OWNER'S MANUAL

Professional
E803 RECUMBENT
AIR CYCLE

TUNTURI®

DEVELOPING YOUR OWN FITNESS PROGRAM

Regardless of your age or current physical condition, you can benefit from a regular exercise program. Physical fitness through exercise equips you to meet the physical, mental, and social demands of everyday life. Through exercise, you will sleep better, eat better, look better, and generally feel better.

CAUTION

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

Here are just some of the benefits of a regular exercise program:

- Improve the condition of your heart and lungs
- Protect yourself against coronary heart disease
- Keep weight in check
- Maintain or develop muscular strength
- Maintain the health of your bones and your body in general
- Increase your immunity to infections
- Increase your alertness and self-confidence
- Reduce the effects of stress and aging

THE TWO TYPES OF EXERCISE

There are basically two types of exercises: aerobic and anaerobic. During *anaerobic exercise*, the production of energy does not require oxygen; the body draws fuel from stored compounds in the muscles and from blood sugar (glucose) rather than from fat. Most anaerobic exercises are intense and brief: for example, sprinting, jumping, and weight lifting.

During *aerobic exercise*, energy is produced almost completely with the use of oxygen and the body draws fuel primarily from fat. Muscles require oxygen in order to function; exercise substantially increases your muscles' need for oxygen. In response, your heart pumps faster to provide oxygen-rich blood for the muscles. Some examples of aerobic exercise are cycling, jogging, running, swimming, rowing, cross-country skiing, and stair climbing.

Here are descriptions of the two major health benefits of aerobic exercise:

An efficient cardiovascular system: Regular aerobic exercise makes your cardiovascular (heart/blood) system more efficient. A well-conditioned heart pumps more blood per heart beat; it doesn't have to work as hard to transport oxygen and blood sugar to your muscles. Over time, your exercise heart rate decreases, and you have to increase the intensity of your workouts to continue training at the same level. Your

resting pulse rate also reflects your fitness level; it decreases as your fitness improves.

Efficient fat burning: Aerobic exercise also makes your body burn fat more efficiently. Fat first develops in the muscles. As you age, unexercised muscles slowly become saturated with fat. Eventually, the fat accumulates outside the muscles; this is the fat you can see. When a muscle turns to fat, the size of the muscle decreases. This reduced muscle size tells your body that you need fewer calories. However, research has shown that regular aerobic exercise not only reverses the muscle-to-fat process; it actually increases the body's lean muscle mass. And because muscles require more energy, the body's metabolism automatically increases. You burn more calories *even when you're not exercising.*

TAILORING YOUR OWN AEROBIC EXERCISE PROGRAM

Your fitness program will vary with your age and level of fitness, as well as with your personal exercise preferences.

Before beginning any program, you need to ask yourself:

- What sort of exercise you do? You need to make a choice that fits with your lifestyle and personal preferences.
- How long will your exercise sessions be? You need a minimum of 12–15 minutes to achieve an adequate aerobic training level.
- How hard will you exercise? You eventually want to achieve a minimum of 70% maximum heart rate. (This is explained further in the next column.)
- How often can you exercise? You need to exercise at least three times per week to get the benefits of a program.

For an exercise program to work, it has to become a part of your lifestyle. Aerobic exercise can burn fat and can strengthen your cardiovascular system. However, its benefits will be temporary if you don't maintain it at least three times each and every week. Your body stores the effects of aerobic exercise for only a short period of time. The chart below describes the relationship of the number of training sessions to the level of fitness.

Number of sessions per week	**Level of fitness**
2 (or less)	Decreases
3–4	Is maintained
5–6	Improves

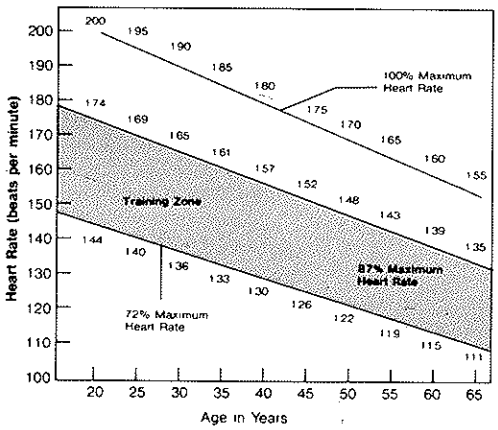
So it's very important to develop an exercise program you can live with.

Some people find it easier to maintain a fitness program if they are able to vary their exercise activity from day to day, or season to season; this is called *cross-training.* For example, you might want to run two days and cycle the other two days each week. Or, you might want to use a ski machine during the winter and an exercise bike during the summer. In addition to alleviating boredom, varying your exercise activities also lets you develop different muscle groups, rather than overdeveloping a few muscles.

The next two sections explain specifically how to determine your training zone and how to know when you need to change your training level.

FINDING YOUR AEROBIC TRAINING ZONE

True aerobic exercise means steady, continuous exercise for a period of at least 12-15 minutes at a level that elevates your heart rate between 70% and 85% of its maximum. This range is referred to as your *aerobic training zone.* Use the chart below to determine the appropriate training zone for your age group.



You won't be able to improve your fitness more quickly by working harder. In fact, if you exercise so hard that your heart rate exceeds your training zone, you will be working anaerobically. To improve your cardiovascular system and burn fat more quickly, you should exercise longer, but always within your aerobic training zone.

To find the exercise level necessary to reach your aerobic training zone, you need to monitor your pulse rate during exercise. An electronic pulse monitor can do this. Or you can use the 6-second manual method. To follow the manual method, get a watch or clock that has a second hand and follow these steps:

1. Using your fingers (rather than your thumb), feel your pulse at the thumb-side of the wrist or at the side of the neck.
2. Count your pulse beats for exactly six seconds.
3. Multiply your pulse beats by 10 to find your pulse rate per minute.

If you don't have a pulse monitor, stop and use this manual method a couple of times during your exercise session. If you are not within the correct aerobic training zone for your age group, increase or decrease your speed and/or resistance level accordingly until your heart rate falls within your target range.

EXERCISE INTENSITY

The intensity necessary to reach the training zone varies greatly from individual to individual. For example, one person at age fifty may require only a moderate walk to reach the appropriate training zone, while another person of the same age might have to maintain a fast jog. You may need to begin your exercise program at 50% to 60% of maximum heart rate and work up to a level of 70% to 85%.

As you grow older, you need to reduce your exercise speed or resistance load in order to remain in your correct aerobic zone. Your maximum heart rate lowers with age, and thus your aerobic training zone lowers too. This is true of everybody, regardless of physical condition. So don't expect to always exercise at the same intensity.

WARMING UP AND COOLING DOWN

Even the well-conditioned athlete's muscles are generally cold and stiff before exercise. Muscles in such a condition are vulnerable to injury; for this reason it's essential to warm up before any exercise session—even before stretching. Warming up also helps stimulate your heart and lungs. Your blood vessels dilate, increasing the necessary blood flow to the muscles.

For aerobic exercises, you can simply do a slower version of the exercise you intend to do. For example, cycle at a lower intensity, or walk or jog at a slower speed for several minutes before beginning your aerobic session.

After your exercise session, gradually taper off your exercise intensity and keep moving for several minutes. Stopping abruptly can allow blood to pool in the arms and legs; if you keep moving, the blood flow is directed back to the heart and brain.

To complete the cool-down process, do some all-body stretching exercises to relax the worked muscles. This post-exercise stretching session helps prevent your muscles from being stiff and sore during the next day's workout. Also it's easier to stretch muscles after exercising when they're still warm and supple.

ASSEMBLING YOUR TUNTURI RECUMBENT AIR CYCLE

The Tunturi Recumbent Air Cycle is shipped with all the parts and tools required for assembly.

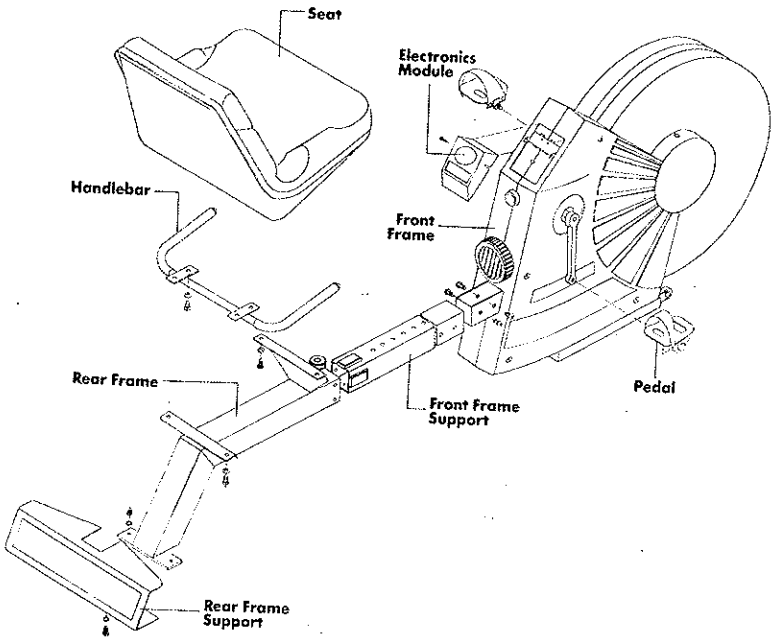
- Open-end wrench (13 mm × 15 mm)
- Hex wrench (5 mm)

UNPACKING

Cut the straps and open the boxes. (The seat is packaged in a separate box.) Take the parts of the cycle out of the boxes and set them on the floor. Refer to the diagram to identify the parts.

Make sure the following items are included:

- Seat
- Front frame
- Front frame support
- Rear frame
- Rear frame support
- Two pedals
- Electronics module (batteries included)
- Handlebar
- Fasteners
  - 8 hex-head bolts (5/16" × 3/4")
  - 2 cap nuts (5/16"–18)
  - 4 button-head, hex-drive bolts (5/16" × 3/4")
  - 2 screws (4 mm)
  - 10 washers



ASSEMBLING THE CYCLE

In all instructions, front, back, right, and left are determined as if you were sitting on the cycle.

1. Attach the rear frame support to the rear frame.

Use the 13 mm open-end wrench and the two hex-head bolts, two cap nuts, and four washers to secure the rear frame support to the rear frame. (See Illustration 1.)

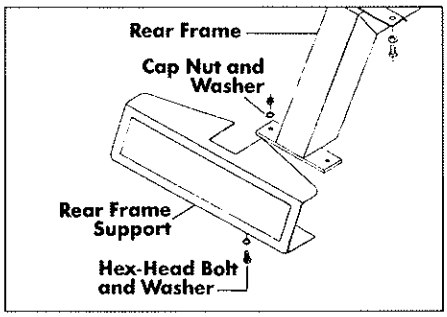


Illustration 1

2. Attach the handlebar to the seat.

a. Turn over the seat.

b. Insert the two hex-head bolts with two washers through front holes in the handlebar and into the corresponding holes in the bottom of the seat. The handlebar should point forward. (See Illustration 2.)

c. Use the 13 mm open-end wrench to tighten the bolts.

3. Attach the seat assembly to the mounting brackets on the rear frame.

a. Align the four holes in the mounting brackets with the four holes in the seat.

b. Use the 13 mm open-end wrench and the four hex-head bolts and four washers to secure the rear frame to the seat assembly. (See Illustration 2.)

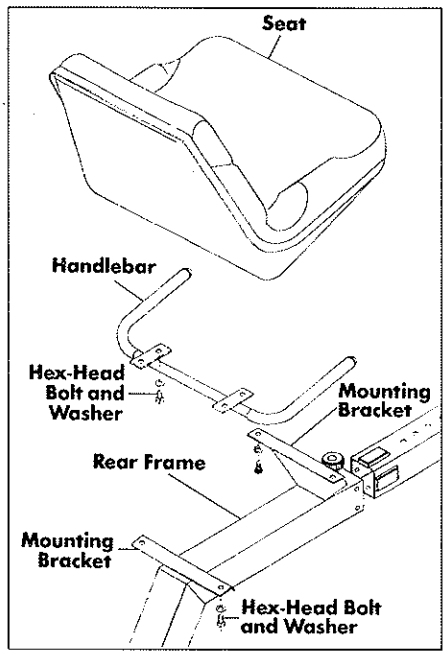


Illustration 2

4. Attach the front frame support to the front frame.

a. Slide the front frame support over the front frame tube until the holes on the frame support align with the holes on the front frame. The adjustment holes on the frame support should be positioned upward.

b. Secure using the hex wrench and the four button-head, hex-drive bolts. (See Illustration 3.)

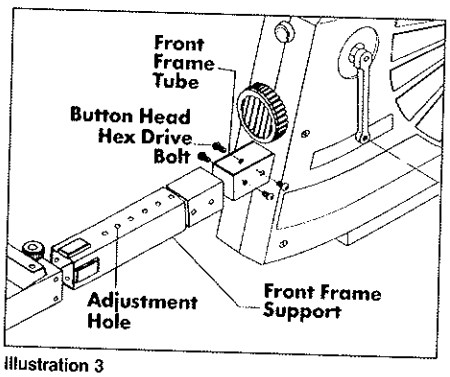


Illustration 3

5. Attach the rear frame to the front frame.

a. Slide the front frame support into the rear frame tube until the seat rail is positioned at the desired length. (See Illustration 4.)

b. Tighten the adjustment pin.

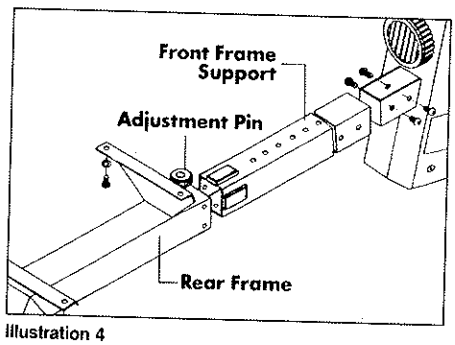


Illustration 4

6. Attach the right pedal to the right crank.

a. Gently press the right pedal onto the right crank.

b. Tighten the bolt at the base of the pedal using the 15 mm open-end wrench.

c. Turn clockwise to tighten. (See Illustration 5.)

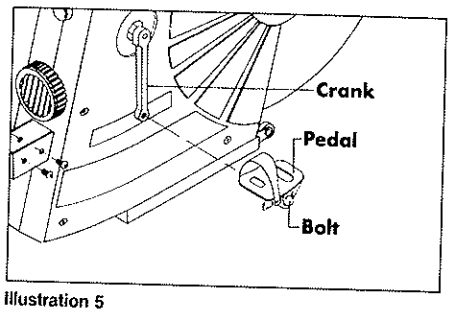


Illustration 5

NOTE
Each pedal is identified with an L or an R on the inside edge.

7. **Attach the left pedal to the left crank.**
   a. Gently press the left pedal onto the left crank.
   b. Tighten the bolt at the base of the pedal using the 15 mm open-end wrench. Turn counterclockwise to tighten. (See Illustration 5.)

8. **Insert two AA 1.5-volt batteries into the battery holder.**
   The orientation of the batteries is indicated inside the battery holder. (See Illustration 6.) Slide the battery holder into the recess in the back of the electronics module.

9. **Attach the electronics module to the front frame.**
   a. Connect the electronics cable on the front frame to the electronics module.
   b. Place the electronics module on the mounting bracket located on the front frame.
   c. Secure using the Phillips-head screwdriver and two screws provided. (See Illustration 6.)

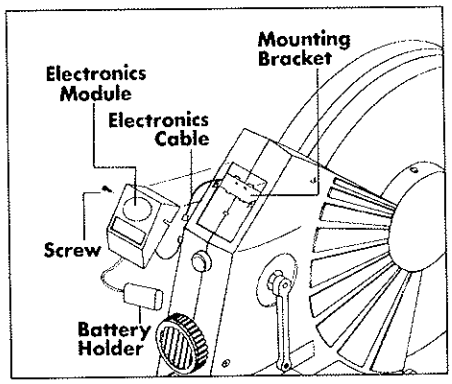


Illustration 6

ELECTRONICS MODULE

The Tunturi Air Recumbent Cycle's electronics module lets you track the effectiveness of your exercise session in five different ways: time spent, speed achieved, distance covered, revolutions per minute (RPM) achieved, and pulse rate achieved. The electronics module is programmable, allowing you to set a goal for the time of your workout and a limit for your pulse rate. An alarm will sound when you have reached the time goal or exceeded the pulse rate limit.

These instructions begin by explaining the functions of the keys, alarms, and status displays. They then walk you through the procedures for programming the electronics module.

KEY FUNCTIONS

The electronics module has six keys: ON/OFF, STOP/START, MODE/SCAN, SET, RESET, and PULSE. The function of each of these keys is described below.

ON/OFF: The ON/OFF key toggles the module between ON and OFF modes (i.e., pressing it once puts you in ON mode; pressing it again puts you in OFF mode).

STOP/START: The STOP/START key puts the module in one of two modes: START or STOP. START is the monitoring mode, used when you are exercising; STOP is the programming mode, used to preset your distance goal or pulse rate limit. When you're in STOP mode, you'll see the word "STOP" displayed in the LCD (liquid crystal display) window. If you don't see the word "STOP," you're in START mode.

The STOP/START key toggles the display between START and STOP modes (i.e., pressing it once puts you in STOP mode; pressing it again puts you in START mode).

MODE/SCAN: When in STOP mode, the MODE/SCAN key cycles you through all five functions: SPEED, TIME, DIS (distance), PULSE and PULSE SET. When in START mode, the MODE/SCAN key cycles through the four monitoring functions: SPEED, TIME, DIS and PULSE. Each time you press the MODE/SCAN key, the display moves to the next function.

The MODE/SCAN key is also used to move in and out of SCAN mode. In SCAN mode, the electronics module cycles automatically through the four monitoring functions, allowing you to see each of the displays in turn. When the module is not in SCAN mode, the display remains fixed on a single monitoring function. Whenever the module is in SCAN mode, the word "SCAN" is displayed in the upper left of the LCD window.

To move the electronics module out of SCAN mode, press the MODE/SCAN key. This will switch the display to the next monitoring function in sequence and freeze the display. To move to a different function, press the MODE/SCAN key repeatedly until that function appears.

To move the module into SCAN mode, press the MODE/SCAN key for two seconds. You'll see the word "SCAN" in the upper left of the LCD window. The display will now begin cycling through the four monitoring functions. The electronics module will only scan in START mode.

SET: The SET key lets you program your workout goal for the TIME function and your pulse rate limit for the PULSE SET function. The SPEED, RPM, DIS, and PULSE functions monitor the speed, revolutions per minute, distance, and pulse rate of your exercise session, but do not allow you to preset a goal.

When the display is on the TIME or PULSE SET function, use the SET key to increase the displayed count. Press the key once to change the count by one unit; hold it down to change the count rapidly. The TIME function increases in one-minute increments starting at 1 minute, the PULSE function, in one beat per minute (bpm) increments, starting at 50 bpm.

Once you've programmed a time goal into the electronics module, a symbol for that function will appear along the left of the LCD window. The TIME function is represented by a  . Also, the display will count down from the preset time goal rather than up from zero. So if you've preset a workout time of 20 minutes and the display reads 15:00, that means you've got 15 minutes to go. Once you reach the preset goal, an alarm will sound for a few seconds and the electronics module will automatically switch to STOP mode.

If your pulse rate exceeds the preset pulse limit, an alarm will also sound for a few seconds to warn you to lessen your workout intensity.

For specific instructions for programming the time goal and pulse rate limit into the electronics module, see "Programming the Electronics Module," page 17.

NOTE:
The electronics module must be in STOP mode for the SET key to work.

RESET: Pressing the RESET key sets the values for all the functions displayed in the LCD window to zero, as well as switches the module to STOP mode.

PULSE: The PULSE key turns the pulse monitoring function on or off (i.e. pressing it once turns the pulse monitoring function on, pressing it again turns it off). When the pulse monitoring function is on, a heart-shaped symbol appears in the right side of the display window and flashes in rhythm with your pulse rate (provided the sensor cable is plugged in and connected to your

ear). Additionally, the pulse monitoring function will compare your current heart rate to the preset limit and an alarm will sound if your heart rate exceeds that limit.

ALARM FUNCTIONS

An alarm will sound when a preset goal for the time has been achieved or a preset limit for the pulse rate has been exceeded. You don't need to do anything to turn off the alarm; it will turn off automatically in a few seconds.

LCD WINDOW STATUS DISPLAY

This section explains the various symbols that appear in the LCD (liquid crystal display) window.

STOP: This word appears in the upper left of the LCD window when the electronics module is in STOP mode. STOP mode is used to program the module. When you're in START mode, the word "STOP" disappears. The STOP/START key toggles the display between STOP amd START modes.

SCAN: This word appears in the upper left of the LCD window when the electronics module is scanning automatically through the four monitoring functions. To freeze the display, press the MODE/SCAN key. You'll see the word "SCAN" disappear. If the function you want is not displayed, just press the MODE/SCAN key repeatedly until it appears. To activate SCAN mode, hold the MODE/SCAN key down until the word "SCAN" appears in the upper left of the LCD window.

FUNCTION SYMBOLS

When you preset a time goal for your workout, a symbol for that function will appear along the left side of the LCD window. The indicates that a time goal has been set. When you cancel a preset goal, the symbol for that function will disappear. To cancel a preset goal or limit, press the RESET key which resets the count for all functions to zero.

When you enter the pulse monitoring mode, a symbol for that function will appear in the LCD window. The indicates that your pulse is being monitored. When you press the PULSE key to leave the pulse monitoring mode, the symbol will disappear. Also, the pulse monitoring function will turn off automatically if the sensor cable is not plugged into the electronics module and clipped to your ear.

An RPM bar graph within the LCD window lets your track your RPM even when the digital display is on a different monitoring function. The fine line shows the units of measurement, from 0 to 700 RPM; the broad bar shows your current RPM status.

FUNCTION DESIGNATOR

The ▼ along the bottom of the LCD window points to whichever function is currently displayed in the digital readout: SPEED, TIME, DIS, PULSE or PULSE SET. Each time you press the MODE/SCAN key, the function designator moves to the next function. In SCAN mode, the function designator moves automatically.

PROGRAMMING THE ELECTRONICS MODULE

This section walks you through the procedures for presetting a goal for the TIME function, or a limit for the PULSE SET function. The SPEED, RPM, DIS, and PULSE functions cannot be programmed; they simply report your current speed, revolutions per minute, distance, or pulse rate status.

TIME: To preset the time, follow these steps:

1. If the electronics module is not already on, press the ON/OFF key to turn it on. Then press the STOP/START key if necessary to put it in STOP mode. (You'll see the word "STOP" at the upper left of the LCD window.)
2. Press the MODE/SCAN key until the function designator moves to TIME.
3. If the time display is not at 0:00, press the RESET key to reset the count to zero.
4. The time display ranges from 0:00 to 99:00 minutes. Press the SET key repeatedly to change the count one minute at a time—or hold the key down to change it rapidly.
5. A will appear at the left of the LCD window, indicating that a time goal has been set.
6. Press the STOP/START key to begin your workout—or press the MODE/SCAN key to advance to another function.

PULSE. To preset the PULSE RATE LIMIT, follow these steps:

1. If the electronics module is not already on, press the ON/OFF key to turn it on. Then, press the STOP/START key if necessary to put it in STOP mode. (You'll see the word "STOP" at the upper left of the LCD window.)
2. Press the MODE/SCAN key until the function designator moves to PULSE SET.
3. If the pulse set display is not at 0, press the RESET key to reset the count to zero.
4. The pulse set display ranges from 50 to 200 bpm. Press the SET key repeatedly to change the count one beat per minute at a time—or hold the key down to change it rapidly.
5. Press the STOP/START key to begin your workout—or press the MODE/SCAN key to advance to another function.

PROCEDURES FOR AN EXERCISE SESSION

Whenever you exercise on the Tunturi Recumbent Air Cycle, you should follow these procedures:

1. **Adjust the length of the seat rail.**
   The seat rail length should allow the knee to be slightly bent (not completely straight) when your leg is extended while pedalling.
   a. Loosen the spring-loaded adjustment pin.
   b. Lift the adjustment pin and choose one of the ten adjustment holes in the seat rail.
   c. Tighten the locking pin.

NOTE:
Do not sit on the cycle when adjusting the length of the seat rail.

2. **Adjust the pedal straps.**
   You need to adjust the pedal straps so that it's easy to slip your feet in and out of the pedals.
   a. Place one foot in each of the pedals and adjust the pedal straps to the desired tightness.
   b. Fit the pedal strap over the selected securing tab on the pedal.
   c. Pull down firmly on the pedal strap. The strap should snap easily over the securing tab.

3. **Select the desired functions on the electronics module.**
   See the example following this list of procedures for how one person made selections for the time goal and pulse rate limit for an exercise session.

4. **Adjust the resistance.**
   a. Begin pedalling and adjust the tension of your cycling to the desired resistance. Resistance can be controlled by either speed or tension control knob.
   b. Turn the tension control knob clockwise to increase the resistance and counterclockwise to decrease the resistance.

5. **Adjust the air flow.**
   Turn the air grill to the desired position. You can direct the air flow upward to cool yourself; you can also direct the air flow downward away from yourself.

SELECTING SETTINGS ON THE ELECTRONICS MODULE

EXAMPLE:

1. To turn the electronics module on press the ON/OFF key.
2. Press the MODE/SCAN key until the arrow in the display points to the time mode.
3. To set the amount of time you want to exercise (from 0 to 99 minutes) press the SET key. For example, press the SET key until the display shows 20:00 minutes.
4. To select pulse set mode press the MODE/SCAN key.
5. To advance the desired pulse rate limit by one beat per minute (from 50 to 200 bpm) press the SET key. Refer to the heart rate chart in the section "Finding Your Aerobic Training Zone" and choose a heart rate limit within your training zone. A typical heart rate limit would be at 80% of your maximum heart rate. For example, if you're 45 years old, press the SET key until the display shows 143 bpm.
6. Plug the pulse monitor into the side of the electronics module.
7. Rub your earlobe at least 15 times, then clip the sensor to your earlobe. To maintain an accurate reading, secure the sensor cable to your clothing with the cable clip.
8. Press the PULSE key. When you press this key, the electronics module begins to track your heart rate. A tone sounds whenever your heart rate exceeds the preset pulse rate limit.
9. Press the STOP/START key. When you press this key the electronics module begins to track speed, time, and distance. A tone sounds when the preset time reaches zero.
10. Hold down the MODE/SCAN key for two seconds to scan speed, time, distance, and pulse in sequence in the display.

NOTE:

This type of pulse measurement does not work well for certain individuals. Poor circulation or greater than average fatty tissue may result in erratic measurements.

MAINTAINING YOUR TUNTURI RECUMBENT AIR CYCLE

The Tunturi Recumbent Air Cycle requires very little maintenance. Be sure to clean your cycle with a damp cloth or towel after each workout.

If you have any problems while performing maintenance on your cycle, consult an authorized service representative.

LUBRICATING THE CHAINS

To ensure that your cycle will continue to operate correctly, you need to oil the chain once a year.

1. **Remove the right pedal crank assembly.**
   a. Use a 10 mm open-end wrench to turn the bolt at the base of the crank counterclockwise to loosen.
   b. Remove the cotter pin and pull off the crank. It may be necessary to gently pound the bolt-end of the cotter pin to slide it out.
2. **Remove the electronics module.**
   a. Perform the assembly instructions in reverse.
   b. Use the Phillips-head screwdriver to remove the screws in the mounting bracket.
3. **Pull off the air grill.**
4. **Remove the right cover from the front frame.**
   a. Use a Phillips-head screwdriver to remove the six Phillips-head screws.
   b. Remove the right cover.
5. **Lubricate the chain.**
   Use a few drops of household lubricant or aerosol spray and wipe off any excess oil.
6. **Turn the pedal to advance the chain until the entire chain is lubricated.**
7. **Reassemble the right cover, air grill, electronics module and right pedal crank assembly.**

CHANGING THE BATTERIES

You need to replace the batteries when no display appears in the display window of the electronics module.

1. Unscrew the electronics module from the front frame. Remove the battery holder from the recess in the back of the electronics module.
2. Insert two size AA batteries into the battery holder. Be sure that the position of the batteries matches the diagram inside the battery holder.
3. Replace the battery holder. Then, screw the electronics module back on the front frame.

STORING AND TRANSPORTING THE CYCLE

To avoid damage to the cycle, be sure to keep it in a cool dry location that is free of dust. Do not use the cycle in a location that is damp; this can cause the flywheel to rust.

You can move the cycle easily by lifting the back of the seat until the entire weight of the machine rests on the front wheels. Roll to the desired location.

PARTS LIST

Ref. No.	Description	Qty/ Unit
1	Front frame, painted	1
2	Tunturi label (small)	2
3	Model label (left & right)	1 set
4	Tunturi label	1
5	Seat	1
8	Rear frame, painted	1
21	Front frame support, plated	1
40	Axle & bearing assembly	1 set
41	Sprocket, 36T	1
42	Crank arm (left) & cotter pin	1 set
43	Crank arm (right) & cotter pin	1 set
44	Drive sprocket assembly	1
45	Tension screw	4
46	Tension clip	4
47	Drive pulley	1
48	Small pulley	1
49	Fans wheel	1
51	Hub of axle assembly	1 set
58	Plunger pin assembly	1 set
61	Rear frame support, painted	1
62	Foot	2
64	Handlebar, painted	1
66	Hand grip	2
67	End caps	2
68	Spacer	4
69	Bushing	1
70	Adjusting foot	2
71	Dolly wheel	2
72	Bolt	2
73	Bracket and sensor	1
78	Cage	1 set
79	Trim strip	1
80	Axle cover (left & right)	1 set
81	Side cover (left & right)	1 set
82	Air grill	1
83	Mounting Bracket	1
84	Brake belt assembly	1
100	Straps (left & right)	1 set
101	Pedals (left & right)	1 set
103	Chain	1
104	Drive belt	1
105	Electronics module	1
107	One-way sprocket	1
108	Ring nut	2
112	Tension assembly	1 set
114	Belt clip	1
151	Nut	4
154	Socket head bolt	2
155	Nut clip	8
156	Screw	8
157	Screw	10
158	Socket head bolt	4
160	Bolt	4
167	Bolt	4
168	Nut	4
169	Washer	4
170	Bolt	8
171	Bolt	2
172	Cap nut	4
173	Washer	12
174	Bolt	1
175	Bolt	2