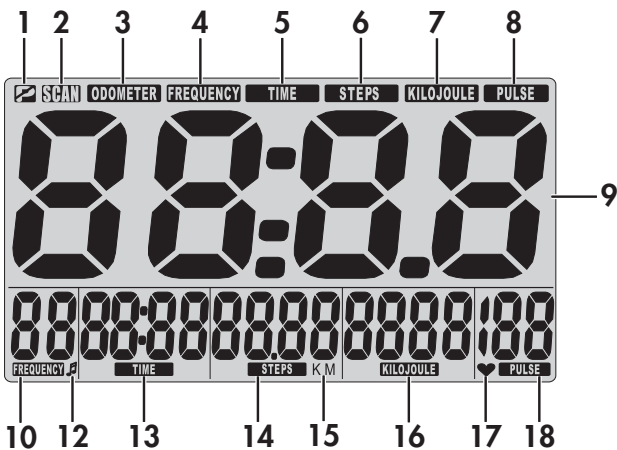




Operating Instructions for the Training Computer with Digital Display



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 flashes in time with the pulse beat
- 17 Heart

Values:

- 9 Large display Room temperature [0 - 40°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

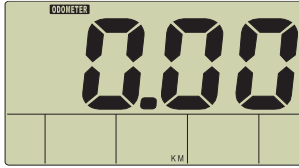


Figure 3 Overall height

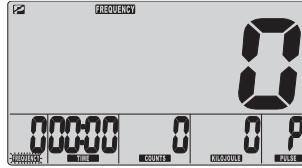


Figure 4 Ready for training: frequency flashing

## 2.0 Recording pulse beat

This training computers offer two options for recording pulse beat:

1. with the ear clip
2. with the Cardio Puls Set (available as an accessory from specialist dealers)

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

### Recording pulse beat using the Cardio Puls Set

Please refer to the Directions for Use

### Display of pulse rate

The 'heart' symbol flashes keeping time with your pulse beat

The pulse beat is displayed as a value (18)

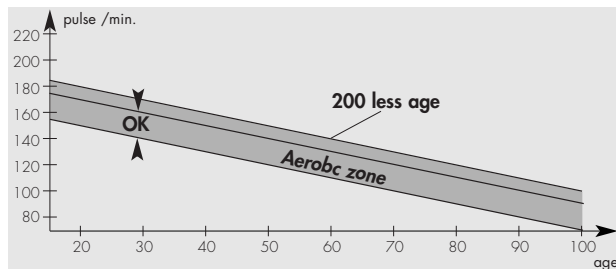
## 3.0 Training without default-setting of training data

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) **Pulse-rate limit** (18).

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).

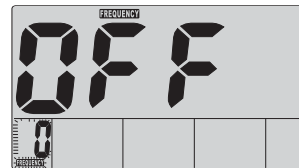


Figure 5

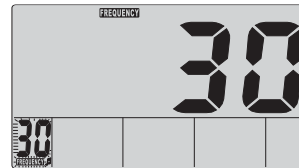


Figure 6



Figure 7



Figure 8



Figure 9



Figure 10

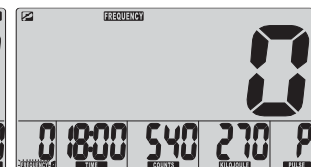


Figure 11

- 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 displayed instead of a value (Figure 14). If you press the Reco-

very-key, the display of current training data reappears.



Figure 12

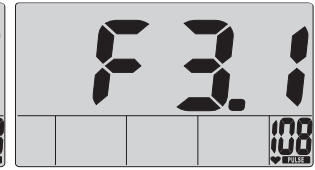


Figure 13

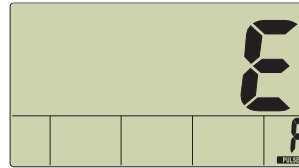


Figure 14

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 when 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.

### Information on measuring pulse rate

Calculation of the pulse rate commences when the heart in the display flashes in time with your pulse beat.