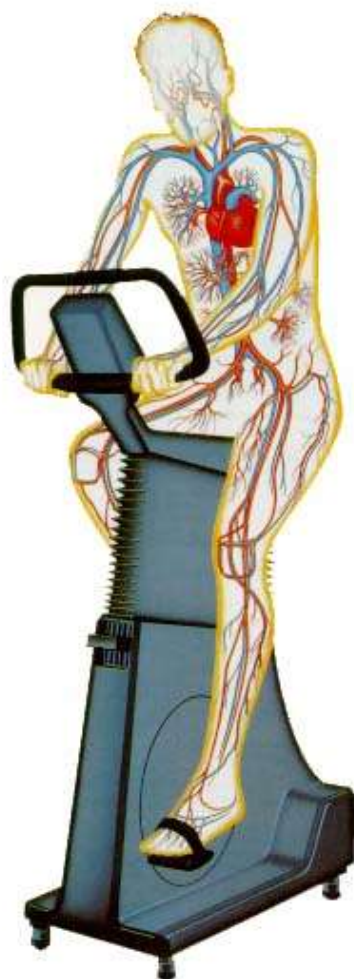


**Operating Manual
User Guide and Additional Programs
Conditronic 100**



OXYGEN FOR EVERY MUSCLE

Dynavit The Original

- Test number : 2004

ISO EN 13485 certified



People living in today's performance-oriented society are faced with steadily growing psychological and physical demands.

You, "the psychosomatic human entity", have to create and maintain the ideal conditions in both areas to successfully meet those challenges. The prerequisites for an improved overall well-being are an efficient cardio-vascular system paired with a positive attitude.

The appropriate clothing

You have to protect your body from overheating yet, protect your back from getting chilly.

Preferrably wear functional sports clothing that transports sweat away from the skin. The dryer the skin, the less harm can be done to the muscles by the chilling effects of evaporating sweat.

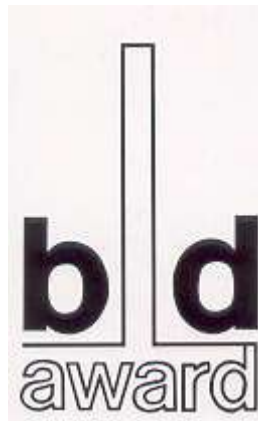
Always wear appropriate shoes!! (sports shoes)

Content

Preface	pages 1 - 2
The Dynavit-System ...	page 3
...Fits anywhere	page 4
Invitation to a 12-Minutes Assessment Exercise	pages 5 - 10
To determine the Dynavit Level	
User Terminal C100	page 11
Navigating the Computer-Dialog	pages 12 - 16
The Exercise-Programs	pages 17 - 19
Personal Career-Plan for the Body	pages 20 - 25
Evaluating Progress and Vitality	pages 26 - 29
Dynavit Service	page 30
Dynavit Exercise Diagram and Memory Assignment	pages 31 - 33
Care, Maintenance and Technical Data	pages 34 - 35
Appendix and Additional Programs	page 36

Dynavit guarantees:

- Medically tested, dependable software with integrated overexertion protection
- High-quality, long-lasting material and sturdy structure – Made in Germany
- Future oriented technology and timeless design
- Assured results and constant self-diagnosis (the Dynavit Ergometer is running an auto-test each time it is switched on)
- More than 25 years of research, testing and application
- Considering future developments and providing the opportunity to integrate updated programs any time
- Individual assistance with any arising issue and prompt service



The Dynavit Ergometer won the "Busse Longlife Design Award", honoring its timeless esthetics. Setting the standard in the most exclusive gyms with the Dynavit Ergometeric Bikes is yet another achievement

„Mens sana in corpore sano“

Even the romans 2000 years ago believed that there is a healthy mind in a healthy body.

Every cell in your body needs oxygen. The more efficient your cardio-vascular system is the faster the oxygen is transported to the cells. The better this system works the better you'll feel.

The Dynavit Ergometric Bike enables you to determine and improve your personal performance capability. You can maintain a functionally younger self despite of what your birth certificate says: "Stay 40 for 20 years". Computer-assisted – to avoid the danger of overexertion! The Dynavit Ergometer was developed in cooperation with institutes for cardio-vascular and sports medicine research as well as sports academies. It is used wherever well-dosed endurance exercise is demanded:

- professional athlete's training
- in research and sports medicine
- in VIP's gyms
- at the leading gyms of the fitness branch
- in diagnostics
- in rehabilitation

Dynavit was the first manufacturer of computer-controlled ergometers more than 25 years ago. Based on sound experience Dynavit offers a complete range of computer-controlled ergometers for the entire body: including leg-, arm- und recumbent ergometers, treadmills and more.

Improve your health and vitality, enhance your overall well-being. Set realistic goals when you get started. Getting there is half the fun.....

0049-63135100-30

Feel free to call us if you have questions, we'll be happy to assist you.

Are you interested in our special impact programs? Programs of renowned medical professors can be integrated into your computer terminal: e.g. the WHO-standard program, programs by Prof. Hollmann, Prof. Mellerowicz and others. Their number is constantly increasing.

“Get started today“ – improve your well-being. This brochure will be your guideline.

PS for Managers:

In the future, if others notice that your endurance defies even the longest meetings, you handle stress calmly and that you're taking two steps at a time when walking up the stairs – Pass on the secret of your success.

Management by Dynavit!

The Dynavit System

- 1. Mount terminal and fasten screws**
- 2. Insert metal installation protector as described in Appendix**

Service friendly:

Due to modularity

The terminal can be sent in for service separately. There won't be any downtime if you have a second terminal at hand.

Updates to the latest technical standards are simple thanks to the easy terminal replacement – even years later!

- Can be connected to a personal computer for data capturing and printing. Data printed in numbers and graphics (Interface: IBM-compatible).

... fits anywhere

The Dynavit ergometer has already become a design classic. It is exhibited in the respected Museum of Modern Art in Munich. There's no reason to hide a Dynavit ergometer designed like this.

Create ideal conditions for yourself. Dynavit ergometer fit anywhere:

Close to a window or even a covered patio if you prefer fresh air while working out.

Near tv sets and/or your entertainment system if you want to make multiple use of your time.

In your home gym or in the living area

Consult your physician

- if you are over 50 years old.
- if you're over 40 and haven't exercised for years.
- if you have reasonable doubts about your health condition e.g. after hospitalization, if you have a general feeling of weakness, or if you already had had a heart attack.

The doctor will do an ECG strain test on an ergometer. Once your endurance is determined he can give you exact exercise instructions.

<p>Heart Rate Limit: 180 minus Age</p>

Invitation to a 12-Minutes Assessment Exercise

for good posture

for more than 300° traversable.

Functional seat

comfortable enough for long exercise sessions.

Seat height

individually adjustable.

You have reached the correct position if your heel touches the pedal when your leg is extended .



Foot loops

to prevent slipping.

With adjustable velcro band.

On-Off power switch

The data is saved even if the equipment is disconnected.

Adjustable feet

for a firm stand

Tipping protection

to ensure stability

Step

for easy mounting

Only mount the bike from the rear!

On casters

for easy moving



1. Turn on the main switch. Power unit and processor are powering up within seconds. Adjust seat height using the front handle. Hold on to the front handle and mount the ergometer using the two steps integrated in the back of the frame . Now follow the steps on the display.

BITTE WARTEN DMS-OFFSET –1023 NICHT TRETEN
--

PLEASE WAIT DMS-OFFSET –1023 DO NOT PEDAL

2.

On initial use no memory slot is assigned. Therefore, press ENTER.

E	SPEICHERPLATZ EINGEBEN 1-99 – ENTER
	ODER NUR ENTER
	BITTE WÄHLEN SIE IHR PRPGRAMM

ENTER MEMORY SLOT 1-99 – ENTER
OR JUST PRESS ENTER
PLEASE SELECT A PROGRAM

3.

There are 4 programs available. (10 additional programs are optional, see page 19)

PROGRAMM P1 DYNAVIT VON 25 - 400 W
--

PROGRAM P1 DYNAVIT FROM 25 TO 400 W

PROGRAMM P2 AUTOMATIK DER COMPUTER STEUERT IHRE LEISTUNG
--

PROGRAM P2 AUTOMATIC COMPUTER SETS INTENSITY

PROGRAMM P3 REKONVALESZENZ VON 5 - 150 W
--

PROGRAM P3 REHABILITATION FROM 5 TO 150 W

PROGRAMM P4 SPORTLER VON 80 - 700 W

PROGRAM P4 ATHLETE FROM 80 TO 700 W

Use the Automatic program P2 o do your assessment exercise.

Press P2 and confirm by pressing ENTER.

P2	E
<input type="checkbox"/>	<input type="checkbox"/>

4.

The computer prompts you to enter your personal data.

Example: 35 years

3 5 E

ALTER IN JAHREN
EINGEBEN
10-89 - ENTER

INPUT AGE IN YEARS
10-89 - ENTER

Example: 75 kg

7 5 E

GEWICHT IN KILO
EINGEBEN
20 - 300 - ENTER

INPUT WEIGHT IN KG
20 - 300 - ENTER

Example: male

E

GESCHELCHT
EINGEBEN
1 = MÄNNLICH
2 = WEIBLICH
ENTER

INPUT GENDER
1 = MALE
2 = FEMALE
ENTER

For the assessment exercise it is sufficient to just press ENTER.

E

GEWÜNSCHTE
LEISTUNGS-STUFEN
IN WATT EINGEBEN
5 - 50 - ENTER
ODER NUR ENTER

INPUT SELECTED
TENSION LEVEL
5 - 50 - ENTER
OR JUST ENTER

5.

You can save your input. For your next work out only select the pertaining memory slot.

Example: memory slot 1

1 E

SPEICHERPLATZ
EINGEBEN
1 - 99 - ENTER
ODER NUR ENTER

INPUT MEMORY SLOT
1 - 99 - ENTER
OR JUST ENTER

The data is saved even in the event of power failure.

6.

Please put on the chest strap for heart rate reading

7.

Start to pedal steadily. The RPM control should light up green.
The tension is set automatically.

After 4 minutes of work out your heart rate should be 40% above the heart rate you started out with. Then the computer controls the tension so that the heart rate stays within the ideal individual range – preventing sore muscles!

8.

Want to determine your personal fitness level?

Determine your Dynavit rate and find out. The table shows you if you are physiologically as young as you feel. Press the Dynavit rate key and read the display. (After 12 minutes of exercise at the earliest).

Dynavit Rate:

After 12 minutes the Dynavit ergometer automatically displays the current performance rate, in other words: your fitness level.

After every work out you'll know where you stand, whether your fitness has improved or diminished.

The computer generates this fitness assessment – the Dynavit rate – from the heart rate and the performance during the work out. The results are being compared to values considered age and gender specific medical average.

The performance is measured at a heart rate of 150/min (the so-called PWC 150 = Physical Work Capacity 150). Is the actual heart rate higher or lower the computer starts to interpolate or extrapolate the performance to the heart rate 150/min.

This objective source value, serving as the base of the Dynavit evaluation, shows that adults generally have the same relation between performance and heart rate as long-term surveys at the Institute for Cardio-Vascular and Sports Medicine Research at the Sports Academy, Cologne show.

The rating also considers the varying cardio-vascular performance capacity of men and women.

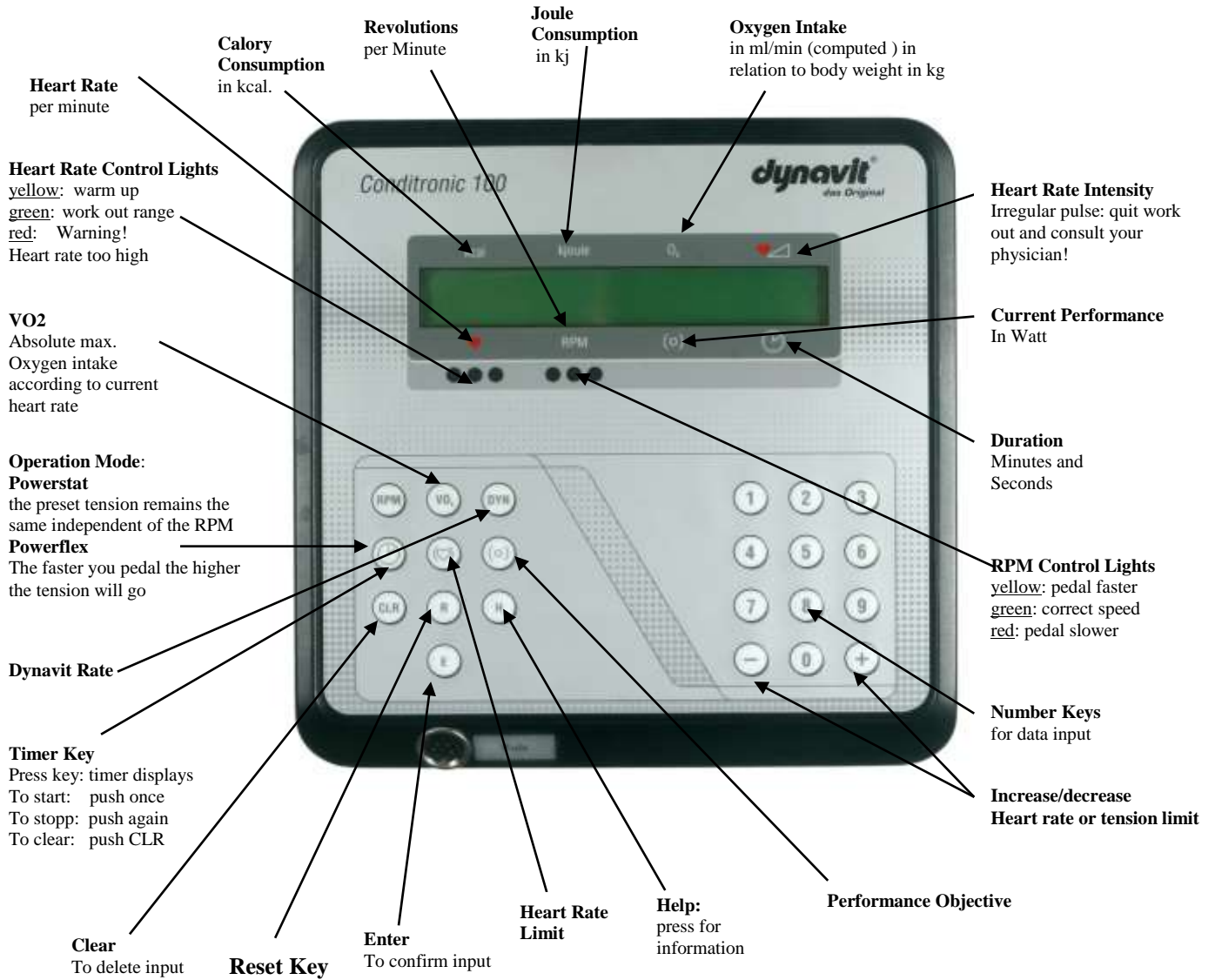
The performance rate of persons of different age, gender and weight is being made comparable by the Dynavit rate.

Dynavit created a comprehensible, medically significant evaluation and set a standard. More "Dynavit" means an improved performance and a stronger cardio-vascular system!

Dynavit Rating

dynavit	Performance Capacity
under 50	very poor
50 – 74	poor
75 – 99	average
100 – 124	good
125 – 150	very good
over 150	excellent

Operating Terminal C100



Computer dialog

E
 confirm every input with
ENTER

JEDE EINGABE MIT
 ENTER
 BESTÄTIGEN
 UND ABSCHLIESSEN

CONFIRM EVERY
 INPUT
 PRESSING ENTER TO
 COMPLETE

CLR CLEAR – to delete
 erroneous input

CLEAR
 LÖSCHEN VON
 ZAHLEN ODER
 NULLSETZEN DER
 STOPPUHR

CLEAR
 DELETE INPUT OR
 SET TIMER TO ZERO

H **HELP**-press H for more
 Information
 The display shows:

DRÜCKEN SIE
 IRGEND EINE TASTE

PRESS ANY KEY

Depending on which key you pressed
 The display will show for 10 seconds:

-
 - WERT NIEDRIGER

- DECREASE VALUE

+
 + WERT HÖHER

+ INCREASE VALUE

Vo²
 Theoretische O²
 Aufnahme des
 Körpers

Theoretical O²
 intake of the body

clock
 STOPPUHR
 START =
 1 MAL DRÜCKEN
 STOPP =
 NOCHMAL DRÜCKEN
 LÖSCHEN =
 CLR DRÜCKEN

TIMER START =
 PRESS ONCE
 TIMER STOP =
 PRESS AGAIN
 DELETE =
 PRESS CLR

♥
 PULSGRENZE =
 180 MINUS ALTER
 VERÄNDERN = TASTE
 ZWEIMAL DRÜCKEN
 DAN
 -WERT NIEDRIGER
 +WERT HÖHER
 ENTER

HEART RATE LIMIT =
 180 MINUS AGE
 TO CHANGE =
 PRESS KEY TWICE
 THEN USE
 -DECREASE VALUE
 +INCREASE VALUE
 ENTER

(●)
 DYN-WERT =
 FITNESS WERT
 DURCHSCHNITT
 IST 100
 GRÖßER 100
 IST BESSER
 KLEINER 100
 IST WENIGER GUT ALS
 DURCHSCHNITT

DYN-RATE =
 FITNESS RATING
 AVERAGE = 100
 HIGHER THAN 100 =
 ABOVE AVERAGE
 LOWER THAN 100 =
 BELOW AVERAGE

rpm
 BETRIEBSART
 POWERSTAT/
 POWERFLEX
 DAS BEDEUTET:
 POWERSTAT =
 KONSTANTE
 LEISTUNG EGAL
 WIE SCHNELL SIE
 TRETEN
 POWERFLEX =
 JE SCHNELLER
 SIE TRETEN
 DESTO GRÖßER
 DIE LEISTUNG

OPERATION MODE
 POWERSTAT/
 POWERFLEX
 MEANING:
 POWERSTAT =
 STEADY TENSION
 INDEPENDENT OF
 SPEED
 POWERFLEX =
 THE HIGHER THE
 SPEED THE HIGHER
 THE TENSION

(●)
 LEISTUNG IN WATT
 VERÄNDERN = TASTE
 ZWEIMAL DRÜCKEN
 DANN
 -WERT NIEDRIGER
 +WERT HÖHER
 ENTER

TENSION IN WATT
 TO CHANGE =
 PRESS KEY TWICE
 THEN USE
 -DECREASE VALUE
 +INCREASE VALUE
 ENTER

Use the number keys to input all required data.

R = Reset key, to restart the ergometer.

Searching free memory slots

There are 99 memory slots. Looking for a specific memory slot – e.g. slot 52?

Press:

H 9 5 2 E
□ □ □ □ □

Display shows either

NICHT BELEGT	NOT USED
--------------	----------

Or the program saved in slot 52 – z.B.

PROGRAMM 2	PROGRAM 2
---------------	--------------

In case data saved in a specific slot is not required anymore you can simply overwrite it, no previous deletion required.

Current program query

Depending on configuration level up to 99 programs may be stored (incl. P1 to P4). You can check which program you are currently using during your work out.

Press:

H 8 E
□ □ □

The display indicates the program – e.g.

PROGRAMM 2	PROGRAM 2
---------------	--------------

Program guide

For example you want to know more about program 2 just press "0" and the number of the desired program:

H 0 2 E
□ □ □ □

Display shows:

PROGRAMM P2
AUTOMATIK
DER COMPUTER
STEUERT IHRE
LEISTUNG

PROGRAM P2
AUTOMATIC
TENSION IS
COMPUTER-
CONTROLLED

Work out programs

Getting in shape with Dynavit ergometric exercise means under medical aspects:

- strengthen your cardio-vascular system
- deepen your respiration
- speeding up your metabolism
- improve your endurance

This is actively and effectively preventing premature aging.

Here are the necessary program informations and precautions to get you going.

Heart rate reading with a chest strap

- slightly wet the electrodes to allow for better signal transmission
- then put on the chest strap
- heart rate and intensity will be displayed

Don't exceed your individual heart rate limit during exercise.

Consult physician:

After longer illness, when recuperating, or when you suffer from chronic illness. Otherwise:

<p>Heart Rate Limit: 180 minus Age</p>

Irregular Heart Rate: Quit work out and consult a physician!

Warning!

Heart rate monitoring system may be inaccurate.

Excessive exercise may be harmful to your body or may even lead to even death. Stop work out immediately when feeling light-headed and/or dizzy!

Starting tension and tension increase

There are several ways to determine your individual starting tension:

- Ask your physician
- Start your work out with a gentle warm up pedaling. Your body needs time to adjust to the activity. This might take up to 4 minutes. Then start your endurance exercise.
- Initially use the automatic program.

In this mode the computer will guide you through the work out. You can monitor the starting tension steadily increasing until you reach the "steady state range"(see page 17). You can use those rates for orientation when applying other programs.

Changing heart rate and tension limits

For example: changing the tension from 115 W to 135 W.

Option 1: in 5 Watt steps

Press:	(●)	<input type="checkbox"/>	LEISTUNG	115	TENSION	115
	(●)	<input type="checkbox"/>		115		115
	+	<input type="checkbox"/>				
	+	<input type="checkbox"/>		120		120
				125		125
	+	<input type="checkbox"/>				
	+	<input type="checkbox"/>		130		130
			135		135	
	E	<input type="checkbox"/>				

Press ENTER to confirm. The regular screen will display again.

Option 2: direct input

Press:	(●)	<input type="checkbox"/>	LEISTUNG	115	TENSION	115
	(●)	<input type="checkbox"/>		115		115
	CLR	<input type="checkbox"/>				
	1	<input type="checkbox"/>		1		1
	3	<input type="checkbox"/>				
	5	<input type="checkbox"/>		13		13
				135		135
	E	<input type="checkbox"/>				

Press ENTER to confirm. The regular screen will display again.

The heart rate limit can be changed likewise – consult your physician.

Determining your individual RPM

Pedal as fast as it feels comfortable to you. The higher the speed the higher the tension will rise in the Powerflex mode. The Powerstat mode ensures the tension remains stable regardless of the speed/RPM.

Rule of Thumb:

Low RPM are for strength.
Leg muscles are built up.
Higher RPM are for endurance.
Therefore perfect for those aiming
for toned, slender legs.

P1

Dynavit program

This is the "Standard Program". Tension can be selected from 25 to 400 W.

P3

Rehabilitation program

For beginners and persons with weak cardio-vascular system; tension can be selected from 15 to 150 W. This program is especially suitable for low RPM work out.

P4

Athletes program

For athletes or after several months of ergometric exercise, tension can be selected from 80 to 700 W.

Steady State Range:

This is the range where performance and oxygen intake are balanced. Within this range it is possible to do endurance exercise without health risk

Procedure for P1 P3 P4

- Input age, weight and gender.
- The heart rate will be computed automatically and displayed. Confirm or change if necessary – ask your physician!
- Starting tension automatically set at lowest level. Confirm or change if desired.
- Heart rate and intensity are being displayed, as well as:
- Calory-/Joule-consumption, O²-rate, RPM, duration, performance.
- Increase tension so that after 4 minutes your heart rate is approximately 40% above your resting heart rate.

Keep both control lights in the green! The computer takes 5 minutes to determine the Dynavit rate.



Therefore, no tension change between the 7th and the 12th minute.

- After the 12th minute the Dynavit rate is being displayed automatically.
- Exercise for at least 12 minutes but preferable is a 20 to 30 minute work out.

P2

Automatic program

The computer controls your exercise performance based on your personal data. Tensions up to 400 W are being selected automatically. This automatic tension adjustment depends on your heart rate's reaction to this physical demand. Switching to Powerflex (tension related to RPM) is not possible.

- Input age, weight and gender.
- The heart rate will be computed automatically and displayed. Confirm or change if necessary – ask your physician!
- Starting tension automatically set at 25 Watt.
- Heart rate and intensity are being displayed, as well as:
- Calory-/Joule-consumption, O²-rate, RPM, duration, performance.
- The tension is automatically increased so that after 4 minutes your heart rate is approximately 40% above your resting heart rate.
- A significant Dynavit rate can only be generated after at least 5 minutes of exercise at a steady pace.
- In case the heart rate display shows 0 or drops to 0 during work out the tension will drop to the initial setting.
- If the heart rate is too high (red control light comes on) the ergometer is reducing the tension in steps of 10 W per minute.

Additional programs available upon request:

- 5 Progressive Program:
15 levels to select (your personal data is saved).
- 6 Progressive Program Memo:
15 levels to select
- 7 Average and Peak Performance:
These rates are displayed every minute.
- 8 Average and Peak Performance:
The rates are displayed at the end of the selected time.
- 9 Progressive Program by Professor Hollmann:
Starting tension 30 W; time per level 3 minutes; tension increase 40 W – to your heart rate limit.
- 10 Progressive Program by Professor Mellerowicz:
Starting tension 25 W; time per level 2 minutes; tension increase 25 W – to your heart rate limit
- 11 Endurance Program
- 12 Progressive Program by BAL:
(BAL = Bundesausschuss Leistungssport/federal committee for professional athletics)
Starting tension 50 W; time per level 3 minutes; tension increase 50 W – to your heart rate limit.
- 13 W-170-Program:
Starting tension 15 W; time per level 10 seconds; tension increase 5 W – to your heart rate limit.
- 14 Progressive Program
Freely select starting tension, tension increase and time per level.

Information on new additional programs can be obtained at Dynavit

ATTENTION!!

All heart rate controlled programs will reset to initial setting if the heart rate display shows 0.

Personal career plan for your body

Your professional career can only become the career of your life if you can keep up physically!

This demands high performance:

Heart, cardio-vascular system, respiration and metabolism have to step up to the daily challenges of life; even though you might not be able to balance the amount of sedentary and physical activity.

You can achieve a lot with regularly scheduled ergometric exercise:

- Train the cardio-vascular system, lower your blood pressure, improve blood flow.
- Increase your endurance specifically for upcoming strenuous challenges at work or before sporting or hiking vacations
- Vent off stress and emotional discomfort
- Heart attack, angina pectoris and thrombosis risk prevention
- Relieve chronic illnesses (arteriosclerosis, asthma...)
- Counteract back problems
- Improve your body's ability to regenerate
- Boost your immune system
- Keeping physically younger than your birth certificate says. (Tests have shown that 55 to 70 year old persons can profit from exercise just as well as 30 year old persons. After 12 weeks of exercise they achieved the same results as untrained persons 20 years younger)!
- Loose weight in conjunction with an appropriate diet. (dietary counseling by your physician)
- Reduce fat tissue and build up muscle – the body appears slimmer while the weight stays unchanged
- Exercise and tone leg muscles

The lower your endurance is when starting out, the easier you'll make noticeable progress within a short time. If you want to improve an already good fitness level, you require a longer and more intense work out.

Pausing from your regular exercise for a longer period of time due to e.g. illness or travel, the fitness level will decrease depending on the duration of the break but can be brought up to the former level relatively fast .

Consult your physician or trainer. Or ask Dynavit.

General exercising guidelines

These listed exercising guidelines are internationally acknowledged. NASA uses them as a regular component of their astronaut training. Ergometric work out meets these requirements.

Rule 1:

Largest possible muscle groups should be used for dynamic exercise (at least 1/6 of the skeletal muscles). Static exercise like pressing weights is not sufficient.

Rule 2:

Exercise 3 to 4 times a week, better yet daily.
30 – 40 minutes per session is the ideal work out.

Rule 3:

Set the tension during work out so that your heart rate is within the steady-state range.
(= 180 minus age – heart rate control lights up green).

Insufficient work out intensity will lead to little or no training effect . Overly elevated work out intensity leads to sore muscles or even health risks. Computer-assisted ergometric exercise prevents this.

Minimum: 12 minutes, but then on a daily basis

Only 12 minutes a day of ergometric work out will deliver results you can feel and measure. You can see and feel your Dynavit rate improving.

Also, it can be used to assess your performance objectively, e.g. as a basis for determining your individual fitness level. Is your Dynavit rate within the standard? Are you above or below average?

After exercising for 12 minutes a day for 2 – 4 weeks you can detect considerable improvement. However, after approximately 10 – 12 weeks of regular work out at the same tension you have achieved the maximum improvement. Increase the duration of your exercise at first; then increase the tension. Or increase the duration and the tension alternately from work out session to work out session.

Combination with other exercises

Don't overexert yourself. No further endurance exercise should follow a consequently carried out ergometric work out.







Ideally, the ergometer-training is used as warm up before and an addition after weight lifting. Blood circulation and the decompositions of metabolic residue improve.

4 Phases for fitness and sport

Phase 1: Warm up for 10 to 15 minutes pedaling, slowly bringing your heart rate into the steady-state range. Optional: dismount, loosen and stretch the muscles in legs, hips, loin and shoulders.

Phase 2: Keep the heart rate in the steady-state range. Gradually increase the exercise time to 40 minutes; after that increase the tension.

Phase 3: Cool down for 5 to 10 minutes pedaling, keeping your heart rate at around 110.

<p>Unterschenkel</p> 	<p>Quadrizeps</p> 	<p>Leiste</p> 
<p>Lean against wall, place one foot back, turn hips forward . Place rear foot flat on floor, straighten knee. Repeat with other leg</p>	<p>Support yourself on wall; bring one foot up in the back, holding it in your hand. Pull foot lightly towards buttocks, keep back straight. Repeat with other leg.</p>	<p>Sit on floor, put soles of feet together, hold on to toes, slightly tilt upper body forward, stretching inside of thighs and lower back.</p>
<p>Kniebeuge und Beckenmuskulatur</p> 	<p>Oberkörper</p> 	<p>Nacken</p> 
<p>Lie on floor, pull one knee to chest, stretch other leg. Gently pull bent leg closer to chest. Repeat with other leg.</p>	<p>Stand up, reach back and clasp fingers, move arms up and down. Push chest up, hold head straight:: feel stretch from shoulders to upper arms and chest.</p>	<p>Carefully tilt head back looking straight up. Slowly roll head left and then right, keeping shoulders and back as straight as possible. Repeat rolling motion several times.</p>

Sustaining your health

The gentlest method of health sustainment, suitable for health sports (-recommended by Günter Traub, national coach and world record keeper):

Exercise weeks 1 and 2:

- Use rehabilitation program P3
- Work out 4 times a week
- Push your heart rate to 110 with the corresponding tension setting. Sustain this heart rate for 1 minute. Then recover for 1 minute at 25 Watt. Repeat this cycle 10 times per training session.

Exercise weeks 3 to 25:

- Work out 6 times a week
- Push your heart rate to 120 – 130 with the corresponding tension setting. Sustain this heart rate for 3 minutes. Then recover for 1 minute at 25 Watt. Repeat this cycle 10 times per training session.

After 6 months:

- You should have reached following goal: exercising for 40 minutes in the steady state range without being out of breath (you should be able to carry on a conversation).

Slowly increasing the tension

At first increase the duration and the number of work out sessions per week, then increase the tension. For instance, starting with 12 minutes, then 20, 30 and 40 minutes per session, first twice a week, then 3 times and at last 4 to 6 times a week. Only when you are able to exercise 30 to 40 minutes 3 to 4 times a week you should gradually increase the tension. Ensure that your heart rate monitor light stays green.

Beating the critical period!

Give your organism time to adjust to the new activity, especially if you are over 40. The first 10 days are the critical period you'll have to master. The following happens: The first day you feel good, the second day also. On the third day your muscles feel slightly sore and you are experiencing an overall feeling of fatigue. From the 4th to the 7th day there is a decline in performance and enthusiasm.

It will take a while to reach the initial level from the first day again. Many give up the systematic exercise before that period is overcome! – Are you one of them?

Picking up after longer exercise-free intervals

Start out using the automatic program. It'll be the means to determine your current performance ability. Monitor your exercise progress by writing down the tension in Watts for orientation when choosing the program for later work out sessions.

Pleasantly exhausted after a half hour work out

An individually set performance profile will leave you relaxed and refreshed at the same time. Computer-assisted egometric exercise for approximately 30 minutes has positive effects on the cardio-vascular system, the metabolism and the respiration. During this time the cellular oxygen intake much needed by the organism is activated. This increases the oxygen absorption through the capillary system.

This is the reason why exercising within the steady state range for at least 30 minutes positively affects the mood.

Before work out

Find the right time

Some may find that exercising in the morning gives them energy for the whole day. Others like to relieve the day's stress by working out in the evening.

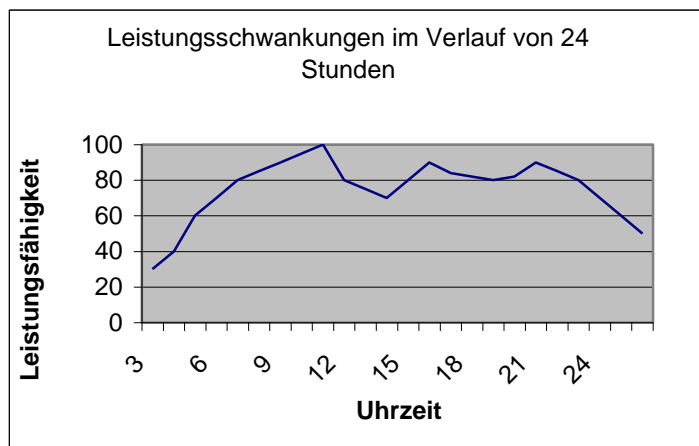
Seek personal support especially from your family. People having the support of loved ones are proven to be more prone to stick to their exercise schedule.

When ever possible mark the date and time of your work out session in your schedule as a date with yourself!

Prerequisites to monitor your performance:

To obtain a truely reliable result (Dynavit rate) a few things have to be considered:

1. No smoking for at least 2 hours before the test – better yet not at all.
2. A light meal at least 3 hours before the test.
3. Spend the previous day as well as the night in your regular pattern.
4. Sickness and indisposition will falsify the results.



Appropriate clothing

You have to prevent overheating but also protect your back from getting chilly!

Preferrably, choose functional clothing that transports sweat away from the skin. The dryer the skin, the less harm can be done to the muscles by the chilling effects of evaporating sweat. – You might find a sweatband useful, too.

Wear sports shoes.

After the work out

Pedal on a low tension setting for 5 to 10 minutes. This might be 100, 50 or only 25 Watt depending on your individual fitness level. Allowing for the heart rate to decrease (Cooldown – Phase) noticeably, while pedaling at a steady pace.

The body needs fluids

When sweating, your body loses fluids which must be replaced. After your work out, drink low-carborated mineral water or electrolyte-enriched sports drinks. They'll replenish the body with what was lost during exercise.

Don't forget to keep track

Track your work out performance. This is the only way to monitor your progress. Our new software "Graphik – Soft" let's you do this easily. Interrested? If so, just give us a call under 0631-3510035. We'll be happy to assist you!

Using your shower to enhance your well-being

Take a long shower with hot water at first to relax the muscles.

Then shower with cold water. This shouldn't be a problem since your body is thoroughly warmed up.

Starting from your feet, run cold water over your legs, then over your arms beginning at your hands. Include your face and if you're up to it, your torso.

You can achieve a greater effect if you switch between warm and cold water several times. 1 minute warm, 10 seconds cold. Then towel off vigorously.

You'll be brimming with vitality! The heightened blood circulation is having a tightening and purifying effect on the skin. This shock treatment is also working your vascular system. The alternating expansion and contraction increases its flexibility. If you have been experiencing tingling sensations in hands and feet (perfusion malfunction), this will be at thing of the past.

Assessing progress and vitality

Regular ergometric work out improves your performance ability, even if you miss a session or two.

How can you monitor your achievements?

- Some factors are displayed on the terminal – e.g. the Dynavit rate.
- Other can be perceived – e.g. toning of leg muscles.
- And then there are the health benefits – the tendency for the blood to clod and the risk of heart attack and stroke decrease.

Reading: O₂ - rate (Oxygen Absorption)

This value is not being measured but derived from the exercise data by the computer.

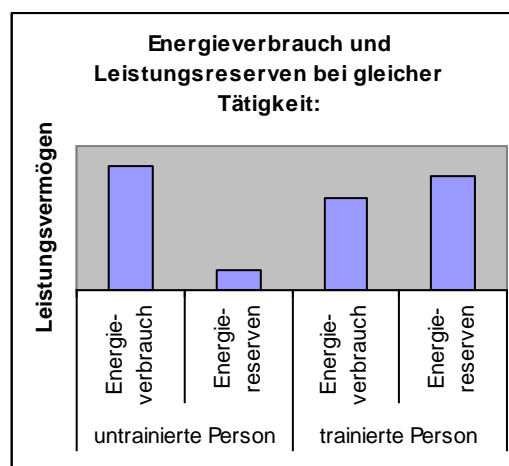
The ability for physical performance increases with your body's ability to absorp oxygen. Monitoring the rising of this rate is yet another way to measure your training progress.

Standard to determine O₂ intake:
[ml / (min * kg)] important for physicians

Reading: Watt/kg body weight

This neutral rate gives you the chance to compare your progress to others – regardless of your body weight.

Monitor this rate also. It shows you how your performance limit is rising.



Reading: Heart rate

In the beginning write down your performance (Watt) and your training heart rate during your work out. Also, note your resting heart rate.

After a few weeks of exercise, try the following: put the ergometer on the initial setting and watch your heart rate. You'll notice that your heart needs to beat less hard to achieve the same performance than when you started out.

It is a sign that your heart is performing stronger if your resting heart rate has decreased also!

An "athlete's heart" performs most efficiently compared to a low performing "office heart". The athlete's heart with its larger capacity beats 40 to 60 times a minute! The smaller untrained heart beats 70 to 90 times per minute or more even without any noticeable physical activity. It has to significantly work more.

To sum it up:

1.200 beats more per hour, approximately 29.000 beats more per day and approximately 10 millions beats more per year for the "office heart".

Reading: Elapsed time until you reach your resting heart rate

How fast does your body recover from strain? Write down the time your heart needs to return to its resting heart rate after exercise. Monitoring this time frame also let's you see improvement: You recover faster.

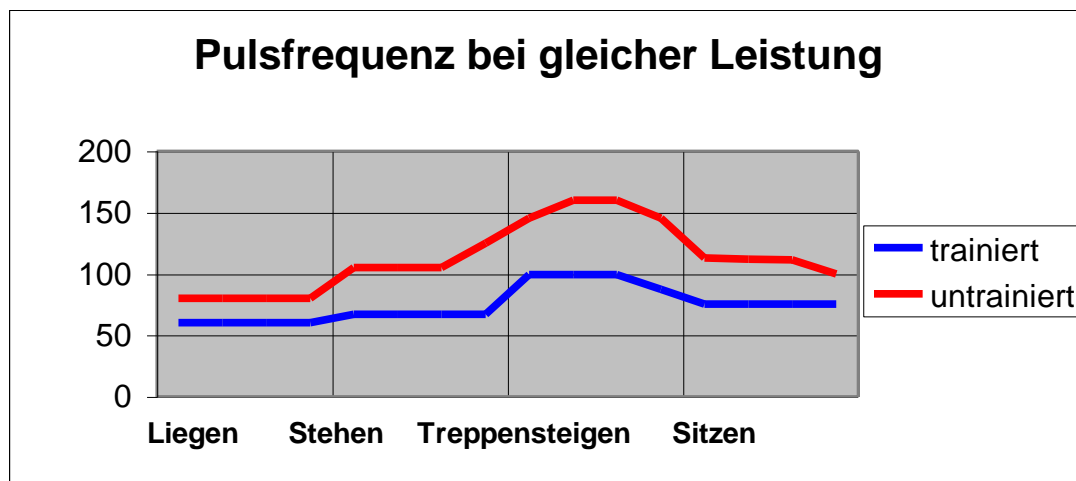
Perception: Better assimilation of irritation, strain and stress

Endurance work out also has balancing and relaxing effects on the nervous system when anxious and under stress. Many physicians recommend endurance sports as part of therapy for nervous disorders.

Perception: Toned muscles

Fat is replaced by muscle. The body becomes slimmer sometimes even without weight loss.

The flexing ability of the muscles improves. Simultaneously, the blood vessels remain flexible often achieving a lower blood pressure.



Perception: Changing experiences

The realization and experience of the interaction between exercise and capacity, physical and mental vitality as well as performance disposition boosts your selfconfidence and positive attitude on life. The challenge of performance is being accepted not avoided.

Endurance training will sooner or later lead to a healthier life style, avoiding the consumption of unhealthy substances, intensifying the effect of the work out.

Benefits: Improved oxygen supply

The respiratory volume increases because a trained person can inhale a larger amount of air and therefore provide more oxygen to the body.

The body's ability to absorb and consume oxygen improves overall because the means of absorption and transmission have become more efficient, strengthening all organs and boosting physical resilience.

Benefits: New blood vessels, better blood

Blood vessels (capillaries) increase in number and expansion, and therefore better supplying the organism with oxygen and nutrients.

The overall amount of blood rises positively affecting the oxygen saturation of the cell tissue.

The flowing characteristic of the blood improves (due to higher flexibility of the blood corpuscles in the capillaries) lowering the risk of thrombosis, heart attack and stroke.

The blood circulation in the cardiac muscle is increased. The coronary arteries (where heart attacks are located) remain flexible.

In case of an emergency a better trained heart is more likely to provide a natural "bypass" than an untrained heart.

Benefits: Changes in metabolism

There'll be profound change in fat and protein metabolism. The LDL cholesterol level decreases, the HDL cholesterol level increases. (LDL cholesterol plays a substantial part in the development of arteriosclerosis, HDL prevents arteriosclerosis).

Dynavit Service

Hotline

Feel free to call us if you have any questions. We'll be happy to assist you in reference to:

- Exercising
- Sportsmedical concerns
- The ergometer and further special programs

Customer Service

Even the most excellent manufacturing and diligent quality control cannot prevent every possible malfunction. Our service department will promptly correct any arising issues: Call us and talk to the expert. – Outside our regular operating hours you can leave your message on the answering machine and we'll return your call promptly.

DYNAVIT
Vertriebs- und Service GmbH
von Millerstraße 15
67661 Kaiserslautern

Phone: (0631) 3510030
Fax: (0631) 3510058
WWW: dynavit.de
Mail: dynavit@dynavit.de

Dynavit Memory Slot Assignment

Memory Slot	Name	Program
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		

Memory Slot	Name	Program
27		
28		
29		
30		
31		
32		
33		
34		
35		
36		
37		
38		
39		
40		
41		
42		
43		
44		
45		
46		
47		
48		
49		
50		
51		
52		

Dynavit Memory Slot Assignment

Memory Slot	Name	Program
53		
54		
55		
56		
57		
58		
59		
60		
61		
62		
63		
64		
65		
66		
67		
68		
69		
70		
71		
72		
73		
74		
75		
76		
77		
78		

Memory Slot	Name	Program
79		
80		
81		
82		
83		
84		
85		
86		
87		
88		
89		
90		
91		
92		
93		
94		
95		
96		
97		
98		
99		
100		
101		
102		
103		
104		

Care and maintenance

Your Dynavit ergometer is maintenance-free. – No special care required.

The seamless casing is manufactured of high-quality polyurethan (integral hard foam). The folded bellow made of natural rubber mixture is nearly indestructable.

Clean regularly

Clean your Dynavit ergometer from time to time. Hygenic reasons make this external cleaning necessary.

Any customary non-scouring household cleaner* might be used. Using car polish and car interior cleaner will leave your Dyanvit ergometer looking like new.

* **Do not use scouring powder**

Technical data for Conditronic 100

Casing

Polyurethan, impact and shock resistant integral hard foam; pedal rod sleeve of shock resistant ABS plastic; folded bellow of natural rubber mixture; longterm shape retaining.

Frame

Sturdy welded structure

Mechanical features

Direct seat adjustment via gas-pressured spring, 300° adjustable support handle, adjustable feet to compensate for uneven floors and 2 casters in the back for transportation.

Terminal

14 programs, double-rowed, alpha-numeric display with 2 x 20 keys, top row displays the most important work out data, bottom row displays the variable functions such as user guide and dialog. Key field for digital input including delete function, separate enter key, up to 99 memory slots, reset key. Wireless heart rate transmission via chest strap.

Electronics

External power supply: Input 100-240VAC-47-63 Hz, output 48 VDC- 2 A, 120 Watt maximum load; pulse amplifier with processor, electronic power control.

Power unit

Electronically controlled eddy-current brake, absolutely wear-resistant, individual setting possible from 0 - 1000 Watt in steps of 1 W or 5 W, depending on extension level; maximum load deviation $\pm 5\%$; silent poly-V-belt drive.

Optionale interface:

1 x RS 232 interface for data exchange with a cardiograph

1 x RS 232 interface for data exchange with our computer programs

Measurements

Length:	760 mm
Width:	360 mm
Height:	700 mm (minimal) 900 mm (maximal)
Weight:	ca. 35 kg
Max user weight:	160 kg
Classification:	

Room conditions:

Temperature range:	+ 10° to +40° C
Humidity:	10% to 75%

Seat adjustment: from app. 770 to 990 mm

Braking momentum: 12 – 75 Nm

Colors

RAL white and black
Customizing possible

Protected against dripping water (15° out of the perpendicular)
Water protection reference number IPX 2



ISO 7010 P017 Do not push

Only move the ergometer using the transportation casters in the back of the frame by lifting the support handle located in the front.

Safety instruction:

There is the risk of tipping over when the ergometer is being pushed sideways.

DO NOT PUSH!

Please ensure that the “Do not push“sticker is placed clearly visible on the equipment.

Durability:

At least 8 years when serviced regularly and applied according to intended use.

Appendix to Operating Instructions: Conditronic C 100

1. Description of additional programs: These will be operated by computer dialog as the programs 1 - 4. (see pages 6 – 7).
2. EMV Testing Certificate
3. EG Declaration of Conformity
4. ISO EN 13485 Certificate
5. Electric Safety Test Certificate
6. Installation Instructions for Anti-Tipping Bracket

EMC Test Report

Product name	Conditronic 100 Version 2.0
Manufacturer	Dynavit Vertriebs – und Service GmbH Von Miller Str.15 D-67661 Kaiserslautern
Test report no.	40908A, 13.11.2008
Place of tests	Perl-Sinz
Date of tests	CW46/2008

Complete pages

No part of this report may be reproduced except as authorized by written permission. The test data of this test report relate only to the individual items which have been tested.

**EG Declaration of Conformity
In Accordance with EG Regulations**

Regulation 93/42 EWG

The plant/machines

Brand: Dynavit
Type: Conditronic C33, Conditronic C100med, Armergometer C33,
Armergometer C100, Power 550, Touring Optima, Easy Stepper

Were developed and constructed in accordance with above mentioned EG regulation; under the sole responsibility of Keiper Dynavit GmbH & Co.
Von-Miller-Strasse 15, 67661 Kaiserslautern

Distribution and assembly of equipment carried out by Dynavit Vertriebs- und Service GmbH
von-Miller-Strasse 15, 67661 Kaiserslautern

Following coordinated and/or national standards, regulations and specifications were applied:

- **DIN EN 957-1**
- **DIN EN 957-5**
- **DIN EN 60601-1**

The entire technical documentation is available.
The operating instructions for this plant/machine are on hand.

Kaiserslautern, 14.02.2012

Oliver Herrmann - Wilfried Sommer, Executives

Signature



**BUREAU
VERITAS**

Zertifikat

Bureau Veritas CPS Germany GmbH

bescheinigt hiermit, dass das Unternehmen

Dynavit Vertriebs- und Service GmbH
Von-Miller-Str.15
67661 Kaiserslautern
Deutschland

ein
Qualitätssicherungssystem „Herstellung, Vertrieb und Service für medizinische
Kurbelergometer“
eingeführt hat und anwendet.

Durch ein Audit, dokumentiert in einem Bericht- Nr. 09TH0386, wurde der Nachweis
erbracht,

dass dieses Qualitätssicherungssystem die Anforderungen nach

Anhang V der Richtlinie 93/42/EWG und Änderungen 2007/47/EG

bezüglich folgender Medizinprodukte erfüllt

Kurbelergometer

Der Hersteller unterliegt der Überwachung nach Anhang V, Absatz 4, dieser
Richtlinie.

Zertifikatsnummer: **12-043**

Diese Zertifikat ist gültig bis: 2017-02-13

Türkheim, den 2012-03-02


Guido Küttler, stellv. Zertifizierungsstellenleiter

EG- Kennnummer von Bureau Veritas CPS Germany GmbH:2004

Installation Instructions for Anti-Tipping Bracket

- Tilt ergometer back 90°
- Unscrew both rubber coated adjustable feet
- Insert both adjustable feet through the pre-fabricated drill holes in the anti-tipping bracket and screw back on.
- Set ergometer upright.