ECB PRO ERGOMETER E 850

GB OWNER'S MANUAL
D BETRIEBSANLEITUNG
F MODE D'EMPLOI
I MANUALE D'USO
S BRUKSANVISNING
FIN KÄYTTÖOHJE

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REMARKS AND WARNINGS

Please read this owner's manual through carefully before assembling, using and servicing the ergometer! Follow the instructions described in this manual carefully.

**** Before you start any training, consult a physician to check your state of health.***

** If you experience nausea, dizziness or other abnormal symptoms while exercising, stop your workout at once and consult a physician.*

** Parents or others responsible for children should note that children's natural playfulness and curiosity may lead to situations and behaviour for which the cycle is not designed. If children are allowed to use the cycle, they should be supervised and taught to use the cycle properly, keeping in mind the child's physical and mental development and their personality. The ergometer is not a toy.*

** Only one person may use the cycle at a time.*

** Place the cycle on a firm, level surface.*

** Before you start using the cycle, make sure that it functions correctly in every way. Do not use a faulty device.*

** Hold the handlebar for support when getting on or off the cycle. Do not step on the frame casing.*

** Wear appropriate clothing and shoes when exercising.*

** Always keep your hands well away from moving parts.*

** To avoid muscular pain, begin and end each workout by stretching, warming up and cooling down.*

** Do not attempt any servicing or adjustment other than those described in this manual. The given service instructions must be followed carefully.*

** The magnet caliper of the magnetic brake forms an extremely powerful magnetic field which may damage the mechanism of a watch or the magnetic identification tape of a credit or cash card if they come into immediate contact with the magnets. Never attempt to detach or remove the magnet caliper of the magnetic brake.*

THE FIGURES REFERRED TO IN THE TEXT ARE IN THE BACK FOLD.

ASSEMBLY

Once the ergometer and all its parts have been unpacked, assemble as follows (left, right, front and back are as seen from the exercising position):

1. MOUNTING THE PEDALS

Fasten the right pedal to the right pedal crank turning clockwise and the left pedal to the left pedal crank turning anticlockwise. The pedals are distinguished from each other by the markings R and L on their shafts (R = right, L = left). The pedal straps are adjustable. Adjust to the required tightness and push the end of the strap into place.

2. MOUNTING THE HANDLEBAR SUPPORT TUBE

Make sure that the resistance is adjusted to the extreme minimum position (by turning the adjustment knob at the top of the handlebar support tube anticlockwise), so that the pushing slide visible at the opening at the bottom of the handlebar support tube is inside the handlebar tube totally. Fit the handlebar support tube into its place so that the resistance adjustment knob points to the back. Lift the ergometer upright so that it rests on the rear part of the frame.

Fit the bottom screw into place and tighten it (fig. 1). Plug the wire taped to the frame tube into the socket at the lower end of the handlebar support tube (fig. 2).

3. MOUNTING THE SUPPORT LEGS

Slip the front support leg through the front tube and fasten it with four securing screws (fig. 3). Fasten the rear support leg in the same way.

Fit the plastic cover of the unprotected end of the support leg and fasten it together with the foot pad. Do the same with the rear support leg (figure 4). Turn the ergometer back into the upright position.

4. MOUNTING THE METER

Put four 1.5 V AA batteries into the battery holder at the back of the meter, noting the + and - marks on the bottom of the holder. Push the meter carefully into its place at the top of the handlebar support tube (figure 5).

USE

SETTING THE SEAT HEIGHT AND INCLINATION

The seat height should be set so that the middle part of the foot reaches the pedal with the leg almost straight and the pedal at its lowest point. Raise or lower the seat tube by first turning the locking knob slightly anticlockwise and then pulling it out so that the seat tube can be moved freely. When the height is right, let go of the knob so that the seat tube is locked into place. Tighten the locking knob clockwise.

The seat can be inclined forward or backward by turning the green adjustment ring below the saddle. The seat inclines forward when the ring is turned to the right (anticlockwise) and back when the

ring is turned to the left (clockwise). ***Do not adjust the seat inclination when sitting on the seat as your weight will prevent the ring from turning.***

ADJUSTING THE HANDLEBARS

Loosen the grey adjustment knob at the front of the handlebar support tube and adjust the handlebar distance so that you can pedal with the arms almost straight in a comfortable position. Retighten the adjustment knob.

ADJUSTING PEDALLING RESISTANCE

To increase or decrease resistance, turn the adjustment knob at the top of the handlebar support tube clockwise to increase resistance and anticlockwise to decrease resistance. The scale above the knob helps you find and reset a suitable resistance.

Pedalling at a lower resistance and faster tempo are better for improving aerobic fitness, while pedalling at a higher resistance improves your muscular condition more effectively.

METER

The versatile meter of the ECB Pro Ergometer E 850 measures pulse, energy consumption, effort, time, speed and distance. The meter switches on automatically when you first press a key, and switches off when you have not pedalled or pressed any key for about 4 min.

N.B. Protect the meter from direct sunlight, as it may damage the liquid crystal display. Do not expose the meter to water or severe impacts, as these may also damage the meter.

METER DISPLAYS AND FUNCTIONS

BASIC DISPLAY

When the meter switches on it shows the "basic display" i.e. the following basic functions are displayed simultaneously:

The top left-hand reading shows ***pulse*** *(25-250 pulses/min), provided that the ear sensor is attached to the earlobe or the telemetric pulse transmitter is attached around the chest (see MEASURING PULSE). The heart symbol beside the reading flashes in time with the user's heartbeat.*

The top right-hand reading shows ***energy consumption*** *cumulatively either in kilojoules or in kilocalories (0-999). The reading is reset when the RESET key is pressed or the meter switched off.*

The left-hand reading in the middle line shows ***effort*** *in watts (0-995) in steps of five watts.*

The right-hand reading in the middle line counts ***time*** *first from 00:00-59:59 at intervals of one second and then from 1.00-99.59 at intervals of one minute. Time is counted from the beginning of the workout or from the last press of the RESET key. N.B. The time display shows no reading if the speed is zero. This is useful if you have to interrupt a workout of a certain preset length. If you have set a certain workout time on the meter (see TIME SETTING), the time display counts down from the set time.*

The left-hand reading in the bottom line shows ***speed*** *either in km/h or mph, or pedal revolutions per minute (RPM). The reading is from 0-199.*

The right-hand reading in the bottom line shows ***distance*** *cumulatively (from beginning of workout or from last reset) either as kilometres or miles (first 0.0-99 at intervals of 0.1 and then 10-99 at intervals of one).*

TOTAL VALUES DISPLAY

By pressing the TOTAL key, the meter changes over from the basic display to the total values display (the text TOTAL appears on the display). Total time of use is displayed in days (0-999, text DAYS) and in hours and minutes (00:00-23:59). Total distance is displayed in kilometres or miles (0-19999).

METER KEYS

SET PULSE LIMITS
By pressing the SET PULSE LIMITS key you switch from the basic display to the pulse limit setting displays (see SETTING PULSE LIMITS), and vice versa.

SET EFFORT LIMITS
By pressing the SET EFFORT LIMITS key you switch from the basic display to the effort limit setting displays (see SETTING EFFORT LIMITS), and vice versa.

km/h, mph, RPM
Changes the unit of speed measurement in the following order: km/h -> mph -> RPM

kJ, Kcal
Changes kilojoules to kilocalories and vice versa.

SET TIMER
By pressing the SET TIMER key you can switch from the basic display to the time setting display (see TIME SETTING) and vice versa.

km, miles
Changes the unit of distance measurement from kilometres to miles and vice versa.

TOTAL
By pressing the TOTAL key you switch from the basic display to the total values display.

RESET
Resets the time, distance and energy consumption readings on the basic display. Resets set values on the pulse and effort limit and time setting displays.

ARROW KEYS
Used for setting values in pulse and effort limit setting and time setting displays.

SETTING VALUES

SETTING PULSE LIMITS

Exercise in different pulse ranges affects the body in different ways. For example, exercise of long duration within a pulse range that is about 50-60% of the maximum pulse burns fat, or helps you lose weight, whereas exercise in a range that is about 70-80% of the maximum develops the heart and respiratory system, and overall endurance, i.e. it improves your condition. If you don't know your own maximum pulse rate you can use the formula 205-(age/2) as a guideline. However, it is advisable to make sure by consulting your doctor.

With the E 850 meter you can set both an upper and a lower pulse limit, which helps you to keep within the desired pulse range during your workout. By pressing the SET PULSE LIMITS key you switch from the basic display to the lower pulse limit setting display (text LO appears on the display). If no value has been set two dashes (--) appear instead of numbers on the display. Set the lower value with the arrow keys from 25 to 250 pulses/min. If necessary you can reset the value by pressing the RESET key.

By pressing the SET PULSE LIMITS key again you switch to the upper pulse limit setting display (text HI appears on the display). Set the desired upper level in the same way as the lower level. If no value has been set two dashes (--) appear again on the display. If necessary you can reset the value you have set by pressing the RESET key.

By pressing the SET PULSE LIMITS key a third time you switch back to basic display. If you go above or below the set upper or lower limits, the meter beeps until you return within the set pulse limits (by lowering your pedalling speed or reducing resistance when the upper limit is exceeded and by raising speed or resistance if you fall below the lower limit). N.B. If the pulse reading is 0 there will be no warning beeps even though you have set a lower limit.

SETTING EFFORT LIMITS

Exercising within a certain effort range affects the system in different ways, just as exercising within a certain pulse range does. If you exercise at too low an effort level for your condition, you will not necessarily achieve the desired results even if you exercise regularly.

With the E 850 meter you can set both an upper and a lower effort limit, which helps you to keep within the desired effort range during your workout and also helps you to keep your pulse at the desired level. By pressing the SET EFFORT LIMITS key you switch from basic display to the lower effort limit setting display (text LO appears on the display). If no value has been set two dashes (--) appear instead of numbers on the display. Set the minimum value with the arrow keys from 0 to 995 watts. If necessary you can reset the value by pressing the RESET key.

By pressing the SET EFFORT LIMITS key again you switch to the upper effort limit setting display (text HI appears on the display). If no value has been set two dashes (--) appear again on the display. Set the desired upper level in the same way as the lower level. If necessary you can reset the value you have set by pressing the RESET key. By pressing the SET EFFORT LIMITS key a third time you switch back to basic display. If you go above or below the set upper or lower limits, the meter beeps until you return within the set effort limits.

TIME SETTING

If you want to set a time for your workout on the meter, press the SET TIMER key to switch to the time setting display. Set the desired time in minutes (01:00-99:00) by using the arrow keys. If no time has been set the display shows four dashes (--:--) instead of numbers and the colon between the numbers does not flash. If necessary you can reset the time by pressing the RESET key. When you press the SET TIMER key again you switch back to the basic display. When the set workout time has elapsed, the meter gives five beeps.

MEASURING PULSE

Plug the wire of the ear sensor into the socket in the right-hand side of the meter holder. ***Make sure that the plug is properly connected.*** *The pulse is measured by attaching the pulse sensor to the earlobe. As the blood pulsates in the small arteries of the ear, the light emitted from the sensor is cut off at every pulse. This signal shows as the pulse on the display. Pulse measurement starts when measurement is activated at the first press of a key and remains active not only all the time that the ear sensor is attached to the ear but also for one minute from the time the meter is switched on, or correspondingly for 5 seconds after every press of a key. When the ear sensor is detached from the ear, pulse measurement continues to be active for twenty seconds. If you want to continue later, pulse measurement must be reactivated by pressing a key.*

The ear sensor is not always reliable especially at higher pulse rates due to interference caused, for instance, by the sensor swinging as you pedal. Sometimes even small movements of the sensor or its wire may cause the reading to fluctuate in a disturbing fashion. To prevent this attach the sensor e.g. to the collar with the clip provided. If the sensor does not immediately start measuring your pulse, rub the earlobe with the fingers to speed up circulation. Physiological differences between different people, such as poor circulation in the earlobe, may also cause disturbances in measuring the pulse. More reliable pulse measurement is achieved with a telemetric device, in which the electrodes of the transmitter fastened to the chest transmit the pulses from the heart to the meter by means of an electromagnetic field.

The E 850 has a built in pulse receiver which is compatible with a POLAR telemetric pulse transmitter, sold as an optional extra. *If you want to measure your pulse this way during your workout, moisten the grooved electrodes on the transmitter belt with saliva or water. Fasten the transmitter just below the chest with the elastic belt, firmly enough so that the electrodes remain in contact with the skin while pedalling, but not so tight that normal breathing is prevented.* ***N.B. If the electrode surfaces are not moist, the pulse reading will not appear on the display.*** *If the electrodes are dry, they must be moistened again. Switch the meter on by pressing a key. The transmitter automatically*

transmits the pulse reading to the meter up to a distance of about 1 m.

N.B. To save the batteries of the meter and to prevent any extra pulses coming from the ear sensor, unplug the ear sensor when you use the telemetric pulse meter.

PRINTER INTERFACE

The workout results can be printed out. The E 850 has a standard Centronics serial interface. The connector is a 25-pole D connector (female). The printer can be any matrix printer with a Centronics interface, e.g. EPSON LX 810, Panasonic KX-P 1180, Citizen 200GX etc.

Connect the printer cable to the connection point on the base of the meter. When the printer is switched on the workout results are automatically printed out (pulse, energy consumption, effort, time, speed and distance) line by line at 10 second intervals. ***N.B. Always remember to disconnect the printer cable after use!***

CHANGING BATTERIES

If the meter display fades considerably or completely, change the batteries. Pull the meter out and remove the old batteries from the holder at the back of the meter. Push the new batteries into the holder (4 x 1.5 V AA) and push the meter back into its place at the top of the handlebar support tube.

MAINTENANCE

The ECB Pro Ergometer E 850 is durable and designed for continuous heavy use. To ensure accurate operation and long service life, it is necessary to carry out certain simple adjustment and maintenance procedures from time to time, depending on the frequency of use. Check also from time to time that all screws are and nuts are tight. Clean the cycle with a damp cloth. Do not use solvents.

ADJUSTING THE BRAKE

(Figs. 6 and 7)

Whenever the device is transported over long distances, the distance between the magnets in the brake caliper and the outer rim of the flywheel must be checked and where necessary adjusted, to prevent the magnets from rubbing against the flywheel, and to ensure sufficient braking effect (also if there are considerable changes in the values).

Remove the left-hand side housings by undoing the screws (the pedal and pedal crank need not be removed). Turn the resistance adjustment knob to the extreme - position (minimum). NB! Take your watch off before the following step, as the brake mechanism's magnetic field may damage it. Loosen the brake caliper's attachment joint (see arrow in figure 6) using two 13 mm set wrenches. Remove the frame tube end of the spring located between the magnet caliper and the frame tube from its place. Push the 1 mm strip delivered with the ergometer between the flywheel and magnets (see figure 6); if necessary, help by moving the attachment joint. The space should be approximately the same thickness as the strip. Remove the adjustment nut of the limiter bar (see arrow in figure 7). The magnet caliper will automatically pull itself to the correct radius. Lock the brake caliper attachment joint. Turn the resistance adjustment knob to the extreme + position (maximum). Re-attach the end of the spring to the frame tube. Fit the limiter bar adjustment nut back into place and tighten the it until the limiter bar spring is almost completely compressed and the brake caliper moves. Finally, check the distance variations of the magnet caliper by turning the resistance adjustment knob back and forth between the open and closed positions.

If the magnet caliper remains clearly too far away from the flywheel rim, loosen the limiter bar adjustment nut. If, however, the magnets rub against the flywheel, tighten the limiter bar adjustment nut until the 1 mm strip fits between the flywheel and the magnets.

ADJUSTING THE CHAIN

(figure 8)

The E 850 is designed to minimize the need to adjust the chain, since the flywheel cannot move in relation to the chain. Therefore, the chain only needs to be adjusted when it has loosened as a result of wear due to use. The wearing is, however, only theoretic as the fitness devices are mainly used indoors.

The adjustment is carried out from the freewheel hub as follows: Remove the top cover and the left frame housings. Loosen the screw above the hub in the frame (fig. 8). Slip an Allen wrench, screwdriver or other pin of suitable size into the groove of the cam part and rotate the cam anticlockwise until the chain is at the correct tightness, that is, when it can be moved freely about 5 mm up or down at its centre point. Tighten the screw above the hub and replace the housing.

In spite of continuous quality control, individual defects and malfunctions may occur due to individual components. It is in most cases unnecessary to take the whole cycle for repair, as it is usually sufficient to replace the defective part. If you notice that a part is missing, contact the dealer and give the model (E 850), serial number and spare part number.

MOVING AND STORAGE

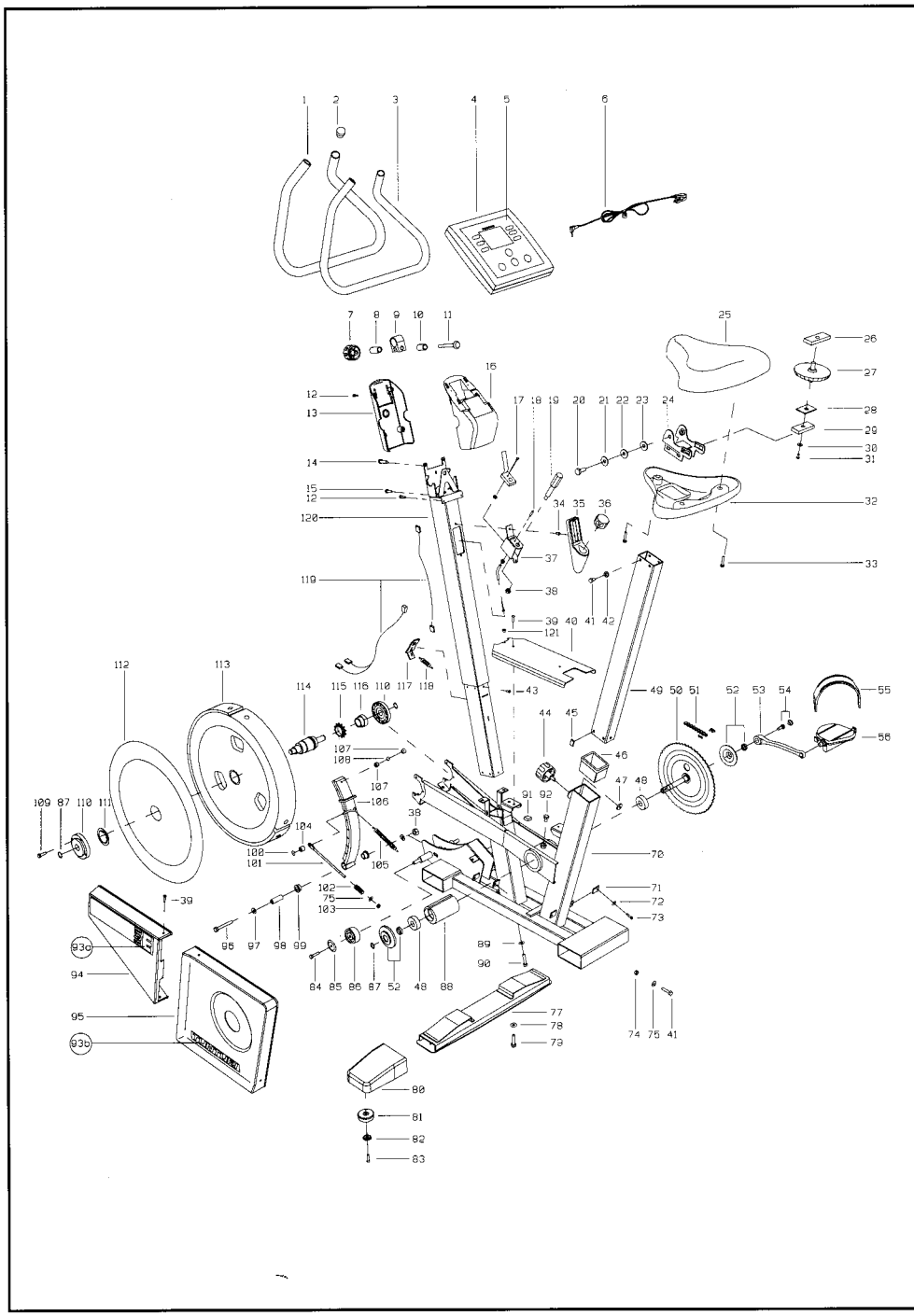
The ergometer is easily moved by wheeling it on the transportation wheels at the front. To prevent malfunctioning of the cycle, store it in a dry place with as little temperature variation as possible, protected against dust.

DIMENSIONS

Length	108cm	Height	113 cm
Width	53 cm	Weight	68 kg
Flywheel	28 kg		

The information presented in this manual is given in good faith and as accurately as possible. However, anyone who uses this information in installing, using or servicing the cycle does so at their own risk.

Due to our continuous programme of product development we reserve the right to change specifications without notice.



Ref.no	Part no.
1	213 7006 (incl. 2)
2	533 7024
3	203 1014 (incl.1,9)
4	233 1016 (incl. 5)
5	233 1024
6	233 0010
7	533 1019
8	72 1015 90
9	513 504 82
10	72 0816 210
11	60 08 075 40
12	653 7020
13	173 1014
14	60 48 016 57
15	653 5003
16	173 1013
17	223 1004
18	60 05 012 35
19	653 1007
20	60 080 200 3
21	62 0822 25
22	683 1001
23	72 8012 602
24	153 1006
25	153 1005
26	653 1012
27	653 1008
28	653 1010
29	653 1011
30	62 0412 10
31	60 04 010 21
32	153 1004
33	653 1014
34	653 263 87
35	173 1011
36	533 1018
37	373 1008
38	61 0810
39	60 05 006 21 3
40	173 1003
41	60 06 016 03
42	63 06 127
43	653 1005
44	533 0008
45	533 5002
46	533 1004
47	533 156 85
48	523 1010
49	153 1007
50	543 5007 (incl. 54)
51	252 958 37
52	533 1025
53	353 1008 1
-	353 1004 1
54	653 0002
55	363 1002
56	363 1001 (incl. 55)
70	103 1006
71	651 900 70
72	653 133 84
73	60 42 019 60
74	61 0601
75	62 0612 16
77	103 1001
78	62 0817 10
79	60 08 016 03
80	173 1001
81	533 507 82
82	653 236 86
83	60 06 020 20
84	653 164 75
85	173 1004
86	533 1012
87	673 2001
88	523 1011
89	62 1022 25
90	60 10 045 03
91	533 5020
92	60 10 025 03
93	423 5019 (incl. 93a, 93b)
94	143 507 84
95	143 506 84
96	60 08 060 02
97	652 130 72
98	72 0815 410 1
99	521 103 60
100	673 200 88
101	653 1002
102	643 600 86
103	61 0610
104	533 0005
105	643 1001
106	373 5007
107	533 4001
108	652 176 77
109	60 06 016 33
110	523 1006
111	673 105 87
112	533 1005
113	303 1009 (incl. 114)
-	303 1012 (incl.111-116)
114	343 1004
115	263 1004
116	263 5009 (incl. 115)
117	373 1009
118	643 2001
119	403 1023
120	203 1009
121	533 5021
-	553 103 89 Calibrating stripe
-	553 0002 Box spanner 12/13
-	553 0003 Box spanner 16/17
-	556 0003 Screw - shaped
-	556 024 00 Open end wrench10/11
-	553 100 88 Multi purp. wrench