

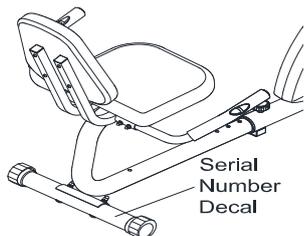
# OWNER'S MANUAL

Model No.  
16116838

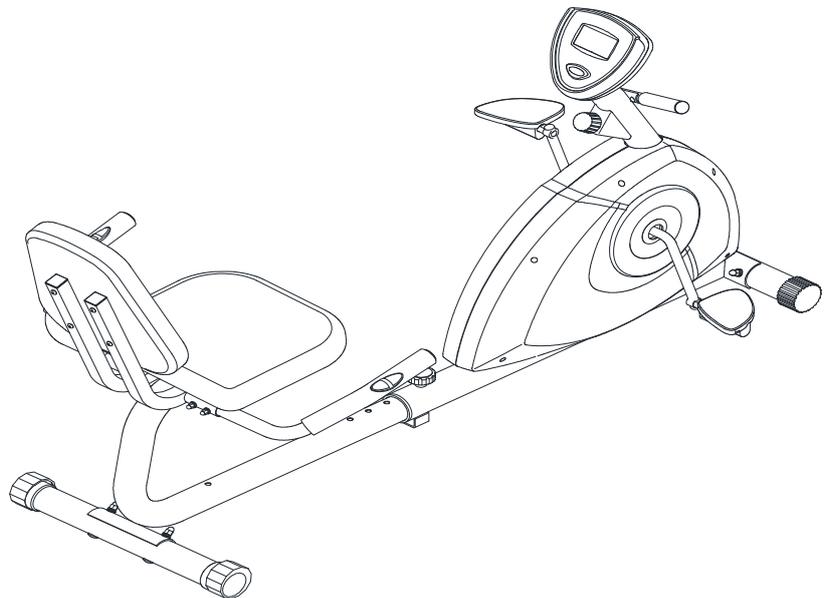
## Recumbent Cycle

 **CAUTION:**

*You must read and understand this owner's manual before operating unit. Keep this manual for future reference.*



## RECUMBENT CYCLE



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## **Manufacture's One-Year Limited Warranty**

Your Advantage Cycle is warranted for one year from the date of purchase against defects in material when used for the purpose intended, under normal conditions and provided it receives proper care. Any part found defective or missing will be sent at no cost when returned in accordance with the terms of this warranty.

This warranty is not transferable and is extended only to the original owner.

The warranty shall not apply to exercise units which are (1) used for commercial or other income producing purposes, or (2) subject to misuse, neglect, accident or unauthorized repair and alterations.

This warranty provided herein is lieu of all other express warranties, any implied warranties, including any implied warranties of merchantability of fitness for particular purpose, are limited in duration to the first 12 months from date of purchase. All other obligations or liabilities, including liability for consequential damages are hereby excluded.

## **REPAIR PARTS AND SERVICE**

All of the parts for the cycle shown in figure can be ordered from Dyaco Canada Inc. 6050 DON MURIE STREET, NIAGARA FALLS, ONTARIO L2G 0B3. When ordering parts, the parts will be sent and billed at the current prices. Prices may be subject to change without notice. Check or money order must accompany all orders. Standard hardware items are available at your local hardware store.

To ensure prompt and correct handling of any errors, or to answer any questions, please call our Toll Free number: 1-888-707-1880, or local number 1-905-353-8955 or fax 1-905-353-8968 or email [customerservice@dyaco.ca](mailto:customerservice@dyaco.ca) or visit us at: [www.dyaco.ca](http://www.dyaco.ca) Office hours are from 8:30 AM to 5:00 PM Monday to Friday Eastern Standard Time.

Always include the following information when ordering parts

- Model number
- Name of each part
- Part number of each part

## SAFETY PRECAUTIONS

Thank you for purchasing our product. Even though we go to great efforts to ensure the quality of each product we produce, occasional errors and /or omissions do occur. In any event should you find this product to have either a defective or a missing part please contact us for a replacement.

This product has been designed for home use only. Product liability and guarantee conditions will not be applicable to products being subjected to professional use or products being used in a gym center.

This exercise equipment was designed and built for optimum safety. However, certain precautions apply whenever you operate a piece of exercise equipment. Be sure to read the entire manual before assembly and operation of this machine. Also, please note the following safety precautions:

1. Read the OWNER'S OPERATING MANUAL and all warnings posted on the exercise cycle and follow it carefully before using your cycle.
2. If dizziness, nausea, chest pains, or any other abnormal symptoms are experienced while using this equipment, STOP the workout at once. CONSULT A PHYSICIAN IMMEDIATELY.
3. Review all warnings labels that affixed to the cycle. Inspect your exercise equipment prior to exercising to ensure that all nuts and bolts are fully tightened before each use. Functional and visual inspection of the equipment shall be made after assembling your cycle
4. The cycle must be regularly checked for signs of wear and damage. Any part found defective must be replaced with a new part from the manufacturer.
5. Set up and operate the exercise bicycle on a solid level surface. It is recommended to use an equipment mat to prevent the unit from moving while it is being used, which could possibly scratch or damage the surface of your floor.
6. No changes must be made which might compromise the safety of the equipment.
7. It is recommended to have a minimum of 2' safe clearance around the exercise equipment while in use.
8. The pulse sensor is not a medical devise. Various factors, including the user's movement may affect the accuracy of the heart rate readings. The pulse
9. Keep children and pets away from this equipment at all times while exercising.
10. Warm up 5 to 10 minutes before each workout and cool down 5 to 10 minutes afterward. This allows your heart rate to gradually increase and decrease and will help prevent you from straining muscles.
11. Never hold your breath while exercising. Breathing should remain at a normal rate in conjunction with the level of exercise being performed
12. Always wear suitable clothing and footwear while exercising. Do not wear loose fitting clothing that could become entangled with the moving parts of your cycle.
13. Care should be taken in the mounting or dismounting of the exercise cycle. Always hold the handlebars when mounting, dismounting or using the cycle. When you stop exercising, allow pedals to slowly come to a complete stop before dismounting.
14. Care must be taken when lifting or moving the equipment, so as not to injure your back. Always use proper lifting techniques.
15. User weight should not exceed 250 lbs.
16. Tie all long hair back.
17. Remove all personal jewellery before exercising.
18. After eating, allow 1-2 hours before exercising as this will help to prevent muscle strain.
19. Injuries may result from incorrect or excessive training and using the equipment otherwise than as directed or recommended by your doctor



**WARNING: Before beginning any exercise program consult your physician. This is especially important for individuals over the age of 35 or persons with pre-existing health problems. Read all instructions before using any fitness equipment. We assume no responsibility from personal injury or property damage sustained by or through the use of this product.**

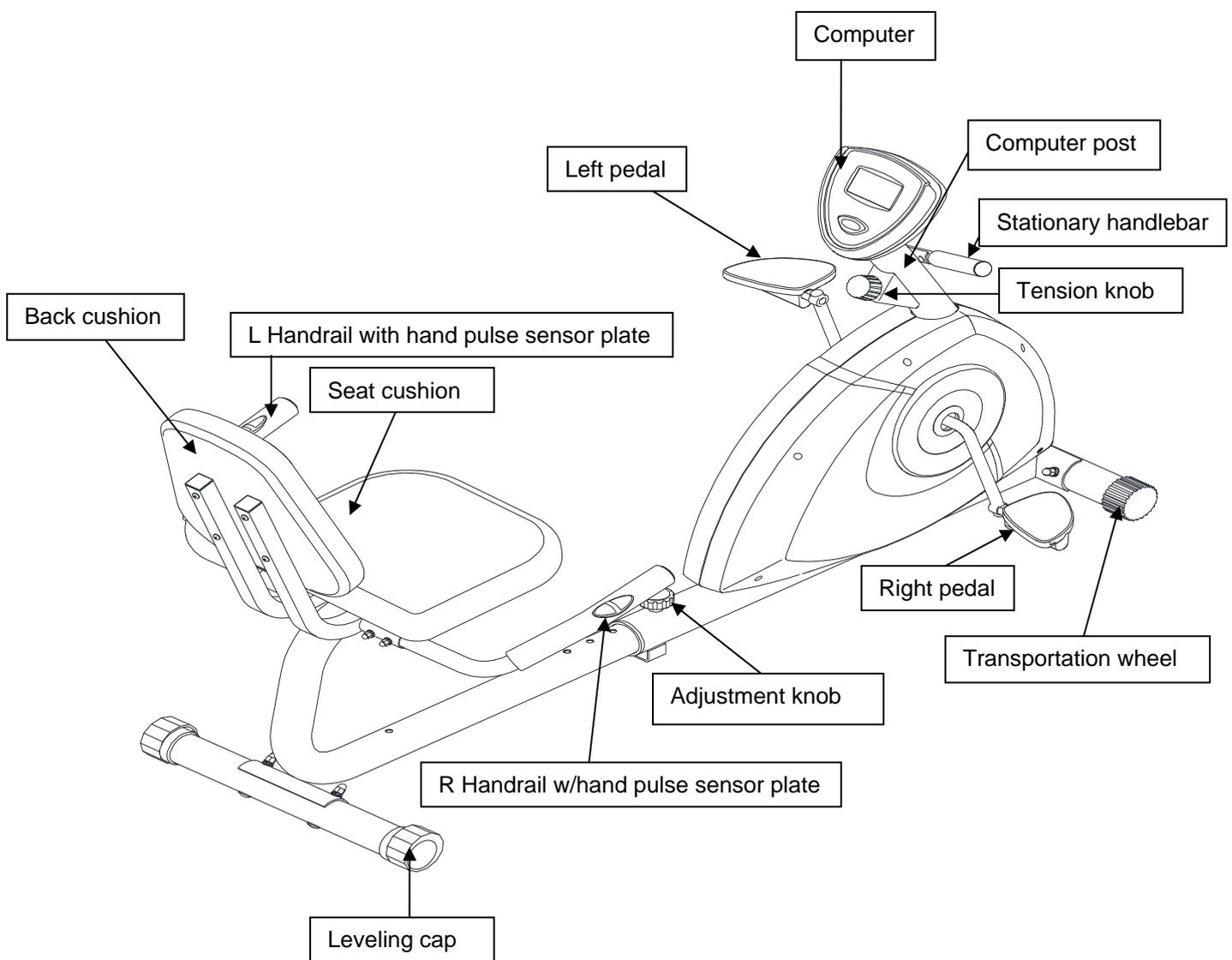
### SAVE THESE INSTRUCTIONS

Customer Service 1-888-707-1880  
or email [customerservice@dyaco.ca](mailto:customerservice@dyaco.ca)

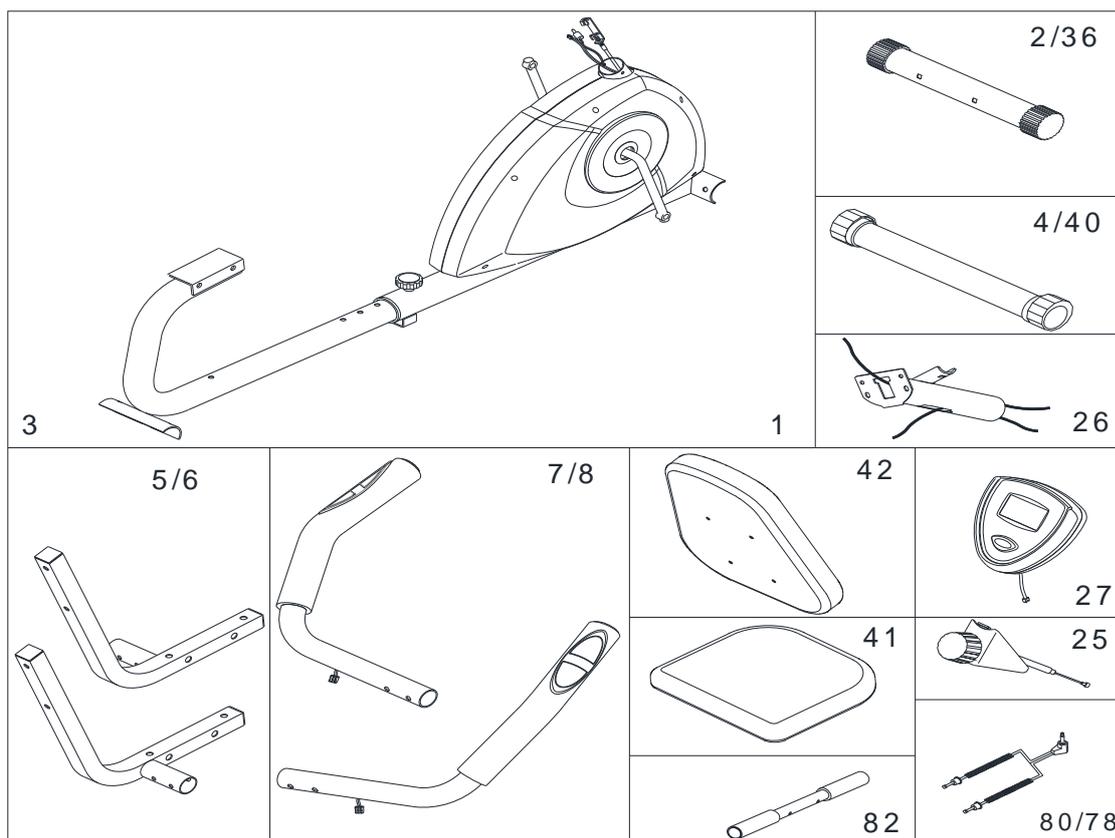
## BEFORE YOU BEGIN

Thank you for selecting the revolutionary Advantage exercise bike. Cycling is an effective exercise for increasing cardiovascular fitness, building endurance, and toning the body. The exercise bike provides an impressive selection of features designed to make your workouts at home more effective and enjoyable.

**For your benefit, read this manual carefully before you use the exercise bike.** If you have questions after reading this manual, please see the front cover of this manual. To help us assist you, note the product model number and serial number before contacting us. The model number and the location of the serial number decal are shown on the front cover of this manual. Before reading further, please familiarize yourself with the parts that are labeled in the drawing below

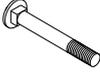


## PRE-ASSEMBLY CHECK LIST



NO.	Description	Quantity
1/3	Front main frame / Rear main frame	1
2/36	Front stabilizer w/ transportation wheels	1
4/40	Rear stabilizer w/leveling cap	1
5/6	Seat frame (R&L)	2
7/8	Handrail (R&L) w/hand pulse sensor plate, sensor wire , grip	1
26	Computer post w/two straps	1
41	Seat cushion w/ four screws	1
42	Back cushion	1
25	Tension knob	1
27	Computer w/four screws, extension sensor wire	1
80/78	Middle section hand pulse sensor wire w/plugs	1
82/83	Stationary handlebar w/grips	1
	Inner box	1

## HARDWARE PACKING LIST

NO	Description	Qty	Drawings	
47	Carriage bolt M8x65mm	4		
65	Arc washer M8	6		
67	Lock washer M8	6		
61	Acorn nut M8	6		
49	Button head bolt M10x122mm	2		
69	Washer M10	2		
59	Nylon nut M10	2		
51	Round head bolt M6x35mm	8		
50	Hex head bolt M6*37mm	4		
66	Lock washer M6	4		
64	Arc washer M6	4		
60	Acorn nut M6	4		
34	Left pedal	1		
35	Right pedal	1		
72	Universal wrench	1		
73	Allen wrench	1		
84	Carriage bolt M8x40mm	2		

## ASSEMBLY INSTRUCTION

This manual is designed to help you easily assemble, adjust and use this machine. Please read this manual carefully. For the sake of familiarizing yourself with the parts identified in the instruction, first study the overview drawing.

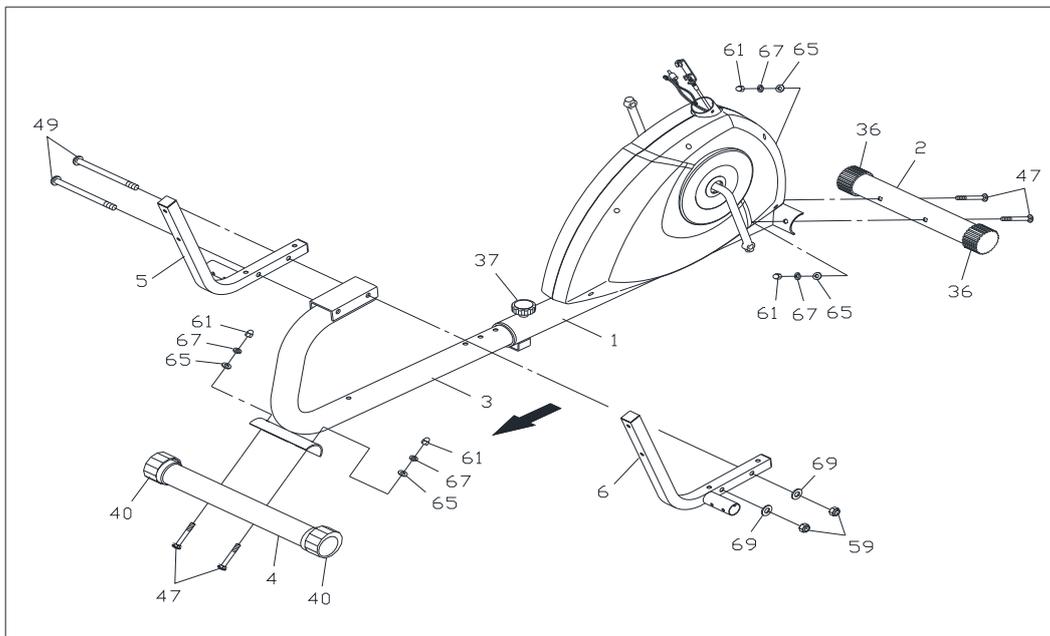
Set all parts in a clear area on the floor and remove the packing material. Refer to the parts list for help to identify the parts.

It will take two people to assemble your unit.

Note: If a part is not in the hardware kit, check to see if it has been preassembled. To avoid damaging parts, do not use power tools for assembly.

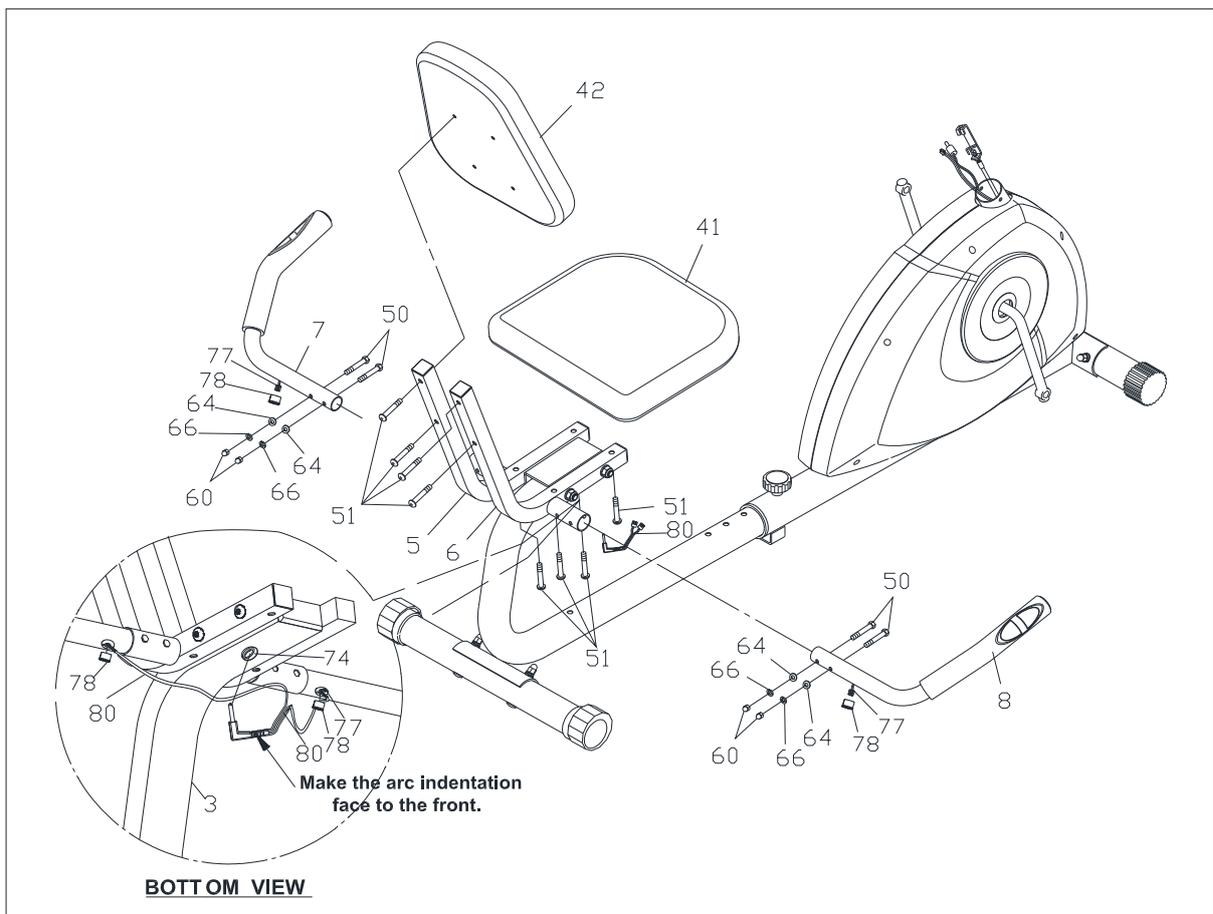
### STEP 1 ATTACH THE STABILIZERS AND SEAT FRAME

1. Attach the front stabilizer (2), the short one with the transportation wheels (36), to the front of the front frame (1) with carriage bolts (M8x1.25x65mm)(47), arc washers (M8)(65), lock washers (M8)(67), and acorn nuts (M8x1.25)(61).
2. Unscrew to remove the adjustment knob (37) from the front frame (1). Slide the rear frame (3) into the front frame and secure with the adjustment knob (37). Attach the rear stabilizer (4), the one with the leveling caps (40), to the rear frame (3) with carriage bolts (M8x1.25x65mm)(47), arc washers (M8)(65), lock washers (M8)(67), and acorn nuts (M8)(61).  
NOTE: You can adjust the leveling caps (40) on the rear stabilizer (4) to keep the Recumbent Bike stable.
3. Attach the left and right seat frames (5, 6) to both sides of the rear frame (3) with button head bolts (M10x1.5x122mm)(49), washers(M10)(69), and nylock nuts (M10x1.5)(59).



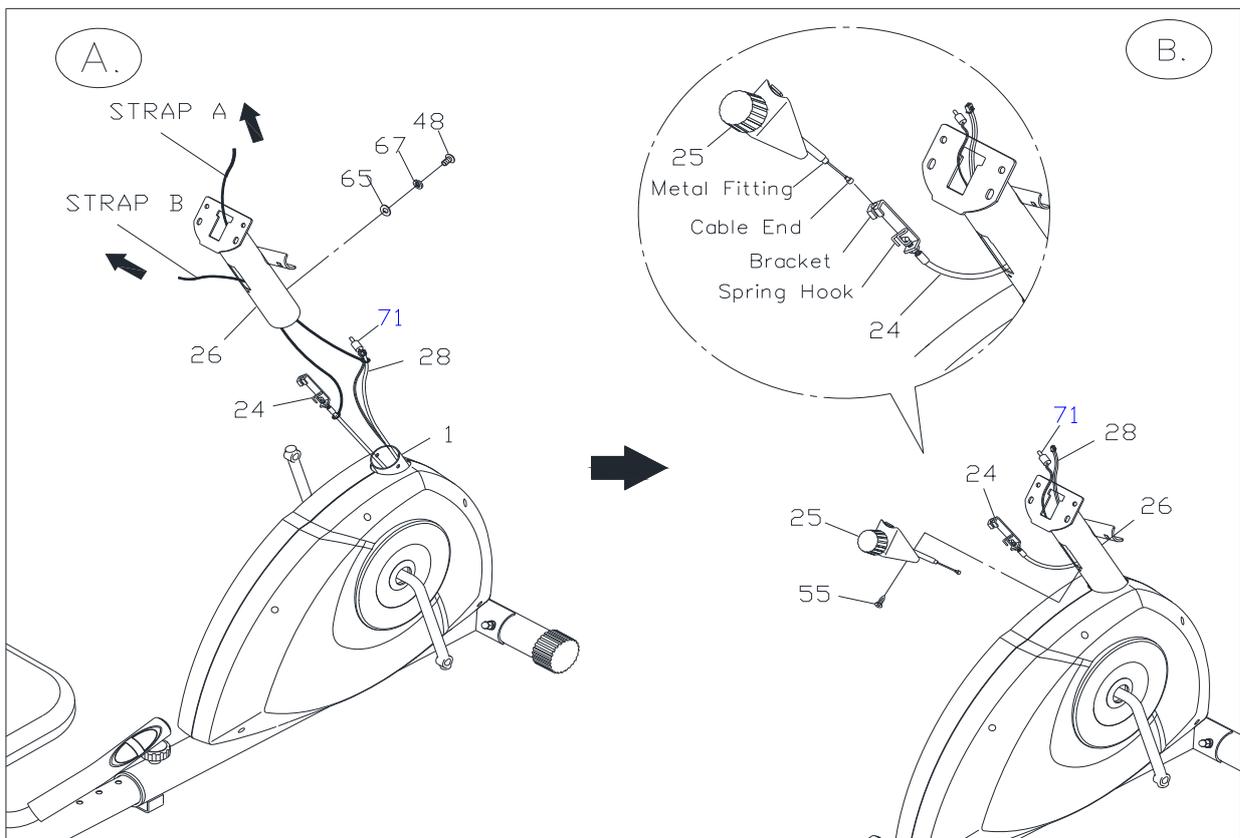
## STEP 2 ATTACH THE HANDRAIL, SEAT AND BACK CUSHION

1. Install the hex bolts (M6x1x37mm)(50) as shown in the illustration above. This allows the head of the bolts to fit inside the hex shape holes in the seat frames (5, 6).
2. Attach the right handrail (8) to the right seat frame (6) with hex bolts (M6x1x37mm)(50), arc washers (M6)(64), lock washers (M6)(66), and acorn nuts (M6x1)(60). Repeat on the left side.
3. Attach the seat cushion (41) to the left and right seat frames (5, 6) with round head bolts (M6x1x35mm)(51).
4. Attach the back cushion (42) to the left and right seat frames (5, 6) with round head bolts (M6x1x35mm)(51).
5. Insert the plug of the middle section hand pulse sensor wire (80) into the socket of the rear section hand pulse wire (79) of the rear frame (3). Plug the left and right hand pulse wires (77) into the socket of the middle section hand pulse sensor wire (80). Push the plugs (78) and any excess wire back into the opening of the handrails (7,8).



### STEP 3 ATTACH THE COMPUTER POST, TENSION KNOB AND STATIONARY HANDLEBAR

1. Refer to illustration A. Pull the ends of the tension cable (24) and sensor wire (28) and front section hand pulse wire (71) out of the front frame (1). There are two straps attached inside of the computer post (26) to assist when pulling the sensor wire (28) with the front section hand pulse wire (71) and the tension cable (24) through the computer post (26). Tie strap A to the plug end of the sensor wire (28) and the front section hand pulse wire (71). Tie strap B to the bracket of the tension cable (24). Pull the strap A from the square hole on the top of the computer post (26) until the sensor wire (28) is pulled through and extends out of the square hole. Pull the strap B from the square hole on the side of the computer post (26) until the tension cable (24) extends out of the side. Insert the computer post (26) into the front frame (1) and secure with button head bolt (M8x1.25x15mm)(48), lock washers (M8)(67), and arc washers (M8)(65).
2. Refer to illustration B and the inset drawing. Turn the tension knob (25) counterclockwise as far as it can go, so the cable end extends out of the metal fitting as far as possible. Connect the cable end of the tension knob (25) into the spring hook on the end of the tension cable (24). Pull on the cable end of the tension knob (25) firmly so that enough cable is available to insert the cable end through the slot in the bracket. Then insert the metal fitting on the cable end of the tension knob (25) into the hole at the end of the slot in the bracket. Adjust the tension knob (25) and verify that the spring hook moves when the tension knob (25) is adjusted. Attach the tension knob (25) to the computer post (26) with flat head screw (M5x0.8x10mm)(55).



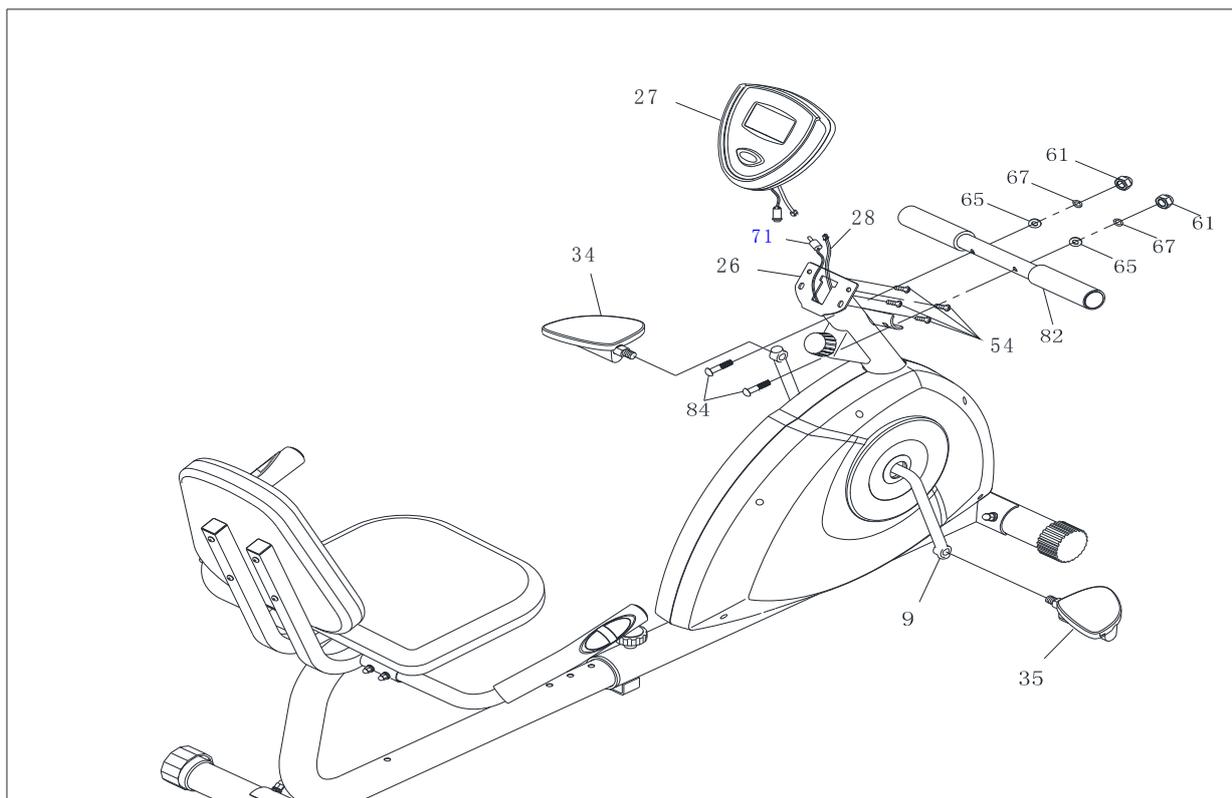
#### STEP 4 ATTACH THE PEDAL AND THE COMPUTER

1. The right pedal (35) has R stamped on the end of the pedal shaft. The right pedal (35) has right hand threads and is tightened by turning clockwise. The left pedal (34) has L stamped on the end of the pedal shaft. The left pedal (34) has left hand threads and is tightened by turning counter clockwise.

Thread the right pedal (35) to the right side of the crank (9) as shown. Tighten the pedal securely. Do the same to attach the left pedal (34) to the left side of the crank (9).

2. Install two AA batteries into the computer (27), two batteries not included. See page 13 for detailed battery installation instructions. Plug the sensor wire (28) into the socket of the extension wire which is from the computer (27), and push the excess wires back into the computer post (26). Place the computer (27) onto the plate on the computer post (26) and secure with round head screws (M5x0.8x15mm)(54).  
3. Attach the stationary handlebar (82) to the curve bracket of computer post (26). Secure using two carriage bolts (M8x40mm)(84), two arc washers(M8) (65), two lock washers(M8) (67) and two acorn nuts (M8) (61).

**NOTE:** Be careful not to damage the wires when attaching the computer (27).



**ENSURE TO FIRMLY TIGHTEN ALL NUTS AND BOLTS  
YOUR UNIT IS NOW FULLY ASSEMBLED**

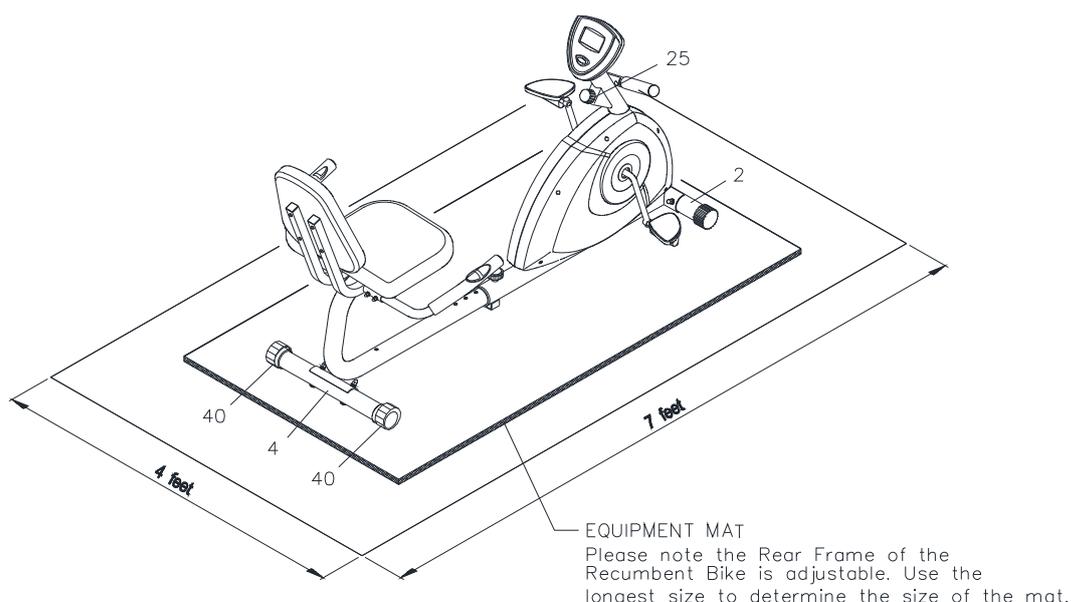
## USER DIRECTION

Place the **Magnetic Recumbent Bike** in the area where it will be used. It is recommended that the **Magnetic Recumbent Bike** be placed on an equipment mat. The **Magnetic Recumbent Bike** is approximately 61 3/4 inches long (max.) x 27 1/2 inches wide x 36 inches tall. (These dimensions may vary up to one inch.) An area 4 feet wide x 7 feet long is required for safe operation of the **Magnetic Recumbent Bike**. Make sure that adequate space is available for access to and passage around the **Magnetic Recumbent Bike**.

### FUNCTION INSPECTION:

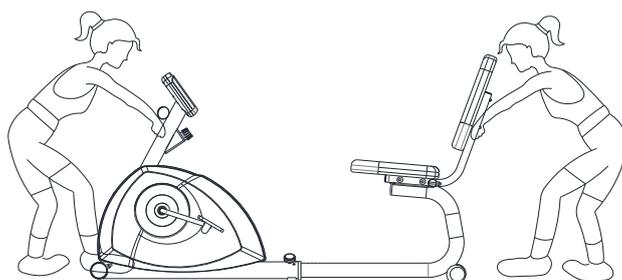
Visually inspect the **Magnetic Recumbent Bike** to verify that assembly is as shown in the above illustration. Check the function of the **Magnetic Recumbent Bike** by turning the crank slowly through one complete revolution to verify that the drive train functions properly. Adjust the **TENSION KNOB (25)** and verify that it functions properly.

Adjust the **LEVELING CAPS (40)** on the **REAR STABILIZER (4)** so the bike sits on the floor without rocking. Remove and reposition the **LEVELING CAPS (40)** on the **REAR STABILIZER (4)** to level the **Magnetic Recumbent Bike**.



### HOW TO MOVE THE EXERCISE BIKE

You will need two people for this step. To move the exercise bike, grasp the seat post and the upright post, carefully lift it until the exercise bike can be moved. Carefully move the exercise bike to the desired location and then lower it.



## OPERATIONAL INSTRUCTIONS

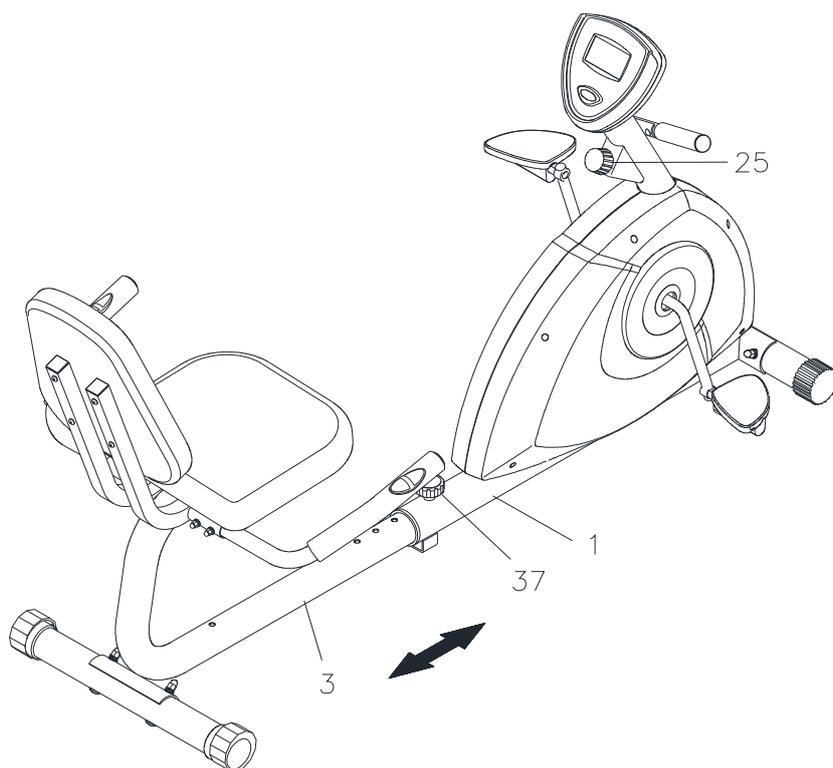
### SEAT ADJUSTMENT

Proper seat adjustment is important. There are seven adjustment holes in the REAR frame (3). These adjustment holes allow users to adjust the position of the seat for efficient exercise.

1. Unscrew to remove the **ADJUSTMENT KNOB(37)** from the **FRONT FRAME(1)**. Slide the **REAR FRAME(3)** to adjust the seat. Lock the **REAR FRAME(3)** in position by inserting the pin of the **ADJUSTMENT KNOB(37)** into one of the adjustment holes in the **REAR FRAME(3)**, then tighten the **ADJUSTMENT KNOB(37)** to lock the **REAR FRAME(3)** securely.
2. Sit on the seat and place your feet on the pedals. You should be able to move through a complete pedal stroke without locking your knees or shifting your hips on the seat. The seat is too close to the pedals if you have more than a slight bend in your knees at the bottom of the pedal stroke. The seat is too far from the pedals if you have to completely straighten your knees at the bottom of the pedal stroke.

### CAUTION:

1. Do not attempt to adjust the seat while you are on the **Magnetic Recumbent Bike**.
2. Always tighten the **ADJUSTMENT KNOB (37)** after adjusting the seat to a new position.



### LOAD ADJUSTMENT

To increase the resistance, turn the **TENSION KNOB(25)** clockwise. To decrease the **resistance**, turn the **TENSION KNOB(25)** counterclockwise.

## COMPUTER INSTRUCTIONS

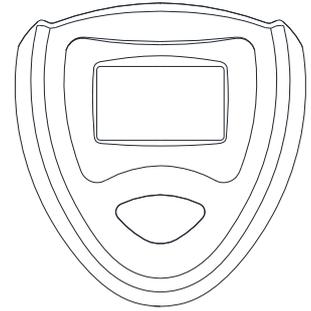
**POWER ON:** Pedal movement or push the button.

**POWER OFF:** Automatic shut off after four minutes of inactivity.

### MODE/RESET BUTTON:

Press to select display functions, include **SCAN**, **TIME**, **SPEED**, **DISTANCE**, and **CALORIES**.

Press and hold for three seconds to reset all functions to zero.



### FUNCTIONS:

**TIME:** Display your elapsed workout time from one second up to 99:59 minutes

**SCAN:** Automatically scans each function of **TIME**, **SPEED**, **DISTANCE**, and **CALORIES** in sequence with change every four seconds. Press and release the button until "**SCAN**" appears on the display.

**SPEED:** Displays the current speed up to 99.9 miles per hour.

**DISTANCE:** Displays the **cumulative distance traveled during your workout up to 99.99 miles.**

**CALORIES:** Displays the calorie consumption from zero to 999.9 Kcal.

The calorie readout is an estimate for an average user. It should be used only as a comparison between workouts on this unit.

**PULSE:** Displays your hearts rate in beats per minute. To display heart rate, select the heart rate MODE and grasp the pulse sensors on the handlebars, one in each hand. The heart symbol will begin flashing when the computer senses your heart rate. Your heart rate will be displayed approximately five (5) seconds after the heart icon is displayed. If you do not place your hands correctly and 60 seconds passes without a heart rate reading, the meter will turn off the heart rate circuit. If this occurs, press the MODE button to restart, place your hands back on the pulse sensors correctly, and the heart rate readout will appear.

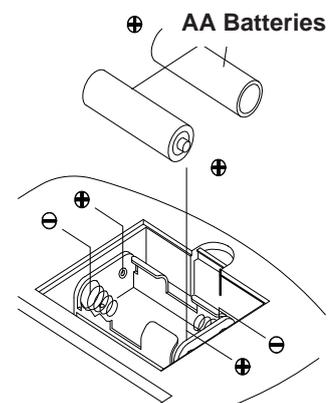
**NOTE:** The computer will shut off automatically after four minutes of inactivity. All function values will be kept. Push the button and hold it down for three seconds to reset all functions to zero

### HOW TO INSTALL AND REPLACE BATTERIES:

1. Open the Battery Door on the back of the computer.
2. The computer operates with two AA batteries, **not** included. Refer to the illustration to install or replace the batteries.

### NOTE:

1. Do not mix a new battery with an old battery.
2. Use the same type of battery. Do not mix an alkaline battery with another type of battery.
3. Rechargeable batteries are not recommended





## PARTS LIST

KEY NO.	PART NO.	DESCRIPTION	QTY
1	83801	Front Frame	1
2	83802	Front Stabilizer	1
3	83803	Rear Frame	1
4	83804	Rear Stabilizer	1
5	83805	Left Seat Frame	1
6	83806	Right Seat Frame	1
7	83807	Left Handrail	1
8	83808	Right Handrail	1
9	83809	Crank	1
10	83810	Bearing Housing	2
11	83811	Ball Bearing	2
12	83812	Inside Bearing Collar	1
13	83813	Outside Bearing Collar	1
14	83814	Bearing Washer	1
15	83815	Bearing Snap Washer	1
16	83816	Bearing Nut	2
17	83817	Pulley	1
18	83818	V-Ribbed Belt	1
19	83819	Idler Arm	1
20	83820	Idler Wheel	1
21	83821	Idler Wheel Spacer	1
22	83822	Tension Spring	1
23	83823	Magnetic flywheel Unit	1
24	83824	Tension Cable	1
25	83825	Tension Knob	1
26	83826	Computer Post	1
27	83827	Computer	1
28	83828	Sensor Wire	1
29	83829	Magnet	1
30	83830	Foam Pad	3
31	83831	Left Cover	1
32	83832	Right Cover	1
33	83833	Cover Cap	2
34	83834	Left Pedal	1
35	83835	Right Pedal	1
36	83836	Transportation wheel	2
37	83837	Adjustment Knob	1
38	83838	Bushing	1

KEY NO.	PART NO.	DESCRIPTION	QTY
39	83839	Inner Bushing	1
40	83840	Leveling Cap	2
41	83841	Seat Cushion	1
42	83842	Back Cushion	1
43	83843	Foam Grip	2
44	83844	Round Plug (25.4mm)	4
45	83845	Round Plug (50mm)	1
46	83846	Square Plug (25.4mm x 25.4mm)	4
47	83847	Carriage Bolt (M8 x 1.25 x 65mm)	4
48	83848	Bolt, Button Head (M8 x 1.25 x 15mm)	1
49	83849	Bolt, Button Head (M10 x 1.5 x 122mm)	2
50	83850	Bolt, Hex Head (M6 x 1 x 37mm)	4
51	83851	Bolt, Round Head (M6 x 1 x 35mm)	8
52	83852	Bolt, Flat Head (M10 x 1.5 x 20mm)	1
53	83853	Bolt, Flat Head (M10 x 1.5 x 35mm)	1
54	83854	Screw, Round Head (M5 x 0.8 x 15mm)	4
55	83855	Screw, Flat Head (M5 x 0.8 x 10mm)	1
56	83856	Screw, Flat Head (M4 x 15mm)	2
57	83857	Screw, Big Round Head (M5 x 15mm)	1
58	83858	Screw, Round Head (M4 x 25mm)	5
59	83859	Nylon Nut (M10 x 1.5 x 9mm thick)	4
60	83860	Acorn Nut (M6 x 1)	4
61	83861	Acorn Nut (M8 x 1.25)	6
62	83862	Thin Nut (3/8" - 26 x 5/32" thick)	2
63	83863	Nut (3/8" - 26 x 9/32" thick)	2
64	83864	Arc Washer (M6)	4
65	83865	Arc Washer (M8)	7
66	83866	Lock Washer (M6)	4
67	83867	Lock Washer (M8)	7
68	83868	Large Washer (ø16.5 x ø32 x 0.5mm thick)	1
69	83869	Washer (M10)	2
70	83870	Screw, Round Head (M5 x 0.8 x 6mm)	1
71	83871	Front section hand pulse wire	1
72	83872	Wrench	1
73	83873	Allen Wrench (6mm)	1
74	83874	Cap	1
75	83875	Hand pulse sensor	2
76	83876	Screw, Round Head (M4 x 15mm)	2
77	83877	Hand pulse wire	2
78	83878	Plug	2

<b>KEY NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY</b>
79	83879	Rear section hand pulse wire	1
80	83880	Middle section hand pulse wire	2
81	83881	Sensor holder	1
82	83882	Stationary handlebar	1
83	83883	Foam grip	2
84	83884	Carriage bolt M8x40mm	2

## TROUBLE SHOOTING

Problem	Cause	Correction
Monitor does not display	Batteries not installed	Insert batteries
No speed or distance displays on the monitor	Sensor wire not connected	Securely plug the sensor wire into the wire at the back of the monitor
	Sensor wire not working properly	Replace the sensor wire
	Monitor not working properly	Replace monitor
No tension	Tension cable not connected	Securely connect the tension cable with the tension knob
	Magnetic flywheel not working properly	Replace magnetic flywheel
Heart rate not displaying	Pulse wire not connected not connected	Securely plug wires together
	Hand pulse defective	Replace hand pulse
	Monitor not working properly	Replace monitor
Grinding	Crank bearing defective	Replace crank bearings
	Idler pulley defective	Replace idler pulley
	Mag flywheel defective	Replace magnetic flywheel
Squealing	V-belt slipping	Adjust v-belt

# TRAINING GUIDELINES

## Exercise

Exercise is one of the most important factors in the overall health of an individual. Listed among its benefits are:

- Increased capacity for physical work (strength endurance)
- Increased cardiovascular (heart and arteries/veins) and respiratory efficiency
- Decreased risk of coronary heart disease
- Changes in body metabolism, e.g. losing weight
- Delaying the physiological effects of age
- Physiological effects, e.g. reduction in stress, increase in self-confidence, etc.

## Basic Components of Physical Fitness

There are four all encompassing components of physical fitness and we need to briefly define each and clarify its role.

Strength is the capacity of a muscle to exert a force against resistance. Strength contributes to power and speed and is of great importance to a majority of sports people.

Muscular Endurance is the capacity to exert a force repeatedly over a period of time, e.g. it is the capacity of your legs to carry you 10 Km without stopping.

Flexibility is the range of motion about a joint. Improving flexibility involves the stretching of muscles and tendons to maintain or increase suppleness, and provides increased resistance to muscle injury or soreness.

Cardio-Respiratory Endurance is the most essential component of physical fitness. It is the efficient functioning of the heart and lungs

## Aerobic Fitness

The largest amount of oxygen that you can use per minute during exercise is called your maximum oxygen uptake (MVo<sub>2</sub>). This is often referred to as your aerobic capacity.

The effort that you can exert over a prolonged period of time is limited by your ability to deliver oxygen to the working muscles. Regular vigorous exercise produces a training effect that can increase your aerobic capacity by as much as 20 to 30%. An increased MVO<sub>2</sub> indicates an increased ability of the heart to pump blood, of the lungs to ventilate oxygen and of the muscles to take up oxygen.

## Anaerobic Training

This means “without oxygen” and is the output of energy when the oxygen supply is insufficient to meet the body’s long term energy demands. (For example, 100 meter sprint).

## The Training Threshold

This is the minimum level of exercise which is required to produce significant improvements in any physical fitness parameter.

## Progression

As you become fitter, a higher intensity of exercise is required to create an overload and therefore provide continued improvement

## Overload

This is where you exercise at a level above that which can be carried out comfortably. The intensity, duration and frequency of exercise should be above the training threshold and should be gradually increased as the body adapts to the increasing demands. As your fitness level improves, so the training threshold should be raised. Working through your program and gradually increasing the overload factor is important.

## Specificity

Different forms of exercise produce different results. The type of exercise that is carried out is specific both to the muscle groups being used and to the energy source involved. There is little transfer of the effects of exercise, i.e. from strength training to cardiovascular fitness. That is why it is important to have an exercise program tailored to your specific needs.

## Reversibility

If you stop exercising or do not do your program often enough, you will lose the benefits you have gained. Regular workouts are the key to success.

## Warm Up

Every exercise program should start with a warm up where the body is prepared for the effort to come. It should be gentle and preferably use the muscles to be involved later. Stretching should be included in both your warm up and cool down, and should be performed after 3-5 minutes of low intensity aerobic activity or callisthenic type exercise.

## Warm Down or Cool Down

This involves a gradual decrease in the intensity of the exercise session. Following exercise, a large supply of blood remains in the working muscles. If it is not returned promptly to the central circulation, pooling of blood may occur in the muscles.

## Heart Rate

As you exercise, so the rate at which your heart beat also increases. This is often used as a measure of the required intensity of exercise. You need to exercise hard enough to condition your circulatory system, and increase your pulse rate, but not enough to strain your heart.

Your initial level of fitness is important in developing an exercise program for you. If you are starting off, you can get a good training effect with a heart rate of 110-120 beats per minute (BPM). If you are fitter, you will need a higher threshold of stimulation.

To begin with, you should exercise at a level that elevates your heart rate to about 65 to 70% of your maximum. If you find this is too easy, you may want to increase it, but it is better to lean on the conservative side.

As a rule of thumb, the maximum heart rate is 220 minus your age. As you increase in age, so your heart, like other muscles, loses some of its efficiency. Some of its natural loss is won back as fitness improves. The following table is a guide to those who are "starting fitness".

Age	25	30	35	40	45	50	55	60	65
Target heart Rate									
10 Second Count	23	22	22	21	20	19	19	18	18
Beats per Minute	138	132	132	126	120	114	114	108	108

## Pulse Count

The pulse count (on your wrist or carotid artery in the neck, taken with two index fingers) is done for ten seconds, taken a few seconds after you stop exercising. This is for two reasons: (a) 10 seconds is long enough for accuracy, (b) the pulse count is to approximate your BPM rate at the time you are exercising. Since heart rate slows as you recover, a longer count isn't as accurate.

The target is not a magic number, but a general guide. If you're above average fitness, you may work quite comfortably a little above that suggested for your age group. The following table is a guide to those who are keeping fit. Here we are working at about 80% of maximum.

Age	25	30	35	40	45	50	55	60	65
Target heart Rate									
10 Second Count	26	26	25	24	23	22	22	21	20
Beats per Minute	156	156	150	144	138	132	132	126	120

Don't push yourself too hard to reach the figures on this table. It can be very uncomfortable if you overdo it. Let it happen naturally as you work through your program. Remember, the target is a guide, not a rule, a little above or below is just fine. Two final comments: (1) don't be concerned with day to day variations in your pulse rate, being under pressure or not enough sleep can affect it;(2) your pulse rate is a guide, don't become a slave to it.

### **Endurance Circuit Training**

Cardiovascular endurance, muscle, strength, flexibility and coordination are all necessary for maximum fitness. The principle behind circuit training is to give a person all the essentials at one time by going through your exercise program moving as fast as possible between each exercise. This increases the heart rate and sustains it, which improves the fitness level. Do not introduce this circuit training effect until you have reached an advanced program stage.

### **Body Building**

Is often used synonymously with strength training The fundamental principal here is OVERLOAD. Here, the muscle works against greater loads than usual. This can be done by increasing the load you are working against.

### **Patronization**

This is the term used to vary your exercise program for both physiological and psychological benefits. In your overall program, you should vary the workload, frequency and intensity. The body responds better to variety and so do you. In addition, when you feel yourself getting "stale", bring in periods of lighter exercise to allow the body to recuperate and restore its reserves. You will enjoy your program more and feel better for it.

### **Muscle Soreness**

For the first week or so, this may be the only indication you have that you are on an exercise program. This, of course, does depend on your overall fitness level. A confirmation that you are on the correct program is a very slight soreness in most major muscle groups. This is quite normal and will disappear in a matter of days. If you experience major discomfort, you may be on a program that is too advanced or you have increased your program too rapidly. If you experience PAIN during or after exercise, your body is telling you something. Stop exercising and consult your doctor.

### **What to Wear**

Wear clothing that will not restrict your movement in any way while exercising. Clothes should be light enough to allow the body to cool. Excessive clothing that causes you to perspire more than you normally would while exercising, gives you no advantage. The extra weight you lose is body fluid and will be replaced with the next glass of water you drink. It is advisable to wear a pair of gym or running shoes or "sneakers".

### **Breathing during Exercise**

Do not hold your breath while exercising. Breathe normally as much as possible. Remember, breathing involves the intake and distribution of oxygen, which feeds the working muscles.

### **Rest periods**

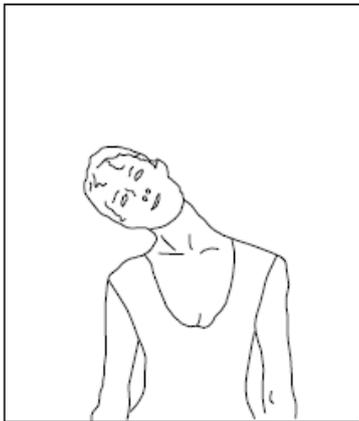
Once you start your exercise program, you should continue through to the end. Do not break off halfway through and then restart at the same place later on without going through the warm-up stage again. The rest period required between strength training exercises may vary from person to person. This will depend mostly on your level of fitness and the program you have chosen. Rest between exercises by all means, but do not allow this to exceed two minutes. Most people manage with half minute to one minute rest periods

# STRETCHING

Stretching should be included in both your warm up and cool down, and should be performed after 3-5 minutes of low intensity aerobic activity or callisthenic type exercise. Movements should be performed slowly and smoothly, with no bouncing or jerking. Move into the stretch until slight tension, not pain, is felt in the muscle and hold for 20-30 seconds. Breathing should be slow, rhythmical and under control, making sure never to hold your breath.

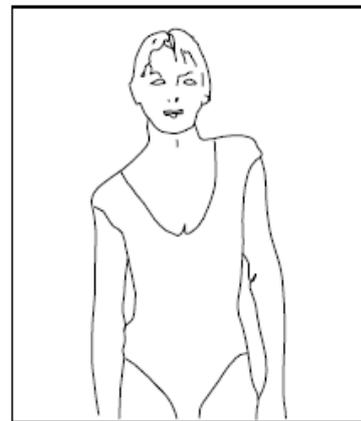
## HEAD ROLLS

Rotate your head to the right for one count, feeling the stretch up the left side of your neck. Next rotate your head back for one count, stretching your chin to the ceiling and letting your mouth open. Rotate your head to the left for one count, and finally, drop your head to your chest for one count.



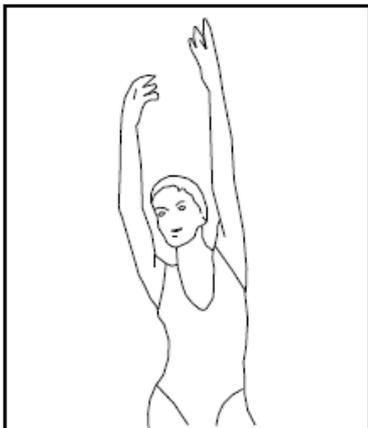
## SHOULDER LIFTS

Lift your right shoulder up toward your ear for one count. Then lift your left shoulder up for one count as you lower your right shoulder.



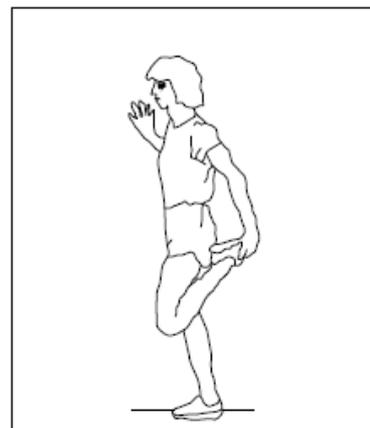
## SIDE STRETCHES

Open your arms to the side and continue lifting them until they are over your head. Reach your right arm as far upward toward the ceiling as you can for one count. Feel the stretch up your right side. Repeat this action with your left arm.



## QUADRICEPS STRETCH

With one hand against a wall for balance, reach behind you and pull your right foot up. Bring your heel as close to your buttocks as possible. Hold for 15 counts and repeat with left foot up.



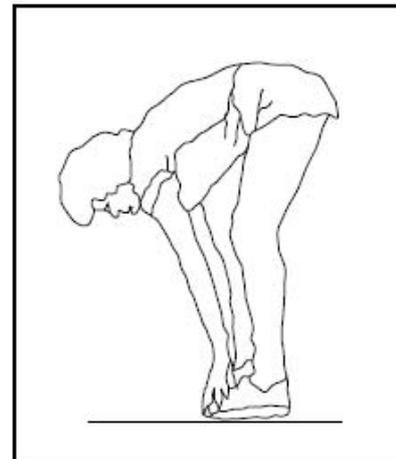
### **INNER THIGH STRETCH**

Sit with the soles of your feet together with your knees pointing outward. Pull your feet as close into your groin as possible. Gently push your knees towards the floor. Hold for 15 counts.



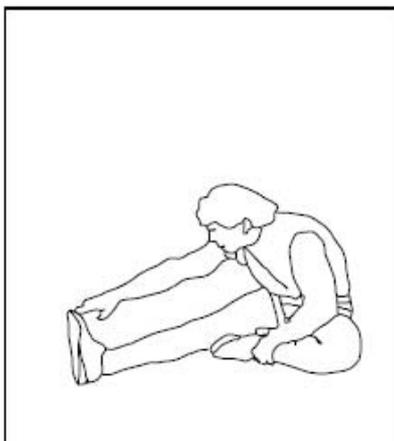
### **TOE TOUCHES**

Slowly bend forward from your waist, letting your back and shoulders relax as you stretch toward your toes. Reach down as far as you can and hold for 15 counts.



### **HAMSTRING STRETCHES**

Sit with your right leg extended. Rest the sole of your left foot against your right inner thigh. Stretch toward your toe as far as possible. Hold for 15 counts. Relax and then repeat with left leg extended.



### **CALF / ACHILLES STRETCH**

Lean against a wall with your left leg in front of the right and your arms forward. Keep Your right leg straight and the left foot on the floor, then bend the left leg and lean forward by moving your hips toward the wall. Hold, then repeat on the other side for 15 counts.

