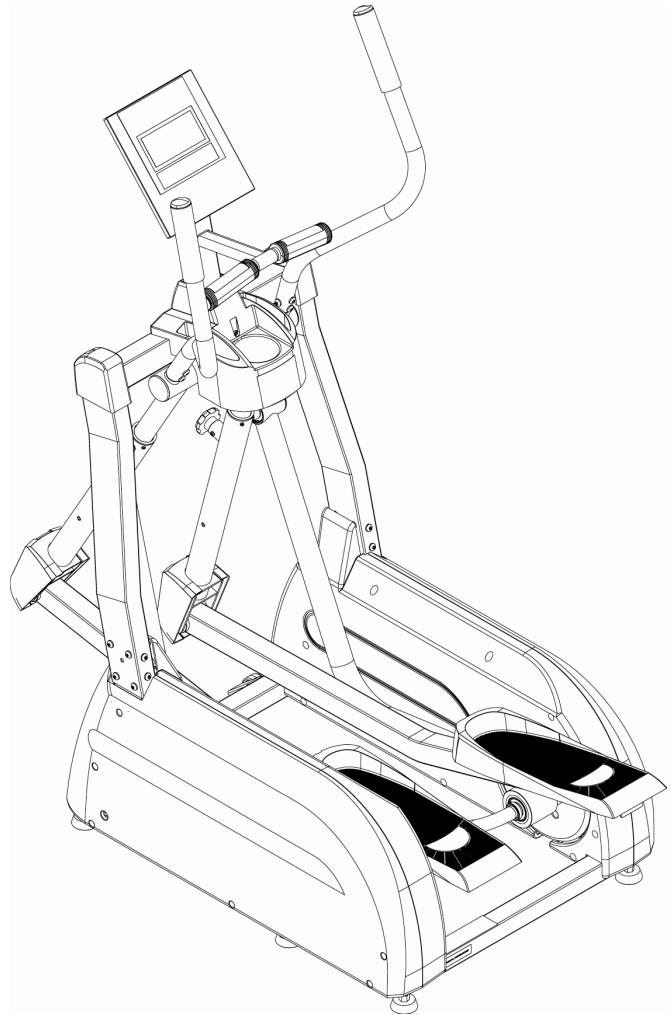## OWNER`S MANUAL

Model No.
16517655

ELLIPTICAL

- Warranty
- Assembly
- Parts
- Operation
- Exercise

EVERLAST ®

Retain for Future reference

CAUTION:
You must read and understand this owner's manual before operating unit.

Manufacture's Limited Warranty

Maurice Pincoffs Canada Inc. warrants all its elliptical parts for a period of time listed below, from the date of retail sale, as determined by a sales receipt. Maurice Pincoffs Canada Inc.'s responsibilities include providing new or remanufactured parts, at Maurice Pincoffs Canada Inc.'s option, and technical support to our independent dealers and servicing organizations. In the absence of a dealer or service organization, these warranties will be administered by Maurice Pincoffs Canada Inc. directly to a consumer. The warranty period applies to the following components:

Limited WARRANTY

Frame	Lifetime
All Other Components	1 Year
Labor	1 Year

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 elliptical shown in figure can be ordered from Maurice Pincoffs Canada Inc. 6050 DON MURIE STREET, NIAGARA FALLS, ONTARIO L2E 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@pincoffs.ca or visit us at www.pincoffs.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

Table of Contents

Safety Precautions
IMPORTANT SAFETY INFORMATION
THIS UNIT IS INTENDED FOR HOUSEHOLD USE ONLY
READ ALL INSTRUCTIONS BEFORE USING THIS ELLIPTICAL

⚠ **CAUTION:** Before starting any exercise program, it is recommended that you consult your physician.

⚠ **WARNING:** Connect this unit to a properly grounded outlet only.

⚠ **DANGER:** To reduce the risk of electric shock, always unplug the elliptical from the electrical outlet immediately after using and before cleaning.

WARNING

To reduce the risk of injury to persons please read the following precautions:

1. It is the responsibility of the owner to ensure that all users of this elliptical are adequately informed of all warnings and precautions.
2. The use of an extension cord with this product is not recommended. If an extension cord is needed, use a short (less than 10 feet) heavy gauge (14 gauge or better) extension cord with a three prong (grounded) plug and receptacle.
3. Never leave the elliptical unattended when plugged in. Always unplug the power cord immediately after use and before cleaning the elliptical.
4. Never operate the elliptical if it has a damaged cord or plug, if it is not working properly, if it has been dropped, damaged, or exposed to water. .
5. Do not pull the elliptical by the power supply cord or use cord as a handle. Keep cord away from heated surfaces and open flames.
6. Fitness equipment must always be installed and used on a flat surface. Do not use outdoors or near water. Do not place the unit on a loose rug or uneven 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. It is recommended to have a minimum of 3 metres safe clearance on all sides of the elliptical while in use.
7. Keep the elliptical indoors, away from moisture and dust. Do not put the elliptical in a garage, covered patio or near water.
8. Do not operate the elliptical where aerosol products are used or where oxygen is being administered.
9. Do not insert any objects into any openings.
10. Inspect and properly tighten all parts of the elliptical regularly.
11. Keep children and pets away from this equipment at all times while exercising.
12. Handicapped individuals should have medical approval and close supervision when using this elliptical.
13. Do not place hands or feet under the elliptical. Always keep hands and legs off of the elliptical when others are using it.
14. Always hold the handlebars when mounting, dismounting, or using the elliptical. Keep your back straight when using your elliptical; do not arch your back. When you stop exercising, allow the pedals to slowly come to a complete stop. The elliptical does not have a free wheel; the pedals will continue to move until the flywheel stops.
15. To disconnect, turn all controls to the off position, then remove plug from outlet.
16. Use the elliptical only for its intended use as described in this manual. Do not use any attachments that are not recommended by the manufacturer.
17. User weight should not exceed 300lbs (136 kgs).
18. Never allow more than one person on the elliptical at once.
19. 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 straining muscles.

20. Never hold your breath while exercising. Breathing should remain at a normal rate in conjunction with the level of exercise being performed. 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.
21. The pulse sensor is not a medical device. Various factors, including the user's movement, may affect the accuracy of heart rate readings. The pulse sensor is intended only as an exercise aid in determining heart rate trends in general.
22. Start your program slowly and very gradually increase your speed and distance.
23. Always wear suitable clothing and footwear while exercising. Do not wear loose fitting clothing that could become entangled with the moving parts of your elliptical. Do not walk or jog barefoot, in stocking feet or loose fitting shoes or slippers.

⚠ 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

Important Operation Instructions

● **NEVER** operate this elliptical without reading and completely understanding the results of any operational change you request from the computer.
● Understand that changes in resistance do not occur immediately. Set your desired level on the computer console and release the adjustment key. The computer will obey the command gradually.
● **NEVER** use your elliptical during an electrical storm. Surges may occur in your household power supply that could damage elliptical components.
● Use caution while participating in other activities while using your elliptical such as watching television, reading, etc.
  These distractions may cause you to lose balance, resulting in serious injury.
● Always hold on to a handrail or handlebar while making control changes.

Things To Know

Your new elliptical is engineered and manufactured to the strictest industry standards and tolerances. All Elliptical trainers, no matter who the manufacturer, have a multitude of moving linkages and parts. Be aware that even with the tightest mechanical tolerances there still could be a slight amount of play between some parts. This inherent play can result in slight noises during use such as clicks and small thumps. Please expect that the elliptical will not be completely silent.

User Direction

BEFORE YOU BEGIN
Thank you for selecting the revolutionary Everlast exercise unit. Exercising is effective for increasing cardiovascular fitness, building endurance, and toning the body. The exercise unit 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 unit. 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 found on the frame of your elliptical. Before reading further, please familiarize yourself with the parts that are labeled in the drawing below.
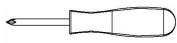
Right Handle

Monitor

Left Handle

Pulse Handle

Right Pedal

Left pedal
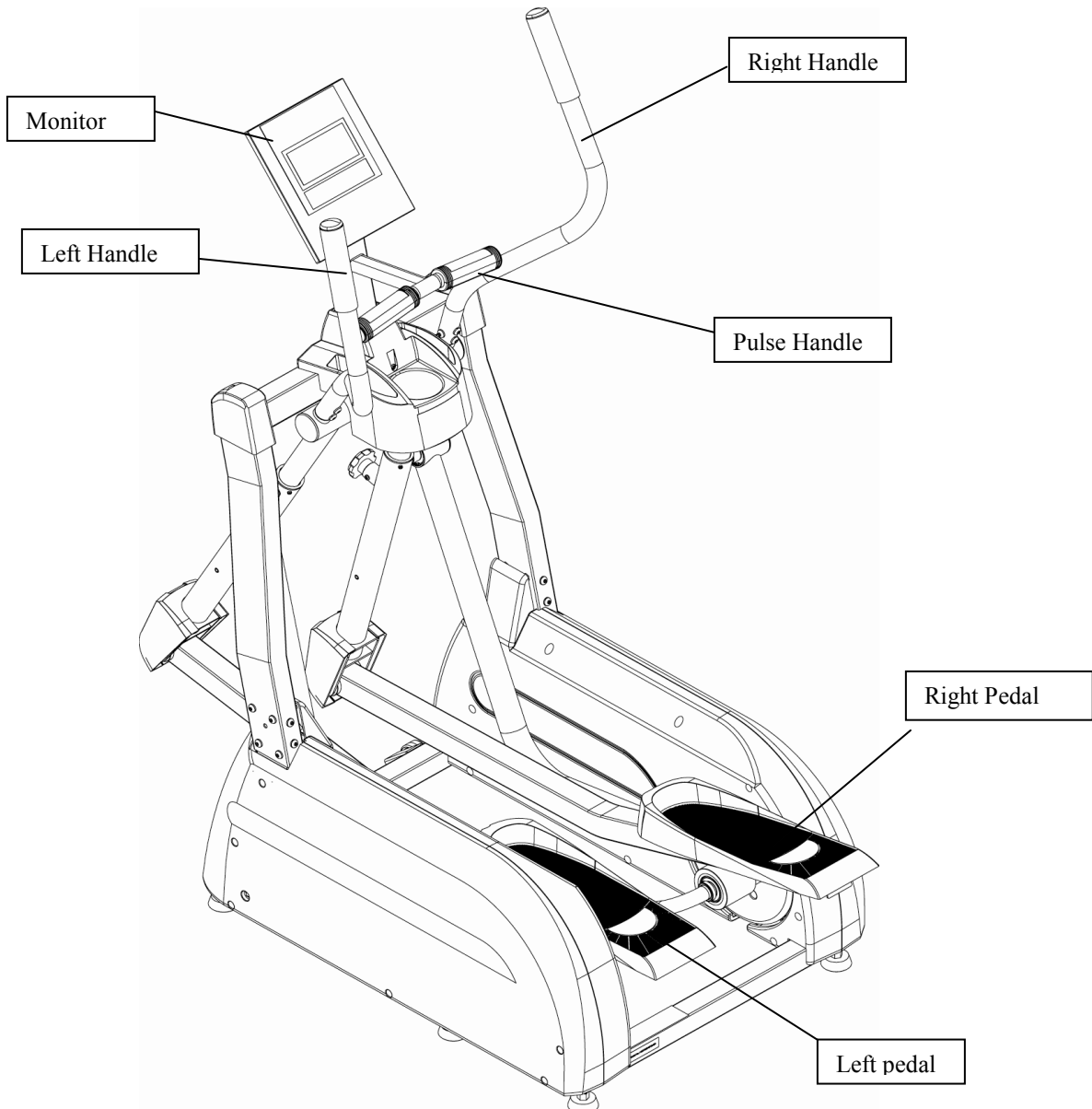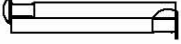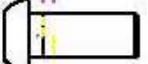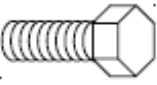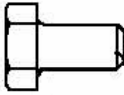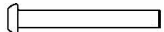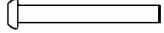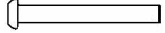
Pre-Assembly Check List
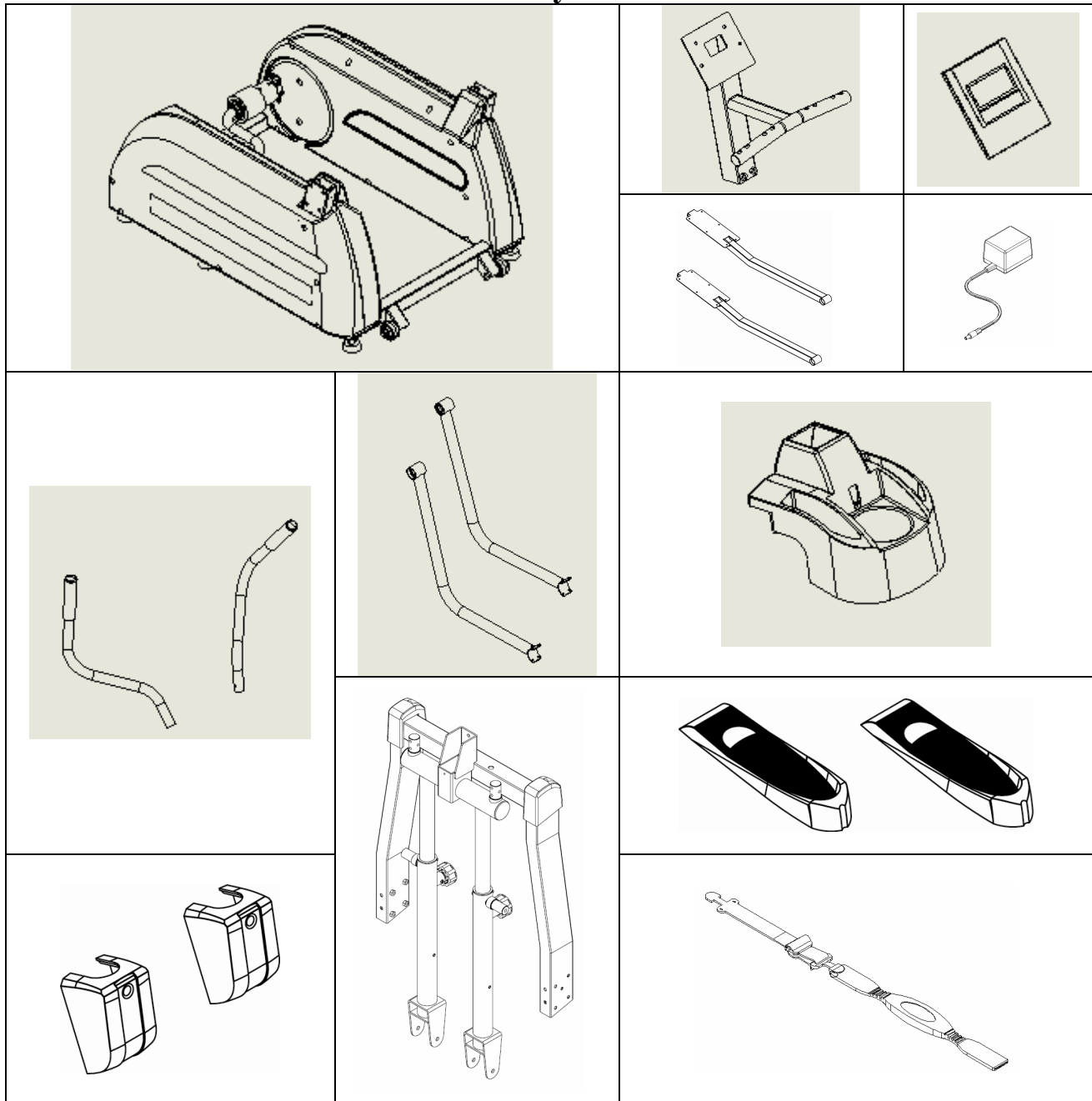
PART	DESCRIPTION	Q'TY	PART	DESCRIPTION	Q'TY
	Main frame	1		Handlebar (R&L)	2
	Monitor tube bracket	1		Upper support	1
	Monitor	1		Rocker arm (R&L)	2
	Foot tube (R&L)	2		Swing arm cover	2
	Adaptor	1		Pedal (R&L)	2
	Cup holder	1		Chest belt	1

Hardware Packing List

NO	DESCRIPTION	QTY	SPEC	SKETCH	
1	Wrench	1	17mm		
2	Wrench	1	17mm		
3	Screwdriver	1	M5×0.8-55		
4	Wrench Hex	1	6-83		
5	Wrench Hex	1	5-70		
6	CR. RE. Truss Head Screw	2	M5×0.8-55		
7	CR. RE. Pan Head Screw	1	M5*0.8-8		
8	Hexagon Socket Truss Head & Washer Assembled	6	M8*1.25-20		
9	Washer	2			
10	Hex Head Bolt	2	M10*1.5-20		
11	Spring Washer	2	φ 10		
12	End Cap	2			
13	Hex Head Bolt	2	M10*1.5-81.5		
14	Hex Nut	2	M10*1.5,T=8		
15	Round Washer Head Screw	12	M5*0.8-16		
16	Pan Head Screw	2	M6*1.0-12		
17	Hex socket Truss Head Screw	3	M8*1.25-65		
18	Truss Head Screw	4	M5*0.8-12		
19	Hexagon Socket Truss Head & Washer assembled	8	M8×1.25-55		
20	Hexagon Socket Truss Head & Washer assembled	6	M8×1.25-16		
21	Hex Socket Head Cap Bolt	8	M8*1.25-12		

Note:
    1. Above described parts are the hardware tools needed to assemble this machine.
    2. All the pre-assembled hardware will need to be removed for each of the assembly steps.

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.

Step 1

    A. Carefully lift the Upright Frame Assembly and attach the wire harness as shown.

    B. Slide the upright frame onto the base frame and secure using the hardware as shown.

       Note: You may have to move the wire harness out of the way when inserting the hardware to prevent damage.
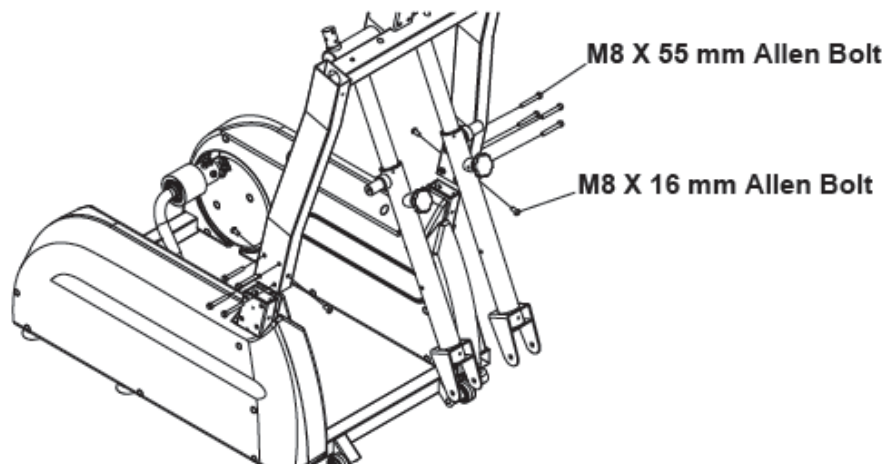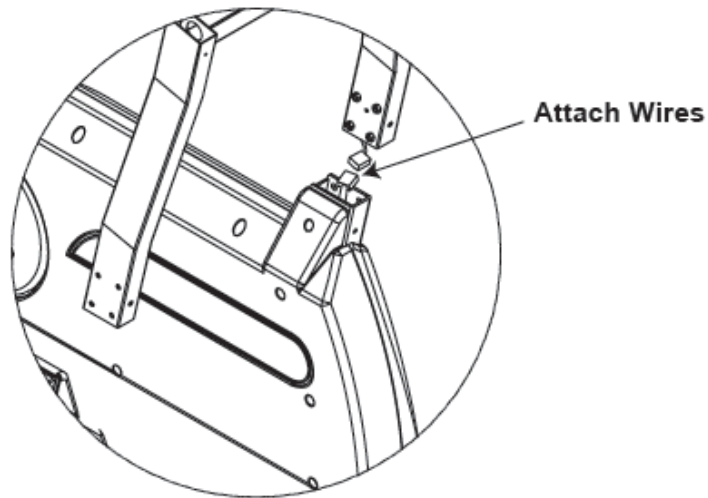
Step 2

A. Insert right rocker arm into right swing arm and secure using

One M10*20 Allen bolt

One M10 Washer

One M10 Lock washer

B. Insert end cap into right rocker arm.

C. Repeat the left side.

Left Rocker Arm

M10 Lock Washer

M10 Washer

M10X20 mm Allen Bolt

End Cap

Left Swing Arm

Right Swing Arm
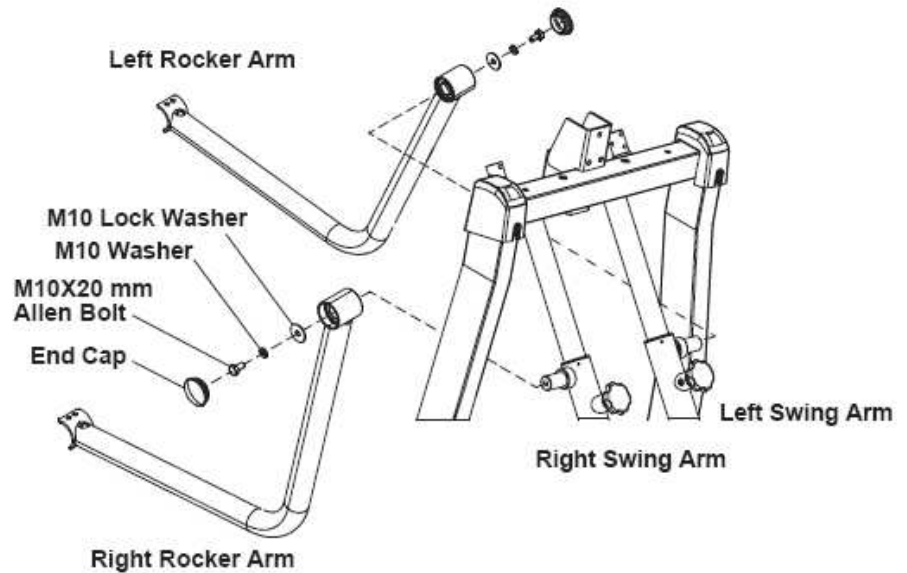
Right Rocker Arm

Step 3

A. Connect the right and left rocker arms as shown.

M8 x 12 Allen Bolt
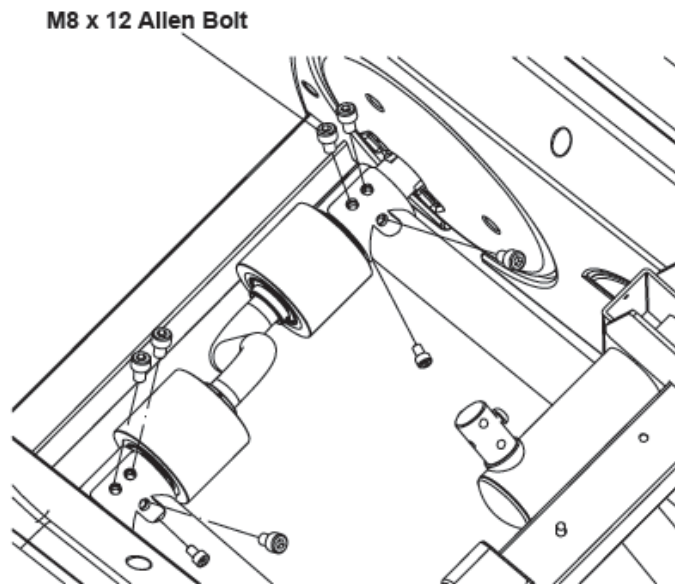
Step 4

A. Connect the right foot pedal to the right foot tube using six M5*16 phillips Screws
B. Repeat the left side.

Left Foot Pedal

M5 X 16 mm Philips Screw

Left Foot Tube

Right Foot Pedal
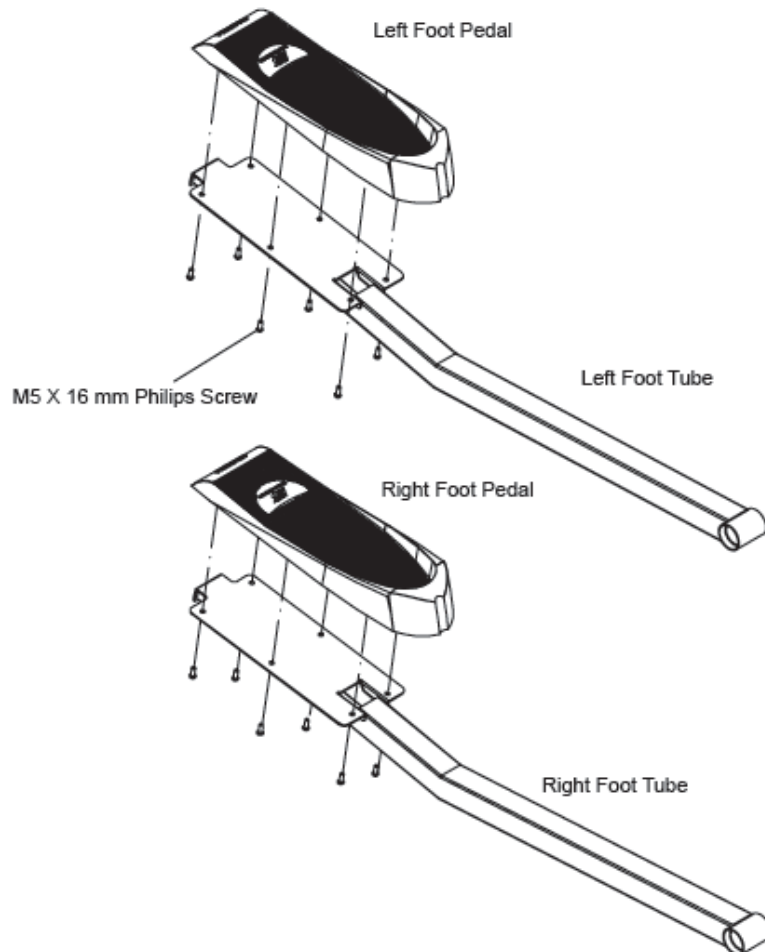
Right Foot Tube

Step 5

Connect the right and left foot tubes as shown secure using one M10 x81.5mm hex head bolt and one M10 nut

M10 x 81.5 mm Hex Bolt

M10 nut

M10 nut

M10 x 81.5 mm Hex Bolt
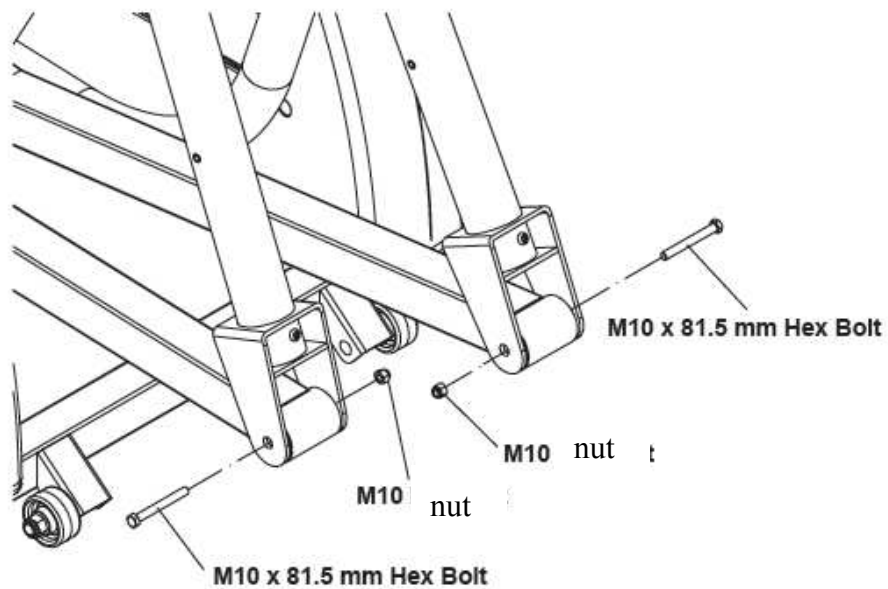
Step 6

Connect the swing arm cover as shown using two M6*10 Hex bolts.

Swing Arm Cover

M6 X 10mm Hex Bolt

M6 X 10mm Hex Bolt

Swing Arm Cover
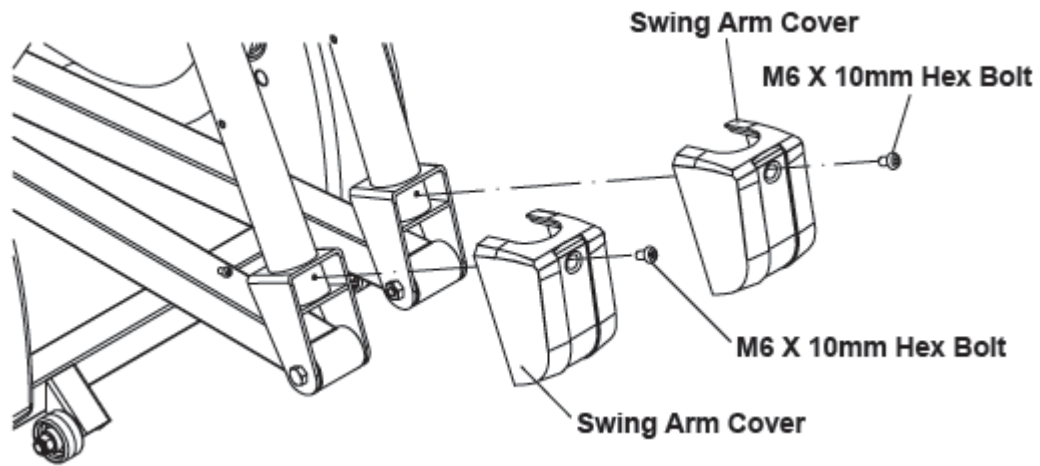
Step 7

Connect the right handlebar using three M8*20 Hex Bolt

Repeat the left side.

Left Handle Bar

Right Handle Bar

M8 x 20 mm Hex Bolt
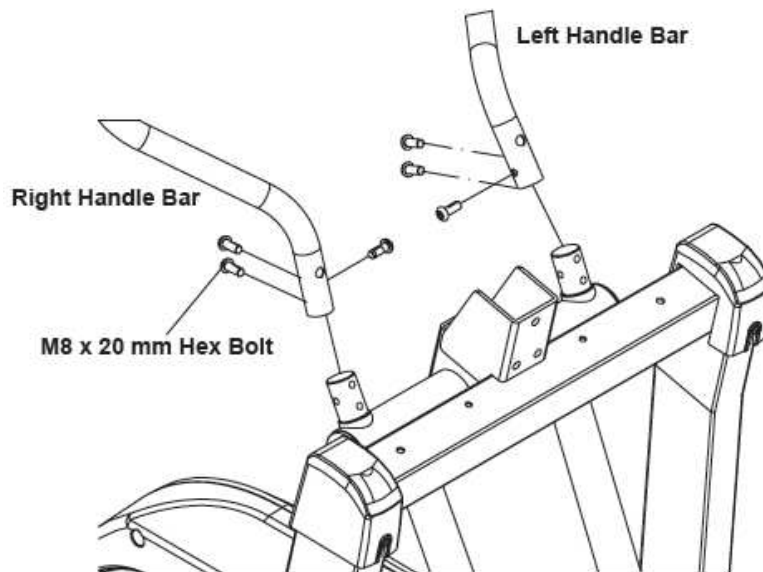
Step 8

A. Insert bottle holder into the monitor tube bracket.

B. Connect the harness from the monitor frame and the monitor tube bracket. Secure the monitor tube bracket usingvthree M8*65 Allen Bolt.

C. Connect the harnesses from monitor tube bracket into the back of the monitor. Secure the montitor using four M5*12 phillips screws. The screws might already be found at the back of the monitor.

Monitor Extension Wire

Bottle holder

M5 X 12 mm Philips Screw

Monitor Extension Wire

M8 X 65 mm Philips Bolt
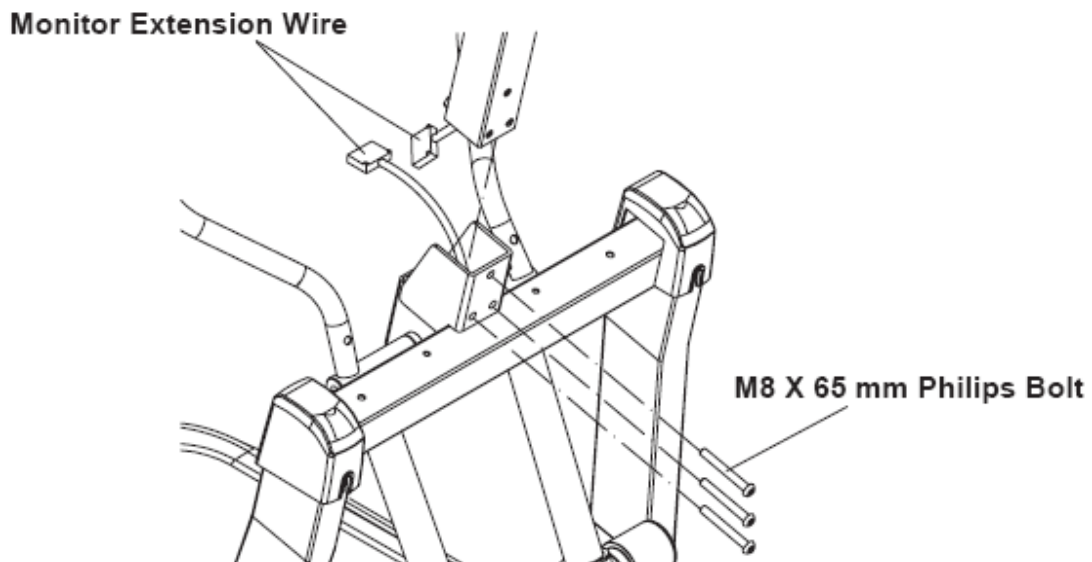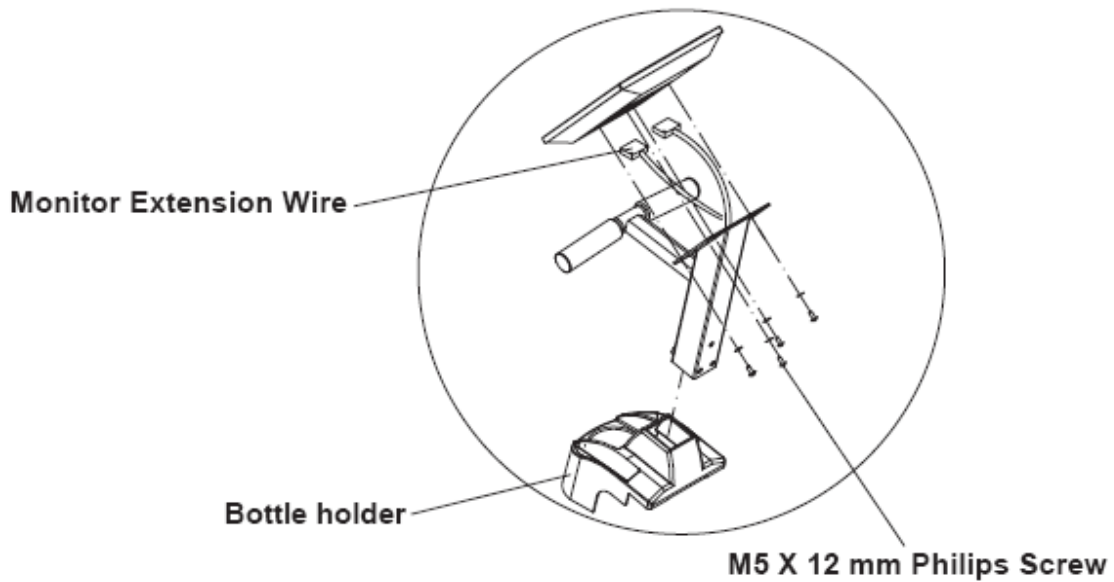
Step 9

Secure the bottle holder to the main frame using two M5x55 phillips screws and one M5*8 phillips screws.
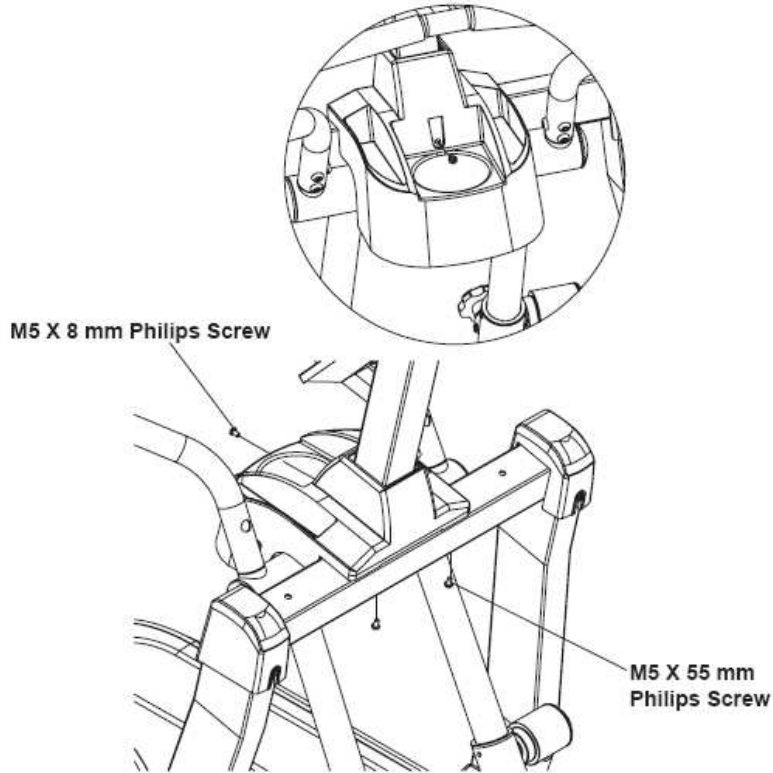
Your unit is fully assembled

To use the elliptical insert the adaptor into the side of the elliptical as shown below.
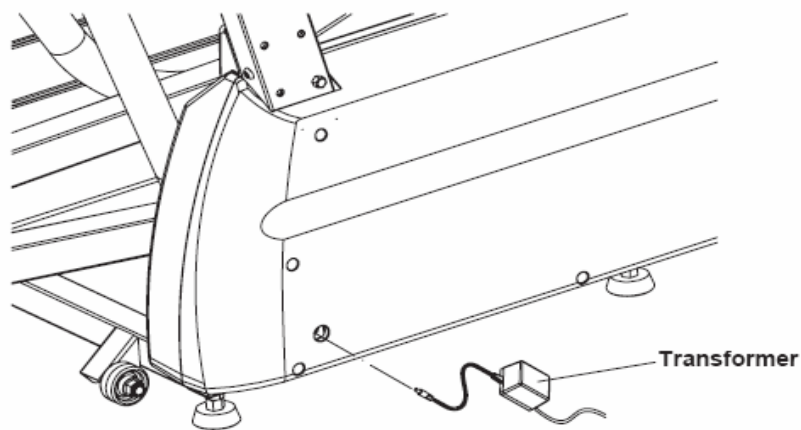
ENSURE TO FIRMLY TIGHTEN ALL NUTS AND BOLTS
YOUR UNIT IS NOW FULLY ASSEMBLED

Monitor instruction

FUNCTION BUTTON

MODE: Press to select functions between: TIME, DISTANCE, CALORIES
                   and PULSE.

RESET: The RESET button clears all preset values to zero expect in user
                   programs. Returns to the Training Mode screen.

START/STOP: Press the START/STOP button to either start or stop a workout.

RECOVERY: Press the RECOVERY button to test Heart Rate recovery status.
                   See the RECOVERY Mode section for further details.

UP/DOWN: During exercise, the UP/DOWN button is used to scroll through
                   training modes and increase or decrease function values.

TOTAL RESET: Use the TOTAL RESET button to reset the display to the Calendar
                   and Clock Set Up Mode. The TOTAL RESET button clears all
                   preset values except data stored into the console's RAM memory.

CONSOLE FUNCTION

TIME: Displays approximate duration of workout from 00:00 to 99:00.
                   Count up - If no Time is set, Time will count up from 00:00 to maximum 99:00
                   in 1 second increments.
                   Count down - If Time is set, Time will count down from the user's preset time
                   to 00:00.

SPEED: Displays the approximate current training speed from 0.0 to 99.9 mph.

RPM: Display approximate current training rotation per minute. Increment or
                   decrement is in minutes in the range of 1:00 to 99:00.

DISTANCE   Displays distance traveled during workout from 0.0 to 99.9 miles.
                  Count up - If Distance is not set, Distance will count up from 0.0 to 99.9 miles
                  in 0.1 mile increments.
                  Count down - If Distance is set, Distance will count down from user's preset to
                  0.0. Each preset can be incremented or decremented by 0.1 miles in the range of
                  0.0 to 99.9 miles.

CALORIES: Displays approximate calories burned during workout from 0.0 to 990.
                  Count up - If Calories are not set, Calories will count up from 0 to 990 in 1
                  Calorie increments.
                  Count down - If Calories are set, Calories will count down from the user's
                  preset number of Calories to 0.Each preset can be incremented or decremented
                  by 10 Calories in the range of 0 to 990 Calories.

PULSE: Displays approximate current heart rate beat in beats per minute. Displays 'P'
                  when not in use.

LOAD: Displays Load (levels of resistance) when programming.

WATT: Displays the current training wattage data. Target values range from 10 - 350.

TEMPERATURE: Screen will display room temperature in Fahrenheit when in Sleep Mode.

CALENDAR: Screen will display year/month/day when in Sleep Mode.

CLOCK: Screen will display time when in Sleep Mode.

Training MODE Programs
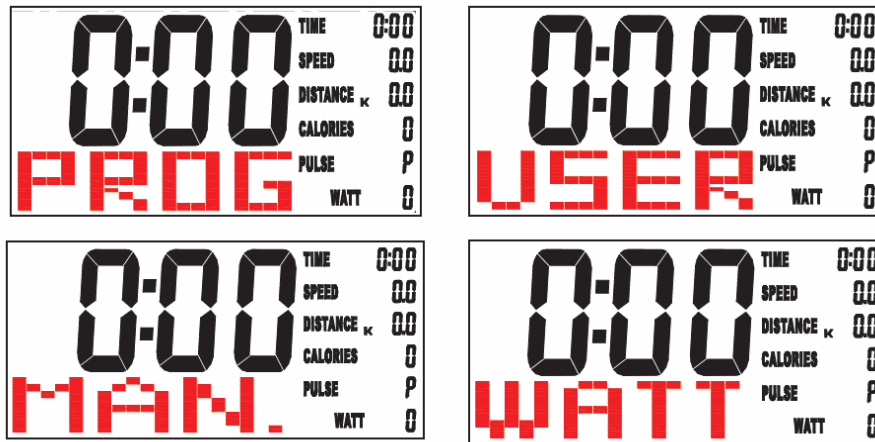
Training Program Overview

Manual Mode

To access *Manual Mode*, see the *Training Mode Programs* section. While in *Manual Mode*, press the UP/DOWN buttons to select a 'load level' from 1 to 16. The preset load level is 1 and the LOAD readout is flashing on the DISPLAY WINDOW. As the 'LOAD LEVEL' increases it will be displayed onto the 'LOAD LEVEL' readout on the DISPLAY WINDOW. 'LOAD LEVEL' allows for a custom resistance level set by the user. After choosing the desired 'load level', press the MODE button to confirm the setting.

After the desired 'LOAD LEVEL' is selected, you may preset function values for TIME, DISTANCE, CALORIES, and PULSE by using the UP/DOWN buttons. After choosing the desired function value, press the MODE button to confirm the setting.

Press the Start/Stop button to start training. During exercise, the user selected preset values will count down. If no preset values were selected, the display values will count up. 'LOAD LEVEL' can be adjusted at any time during the workout.

Program Mode

To access *Program Mode*, see the *Training Mode Programs* section. There are twelve programs to select from *Program Mode*. Press the UP/DOWN buttons to select programs P01-P12. The selected program will be shown on the DISPLAY WINDOW for 2 seconds and then the DISPLAY WINDOW will show the *Program Profile* accordingly. Press the MODE button to confirm the selection.
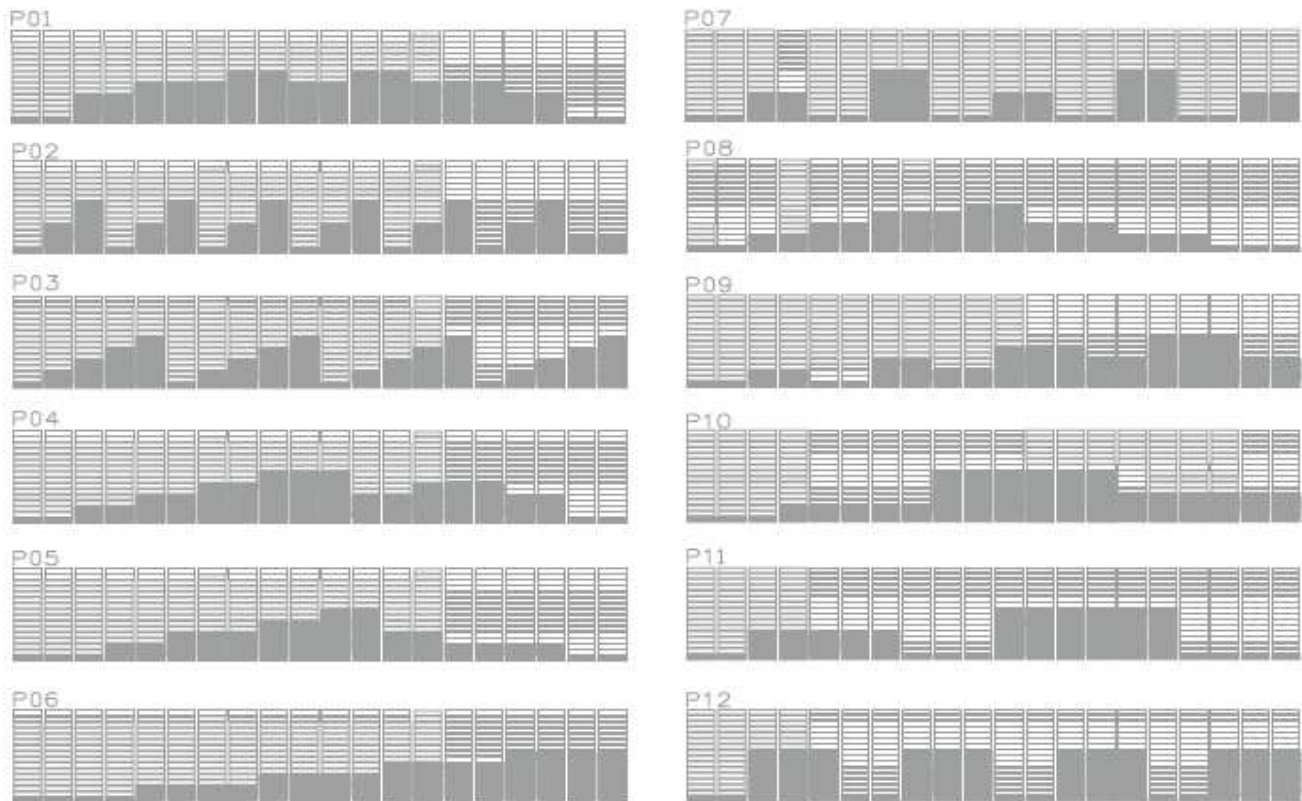
Program Profiles

After the desired program has been selected, the preset 'LOAD LEVEL' value is set at one. The 'LOAD LEVEL' can be easily adjusted to select the starting load by pressing the UP/DOWN buttons. The 'LOAD VALUE' can be increased from 1 to 8 by pressing the UP button. The 'LOAD LEVEL' can also be adjusted during training with the selected program. Press the MODE button to confirm the selection.

After the desired 'LOAD LEVEL' is selected, you may preset function values for TIME, DISTANCE, CALORIES, and PULSE by using the UP/DOWN buttons. After choosing the desired function value, press the MODE button to confirm the setting.

Press the Start/Stop button to start training. During exercise, the user selected preset values will count down. If no preset values were selected, the display values will count up. 'LOAD LEVEL can be adjusted at any time during the workout.

Below are the different *Program Profiles* that the user can select from. Choose a program that fits your current workout requirements.

User Mode

To access *User Mode*, see the *Training Mode Programs* section. *User Mode* allows the user access to create a workout program to tailor fit their exercise requirements. The user can adjust up to 20 workout intervals within the program as well as set customized count-down workout goals.

When *User Mode* is selected, the display will flash the first of twenty customizable workout intervals within the program as well as flash the currently active 'Load Level'. 'Load Level' in each step is adjustable from 1 to 16 using the **UP/DOWN** buttons. Press the **MODE** button to advance to the next workout interval to be set.

NOTE: The U*ser Mod*e workout level parameters are stored into the console's RAM memory and remain stored in memory after a 'Total Reset' or after power to the system has been lost.

Once the 20 workout levels have been set, press and hold the **MODE** button for 2 seconds to confirm the selection. Function values may be preset for TIME, DISTANCE, CALORIES, and PULSE by using the **UP/DOWN** buttons. After choosing the desired function value, press the **MODE** button to confirm the setting.

Press the **S**tart/**St**op button to start training. During exercise, the user selected preset values will count down. If no preset values were selected, the display values will count up. 'LOAD LEVEL can be adjusted at any time during the workout.

User's Age Display

Use the **UP/DOWN** buttons to set age.

Once the age has been set, press the **MODE** button to confirm the selection.

The display will calculate the preset Heart Rate value automatically according to the age setting entered. The display will show Heart Rate percentages of 55%, 75%, 90% and TARGET according to the user's weight. Target allows the user to input a custom heart rate goal. Select one of the options by pressing the **UP/DOWN** buttons.
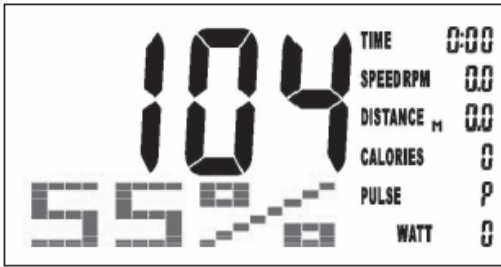
Target Heart Rate at 55% For A 30 Year Old User
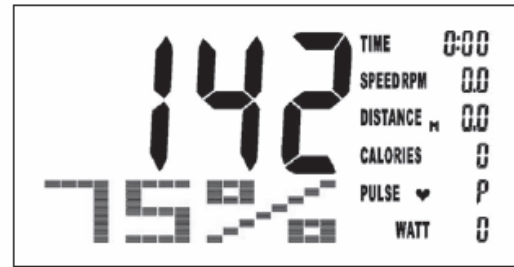
Target Heart Rate at 75% For A 30 Year Old User
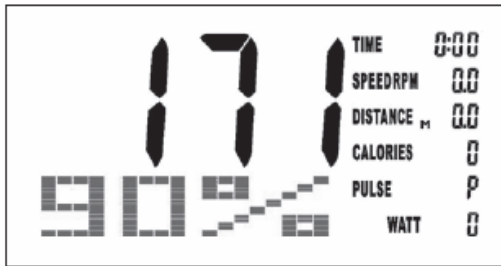
Target Heart Rate at 90% For A 30 Year Old User
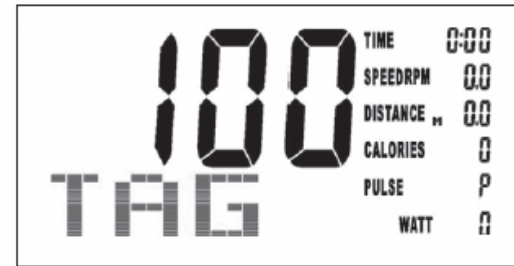
Target Heart Rate at 100% For A 30 Year Old User

Once the Heart Rate percentage or the TARGET feature has been set, press the **MODE** button to confirm the selection. If TARGET has been selected, set the target heart rate by using the **UP/DOWN** buttons then confirm the selection by pressing the **MODE** button. Function values may be preset for TIME, DISTANCE, and CALORIES by using the **UP/DOWN** buttons. After choosing the desired function value, press the **MODE** button to confirm the setting.

Press the S**tart/Stop** button to start training. During exercise, the user selected preset values will count down. If no preset values were selected, the display values will count up.

For more information, see the section 'Monitoring Your Heart Rate'.

Watt Mode

To access *Watt Mode*, see the *Training Mode Programs* section. *Watt Mode* allows the user to output a constant power during a workout. This means that if you pedal quickly, the resistance will decrease, if you pedal slowly the resistance will increase to maintain the Watt value entered.

When *Watt Mode* is selected, the preset value of 120 (watts) is flashing. Use the **UP/ DOWN** buttons to set the target value from (10-350). Once the wattage target has been set, press the **MODE** button to confirm the selection.

After the desired wattage target has been confirmed, you may preset function values for TIME, DISTANCE, CALORIES, and PULSE by using the **UP/DOWN** buttons. After choosing the desired function value, press the **MODE** button to confirm the setting.

Press the S**tart/Stop** button to start training. During exercise, the user selected preset values will count down. If no preset values were selected, the display values will count up. Wattage can be adjusted at any time during the workout.

Diagram
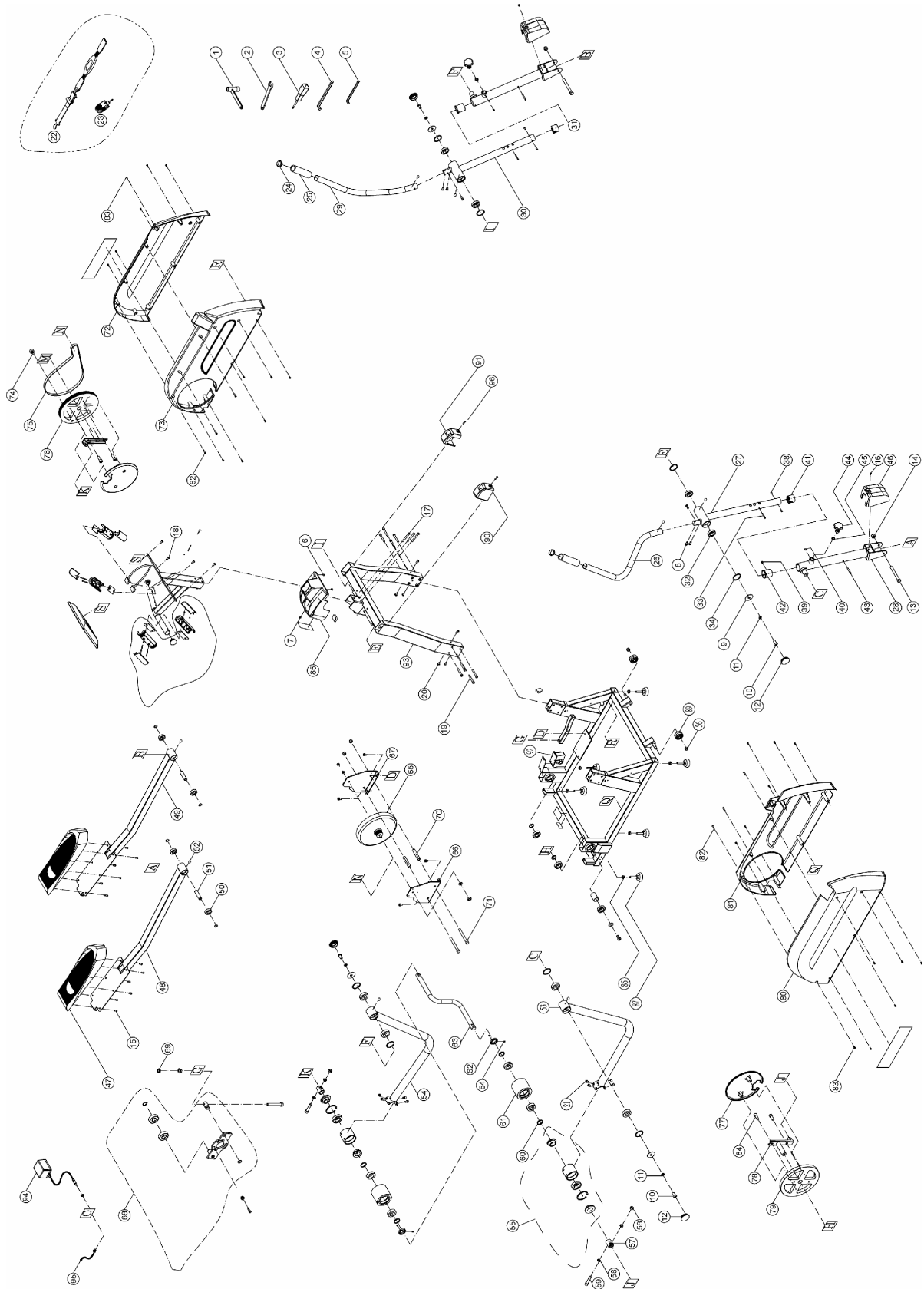
Parts List

Part NO.	Part No	Description	Q'ty
1	1765501	Wrench	1
2	1765502	Wrench	1
3	1765503	Screwdriver	1
4	1765504	Wrench Hex	1
5	1765505	Hex Wrench	1
6	1765506	Truss Head Screw	2
7	1765507	Pan Head Screw	1
8	1765508	Hexagon Socket Truss Head & Washer Assembly	6
9	1765509	Washer	4
10	1765510	Hex Head Bolt	4
11	1765511	Spring Washer	4
12	1765512	End Cap	4
13	1765513	Hex Head Bolt	2
14	1765514	Hex Nut	2
15	1765515	Round Washer Head Screw	12
16	1765516	Pan Head Screw	2
17	1765517	Hex Socket Truss Head Screw	3
18	1765518	Truss Head Screw	4
19	1765519	Hexagon Socket Truss Head & Washer Assembly	8
20	1765520	Hexagon Socket Truss Head & Washer Assembly	6
21	1765521	Hex Head Cap Bolt	8
22	1765522	Chest Belt	1
23	1765523	Receiver	1
24	1765524	End Cap	2
25	1765525	Foam	2
26	1765526	Handlebar Right	1
27	1765527	Handrail Right Upper	1
28	1765528	Handrail Right Lower	1
29	1765529	Handlebar Left	1
30	1765530	Handrail Left Upper	1
31	1765531	Handrail Left Lower	1
32	1765532	Ball Bearing	8
33	1765533	Location Pin	2
34	1765534	C-Ring	8

Part NO.	Part N0	Description	Q'ty
38	1765538	Head Tapping Screw	8
39	1765539	Pan Head Tapping Screw	4
40	1765540	Pan Head Screw	2
41	1765541	Shaft Sleeve	2
42	1765542	Bushing	2
43	1765543	Location Pin	2
44	1765544	Tension Handle Assembly	2
45	1765545	Plastic Washer	2
46	1765546	Swing Arm Cover	2
47	1765547	Pedal	2
48	1765548	Foot Tube (R)	1
49	1765549	Foot Tube (L)	1
50	1765550	Ball Bearing	4
51	1765551	Pin	2
52	1765552	C-Ring	4
53	1765553	Rocker Arm (Right)	1
54	1765554	Rocker Arm (Left)	1
55	1765555	Sleeve Assembly	2
56	1765556	Nut	2
57	1765557	Linking Seat	2
58	1765558	Flat Washer	4
59	1765559	Hex Socket Head Cap Bolt	2
60	1765560	Collar	4
61	1765561	Rolling Wheel	2
62	1765562	Retaining Ring	2
63	1765563	Crank Shaft	1
64	1765564	Hex Socket Set Screw	4
65	1765565	Magnetic Brake ASSY	1
66	1765566	Wheel Bracket (Right)	1
67	1765567	Wheel Bracket (Left)	1
68	1765568	Idler Wheel Bracket ASSY	1
69	1765569	Nut	2
70	1765570	Collar	2
71	1765571	Hex Head Bolt	2
72	1765572	External Cover (L)	1

Part NO.	Part No	Description	Q'ty
73	1765573	Internal Cover (L)	1
74	1765574	Magnet Stand	1
75	1765575	V-Ribbed Belt	1
76	1765576	Drive Pulley	1
77	1765577	Disc-Cover	1
78	1765578	Center Shaft Assembly	2
79	1765579	Drive Wheel	2
80	1765580	External Cover (R)	1
81	1765581	Internal Cover (R)	1
82	1765582	Truss Head Screw	6
83	1765583	Truss Head Screw	24
84	1765584	Head Cap Bolt	4
85	1765585	Bottle Holder	1
86	1765586	Hex Nut	6
87	1765587	Adjustable Foot	6
88	1765588	Nut	2
89	1765589	Transportation wheel	2
90	1765590	Cover (R)	1
91	1765591	Cover (L)	1
92	1765592	Motor	1
93	1765593	Upper Support	1
94	1765594	Adaptor	1
95	1765595	Power Source Socket	1
96	1765596	Pan Head Screw	2
97	1765597	Handlebar Assembly W/Hand Pulse Assembly	2
98	1765598	Monitor	1
99	1765599	Monitor Tube Bracket	1

Trouble Shooting

Problem	Cause	Correction
Monitor does not display	Computer wire not connected	Connect the computer wire
	Monitor defective	Replace monitor
No speed or distance displays on the monitor	Sending unit not connected	Securely plug sending unit into extension wire at the back of the monitor
	Sending unit not working properly	Replace sending unit
	Monitor not working properly	Replace monitor
No tension	Computer wire not connected	Connect the computer wire
	Magnetic wheel not working properly	Replace magnetic wheel
	Gear box defective	Replace the gear box
Heart rate not displaying	Pulse wire not connected	Securely plug wires into the back of the monitor
	Hand pulse defective	Replace hand pulse grip
	Monitor not working properly	Replace monitor
Grinding	Crank bearing defective	Replace crank bearings
	Idler pulley defective	Replace idler pulley
	Mag wheel defective	Replace magnetic wheel
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** (MVo2). 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 MVO2 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 your 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 o 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 your 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 he 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.
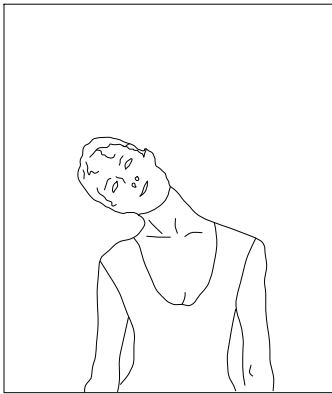
Shoulder Lifts

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.
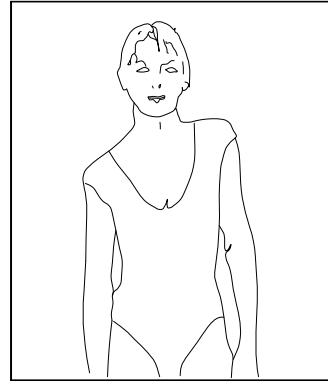
Side Stretches

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.
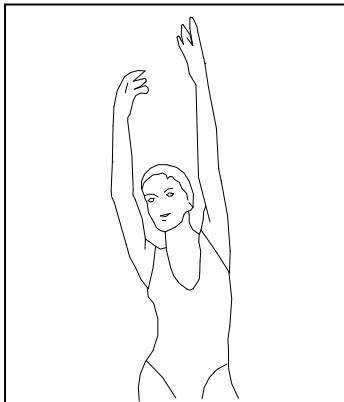
Quadriceps Stretch

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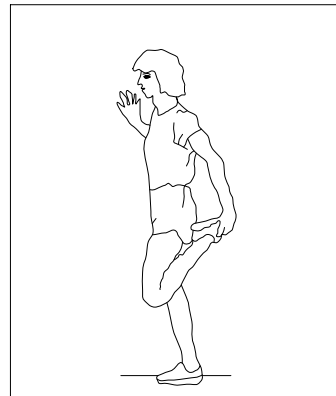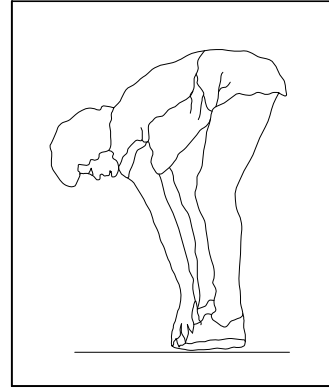
Inner Thigh Stretch
Sit with the soles of your feet together with your knees pointing outward. Pull your feet as close Into your groin as possible. Gently push your knees towards the floor. Hold for 15 counts.


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 your toe as far as possible. Hold for 15 counts.
Relax and then repeat with left leg extended.
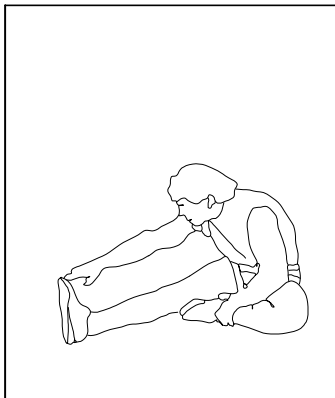
Calf / Achilles Stretch
Lean against a wall with your left leg in front Stretch of your right and your arms forward. Keep your right leg straight and the left Leg and lean forward by moving your hips toward the wall. Hold, then repeat on the other side for 15 counts.