

# TUNTURI®

## TUNTURI EXECUTIVE ERGOMETER OWNER'S MANUAL



The Tunturi Executive Ergometer is a robust reliable exercise cycle designed to help you improve, maintain and measure your physical fitness. With its versatile meter panel, it's ideal for testing and monitoring your condition and thus makes it easy to follow

an individualized training program. The calorie counter helps weight-watchers check their energy expenditure.

The Tunturi Executive Ergometer is designed for safe operation with seat

height adjustment and a non-slip surface on each foot pedal.

This manual describes everything you need to know to assemble, operate, and care for your Tunturi Executive Ergometer.

# IMPORTANT SAFETY INFORMATION

The Tunturi Executive Ergometer is built for optimum safety. However, certain precautions apply whenever you operate a piece of exercise equipment. In particular, note the following safety procedures.

- Never operate or repair the cycle near children or pets.
- Always wear proper clothing and shoes when exercising on the cycle.
- Gentle stretching is recommended for the lower body and back to help prevent stiffness or soreness.
- Consult a physician for a complete examination before beginning any exercise program.
- If you experience dizziness, nausea, chest pains, or other abnormal symptoms, stop your workout at once. Consult a physician before continuing.
- At the beginning of your workout, allow your body to warm up gradually. Remember to cool down gradually after your workout and let your pulse rate return to normal.
- Use the handlebar when getting on or off the cycle.
- Do not get on or off the cycle while the flywheel is moving, unless it is an emergency.
- Do not attempt any maintenance or adjustments that are not described in this manual. If you have problems with the cycle, consult an authorized service representative.
- Do not operate the cycle unless all access covers are in place.
- Only **one** person at a time should use the cycle.
- Place ergometer on a solid, level surface when in use.

## WARNING

The information presented in this guide is given in good faith and is, to the best of our knowledge, accurate. However, everyone who uses this information in any way does so entirely at their own risk. Neither Tunturi, Inc., or its representatives can accept any responsibility for any damage or injury incurred as a result of information presented here except under the terms of warranty of Tunturi products.

## CAUTION

It is extremely important to discuss your exercise plans with your physician so that you develop a program appropriate for you.

What follows are general recommendations and should be used as such. Please modify these recommendations to accommodate your personal fitness level.

If at any time you should feel faint, dizzy, nauseous, experience heart palpitations or any other abnormal symptom or discomfort, discontinue and consult your physician immediately.

It's extremely important that you read this manual thoroughly before assembling or operating the Ergometer.

# ASSEMBLY

Remove the cycle and its fittings from the package and assemble using the tools provided, as follows:

Remove the nuts from the bottom ends of the fork supporting the handlebars. Insert the fork between the frame and meter panel as shown in Fig. 1.

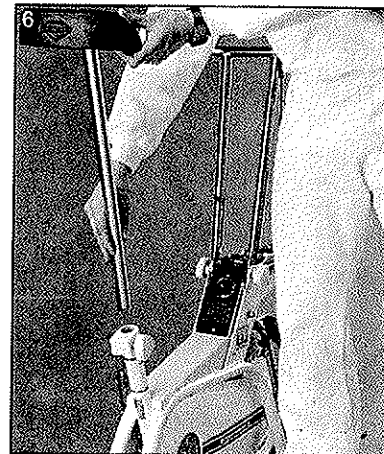
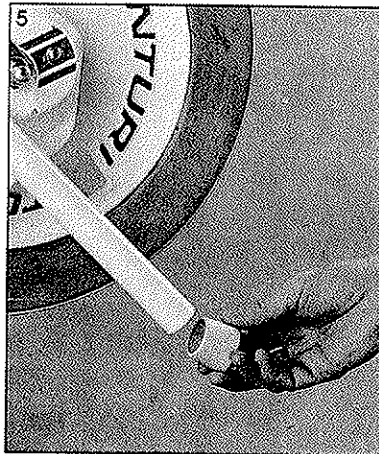
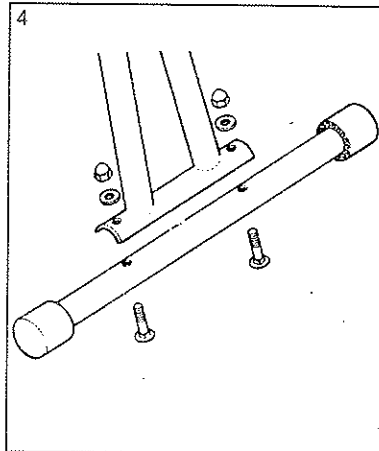
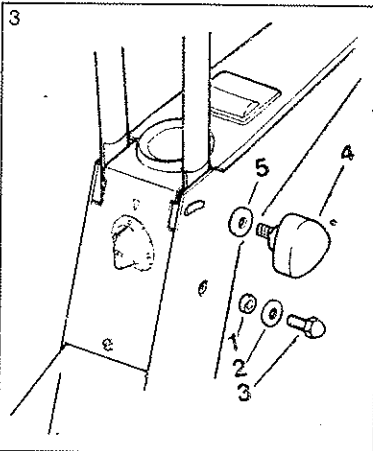
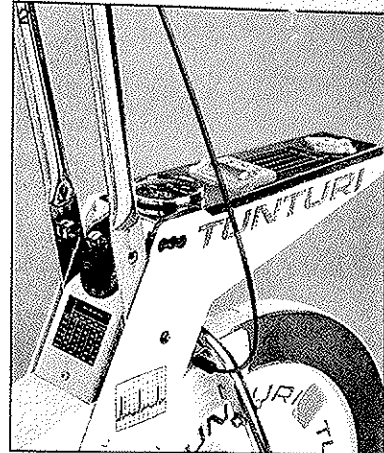
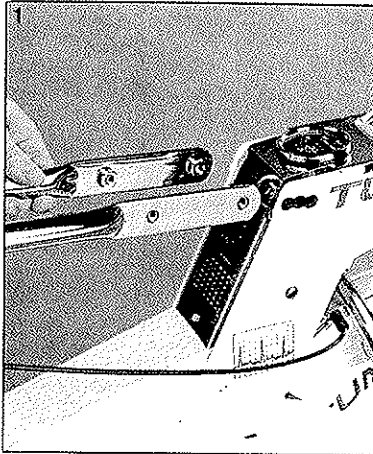
Turn the handlebar support into the vertical position and slide into place (Fig. 2).

Insert the spacer (1), washer (2) and screw (3) into the lower hole on each side of the frame, as indicated in Fig. 3. Tighten with the wrench provided. Insert the triangular locking knob (4) with washer (5) into one of the three adjustment holes at each side and tighten lightly. Leave the final adjustment of the handlebars until the seat has been set to the correct height.

Fix rear support tube to legs as shown in Fig. 4.

Fit plastic caps onto front legs as in Fig. 5.

Insert seat post into frame as shown and tighten locking knob lightly (Fig. 6).



Unscrew the plug from the right-hand crank and pedal. Screw the pedal onto the crank, tightening clockwise. Unscrew the plug from the left-hand crank and pedal and screw the pedal into place, tightening counterclockwise (Fig. 7). The right and left pedals are also distinguished from each other by the letters R and L stamped on the underside of the pedal shaft.

Clean the braking surfaces of the flywheel (see Maintenance) and make sure that all screws and nuts are securely tightened before using the cycle.



## OPERATION

### Adjustment of seat height

Set the seat height so that the ball of the foot reaches the pedal with the leg almost straight and the pedal at the bottom of its rotation (Fig. 8). To adjust the seat angle, place the required number of spacers between the seat and seat support.

### Timer

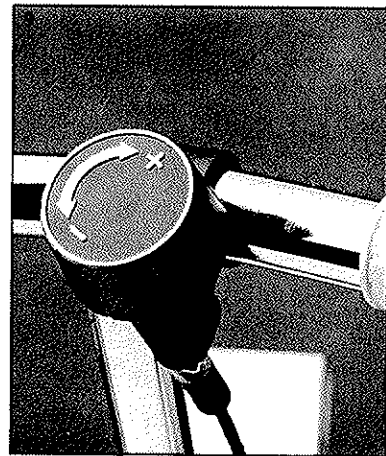
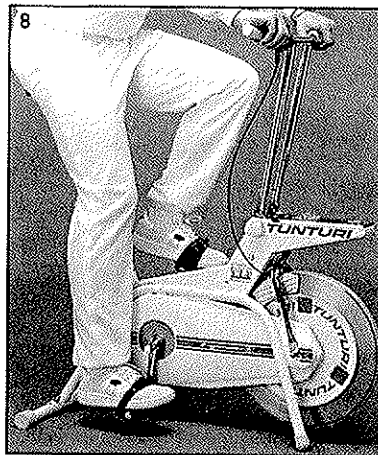
To time your workout, set the timer, e.g. to 15 min., by turning it clockwise. The bell will ring when your workout time is up.

### Adjustment of handlebars

Loosen the triangular locking knobs and set the distance between handlebars and seat to one of the three possible positions, so that the user can pedal comfortably with the arms almost straight. Tighten the knobs securely.

### Regulation of pedaling resistance

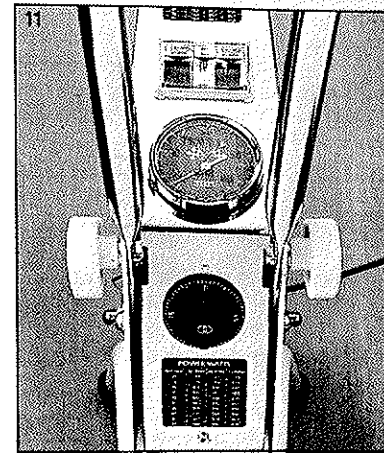
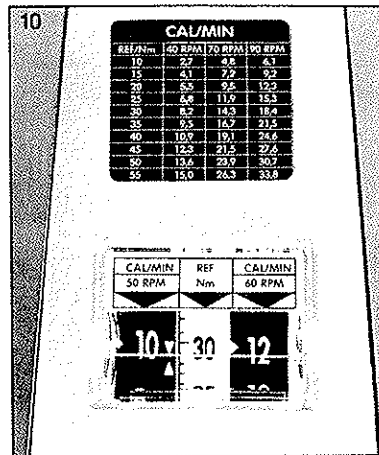
To increase resistance, turn the knob on the handlebars clockwise (+), to decrease resistance counterclockwise (-). Do not force the knob beyond the minimum and maximum positions as this may damage the regulating mechanism (Fig. 9).



### Pedaling

The cycle is equipped with a calorie meter which will help you monitor how much energy you expend during a workout — a feature of special interest to those who are watching their weight. It is best to begin pedaling at low resistance. After a few minutes warming up, you can gradually increase resistance. To calculate your exact energy expenditure when pedaling, follow the rev counter and keep your speed at a steady 50 or 60 revolutions per minute. You can then read off your energy consumption in kilocalories (kcal) from the meter. The right-hand scale shows the energy you use up at 60 rpm, the one on the left at 50 rpm (Fig. 10).

If you want to know your energy expenditure when pedaling at 40, 70 or 90 rpm, you can read it from the CAL/MIN conversion table on the meter panel. For example, at 90 rpm the reading from the center column of the calorie meter might be 20 Nm (crank moment in Newton meters). By



comparing this reference value with the CAL/MIN table, you find that your energy expenditure is 12.3 kcal per minute. Thus in 10 minutes you would use up 123 kcal — about the amount of energy in a glass of milk. You can also measure the force you are exerting in watts; pedal at 50, 60 or 70 rpm and monitor your pedaling from

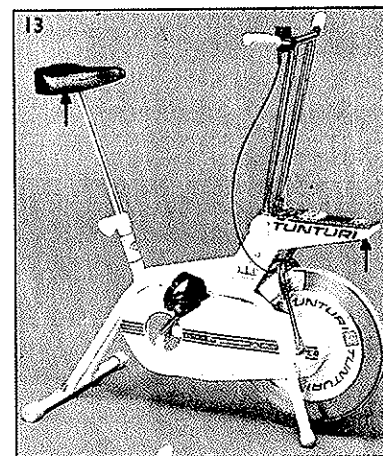
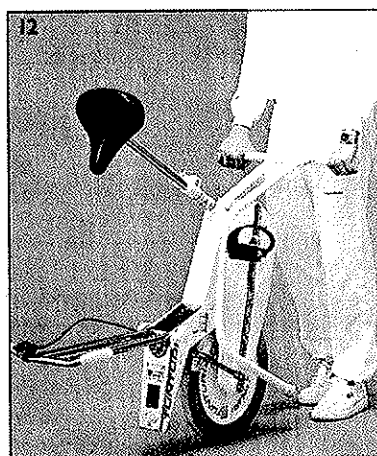
the center column of the meter (Nm). Then find the corresponding reading from the POWER WATTS table.

The mph scale on the speedometer gives you an idea of how fast you would be cycling in real conditions on the road (Fig. 11).

## TRANSPORT AND STORAGE

The Tunturi Executive Ergometer is easy to move by rolling it along the floor (after releasing the brake) as shown in Fig. 12.

To lift the cycle, hold it under the seat and meter panel, which is shaped to give a good grip (Fig. 13). To avoid damage or malfunctioning, keep the cycle in a cool, dry place free of dust. It is not recommended to use the cycle in damp conditions as the flywheel may rust, causing faulty operation.

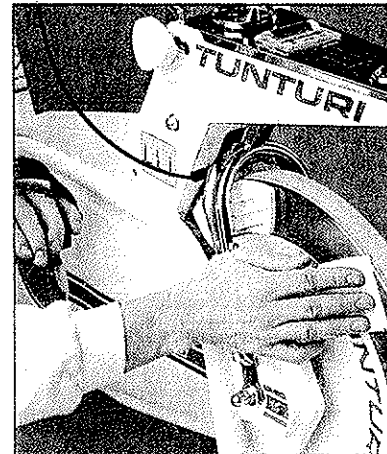
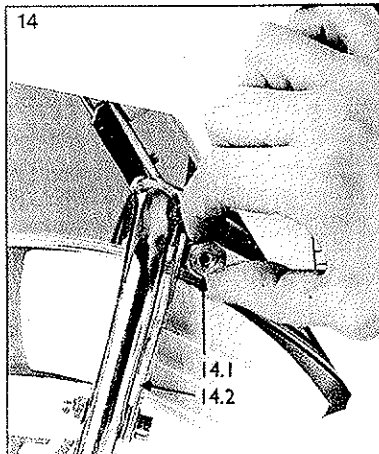


# MAINTENANCE

The Tunturi Executive Ergometer is extremely robust and made to withstand continuous hard use. To keep it working efficiently and in good condition, it is important to perform certain simple maintenance and adjustment procedures at regular intervals.

## Adjustment of resistance cable

If the resistance control knob has too much play (turns freely more than one rotation) without giving maximum resistance, tighten the resistance cable. To do this, turn the round nut at the lower end of the cable in a clockwise direction (see Fig. 14). When properly adjusted, the control knob should not turn freely more than 1/2 - 1 rotation.

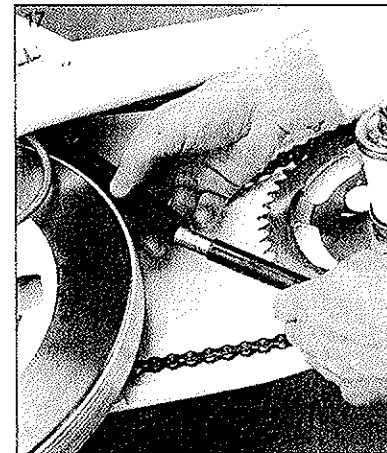
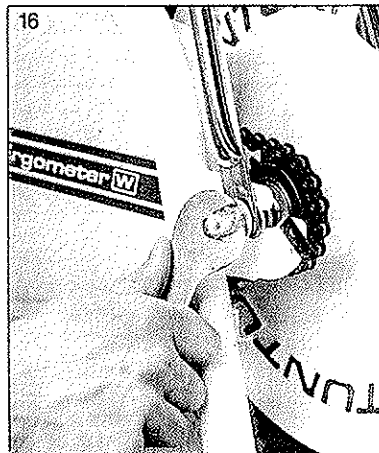


## Brake Pads

In normal use, the brake pads will withstand several hundred hours of use. Wear on the pads does not affect the accuracy of the meter, as the reading depends only on the amount of pressure exerted on the pads. The pads should be changed when the gripping surface is almost completely worn away.

## Changing brake pads

Loosen the cable by turning the control knob on the handlebars to minimum resistance. Loosen the nut (14.1) and separate the arms of the brake caliper (14.2). Remove the worn pads and insert new pads. Retighten the nut as shown in Fig. 14.



## Flywheel braking surfaces

Before use it is advisable to clean the braking surfaces of the flywheel. To do this, rotate the flywheel by turning one pedal crank and hold a piece of emery paper against the surface (Fig. 15).

## Chains

The chain should be lubricated twice a year. Remove the right-hand chain guard and apply oil, preferably with a spray. Wipe away any excess oil.

If the chain is noisy, it is either too tight or too loose. To adjust it, loosen the

outer acorn nuts (Fig. 16) first and then the locking nuts between the frame and the brake assembly on the flywheel axle. Move the flywheel forward or backward as necessary. Retighten the inner locking nuts. Check again to make sure the chain is properly aligned before retightening the outer acorn nuts. Be careful not to let the speedometer drive rotate when retightening the nuts, as this might result in damage to the speedometer cable.

## Shock absorber

If the watt meter vibrates, check the shock absorber (Fig. 17). There should

be a layer of grease between the sliding parts of the absorber. Apply some thick vaseline and rotate and slide the parts against each other before assembly.

## Seat lock

Grease the threads of the seat locking nut twice a year.

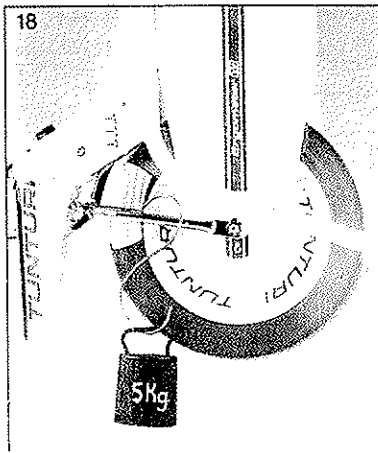
## Professional use

If the Tunturi Ergometer is used professionally, the above maintenance procedures should be carried out more frequently.

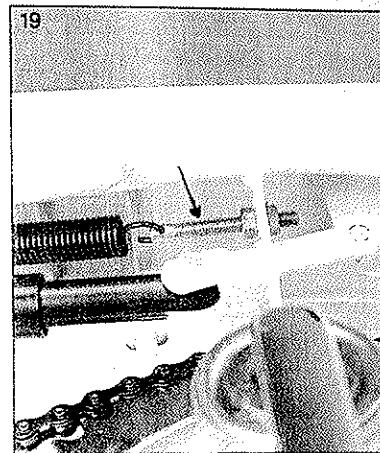
# CALIBRATION

The Tunturi Executive Ergometer is designed for accurate physiological measurements and is equipped with a balance mechanism for measuring crank moment and energy expenditure. The accuracy of this mechanism may be disturbed, e.g. during transport, and should therefore be checked from time to time, at least once a year if very accurate measurements are required. To do this proceed as follows:

Support the cycle on two chairs as shown in Fig. 18. Loosen the brake cable and suspend a 5 kg (11lbs) weight by means of an S-shaped steel hook from the hexagonal nut of the brake caliper. The pointer of the meter should then be at the level of the arrows on the scale (28 Nm), as shown in Fig. 10.



To eliminate the friction effect of the brake system, gently tap the brake pad. It is important to read the scale at right angles to ensure complete accuracy.



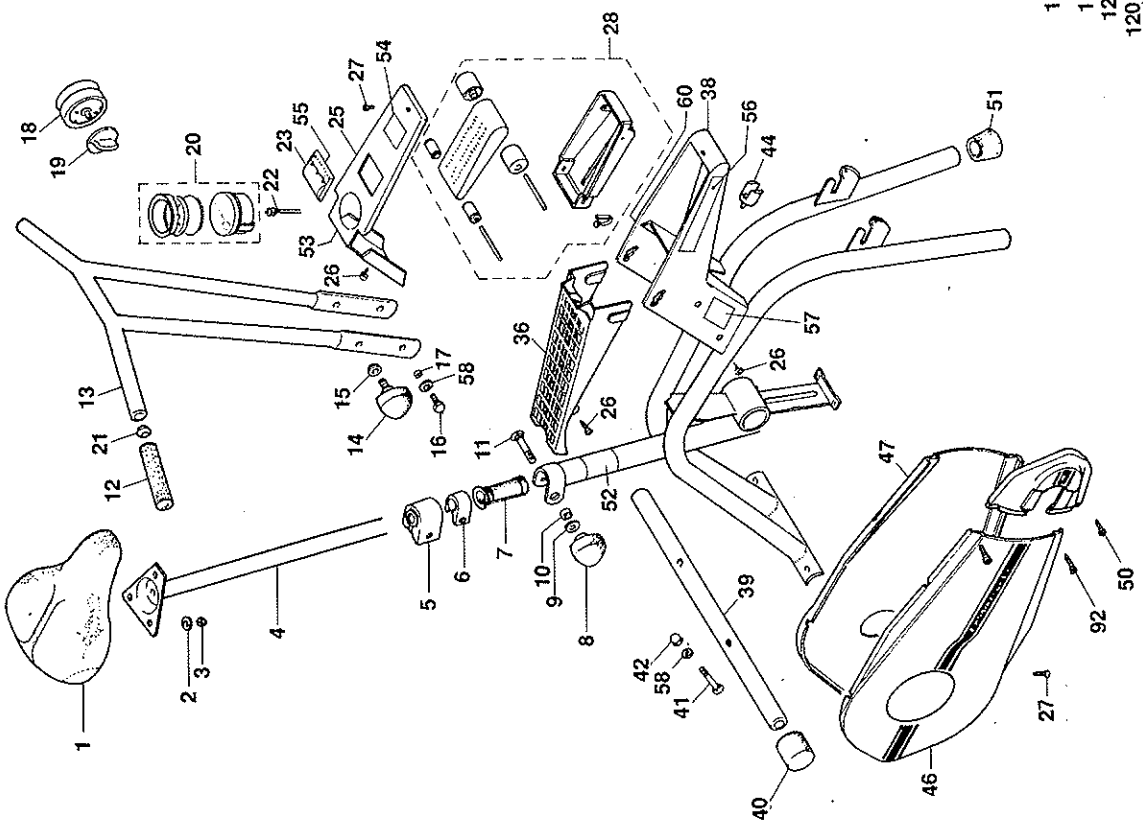
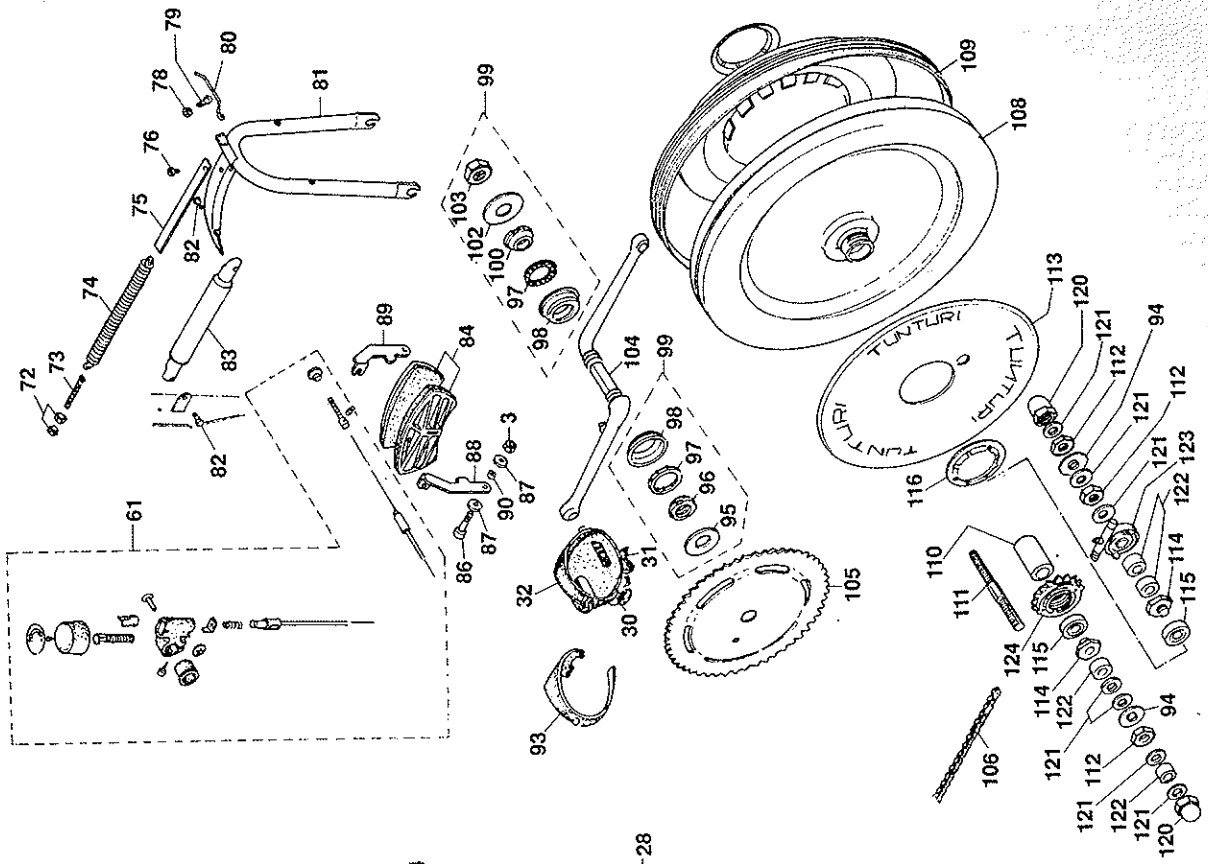
To perform any adjustments required, remove the left-hand chain guard. The mechanism can then be adjusted by turning the regulating screw shown in Fig. 19.

## WHAT TO DO IF...

FAULT	REASON	ACTION
Handlebars not secure	Locking nuts loose	Tighten lower screws with wrench, triangular knobs by hand
Brake not operating	Round nut at lower end of resistance cable loose	Thread nut into place and adjust cable tension. See Maintenance/Adjustment of resistance cable
Resistance control knob turns freely more than one rotation	Incorrect adjustment of resistance cable	Adjust tension of cable. See Maintenance/Adjustment of resistance cable
Calorie meter does not reach maximum reading	Incorrect adjustment of brake cable	Adjust tension of cable as above
Undue noise from brake pads	Dirt or rust on braking surface of flywheel	See Maintenance of flywheel braking surfaces
Pedal not secure	Pedal has worked loose from crank	Tighten crank with wrench. See Assembly
Seat not secure	Locking nut not tightening sufficiently	Grease threads and tighten by hand
Undue noise from chain	Chain dry Chain too tight Chain out of alignment	Remove right-hand chain guard extension and lubricate chain Loosen flywheel axle nuts and move flywheel back slightly Remove right-hand chain guard and its extension. Loosen flywheel axle nuts and adjust position of flywheel until chain is aligned
Chain catches on guards	Chain loose or too close to guard	Loosen flywheel axle nuts and move flywheel forward
Calorie meter scale vibrates	Rust or dirt on flywheel surface Lack of grease in shock absorber	Clean flywheel. See Maintenance/Flywheel braking surfaces Apply some thick grease. See Maintenance/Shock absorber
Speedometer vibrates	Speedometer drive (part no 123) turned to wrong position	Open left-hand chain extension and make sure that speedometer cable is not warped

# PARTS LIST

PART NUMBER	DESCRIPTION	QTY.	PART NUMBER	DESCRIPTION	QTY.
1	SEAT	1	60	SERVICE DECAL	1
2	WASHER,SPLIT	3	61	TENSION ASSY. (GREY)	1
3	NUT, M8x1.25NYLOCK	5	72	NUT M6x1x4.5T	2
4	SADDLE STEM	1	73	SCREW (FIXING)	1
5	CLAMP COVER	1	74	SPRING	1
6	TIGHTENER	1	75	DRAW STRIP	1
7	PLASTIC SLEEVE	1	76	BOLT M5x.8x12L	1
8	KNOB (HEAD BOLT)	1	78	NUT M5x.8x3.5	1
9	WASHER	1	79	SCREW M5x.8x25L	1
10	SPACER	1	80	DRAW PIECE	1
11	LOCKING SCREW	1	81	BRAKE SUPPORT TUBE	1
12	HAND GRIP	2	82	SCREW 5-6MM, SLOT	1
13	HANDLEBAR	1	83	SHOCK ABSORBER	1
14	LOCKING KNOB	2	84	BRAKE PADS PAIR	1 SET
15	WASHER SH, LDR, 4MM	2	86	SCREW	2
16	BOLT	2	87	WASHER	4
17	BEARING BUSHING	2	88	BRAKE STIRRUP RIGHT	1
18	TIMER	1	89	BRAKE STIRRUP LEFT	1
19	TIMER ADJ. KNOB	1	90	BEARING BUSHING	2
20	SPEEDOMETER	1	92	SCREW	4
21	END CAP	2	93	PEDAL STRAPS PAIR	1 SET
22	SPEEDOMETER CABLE	1	94	LOCK AXLE WASHER	2
23	MAGNIFYING GLASS	1	95	WASHER	1
25	INSTRUMENT PANEL	1	96	CONE RIGHT	1
26	SCREW	4	97	BALL CAGE	2
27	SCREW 5-10MM	3	98	BEARING RACE	2
28	CALORIE SCALE COMPLETE	1	99	BALL BEARING	COMPLETE
30	PEDAL LEFT	1			SET 1
31	PEDAL RIGHT	1	100	CONE LEFT	1
32	PEDAL PAIR	1	102	LOCKING WASHER	1
36	SHOCK ABSORBER COVER	1	103	LOCKING NUT	1
38	FRAME	1	104	CRANK	1
40	BACK STAND SHOE	2	105	SPROCKET/CHAIN WHEEL	1
41	BOLT 8-35MM	2	106	CHAIN	1
42	NUT 8MM ACORN	2	108	FLYWHEEL	1
44	RUBBER CUSHION	1	109	FLYWHEEL COVER	1
46	RIGHT SIDE COVER	1	110	COLLAR INNER	1
47	LEFT SIDE COVER	1	111	AXLE	1
48	CHAIN GUARD END	2	112	NUT 15Wx9T	3
50	SCREW	2	113	FLYWHEEL COVER	2
51	FRONT STAND SHOE	2	114	NUT 15Wx5T	2
52	ORIGINAL DESIGN DECAL	1	115	BEARING (FLYWHEEL)	2
53	TOTAL CONSUMPTION DECAL	1	116	WASHER	2
54	CALORIE TABLE	1	120	NUT	2
55	SCALE DECAL	1	121	WASHER	7
56	TUNTURI LOGO DECAL	2	122	SPACER, AXLE	4
57	PULSE RATIO DECAL	2	123	SPEEDOMETER PICK UP	1
58	WASHER	4	124	SPROCKET	1



## SPECIFICATIONS

- length 90 cm
- width 51 cm
- height 107 cm
- total weight 34.2 kg
- weight of flywheel 18 kg
- gear ratio 1:3.25
- robust welded tubular steel frame
- low center of gravity giving stability
- free wheel ensuring safe pedaling
- infinitely variable pedaling resistance
- meter showing calorie expenditure in kcal at 50 and 60 rpm
- table showing energy consumption at 40, 70 and 90 rpm
- meter showing crank moment in Newton meters
- meter showing pedaling speed (0-200 rpm) and crank revolutions (white figure changes every 100 revs)
- timer (1-60 min)
- table showing power exerted in Watts