine. The seat must lock securely in the upper end position and must not move backwards or to the side. When folding the seat the gap for the seatpost should be free of obstacles. Otherwise there is a risk of injury.
⊙ When adjusting the seat watch out for handles and moving parts. There is a risk of blunt injuries.
⊙ Please stay away from the crank handles.
⊙ Children must not use the machine without supervision and must keep away from the machine and its moving parts.
⊙ In case of nausea or dizziness, stop training immediately and inform your fitness coach and/or see a physician.
⊙ If you wear a cardiac pacemaker or have health problems consult a physician before using the machine.
⊙ Before every use, check the moving parts and the casing for damage. If the machine is damaged, have it repaired immediately.
⊙ Do not cover the ventilation louvers. This can cause the machine to overheat.
⊙ Prevent improper use of the equipment.
⊙ Please also read any further safety instruction and warnings in this manual.

All safety instructions in this manual are based on many years of experience and self-conception.

These safety instruction must be visible at the cardio exercise machine! All users must be informed of warnings and safety instructions. The manufacturer will not be liable for personal injuries or property damage.
Safety Instructions
XRCISE CROSS MED

⊗ Read the user manual carefully before you start.
⊗ Before starting the exercise please check the power supply cord.
⊗ Always connect the equipment to the power supply before using it and only use it after a proper functional test.
⊗ The machine is only to be used on the instruction of a physician and / or a supervisor. The machine must not be used without the presence of a supervisor.
⊗ Switch off the machine after the workout and disconnect it.
⊗ Wear only appropriate clothing and footwear during workout.
⊗ Never lean on the control panel or the casing and do not make inappropriate movements.
⊗ Never start with maximum workout intensity but increase slowly.
⊗ Do not jump from the exercise machine during your workout.
⊗ Children must not use the machine without supervision and must keep away from the machine and its moving parts.
⊗ In case of nausea or dizziness, stop training immediately and inform your fitness coach and / or see a physician.
⊗ If you wear a cardiac pacemaker or have health problems consult a physician before using the machine.
⊗ Warning: There are dangerous pinch points in the motion area of the pedals with increased risk of injuries.
⊗ Do not take your feet off the pedals during workout and do not trespass the protection element.
⊗ Do not change the moving direction during movement and do not stop the motion in the opposite direction.
⊗ Keep the motion area next to the pedals and the handles clear.
⊗ Before every use, check the moving parts and the casing for damage. If the machine is damaged, have it repaired immediately.
⊗ Do not cover the ventilation louvers. This can cause the machine to overheat.
⊗ Prevent improper use of the equipment.
⊗ Please also read any further safety instruction and warnings in this manual.

All safety instructions in this manual are based on many years of experience and self-conception.

These safety instruction must be visible at the cardio exercise machine!
All users must be informed of warnings and safety instructions.
The manufacturer will not be liable for personal injuries or property damage.
Safety Instructions
XRCISE CYCLE MED

⊗ Read the user manual carefully before you start.
⊗ Before starting the exercise please check the power supply cord.
⊗ Check the wiring to external devices prior to workout.
⊗ Always connect the equipment to the power supply before using it and only use it after a proper functional test.
⊗ The machine is only to be used on the instruction of a physician and / or a supervisor. The machine must not be used without the presence of a supervisor.
⊗ Switch off the machine after the workout and disconnect it.
⊗ Wear only appropriate clothing and footwear during workout.
⊗ Never lean on the control panel or the casing and do not make inappropriate movements.
⊗ Never start with maximum workout intensity but increase slowly..
⊗ Check if the seat and handle bar are locked before getting on the machine.
⊗ Do not lean over the handlebar and do not lean to the side. The machine might tilt over.
⊗ Children must not use the machine without supervision and must keep away from the machine and its moving parts.
⊗ In case of nausea or dizziness, stop training immediately and inform your fitness coach and / or see a physician.
⊗ If you wear a cardiac pacemaker or have health problems consult a physician before using the machine.
⊗ Do not jump from the exercise machine during your workout.
⊗ Do not take your feet off the pedals during training.
⊗ Before every use, check the moving parts and the casing for damage. If the machine is damaged, have it repaired immediately.
⊗ Do not cover the ventilation louvers. This can cause the machine to overheat.
⊗ Prevent improper use of the equipment.
⊗ Please also read any further safety instruction and warnings in this manual.

All safety instructions in this manual are based on many years of experience and self-conception.

These safety instruction must be visible at the cardio exercise machine!
All users must be informed of warnings and safety instructions.
The manufacturer will not be liable for personal injuries or property damage.
Safety Instructions
XRCISE MIX MED

- Read the user manual carefully before you start.
- Before starting the exercise please check the power supply cord.
- Always connect the equipment to the power supply before using it and only use it after a proper functional test.
- The machine is only to be used on the instruction of a physician and / or a supervisor. The machine must not be used without the presence of a supervisor.
- Switch off the machine after the workout and disconnect it.
- Wear only appropriate clothing and footwear during workout.
- Never lean on the control panel or the casing and do not make inappropriate movements.
- Never start with maximum workout intensity but increase slowly.
- Do not jump from the exercise machine during your workout.
- Children must not use the machine without supervision and must keep away from the machine and its moving parts.
- In case of nausea or dizziness, stop training immediately and inform your fitness coach and / or see a physician.
- If you wear a cardiac pacemaker or have health problems consult a physician before using the machine.
- Warning: There are dangerous pinch points in the motion area of the pedals with increased risk of injuries.
- Do not take your feet off the pedals during workout and do not trespass the protection element.
- Do not change the moving direction during movement and do not stop the motion in the opposite direction.
- Keep the motion area next to the pedals and the handles clear.
- Before every use, check the moving parts and the casing for damage. If the machine is damaged, have it repaired immediately.
- Do not cover the ventilation louvers. This can cause the machine to overheat.
- Prevent improper use of the equipment.
- Please also read any further safety instruction and warnings in this manual.

All safety instructions in this manual are based on many years of experience and self-conception.

These safety instruction must be visible at the cardio exercise machine!
All users must be informed of warnings and safety instructions. The manufacturer will not be liable for personal injuries or property damage.
Safety Instructions
XRCISE RECUMBENT MED

⊗ Read the user manual carefully before you start.
⊗ Before starting the exercise please check the power supply cord.
⊗ Check the wiring to external devices prior to workout.
⊗ Always connect the equipment to the power supply before using it and only use it after a proper functional test.
⊗ The machine is only to be used on the instruction of a physician and / or a supervisor. The machine must not be used without the presence of a supervisor.
⊗ Switch off the machine after the workout and disconnect it.
⊗ Wear only appropriate clothing and footwear during workout.
⊗ Never lean on the control panel or the casing and do not make inappropriate movements.
⊗ Never start with maximum workout intensity but increase slowly.
⊗ Check if the seat is locked before getting on the machine.
⊗ Children must not use the machine without supervision and must keep away from the machine and its moving parts.
⊗ In case of nausea or dizziness, stop training immediately and inform your fitness coach and / or see a physician.
⊗ If you wear a cardiac pacemaker or have health problems consult a physician before using the machine.
⊗ Do not jump from the exercise machine during your workout.
⊗ Do not take your feet off the pedals during workout.
⊗ Before every use, check the moving parts and the casing for damage. If the machine is damaged, have it repaired immediately.
⊗ Do not cover the ventilation louvers. This can cause the machine to overheat.
⊗ Prevent improper use of the equipment.
⊗ Please also read any further safety instruction and warnings in this manual.

All safety instructions in this manual are based on many years of experience and self-conception.

These safety instruction must be visible at the cardio exercise machine!
All users must be informed of warnings and safety instructions.
The manufacturer will not be liable for personal injuries or property damage.
Safety Instructions
XRCISE STAIR MED

⊗ Read the user manual carefully before you start.
⊗ Before starting the exercise please check the power supply cord.
⊗ Always connect the equipment to the power supply before using it and only use it after a proper functional test.
⊗ The machine is only to be used on the instruction of a physician and/or a supervisor. The machine must not be used without the presence of a supervisor.
⊗ Switch off the machine after the workout and disconnect it.
⊗ Wear only appropriate clothing and footwear during workout.
⊗ Never lean on the control panel or the casing and do not make inappropriate movements.
⊗ Never start with maximum workout intensity but increase slowly.
⊗ Do not jump from the exercise machine during your workout.
⊗ Children must not use the machine without supervision and must keep away from the machine and its moving parts.
⊗ In case of nausea or dizziness, stop training immediately and inform your fitness coach and/or see a physician.
⊗ If you wear a cardiac pacemaker or have health problems consult a physician before using the machine.
⊗ Warning: There are dangerous pinch points in the motion area of the pedals with increased risk of injuries.
⊗ Do not take your feet off the pedals during training.
⊗ Do not change the moving direction during movement and do not stop the motion in the opposite direction.
⊗ Keep the motion area next to the pedals clear.
⊗ Before every use, check the moving parts and the casing for damage. If the machine is damaged, have it repaired immediately.
⊗ Do not cover the ventilation louvers. This can cause the machine to overheat.
⊗ Prevent improper use of the equipment.
⊗ Please also read any further safety instruction and warnings in this manual.

All safety instructions in this manual are based on many years of experience and self-conception.

These safety instruction must be visible at the cardio exercise machine!
All users must be informed of warnings and safety instructions.
The manufacturer will not be liable for personal injuries or property damage.
Safety Instructions
XRCISE RUNNER MED

⊗ Read the user manual carefully before you start.
⊗ Before starting the exercise please check the power supply cord.
⊗ Always connect the equipment to the power supply before using it and only use it after a proper functional test.
⊗ The machine is only to be used on the instruction of a physician and / or a supervisor. The machine must not be used without the presence of a supervisor.
⊗ Switch off the machine after the workout and disconnect it.
⊗ The machine is only to be used on the instruction of a physician and / or a supervisor. The machine must not be used without the presence of a supervisor.
⊗ Wear only appropriate clothing and footwear during workout.
⊗ Use the safety cord!
⊗ After pulling the safety cord you need to turn off the machine by pressing the on/off switch before you reinsert the magnet!
⊗ At the beginning of the workout walk at a moderate pace before you start running after a few minutes.
⊗ Do not jump on the treadmill when it is in motion. Do not stop on the running belt or jump from the running belt while it is in motion.
⊗ Only press the emergency stop button when you are about to fall. Always check the emergency stop button before exercising.
⊗ Keep away from the dangerous area at the rear end of the treadmill! Keep away long hair, loose clothes, jewelry, shoestrings etc. from this area if you should fall during your workout.
⊗ Do not lean on the control panel or the casing.
⊗ Animals must not use or approach the treadmill.
⊗ Children may only use the treadmill when supervised by an adult.
⊗ in case of nausea or dizziness, stop training immediately, inform the fitness coach and / or see a doctor.
⊗ If you wear a cardiac pacemaker or have health problems consult a physician before using the treadmill.
⊗ Before every use, check the moving parts and the casing for damage. If the machine is damaged, have it repaired immediately.
⊗ Do not cover the ventilation louvers. This can cause the machine to overheat.
⊗ Keep a clearance distance of two meters behind the treadmill.
⊗ Prevent improper use of the equipment.
⊗ Please also read any further safety instruction and warnings in this manual.

All safety instructions in this manual are based on many years of experience and self-conception.

These safety instruction must be visible at the cardio exercise machine! All users must be informed of warnings and safety instructions. The manufacturer will not be liable for personal injuries or property damage.