KIDSFIT™

International Youth Fitness

Cardio Kids 670- Elementary Stepper
OWNER'S MANUAL

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CE

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1. Firmly grip handles and step onto feet platforms.

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2. Distribute the weight of your body to the left leg as seen in picture B while slowly allowing the right leg to elevate.

3. Then switch the weight of the body to the right foot to push the foot pedal down while allowing the left foot to raise up.

4. Repeat these movements gradually increasing speed.

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5. Instructor should have each user:

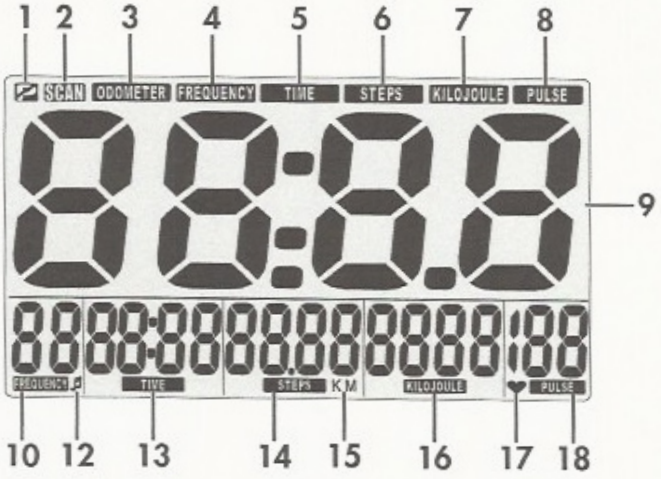
a.) Before exiting the machine come to a full stop as seen in picture D.

b.) While still holding onto grips step off the machine.

Cardio Kids 670- Elementary Stepper

COMPUTER
OPERATION & FUNCTION

Operating Instructions for the Training Computer with Digital Display



Design features

Symbols:

1 P	no training: ready to accept default values
2 SCAN	automatic display-change
3 ODOMETER	display of overall height
4 FREQUENCY	display of step frequency
5 TIME	display of training time
6 STEPS	display of steps
7 KILOJOULE	display of energy consumption
8 PULSE	display of current pulse
12 Note	acoustic step-frequency default active
15 KM	
17 Heart	flashes in time with the pulse beat

Values:

9 Large display	Room temperature [0 - 40o C] Odometer [0 - 999.9 km] Fitness score [F 1.0 - F 6.0]
10 Step frequency	0 - 99 [steps/minute]
13 Time	0:00 - 99:59 [min:sec]
14 Steps	0 - 9999
16 Energy consumption	0 – 9999 [kj]
18 Pulse	50 - 199 [beats/minute]

Keys:

Minus-key	Reduce values (return to previous display area)
Set-key	Function key for display [**default, change, reset**]
Plus-key	Increase values (forward to next display area]
Recovery-key	Function key [**to establish fitness score**]

Connections (front)

Jack	for the ear-clip

Connections (rear)

Jack (bipolar)	for the speed sensor
Battery compartment	2 batteries: round cell 1.5 volt, LR6 AA

1.0 Displays pre-training

1.Room temperature	Figure 1 [before and after training]
2.Full display	Figure 2 [after commencement of training or depression of key, 1 sec.]
3.Overall height	Figure 3 [Duration of display: 10 seconds or key]
4.Ready for training	Figure 4 [with Set-key]

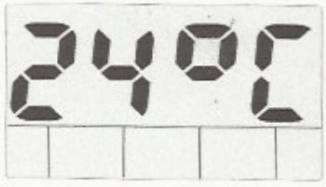


Figure 1 Room temperature

Figure 2 Full display

Figure 3 Overall height

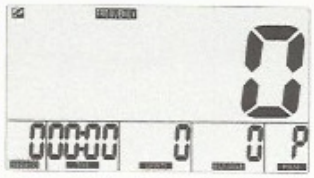


Figure 4 Ready for training: frequency flashing

2.0 Recording pulse beat

This training computers offer two options for recording pulse beat:
1. with the ear clip

You have the system set at 'Ready for training' (Figure 4).

Recording pulse beat using the ear clip
Insert the ear clip into the jack
Rub an ear lobe to stimulate blood circulation
Attach the ear clip to the ear lobe

Display of pulse rate
The 'heart' symbol flashes keeping time with your pulse beat
The pulse beat is displayed as a value (18)

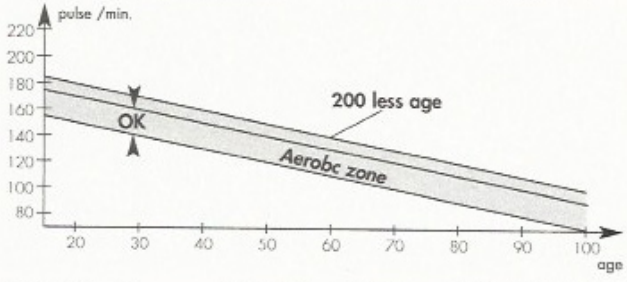
3.0 Training without default-setting of training data

Commence training. Counting is **upwards** for all values.

4.0 Training with default-setting of training data

The correct pulse rate for training [aerobic zone]

The basis for selecting the pulse rate for training is age. There is a "correct", so-called aerobic training range to suit every age (rough formula: 180 less age), which is characterised by an upper and lower pulse-rate limit (+/- 10 beats). Ideally, the pulse rate during training should always lie within the aerobic zone. The maximum pulse-rate frequency (200 less age) should not be exceeded. The following diagram applies for healthy persons.



Setting **Step frequency** (10), **Time** (13), **Steps** (14), **Kilojoule** (16)

The symbol **P** (1) (Figure 4) appears in the top left of the display before training commences or if it is interrupted. Press the **Set**-key, which will place you in default mode, and using the + or – key, set the requested value.

The adjustable values are indicated by means of **flashing segments**.

By **keeping** the **+/–** key **depressed**, you can **fast-forward or fast-reverse** the default values.

By pressing the **+/–** keys **together**, the **value** will **return to zero**.

Pressing the **Set**-key will take you to the **next default-settings**.

Having carried out the default-setting for the pulse rate, you will arrive in 'ready-for-training' mode by pressing the **Set**-key, however all of your default-settings will be displayed (Figure 11).

By **keeping** the **Set**-key **depressed**, you will be returned to **Full display** status (**reset function**) (Figure 2).

Additional remark

If you do not key in a default-setting within 4 minutes, the display will transfer to Room temperature (Figure 1).

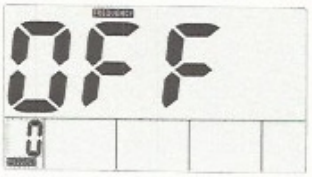


Figure 5

Figure 6

Figure 7

Figure 8

Figure 9

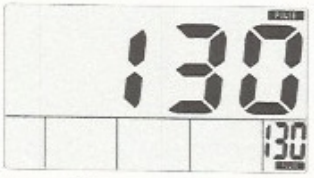


Figure 10

Figure 11

Figure 5: Frequency default-setting starts at "OFF"
Figure 6: Frequency default-setting: e.g. 30 beats per minute
Figure 7: Default-setting Time: e.g. 18 minutes
Figure 8: Default-setting: e.g. 540 steps
Figure 9: Default-setting Energy Consumption: e.g. 270 kilojoules
Figure 10: Default-setting Pulse-rate limit: e.g. 130 pulse beats
Figure 11: 'Ready-for-training' mode with all default-settings displayed

Function

Commence stepping action. All default values (with the exception of the pulse-rate limit value) will count **backwards**, will flash for a few seconds when they reach zero and will then continue to count as of the default value upwards. If your pulse beat exceeds the pulse-rate limit per default, the **Pulse**-value will flash by way of warning, and you will hear a **bleep**.

5.0 Display in training

When you have commenced training, automatic display-change **SCAN** (symbol 2 in the display) will take place at intervals of 5 seconds. You can de-activate it by pressing the **Set**-key. Using the **+/–** key, you can transfer forward or back to the next or previous display area. If you have activated the step-frequency default-setting note (12) in the display, a bleep will sound which will coincide with the step-frequency per default-setting. This is intended to help you keep time.

By pressing the **+/–** keys **together**, you will de-activate the acoustic step-frequency, and the note (12) is no longer displayed. This is also possible when training is interrupted.

Additional remark

When a default-setting is reached (excluding pulse-rate limit and step-frequency), it will appear at once in the large display (9).

6.0 Display before training, upon interruption/completion of training

If you discontinue the stepping action, the system's electronics identify an interruption of training. Automatic display-change is de-activated. The symbol **SCAN** disappears, **P** is displayed, and the pulse rate is shown in the large display, where it remains. If you do not resume training within 4 minutes, the display switches to **Room temperature** (Figure 1). The **distance** covered is then added up to produce the overall height. All **other** values **are not saved**.

Additional remark

Using the **+/–** key, you can transfer forward or back to the next or previous display area.

The **Set**-key returns you to input mode, in the process of which all previous training data and default-settings are deleted.

7.0 Display upon resuming training

Proceed with training. The **values resume counting**.

8.0 Recovery pulse rate measurement

The training computer is equipped with a recovery pulse rate function. This enables you to measure your recovery pulse rate once you have completed training. Press the recovery pulse rate key once you have completed training. The computer will measure your pulse rate over a period of 60 seconds, counting in reverse order (Figure 12). After that, a fitness score is displayed accompanied by an **F** (Figure 13). The calculation procedure is explained under 9.0 General information. If the pulse-rate measurement procedure is interrupted, **P** together with **E** for Error message are very-key, the display of current training data reappears.

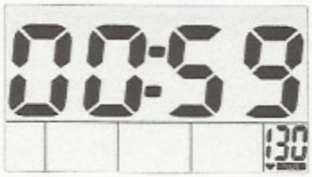


Figure 12

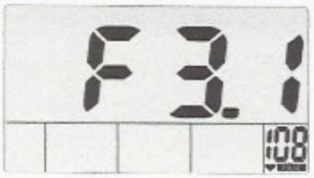


Figure 13

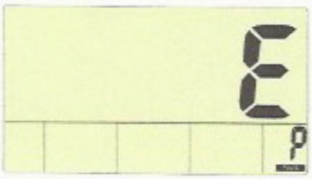


Figure 14

Figure 12: Recovery pulse rate measurement with reverse-motion timing ((0:60 - 0:00)

Figure 13: Display of fitness score

Figure 14: No pulse rate identified for recovery pulse rate measurement procedure

Additional remark

If no pulse value is displayed, the recovery-pulse function is not carried out.

9.0 General information

Calculation of overall height

1 step action equates to a height of 0.19 metres.

Calculation of kilojoules

According to information available to us from the field of Sports Medicine, energy is consumed as follows during step-action training: 1 hour of step-action training uses up 2,500 kj based on a step-frequency of 90 steps per minute. 1,000 steps equate to 465 kilojoule.

This calculation is based on medium load and changes only where the step-frequency is varied.

Calculation of fitness score

The computer calculates and evaluates the difference between the load pulse and the recovery pulse and arrives at its "fitness score" by applying the following formula:

$$\text{Note } (F) = 6 - \left(\frac{10 \times (P1 - P2)}{P1} \right)^2$$

P1 = Load pulse P2 = Recovery pulse

Score of 1 = very good Score of 6 = poor

Physical fitness can be monitored easily and quickly by comparing the load pulse with the recovery pulse. The fitness score is an orientation value, which reflects your ability to recover following physical strain. Before pressing the recovery pulse rate key to work out your fitness score, you should continue exercising within your exertion range over an extended period, i.e. at least 10 minutes. If you engage in regular exercise of the cardiovascular system, you will discover that your "fitness score" will improve with time.

With ear clip

The pulse sensor operates with infrared light and measures the changes in the light transmission ratio of your skin, which are triggered by your pulse beat. Before you attach the pulse sensor to your ear lobe, rub it vigorously 10 times to stimulate the blood circulation.

Avoid disruptive factors

- Attach the ear clip securely to your ear lobe and look for the best spot at which to take the reading (heart symbol flashes uninterruptedly).
- Do not exercise where you are directly exposed to strong light, e.g. neon light, halogen lighting, spotlights, sunlight.
- Ensure that neither the ear clip nor its cable can be subjected to vibration or shaking of any description. Always secure the cable to your clothing with a clip, or better still to a headband.

Pulse-rate display malfunction

Should problems arise in recording pulse-rates, check the above points again.

Check the battery voltage.

Malfunction in the training computer

Make a note of the height status. If the training computer appears to be performing peculiarly, remove the batteries, check the battery voltage and put the batteries back in. A battery-change will cause the overall height saved to be lost.

10.0 Training instructions

Training guidelines

The step-frequency you opt for will determine the level of intensity of your training programme. In other words, the faster you climb, the more intensive the training. Particular attention should be given at all times, however, to ensuring that you do not overtax yourself and expose yourself to excessive strain. Climbing stairs is an extremely strenuous exercise, and it is a considerable strain on the cardiovascular system. It is advisable, therefore, to check during training whether or not the level of intensity which you have opted for is suitable. This you can do by measuring your **pulse rate**.

180 less age

is taken as a rough formula for establishing whether or not the individual's pulse rate is as it should be.

duct his/her endurance training assuming a pulse rate of 130.

Many recognised experts from the field of Sports Medicine take a favourable view of training recommendations based on these calculations. Your settings in training, therefore, for stepping frequency and resistance should be such that you reach your ideal pulse rate applying the above rough formula.

It should be pointed out, however, that these recommendations only apply in the case of healthy persons and not in the case of those who suffer from cardiovascular disorders!

With regard to extent of strain

The beginner increases the extent of strain which accompanies the training programme gradually. The first few training sessions should be relatively short ones and should include breaks.

Sports Medicine today favours the following load factors from the point of view of enhancing fitness levels:

Training frequency	Duration of training
daily	10 minutes
2-3 times a week	20-30 minutes
1-2 times a week	30-60 minutes

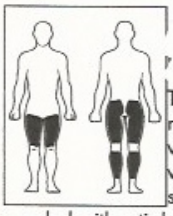
Beginners should not start off with training sessions of 30-60 minutes. Beginner training can be structured as follows for the first 4 weeks:

Training frequency	Extent of training session
	1st week
3 times a week	2 minutes of training Break of 1 minute for physical exercises 2 minutes of training Break of 1 minute for physical exercises 2 minutes of training
	2nd week
3 times a week	3 minutes of training Break of 1 minute for physical exercises 3 minutes of training Break of 1 minute for physical exercises 2 minutes of training
	3rd week
3 times a week	4 minutes of training Break of 1 minute for physical exercises 4 minutes of training Break of 1 minute for physical exercises 3 minutes of training
	4th week
3 times a week	5 minutes of training Break of 1 minute for physical exercises 4 minutes of training Break of 1 minute for physical exercises 4 minutes of training

Nevertheless, one or two points merit particular attention:

- Always ensure before training commences that the appliance is correctly set up and securely positioned.
- Take the handrails firmly in both hands when mounting the appliance.
- Ensure a secure footing on the treads by selecting suitable footwear.
- Do not train with no hands during the beginner stage. A sound command of the sequence of movements required must first be secured and consolidated. When you feel confident enough about the climbing motion, you can switch over gradually to letting go of the handrails and to swinging your arms by your sides as you would when climbing the stairs. This method of training incorporates a highly effective way of exercising the entire body, serving also to fine-tune the body's sense of co-ordination and balance.
  Please note: This method of training is only suitable for the advanced and top-fit athlete with staying power and a sound command of the sequence of movements involved.
- Set the stepping resistance at the adjusting rings on the oil-pressure damping tubes (Step 1-12) to meet individual requirements and to accommodate personal body weight.
- Use of the upper and lower limits stops of the damping tubes and the tread members should be avoided in order to protect joints and treat the oil-pressure damping tubes with the appropriate level of care. Avoid stretching the knee joints to the full during training, but instead begin the return action just before this point.
- Training to music or in front of the television can help to boost motivation.

Ensure when training that your step-frequency is consistent and that you are securely positioned on the appliance.



The stair-climbing motion mainly activates the muscles of the posterior, the thighs and the calves and serves to strengthen them, in particular where the individual has had little prior exposure to training and exercise. This is generally coupled with a tightening of the tissue in the parts of the body concerned. In addition, training using no hands at a more advanced stage can assist in enhancing the body's sense of co-ordination and balance.

WARM-UP and COOL-DOWN

Warm-up The purpose of warming up is to prepare your body for exercise and to minimize injuries. Warm up for two to five minutes before strength-training or aerobic exercising. Perform activities that raise your heart rate and warm the working muscles. Activities may include brisk walking, jogging, jumping jacks, jump rope, and running in place

Stretching Stretching while your muscles are warm after a proper warm-up and again after your strength or aerobic training session is very important. Muscles stretch more easily at these times because of their elevated temperature, which greatly reduces the risk of injury. Stretches should be held for 15 to 30 seconds. Do not bounce.

Suggested Stretching Exercises

Lower Body Stretch
Place feet shoulder-width apart and lean forward. Keep this position for 30 seconds using the body as a natural weight to stretch the backs of the legs.
DO NOT BOUNCE!
When the pull on the back of the legs lessen, try a lower position gradually.

Floor Stretch
While sitting on the floor, open the legs as wide as possible. Stretch the upper body toward the knee on the right leg by using your arms to pull your chest to your thighs. Hold this stretch 10 to 30 seconds.
DO NOT BOUNCE!
Do this stretch 10 times. Repeat the stretch with the left leg.

Bent Torso Pulls
While sitting on the floor, have legs apart one leg straight and one knee bent. Pull the chest down to touch the thigh on the leg that is bent and twist at the waist. Hold this position at least 10 seconds. Repeat 10 times on each side.

Bent Over Leg Stretch
Stand with feet shoulder-width apart and lean forward as illustrated. Using the arms, **gently** pull the upper body towards the right leg. Let the head hang down.
DO NOT BOUNCE!
Hold the position a minimum of 10 seconds. Repeat pulling the upper body to the left leg. Do this stretch several times slowly.

Remember always to check with your physician before starting any exercise program.

Cool-Down The purpose of cooling down is to return the body to its normal, or near normal, resting state at the end of each exercise session. A proper cool-down slowly lowers your heart rate and allows blood to return to the heart. Your cool-down should include the stretches listed above and should be completed after each strength-training session.

NOTES: