ERGOFIT

Qualität in Bewegung.

Owner‘s manual

VECTOR KRAFT

VECTOR KRAFT
VECTOR KRAFT

Please read this manual carefully before use and keep it in a safe place for future reference

Further information on ERGOFIT-products available at:

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http: www.ergo-fit.de

Development and production of all devices of the MED series according to the European Medical Device Directive 93/42/EWG.

This owner's manual has been created with great care. Please inform us of any detail that does not correspond to your training tool to allow for the quickest possible remedy of any possible discrepancy.

Version: VECTOR-KRAFT 20230201
Printed in Germany

Dear customer,

We are glad that you have decided to purchase an ERGOFIT training tool. You are now the owner of a sophisticated and exclusive training system that combines highest technical standards with practice oriented ease of use.

This owner's manual contains information on multiple gym machines. For this reason, you will find explanations that do not apply to your training machine.

You will find important information on the operation and use of your training machine in this owner's manual and the documents „Warranty clauses" and „Safety information", which can also be found under www.ergo-fit.de/de/service/downloads/.

We recommend that you read these documents carefully before training in order to become familiar with your training device quickly and to understand its correct and safe use.

Should you have any questions that are not answered in this manual, please contact us. The ERGOFIT team is always there for you!

Table of contents

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

Chapter 1 General information

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Details may vary depending on your model!

1 General information

1.1 ERGOFIT strength equipment at a glance

ERGOFIT's **VECTOR KRAFT Line** range consists of strength training machines designed for building up all relevant muscle groups. ERGOFIT strength training machines offer you the best training options, regardless of your age, gender, or fitness level.

Among others, the eccentric technique, integrated beverage holders, and the concentration on functional aspects are highlights of the whole product line. In addition, it is the ease of use and the customisation that demonstrate ERGOFIT's focus: A high technical standard, optimal training possibilities and precise training control, combined with customer-friendly ease of use.

However, technology alone is not all that is required to develop outstanding training machines. They also need to meet biomechanical and sports medical requirements. Priority is given to the human being. Thus, a sophisticated training and testing system can only be developed by combining technical electronic expertise with the latest advances in sports medicine and coaching science. ERGOFIT clearly met this target.

Our **VECTOR KRAFT Line** is especially designed for fitness purposes, whereas **VECTOR KRAFT Line MED** is designed to meet medical targets.

The lifetime of the equipment is 6 years.

EN ISO 20957-2: 5.9 b) It should be noted that the training device may only be used in areas where access, supervision and control are specifically regulated by the owner.

Advantages and benefits Regular training on these machines prevents malpositions from day-to-day life, associated arthrosis of the spinal column as well as muscle tension, and will increase personal performance even at an advanced age. Your workout machine represents an indispensable tool in injury prevention and rehabilitation. You will feel fit, more powerful, more attractive, and more balanced.

1.2 General information on this manual

This manual provides you with helpful information, regardless of if you are already familiar or have no experience with ERGOFIT training machines.

It is structured in a way that you can find the desired information in the table of contents easily and thematically. In addition, a short manual has been produced.

However, if you belong to this user group and wish to read the short manual only, you should review the safety information first.

This manual will give you many hints and tips, which will familiarise you with your workout machine's features and allow you to become an experienced user very quickly.

You should always keep this manual easily accessible. This saves you from unnecessary and time-consuming queries and enables you to rapidly fix any possible error.

1.3 Parts included in the delivery

Please check if the delivery is complete and inform our sales department immediately of any missing parts (phone: +49 (6331) 2461-25).

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

1. The correct model (series) of training machine

1.4 Disposal of device

All electrical and electronic products should be disposed of separately from the municipal waste stream. Waste electronic equipment contains valuable materials that should be recycled respectively.

The crossed out waste bin (see nameplate) indicates, that this is an electrical appliance which must not be disposed of with domestic waste. The bar below the waste bin means that this product was brought into general use after August 13, 2005.

You as customer of ERGOFIT GmbH are responsible for deleting any personal data from the device prior to its disposal.

Devices used in non-commercial settings can be disposed of at public collection centres (e.g. municipal recycling depots).

Chapter 2 Short manual

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

2 Short manual

After delivery of your power machine, please check first if the serial number (see type label) 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.

Pneumatic spring mechanism: Lift the adjustment lever. The integrated pneumatic spring will automatically lift the seat area or restraint. To lower the seat or the restraint, loosen the adjustment lever and push the seat downwards into the desired position with the help of your body weight. To lock the seat or restraint at the desired height, bring the adjustment lever back to its initial position.

⊗ Pneumatic spring mechanism: Pull the adjustment lever upwards. Due to the integrated pneumatic spring, the corresponding seat area or the bracket automatically lifts upwards. If you want to lower the seat area or the bracket, with the adjustment lever raised, press down on your body weight to the desired position. To fix the desired height, move the adjustment lever back to the initial position.

Depending on the user weight the pneumatic spring may bag in about 120 mm. This may affect the reading of the position number. After you have adjusted the seat area or the bracket according to the instructions, stand up in order to avoid that the seat area or the bracket is affected by the user weight. Now read the position number.

⊗ Snap-in mechanism: Pull the dowel pin out of the punched matrix. Pull the seat area or restraint up or down. To lock the seat area or restraint at the desired height, let the dowel pin snap-in again.

Note that the seat is a standard seat. This means that every adjustable seat has the same snap-in positions. On some exercise machines, not all snap-in positions may be usable.

Exercise machines with eccentric technique (e.g. VECTOR LEG EXTENSION) are equipped with adjustable strain levers. Pull the adjustment lever towards you and perform the necessary adjustments.

During training make sure to use the following exercise technique: Breathe out during the strain sequence and breathe in during the relaxing sequence. The motions should be carried out slowly. Avoid jerky movements. If you want to stop the workout, control the downward motion of the weights. The exercise is finished only when the training weight is resting.

Chapter 4 Destination of the product

3 Destination of the product

The machines of this series are stationary exercise machines primarily designed to improve strength abilities in terms of muscle building or strength endurance. They are specially designed for fitness purposes. They are provided for use in training areas of organizations such as sport associations, educational establishments, hotels, sport halls and clubs, where access and control is specifically regulated by the owner owner (person who has the legal responsibility). The mechanical layout allows for low-impact training as the motion direction is set, withdrawal movements are reduced and muscles are targetted. The machines meet almost all strain demands as each of the weight plates can be snapped in individually. Different models, whose intended purpose is described in the following section, have been designed to tailor training to individual needs.

3.1 Back muscles

3.1.1 VECTOR BACK EXTENSION

VECTOR BACK EXTENSION is a strength training machine that is designed for strengthening the back muscles by erecting the upper body. The training strain is controlled using plug-in weights. Regular workouts on this machine prevent postural deformity and spinal column arthrosis.

3.1.2 VECTOR BACK PULL

VECTOR BACK PULL is a strength training machine that is designed for strengthening the muscles between the shoulder blades through a rowing motion. The training strain is controlled using plug-in weights. The seat height adjustment allows users to set an optimal training position.

3.1.3 VECTOR BUTTERFLY REVERSE

VECTOR BUTTERFLY REVERSE is a strength training machine that is designed for strengthening the muscles which stabilise the neck and the thoracic column by opening the arms acromially. The training strain is controlled using plug-in weights. The seat height adjustment allows users to set an optimal training position. Regular workouts on this machine prevent postural deformity and back pain caused by improper stress.

3.1.4 VECTOR LAT PULL

VECTOR LAT PULL is a strength training machine that is designed for strengthening the back muscles by a pull-down motion of the arms. The training strain is controlled using plug-in weights. The restraint of the thighs makes the workout more effective. The seat height adjustment allows users to set an optimal training position.

3.2 Shoulder muscles

3.2.1 VECTOR SHOULDER ABDUCTION

VECTOR SHOULDER ABDUCTION is a strength training machine that is designed for strengthening the shoulder muscles by abducting the arms.The training strain is controlled using plug-in weights.The seat height adjustment allows users to set an optimal training position.

3.2.2 VECTOR SHOULDER PRESS

VECTOR SHOULDER PRESS is a strength training machine that is designed for strengthening the muscles which stabilise the neck and the thoracic column by stretching the arms upwards. The training strain is controlled using plug-in weights. The seat height adjustment allows users to set an optimal training position.

3.3 Chest muscles

3.3.1 VECTOR BUTTERFLY

VECTOR BUTTERFLY is a strength training machine that is designed for strengthening the abdominal muscles by pulling the arms together in front of the body. The training strain is controlled using plug-in weights. The seat height adjustment allows users to train the three different types of chest muscles individually.

3.3.2 VECTOR CHEST PRESS

VECTOR CHEST PRESS is a strength training machine that is designed for strengthening the chest and arm extensor muscles by bench pressing in a sitting position. The training strain is controlled using plug-in weights. The seat height adjustment as well as the different handle variations allow for multiple training.

3.4 Upper arm muscles

3.4.1 VECTOR BICEPS FLEXION

VECTOR BICEPS FLEXION is a strength training machine that is designed for strengthening the arm flexion muscles by angling the arms while in a sitting position. The training strain is controlled using plug-in weights. The seat height adjustment allows users to set an optimal training position.

3.4.2 VECTOR TRICEPS EXTENSION

VECTOR TRICEPS EXTENSION is a strength training machine that is designed for strengthening the arm extension muscles by stretching the arms while in a sitting position. The training strain is controlled using plug-in weights. The seat height adjustment allows users to set an optimal training position.

3.5 Abdominal muscles

3.5.1 VECTOR ABDOMINAL FLEXION

VECTOR ABDOMINAL FLEXION is a strength training machine that is designed for strengthening the abdominal muscles by bending the upper body while in a sitting position. The training strain is controlled using plug-in weights. Regular workouts on this machine prevent postural deficiencies and spinal column arthrosis.

3.5.2 VECTOR ABDOMINAL TORSION

VECTOR ABDOMINAL TORSION is a strength training machine that is designed for strengthening the lateral abdominal muscles by a rotation of the upper body while restraining the lower body. The training strain is controlled using plug-in weights.

3.6 Pelvic muscles

3.6.1 VECTOR ABDUCTOR

VECTOR ABDUCTOR is a strength training machine that is designed for strengthening the outer thigh muscles by spreading the legs. The training strain is controlled using plugin weights.

3.6.2 VECTOR ADDUCTOR

VECTOR ADDUCTOR is a strength training machine that is designed for strengthening the inner thigh muscles by closing the legs. The training strain is controlled using plugin weights.

3.6.3 VECTOR HIP EXTENSION

VECTOR HIP EXTENSION is a strength training machine that is designed for strengthening the gluteal muscles by stretching the leg while the knee is bent. The training strain is controlled using plug-in weights. Regular workouts on this machine prevent an unstable hip joint.

3.7 Thigh muscles

3.7.1 VECTOR LEG EXTENSION

VECTOR LEG EXTENSION is a strength training machine that is designed for strengthening the front thigh muscles by stretching the legs. The training strain is controlled using plug-in weights. Regular workouts on this machine prevent an unstable knee joint.

3.7.2 VECTOR LEG FLEXION

VECTOR LEG FLEXION is a strength training machine that is designed for strengthening the back thigh muscles by bending the legs. The training strain is controlled using plug-in weights. Regular workouts on this machine prevent an unstable knee joint.

3.7.3 VECTOR SQUAT PRESS

VECTOR SQUAT PRESS is a strength training machine that is designed for strengthening thigh and gluteal muscles by performing leg presses while in a sitting or lying position. The training strain is controlled using plug-in weights. Regular workouts on this machine prevent an unstable knee joint.

3.8 Multifunctional

3.8.1 VECTOR CABLE / CABLE FREE

VECTOR CABLE is an explosion cable tower offering a facet of exercises for the upper and lower body. The athlete can pull in different directions. It can be mounted on the wall or placed on the floor. The training strain is controlled using plug-in weights.

3.8.2 VECTOR CABLE CROSSOVER

VECTOR CABLE CROSSOVER is a strength training machine that offers multiple exercises for the upper and lower body by lat pulling combined with different exercises. The workout may be carried out unilaterally or bilaterally and the pulling direction is variable. The training strain is controlled using plug-in weights.

3.8.3 VECTOR CABLE TOWER

VECTOR CABLE TOWER is a strength training machine consisting of various exercise stations which allow several people to train simultaneously. Users can perform lat pulling, lat pulldown, rowing, bicep and tricep exercises. This allows you to train the majority of your upper and lower body muscles with just one exercise machine. The training strain is controlled using plug-in weights.

3.8.4 VECTOR MULTI PRESS

VECTOR MULTI PRESS is a strength training machine that offers multiple exercises for the torso, arms and legs. Training position and strain are variable. The machine is equipped with safety supports and weight rests.

3.8.5 VECTOR PULL UP/DIP

VECTOR PULL UP/DIP is a strength training machine consisting of a chin-up and a dip machine. It assists the trainee during the respective exercises and strengthens the back, chest and arm muscles.

3.8.6 VECTOR SEATED DIP

The VECTOR SEATED DIP, a resistance machine, is designed for dip exercises in seated position. It supports the athlete's training performance and strengthens the triceps as well as parts of the shoulder and chest muscles.

3.9 Benches

3.9.1 VECTOR COMPLEX BACK BENCH

The VECTOR COMPLEX BACK BENCH is a stationary training device that enables training of the postural muscles in different ways and thus offers exercises for strength training that can be used to treat injuries, increase stability and quality of life, and strengthen the cardiovascular system. The training instensity can be controlled by change of posture as well as height or inclination adjustment.

3.9.2 VECTOR FLAT BENCH

VECTOR FLAT BENCH supports a great number of exercises for the upper and lower body muscles as well as free barbells training. It supports a better training position.

3.9.3 VECTOR MULTI BENCH

VECTOR MULTI BENCH is a training bench that supports a great number of exercises for the upper and lower body muscles as well as free weight training. It supports a better training position. The back pad adjustment allows the user to set an optimal training position.

3.9.4 VECTOR OLYMPIC FLAT BENCH

VECTOR OLYMPIC FLAT BENCH trains arm and chest muscles and is equipped with a stable pad and a safety support for weights.

3.9.5 VECTOR OLYMPIC INCLINE BENCH

VECTOR OLYMPIC INCLINE BENCH efficiently strengthens arm and chest muscles. Back rest and variable seat height support and optimal training position. The bench is also equipped with a safety support for weights.

3.9.6 VECTOR SCOTT BENCH

VECTOR SCOTT BENCH trains the arm muscles in a seated position while the upper body is fixed. It is equipped with a vertically adjustable seat and a safety support for weights.

3.9.7 VECTOR SQUAT RACK

VECTOR SQUAT RACK is a knee bend rack to train different muscle groups. Training position as well as training load are variable. In addition, the SQUAT RACK offers safety supports as well as racks for weights.

Chapter 4 Transport and Setup

4 Transport and Setup

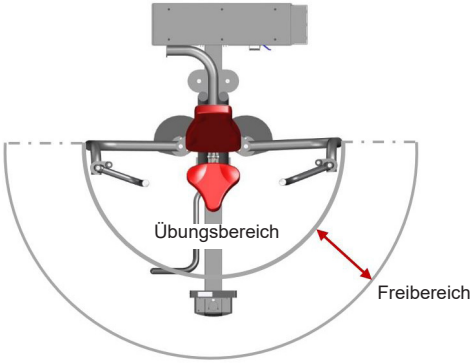
Please note: This owner's manual contains information on multiple gym machines. There may be variations in detail according to the type of machine!

4.1 Transport

In order to avoid damage, ERGOFIT machines are transported by ERGOFIT GmbH directly or by an authorised freight forwarding company. After delivery, packaging will be collected and disposed of professionally. If ERGOFIT machines are delivered by a freight forwarder, the customer needs to dispose of the packaging himself or can send it back to ERGOFIT GmbH (the customer is responsible for the transportation costs).

4.2 Setup location and installation

1. Make sure that the surface underneath the machine is flat and level. The machines are mounted and set up directly by the manufacturer or an authorised service technician. Only this way can a safe and proper funcion of the machine be guaranteed.
2. 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.

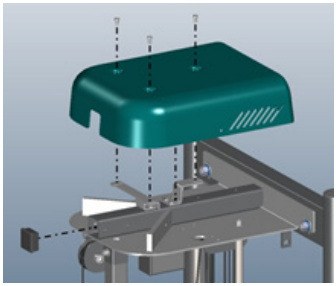


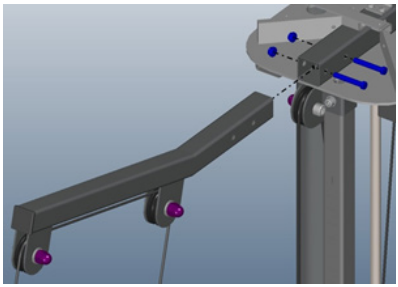
3. Install the device in a way that you can easily unplug the power cable from the power switch (version T, T MED, CVT and CVT MED)
4. Remove the transport locks located under the first three weight plates.
5. Perform a function test after setup or relocation.

4.3 Mounting

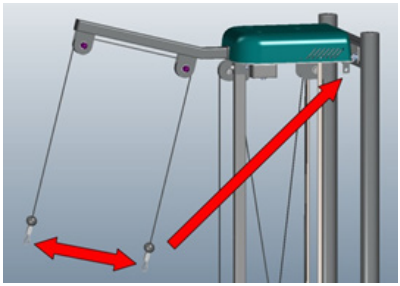
⊗ Please note: Wall mounting of the VECTOR CABLE must be performed by an authorized technician. ERGOFIT GmbH will not be liable for the wall mounting. Use the 4 mounting points to mount the VECTOR CABLE. The minimum clamping force of each bolt must be 200 N.

⊗ In order to mount the gallows you first have to remove the cover and the fin plugs (if applicable). Then slide the gallows into the corresponding rail and fasten it with the provided bolts and nuts. Finally remount the cover.





When the equipment is not used any cables that hang down from the gallows must be removed from the workout area. Use a carabiner to join the cables and hook them into the hole in the cover.



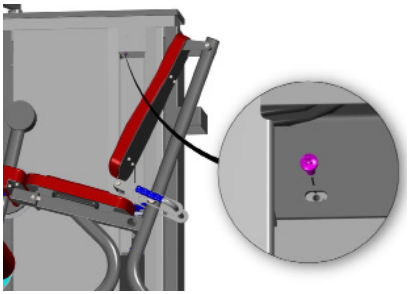
4.4 Ambient temperature

⊗ Your ERGOFIT exercise machine may be used at an ambient temperature of +10°C to +40°C, a relative humidity of 30 to 75% (non condensing) and an atmospheric pressure of 700 hPa to 1060 hPa without a problem.

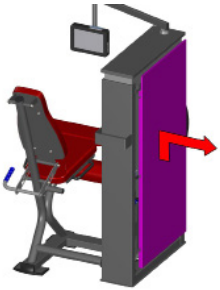
⊗ The machine may be stored at a temperature between -30°C and +50°C.

4.5 Connecting

1. If the devices are not connected by our service team: Remove the cover at the back before connecting the device. Loosen the screw of the cover with a Phillips screwdriver. You can access the screw through a hole at the front.

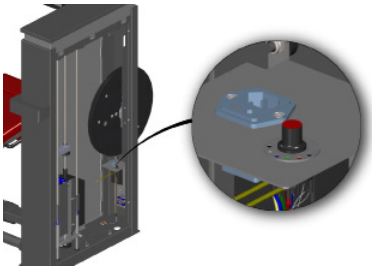


2. After you have removed the screw, position the supplied vacuum lifting tool at the center of the cover, carefully slide the cover upwards and pull it towards you to take it off. Do not use any other methods to take off the cover. This may cause injuries and may damage the cover and the surroundings.



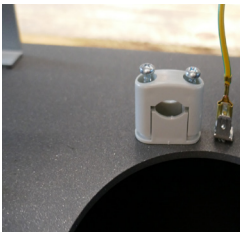
3. Perform a visual inspection of the power cord and the input connector (power entry module inside the device, visible after removal of the back cover) before using the machine. Damaged power cords and connectors need to be replaced immediately.

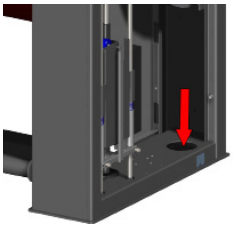
4. Plug the power cord into the appropriate power entry module on the metal bracket inside the device (right side).

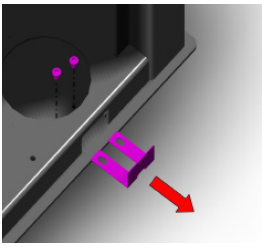


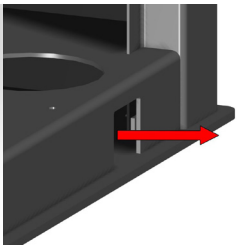
Route the other end of the cable downwards through the strain relief and the hole. Route it through the opening in the lower frame near the floor (can be opened by unscrewing with an Allen key SW 4 and pulling out the cover). Then connect the cable to a power outlet. Then reattach the cover. If the device is to be connected to the internet, please also route the LAN cable through the strain relief..

The strain relief can be opened with a Phillip screwdriver to insert the power cable and the LAN cable (if applicable).

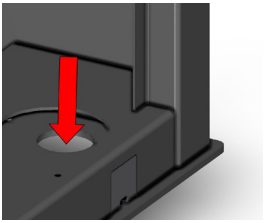




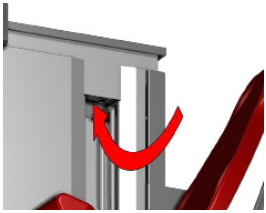




5. For use with floor sockets the devices have an opening on the bottom. Position the open device so you can route the cable through the bottom opening and connect the plug to the floor socket.



6. Push the button on the inner side of the cover (opening at the front of the device, I = ON, O = OFF) to start the device.



7. 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.

8. 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.

4.5.1 Power supply

Use your exercise machine only with earthed (grounded) power sockets with 230 VAC / 50-60 Hz. If you have any doubts about the power supply at the setup location, ask your energy provider. Only use commercial 10 ampere 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 lead fuses or with a different type of tripping fuse (e.g. K-automat). In case of doubt, ask your electrician.

Before connecting your ERGOFIT exercise machine to your power supply system, compare the acceptable voltage and frequency on the name plate (next to power entry module) with your local data.

Always connect your machine directly to the power outlet. 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 VECTOR Kraft machine.

4.5.2 Cabeling

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

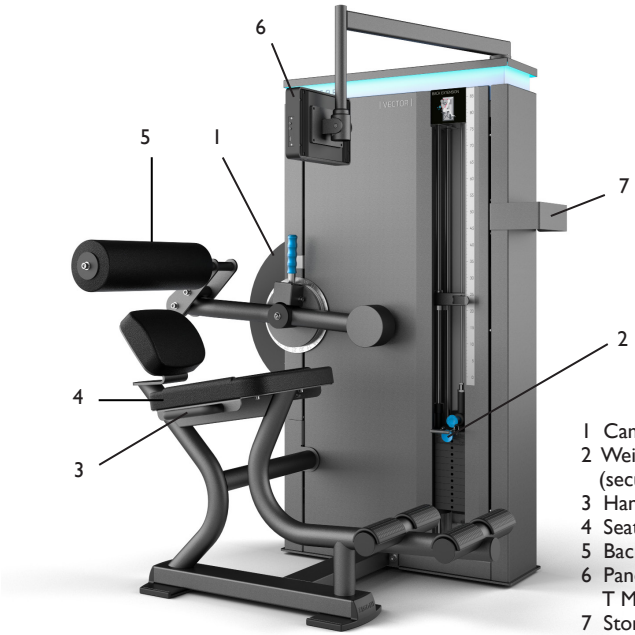
⊗ Make sure that nobody can step on or stumble across the power cord.

⊗ Do not place any objects on the cord as it might get damaged.

4.6 Components

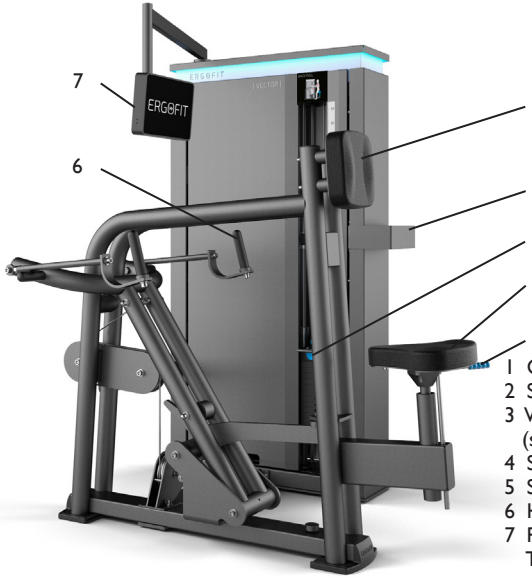
4.6.1 Back muscles

4.6.1.1 VECTOR BACK EXTENSION



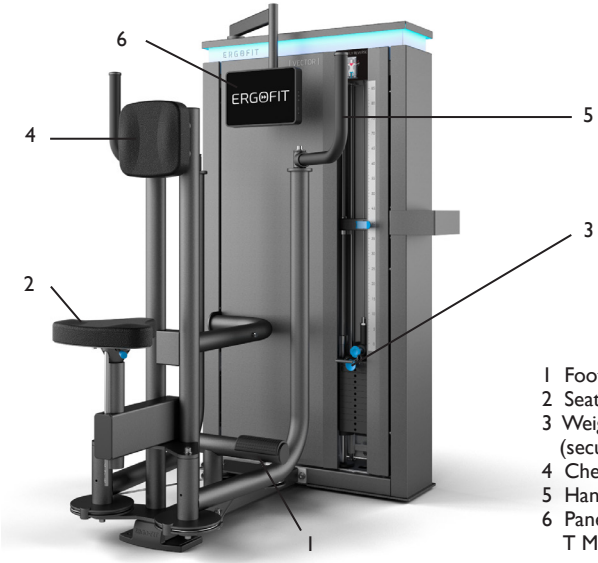
1 Cam
2 Weight plate pin (secured) + weight stacks
3 Handle
4 Seat pad
5 Back support
6 Panel PC (version T, T MED, CVT, CVT MED)
7 Storage

4.6.1.2 VECTOR BACK PULL



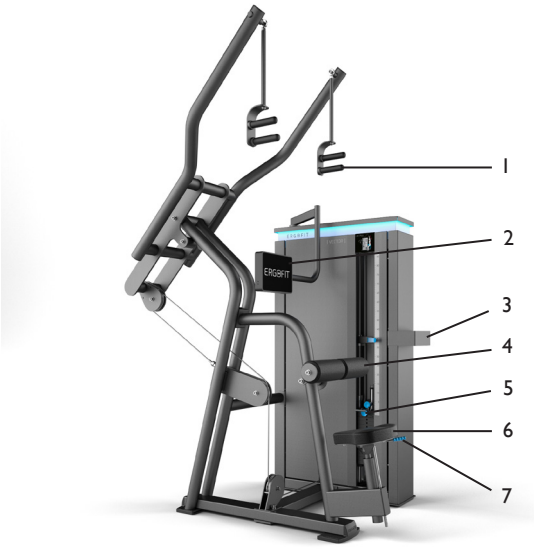
1 Chest pad
2 Storage
3 Weight plate pin (secured) + weight stacks
4 Seat pad
5 Seat height adjustment
6 Handle
7 Panel PC (version T, T MED, CVT, CVT MED)

4.6.1.3 VECTOR BUTTERFLY REVERSE



1 Footrest
2 Seat pad
3 Weight plate pin (secured) + weight stacks
4 Chest pad
5 Handle
6 Panel PC (version T, T MED, CVT, CVT MED)

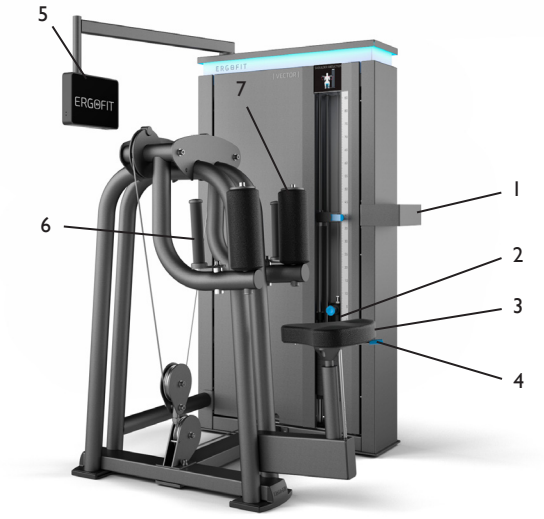
4.6.1.4 VECTOR LAT PULL



1 Handle
2 Panel PC (version T, T MED, CVT, CVT MED)
3 Storage
4 Adjustable leg pad
5 Weight plate pin (secured) + weight stacks
6 Seat pad
7 Seat height adjustment

4.6.2 Shoulder muscles

4.6.2.1 VECTOR SHOULDER ABDUCTION



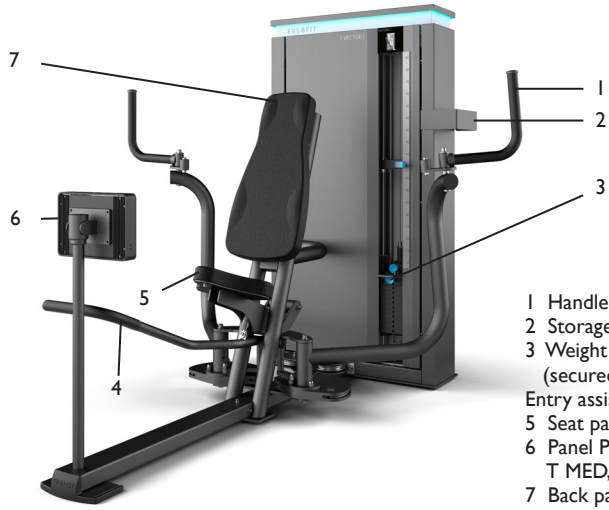
1 Storage
2 Weight plate pin (secured) + weight stacks
3 Seat pad
4 Seat height adjustment
5 Panel PC (version T, T MED, CVT, CVT MED)
6 Handle
7 Arm pad

4.6.2.2 VECTOR SHOULDER PRESS

1 Panel PC (version T, T MED, CVT, CVT MED)
2 Storage
3 Weight plate pin (secured) + weight stacks
4 Seat height adjustment
5 Seat pad
6 Back pad
7 Handle

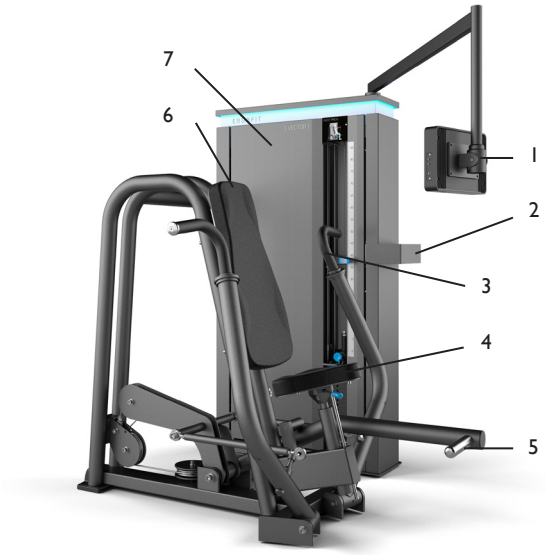
4.6.3 Chest muscles

4.6.3.1 VECTOR BUTTERFLY



1 Handle
2 Storage
3 Weight plate pin (secured) + weight stacks 4 Entry assistance
5 Seat pad
6 Panel PC (version T, T MED, CVT, CVT MED)
7 Back pad

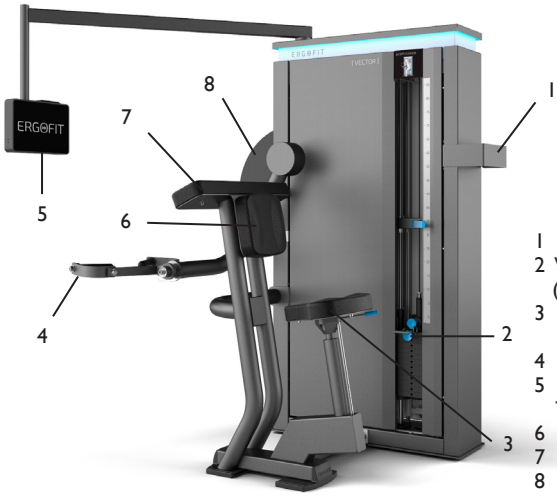
4.6.3.2 VECTOR CHEST PRESS



1 Panel PC (version T, T MED, CVT, CVT MED)
2 Storage
3 Handle
4 Seat pad with Seat height adjustment
5 Entry assistance
6 Back pad
7 Shroud with internal weight stack

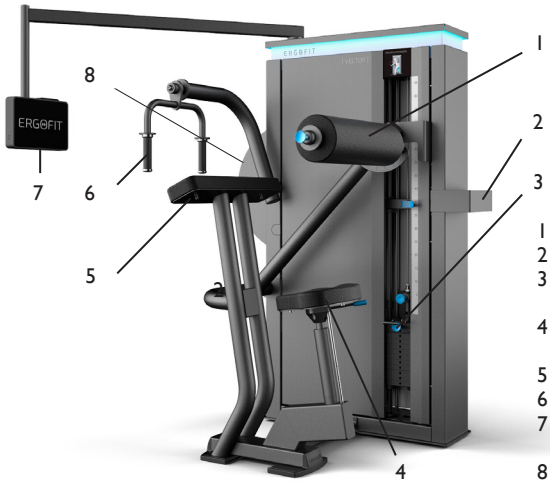
4.6.4 Upper arm muscles

4.6.4.1 VECTOR BICEPS FLEXION



1 Storage
2 Weight plate pin (secured) + weight stacks
3 Seat pad with Seat height adjustment
4 Handle
5 Panel PC (version T, T MED, CVT, CVT MED)
6 Chest pad
7 Upper arm pad
8 Cam

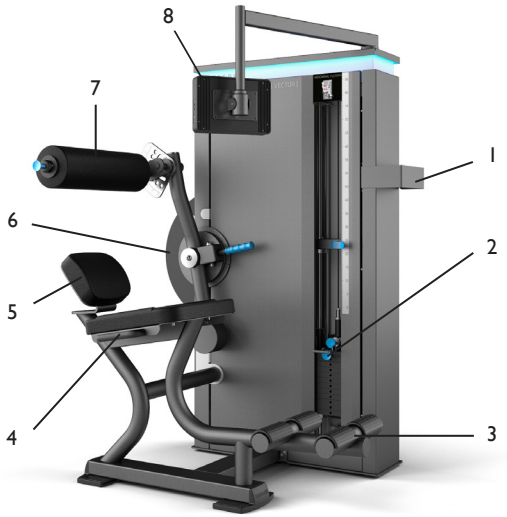
4.6.4.2 VECTOR TRICEPS EXTENSION



1 Back pad
2 Storage
3 Weight plate pin (secured) + weight stacks
4 Seat pad with Seat height adjustment
5 Upper arm pad
6 Handle
7 Panel PC (version T, T MED, CVT, CVT MED)
8 Cam

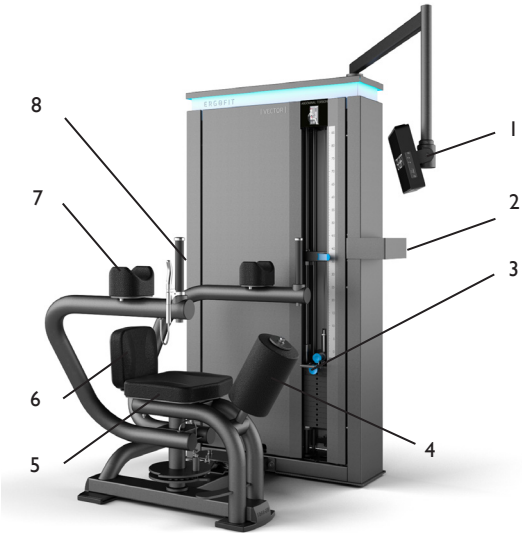
4.6.5 Abdominal muscles

4.6.5.1 VECTOR ABDOMINAL FLEXION



1 Storage
2 Weight plate pin (secured) + weight stacks
3 Footrest
4 Handle
5 Seat pad
6 Cam
7 Chest pad
8 Panel PC (version T, T MED, CVT, CVT MED)

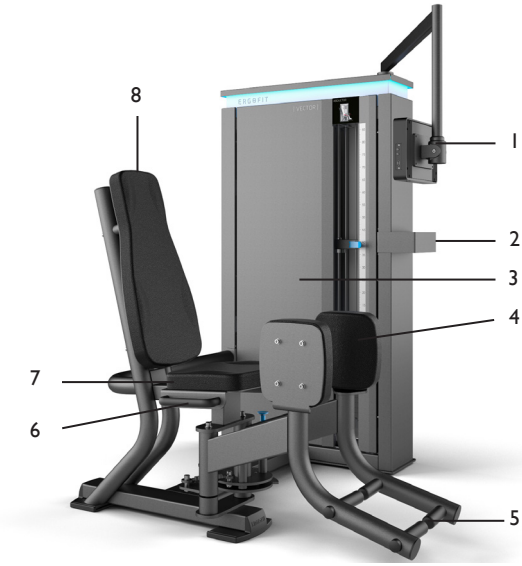
4.6.5.2 VECTOR ABDOMINAL TORSION



1 Panel PC (version T, T MED, CVT, CVT MED)
2 Storage
2 Weight plate pin (secured) + weight stacks
4 Thigh stabilizer
5 Seat pad
6 Back pad
7 Upper arm stabilizer
8 Handle

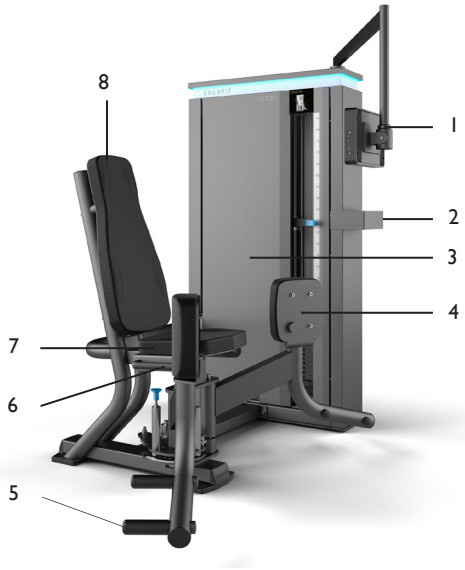
4.6.6 Pelvic muscles

4.6.6.1 VECTOR ABDUCTOR



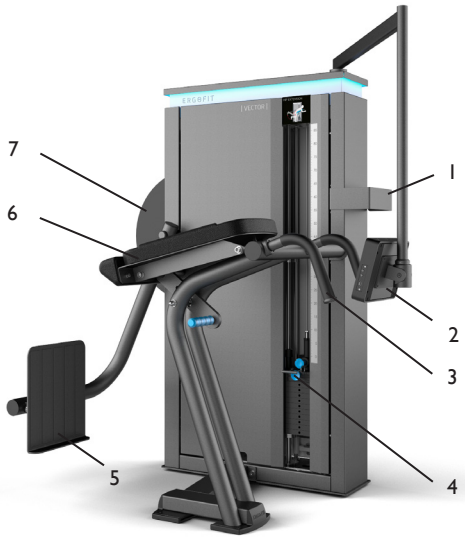
1 Panel PC (version T, T MED, CVT, CVT MED)
2 Storage
3 Shroud with internal weight stack
4 Knee pad
5 Footrest
6 Handle
7 Seat pad
8 Back pad

4.6.6.2 VECTOR ADDUCTOR



1 Panel PC (version T, T MED, CVT, CVT MED)
2 Storage
3 Shroud with internal weight stack
4 Knee pad
5 Footrest
6 Handle
7 Seat pad
8 Back pad

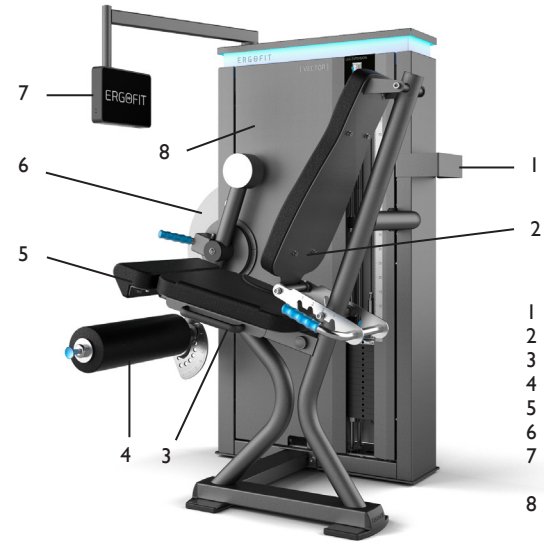
4.6.6.3 VECTOR HIP EXTENSION



1 Storage
2 Panel PC (version T, T MED, CVT, CVT MED)
3 Handle
4 Weight plate pin (secured) + weight stacks
5 Footrest
6 Upper body stabilizer
7 Cam

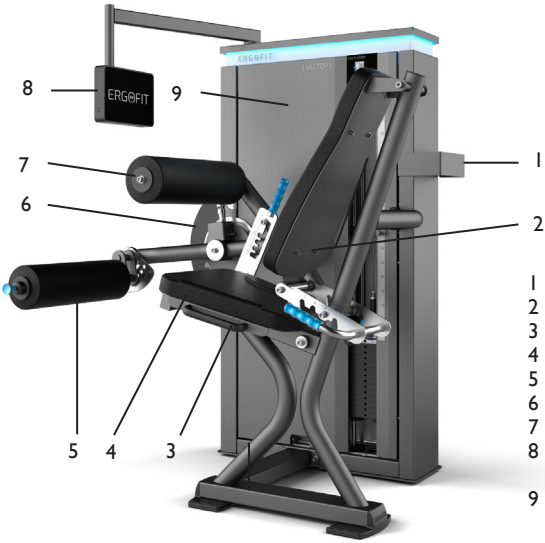
4.6.7 Thigh muscles

4.6.7.1 VECTOR LEG EXTENSION



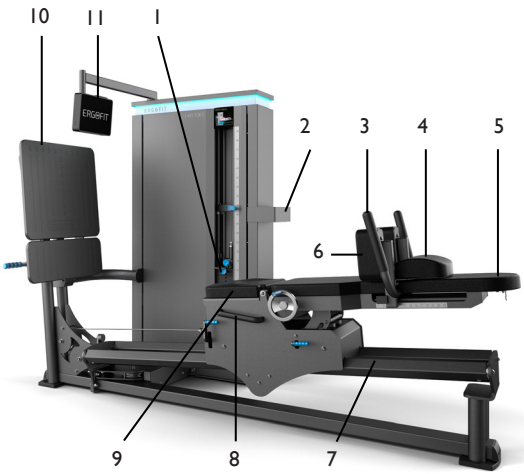
1 Storage
2 Back pad
3 Handle
4 Foot pad
5 Seat pad
6 Cam
7 Panel PC (version T, T MED, CVT, CVT MED)
8 Shroud with internal weight stack

4.6.7.2 VECTOR LEG FLEXION



1 Storage
2 Back pad
3 Handle
4 Seat pad
5 Foot pad
6 Cam
7 Thigh stabilizer
8 Panel PC (version T, T MED, CVT, CVT MED)
9 Shroud with internal weight stack

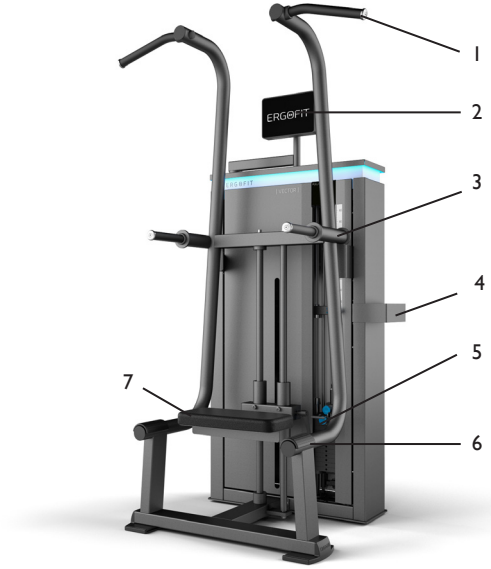
4.6.7.3 VECTOR SQUAT PRESS



1 Weight plate pin (secured) + weight stacks
2 Storage
3 Handle
4 Head cushion
5 Back pad
6 Shoulder cushion
7 Guide
8 Handle
9 Seat pad
10 Foot plate
11 Panel PC (version T,T MED, CVT, CVT MED)

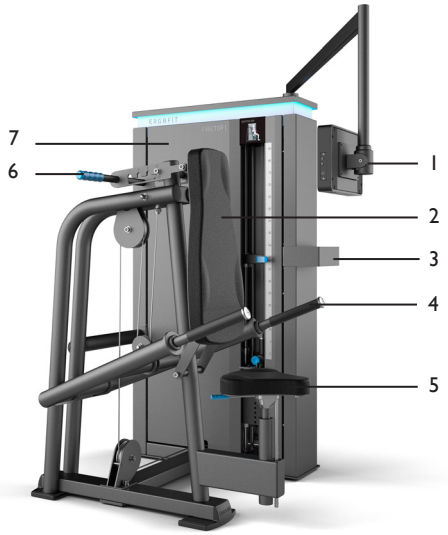
4.6.8 Multifunctional

4.6.8.1 VECTOR PULL UP/DIP



1 Handle Pull Up
2 Panel PC (version T, T MED, CVT, CVT MED)
3 Handle Dip
4 Storage
5 Weight plate pin (secured) + weight stacks
6 Footrest
7 Knee pad

4.6.8.2 VECTOR SEATED DIP



1 Panel PC (version T, T MED, CVT, CVT MED)
2 Back pad
3 Storage
4 Handle
5 Seat pad with Seat height adjustment
6 Adjustable back pad
7 Shroud with internal weight stack

4.6.8.3 VECTOR CABLE

Please note: Wall mounting of the VECTOR CABLE must be performed by a skilled technician. ERGOFIT GmbH will not be liable for wall mounting. VECTOR CABLE must be attached to 4 fixing points, the bolt retention force must be 200N.

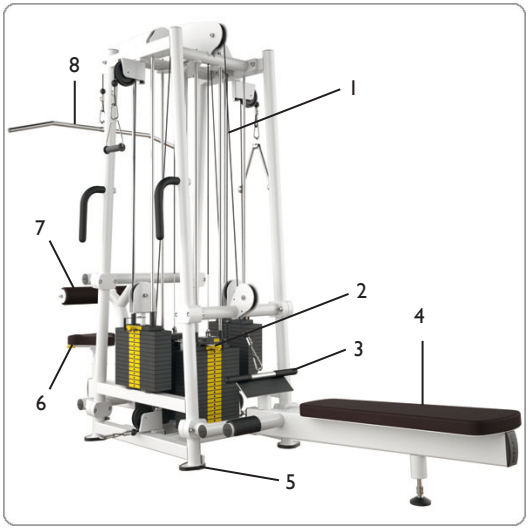
1 Kevlar cable *(weight transmission)*
2 Dowel pin *(locked)* + Snap-on weights *(5kg each)*

4.6.8.4 VECTOR CABLE CROSSOVER

1 Steel cable *(weight transmission)*
2 Dowel pin *(locked)*+ Snap-on weights *(5kg each)*
3 Handholds

4.6.8.5 VECTOR CABLE TOWER

Bring the machine to the desired place and adjust the same. Then attach the rubber pads to the base plates and fix the seat and the seat bench by the clamp collar on the frame. Turn the feet down until the machine has a stable position on the floor. Then tighten the clamp collars at the seat and the seat bench. Finally, test again the feet for a stable position and readjust the same if necessary.



1 Steel cable + Flat belt *(weight transmission)*
2 Dowel pin *(locked)* + Snap-on weights *(5kg each)*
3 Handholds Rowingstation
4 Seat padding
5 Foot support
6 Seat pad
7 Thigh restraint
8 Lat pulldown

4.6.8.6 VECTOR MULTI PRESS

1 Dumbell bar
2 Weight storage bar
3 Seat / lying pad
4 Guide rail *(with safety holder)*

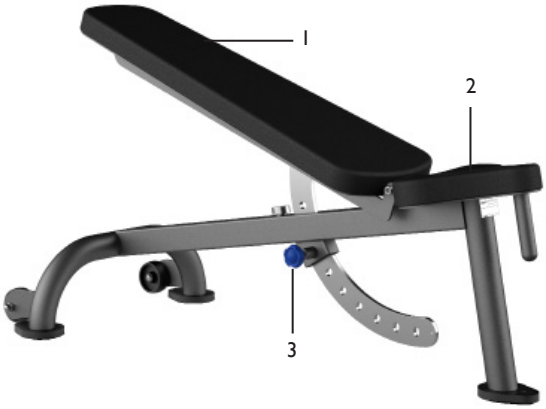
4.6.9 Benches

4.6.9.1 VECTOR COMPLEX BACK BENCH

1 Shank stabilizier
2 Adjustable leg pad
3 Racks for weights

4.6.9.2 VECTOR FLAT BENCH

1 Seat/lying pad

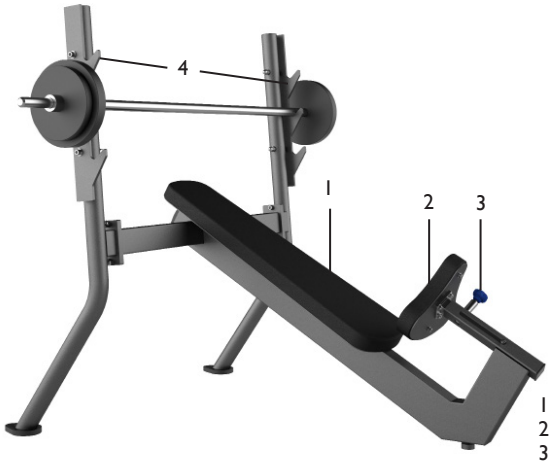


1 Back pad
2 Seat pad
3 Seat padding adjustment

4.6.9.4 VECTOR OLYMPIC FLAT BENCH

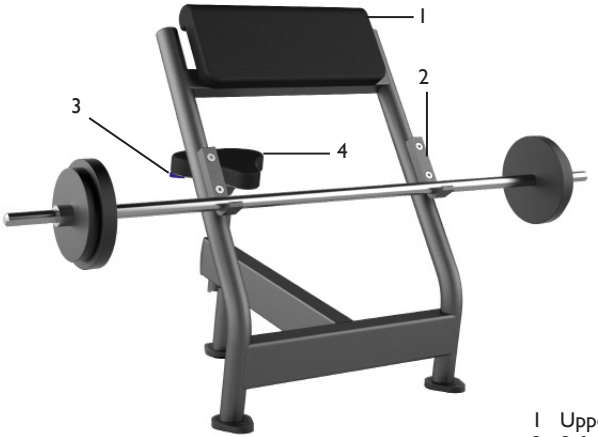
1 Seat/lying pad
2 Safety support for weights

4.6.9.5 VECTOR OLYMPIC INCLINE BENCH



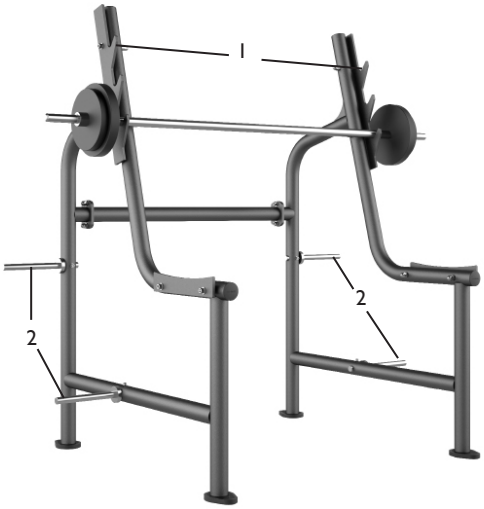
1 Back pad
2 Seat padding
3 Seat padding adjustment
4 Safety support for weights

4.6.9.6 VECTOR SCOTT BENCH



1 Upper arm pad
2 Safety support for weights
3 Seat padding adjustment
4 Seat padding

4.6.9.7 VECTOR SQUAT RACK



1 Safety support for weights
2 Racks for weights

Chapter 5 Setup

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

5 Setup

Connect your machine directly to the power outlet (110...220 V AC). Always connect your machine directly to the power outlet. Do not use extension cables or multi-outlet power strips unless they are EN 60601-1 certified. After switching on the machine have to wait 35 minutes before you can use the machine. During this warm-up period you can adjust the weight plates. After the warm-up period the weight plates should be correctly displayed in the Cockpit. You can now start your workout. We recommend DC-isolated cables for the connection of external equipment to a VECTOR Kraft machine.

5.1 Switching on

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

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

⊗ Push the button on the inner side of the cover (opening at the front of the device) to turn the device on (see chapter 4.5). The switch must be in position I. If the switch is in position 0 the machine is switched off.

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

5.2 Switching off

⊗ Push the button on the inner side of the cover (opening at the front of the device) to turn the device off (see chapter 4.5). The switch must be in position 0.

Take care that the switch-on and switch-off intervals don‘t fall below a time of 3 sec.

5.3 The Control Panel (T,T MED, CVT und CVT MED only)

ERGOFIT exercise equipment is known for its outstanding ease of use. VECTOR Kraft Line control panels (panel pc's) for example are equipped with a user guidance system that is simple and easy to understand. The Panel PC can only be operated by touching the buttons.

The Panel PC consists of a display, some buttons (version T/T MED) and a RFID receiver (version CVT/CVT MED). 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. Only press the buttons lightly. When you press a button you will hear a beep.
3. The RFID receiver on VECTOR CVT and CVT MED can be found on the upper side of the panel PC. Put on the RFID wristband and hold the printed area (ERGOFIT logo) over the RFID receiver until your data is displayed.

5.3.1 The buttons

Depending on the displayed panel you will find different buttons on the Panel PC. Please refer to the following list of the most important buttons to understand their function:

⊗ PLUS: With this button you can increase the intensity or change parameters.

⊗ MINUS: With this button you can decrease the intensity or change parameters.

⊗ START: With this button you can confirm workout mode selections or parameter settings.

⊗ STOP: With this button you can cancel a function or stop the machine.

5.4 Calibrating the weight plates

Before any new calibration/re-calibration of the weight plates you have to consider a warm-up period of 35 minutes. The warm-up period starts as soon as you switch on the machine. Re-calibration is only possible after the warm-up period has finished. Otherwise the weight plates may be displayed incorrectly in the Cockpit or may adjust automatically.

Note: The workout machine with laser sensor is a precision measuring instrument. But even here you have to consider measuring tolerances due to environmental factors (temperature changes, operation time etc.). Therefore, we recommend to check the functionality of the machine regularly. In case of a the weight plate difference you have to perform a re-calibration.

5.5 Resistance adjustment

On all machines of the VECTOR Kraft series the resistance can be adjusted by adding or reducing the number of snap-on weights. Dowel pins are used to adjust the weight by inserting them into the borings in the snap-on weights. The weights may be chosen directly from the machine.

When adjusting, consider the following aspects:

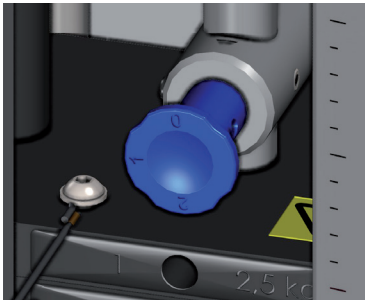
⊗ You can only adjust the weights when the weight bundle is not under tensile stress and the snap-on weights are resting firmly. Accordingly, you should avoid modifying the training weight during a motion sequence.

⊗ Make sure to insert the dowel pins completely. If this is not the case, the pins might loosen during motion. The snap-on weights can fall on the weight bundle and this might damage the weights or injure the trainee because of jerky removal of the load.

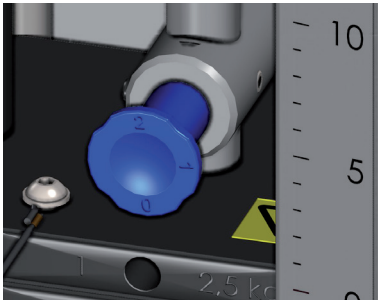
- ⊗ To secure the weights, insert the dowel pins straight into the borings. Otherwise, the dowel pins might tilt during motion.
- ⊗ Do not put your hands between the snap-on weights. Otherwise, there is a risk of injury
- ⊗ Do not let the weights impact on the weight bundle during and after exercise. Always make sure that the weights fall smoothly on the bundle.

5.5.1 Additional weight

Equipment with MED labeling provides two additional weights (2.5 kg). The can be added incrementally as needed. Turn the labeled handle above the weight stack clockwise, until position „1“ (additional weight of 2,5 kg) or position „2“ (additional weight of 5 kg) is shown. In position „0“ the additional weights are not activated.



Additional weight not activated



Additional weight activated

VECTOR CABLE MED use pulleys to add weight. Using a carabiner, hook the lower cable in the upper eyelet. The cable pulleys have to be positioned vertically and the cable must run upwards through all pulleys.

Run the cable upwards through all pulleys

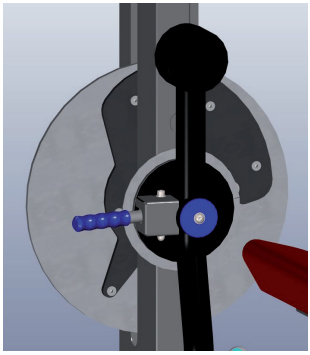
Attaching the carabiner to the eyelet

Cable puleys have to be positioned vertically

5.6 Eccentric function

When designing strength training machines, strength curves are often made use of. The aim of considering strength curves is to ensure the correct and targetted adjustment of the resistance for the respective abilities of the muscle to be trained. This means concretely that training stimuli can be used optimally by almost all parts of a muscle.

The technological aid for this purpose is the eccentric technique. The eccentric is connected with the rotation axis of the exercise machine via which the load of the training weight is transferred to the lever arm (moment arm) that is moved by the trainee. The set weight is transferred to the outer border of the eccentric disc via a flat belt.



Sectional view of ecentric (example VECTOR LEG EXTENSION)

The edge of the eccentric does not form a concentric radius (constant distance between outer edge and rotation axis) around the rotation point of the disc but an eccentric radius (variable distance between outer edge and rotation axis). The distance between the respective surface location of the weight plate (load) and the rotation point determines the length of the lever arm with which the weight pulls the plate. This distance is called the load arm. In contrast, the length of the lever arm (against which the trainee works) determines the so-called moment arm. According to the lever principle (Load x load arm = moment x moment arm), an eccentric transfers a high torque (more load) on the rotation axis if the weight is transferred via a long load arm to the rotation axis and vice versa (i.e. via a point of the disc with a longer distance to the rotation point). Thus, the maximum strain on the muscles may be realised by a high torque already at the beginning of the motion and will be maintained almost until the final position is reached.

To meet individual needs, the moment arm may be adjusted in relation to the eccentric to allow for strain adjustment by modifying the link positions.

Some machines of the VECTOR Kraft Line are not equipped with an eccentric. This is due to the vertical (VECTOR LAT PULL, VECTOR SHOULDER ABDUCTION, VECTOR SHOULDER PRESS, VECTOR PULL UP/DIP, VECTOR SEATED DIP) or horizontal (VECTOR CHEST PRESS, VECTOR SQUAT PRESS, VECTOR BACK PULL, VECTOR BUTTERFLY REVERSE, VECTOR ABDOMINAL TORSION, VECTOR ABDUCTOR, VECTOR ADDUCTOR) exercise motion.

5.7 Function test

- ⊗ Check if all handling parts are locked properly before training. Make sure there are no loose or badly mounted handling parts.
- ⊗ Check the cable and wires for damage.
- ⊗ Check moving parts (steel cables, Kevlar cables, rollers) for proper function.
- ⊗ Check the rests and paddings for damage.
- ⊗ Check if all adjustable parts function properly.

Chapter 6 Operation (Versions T, T MED, CVT und CVT MED)

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

6 Operation (T, T MED, CVT und CVT MED only)

6.1 Operation Modes (version T, T MED, CVT und CVT MED)

The Panel PC always starts in Start mode. Here you can choose Manual Workout or a workout via the RFID wristband or you can start a test. After 30 seconds of inoperation the Panel PC automatically switches to standby and starts the screen saver. By touching the display you return to the start mode.

6.1.1 Manual

In this mode you can select any workout time and choose any workload level or repetition.

1. Press the MANUAL button.
2. The "Machine Settings" screen is displayed. Adjust the device (seat etc.) and choose your workout load. Confirm your settings by pressing START. BACK returns you to the start mode.
3. Now set your personal movement range. Get into the start position. After a 5 second countdown you will be asked to perform the exercise 3 times. Now the Panel PC determines your personal movement range for the workout and enters it into the subsequent workout mode. Press STOP to cancel this procedure.
4. You now access the workout mode. The Cockpit displays the number of completed sets and repetitions. The movement range determined at the beginning will be illustrated by a column. The target speed for the exercise is illustrated by a grey frame, the actual speed by a green bar. Repetitions are only valid if the determined movement range is reached (green area in the upper and lower area of the graphic).
5. You can pause the workout after any number of repetitions by pressing the STOP button. You will access the pause mode.
6. You can pause the workout as long as you want to. The actual duration of the pause will be displayed in the monitor. Press the CORRECT button to return to the machine settings. Here you can change any parameters. To continue the workout just start moving. You can repeat this procedure as often as you want to. Press the STOP button to end the exercise. You will then see a summary of your workout. Press the STOP button again to return to the start mode

6.1.2 System

To use the System mode you first have to set up a workout schedule and connect this schedule to the RFID wristband which must then be initialized at the Vitality Coach.
Only Vitality Explorer users with Expert Customer privileges can modify device setup and exercise parameters.

1. To start a RFID workout put on the RFID wristband and hold the printed area (ERGOFIT logo) over the RFID receiver until your data is displayed. The „Device Settings“ window will open.
2. Here you find all setup options for the device plus the workout settings for the specific user. Adjust the device according to the given parameters. You can change the settings. Touch the setting you want to change. It will then be highlighted according to your color scheme. Press the PLUS and MINUS buttons to modify the setting. Press NEXT to confirm the changes, or press BACK to return to the start mode.
3. You are now in the parameter section. The displayed settings depend on the workout type (dynamic, static or countdown). Confirm your selection with NEXT. Touch the setting you want to change. It will then be highlighted according to your color scheme. Press the PLUS and MINUS buttons to modify the setting. The changes apply to all subsequent sets. If you want to use different settings for the subsequent sets, use the arrow key to select the corresponding set and then change the settings. When you are finished confirm your changes by pressing NEXT. Or press BACK to return to the start mode.

   If you want to change your individual movement range, touch Start Position. Get into start position. After a few seconds your position will be stored and End Settings will be highlighted. Get into end position. After a few seconds this position will also be stored and the highlight will disappear.
4. The device now check the load setting. You will be notified, if the load setting does not correspond to the load on the RFID wristband. Correct the load setting and press NEXT.
5. You now access the workout mode. The display depends on the workout mode:

   a) dynamic workout The Cockpit displays the number of completed sets and repetitions. The movement range determined at the beginning will be illustrated by a column. The target speed for the exercise is illustrated by a grey frame, the actual speed by a green bar. Repetitions are only valid if the determined movement range is reached (green area in the upper and lower area of the graphic).

   b) static workout: The Cockpit displays the remaining hold duration. The target hold duration for the exercise is illustrated by a grey frame, the actual hold duration by a green bar. The hold duration will only be accepted within the set end position (grey frame). If you leave the hold position the hold duration will stop and Lift will be displayed. At the end of the hold duration Release will be displayed.

c) countdown workout: The Cockpit displays the number of completed sets and repetitions and the remaining countdown. The actual exercise speed is represented by a green bar. Repetitions are only valid if the determined movement range is reached (green area in the upper and lower area of the graphic).

6. When all conditions are met (repetitions or end of countdown) or if you press STOP you access the PAUSE mode.

7. The predefined duration of the pause will be displayed in the monitor. Press the CORRECT button to return to the exercise settings. Here you can change any parameters. At the end of the pause mode you will return to the workout mode. Press CONTINUE to continue the workout immediately. Press STOP to continue the workout later. Or press END to cancel the workout. In this case you cannot continue the workout.

8. After pressing END or if you have completed the predefined sets the Perceived Exertion window will be displayed. Here you can describe your perceived exertion. Confirm your selection with NEXT.

9. Finally, successful repetitions, total weight lifted and average weight lifted per repetition are displayed. Moreover, all exercises are listed that according to the chip card workout schedule still have to be performed. If all exercises are finished the message Training Complete will be displayed.

6.1.3 Test

For any fitness test you first need a Test Plan and a RFID wristband.

1. To start the strength test, hold the RFID wristband with the printed area (ERGOFIT logo) over the RFID receiver until your data is displayed.

2. You will see all setup options for the device plus the workout settings for the specific user. Adjust the device according to the given parameters. You can change the settings. Touch the setting you want to change. It will then be highlighted according to your color scheme. Press the PLUS and MINUS buttons to modify the setting. Press NEXT to confirm the changes, or press BACK to return to the start mode.

3. The test parameters of the last variation test will be displayed. You will see repetitions per set, start load, pause (in seconds), speed (in concentric, isometric and eccentric phase in seconds) and movement range. Confirm them with START. Touch the setting you want to change. It will then be highlighted according to your color scheme. Press the PLUS and MINUS buttons to modify the setting. When you are finished confirm your changes by pressing START. Or press BACK to return to the start mode.

If you want to change your individual movement range, touch Start Position. Get into start position. After a few seconds your position will be stored and End Settings will be highlighted. Get into end position. After a few seconds this position will also be stored and the highlight will disappear.

4. The device now check the load setting. You will be notified, if the load setting does not correspond to the load on the RFID wristband. Correct the load setting and press NEXT.

5. You now access the workout mode. The Cockpit displays the number of completed sets and repetitions. The movement range determined at the beginning will be illustrated by a column. The target speed for the exercise is illustrated by a grey frame, the actual speed by a green bar. Repetitions are only valid if the determined movement range is reached (green area in the upper and lower area of the graphic). If your results differ too much from the preset speed and movement range the test will be automatically canceled. You can also stop the test at any time by pressing the STOP button.

6. After completing the preset number of repetitions you access the pause mode where an new workout load will be suggested. Select the suggested weight or any higher weight and confirm with NEXT. When you have selected the new weight you should use the remaining time of the pause mode to recover. The text will be continued automatically.

7. The test will be finished when you press STOP in workout or pause mode. Your results will be displayed on a new screen. Press APPLY to save the results. If you want to perform another test, press REPEAT. If you apply your results you will see your personal power level based on these results.

6.2 Default settings

To open the administration menu you have to touch the device name on the upper edge of the display 10 times. To access the advanced settings, touch the menu title 10 times.

Hardware settings:
To change date, time and units. Touch the setting you want to change. It will then be highlighted according to your color scheme. Press the PLUS and MINUS buttons to modify the setting. When you are finished confirm your changes by pressing SAVE. Or press BACK to return to the User Settings menu.

Laser calibration:
Here you can calibrate the weights if the weight displayed on the Panel PC does not match the weight selected on the device. In the upper section you will see the number of plates and their weight. You start laser calibration with the lowest plate (maximum weight). Select this plate and press SAVE. The Panel PC then displays the next plate and the corresponding weight. Select this plate and press SAVE. This is repeated for each weight plate.
Please note: Always perform a complete weight configuration for all plates, even if only one plate is wrong.

Point calibration:
The point calibration is easier than the laser calibration, but it is not as exact. For point calibration you only need to select one plate. All other distances will be calculated based on the result for this plate. Select the highest plate and press SAVE. You will then automatically return to the User Settings menu.

Language settings:
Touch the language you want to use. It will be checked and highlighted according to your color scheme. Confirm your selection by pressing SAVE. Press BACK to return to the User Settings menu.

Chapter 7 Troubleshooting

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

7 Troubleshooting

Despite the high quality of ERGOFIT 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!

7.1 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 panel pc does not react

- ⊗ Make sure that the device is switched on. (If switched on the power button and the ambient lightning light up)
- ⊗ 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.
- ⊗ 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?
- ⊗ 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 ERGOFIT service center.

7.2 Error messages

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

Message: Unknown card

Problem: The RFID wristband has not yet been initialized in Vitality System or the RFID wristband was not held close enough to the RFID receiver.

Solution: Hold the RFID wristband again with the printed area (ERGOFIT logo) over the RFID receiver until your data is displayed. If this is not the case, reinitialize the RFID wristband. If the issue is not solved, please use a new RFID wristband and restart the initialization.

Message: Please login at the Vitality Coach

Problem: There is no exercise data connected to the RFID wristband.

Solution: The workout was not activated at the Vitality Coach so there is no exercise data connected to the RFID wristband. Go to the Vitality Coach and activate your RFID wristband. Connect the RFID wristband by pressing the „Start Training“ button.

Message: Communication with board lost.

Problem: No connection to device board. Training is not possible.

Solution: Please contact the ERGOFIT service center.

Message: Unknown error

Problem: An unknown error occurred that cannot automatically be solved.

Solution: Please contact the ERGOFIT service center.

Chapter A Appendix

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

A Appendix

A.1 Customer Service

If you cannot correct a malfunction yourself, please get in touch with our customer service

Service:	Phone:	06331/2461-20 international
		06331/2461-45 international
		06331/2461-23 national
		06331/2461-27 national
		06331/2461-29 national
	Telefax:	06331/2461-55
	E-Mail:	service@ergo-fit.de

Repairs of ERGOFIT machines are carried out by highly qualified and competent 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 ERGOFIT.

Service:	Phone:	06331/2461-20 international
		06331/2461-45 international
		06331/2461-23 national
		06331/2461-27 national
		06331/2461-29 national
	Telefax:	06331/2461-55
	E-Mail:	ersatzteile@ergo-fit.de

Please specify the following:

⊗ Model

⊗ Serial number

A.3 Technical specifications

This chapter provides the technical specifications of your strength exercise machine. The specifications are listed in separate charts for each model of the VECTOR Kraft Line and sorted by muscle groups.

A.3.1 Back muscles (* depending on the version)

	VECTOR BACK EXTENSION	VECTOR BACK PULL
Area of application	Fitness/medical	Fitness/medical
Dimensions in cm (L/W/H)	100 x 120 x 155	120 x 145 x 155
Max. weight mounting	90 kg* or 95 kg*	107,5 kg* or 112,5 kg*
Weight plate increment	2,5 kg* or 7,5 kg*	2,5 kg* or 7,5 kg*
Total weight /machine	approx. 235 kg	approx. 205 kg
Max. weight strain	200 kg	200 kg
Adjustments possible	Lever arm	Seat height, Chest pad
Adjustment by pneumatic spring	-	Seat height adjustment
Eccentric	yes	no
Locked dowel pins	yes	yes
Easy entry feature	no	yes
Weight transmission	Steel cable	Steel cable
Ambient temperature: Operation **Ambient temperature: Storage**	+10°C to +40°C -30°C to +50°C	+10°C to +40°C -30°C to +50°C
Relative humidity	30% to 75% non condensing	30% to 75% non condensing

	VECTOR BUTTERFLY REVERSE	VECTOR LAT PULL
Area of application	Fitness/medical	Fitness/medical
Dimensions in cm (L/W/H)	135 x 155 x 155	130 x 170 x 240
Max. weight mounting	90 kg* or 95 kg*	112,5 kg* or 117,5 kg*
Weight plate increment	2,5 kg* or 7,5 kg*	2,5 kg* or 7,5 kg*
Total weight /machine	approx. 190 kg	approx. 220 kg
Max. weight strain	200 kg	200 kg
Adjustments possible	Seat height	Seat height, thigh restraint
Adjustment by pneumatic spring	Seat height adjustment	Seat height adjustment
Eccentric	yes	no
Locked dowel pins	yes	yes
Easy entry feature	no	no
Weight transmission	Steel cable	Steel cable
Ambient temperature: Operation **Ambient temperature: Storage**	+10°C to +40°C -30°C to +50°C	+10°C to +40°C -30°C to +50°C
Relative humidity	30% to 75% non condensing	30% to 75% non condensing

A.3.2 Shoulder muscles (* depending on the version)

	VECTOR SHOULDER ABDUCTION	VECTOR SHOULDER PRESS
Area of application	Fitness/medical	Fitness/medical
Dimensions in cm (L/W/H)	120 x 115 x 155	135 x 135 x 180
Max. weight mounting	85 kg* or 90 kg*	107,5 kg* or 112,5 kg*
Weight plate increment	2,5 kg* or 7,5 kg*	2,5 kg* or 7,5 kg*
Total weight /machine	approx. 200 kg	approx. 210 kg
Max. weight strain	200 kg	200 kg
Adjustments possible	Seat height	Seat height
Adjustment by pneumatic spring	Seat height adjustment	Seat height adjustment
Eccentric	no	no
Locked dowel pins	yes	yes
Easy entry feature	no	no
Weight transmission	Steel cable	Steel cable
Ambient temperature: Operation **Ambient temperature: Storage**	+10°C to +40°C -30°C to +50°C	+10°C to +40°C -30°C to +50°C
Relative humidity	30% to 75% non condensing	30% to 75% non condensing

A.3.3 Chest muscles (* depending on the version)

	VECTOR BUTTERFLY	VECTOR CHEST PRESS
Area of application	Fitness/medical	Fitness/medical
Dimensions in cm (L/W/H)	120 x 155 x 155	145 x 155 x 155
Max. weight mounting	90 kg* or 95 kg*	85 kg* or 90 kg*
Weight plate increment	2,5 kg* or 7,5 kg*	2,5 kg* or 7,5 kg*
Total weight /machine	approx. 200 kg	approx. 230 kg
Max. weight strain	200 kg	200 kg
Adjustments possible	Lever arm	Seat height
Adjustment by pneumatic spring	-	Seat height adjustment
Eccentric	yes	no
Locked dowel pins	yes	yes
Easy entry feature	no	yes
Weight transmission	Steel cable	Steel cable
Ambient temperature: Operation **Ambient temperature: Storage**	+10°C to +40°C -30°C to +50°C	+10°C to +40°C -30°C to +50°C
Relative humidity	30% to 75% non condensing	30% to 75% non condensing

A.3.4 Upper arm muscles (* depending on the version)

	VECTOR BICEPS FLEXION	VECTOR TRICEPS EXTENSION
Area of application	Fitness/medical	Fitness/medical
Dimensions in cm (L/W/H)	95 x 130 x 155	135 x 110 x 180
Max. weight mounting		
Weight plate increment	2,5 kg* or 7,5 kg*	2,5 kg* or 7,5 kg*
Total weight /machine	approx. 170 kg	approx. 185 kg
Max. weight strain	200 kg	200 kg
Adjustments possible	Seat height, lever arm	Seat height, lever arm, Back padding
Adjustment by pneumatic spring	Seat height adjustment	Seat height adjustment
Eccentric	yes	no
Locked dowel pins	yes	yes
Easy entry feature	no	no
Weight transmission	Steel cable	Steel cable
Ambient temperature: Operation **Ambient temperature: Storage**	+10°C to +40°C -30°C to +50°C	+10°C to +40°C -30°C to +50°C
Relative humidity	30% to 75% non condensing	30% to 75% non condensing

A.3.5 Abdominal muscles (* depending on the version)

	VECTOR ABDOMINAL FLEXION	VECTOR ABDOMINAL TORSION
Area of application	Fitness/medical	Fitness/medical
Dimensions in cm (L/W/H)	105 x 130 x 155	135 x 100 x 155
Max. weight mounting	90 kg* or 95 kg*	90 kg* or 95 kg*
Weight plate increment	2,5 kg* or 7,5 kg*	2,5 kg* or 7,5 kg*
Total weight /machine	approx. 220 kg	approx. 170 kg
Max. weight strain	200 kg	200 kg
Adjustments possible	Lever arm	-
Adjustment by pneumatic spring	-	-
Eccentric	yes	no
Locked dowel pins	yes	yes
Easy entry feature	no	no
Weight transmission	Steel cable	Steel cable
Ambient temperature: Operation **Ambient temperature: Storage**	+10°C to +40°C -30°C to +50°C	+10°C to +40°C -30°C to +50°C
Relative humidity	30% to 75% non condensing	30% to 75% non condensing

A.3.6 **Pelvic muscles** (* depending on the version)

	VECTOR ABDUCTOR	VECTOR ADDUCTOR
Area of application	Fitness/medical	Fitness/medical
Dimensions in cm (L/W/H)	140 x 130 x 155	175 x 125 x 155
Max. weight mounting	90 kg* or 95 kg*	90 kg* or 95 kg*
Weight plate increment	2,5 kg* or 7,5 kg*	2,5 kg* or 7,5 kg*
Total weight /machine	approx. 215 kg	approx. 215 kg
Max. weight strain	200 kg	200 kg
Adjustments possible	angle of spread	angle of spread
Adjustment by pneumatic spring	-	-
Eccentric	yes	yes
Locked dowel pins	yes	yes
Easy entry feature	no	no
Weight transmission	Steel cable	Steel cable
Ambient temperature: Operation **Ambient temperature: Storage**	+10°C to +40°C -30°C to +50°C	+10°C to +40°C -30°C to +50°C
Relative humidity	30% to 75% non condensing	30% to 75% non condensing

	VECTOR HIP EXTENSION
Area of application	Fitness/medical
Dimensions in cm (L/W/H)	100 x 125 x 155
Max. weight mounting	85 kg* or 90 kg*
Weight plate increment	2,5 kg* or 7,5 kg*
Total weight /machine	approx. 170 kg
Max. weight strain	200 kg
Adjustments possible	-
Adjustment by pneumatic spring	-
Eccentric	yes
Locked dowel pins	yes
Easy entry feature	no
Weight transmission	Steel cable
Ambient temperature: Operation **Ambient temperature: Storage**	+10°C to +40°C -30°C to +50°C
Relative humidity	30% to 75% non condensing

A.3.7 Thigh muscles (* depending on the version)

	VECTOR LEG EXTENSION	VECTOR LEG FLEXION
Area of application	Fitness/medical	Fitness/medical
Dimensions in cm (L/W/H)	105 x 140 x 155	105 x 145 x 155
Max. weight mounting	107,5 kg* or 112,5 kg*	112,5 kg* or 117,5 kg*
Weight plate increment	2,5 kg* or 7,5 kg*	2,5 kg* or 7,5 kg*
Total weight /machine	approx. 265 kg	approx. 255 kg
Max. weight strain	200 kg	200 kg
Adjustments possible	Back rest, leg length, lever arm	Lever arm, foot pad, back rest, thigh restraint
Adjustment by pneumatic spring	-	Seat hight adjustment
Eccentric	yes	yes
Locked dowel pins	yes	yes
Easy entry feature	no	no
Weight transmission	Steel cable	Steel cable
Ambient temperature: Operation **Ambient temperature: Storage**	+10°C to +40°C -30°C to +50°C	+10°C to +40°C -30°C to +50°C
Relative humidity	30% to 75% non condensing	30% to 75% non condensing

	VECTOR SQUAT PRESS
Area of application	Fitness/medical
Dimensions in cm (L/W/H)	100 x 240 x 155
Max. weight mounting	195 kg* or 200 kg*
Weight plate increment	2,5 kg* or 7,5 kg*
Total weight /machine	approx. 415 kg
Max. weight strain	200 kg
Adjustments possible	Rückenlehne, Beinlänge, Fußauflage
Adjustment by pneumatic spring	-
Eccentric	nein
Locked dowel pins	ja
Easy entry feature	nein
Weight transmission	Stahlseil
Ambient temperature: Operation **Ambient temperature: Storage**	+10°C bis +40°C -30°C bis +50°C
Relative humidity	30% bis 75% nicht kondensiert

A.3.8 **Multifunctional** (* depending on the version)

	VECTOR CABLE Standing version	VECTOR CABLE Wall-mounted version
Area of application	Fitness / medical	Fitness / medical
Dimensions in cm (L/W/H)	120 x 160 x 225	86 x 41 x 225
Max. weight mounting / Weight plate increment	75 kg / 5kg	75 kg / 5kg
Total weight /machine	approx. 156 kg	approx. 123 kg
Max. weight strain	-	-
Adjustments possible	-	-
Adjustment by pneumatic spring	-	-
Eccentric	no	no
Locked dowel pins	yes	yes
Easy entry feature	no	no
Weight transmission	Kevlar cable	Kevlar cable
Ambient temperature: Operation **Ambient temperature: Storage**	+10°C to +40°C -30°C to +50°C	+10°C to +40°C -30°C to +50°C
Relative humidity	30% to 75% non condensing	30% to 75% non condensing

	VECTOR CABLE CROSSOVER	VECTOR CABLE TOWER
Area of application	Fitness	Fitness
Dimensions in cm (L/W/H)	91 x 338 x 218	120 x 290 x 220
Max. weight mounting / Weight plate increment	2 x 75 kg / 5kg	2 x 100 kg, 2 x 75 kg / 5kg
Total weight /machine	approx. 250 kg	approx. 530 kg
Max. weight strain	-	200 kg
Adjustments possible	-	thigh restraint
Adjustment by pneumatic spring	-	-
Eccentric	no	no
Locked dowel pins	yes	yes
Easy entry feature	no	no
Weight transmission	Steel cable	Steel cable
Ambient temperature: Operation **Ambient temperature: Storage**	+10°C to +40°C -30°C to +50°C	+10°C to +40°C -30°C to +50°C
Relative humidity	30% to 75% non condensing	30% to 75% non condensing

	VECTOR SEATED DIP	VECTOR PULL UP/DIP
Area of application	Fitness/medical	Fitness/medical
Dimensions in cm (L/W/H)	162 x 117 x 155	81 x 120 x 215
Max. weight mounting	90 kg* or 95 kg*	90 kg* or 95 kg*
Weight plate increment	2,5 kg* or 7,5 kg*	2,5 kg* or 7,5 kg*
Total weight /machine	approx. 210 kg	approx. 210 kg
Max. weight strain	200 kg	200 kg
Adjustments possible	Seat hight, Back pad	-
Adjustment by pneumatic spring	Seat hight adjustment	-
Eccentric	no	no
Locked dowel pins	yes	yes
Easy entry feature	no	no
Weight transmission	Steel cable	Steel cable
Ambient temperature: Operation **Ambient temperature: Storage**	+10°C to +40°C -30°C to +50°C	+10°C to +40°C -30°C to +50°C
Relative humidity	30% to 75% non condensing	30% to 75% non condensing

	VECTOR MULTI PRESS
Area of application	Fitness
Dimensions in cm (L/W/H)	170 x 210 x 220
Max. load	300 kg
Total weight /machine	approx. 150 kg
Max. weight strain	-
Adjustments possible	-
Adjustment by pneumatic spring	-
Eccentric	no
Locked dowel pins	no
Easy entry feature	no
Weight transmission	-
Ambient temperature: Operation **Ambient temperature: Storage**	+10°C to +40°C -30°C to +50°C
Relative humidity	30% to 75% non condensing
bore diameter weight plates	50/51mm

A.3.9 Benches

	VECTOR COMPLEX BACK BENCH	VECTOR FLAT BENCH
Area of application	Fitness	Fitness
Dimensions in cm (L/B/H)	138 x 68 x 94	105 x 60 x 40
Total weight /machine	approx. 50 kg	approx. 25 kg
Max. weight-loading (user weight + weight mounting)	180 kg (user weight only)	200 kg (user weight only)
Adjustments possible	Thigh pad, Leg pad	-
Adjustment by pneumatic spring	Thigh pad	-
Ambient temperature: Operation Ambient temperature: Storage	+10°C to +40°C -30°C to +50°C	+10°C to +40°C -30°C to +50°C
Relative humidity	30% to 75% non condensing	30% to 75% non condensing

	VECTOR MULTI BENCH	VECTOR OLYMPIC FLAT BENCH
Area of application	Fitness	Fitness
Dimensions in cm (L/B/H)	135 x 60 x 100	160 x 125 x 125
Total weight /machine	approx. 35 kg	approx. 50 kg
Max. weight-loading (user weight + weight mounting)	200 kg (user weight only)	400 kg
Adjustments possible	Back pad	-
Adjustment by pneumatic spring	-	-
Ambient temperature: Operation Ambient temperature: Storage	+10°C to +40°C -30°C to +50°C	+10°C to +40°C -30°C to +50°C
Relative humidity	30% to 75% non condensing	30% to 75% non condensing

	VECTOR OLYMPIC INCLINE BENCH	VECTOR SCOTT BENCH
Area of application	Fitness	Fitness
Dimensions in cm (L/B/H)	160 x 125 x 135	160 x 125 x 125
Total weight /machine	approx. 45 kg	approx. 50 kg
Max. weight-loading (user weight + weight mounting)	350 kg	250 kg
Adjustments possible	Seat height	Seat height
Adjustment by pneumatic spring	-	Seat height adjustment
Ambient temperature: Operation **Ambient temperature: Storage**	+10°C to +40°C -30°C to +50°C	+10°C to +40°C -30°C to +50°C
Relative humidity	30% to 75% non condensing	30% to 75% non condensing

	VECTOR SQUAT RACK
Area of application	Fitness
Dimensions in cm (L/B/H)	175 x 120 x 175
Total weight /machine	approx. 65 kg
Max. weight-loading (user weight + weight mounting)	300 kg
Adjustments possible	-
Adjustment by pneumatic spring	-
Ambient temperature: Operation **Ambient temperature: Storage**	+10°C to +40°C -30°C to +50°C
Relative humidity	30% to 75% non condensing
bore diameter weight plates	min. 30 mm

A.4 Electromagnetic Emission and Interference Immunity

ERGOFIT 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 ERGOFIT 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, ERGOFIT 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. (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 ERGOFIT system, including the cables specified by the manufacturer.

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

ERGOFIT 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.

Electromagnetic Interference Measurements	Required < Criterion	Observed < Criterion
RF emissions in compliance with CISPR 11, German version in compliance with DIN EN 55011, conducted radio interference voltage	Class B	Class B
RF emissions in compliance with CISPR 11, German version in compliance with DIN EN 55011, radiated radio interference voltage	Class B	Class B
Distortion due to harmonics in compliance with IEC 61000-3-2	Class A	Met
Voltage fluctuations and flicker in compliance with IEC 61000-3-3	Pt < 1	Pt < 1

Electromagnetic interference immunity, compliance and test level

Electromagnetic Interference immunity Measurements	Required	Observed
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 filed for supply frequency (50/60 Hz) in compliance with IEC 61000-4-8	30 A/m 50Hz or 60Hz	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 6100-4-6	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 % 10ms → B 60 % 100 ms → C >98 %5000ms → C	30 % 10ms → A 60 % 100 ms → A >98 %5,000ms → A

Immunity to wireless communication devices (according to IEC 61000-4-3/DIN EN 61000-4-3, RF radiation)					
Test Frequency	**Range (MHz) Service**	**Max. Power (W)**	**Distance (m)**	**Test level required (V/m)**	**Test level achieved (V/m)**
385	380 – 390 TETRA 400	1.8	0,3	27	28
450	430 – 470 GMRS 460, FRS 460	2	0,3	28	28
710 745 780	704 – 787 LTE Band 13, 17	0,2	0,3	9	9
810 870 930	800 – 960 GSM 800 /900, TETRA 800, iDEN 820, CDMA 850, LTE Range 5	2	0,3	28	28
1720 1845 1970	1700 – 1990 GSM 1800, CDMA 1900, GSM 1900, DECT, LTE Range 1, 3, 4, 25, UMTS	2	0,3	28	28
2450	2400 – 2570 Bluetooth, WLAN 802.11 b/g/n, RFID 2450, LTE Range 7	2	0,3	28	28
5240 5500 5785	5100 – 5800 WLAN 802.11 a/n	0,2	0,3	9	9

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