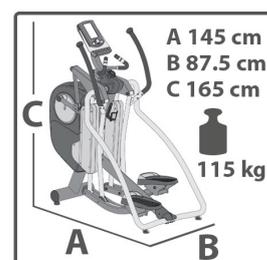




Assembly and operating instructions



CSTEX90.01.02

Art. No. CST-EX90

Elliptical cross trainer **EX90**

Dear Customer,

Thank you for deciding for a high-quality training equipment of the brand cardiostrong®, the brand that makes athlete's hearts beat faster. cardiostrong® offers a wide range of home fitness equipment like elliptical cross trainers, ergometers, treadmills and rowing machines. cardiostrong® equipment is the optimal equipment for all those who want to train at home independent of goals and fitness level. For further information please visit www.sport-tiedje.com or www.cardiostrong.de.

SAFETY INSTRUCTIONS



Please read all of the instructions carefully before assembly and first use. These instructions are intended to ensure speedy assembly and explain safe usage. Make sure that all people exercising with the equipment (in particular children and persons with limited physical, sensory, mental or motor capabilities) are informed about these instructions and its content in advance. In case of doubt, a responsible person must supervise the use of the equipment.

This equipment has been manufactured according to the latest safety knowledge. As far as possible, potential safety hazards which could cause injury have been eliminated. Make sure to follow the instructions carefully and that all parts are securely in place. If required, read through the instructions again to correct any mistakes.

Please pay close attention to the safety and maintenance instructions given here. The contract partner cannot be held liable for damage to health, accidents or damage to the equipment when it is not used in accordance with these instructions.

The equipment is only suitable for use at home. The equipment is not suitable for semi-professional (e. g., hospitals, clubs, hotels, schools, etc.) and commercial or professional use (e. g., health clubs).

Retain these instructions in a safe place for future reference, maintenance or when ordering replacement parts.

CONTENTS

1	GENERAL INFORMATION	5
1.1	Technical data	5
1.2	Personal safety	6
1.3	Electrical safety	7
1.4	Set-up place	7
2	ASSEMBLY INSTRUCTIONS, MAINTENANCE AND CARE	8
2.1	General instructions	8
2.2	Faults and Troubleshooting	9
2.3	Maintenance and service calendar	9
3	ASSEMBLY	10
3.1	Package contents	10
3.2	Assembly instructions	11
4	OPERATING INSTRUCTIONS	18
4.1	Console display	18
4.2	Button functions	20
4.3	Turning on and setting the equipment	21
4.4	Programs	22
4.4.1	MAN. - Manual program	23
4.4.2	PROG – Pre-set programs	23
4.4.3	USER - User defined program	25
4.4.4	H.R.C. - Heart rate oriented programs	26
4.4.5	WATT - Watt controlled program	27
4.4.6	RECOVERY - Fitness test	28
4.5	Heart rate measuring	29
5	WARRANTY INFORMATION	31
6	DISPOSAL	33
7	ORDERING ACCESSORIES	33
8	ORDERING SPARE PARTS	34
8.1	Service hotline	34
8.2	Serial number and model name	34
8.3	Parts list	35
8.4	Exploded drawing	39

1.1 Technical data

LCD display of

- + speed in km/h
- + training time in min
- + training distance in km
- + cadence (rotations per minute)
- + calories burnt in kcal
- + heart rate (when using the hand sensors or a chest strap)
- + Watt
- + resistance level

Resistance system: electronic magnetic brake system
 Resistance level: 16
 Watt: 10 - 350 Watt (adjustable in 5-Watt increments)

User memory: 4
 Total number of training programs: 19
 Manual programs: 1
 Pre-set programs: 12
 Watt-controlled programs: 1
 Heart rate controlled programs: 4
 User defined programs: 1

Balance mass: 12 kg
 Step length: 45 - 65 cm
 Step width: 11 cm

Electronic stride length adjustment:
 18" (45 cm), 20" (50 cm), 22" (55 cm), 24" (60 cm), 26" (65 cm)

Weight and dimensions:

Item weight (gross, incl. packaging): 130.5 kg
 Item weight (net, without packaging): 115 kg
 Packaging dimensions (L x W x H): approximately 1400 mm x 1160 mm x 510 mm
 Set-up dimensions (L x W x H): approximately 1450 mm x 875 mm x 1650 mm

Maximum user weight: 130 kg/286 lbs

1.2 Personal safety

- + Before you start using the equipment, you should consult your physician that this type of exercise is suitable for you from a health perspective. Particularly affected are persons who: have a hereditary disposition to high blood pressure or heart disease, are over the age of 45, smoke, have high cholesterol values, are overweight and/or have not exercised regularly in the past year.
- + Please note that working out excessively can seriously damage your health. Please also be aware that heart rate monitoring systems might be imprecise.
- + The equipment may only be used for its intended purpose; that means for whole body workouts for adults.
- + Any other usage is prohibited and potentially dangerous. The contract partner cannot be held liable for damage resulting from improper use.
- + The equipment is strictly for use by one person at a time.
- + Children should not be allowed unsupervised access to the equipment.
- + Before starting your training, make yourself familiar with all of the equipment's functions and setting options. Have an expert explain the correct usage of the product to you.
- + Make sure that nobody is in the range of motion of the equipment while exercising.
- + Keep your hands, feet and other body parts, hair, clothing, jewelry and other objects well clear of moving parts.
- + During use, wear suitable sports clothing rather than loose or baggy clothing. When selecting sports shoes, think about the suitability of the sole – preferably this should be made of rubber or other non-slip materials. Shoes with heels, leather soles, studs or spikes are not suitable. Never work out in bare feet.
- + It is also important to take note of the information given in the workout instructions for creating a workout plan.
- + At the first signs of weakness, nausea, dizziness, pain, difficulty in breathing or other abnormal symptoms, stop your workout immediately and, if necessary, consult your physician.
- + Without prior agreement from your authorized contract partner, opening the equipment is prohibited.

1.3 Electrical safety

- + The equipment requires a 220 - 230V / 50 Hertz mains power supply.
- + The equipment should be connected directly to a grounded plug socket only by means of the power cable supplied. The use of multi-socket adapters or similar is not recommended. Extension leads must comply with local electrical safety guidelines. Always fully unwind the power cable.
- + The outlet should be secured with a fuse with a minimum value of „16 amperes, slow“.
- + In order to reduce the risk of an electric shock, always unplug the equipment from the mains socket immediately after your workout, before assembly or dismantling, and before maintenance or cleaning. Do not pull on the cable.
- + When plugged in, do not leave the equipment unattended at any time. To avoid use by anyone unfamiliar with the operating instructions, the power cable should be removed when the equipment is not in use.
- + Keep the power cable away from heat, oil and sharp edges. Do not route the power cable underneath the equipment or under a carpet or rug, and do not place any objects on top of it.
- + Make no modifications to either the power cable or the mains plug.
- + If the power cable or the plug are damaged or defective, contact your authorized contract partner. Do not use the equipment in the meantime.
- + Do not keep electrical devices (e. g., mobile phones) in close proximity to the console or the control electronics, otherwise display values (e. g., pulse measuring) could be inaccurate.

1.4 Set-up place

- + The equipment should only be used indoors, in a sufficiently heated and dry area (ambient temperature between 10°C and 35°C). The equipment should not be used outdoors or in rooms with high humidity (over 70%) like swimming pools. The equipment should only be stored in surroundings with an ambient temperature between 5°C and 45°C.
- + The training room should be well ventilated during training and not be exposed to any draughts.
- + Choose a location in which to place the equipment such that there is enough free space/ clearance to the front, the rear and to the sides of the equipment (at least 1.50 m). Furthermore, the equipment should not be set up in main entrances or on escape routes.
- + Always keep the power cable away from hot surfaces and grounds and make sure that the cable is not stuck somewhere or becomes a „trip hazard“.
- + No objects of any type should be inserted into the openings of the equipment.
- + The equipment should be placed on a level and solid surface, any unevenness in the floor should be leveled out.
- + A floor protective mat / equipment underlay can help to protect high-quality floor coverings (parquet, laminate, cork, carpets) from dents and sweat and can help to level out slight unevenness.

2.1 General instructions

- + Please check if all parts and tools belonging to the equipment are included in the delivery and if there is any transport damage. If there are any complaints, please contact your contract partner directly.
- + Some of the nuts and bolts to be used in assembly are already pre-mounted in order to make set-up as easy as possible.
- + The equipment must be assembled by adults. In case of doubt, ask for assistance from another person with technical skills.
- + Keep children away from the equipment during assembly, because small parts are included in the delivery and may be swallowed.
- + Make sure that you have enough space (at least 1.50 m) in every direction during assembly.
- + Do not leave any tools and packaging materials like plastic sheeting laying around to avoid danger of suffocation for children.
- + Assemble the equipment on an underlay mat or on the cardboard packaging in order to avoid damage to the equipment and to the floor (scratches).
- + Before starting assembly, all individual parts should be placed on the floor next to each other.
- + Read the assembly instructions carefully and assemble the equipment according to the illustrations. Proceed carefully and cautiously.
- + First loosen all parts and check for their correct fitting. Then tighten the screws using a tool.
- + Modifications to the design or improper repairs may pose a hazard to the user and should not be carried out. The product warranty may be void as a result.
- + Only authorized service technicians are permitted to carry out all servicing and/or repairs – it excludes maintenance and care.
- + Damaged or worn components may impair your safety and the lifespan of the equipment. You should therefore immediately replace damaged or worn components. Please contact your contract partner in such a case. The equipment should no longer be used until it has been repaired. When needed, only use original cardiostrong® spare parts.
- + Check the tightness of all screw connections once a month.
- + In order to be able to guarantee the constructively defined safety level of this equipment, we recommend having the equipment regularly maintained (at least once a year) by specialists (service technicians of your contract partner).
- + The equipment may be cleaned of dust, dirt and sweat using a damp cloth. The use of solvents should be strictly avoided. Also, make sure that no liquids (e. g. sweat) get into the openings of the equipment (e. g. console).

2.2 Faults and Troubleshooting

The equipment runs through regular quality controls during production. Nevertheless, errors or malfunctions on the equipment may occur. Individual parts are often the cause of faults and replacement is usually sufficient. Please use the following overview to see the six most common errors and how to repair them. If the equipment still does not work properly, please contact your contract partner.

Problem	Cause	Solution
Drive discs wobble or make noises	Drive pulley is loose	Tighten nuts
Display does not work	No plug connection, power supply not plugged in	Check all plug connections and see if the power supply is plugged in
Footplates are creaking	Footplates are loose	Tighten up the footplate screws
Creaking noises	Screws are loose	Check screws are properly tightened
Guide rails are squeaking	Guide rails or rollers are dirty or the guide rails are dry	Clean the guide rails, then lubricate with a non greasy silicone
No pulse reading	<ul style="list-style-type: none"> • Sources of interference in the room • Using a chest strap: <ul style="list-style-type: none"> - Unsuitable chest strap - Chest strap is incorrectly positioned - Batteries are discharged 	<ul style="list-style-type: none"> • Eliminate sources of interference (e. g. mobile phone, loudspeaker, etc.) • Use a suitable chest strap (see recommended accessories) • Reposition the chest strap and/or moisten the electrodes • Change the batteries

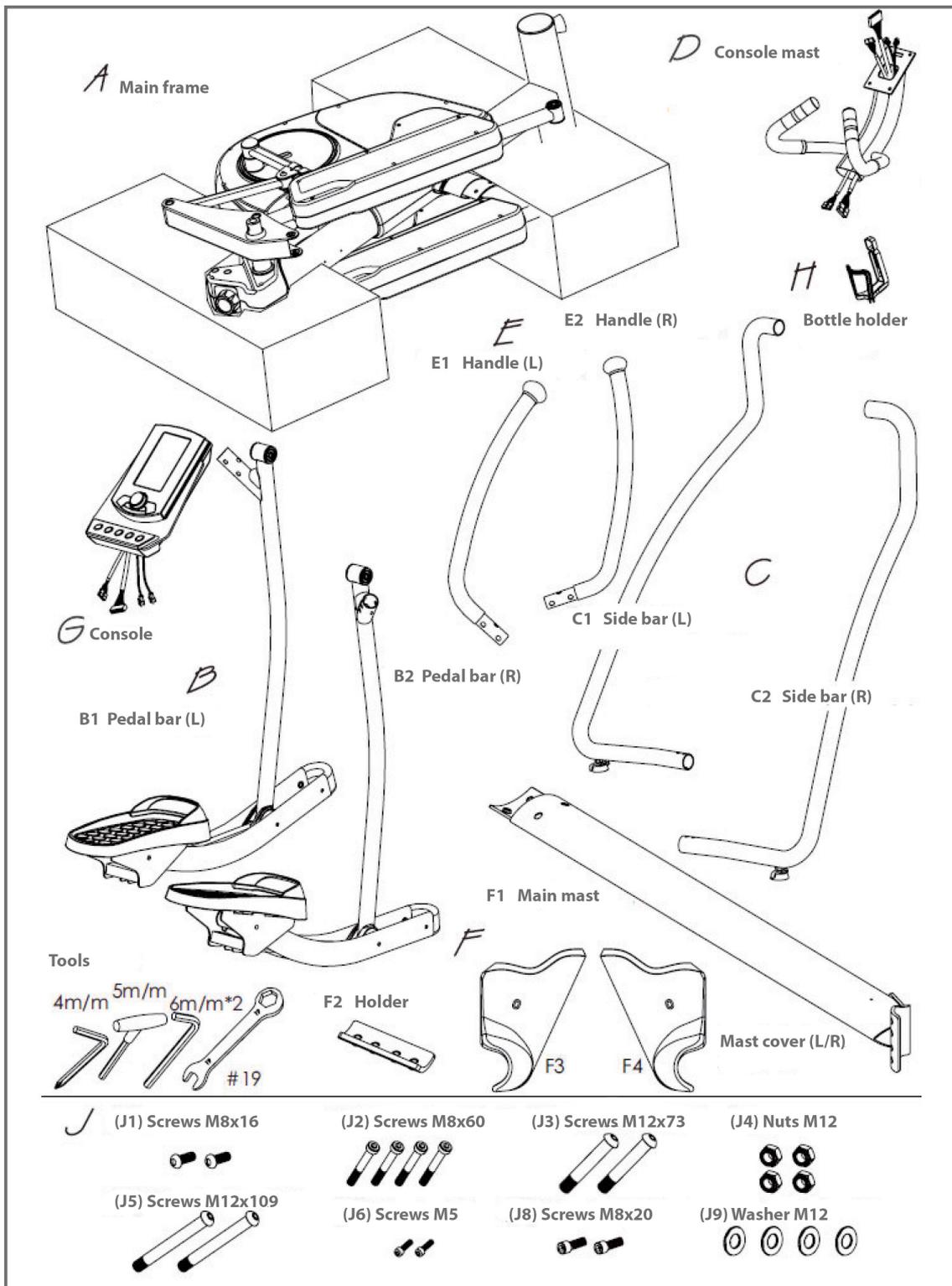
2.3 Maintenance and service calendar

The following routine work must be done in the specified time intervals:

Part	Weekly	Monthly	2x annually	Annually
Display console	C	I		
Lubricate the moving parts			I	
Plastic cover	C	I		
Screws and cable connections		I		
Legends: C = cleaning; I = inspect				

3.1 Package contents

The package contains the parts represented in the illustration, including a power cable with mains plug. If one of the illustrated parts is missing, please contact your contract partner.



3.2 Assembly instructions

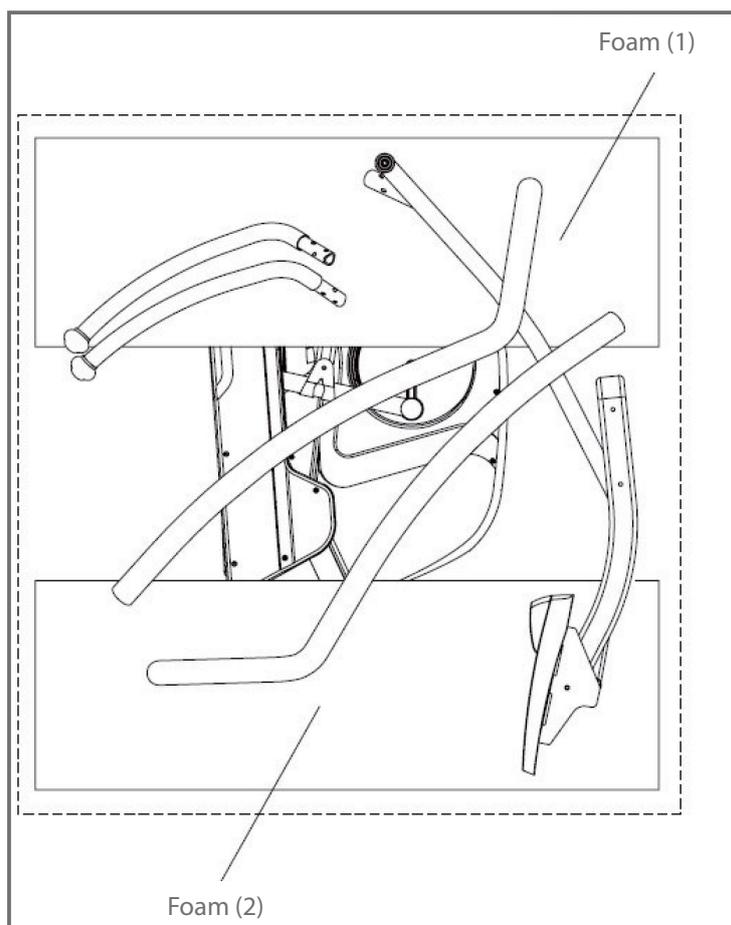
Before starting assembly, look carefully through the individual assembly steps shown and assemble the equipment in the order indicated.

Caution while unpacking:

First lay the box flat so that you can lift the cover. Then take handles, side bars, pedal bars and the user instructions out of the box.

Remove the upper foam cushion (1) and (2) and leave the main frame (A) and the lower foam cushion (3) and (4) in the box until you are told to remove these in step 2 of the assembly instructions. After this, take console, console mast as well as screws and tools out of the box.

Note: For safety reasons, the pedal bars may first be unlocked with the corresponding turning knob when you are asked to do so at the end of the instructions.



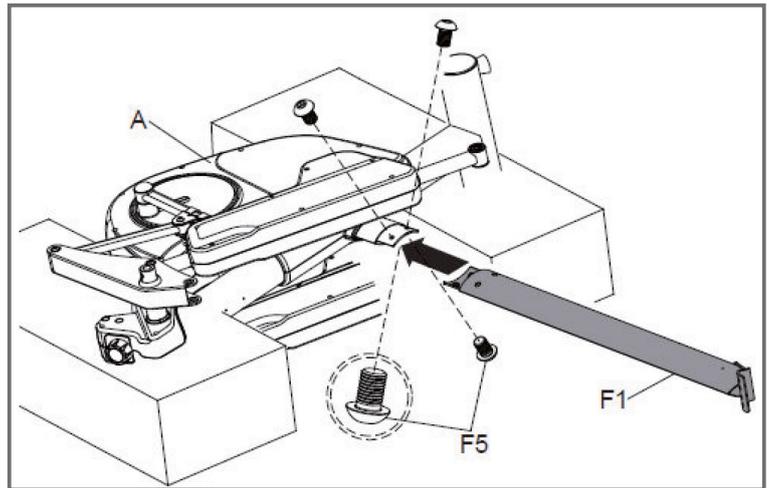
Step 1: Assembly of the main mast (F1)

(1) Loosen two screws (F5) from the main frame (A) and two screws from the main mast (F1).

(2) Connect the main mast (F1) with the main frame (A) with the previously loosened four screws (F5).

Note: Do not tighten the screws (F5) completely yet.

Tool: 6mm Allen key

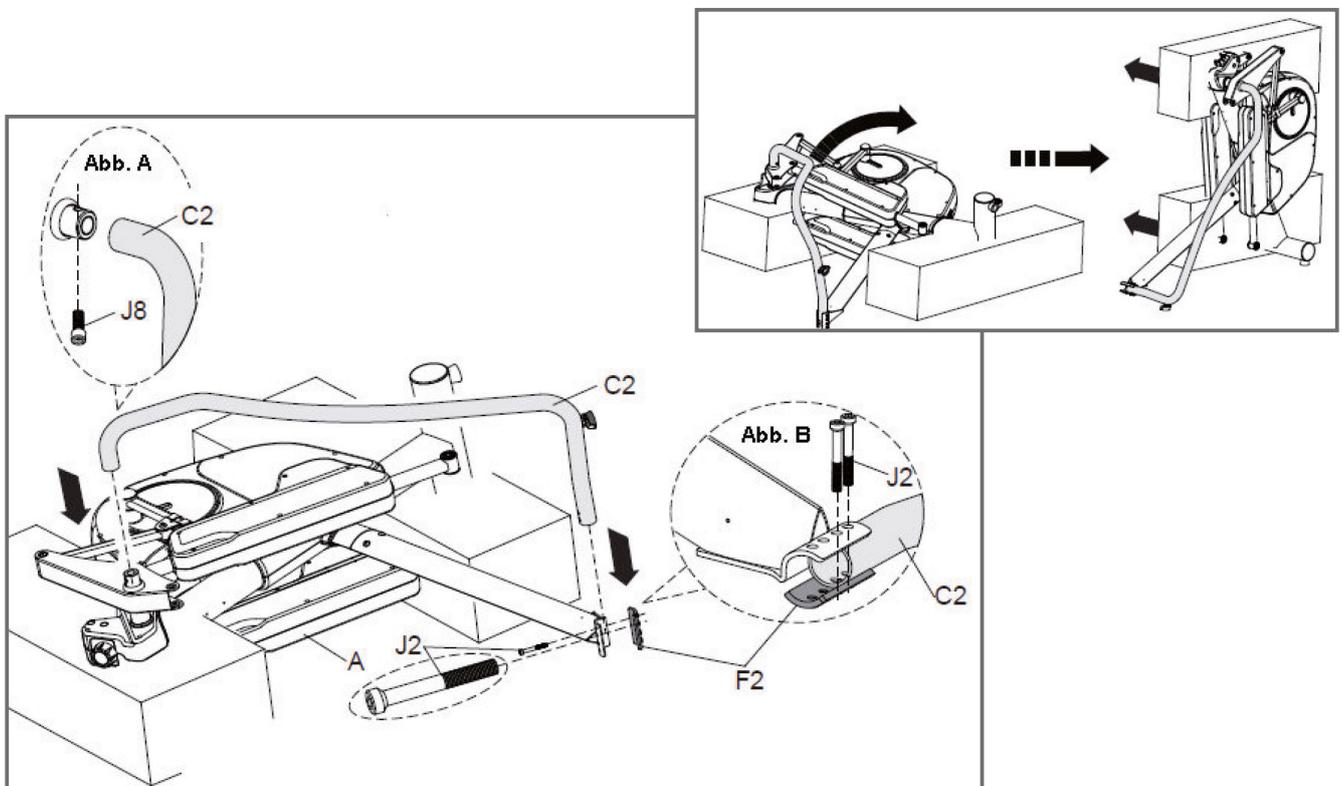


Step 2: Assembly of the right side bar (C2)

(1) Mount the right side bar (C2) on the main frame (A) with a screw (J8) on top (figure A) and two screws (J2) with the holder (F2) on the bottom (figure B).

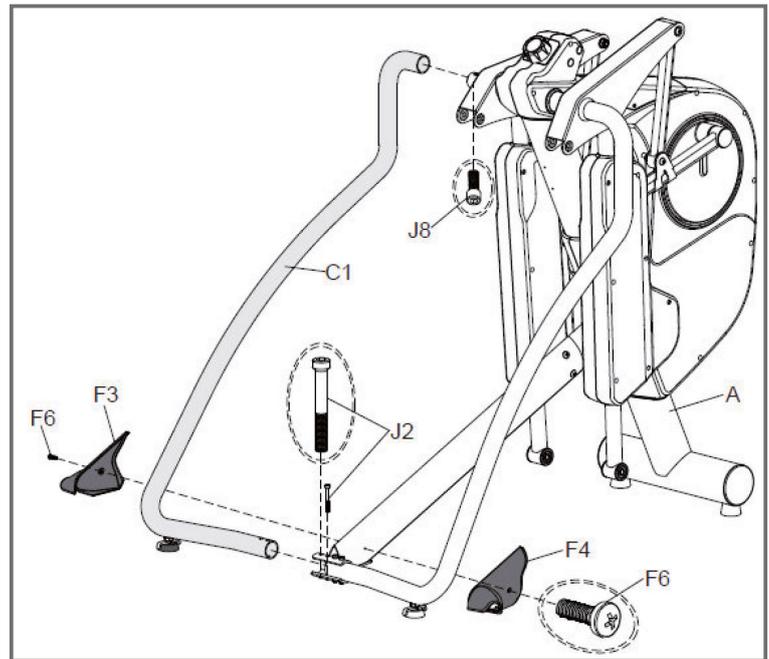
Note: Do not tighten the screws (J8 and J2) completely yet.

(2) Raise the main frame (A) with two people and remove the foam.



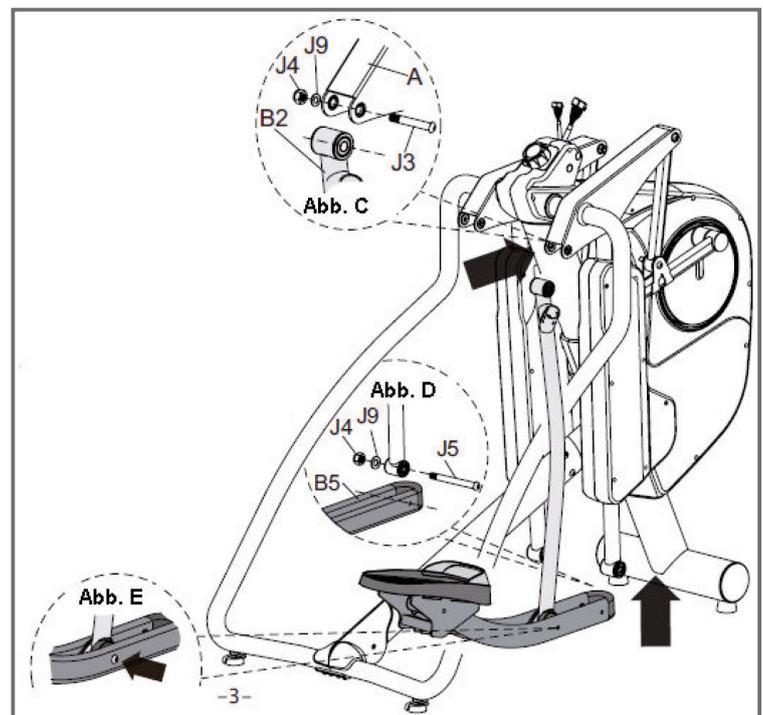
Step 3: Assembly of the left side bar (C1) and covers

- (1) Connect the left side bar (C1) on the main frame (A) with a screw (J8) on top and two screws (J2) and the holder (F2) on the bottom (see step 2).
- (2) Now you can tighten all of the screws from the previous steps (F5, J8 and J2).
- (3) Loosen the two screws (F6) from the main mast (F1).
- (4) Mount the covers (F3 and F4) on the main mast (F1) with the previously loosened screws (F6).



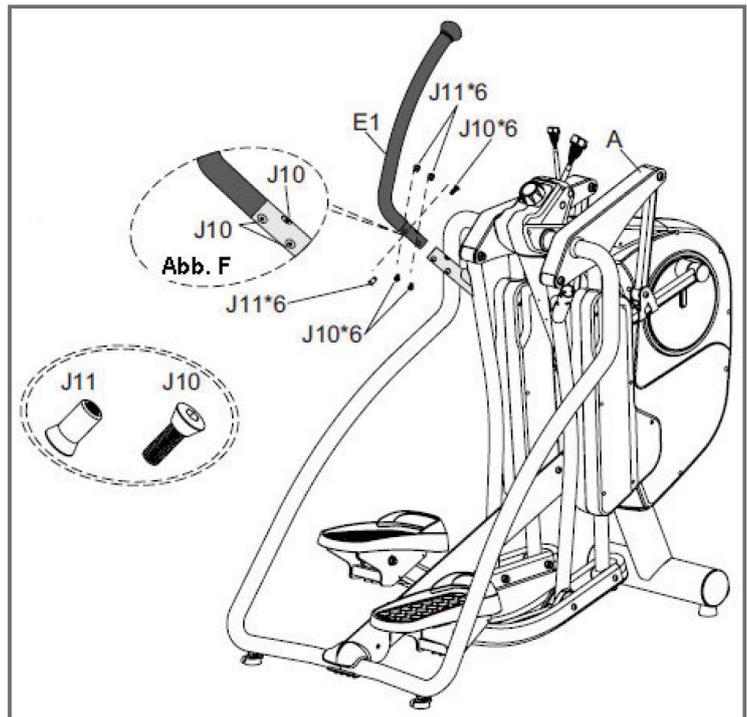
Step 4: Assembly of the pedal bars

- (1) Connect the right pedal bar (B2) on top with the main frame (A) and mount this with the nuts (J4), washers (J9) and screws (J3); see figure C.
- (2) Mount the pedal bar on the bottom of the main frame with a bolt (J5), a washer (J9) and a nut (J4); see figure D.
- (3) Tighten the bolt (J5) and the nut (J4); see figure E.
- (4) Repeat the process for the left pedal bar (B1).



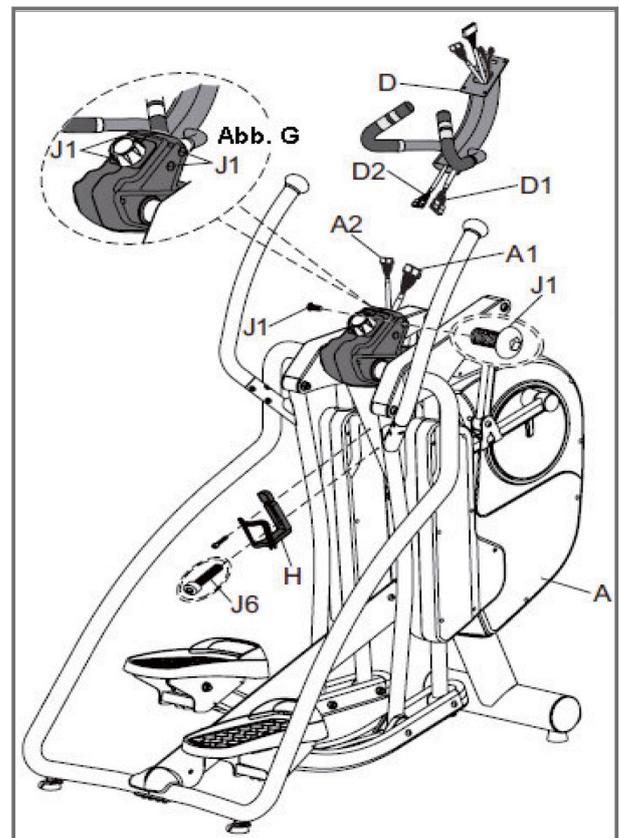
Step 5: Assembly of the handles

- (1) Loosen the six pre-mounted screws (J10 and J11) from the left handle (E1).
- (2) Connect the left handle (E1) with the main frame (A) by tightening all screws (J10 and J11) with two 6mm Allen keys; see figure F.
- (3) Repeat the process for the right handle (E2).



Step 6: Assembly of the console mast and the bottle holder

- (1) Connect the cables (D1 and D2) from the console mast (D) with the cables (A1 and A2) from the main frame (A).
- (2) Mount the console mast (D) on the main frame (A) with two screws (J1) and two pre-mounted screws; see figure G.
- (3) Mount the bottle holder (H) on the main frame (A) with two screws (J6).

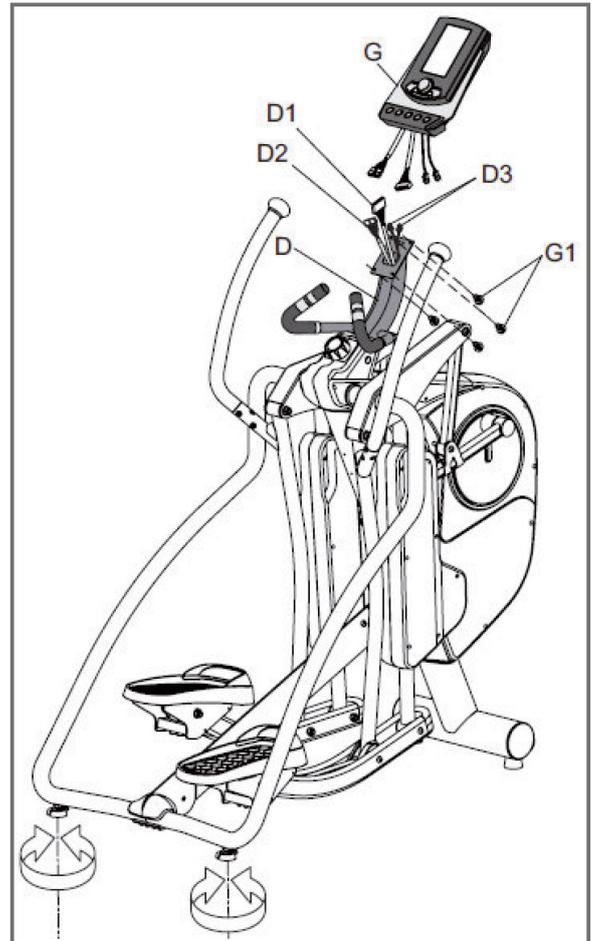


Step 7: Assembly of the console and adjusting the supporting feet

- (1) Loosen the four pre-mounted screws (G1) from the console (G).
- (2) Connect the console cables (D1 and D2) and the heart rate cables (D3) from the console mast with the console.

Note: Make sure that the cables are properly connected with each other. Slide the excess cable into the casing and the console mast (D).

- (3) Mount the console (G) on the console mast (D) with the four screws (G1).
- (4) Use the adjusting screws under the side parts in order to level out the unevenness in the floor.

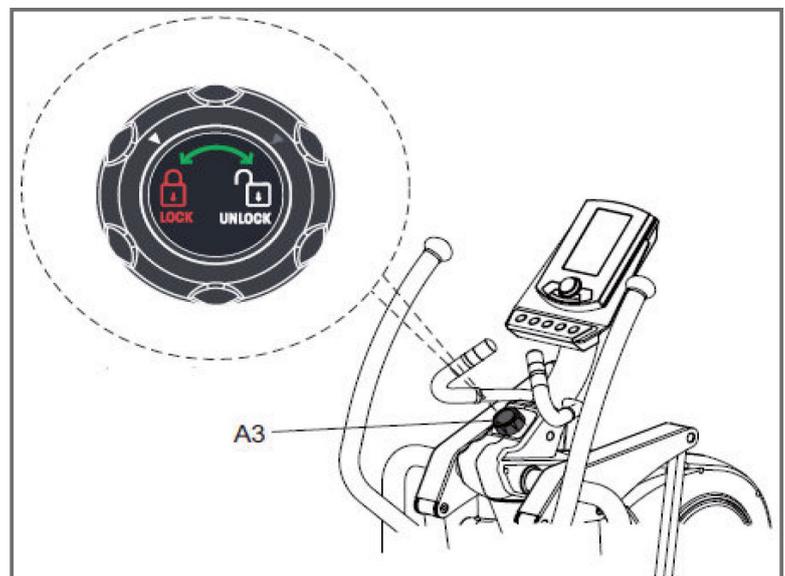


Step 8: Locking the pedal bars (B1 and B2)

The pedal bars should always be locked, when the equipment is not in use.

To do this, turn the knob (A3) to the "LOCK" position in order to lock the pedal bars (B1 and B2) and to avoid possible injuries.

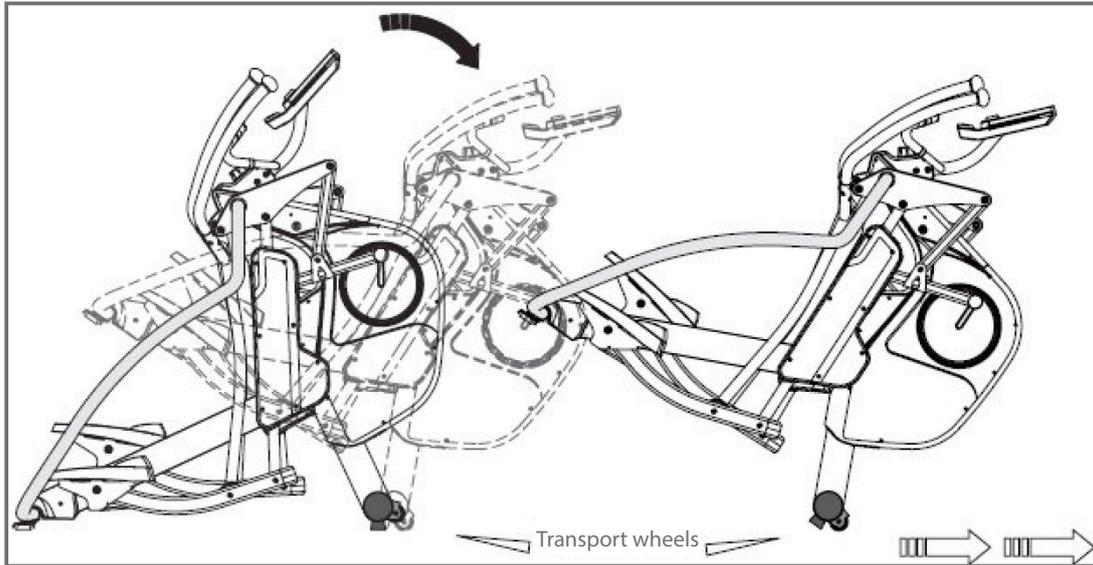
Note: Never lock the pedal bars, when the equipment is still moving, but only when the equipment has come to a complete standstill.



Step 9: Transporting the equipment

While transporting the equipment, make absolutely sure that the pedal bars are locked.

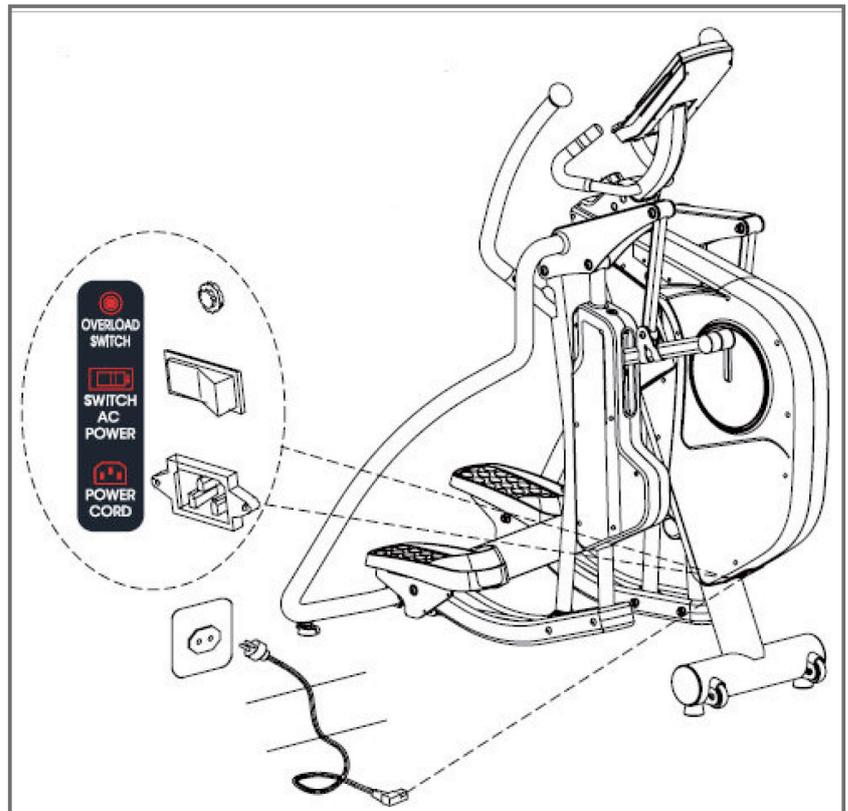
Then lift the equipment on the side bars until the transport wheels touch the floor. Now you can move the equipment to your desired place. Then lower carefully the equipment.



Step 10: Connecting the power cable

Plug the cable in the connection on the main frame before you plug the other end in the outlet.

** The overload switch protects against short circuits. The knob will pop out if there is an overload. Turn the power switch off and then back on to restart the equipment.

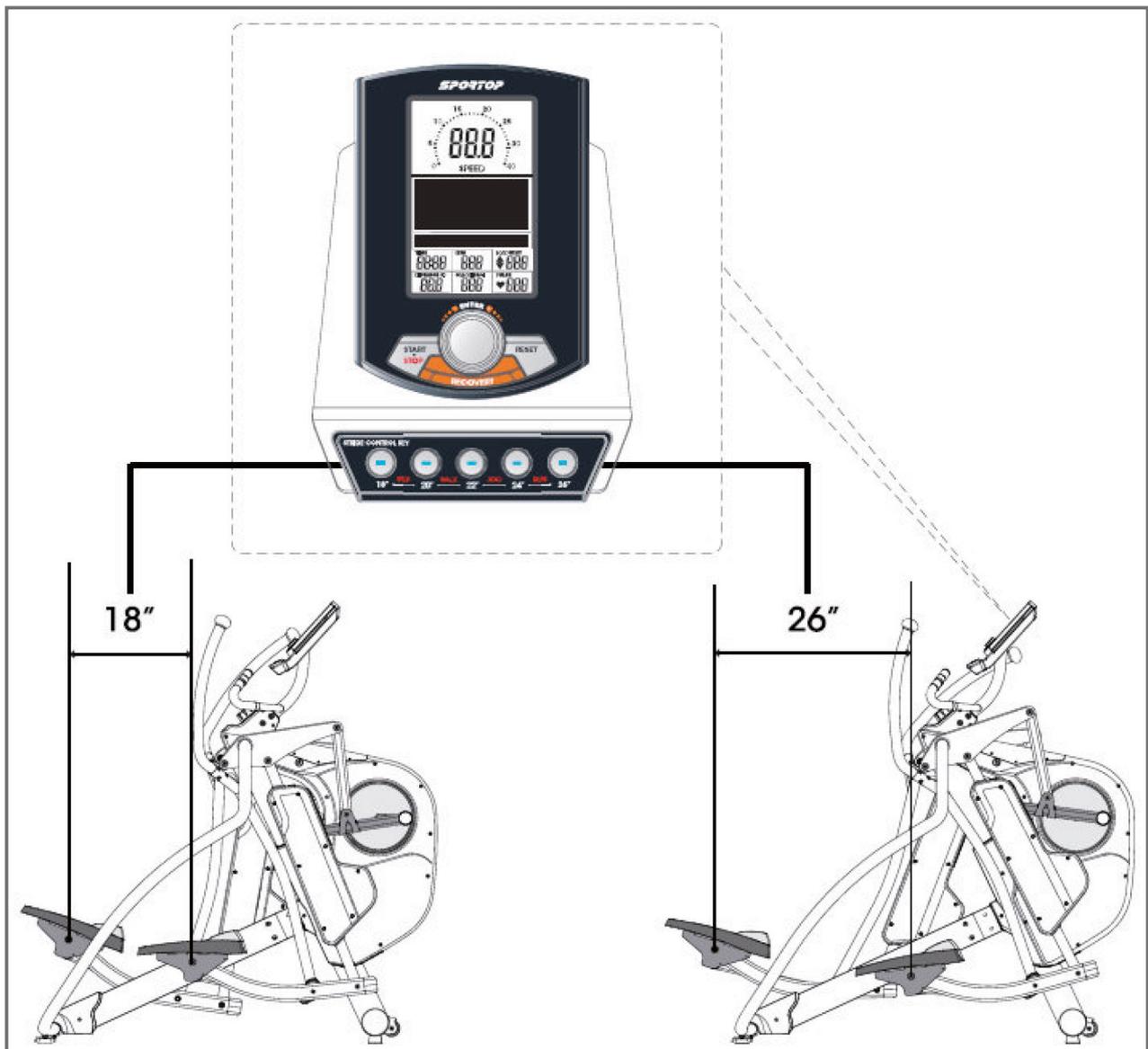


Step 11: Setting the stride length

This equipment offers five different settings of the stride length. Through the hot keys, you can choose between 45 cm (18"), 50 cm (20"), 55 cm (22"), 60 cm (24") and 65 cm (26"). The selected stride length is displayed on the console and can be adjusted at any time while training.

Certain muscle groups are used differently through different stride lengths. This can also be achieved by adjusting the resistance or the user bends down while holding on to the handles.

Note: If the stride length motor is activated, you will hear how the motor adjusts the stride length and then locks.

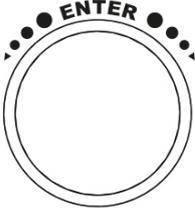
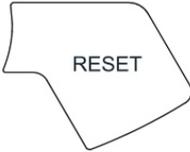


4.1 Console display



Time	0:00 - 99:00 minutes
Speed	0.0 - 99.9 km/h
RPM (cadence; rotations per minute)	0 - 999 RPM
Distance	0.0 - 99.9 km
Calories	0 - 990 Cal
Gender	Male/Female (m/f)
Pulse (heart rate; heart beats per minute)	30 - 230 BPM
Heart rate symbol	On/off - blinking
Programs	P1 - P12
User data	U1 - U4
Watt/load (power/resistance)	0 - 999 Watt; Watt control: 10 - 350 Watt
Level	1 - 16
H.R.C. (heart rate control)	55 / 75 / 90% of the max. heart rate; manual target rate (TAG)
Age	1 - 99 years
Height	100 - 250 cm
Weight	20 - 150 kg (44 – 330 lbs)

4.2 Button functions

	TURNING KNOB RIGHT	With this button, you can change the settings or increase the resistance.
	TURNING KNOB LEFT	With this button, you can change the settings or lower the resistance.
	TURNING KNOB ENTER	With this button, you can confirm all settings.
	START/STOP	With this button you can start and stop the training.
	RESET	With this button, you can reset the current settings and return to the beginning.
	RECOVERY	With this button, you can execute the fitness test after training.

4.3 Turning on and setting the equipment

Connect the power cable with the console and press the RESET button for two seconds. An alarm will sound for two seconds and the specification 78.0 will be displayed in the lower left window (see figure 1 and 2).

The console has four user accounts (U1 - U4). Rotate the adjusting knob in order to select a user 1 - 4 and press ENTER to confirm (see figure 3 and 4). Use the adjusting knob or the ENTER button to execute the settings for SEX (select male or female), AGE (age in years), HEIGHT (height in cm) and WEIGHT (weight in kg) (see figure 5 - 8).



Figure 1

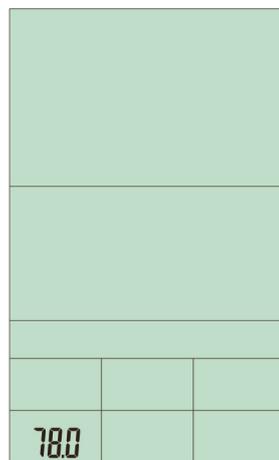


Figure 2

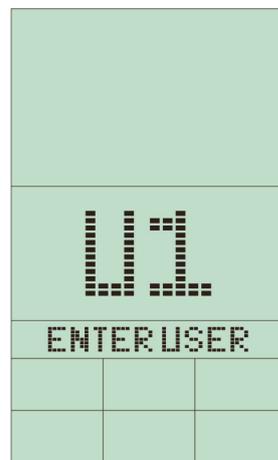


Figure 3

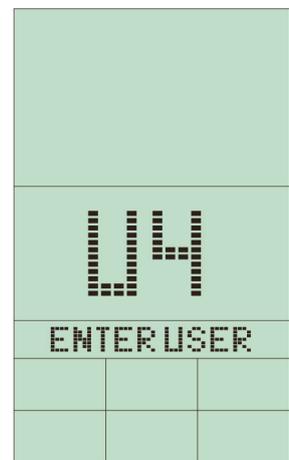


Figure 4



Figure 5



Figure 6

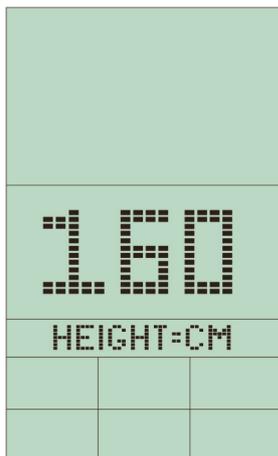


Figure 7

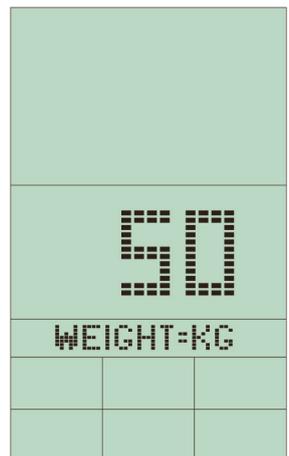


Figure 8

4.4 Programs

Once you have entered all values, you can select one of the five program categories with the control knob (see figure 9-13). The equipment has a total of 19 programs and a fitness test.

- Manual (manual training): 1
- Program (pre-set training program): 12
- User Setting (user-defined training program): 1
- H.R.C. (heart rate controlled training programs): 4
- W (Watt-controlled training program): 1
- Recovery (fitness test)

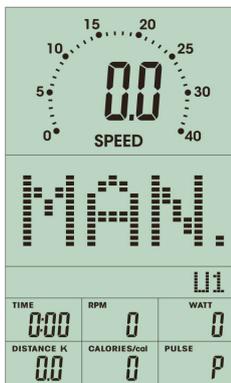


Figure 9

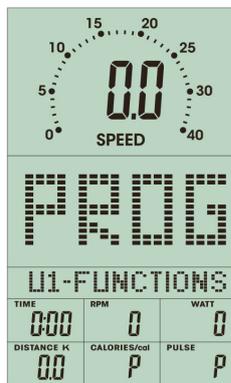


Figure 10

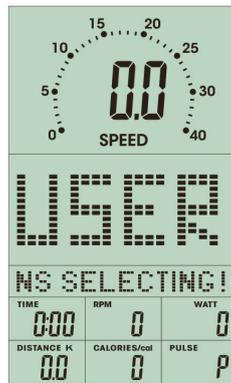


Figure 11



Figure 12

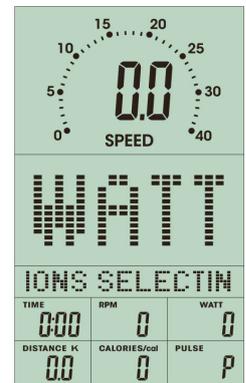


Figure 13

Quick Start

For the quick start, press the START/STOP button and the training will start (this will automatically take you to the manual program). You can adjust the resistance during training. Press the START/STOP button again to stop the training.

4.4.1 MAN. - Manual program

After you have selected the manual program and confirmed with ENTER, you can enter the values for the intensity level (1-16), time, distance, calories and pulse with the control knob. If you enter a target value for time, distance and calories, the training will stop automatically once you have achieved one of these target values. If you would just like to train according to one of these values, you simply have to enter the desired target value - you do not have to enter all other values. If you enter a target pulse, an alarm will sound once this pulse has been exceeded. The acoustic signal first stops once your pulse is no longer higher than the target pulse. Press the ENTER button after every setting in order to confirm. Once you have entered all values (or the selected value), press the START/STOP button to start the training. The resistance level can be adjusted during training. As soon as you hold the RESET button for a longer period of time, the console will return to the program selection.

Procedure for setting the manual programs:

Set program mode		Set resistance		Specification of training data		
						
Turn left or right	Press Enter	Turn left or right	Press Enter	Turn left or right	Press Enter	Press Start/Stop

4.4.2 PROG - Pre-set programs

Use the control knob to select one of the pre-set training programs P1-P12. Confirm the selection with the ENTER button. Now enter the training time and press ENTER to confirm. Then you can press the START/STOP button to start the training. The resistance level can be adjusted during training. The set time will run backwards after the beginning of training. As soon as the countdown reaches zero, the screen will start to blink and a signal will sound. Press any button to turn off the acoustic signal.

Profiles from preset training programs:

P01



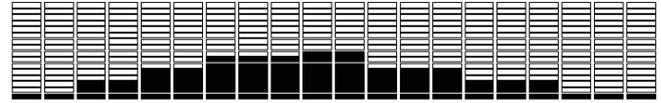
P07



P02



P08



P03



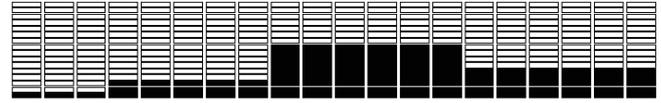
P09



P04



P10



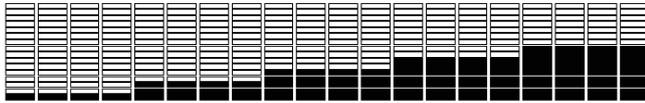
P05



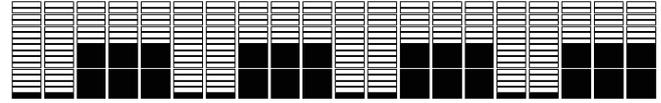
P11



P06



P12



Procedure for setting the preset training programs:

Set program mode		Select program P1-P12		Specification of the training time		
						
Turn left or right	Press Enter	Turn left or right	Press Enter	Turn left or right	Press Enter	Press Start/Stop

4.4.3 USER - User defined program

Once you have selected the program, you can manually set each of the 20 sections of the profile with the control knob. For each section, select an intensity level between 1-16, confirm the setting with ENTER and continue with the next section. You can see which section you are currently in by the blinking of the section. Once you have determined all 20 sections, hold ENTER for two seconds in order to continue entering the time. As soon as you have entered the value, press the START/STOP button to start the training. The resistance level of the respective section can be adjusted again during the training. The user-defined program is saved after a setting is made in the selected user account. If you press the RESET button during the profile setting, the console will return to the program selection. The set time will run backwards after the beginning of training. As soon as the countdown reaches zero, the screen will start to blink and a signal will sound. Press any button to turn off the acoustic signal.

Procedure for setting the user-defined program:

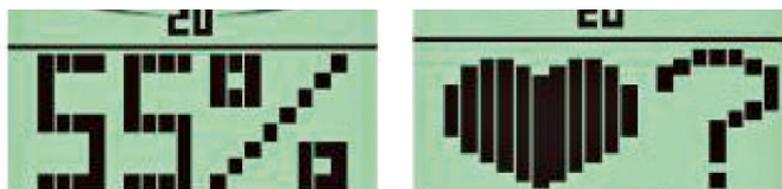
Set program mode		Set resistance	Press for two seconds	Specification of the training time	
					
Turn left or right	Press Enter	Turn left or right	Press Enter, repeat the process 20 times until all segments are set	Turn left or right	Press Start/ Stop

4.4.4 H.R.C. - Heart rate oriented programs

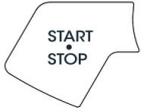
After you have selected the program, you can enter the desired target heart rate. Either select one of the three target heart rates (55%, 75% or 90% of your maximum heart rate) or select "TAG" and enter a target heart rate. The console determines your maximum heart rate based on your age (which you entered in the user account). Confirm the setting with the ENTER button. After this, you can enter the training time with the control knob and press START/STOP to start training. The set time will run backwards after the beginning of training. An alarm will sound if you exceed the set target heart rate. The acoustic alarm will first stop once your heart rate has reached the set limit again. If you remain outside of the set rate for a longer period of time, the program will stop automatically. As soon as the countdown reaches zero, the screen will start to blink and a signal will sound. Press any button to turn off the acoustic signal. The console has an integrated heart rate receiver. The heart rate can be measured through hand pulse sensors; however, heart rate measuring with a chest strap is recommended, because this measuring technique provides significantly more precise values.

Note:

If a heart rate signal is not received for five seconds, a heart symbol with a question mark will appear. This extinguishes as soon as a HR signal is received again.



Procedure for setting the heart rate oriented program:

Set program mode		Set training heart rate		Specification of the training time	
					
Turn left or right	Press Enter	Turn left or right	Press Enter	Turn left or right	Press Start/Stop

4.4.5 WATT - Watt controlled program

If you selected the program, use the control knob to enter the desired watt value that you would like to train with between 10 and 350 Watt. The preset value is 120 Watt. Confirm the setting with the ENTER button. Then you can enter the training time. Confirm your setting with the ENTER button. As soon as you have entered all values, press the START/STOP button to start the training. The set time will run backwards after the beginning of training. As soon as the countdown reaches zero, the screen will start to blink and a signal will sound. Press any button to turn off the signal. You can use the control knob to adjust the wattage while training. The following three symbols show you if the wattage or the speed should be increased or lowered:

-  The current wattage is more than 25% above the set wattage - the user should reduce the speed.
-  The current wattage is in the range of the set wattage - the user should maintain the speed.
-  The current wattage is more than 25% below the set wattage - the user should increase the speed.

Procedure for setting the Watt-controlled programs:

Program settings		Setting the wattage		Specification of the training time	
					
Turn left or right	Press Enter	Turn left or right	Press Enter	Turn left or right	Press Start/Stop

4.4.6 RECOVERY - Fitness test

With this button, you can measure your recovery heart rate after training. After training, press the RECOVERY button and hold the hand pulse sensors if you are not wearing a chest strap. After this, a one-minute countdown will start. Only the countdown and the heart rate will be shown during this time. Once the minute is over, the console determines a fitness grade between F1-F6 based on your heart rate.

Result	Fitness level	Heart rate per minute
F1	Very good	75 - 84
F2	Good	85 - 94
F3	Average	95 - 119
F4	Sufficient	120 - 129
F5	Poor	130 - 135
F6	Very poor	135



Press the RECOVERY button again in order to return to the main menu.

General note:

If you stop pedaling for more than four minutes, the console will change into power saving mode. All settings and training data will be saved until the next training is started.

4.5 Heart-rate measuring

Pulse measuring via hand sensors

The hand sensors integrated in the handles allow you to determine your heart rate. You can measure your heart rate by lightly grasping the sensors with both hands at the same time. Blood pressure changes occur due to the heartbeat. The sensors measure the changes to the electric skin resistance caused by it. These values are then used to create an average and are displayed on the screen of the console as a heart rate.

Note:

For some people, the skin resistance change caused by the heart rate is so minimal that the measurements do not allow for usable values. Strong callus or sweat on the hands may also impair a correct measurement. In such cases, the heart rate will not be shown at all or only incorrectly.

If the measurement is incorrect or not taken at all, please check if it happens to only one person or to several people. If the pulse display only does not work in a single case, the equipment is not defective. In this case, we recommend using a chest strap to achieve a permanently correct heart rate display.

CAUTION: Your training equipment is not a medical device. Different factors may influence the accuracy of the heart rate display. The heart rate display only serves as a training aid.

Telemetric heart rate measuring

This elliptical cross trainer is already equipped with a heart rate receiver as standard. Using a chest strap makes it possible for you to have a wireless heart rate measuring. This optimal and ECG-precise type of measuring reads the heart rate directly from the skin through a transmitting chest strap. The chest strap then sends the impulse to the receiver integrated in the console.

Positioning the chest strap and moistening the electrodes:

Place the belt directly below the chest, while the transmitter should be placed on the middle of the chest. The chest strap should sit comfortably, but not too loose. If the belt is too loose, the contact to the electrodes may be disrupted or the belt may slip while exercising. The transmitter turns on automatically once it is put on. In order to allow for a precise measuring, you should moisten the rubber electrodes. This is best done with a special chest strap contact gel, which is also used for ultrasound scans.

Note:

If you have not been active in doing sports for a longer period of time, you should first go to your physician in order to discuss your training with them. You should also contact your physician in advance in the event of heart problems, high/low blood pressure and obesity.

Training with heart rate orientation

Heart rate orientation guarantees an extremely effective and healthy training. Through your age and the following table, you can quickly and easily read and determine the optimal pulse for your training. An acoustic alarm will sound if your heart rate exceeds the set target heart rate. Which target heart rate is important for which training goal can be found out in the following.

Fat burning (weight management): The main goal here is to burn deposits of fat. In order to achieve this training goal, a low training intensity (approximately 55% of the maximum heart rate) and a longer training period are required.

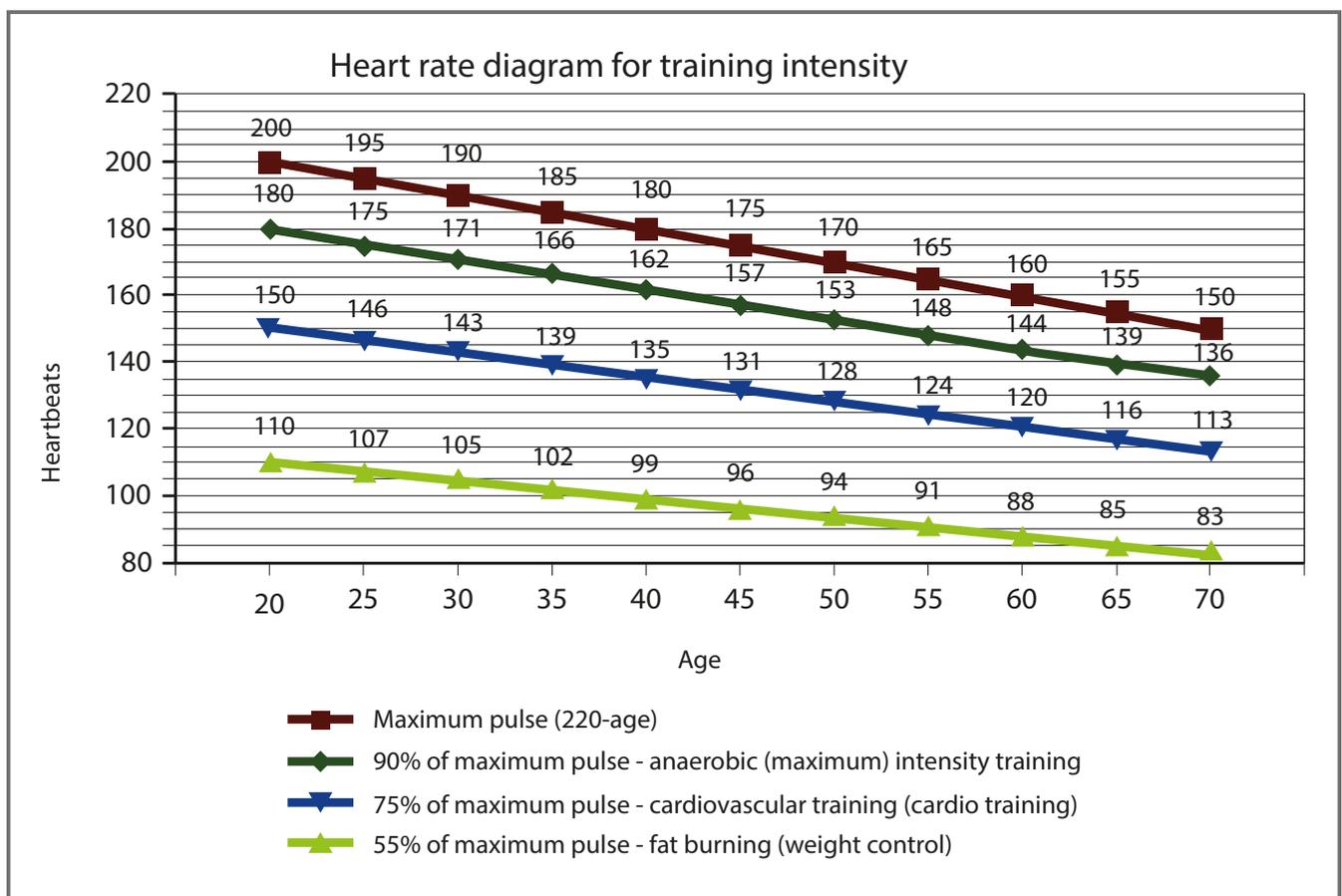
Cardiovascular training (cardio training): The primary goal is to increase stamina and fitness through an improved provision of oxygen through the cardiovascular system. In order to achieve this training goal, medium intensity (approximately 75% of the maximum heart rate) with a medium training period is required.

Anaerobic (maximum) load training: The main goal of maximum load training is to improve recovery after short, intense loads in order to be able to quickly return to the aerobic zone. In order to achieve this training goal, a high intensity (approximately 90% of the maximum heart rate) with short, intense load is required, which is followed by a recovery phase in order to prevent muscle fatigue.

Example:

For a 45-year-old man or woman, the maximum heart rate is 175 ($220 - 45 = 175$).

- The fat burning target zone (55%) is at approximately 96 beats/min.
= $(220 - \text{age}) \times 0.55$.
- The cardio target zone (75%) is at approximately 131 beats/min.
= $(220 - \text{age}) \times 0.75$.
- The maximum heart rate for an anaerobic load training (90%) is at approximately 157 beats/min.
= $(220 - \text{age}) \times 0.9$.



cardiostrong's fitness equipment is subject to strict quality controls. However, if a fitness equipment purchased from us does not work perfectly, we take it very seriously and ask you to contact our customer service as indicated. We are happy to help you by phone via our service hotline.

Error descriptions

Your fitness equipment is developed for long-term, high-quality training. However, should a problem arise, please first read the operating instructions. For further assistance, please contact your contract partner or call our service hotline. To ensure your problem is solved as quickly as possible, please describe the defect as exactly as possible.

In addition to the statutory warranty, we provide a warranty for every fitness equipment purchased from us according to the following provisions.

Your statutory rights are not affected.

Warranty

The warranty is the first/original buyer and/or any person who received a newly purchased product as a gift from the original buyer.

Warranty periods

The following warranty periods begin on delivery of the fitness equipment.

Model	Use	Full warranty
EX90	Home use	24 months

Repair costs

According to our choice, there will either be a repair, a replacement of individual damaged parts or a complete replacement. Spare parts, that have to be mounted while assembling the equipment, have to be replaced by the warranty personally and are not a part of repair. After the expiration of the warranty period for repair costs, a pure parts warranty applies, which does not include the repair, installation and delivery costs.

The terms of use are defined as follows:

- Home use: solely for private use in private households up to 3 hours per day
- Semi-professional use: up to 6 hours per day (e. g. rehabilitation centers, hotels, clubs, company gyms)
- Professional use: more than 6 hours per day (e. g. commercial gyms)

Warranty service

Within the warranty period, equipment which develops faults as a result of material or manufacturing defects, will be repaired or replaced at our discretion. Ownership of equipment or parts of equipment which have been replaced is transferred to us. The warranty period is not extended nor does a new warranty period begin following repair or replacement under the warranty.

Warranty conditions

For the warranty to be valid, the following steps must be taken:

Please contact our customer service by email or phone. If the product under warranty has to be sent in for repair, the seller bears costs. After expiry of the warranty, the buyer bears the costs of transport and insurance. If the fault is covered by our warranty, you will receive a new or repaired equipment in return.

Warranty claims are invalid in case of damage resulting from:

- misuse or improper handling
- environmental influences (moisture, heat, electrical surge, dust, etc.)
- failure to follow the current safety measures for the equipment
- failure to follow the operating instructions
- use of force (e. g. hitting, kicking, falling)
- interventions which were not carried out by one of our authorized service centers
- unauthorized repair attempts

Proof of purchase and serial number

Please make sure that you are able to provide the appropriate receipt when claiming on your warranty. So that we can clearly identify the model of your equipment, and for the purposes of our quality control, you will need to give the serial number of your equipment, when contacting the service team. Where possible please have your serial number and your customer number ready when you call our service hotline. It will help us to deal with your request swiftly.

If you cannot find the serial number on your fitness equipment, our service team is at your disposal to offer further information.

Service outside of the warranty period

We are also happy to issue an individual cost estimate if there is a problem with your fitness equipment after the warranty has expired, or in cases which do not fall under the terms of the warranty, e. g. normal wear and tear. Please contact our customer service team to find a quick and cost-effective solution to your problem. In such a case you will be responsible for the delivery costs.

Communication

Many problems can be solved just by speaking to us as your contract partner. We know how important it is to you as a user of the fitness equipment to have problems solved quickly and simply, so you can enjoy working out with minimal interruption. For that reason, we also want to resolve your queries quickly and in a straightforward manner. Thus, please always keep your customer number and the serial number of the faulty equipment handy.

6 DISPOSAL



At the end of its operational life, this equipment cannot be disposed of in normal household waste. Instead, it must be disposed of via an electricals recycling centre. Further information can be obtained from your local authority's recycling service.

The materials can be recycled as per their symbols. Through the reuse, recycling of materials or other forms of recovery of old equipment, you make an important contribution to the protection of the environment.

7 RECOMMENDED ACCESSORIES

To make your training experience even more efficient and pleasant, we recommend you to add suiting accessories to your training machine. This could be a **floor mat** that ensures that your product stands absolutely securely and protects your floor from sweat. Another example is the option of extended handrails that can be combined with some of our treadmills or **silicone spray** to keep moving parts in perfect condition.

In case you purchased a training machine that provides heart rate oriented training programmes, we highly recommend you to make use of a compatible chest strap. This ensures that your pulse is transmitted optimally. As for multi-gyms you might acquire a liking for **additional handles** or **weights**.

Our range of accessories offers you the highest quality and improves your training even more. If you would like to get information about compatible accessories, please visit our online store and look up the detailed page of your product. To do this, simply type in your training machine's article number in the search bar at the top of your screen. Now scroll down until you find the appropriate accessories. Alternatively you can contact our customer service either by telephone, e-mail or in person in one of our stores. We will be happy to advise you!



floor mat



chest strap



gym towels

8.1 Service hotline

So that we can give you the best possible service, please have your **model name, part number, serial number, exploded drawing and parts list** ready.

SERVICE-HOTLINE

DE ☎ +49 4621 4210-0 🖨 +49 4621 4210-699 ✉ service@sport-tiedje.de Mo. - Fr. 8:00 - 18:00 Sa. 9:00 - 18:00	DK ☎ 80 90 16 50 ☎ +49 4621 4210-945 ✉ info@t-fitness.dk Ma. - Fr. 8:00 - 18:00 Lø. 9:00 - 18:00	FR ☎ +33 (0) 172 770033 ☎ +49 4621 4210-933 ✉ service-france@sport-tiedje.fr Lun. - Ven. 8:00 - 18:00 Sam. 9:00 - 18:00
NL ☎ +31 172 619961 ✉ info@fitshop.nl Ma. - Do. 9:00 - 17:00 Vr. 9:00 - 21:00 Za. 10:00 - 17:00	UK ☎ +44 141 876 3972 ✉ orders@powerhousefitness.co.uk Mon. - Fri. 9:00 - 17:00	INT ☎ +49 4621 4210-0 ✉ service-int@sport-tiedje.de Mon - Fri 8:00 - 18:00 Sat 9:00 - 18:00

8.2 Serial number and model name

Before assembling your equipment, find the serial number on the white sticker and enter it in the appropriate space.

Serial number:

Brand / category:

Model name:

8.3 Parts list

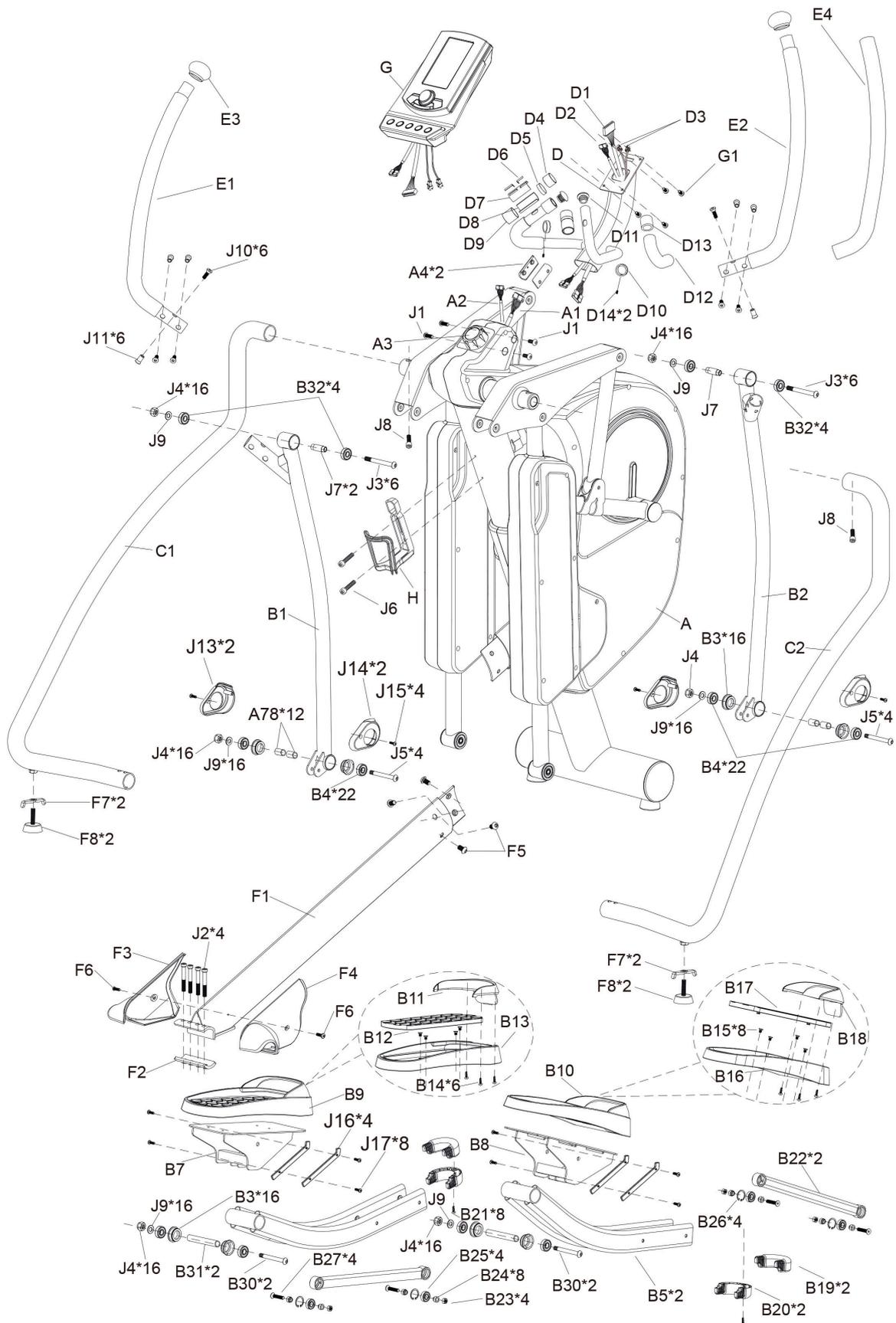
No.	Qty.	Description	No.	Qty.	Description
A	1	Main frame	A30	2	Transportation wheel
A1	1	Sensor wire 900mm	A31	4	Screw m12*53
A2	1	Controller wire 500mm	A32	1	Pressing pipe
A3	1	Knob	A33	2	Washer 10* 23*2t
A4	4	Connection slice 40 (4t)	A34	2	Bearing 6200(mrb)
A5	2	Incline motor sensor wire	A35	1	Screw m10*30
A8	1	Incline motor controller box	A36	1	J shape screw m6
A9	2	Screw m5*10	A37	1	Connection wire between switch ac power and power cord
A10	1	Adaptor 1	A38	1	Washer m6* 16*2t
A11	1	Dc wire 600mm	A39	1	Ground wire
A12	2	Socket	A41	1	Flywheel 327
A13	1	Nut	A42	2	Nut 3/8"
A14	4	Screw m3*8	A43	1	Tension cable 400mm
A15	1	Sensor wire 100mm	A44	4	Screw m5*10
A15-1	1	Sensor wire housing	A45	2	Turing plate
A15-2	1	Sensor wire housing screw	A46	2	Crank
A16	1	Motor	A47	1	Bearing nut
A17	1	Connection cable between over-load switch and switch ac power	A47-1	1	Bush 25.2* 29.2*51.4mm
A18	2	Bearing 6005(tpx)	A47-2	1	Bush 25.2* 29.2*8mm
A19	1	Brake device (3t)	A48	4	Screw m8*20
A20	1	Screw m6*43	A49	1	Axle 25*160mm
A21	1	Screw m8*16	A50	1	Magnetic 15*7
A22	2	Washer(10*12)	A51	1	Belt wheel 360(j10)
A23	1	Overload switch	A52	1	Belt 530(1355mm)*j8
A24	1	Connection wire between over-load swtich and switch ac power	A53	4	Nut m8
A25	1	Power connection wire	A54	1	Oscillating axle base (r)
A26	1	Switch ac power	A55	1	Oscillating axle base (l)
A27	1	Power cord socket	A56	2	Handlebar supporting cover
A28	2	Screw m3*10	A57	2	Bearing 6905(tpx)

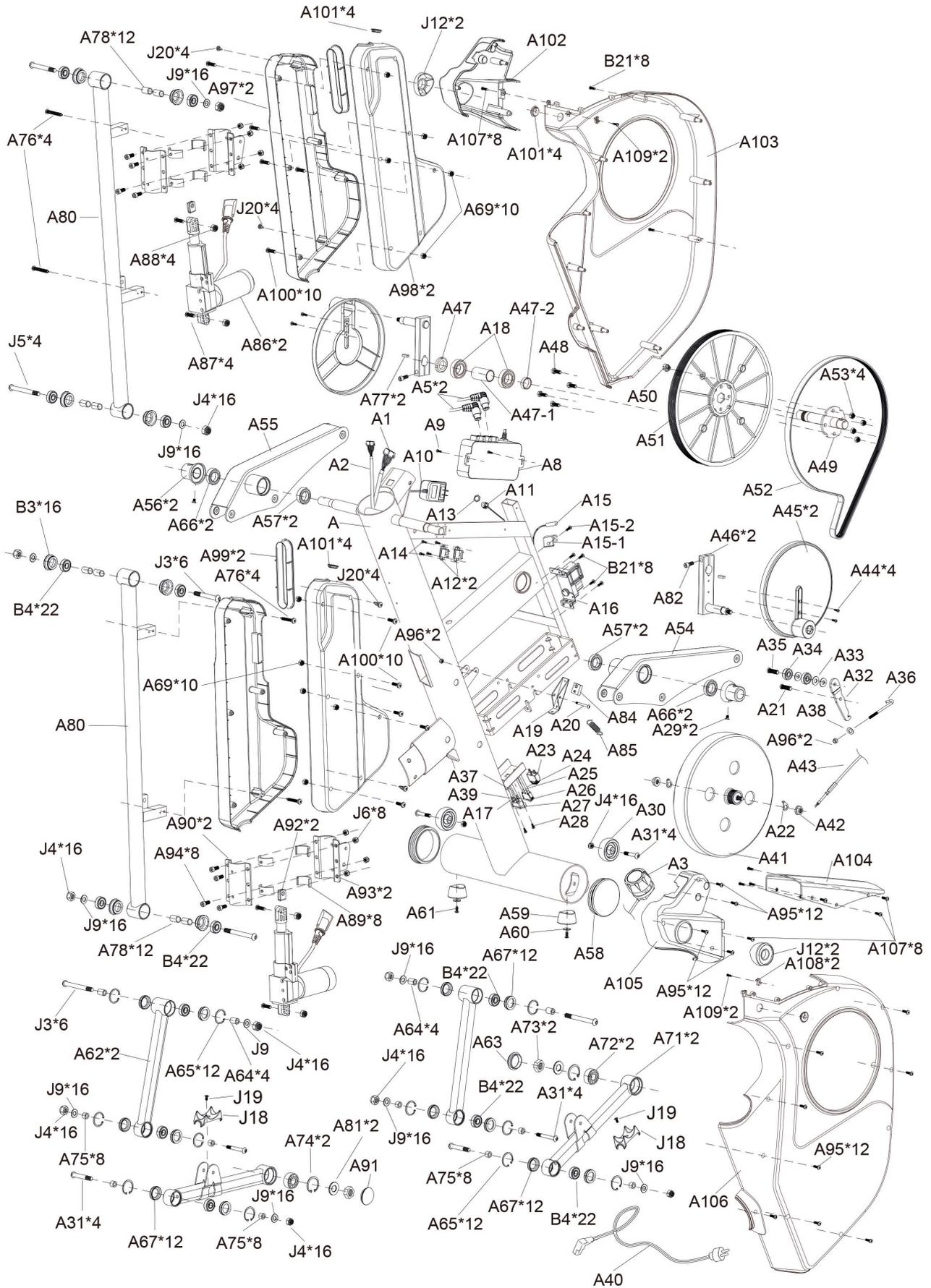
No.	Qty.	Description	No.	Qty.	Description
A58	2	End cap 4"	A93	2	Push rod bracket (rear)
A59	2	Fix cushion 50 tpr	A94	8	Screw m8*20
A60	2	Washer m6*2t* 19	A95	12	Screw 5/32"*3/4"(m4*19mm)
A61	2	Screw 3/16"*5/8"	A96	2	Nut m6
A62	2	Front connecting shaft	A97	2	Side decoration housing set(l)
A63	1	End cap	A98	2	Side decoration housing set(r)
A64	4	Bush 12.1* 16*20mm	A99	2	Front side decoration cover
A65	12	Clip(r36)	A100	10	Screw m4*20
A66	2	Bearing 6004(tpx)	A101	4	End cap
A67	12	Bearing sleeve 42*3t	A102	1	Small chain cover (l)
A69	10	Nut m4	A103	1	Main chain cover (l)
A71	2	Crank connecting shaft	A104	1	Upper decoration housing
A72	2	Bearing 2203(mrb)	A105	1	Small chain cover (r)
A73	2	Nut m10	A106	1	Main chain cover (r)
A74	2	Clip(r40)	A107	8	Screw m4*12
A75	8	Bush 12.1* 16*10.5mm	A108	2	Motor sensor wire housing
A76	4	Screw m4*38	A109	2	Motor sensor wire housing screw
A77	2	Flat key 7*7*20mm	B1	1	Pedal supporting tube(l)
A78	12	Bush 12.1* 16*14.75mm	B2	1	Pedal supporting tube(r)
A80	2	Front pedal supporting tube	B3	16	Bearing sleeve
A81	2	Washer 10* 27*2t	B4	22	Bearing 6201(tpx)
A82	2	Screw m10*40mm	B5	2	Lower pedal supporting tube
A83	4	Nut	B7	1	Pedal bracket (l)
A84	1	Brake	B8	1	Pedal bracket (r)
A85	1	Spring	B9	1	Pedal rest (l)
A86	2	Motor push rod	B10	1	Pedal rest (r)
A87	4	Axle for motor push rod	B11	1	Front cover pedal(l)
A88	4	Nut	B12	1	Cushion pad(l)
A89	8	Nylon sleeve	B13	1	Pedal(l)
A90	2	Push rod bracket (front)	B14	6	Screw 5/32"*5/8"(m4*15mm)
A91	1	End cap	B15	8	Screw m6*10mm
A92	2	Spacer shim	B16	1	Pedal(r)

No.	Qty.	Description	No.	Qty.	Description
B17	1	Cushion pad(r)	D14	2	Screw m4*4mm
B18	1	Front cover pedal(r)	E1	1	Handle bar(l)
B19	2	Upper cap for pedal supporting 20*60	E2	1	Handle bar(r)
B20	2	Lower cap for pedal supporting 20*60	E3	2	End cap 1 1/4"
B21	8	Screw 5/32"*1/2"	E4	2	Spong hdr 30*3t*615
B22	2	Middle pedal supporting rod	E5	4	Connection slice 38(4t)
B23	4	Nut m8	F1	1	Central supporting tube
B24	8	Bush 8*(12+ 15)	F2	1	Iron barcket
B25	4	Bearing 6001(tpx)	F3	1	Joint cover(l)
B26	4	Clip(r28)	F4	1	Joint cover(r)
B27	4	Screw m8*40mm	F5	4	Screw m10*16
B30	2	Screw m12*133mm	F6	2	Joint cover screw
B31	2	Bush 15* 12.35*90mm	F7	2	Adjusted nut
B32	4	Bearing 6003zz	F8	2	Adjusted end 50
C1	1	Side connecting tube(l)	G	1	Console
C2	1	Side connecting tube(r)	G1	4	Screw m5*10
D	1	Console supporting tube	H	1	Water bottle
D1	1	Sensor wire 350mm	J1	4	Screwm8*16
D2	1	Sensor wire 350mm	J2	4	Screw m8*60
D3	2	Handle pulse wire	J3	6	Screw m12*73
D4	2	Handle pulse ring 31.8*0.9t*19.5mm	J4	16	Nut m1 2
D5	2	Spacer ring 32*30.4	J5	4	Screw m12*109
D6	4	Handle pulse	J7	2	Bush
D7	2	Uppder handle pulse housing	J8	2	Screw m8*20
D8	2	Lower handle pulse housing	J9	16	Washer m12*20
D9	2	Handle pulse ring 31.8*0.9t*30.5mm	J10	6	Screw
D10	2	Foam spacer ring 32* 25.8*10mm	J11	6	Scr ew
D11	2	End cap	J12	2	End cap
D12	2	Spong hdr 23*3t*150	J13	2	Pedal housing(r)
D13	2	Spong hdr 23*3t*34	J14	2	Pedal housing(l)

No.	Qty.	Description	No.	Qty.	Description
J15	4	Screw	J18	2	Crank housing
J16	4	Pedal reinforcement strip	J19	2	Screw
J17	8	Screw	J20	4	Side decoration housing screw

8.4 Exploded drawing





CONTACT

Company head office

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Flensburger Str. 55
24837 Schleswig

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www.sport-tiedje.com
www.cardiostrong.de

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Product and manual are subject to change. Technical data can be changed without advance notice.

Please find a detailed overview including address and opening hours for all specialist fitness stores of the Sport-Tiedje Group in Germany and abroad on the following website.

www.sport-tiedje.com/en/stores

Note

