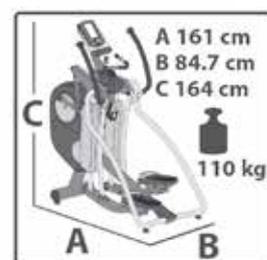




Assembly and operating instructions



Art. No. CST-EX80-2

Elliptical cross trainer **EX80**

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.

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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

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

Weight and dimensions:

Article weight (gross, including packaging): 124 kg
Article weight (net, without packaging): 110 kg
Packaging dimensions (L x W x H): approximately 1432 mm x 1153 mm x 506 mm
Setup dimensions (L x W x H): approximately 1611 mm x 847 mm x 1640 mm
Maximum user weight: 150 kg/330 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 ASSEMBLY INSTRUCTIONS, MAINTENANCE AND CARE

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

Problem	Cause	Solution
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

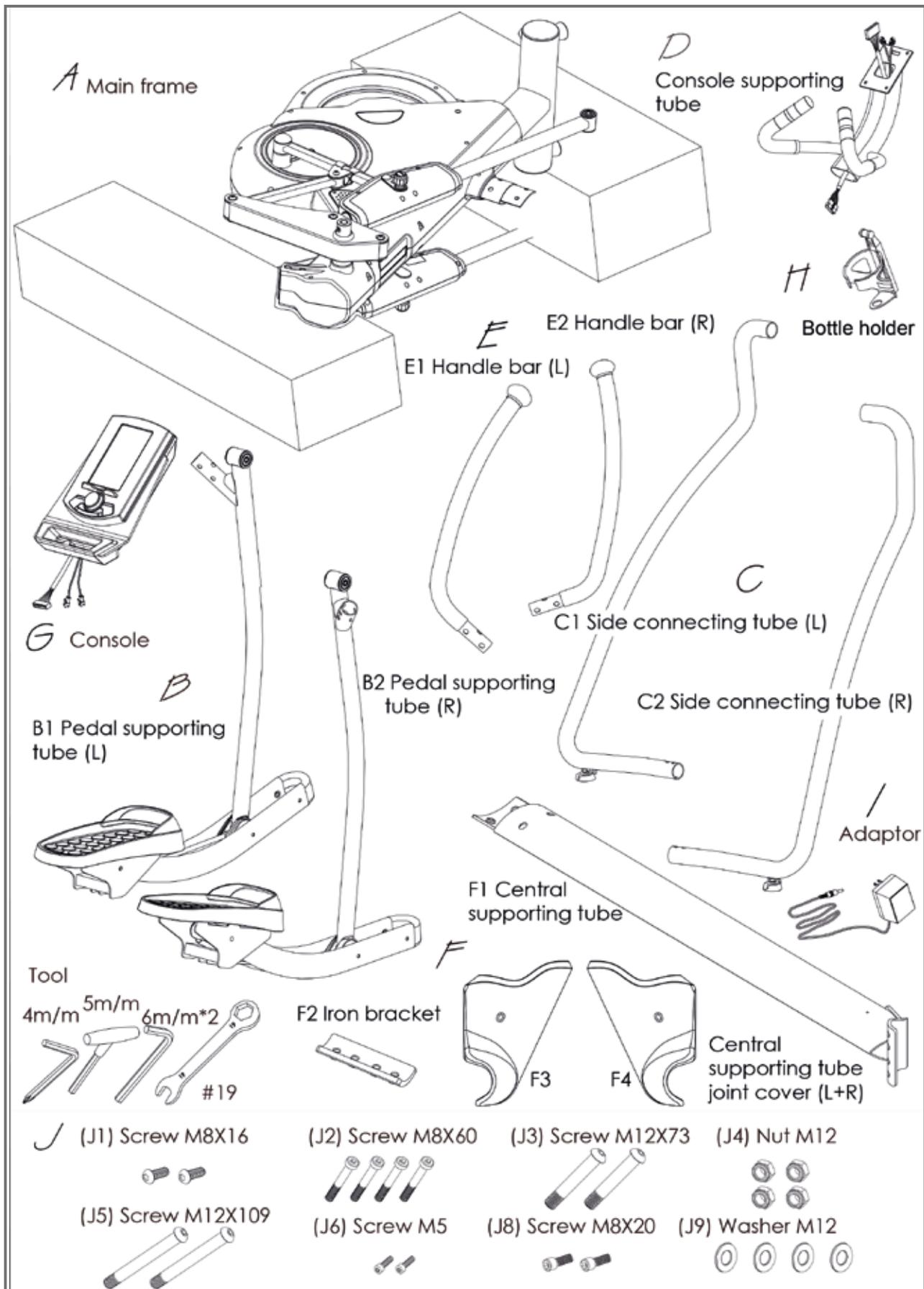
The following routine work must be done in the specified time intervals:

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 ASSEMBLY

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.

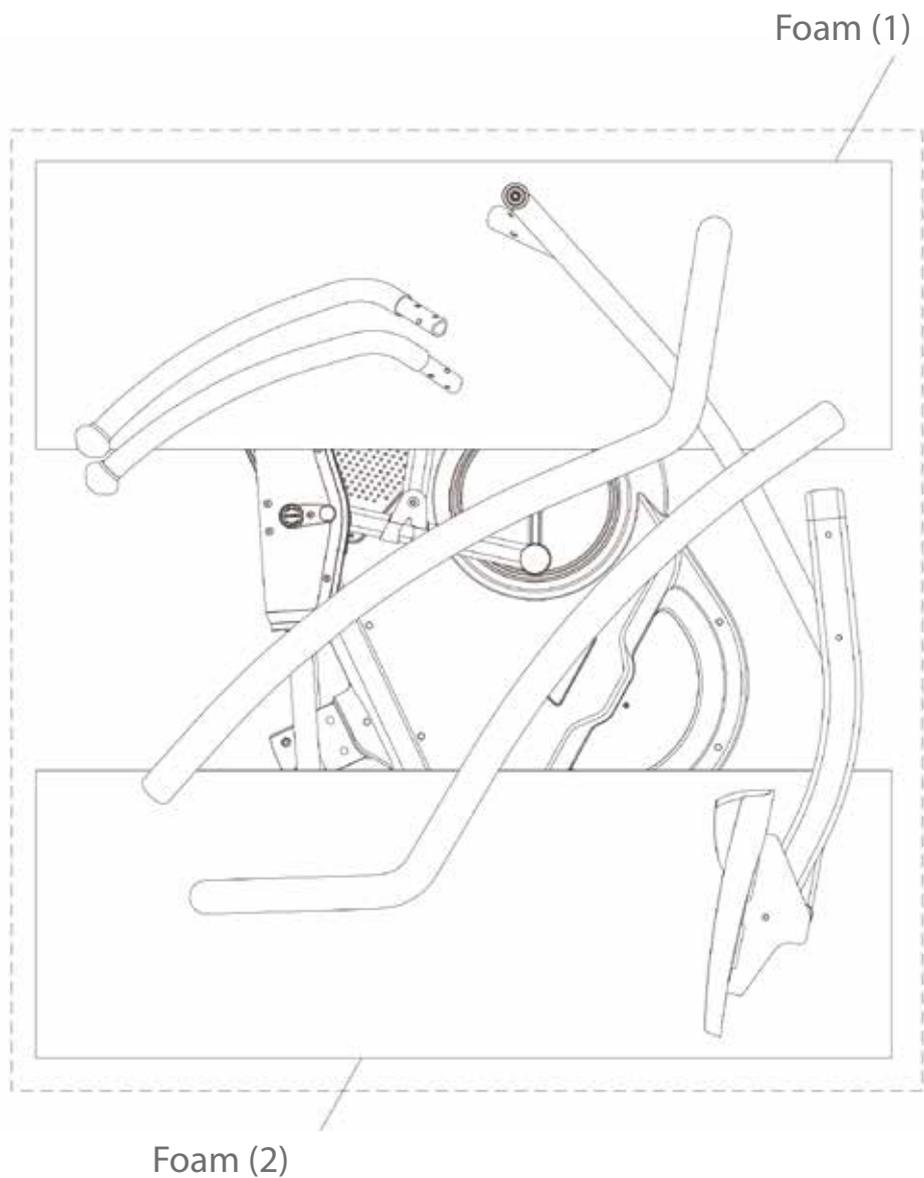


3.2 Assembly instructions

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

Caution while unpacking:

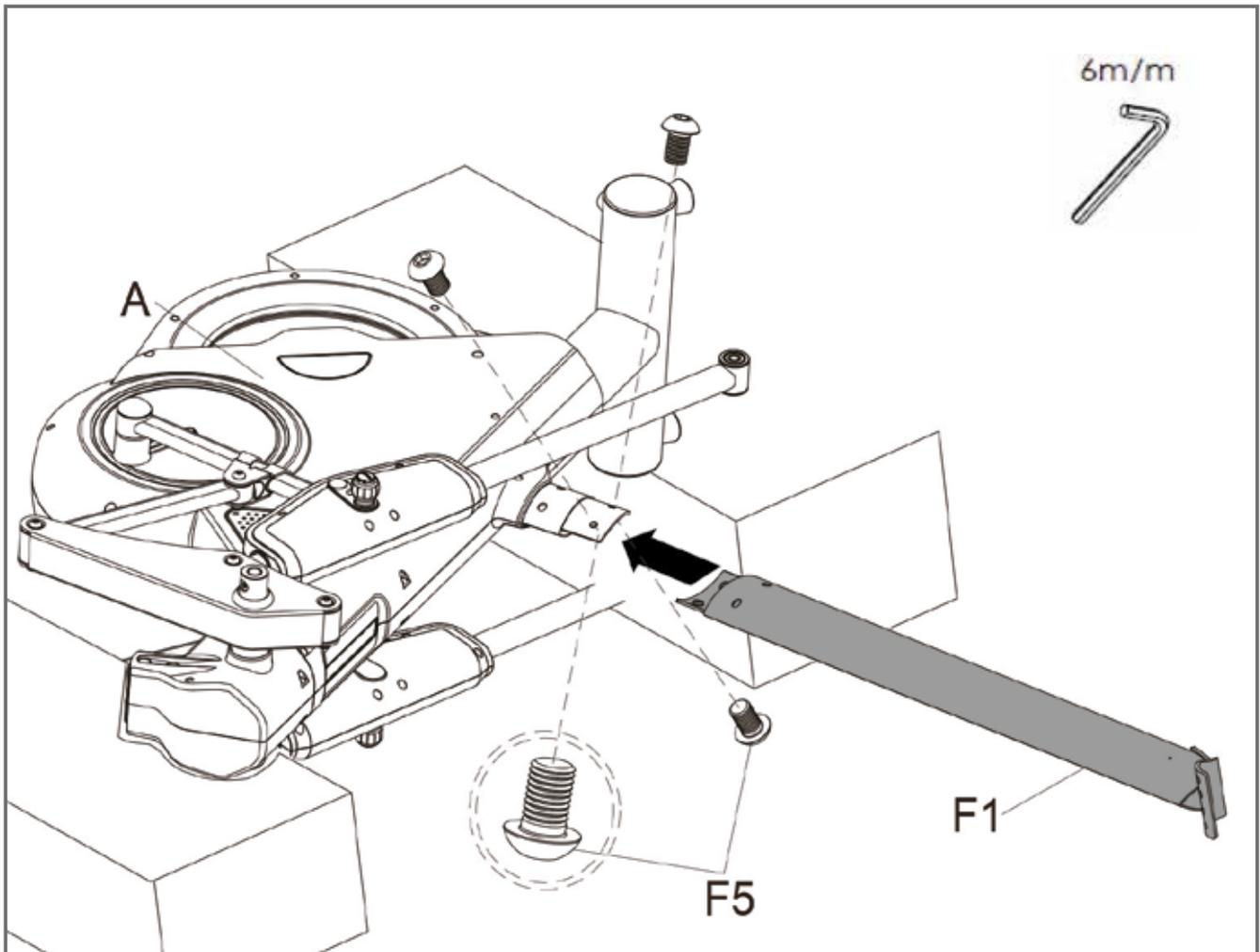
Place box flat on the ground, remove cover. Unpack handles, side supporting bars, pedal bars and operating instructions. Remove the upper foam parts (1) and (2) and take out the console, console supporting tube, console mast, pedal supporting bars and hardware bag. First leave the main frame (A) and lower foam parts (3) and (4) in the box.



Step 1: Assembly of the console mast

- (1) Remove the two pre-mounted screws (F5) from the main frame (A) and two screws (F5) from the console mast (F1).
- (2) Mount the console mast (F1) on the main frame (A) with the previously removed screws (F5).

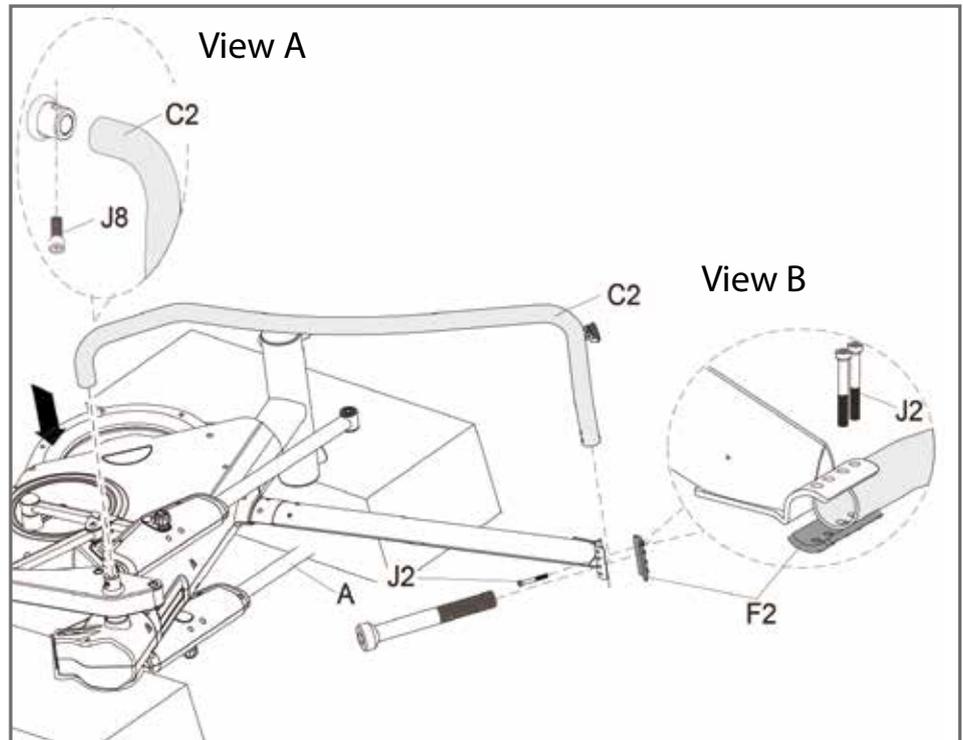
Note: Tighten all four screws (F5) before you continue with step 2.



Step 2: Assembly of the right connecting tube

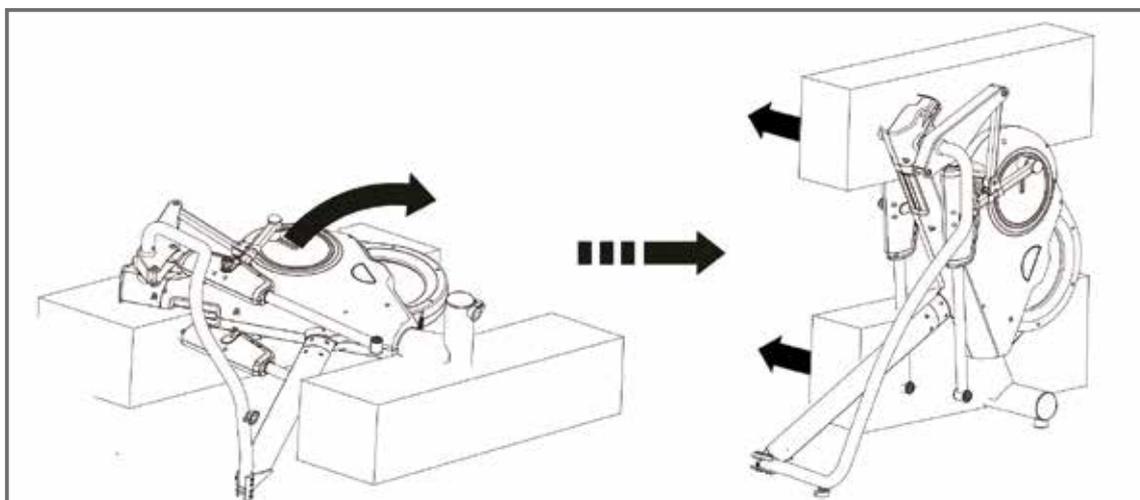
- (1) See view A: Mount right connecting tube (C2) on the main frame (A).
- (2) Tighten the tube with screws (J8) M8 x 20 on the frame.
- (3) See view B: Tighten tube with two screws (J2) M8x60 and clamp (F2) on the bottom of the frame.

Note: First completely tighten screws (J8 and J2) as soon as step 3 was finished.



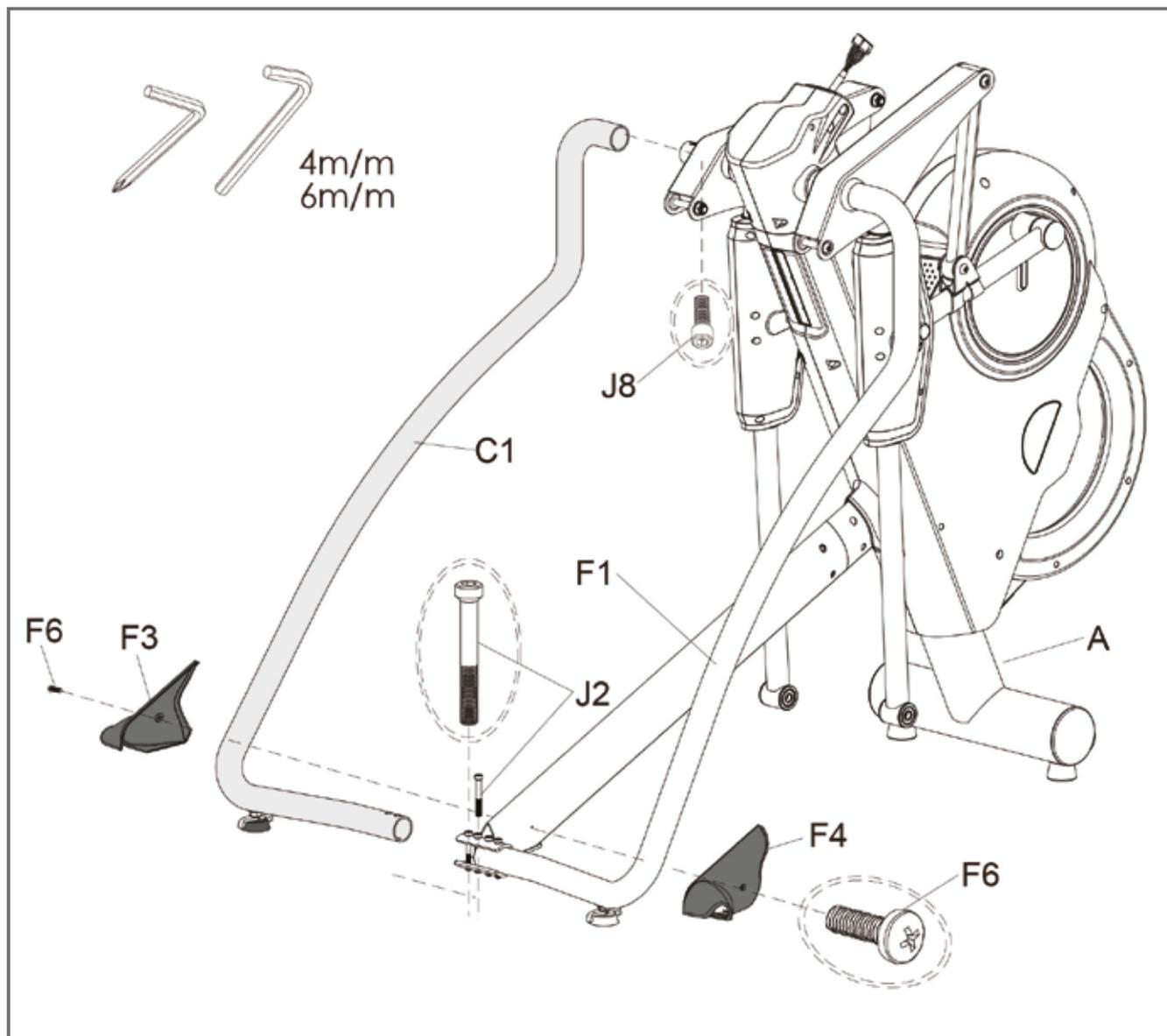
- (4) Two people lift the main frame (A) and remove the Styrofoam, see image below.

Note: Due to safety reasons, the main frame should be lifted by at least two people and brought into a vertical position.



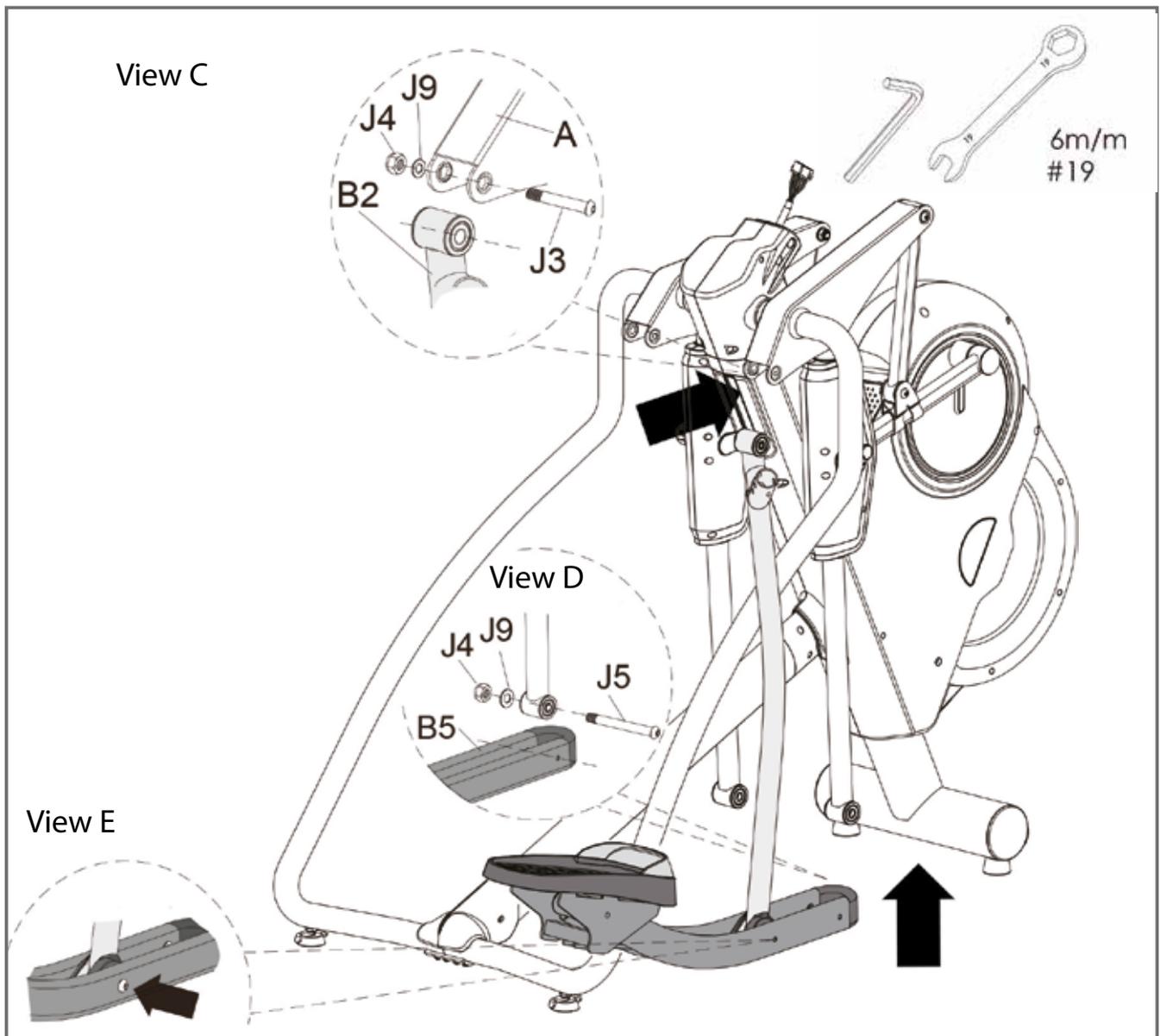
Step 3: Assembly of the left supporting foot and joint cover

- (1) Mount the left connecting tube (C1) with the main frame (A) on the top with the screw (J8) and on the bottom with the two screws (J2) with the clamp (F2) - just like the right tube (C2) in figure 2.
- (2) Now all screws (J8, J2) of steps 2 and 3 can be tightened.
- (3) Remove two screws (F6) from the connecting mast (F1).
- (4) Connect joint covers (F3 and F4) with connecting mast (F1) and tighten with screws (F6)



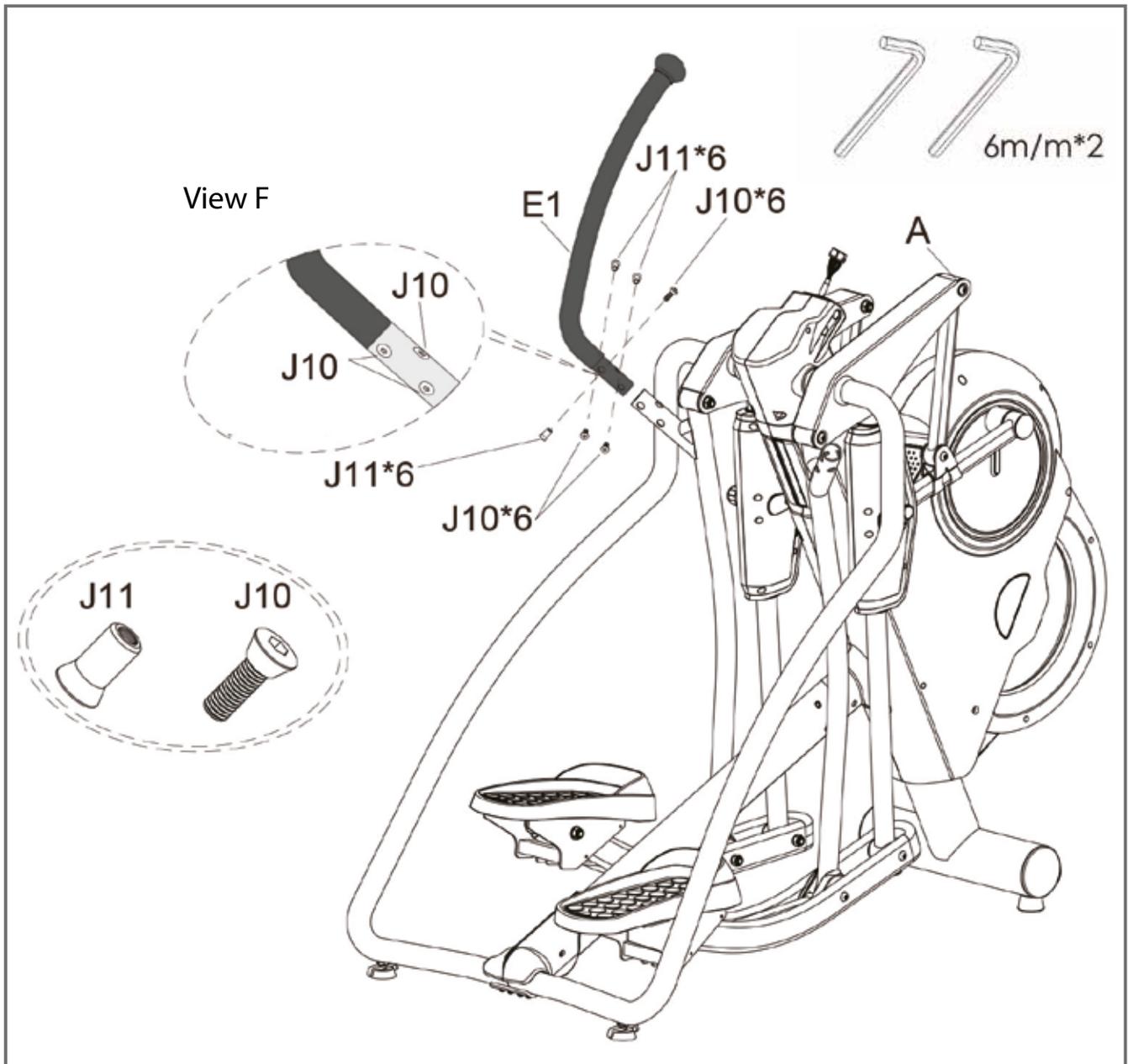
Step 4: Assembly of the pedal supporting tube

- (1) See view D: Tighten nut (J4) and washer(J9) after the screw (J5).
- (2) See view C: Connect right pedal supporting tube (B2) with the main frame (A) and tighten with nut (J4), washer (J9) and screw (J3).
- (3) See view E: After this, mount the tube with the pre-mounted screw (J5) and nut (J4).
- (4) Repeat the same steps for the assembly of the left pedal supporting tube.



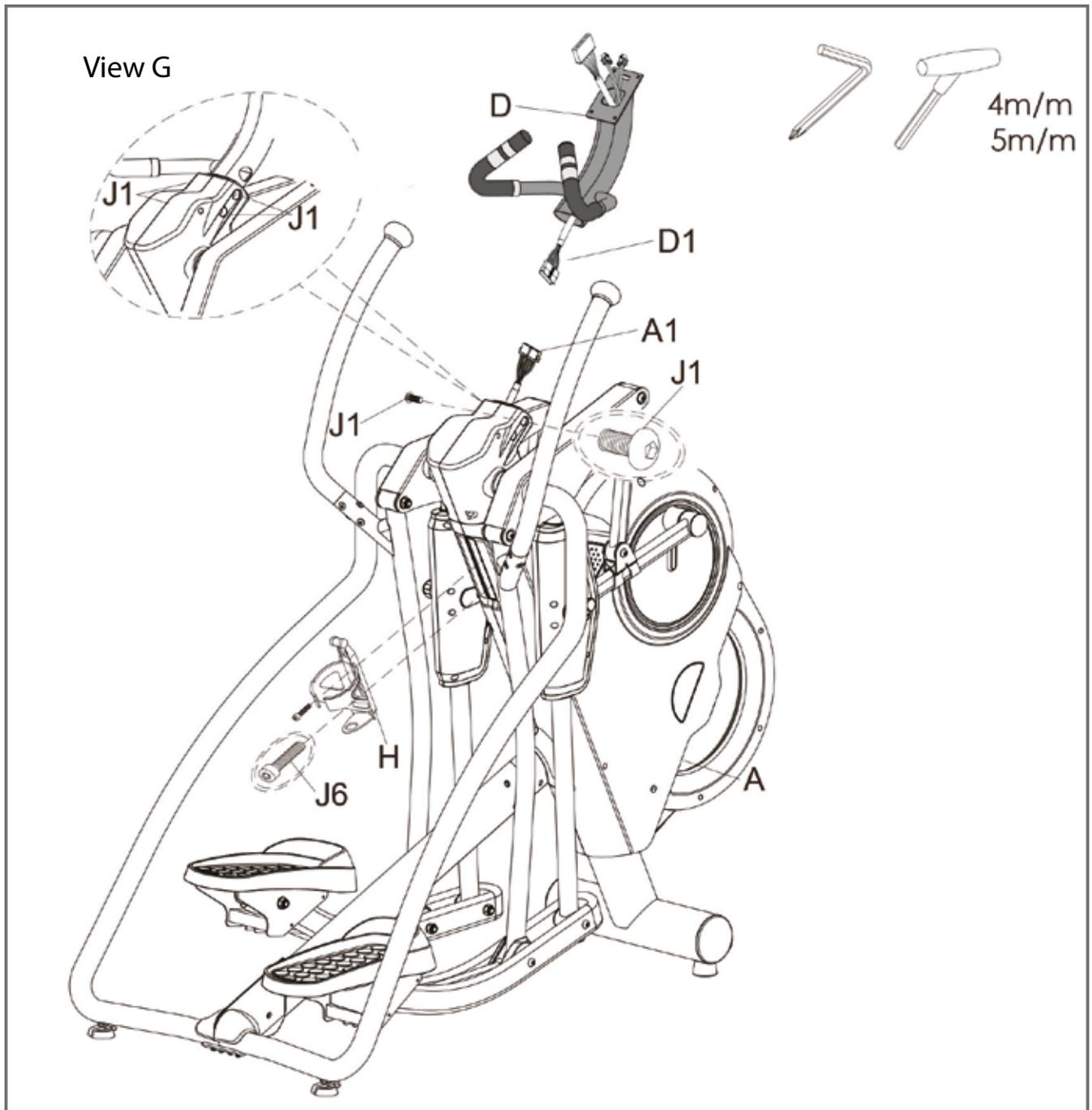
Step 5: Assembly of the handles

- (1) Remove the six pre-mounted screws (J10 and J11) from the left handle (E1).
- (2) See view F: Mount left handle (E1) on main frame (A) and tighten all screws (J10 and J11) with two 6mm Allen wrenches.
- (3) Repeat the assembly (E2) on the right side (E2).



Step 6: Assembly of the console supporting tube and the bottle holder

- (1) Connect cable (D1) from the console supporting tube (D) with cables (A1) on the main frame (A).
- (2) See view G: Mount the console supporting tube (D) on the main frame (A) with two screws (J1) and the two pre-mounted screws (J1). Tighten four screws (J1).
- (3) Mount the bottle holder (H) on the main frame (A) with screws (J6).

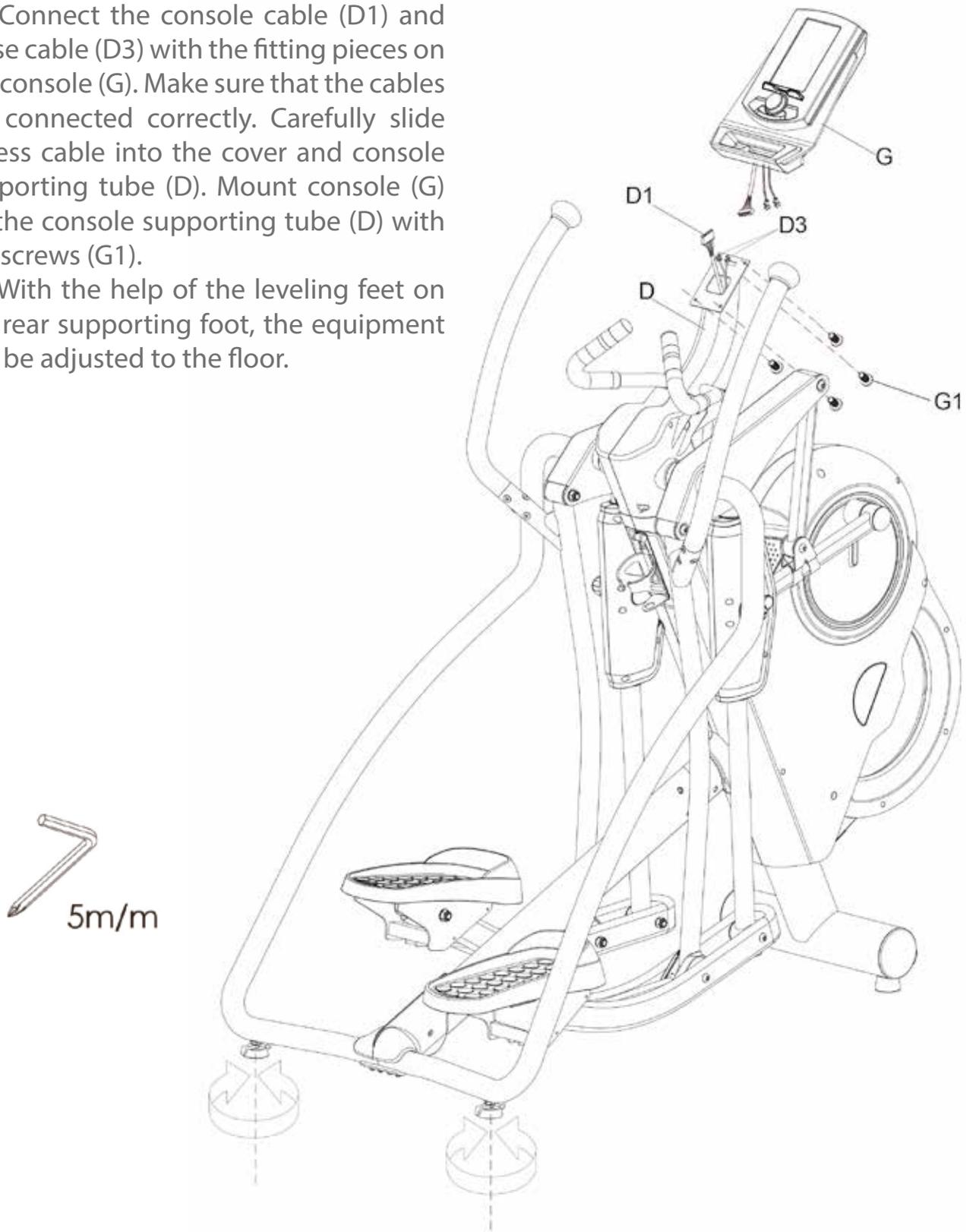


Step 7: Assembly of the console

(1) Remove four screws (G1) on the back of the console (G).

(2) Connect the console cable (D1) and pulse cable (D3) with the fitting pieces on the console (G). Make sure that the cables are connected correctly. Carefully slide excess cable into the cover and console supporting tube (D). Mount console (G) on the console supporting tube (D) with the screws (G1).

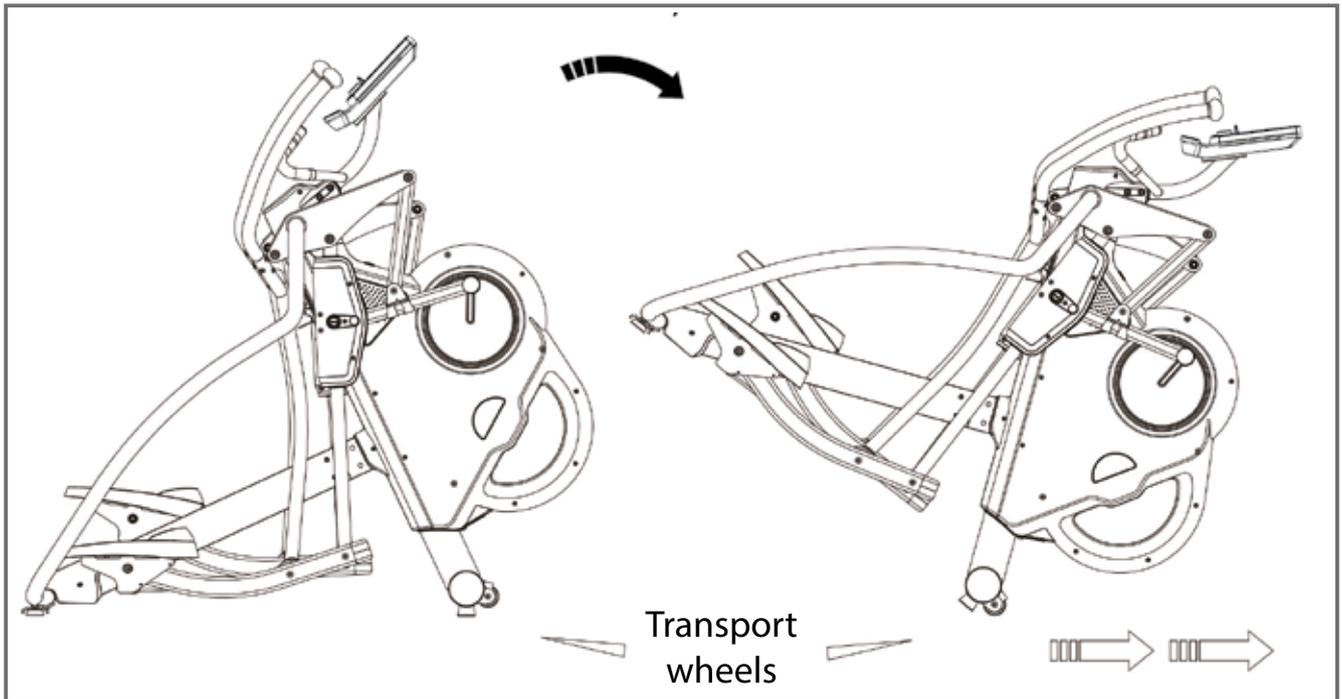
(3) With the help of the leveling feet on the rear supporting foot, the equipment can be adjusted to the floor.



Step 8: Transport

In order to move the equipment, lift on both sides of the connecting tubes until the transport wheels touch the ground. Then move the equipment to the desired place. Now slowly and carefully lower the equipment to the floor. If necessary, adjust the leveling feet below the rear base of the equipment.

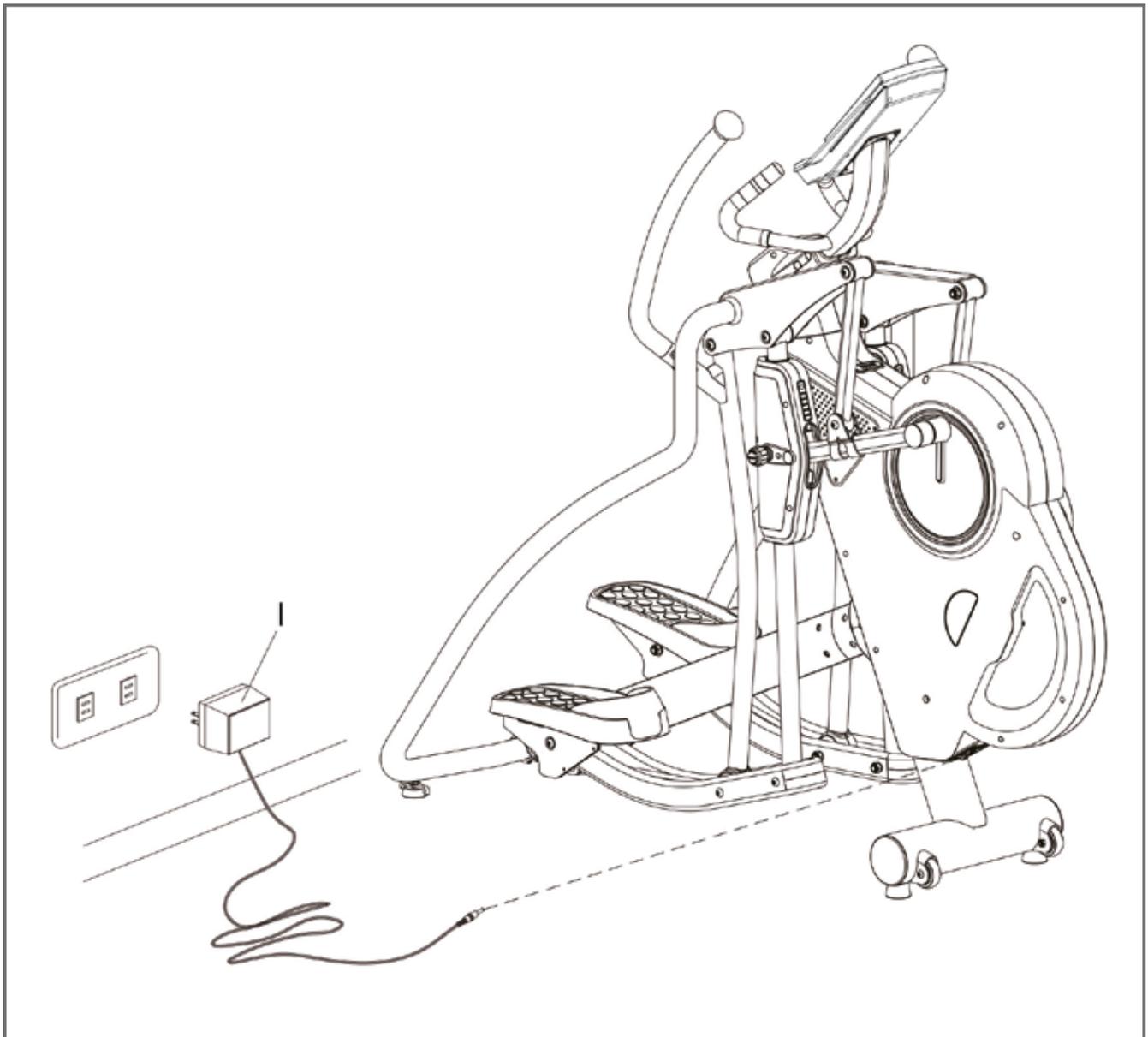
WARNING: Do not lift the equipment alone! For safety reasons, at least with two people.



Step 9: Power cable

Insert power cable in the plug on the equipment before the equipment is connected to the outlet.

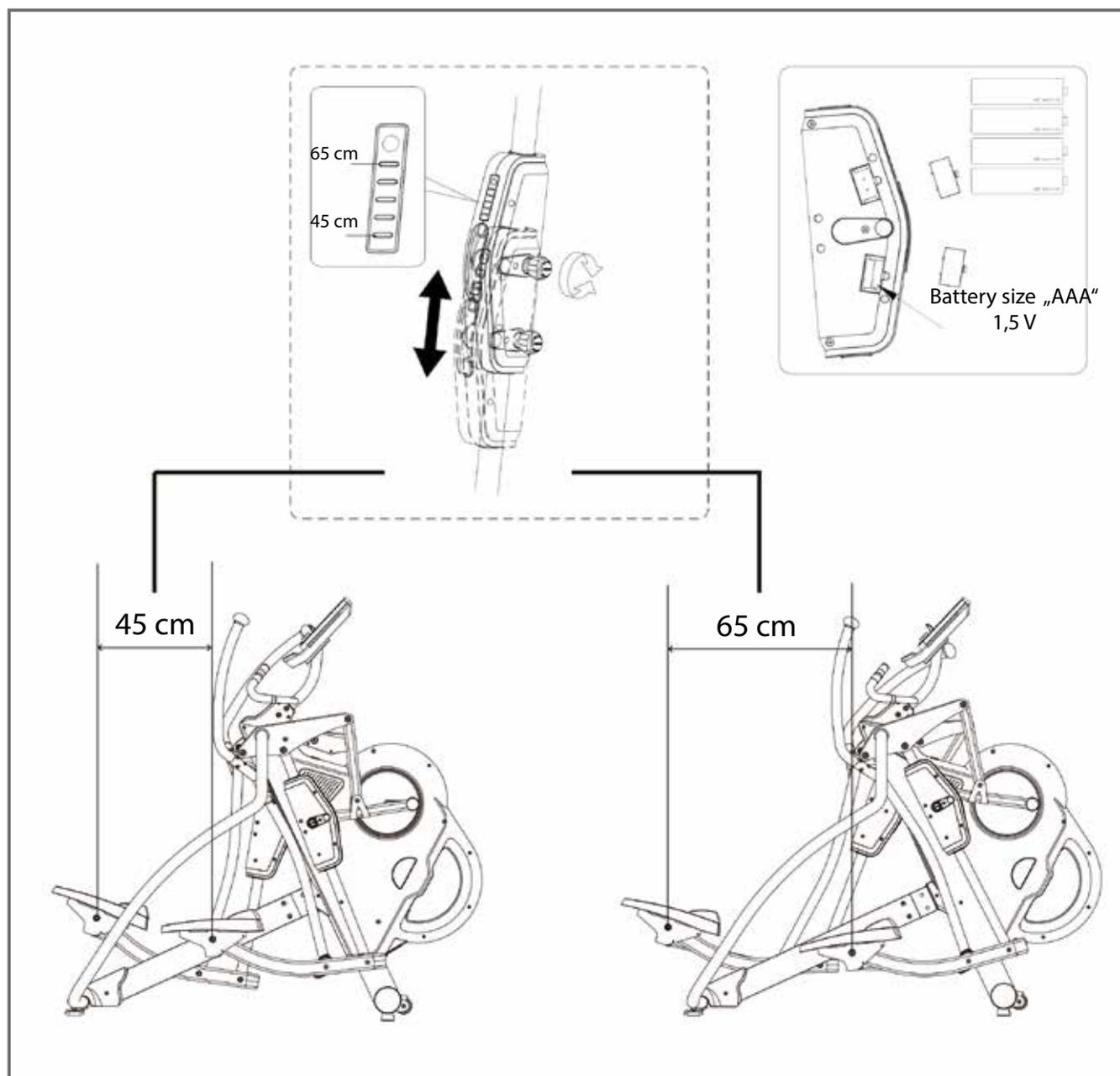
Note: The overload switch serves as a protective mechanism. It is triggered if the equipment has an electrical overload. Turn off the power switch and then back on in order to restart the equipment.



Step 10: Adjust stride lengths

- (1) There are five different stride lengths (45 cm (18"), 50 cm (20"), 55 cm (22"), 60 cm (24"), 65 cm (26")), which are illustrated in the LED window.
- (2) Loosen and remove the pin in order to set the desired stride length.
- (3) Once the stride length has been selected, tighten the pin again.
- (4) Repeat the stride on the other side.

WARNING: For safety reasons, NEVER adjust the stride length while you are on the equipment. Always adjust both stride lengths equal to each other.



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

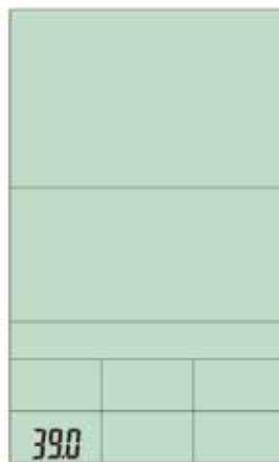


Figure 2



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

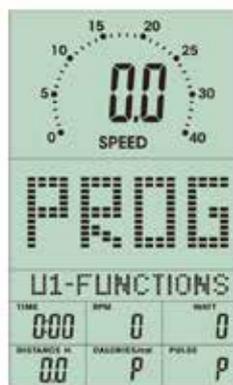


Figure 10



Figure 11



Figure 12

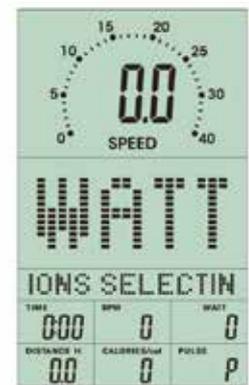


Figure 13

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.

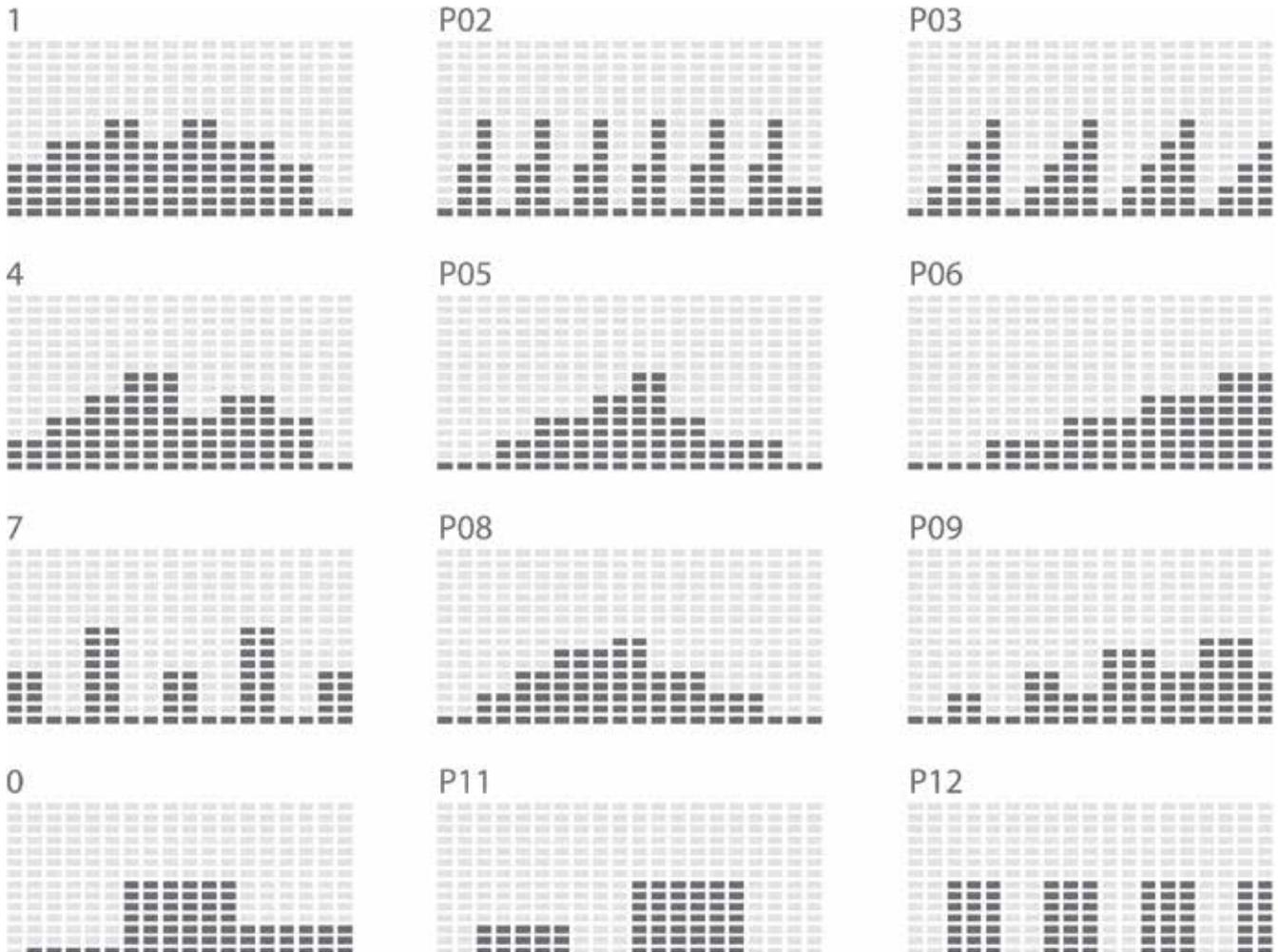
Procedure for setting the manual programs:

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:



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:

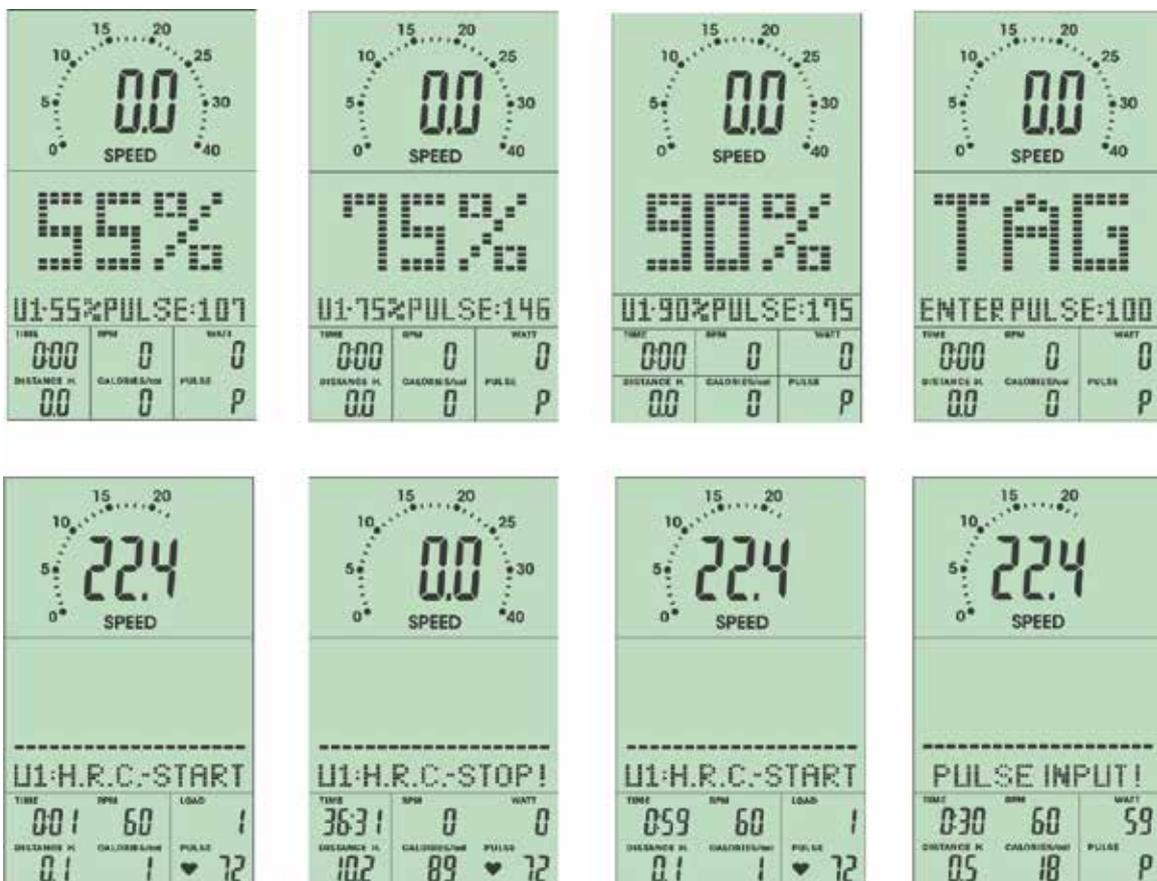
Set program mode		Set resistance	Press for two seconds	Specification of the training time	
					
Turn left or right	Press Enter	Turn left or right	Press Enter, repeat the process 20 times until all segments are set	Turn left or right	Press Start/Stop

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
F1	Very good
F2	Good
F3	Average
F4	Sufficient
F5	Poor
F6	Very poor



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.

5.1 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.

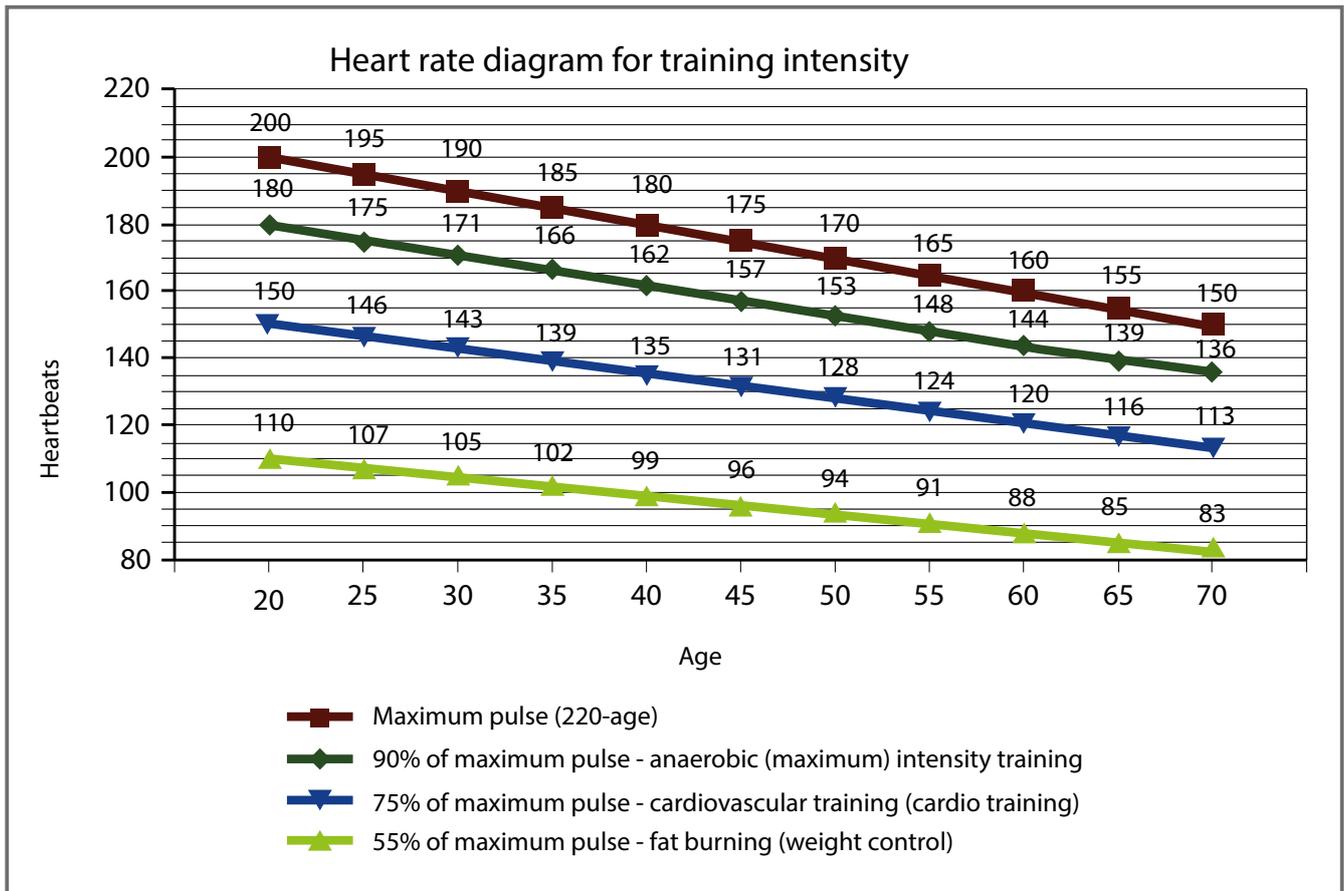
Cardiovascular training (cardio training): The primary goal is to increase stamina and fitness through an improved provision of oxygen through the cardiovascular system. In order to achieve this training goal, medium intensity (approximately 75% of the maximum heart rate) with a medium training period 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. $= (220 - \text{age}) \times 0.9$.



5.2 10 tips for effective elliptical cross training

1. Set goals

What would you like to achieve with your training? Weight regulation, improved stamina, prevent risk of disease, more mobility, cardiovascular training, etc. In order to achieve your long-term training goal, set individual partial goals, e. g., weekly or monthly goals.

2. Concentration on training

Try to only dedicate yourself to your training unit and do not be distracted.

3. Position yourself correctly while exercising

As you step, your upper body should be shifted slightly forward and your back held straight. Avoid side-to-side motion in the hips and back.

4. Correct breathing / appropriate resistance level

Do not overexert yourself physically and mentally by starting with resistance levels that are too high. Start slowly and increase the resistance steadily. Aim for regular and calm breathing.

5. Keep yourself properly hydrated

Drink, drink, drink! Have a drinking bottle close by during your workout.

6. Sufficient recovery periods

Allow your body and your muscles enough time to recover after your workout. Only a relaxed muscle will be fully operational again.

7. Choose a diversified program

Switch your focus between different muscle groups and different levels of intensity during your workout.

8. Creating the right workout

Every training session should have a warm-up phase, a cool-down phase and a targeted stretching. It increases physical and mental performance and prevents injuries and sore muscles.

9. Workout journal

Keep a record of your training sessions. Note the date, resting pulse, active pulse, recovery pulse, resistance level, time, distance, calories burnt and fitness level.

10. Reward yourself

Do something good for you and your body after training or after achieving a partial goal. Go to the sauna or a swimming pool. Mix a protein shake or enjoy a delicious salad.

5.3 Designing a workout

We recommend two or three workouts per week. Warm up for about five minutes before starting each workout. Finish the workout with a cool-down and targeted stretching.

Warm-up approx. five minutes Dynamic movement of large muscle groups at a low intensity. Core body temperature increases and the metabolic process is speeded up.

WEEK 1 + 2

WEEK 1 + 2				
	Beginner		Advanced	
Days	Duration	Intensity	Duration	Intensity
Mon	20 min.	Slow speed, no resistance	30 min.	Moderate speed, keep resistance low
Wed	20 min.	Slow speed, no resistance	30 min.	Moderate speed, keep resistance low
Fri	20 min.	Slow speed, no resistance	30 min.	Moderate speed, keep resistance low
In the first week, increase the speed in between for two-minutes. Maintain heart rate.			In the second week, increase the speed for brief periods.	

WEEK 3 + 4

WEEK 3 + 4				
	Beginner		Advanced	
Days	Duration	Intensity	Duration	Intensity
Mon	25 min.	Slow speed, no resistance	35 min.	Vary speed, keep resistance low
Wed	25 min.	Slow speed, no resistance	35 min.	Vary speed, keep resistance low

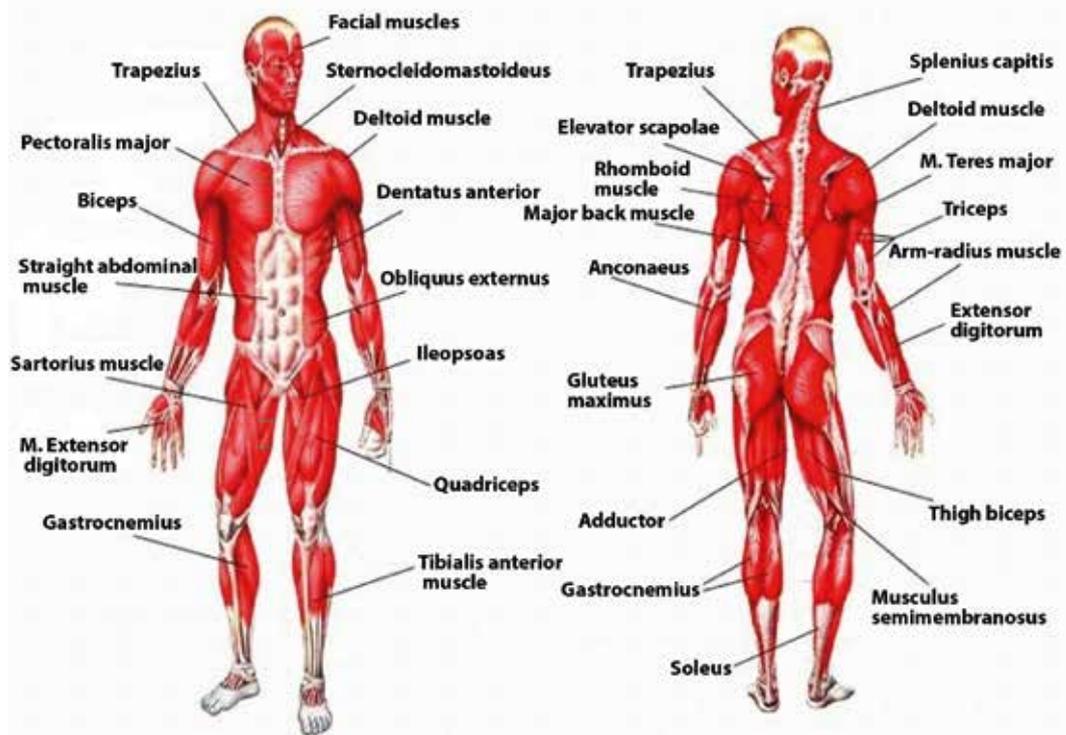
Fri	25 min.	Slow speed, no resistance	35 min.	Vary speed, keep resistance low
In the third week, increase the resistance slightly.			In the fourth week, combine forwards and backwards movements.	

WEEK 5 + 6				
	Beginner		Advanced	
Days	Duration	Intensity	Duration	Intensity
Mon	30 min.	Moderate speed, keep resistance low	40 min.	Vary speed, keep resistance low
Wed	30 min.	Moderate speed, keep resistance low	40 min.	Vary speed, keep resistance low
Fri	30 min.	Moderate speed, keep resistance low	40 min.	Vary speed, keep resistance low
In the fifth week, increase the resistance slightly at moderate speed.			In the sixth week, alternate between forwards and backwards movements.	

WEEK 7 + 8				
	Beginner		Advanced	
Days	Duration	Intensity	Duration	Intensity
Mon	35 min.	Vary speed, keep resistance low	45 min.	Vary speed, increase resistance
Wed	35 min.	Vary speed, keep resistance low	45 min.	Vary speed, increase resistance
Fri	35 min.	Vary speed, keep resistance low	45 min.	Vary speed, increase resistance
In the seventh week, include short sprints.			In the eighth week, alternate between forwards and backwards movements.	

Cool-down approximately five minutes Finish your training at low resistance and at slow speed. Allow your body to gently slow back down.

5.4 Stretching exercises for leg & chest muscles



1. Exercise: Stretching of front thigh / leg extension (quadriceps)

- Stable position, grab arches of feet
- Pull heel towards buttocks, knee points downwards (no abduction)
- Straight upper body, avoid tilting the pelvic forward (hollow back) by tensing the abdominal muscles
- Change legs



2. Exercise: Stretching the back thigh / leg curl (hamstring)

- Pull thigh towards upper body with both hands
- Stretch through increased stretching in the knee joint
- The lower leg maintains contact with the floor, keep hips bent
- Change legs



3. Exercise: Stretching the calf muscles (gastrocnemius)

- Place feet parallel to each other pointing forward, the heels touch the floor
- Support yourself on a chair coming from a lunge
- Move your body weight to the front leg, press your heel from the rear leg towards the floor and hold the contact
- Slowly stretch your knee of the rear leg until you feel the stretch in your calves
- Change legs



4. Exercise: Stretching the chest muscles (pectoralis major)

- Stand parallel to a wall
- Place your forearm at 90° to the wall with the elbow just above shoulder height
- Turn your head and upper body gradually to the opposite sides until you feel a stretch in the front chest, of the shoulder being leaned on
- Pay attention to tension in your abdominal and gluteal muscles
- Your weight is on your front leg
- Change legs



All recommendations of these instructions apply solely to healthy persons and are not suitable for those with heart or cardiovascular problems. All of the tips are intended only as a guide to help you create a workout. Your physician can offer appropriate advice for particular, personal requirements.

We hope you enjoy your workout and have a lot of success!

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
EX80	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 person 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.

7 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.

8 ORDERING ACCESSORIES



Sport-Tiedje floor mat, size XL

Art. no. ST-FM-XL



Sport-Tiedje chest strap 122 kHz

Art. No. ST1030



Sport-Tiedje silicone spray

Art. No. ST-1003



Chest-strap contact gel 250ml

Art. no. BK-250



Fitness equipment care kit

Art. no. HF-500

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

9.2 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:

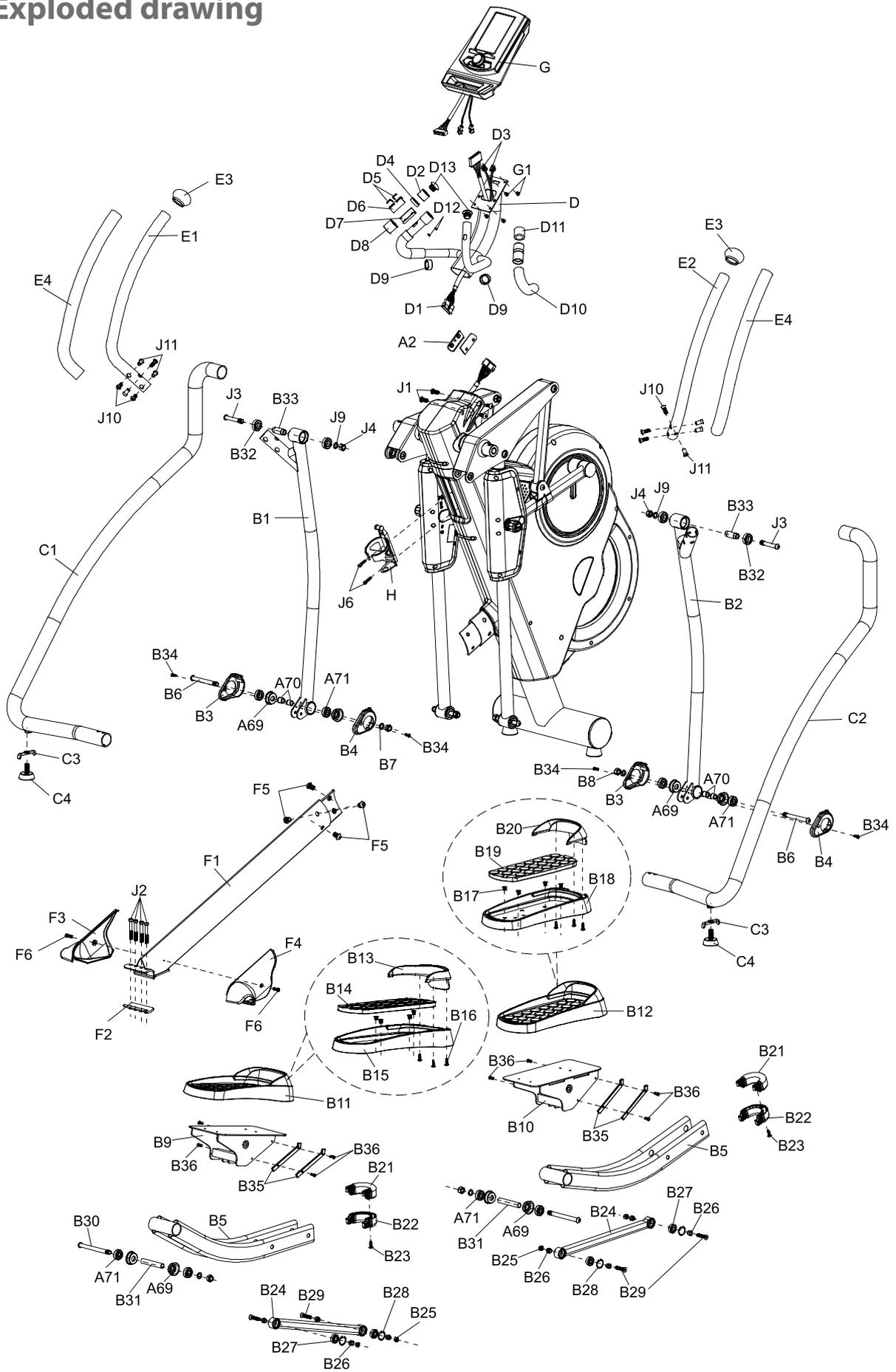
9.3 Parts list

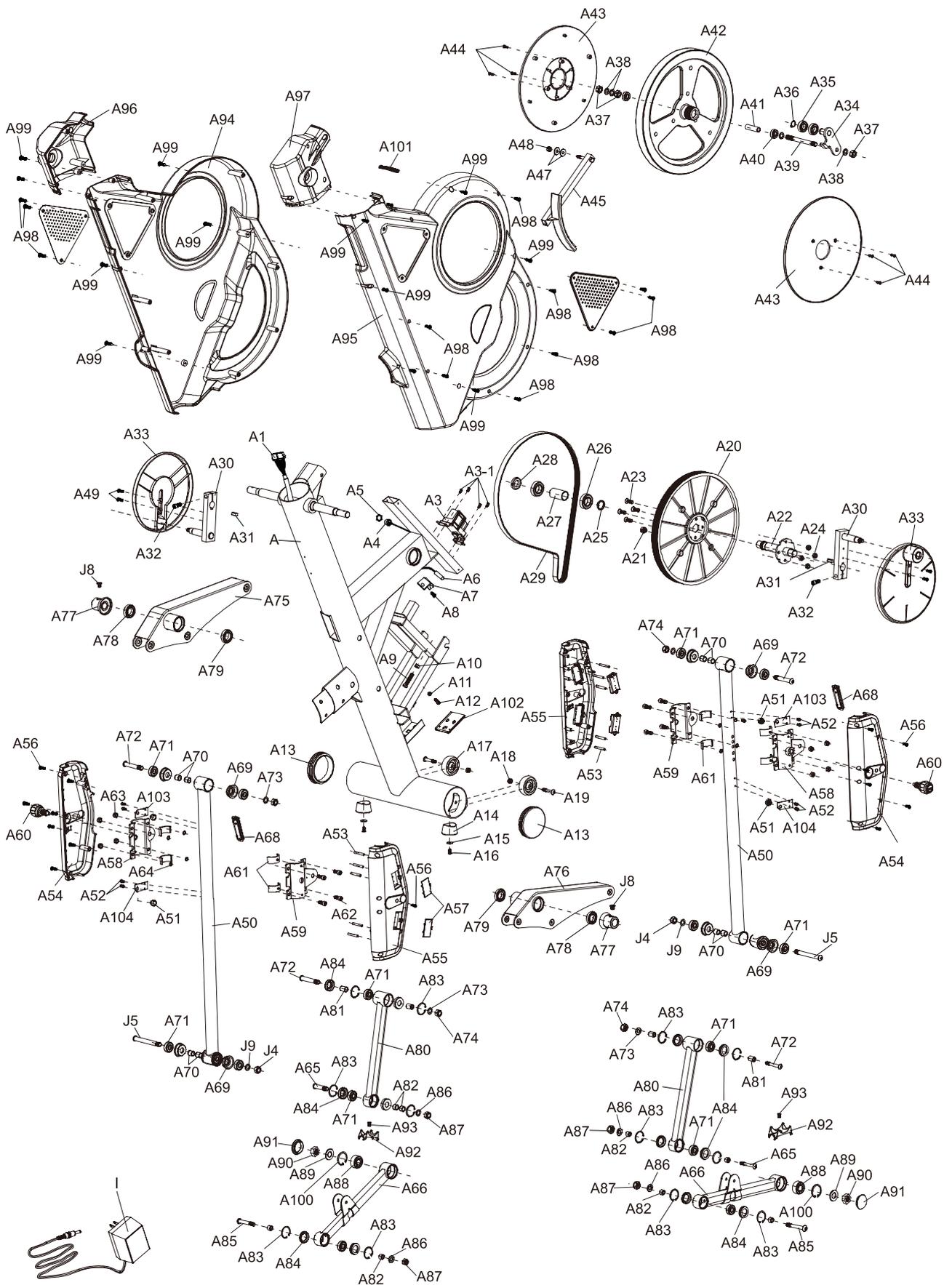
No.	Description	Qty.	No.	Description	Qty.
A	MAIN FRAME	1	A30	CRANK	2
A1	SENSOR WIRE	1	A31	FLAT KEY	2
A2	CONNECTION SLICE	2	A32	SCREW	2
A3	MOTOR	1	A33	TURING PLATE	2
A3-1	SCREW	4	A34	PRESSING PIPE	1
A4	DC WIRE	1	A35	BEARING 6003zz	2
A5	NUT	1	A36	C LIP	1
A6	SENSOR WIRE	1	A37	NUT M12	3
A7	SENSOR WIRE HOUSING	1	A38	WASHER M12	4
A8	SCREW	1	A39	AXLE	1
A9	SCREW M8 x 45	1	A40	BEARING 6001MRB	2
A10	NUT M8	1	A41	BUSH	1
A11	SCREW M6 x 20	1	A42	FLYWHEEL	1
A12	NUT M6	1	A43	FLYWHEEL COVER	2
A13	END CAP	2	A44	SCREW M4 x 16	6
A14	FIX CUSHION	2	A45	MAGNETIC HOUSING	1
A15	WASHER M6	2	A49	SCREW M5 x 10	4
A16	SCREW M5 x 16	2	A50	FRONT PEDAL SUPPORTING TUBE	2
A17	WHEEL	2	A51	MAGNETIC	4
A18	NUT M8	2	A52	SCREW M5 x 8	4
A19	SCREW M8 x 45	2	A53	INDUCTION WAND	10
A20	BELT WHEEL	1	A54	SIDE DECORATION HOUSING SET (L)	2
A21	MAGNETIC	1	A55	SIDE DECORATION HOUSING SET (R)	2
A22	AXLE	1	A56	SCREW	16
A23	SCREW M8 x 25	4	A57	BATTERY COVER	4
A24	NUT M8	4	A58	PUSH ROD BRACKET (L)	2
A25	BUSH	1	A59	PUSH ROD BRACKET (R)	2
A26	BEARING 6005zz	2	A60	KNOB	2
A27	BUSH	1	A61	NYLON SLEEVE	8
A28	BEARING NUT	1	A62	BOLT M8 x 20	8
A29	BELT	2	A63	NUT M8	8

No.	Description	Qty.	No.	Description	Qty.
A64	WASHER M8	8	A98	SCREW	6
A65	BOLT M12 x 53	2	A99	SCREW	8
A66	CRANK CONNECTING SHAFT	2	A100	C CLIP	2
A68	LED	2	A101	END CAP	1
A69	BEARING SLEEVE	14	A102	END CAP	1
A70	BUSH	12	A103	MAGNTIC HOUSING	2
A71	BEARING 6201zz	20	A104	MAGNTIC HOUSING	2
A72	SCREW M12 x 73	4	B1	PEDAL SUPPORTING TUBE (L)	1
A73	WASHER M12	4	B2	PEDAL SUPPORTING TUBE (R)	1
A74	NUT M12	4	B3	PEDAL HOUSING (L)	2
A75	OSCILLATING AXLE BASE (L)	1	B4	PEDAL HOUSING (R)	2
A76	OSCILLATING AXKE BASE (R)	1	B5	LOWER PEDAL SUPPORING TUBE	2
A77	HANDLEBAR SUPPORTING COVER	2	B6	SCREW M12 x 109	2
A78	BEARING 6004zz	2	B7	WASHER M12	2
A79	BEARING 6905zz	2	B8	NUT M12	2
A80	FRONT CONNECTING SHAFT	2	B9	PEDAL BRACKET (L)	1
A81	BUSH	4	B10	PEDAL BRACKET (R)	1
A82	BUSH	8	B11	PEDAL REST (L)	1
A83	C LIP	12	B12	PEDAL REST (R)	1
A84	BEARING SLEEVE	12	B13	FRONT COVER PEDAL (L)	1
A85	SCREW M12 x 53	4	B14	CUSHION PAD (L)	1
A86	WASHER M12	4	B15	PEDAL (L)	1
A87	NUT M12	4	B16	SCREW M4 x 15	6
A88	BEARING 2203	2	B17	SCREW M6 x 10	8
A89	WASHER M10	2	B18	PEDAL (R)	1
A90	NUT M10	2	B19	CUSHION PAD (R)	1
A91	END CAP	2	B20	FRONT COVER PEDAL (R)	1
A92	CRANK HOUSING	2	B21	UPPERCAPFORPEDALSUPPORTING	2
A93	SCREW	2	B22	LOWERCAPFORPEDALSUPPORTING	2
A94	MAIN CHAIN COVER (L)	1	B23	SCREW	2
A95	MAIN CHAIN COVER (R)	1	B24	MIDDLE PEDAL SUPPORTING ROD	2
A96	SMALL CHAIN COVER (L)	1	B25	NUT M8	4
A97	SMALL CHAIN COVER (R)	1	B26	BUSH	8

No.	Description	Qty.	No.	Description	Qty.
B27	BEARING 6001 TP	4	D11	SPONG HDR	2
B28	C CLIP	4	D12	SCREW M3 x 8	4
B29	SCREW M8 x 40	4	D13	END CAP	2
B30	SCREW M12 x 133	2	E1	HANDLE BAR (L)	1
B31	BUSH	2	E2	HANDLE BAR (R)	1
B32	BEARING 6003zz	4	E3	END CAP	2
B33	BUSH	2	E4	SPONG HDR	2
B34	SCREW	4	F1	CENTRAL SUPPORTING TUBE	1
B35	PEDAL REINFORCEMENT STRIP	4	F2	IRON BRACKET	1
B36	SCREW	8	F3	CENTRAL SUPPORTING TUBE COVER (L)	1
C1	SIDE CONNECTING TUBE (L)	1	F4	CENTRAL SUPPORTING TUBE COVER (R)	1
C2	SIDE CONNECTING TUBE (R)	1	F5	SCREW	4
C3	ADJUSTED NUT	2	F6	SCREW	2
C4	ADJUSTED END	2	G	CONSOLE	1
D	CONSOLE SUPPORTING TUBE	1	G1	SCREW	4
D1	SENSOR WIRE	1	H	WATER BOTTLE HOLDER	1
D2	HANDL PULSE RING	2	J1	SCREW M8 x 16	4
D3	HANDL PULSE WIRE	2	J2	SCREW M8 x 60	4
D4	SPACER RING	2	J3	BOLT M12 x 73	2
D5	HANDLE PULSE	4	J4	NUT M12	4
D6	UPPER HANDLE PULSE HOUSING	2	J5	BOLT M12 x 109	2
D7	LOEWR HANDLE PULSE HOUSING	2	J6	SCREW M5	2
D8	HANDLE PULSE RING	2	J8	SCREW M8 x 20	2
D9	FOAM SPACER RING	2	J9	WASHER M12	4
D10	SPONG HDR	2	I	ADAPTOR	1

9.4 Exploded drawing





CONTACT

Company head office

Sport-Tiedje GmbH
Flensburger Str. 55
24837 Schleswig

Hotline for Technical Information

DE

☎ +49 4621 4210-0
📠 +49 4621 4210-698
✉ technik@sport-tiedje.de

DK

☎ 80 90 16 50
☎ +49 4621 4210-945
✉ info@t-fitness.dk

FR

☎ +33 (0) 172 770033
☎ +49 4621 4210-933
✉ service-france@sport-tiedje.fr

NL

☎ +31 172 619961
✉ info@fitshop.nl

UK

☎ +44 141 876 3986
✉ support@powerhousefitness.co.uk

INT

☎ +49 4621 4210-0
✉ service-int@sport-tiedje.de

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

