

## OWNER'S MANUAL

**MODEL NO.**  
161171800

- Assembly
- Operation
- Trouble
- Shooting
- Parts
- Warranty

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



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# **SPIRIT** FITNESS

*A Heritage of Quality | The Spirit of Innovation*

## CONGRATULATIONS ON YOUR NEW ELLIPTICAL

Thank you for your purchase of this quality elliptical from Dyaco Canada Inc. Your new elliptical was manufactured by one of the leading fitness manufacturers in the world and is backed by one of the most comprehensive warranties available. Through your dealer, Dyaco Canada Inc. will do all we can to make your ownership experience as pleasant as possible for many years to come. The local dealership where you purchased this elliptical is your administrator for all warranty and service needs. Their responsibility is to provide you with the technical knowledge and service personnel to make your experience more informed and any difficulties easier to remedy.

Please take a moment at this time to record the name of the dealer, their telephone number, and the date of purchase below to make any future, needed contact easy. We appreciate your support and we will always remember that you are the reason that we are in business. Please complete and mail your registration card today and enjoy your new elliptical.

Yours in Health,  
Dyaco Canada Inc.

Name of Dealer \_\_\_\_\_  
Telephone Number of Dealer \_\_\_\_\_  
Purchase Date \_\_\_\_\_

## ***Product Registration***

### **RECORD YOUR SERIAL NUMBER**

Please record the Serial Number of this fitness product in the space provided below.

Serial Number \_\_\_\_\_

### **REGISTER YOUR PURCHASE**

The self-addressed product registration card must be completed in full and returned to Dyaco Canada Inc.

**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.

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 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:

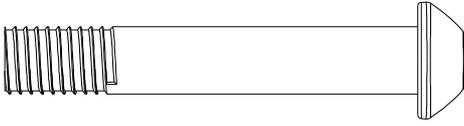
1. Read the OWNER'S OPERATING MANUAL and all accompanying literature and follow it carefully before using your elliptical.
2. It is the responsibility of the owner to ensure that all users of the elliptical exerciser are adequately informed of all precautions.
3. If dizziness, nausea, chest pains, or any other abnormal symptoms are experienced while using this equipment, STOP the workout at once. CONSULT A PHYSICIAN IMMEDIATELY.
4. Inspect your exercise equipment prior to exercising to ensure that all nuts and bolts are fully tightened before each use.
5. The elliptical must be regularly checked for signs of wear and damage. Any part found defective, the part must be replaced with new spare part from the manufacturer.
6. Fitness equipment must always be installed on a flat surface, 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. Keep the elliptical exerciser indoors, away from moisture and dust.
7. No changes must be made which might compromise the safety of the equipment.
8. It is recommended to have a minimum of 1' safe clearance around the exercise equipment while in use.
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 elliptical.
13. Always hold the handlebars when mounting, dismounting, or using the elliptical exerciser.
14. Keep your back straight when using the elliptical exerciser; do not arch your back.

**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 form personal injury or property damage sustained by or through the use of this produc

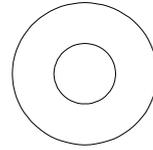
**SAVE THESE INSTRUCTIONS**

# Assembly Check List

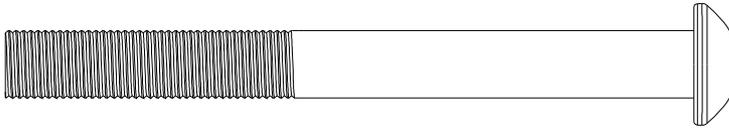
## Step one



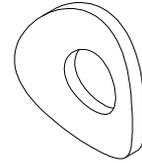
#106 - 3/8" x 2-1/4"  
Stainless Steel Bolt (4 pcs)



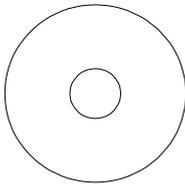
#109 - 3/8"  
Flat Washer (4 pcs)



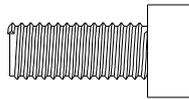
#107 - 3/8" x 3-3/4" Stainless Steel Bolt (6 pcs)



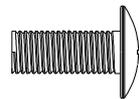
#108 - 3/8"  
Curved Washer (6 pcs)



#87 - 5/16"  
Flat Washer (2 pcs)



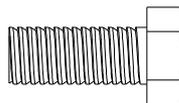
#97 - 5/16" x 15mm  
Bolt W / Loctite (2 pcs)



#103 - M6 x 15mm  
Phillips Head Screw (2 pcs)



#110 - M5 x 10mm  
Phillips Head Screw  
W / Loctite (8 pcs)

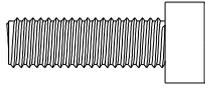


#76 - 5/16" x 3/4"  
Hex head bolt (4 pcs)

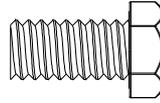


#78 - M5 x 12mm  
Phillips Head Screw (14 pcs)

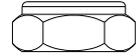
## Step2



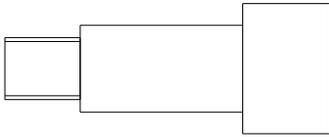
#75 - M8 x 25mm  
Socket Cap Bolt (4 pcs)



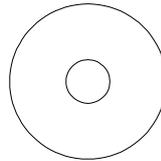
#117 - 3/8" x 3/4"  
Hex Head Bolt  
W / Loctite (2 pcs)



#118 - M10  
Nylon Nut (2 pcs)



#119 - M10 x 38mm  
Shoulder Bolt (2 pcs)



#120 - 3/8"  
Flat Washer (2 pcs)



#113 - 3.5mm x 12mm  
Sheet Metal Screw (4 pcs)



#90 - 25mm  
Wave Washer (2 pcs)

## Step3



#113 - 3.5 x 12mm  
Sheet Metal Screw (14 pcs)

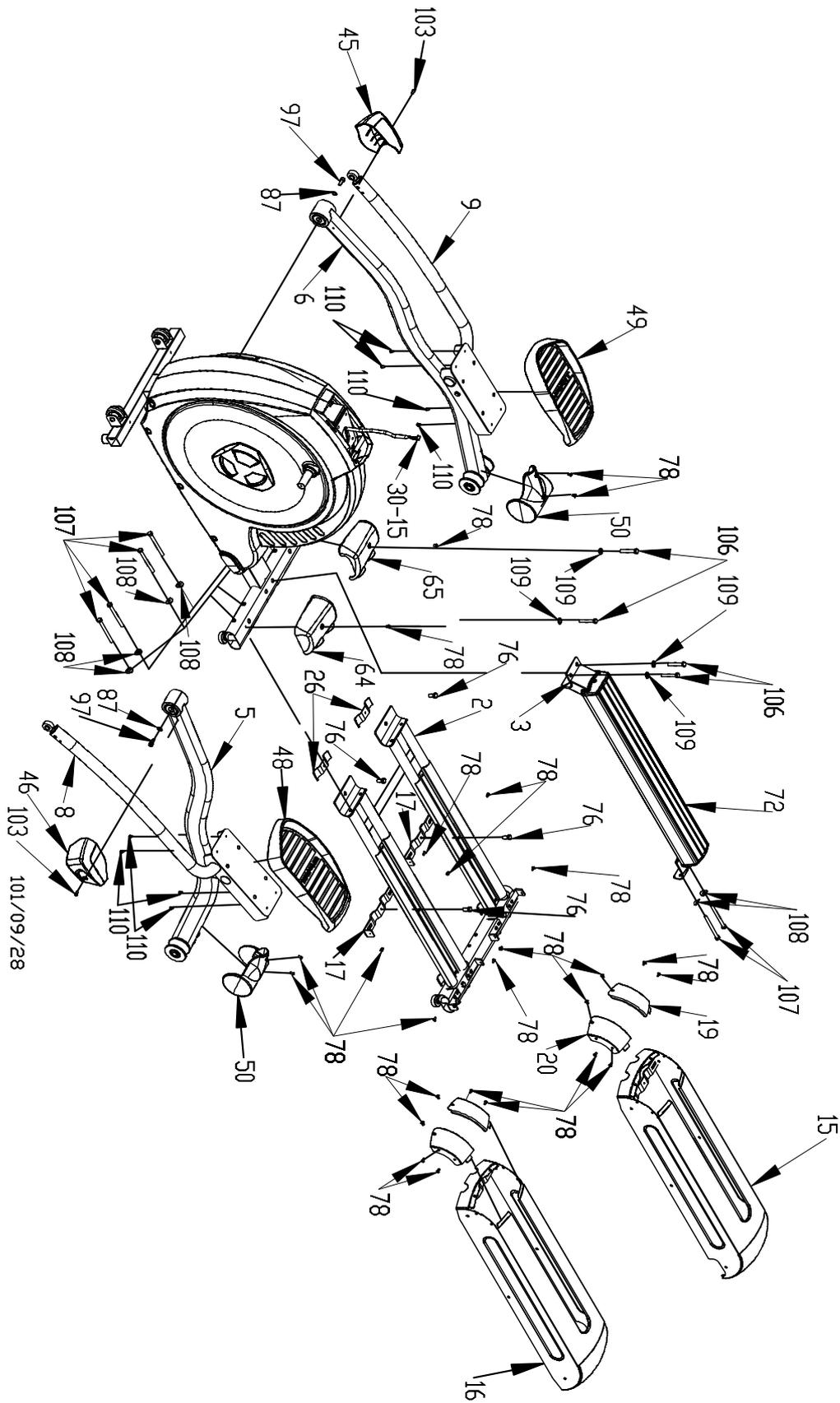


#78 - M5 x 12mm  
Phillips Head Screw (14 pcs)

# ASSEMBLY INSTRUCTION

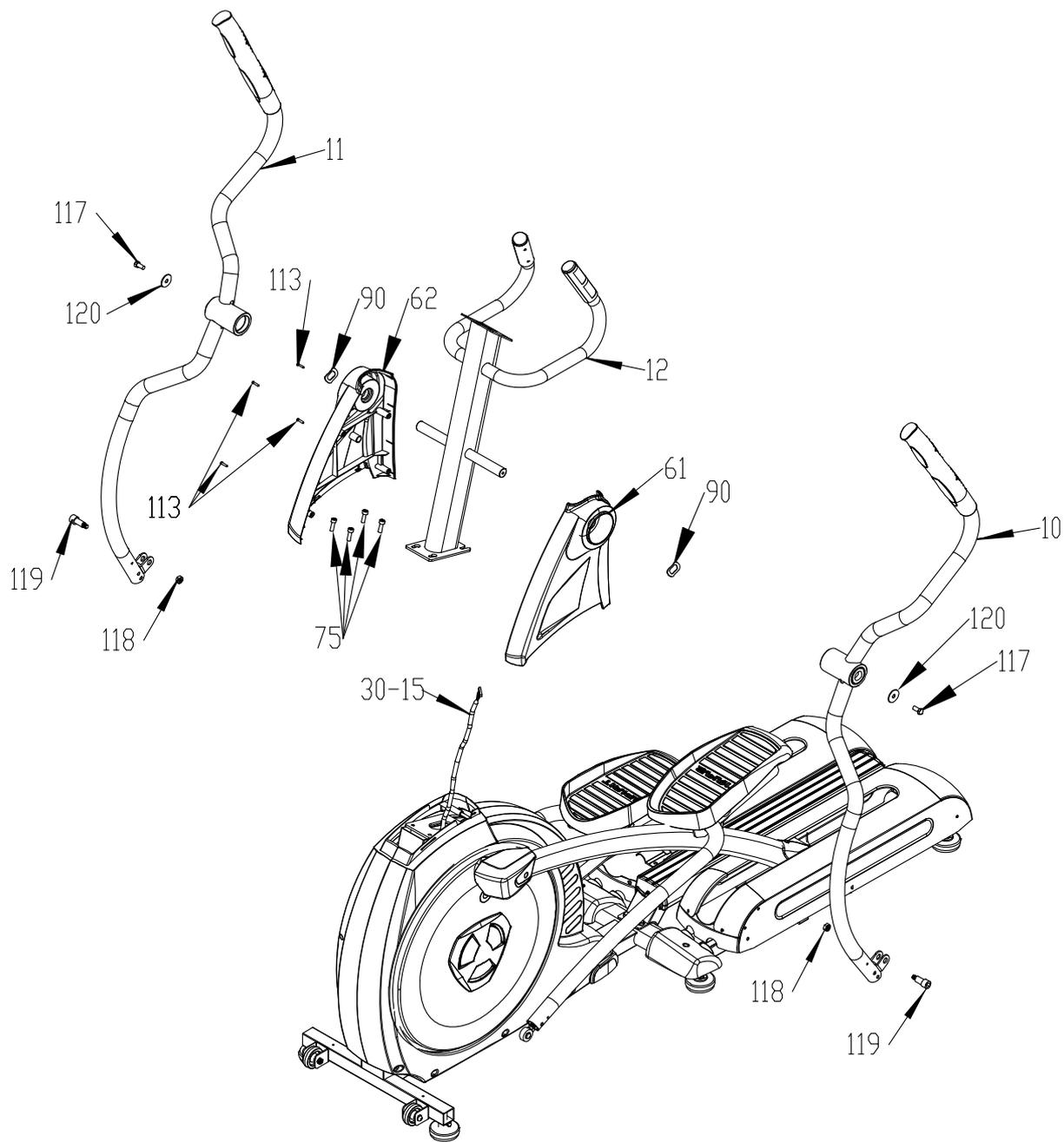
## STEP 1: Rear Rail and Pedal Arm Assembly

- Slide the rail assembly (2) under the rear oval stabilizer tube of the main body. Bolt the two together with two 3/8" x 2-1/4" bolts (106) and 3/8" washers (109) from the top of the tube, and four 3/8" x 3-3/4" bolts (107) and 3/8" curved washers (108) through the front of the oval stabilizer. Make sure all six bolts are tightened very securely.
- Attach the two footpads (48 left & 49 right) to the pedal mounting plates with eight M5 x 10mm screws (110).
- Assemble the pedal arm assemblies (5 & 6) to the crank axles of the main body. The bearings in the pedal arms should slide onto the axles, do not force them because damage to the bearings can occur. The pedal arms have been previously assembled at the factory to assure the correct fit. Secure the pedal arms with two 5/16" x 15mm bolts (97) and 5/16" washers (87).
- Install the two covers (45 right, 46 left) over the pedal arm connection at the axle with two M6 x 15mm screws (103). Install the two wheel covers (50) with four M5 x 12mm screws (78).
- Install the four mounting brackets (17) and (26) to the rails with four 5/16" x 3/4" bolts (76). Install the two steel covers (15 right & 16 left) by lifting the pedal arms so the wheels are off the tracks then slide the pedal arms, wheels first, through the opening of the steel cover. Align the cover with the mounting brackets and secure them with eight M5 x 12 mm screws (78). Install the four small covers (2 x #19 & 2 x #20) with ten M5 x 12mm screws (78).
- Install the center aluminium step rail (72) with two 3/8" x 3-3/4" bolts (107) and curved washers (108) at the rear and two 3/8" x 2-1/4" bolts (106) and flat washers (109) at the front. Install the two stabilizer tube covers (64 left & 65 right) with two M5 x 12mm screws (78).



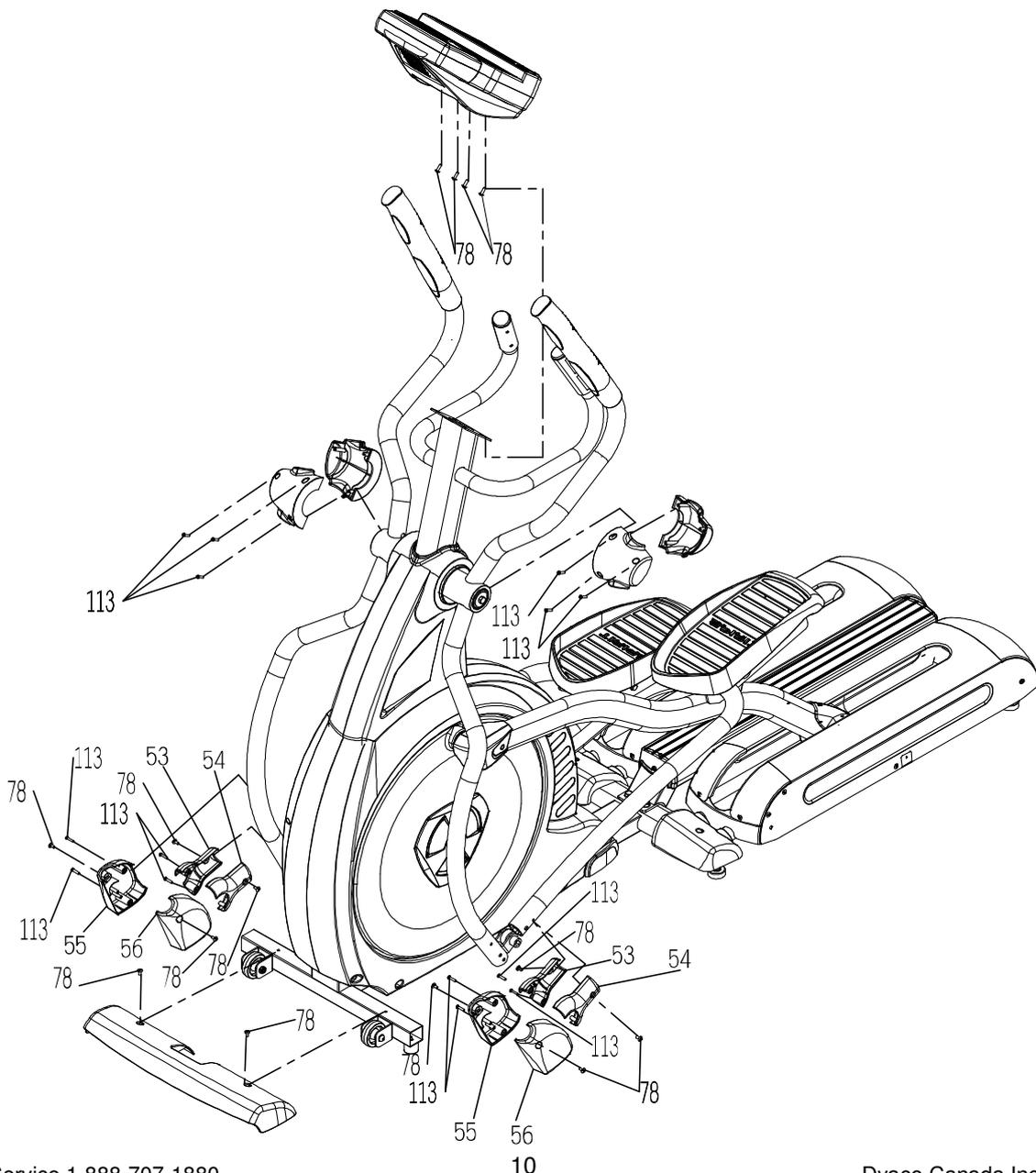
## **STEP 2: Console Mast and Swing Arms**

- Unravel the computer cable (30-15) and snake it through the bottom of the console mast (12) and out the top. Secure the console mast to the main frame with four M8 x 25mm bolts (75). Mount the console mast covers (61 left & 62 right) and secure with four 3.5mm x 12mm screws (113).
- Install two wave washers (90) onto the console mast axle then Install the swing arms (10 left & 11 right) onto the axles. Do not force them or use a hammer as damage to the bearings can occur. The swing arms have been previously assembled at the factory to assure the correct fit. Secure the arms with two 3/8" x 3/4" bolts (117) and 3/8" flat washers (120). Attach the bottom of the swing arms to the rod ends of the pedal arms using two M10 x 38mm shoulder bolts (119) and M10 nylon nuts (118).



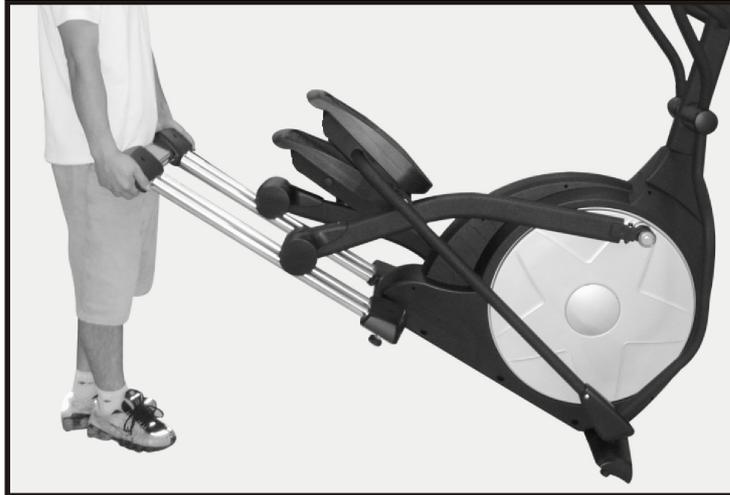
### STEP 3: Console and Beauty Covers

- Plug the computer cable (30-15) and hand pulse cables (35 x 2) into the corresponding connectors on the back of the console (30). Mount the console on the mast with four M5 x 12mm screws (78).
- Install the four swing arm pivot point covers (57, 58 left & 59, 60 right) with six 3.5mm x 12mm screws (113).
- Install the four covers (53x2 & 54x2) to the ends of the pedal arms with four M5 x 12mm screws (78). **These covers can be installed upside down!! There is an arrow on the inside of each cover to indicate correct installation direction.**
- Install the four covers (55 & 56, 2 pcs each) at the connection point at the bottom of the swing arms using four 3.5mm x 12mm screws (113) and four M5 x 12mm screws (78). Install the front stabilizer cover (47) with two M5 x 12mm screws (78).



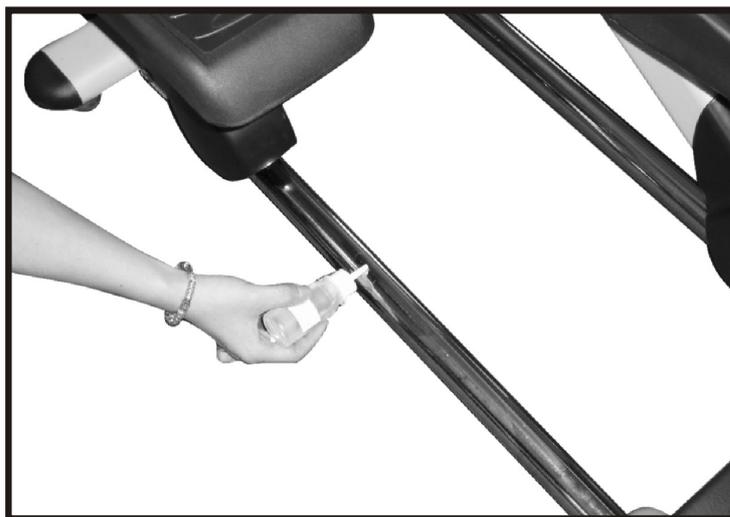
## ■ Transportation

The elliptical is equipped with two transport wheels which are engaged when rear of the elliptical is lifted.



## ■ Elliptical Lubrication

1. Pour 2c.c of the lubricant under the middle of the rail. You must be lubricate the rails every three months.
2. If you feel the exercise is not smooth or you hear noise during your exercise, lubricate the middle rail with 2 c.c.of the lubricant.



# FEATURES

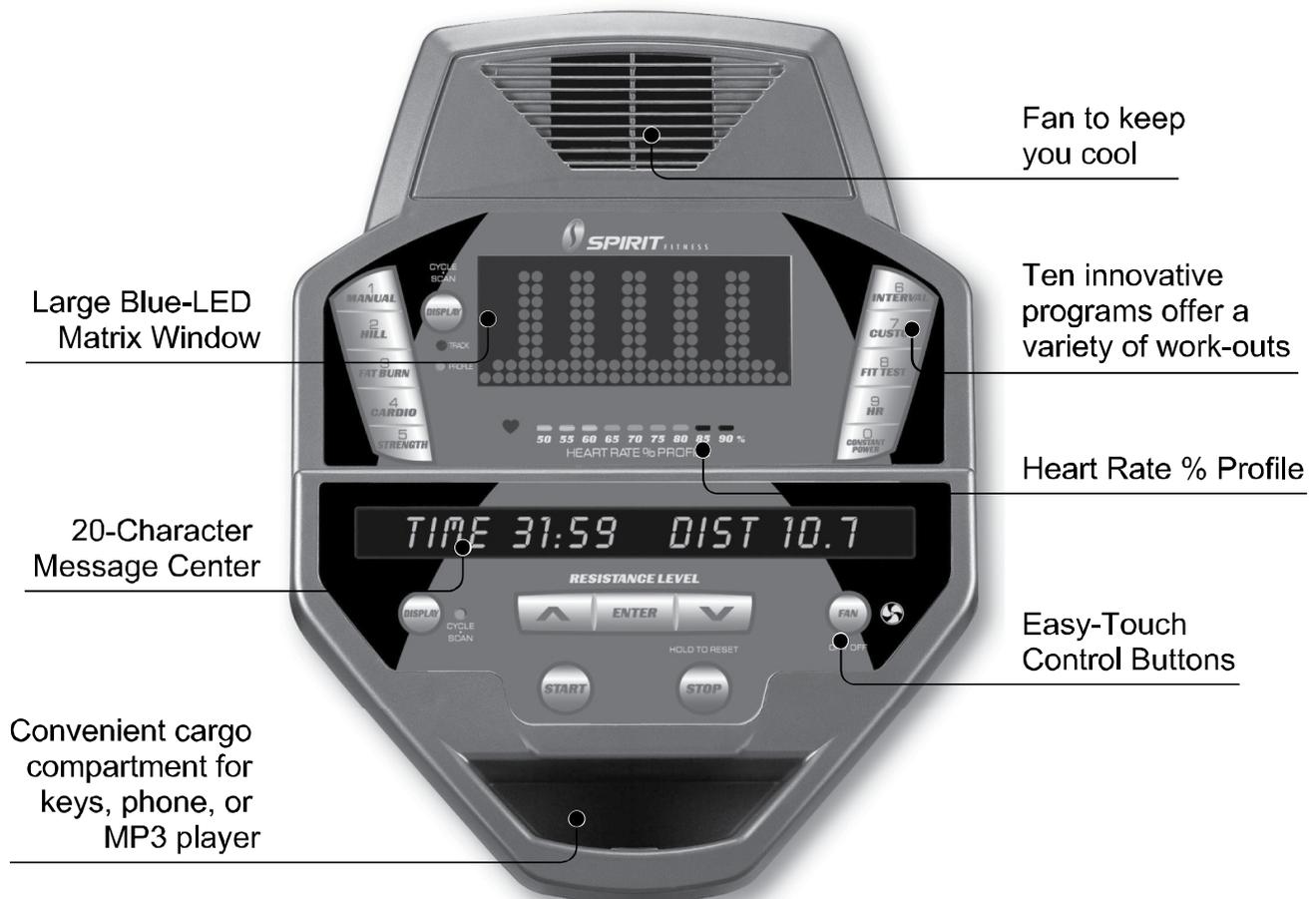
## Footpads

Through research performed with a leading sports scientist and physical rehabilitation expert, the engineering has developed a breakthrough in pedal design. The history of elliptical use over the past few years tells us that many users suffer from ankle, Achilles tendon, knee and/or hip pain.

While researching a solution to these common problems the engineers consulted Richard DeKok, P.T., M.T.C., of St. Bernards Industrial Rehabilitation Center in Jonesboro Arkansas. Together we/ identified the inherent problem in elliptical designs and developed a solution to solve the problem. What we found is that when you use an elliptical you tend to push outward during the power stroke and not just straight back. This causes stress on the outer part of the foot and throws off the natural alignment of the body's joints. The solution we discovered was to add a 2-degree inward angle to the footpads. This might sound simple but it was all that was needed to put the user's joints back into a neutral alignment. This eases the over stressing of the ankles, knees and hips and allows the user to exercise longer without discomfort.

# Operation of Your Elliptical

## ■ Console



## Power on

The elliptical has a built-in generator for power and does not need to be plugged into an AC outlet. To power up the elliptical simply start to pedal, the console will turn on automatically.

When initially powered on the console will perform an internal self-test. During this time all the lights will turn on for a short time. When the lights go off the dot matrix display will show a software version (i.e. VER 1.0) and the message window will display an odometer reading. The odometer reading displays how many hours the elliptical has been used and how many virtual miles the elliptical has gone. The display shows: ODO 123 MI 123 HRS.

The odometer will remain displayed for only a few seconds then the console will go to the start up display. The dot matrix display will be scrolling through the different profiles, showing the programs, and the message window will be scrolling the start up message. You may now begin your workout program.

# Console Operation

## Quick Start

This is the quickest way to start a workout. After the console powers up you just press the Start key to begin. This will initiate the Quick Start mode. In Quick Start the Time will count up from zero, all workout data will start to accrue and the workload may be adjusted manually by pressing the Up and Down buttons. The dot matrix display will show a ¼ mile (0.4KM) track display or just the bottom row lit at first, depending on how the display button has been set (see Basic information below). As you increase the workload more rows will light indicating a harder workout. The elliptical will get harder to pedal as the rows increase. The dot matrix has 24 columns of lights and each column represents 1 minute. At the end of the 24<sup>th</sup> column (or 24 minutes of work) the display will wrap around and start at the first column again.

There are 40 levels of resistance – displayed as 10 rows of lights - available for plenty of variety. The first 10 levels are very easy workloads, and the changes between levels are set to a good progression for de-conditioned users. Levels 10-20 are more challenging but the increases from one level to the next remain small. Levels 20-30 start getting tough as the levels jump more dramatically. Levels 30-40 are extremely hard and are good for short interval peaks and elite athletic training.

## Basic information

The **Dot Matrix, or Profile Window**, has two display modes. When you begin a program the dot matrix will display the workout Profile. To the left of the dot matrix there is a button labeled Display. Pressing this button once will switch the display to show a quarter mile track. If the Display button is pressed again the dot matrix will switch back and forth between Track and Profile mode every few seconds. To turn off the scan mode press the Display key again. This will return you to the profile display mode.

The **Message Window** will initially be displaying Time and Distance information. On the bottom left of the message window is a button labeled Display. Each time this Display button is pressed the next set of information will appear, four windows in all. In order: Time and Distance, Pulse and Kcal (Calories), Speed in RPM and MPH, Work Level and Watts, then METs. If the Display button is pressed during the METs display the Scan light will come on and the message window will show each set of data for four seconds then switch to the next set of data in a continuous loop. Pressing the Display button again will bring you back to the beginning.

Below the Dot matrix display is a **Heart Icon** and a **Bar Graph**. The elliptical has a built in heart rate monitoring system. Simply grasping the hand pulse sensors, or wearing a heart rate chest belt transmitter, will start the **Heart Icon** blinking (this may take a few seconds). The Message Window will display your heart rate, or Pulse, in beats per minute. The **Bar Graph** represents the percentage of your maximum heart rate you are currently achieving. NOTE: You must enter your age during program setup for the Bar Graph to be accurate. Refer to Heart Rate section for details about these features and how they can help you work out more efficiently.

The **Stop/Reset** button actually has several functions. Pressing the Stop/Reset key once during a program will **Pause** the program for 5 minutes (when you stop pedaling the display will turn off but the memory will be saved for 5 minutes just like the pause mode). If the Stop/Reset button is pressed twice during a workout the program will end and the console will return to the start up screen. If the Stop/Reset key is held down for 3 seconds the console will perform a complete **Reset**. During data entry for a program the Stop/Reset key performs a **Previous Screen** function. This allows you to go back one step in the programming each time you press the Stop/Reset key.

The **Program Keys** are used to preview each program. When you first turn the console on you may press each program key to preview what the program profile looks like. If you decide that you want to try a program, press the corresponding program key and then press the Enter key to select the program and enter into the data-setup mode.

The program keys also act as a **Number Key Pad** when you are in the data-setup mode. Under each program key is a number. If you are setting new data such as Age, weight etc., you can use these keys to enter the numbers quickly.

The console includes a built-in fan to help keep you cool. To turn the fan on press the key on the right side, front of the console

## Programming the console

Each of the programs can be customized with your personal information and changed to suit your needs. Some of the information asked for is necessary to ensure the readouts are correct. You will be asked for your **Age** and **Weight**. Entering your **Age** ensures that the Heart Rate bar graph shows the correct number. Your Age is also necessary during the Heart Rate control program to ensure the correct settings are in the program for your Age. Otherwise the work settings could be too high or low for you; entering your **Weight** aides in calculating a more correct **Calorie** reading. Although we cannot provide an exact calorie count we do want to be as close as possible.

## Entering/Changing Settings

When you enter a program (by pressing a program key, then enter key) you have the option of entering your own personal settings. If you want to workout without entering new settings then just press the Start key. This will bypass the programming of data and take you directly to the start of your workout. If you want to change the personal settings then just follow the instructions in the message window. If you start a program without changing the settings the default - or pre-saved – settings will be used.

## Manual

The Manual program works as the name implies, manually. This means that you control the workload yourself and not the computer. To start the Manual program follow the instructions below or just press the Manual button then the Enter button and follow the directions in the message window.

1. Press the **Manual** key then press the **Enter** key.
2. The message window will ask you to enter your **Age**. You may enter your Age, using the Up and Down keys or the numeric key pad, then press the Enter key to accept the new number and proceed on to the next screen.
3. You are now asked to enter your **Weight**. You may adjust the Weight number using the Up and Down keys, or the numeric key pad, then press enter to continue.
4. The next setting is **Time**. You may adjust the Time and press enter to continue.
5. Now you are finished editing the settings and can begin your workout by pressing the Start key. You can also go back and modify your settings by pressing the Enter key. NOTE: At any time during the editing of Data you can press the Stop key to go back one level, or screen.
6. The program automatically starts you at level one. This is the easiest level and it is a good idea to stay at level one for a while to warm up. If you want to increase the work load at any time press the Up key; the Down key will decrease the workload.
7. During the Manual program you will be able to scroll through the data in the message window by pressing the adjacent **Display key**. You may also switch between the profile display and a quarter mile track by pressing the Display key adjacent to the dot matrix display.
8. When the program ends you may press Start to begin the same program again or Stop to exit the program, or you can save the program you just completed as a **custom program** by pressing the Custom key and following the instructions in the message window.

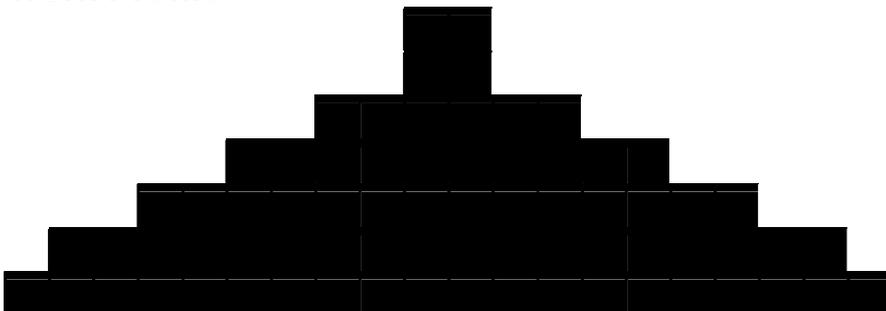
## Preset Programs

The elliptical has five different programs that have been designed for a variety of workout goals. These five programs have factory preset profiles for achieving these different goals. The initial built-in level of difficulty for each program is set to a relatively easy level. You may adjust the level of difficulty (Max level) for each program before beginning by following the instructions in the message window after selecting your program.

## HILL

The **Hill** program simulates going up and down a hill. The resistance in the pedals will steadily increase and then decrease during the program.

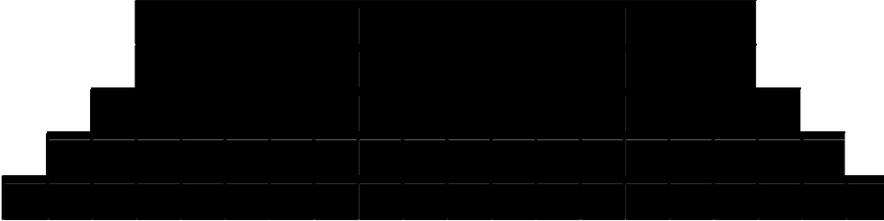
## Work Profile



## FATBURN

The **Fat Burn** program is designed, as the name implies, to maximize the burning of fat. There are many schools of thought on the best way to burn fat but most experts agree that a lower exertion level that stays at a steady workload is the best. The absolute best way to burn fat is to keep your heart rate at around 60% to 70% of its maximum potential. This program does not use heart rate but simulates a lower, steady exertion workout.

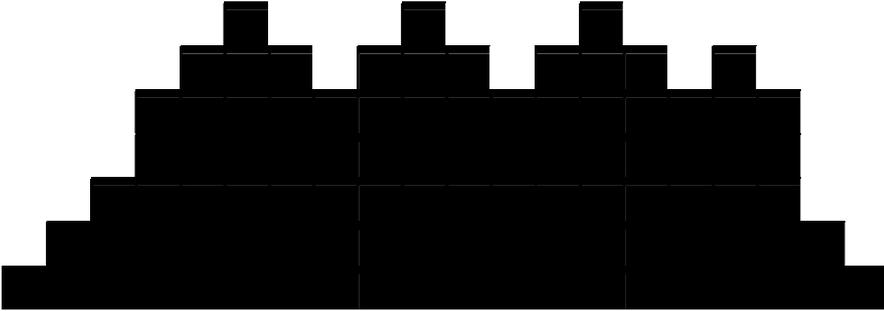
### Work Profile



## Cardio

The **Cardio** program is designed to increase your Cardio vascular function. This is exercise for your heart and lungs. It will build up your heart muscle and increase blood flow and lung capacity. This is achieved by incorporating a higher level of exertion with slight fluctuations in work.

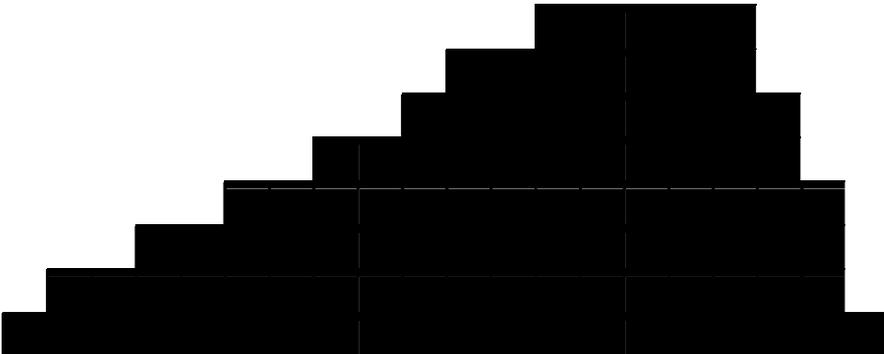
### Work Profile



## Strength

The **Strength** program is designed to increase muscular strength in your lower body. This program will steadily increase in resistance to a high level and then keeps you there. This is designed to strengthen and tone your legs and glutes.

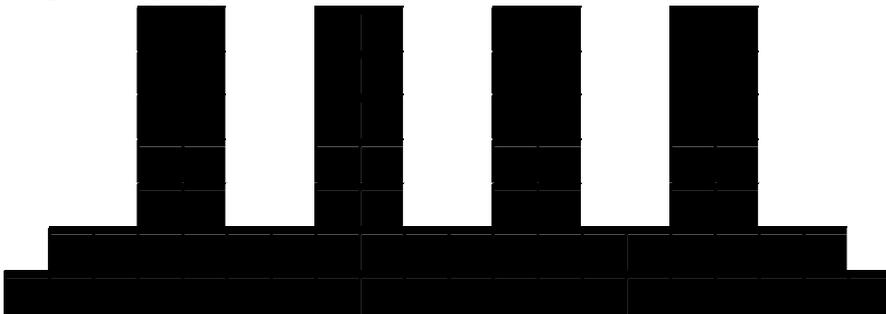
### Work Profile



## Interval

The **Interval** program takes you through high levels of intensity followed by periods of low intensity. This program increases your endurance by depleting your oxygen level followed by periods of recovery to replenish oxygen. Your cardio vascular system gets programmed to use oxygen more efficiently this way.

## Work Profile



## Programming Preset Programs:

1. Select the desired program button then press the **Enter** key.
2. The message window will ask you to enter your **Age**. You may adjust the age setting, using the Up and Down keys, then press the Enter key to accept the new number and proceed on to the next screen.
3. You are now asked to enter your **Weight**. You may adjust the weight number using the Up and Down keys, then press enter to continue.
4. Next is **Time**. You may adjust the Time and press enter to continue.
5. Now you are asked to adjust the **Max Level**. This is the peak exertion level you will experience during the program (at the top of the hill). Adjust the level and then press enter.
6. Now you are finished editing the settings and can begin your workout by pressing the Start key. You can also go back and modify your settings by pressing the Stop key to go back one level, or screen.
7. If you want to increase or decrease the workload at any time during the program press the Up or Down key. This will change the workload settings of the entire profile, although the profile picture on the screen will not change. The reason for this is so that you can see the entire profile at all times. If the profile picture is changed it will look distorted and not a true representation of the actual profile. When you make a change to the workload, the message window will show the current column, and program maximum, levels of work.
8. During the program you will be able to scroll through the data in the message window by pressing the **Display** key next to the message window.
9. When the program ends the message window will show a summary of your workout. The summary will be displayed for a short time then the console will return to the start-up display.

## Custom User Defined Program

The custom program allows you to build and save a custom program. You can build your own custom program by following the instructions below or you can save any other preset program you complete as a custom program. The custom program allows you to further personalize it by adding your facility name.

1. Press the **Custom** key. The message window will show a welcome message; if you had previously saved a program the message will contain the name you gave it. Then press the **Enter** key to begin programming.
2. When you press enter, the message window will show "Name – A", if there is no name saved. If the name "Custom Workout" had been previously saved the message window will show "Name – Custom Workout" and the C in Custom will be blinking. If there is a name saved you can change it or you may press the Stop key to keep the name and continue to the next step. If you want to enter a name use the Up and/or the Down key to change the first letter then press Enter to save the first letter and continue to the next letter. When you have finished entering the name press the Stop key to save the name and continue to the next step.
3. The message window will ask you to enter your **Age**. You may enter your Age, using the Up and Down keys or the numeric key pad, then press the Enter key to accept the new number and proceed on to the next screen.
4. You are now asked to enter your **Weight**. You may adjust the Weight number using the Up and Down keys or the numeric key pad then press enter to continue.
5. Next is **Time**. You may adjust the Time and press enter to continue.
6. Now you are asked to adjust the **Max Level**. This is the peak exertion level you will experience during the program. Adjust the level and then press enter.
7. Now the first column will be blinking and you are asked to adjust the level for the first segment of the workout. When you finish adjusting the first segment, or if you don't want to change, then press enter to continue to the next segment.
8. The next segment will show the same level as the previously adjusted segment. Repeat the same process as the last segment then press enter. Continue this process until all twenty segments have been set.
9. The message window will then tell you to press enter to save the program. After saving the program the message window says "New program saved" then will give you the option to Start or modify the program. Pressing Stop will exit to the start up screen.
10. If you want to increase or decrease the workload at any time during the program press the Up or Down key. This will only affect the workload for the present position in the profile. When the profile changes to the next column it will return to the preset work level.
11. During the User 1 or User 2 program you will be able to scroll through the data in the message window by pressing the adjacent **Display key**, switch between the profile display and a quarter mile track by pressing the Display key adjacent to the matrix

## Fit-Test

The fitness test will assess your fitness level and give a score at the end of the test. This score is not a Vo2 max number, but just a number to use as a reference. You can take the test every month and the score will be higher as your level of fitness improves. The test will take anywhere from 6–15 minutes. The test will ask you to maintain a pedal speed of 50 RPM and will automatically make adjustments to the work load depending on your heart rate response to set work levels. The test ends when you reach your target heart rate which is 85% of your maximum heart rate (Max HR = 220 – your age) or if your HR exceeds 110 BPM for 2 stages.

### Fitness test programming:

1. Press the Fit-test button and press enter.
2. The message window will ask you to enter your **Age**. You may adjust the age setting, using the Up and Down keys then press the Enter key to accept the new number and proceed on to the next screen.
3. You are now asked to enter your **Weight**. You may adjust the weight number using the Up and Down keys then press enter to continue.
4. Now press Start to begin the test.

### Before the test:

- Make sure you are in good health; check with your physician before performing any exercise if you are over the age of 35 or persons with pre-existing health conditions.
- Make sure you have warmed up and stretched before taking the test.
- Do not take in caffeine before the test.
- Hold the hand grips gently, do not tense up.

### During the test:

- The console must be receiving a steady heart rate for the test to begin. You may use the hand pulse sensors or wear a heart rate chest strap transmitter.
- You must maintain a steady 50 RPM pedal speed. If your pedal speed drops below 48 RPM or goes above 52 RPM the console will emit a steady beeping sound until you are within this range.
- You may scroll through the various data readings in the message window by pressing the Display button under the message window.
  1. The message window will always display your pedal speed on the right side to help you maintain 50RPM.
  2. The data shown during the test is:
    - a. **Work** in **KGM** is actually an abbreviated form of kg-m/min. which is a work measurement of kilogram-force meter/minute
    - b. **Work** in **Watts** (1 watt is equal to 6.11829727787 kg-m/min.)
    - c. **HR** is your actual heart rate; **TGT** is the target heart rate to reach to end the test.
    - d. **Time** is the total elapsed time of the test.

### After the test:

- Cool down for about one to three minutes.
- Take note of your score because the console will automatically return to the start-up mode after a few minutes.

# Heart Rate Training

## A word about Heart Rate:

The old motto, “no pain, no gain”, is a myth that has been overpowered by the benefits of exercising comfortably. A great deal of this success has been promoted by the use of heart rate monitors. With the proper use of a heart rate monitor, many people find that their usual choice of exercise intensity was either too high or too low and exercise is much more enjoyable by maintaining their heart rate in the desired benefit range.

To determine the benefit range in which you wish to train, you must first determine your Maximum Heart Rate. This can be accomplished by using the following formula: 220 minus your age. This will give you the Maximum heart rate (MHR) for someone of your age. To determine the effective heart rate range for specific goals you simply calculate a percentage your MHR. Your Heart rate training zone is 50% to 90% of your maximum heart rate. 60% of your MHR is the zone that burns fat while 80% is for strengthening the cardiovascular system. This 60% to 80% is the zone to stay in for maximum benefit.

For someone who is 40 years old their target heart rate zone is calculated:

$220 - 40 = 180$  (maximum heart rate)  
 $180 \times .6 = 108$  beats per minute (60% of maximum)  
 $180 \times .8 = 144$  beats per minute (80% of maximum)

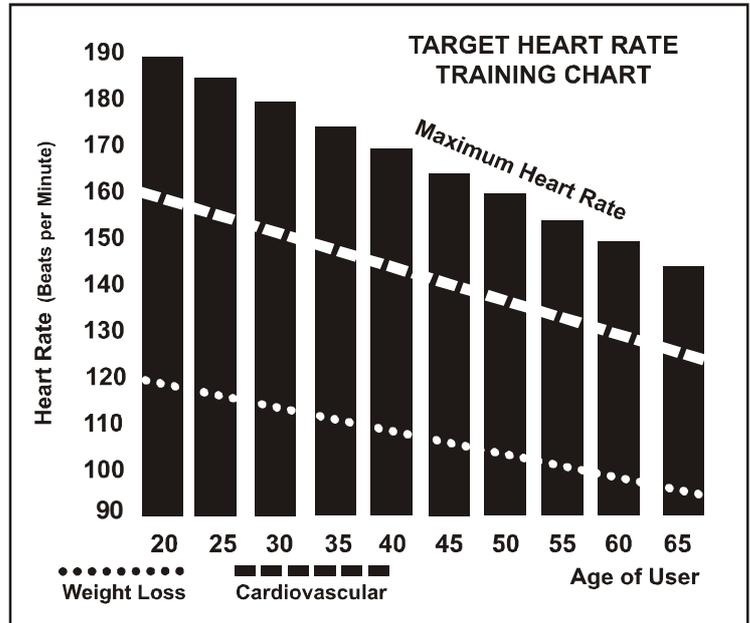
So for a 40 year old the training zone would be 108 to 144 beats per minute.

If you enter your age during programming the console will perform this calculation automatically. Entering your age is used for the Heart Rate control programs. After calculating your Maximum Heart Rate you can decide upon which goal you would like to pursue.

The two most popular reasons for, or goals, of exercise are cardiovascular fitness (training for the heart and lungs) and weight control. The black columns on the chart above represent the Maximum Heart Rate for a person whose age is listed at the bottom of each column. The training heart rate, for either cardiovascular fitness or weight loss, is represented by two different lines that cut diagonally through the chart. A definition of the lines' goal is in the bottom left-hand corner of the chart. If your goal is cardiovascular fitness or if it is weight loss, it can be achieved by training at 80% or 60%, respectively, of your Maximum Heart Rate on a schedule approved by your physician. Consult your physician before participating in any exercise program.

With all Heart Rate Control elliptical machines you may use the heart rate monitor feature without using the Heart Rate Control program. This function can be used during manual mode or during any of the nine different programs. The Heart Rate Control program automatically controls resistance at the pedals.

**”WARNING”** Heart rate monitoring system may be inaccurate. Over exercise may result in injury or



death. If you feel faint stop exercising immediately.

## Rate of Perceived Exertion

Heart rate is important but listening to your body also has a lot of advantages. There are more variables involved in how hard you should workout than just heart rate. Your stress level, physical health, emotional health, temperature, humidity, the time of day, the last time you ate and what you ate, all contribute to the intensity at which you should workout. If you listen to your body, it will tell you all of these things.

The rate of perceived exertion (RPE), also known as the Borg scale, was developed by Swedish physiologist G.A.V. Borg. This scale rates exercise intensity from 6 to 20 depending upon how you feel or the perception of your effort.

The scale is as follows:

### Rating Perception of Effort

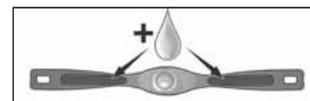
- 6 Minimal
- 7 Very, very light
- 8 Very, very light +
- 9 Very light
- 10 Very light +
- 11 Fairly light
- 12 Comfortable
- 13 Somewhat hard
- 14 Somewhat hard +
- 15 Hard
- 16 Hard +
- 17 Very hard
- 18 Very hard +
- 19 Very, very hard
- 20 Maximal

You can get an approximate heart rate level for each rating by simply adding a zero to each rating. For example a rating of 12 will result in an approximate heart rate of 120 beats per minute. Your RPE will vary depending upon the factors discussed earlier. That is the major benefit of this type of training. If your body is strong and rested, you will feel strong and your pace will feel easier. When your body is in this condition, you are able to train harder and the RPE will support this. If you are feeling tired and sluggish, it is because your body needs a break. In this condition, your pace will feel harder. Again, this will show up in your RPE and you will train at the proper level for that day.

# Using a Heart Rate Transmitter

How to wear your wireless chest strap transmitter:

1. Attach the transmitter to the elastic strap using the locking parts.
2. Adjust the strap as tightly as possible as long as the strap is not too tight to remain comfortable.
3. Position the transmitter with the logo centered in the middle of your body facing away from your chest (some people must position the transmitter slightly left of center). Attach the final end of the elastic strap by inserting the round end and, using the locking parts, secure the transmitter and strap around your chest.
4. Position the transmitter immediately below the pectoral muscles.
5. Sweat is the best conductor to measure very minute heart beat electrical signals. However, plain water can also be used to pre-wet the electrodes (2 black square areas on the reverse side of the belt and either side of transmitter). It's also recommended that you wear the transmitter strap a few minutes before your work out. Some users, because of body chemistry, have a more difficult time in achieving a strong, steady signal at the beginning. After "warming up", this problem lessens. As noted, wearing clothing over the transmitter/strap doesn't affect performance.
6. Your workout must be within range - distance between transmitter/receiver – to achieve a strong steady signal. The length of range may vary somewhat but generally stay close enough to the console to maintain good, strong, reliable readings. Wearing the transmitter immediately against bare skin assures you of proper operation. If you wish, you may wear the transmitter over a shirt. To do so, moisten the areas of the shirt that the electrodes will rest upon.



*Note: The transmitter is automatically activated when it detects activity from the user's heart. Additionally, it automatically deactivates when it does not receive any activity. Although the transmitter is water resistant, moisture can have the effect of creating false signals, so you should take precautions to completely dry the transmitter after use to prolong battery life (estimated transmitter battery life is 2500 hours). If your chest strap has a replaceable battery the replacement battery is Panasonic CR2032.*

## Erratic Operation:

**Caution! Do not use this elliptical for Heart Rate Control unless a steady, solid Actual Heart Rate value is being displayed. High, wild, random numbers being displayed indicate a problem.**

### Areas to look at for interference, which may cause erratic heart rate:

1. Microwave ovens, TV's, small appliances, etc.
2. Fluorescent lights.
3. Some household security systems.
4. Perimeter fence for a pet.
5. Some people have problems with the transmitter picking up a signal from their skin. If you have problems try wearing the transmitter upside down. Normally the transmitter will be oriented so the logo is right side up.
6. The antenna that picks up your heart rate is very sensitive. If there is an outside noise source, turning the whole machine 90 degrees may de-tune the interference.
7. Another Individual wearing a transmitter within 3' of your machine's console.

If you continue to experience problems contact Dyaco Canada Inc.

## Heart Rate Control (HRC) Program operation

To start the **HRC** program follow the instructions below or just press the HRC key then the Enter button and follow the directions in the message window.

1. Press the **HRC** key then press the **Enter** key.
2. The message window will ask you to enter your **Age**. You may enter your Age, using the Up and Down keys or the numeric key pad, then press the Enter key to accept the new number and proceed on to the next screen.
3. You are now asked to enter your **Weight**. You may adjust the Weight number using the Up and Down keys or the numeric key pad, then press enter to continue.
4. Next is **Time**. You may adjust the Time and press enter to continue.
5. Now you are asked to adjust the **Heart rate Level**. This is the heart rate level you will experience during the program. Adjust the level and then press enter.
6. Now you are finished editing the settings and can begin your workout by pressing the Start key. You can also go back and modify your settings by pressing the Enter key. **NOTE:** At any time during the editing of Data you can press the Stop key to go back one level, or screen.
7. If you want to increase or decrease the workload at any time during the program press the Up or Down key. This will allow you to change your target heart rate at any time during the program.
8. During the HRC program you will be able to scroll through the data in the message window by pressing the adjacent **Display key**.
9. When the program ends you may press Start to begin the same program again or Stop to exit the program or you can save the program you just completed as a **custom user program** by pressing a User key and following the instructions in the message window.

## Constant Power Program

A Watts program is a controllable constant power whose Level adjusts when the speed is changed. To start the Constant Power program follow the instructions below or just press the **Constant Power** key, then the **Enter** button and follow the directions in the Message Window.

1. Press the Constant Power key, then press the **Enter** key.
2. The Message Window will ask you to enter your Age. Input your Age, using the **Up/Down** keys or the numeric key pad, then press the **Enter** key to accept the new age and proceed on to the next screen.
3. You are now asked to enter your Weight. Adjust Weight using the **Up/Down** keys or the numeric key pad, then press **Enter** to continue.
4. Next is Time. Adjust the Time, then press **Enter** to continue.
5. Now you are asked to adjust the Target Watt Level. This is the constant power you will experience during the program. Adjust using the **Up/Down** keys, then press **Enter**.
6. Now you are finished editing the settings and can begin your workout by pressing the **Start** key. You can also go back and modify your settings by pressing the **Enter** key. *Note: At any time during the editing of data, you can press the **Stop** key to go back one level, or screen.*
7. If you want to increase or decrease the workload at any time during the program, press the **Up/Down** key. This will allow you to change your target Watt level at any time during the program.
8. During the Constant Power program you will be able to scroll through the data in the Message Window by pressing the adjacent **Display** key.
9. When the program ends, you may press **Start** to begin the same program again or **Stop** to exit the program.

## Maintenance:

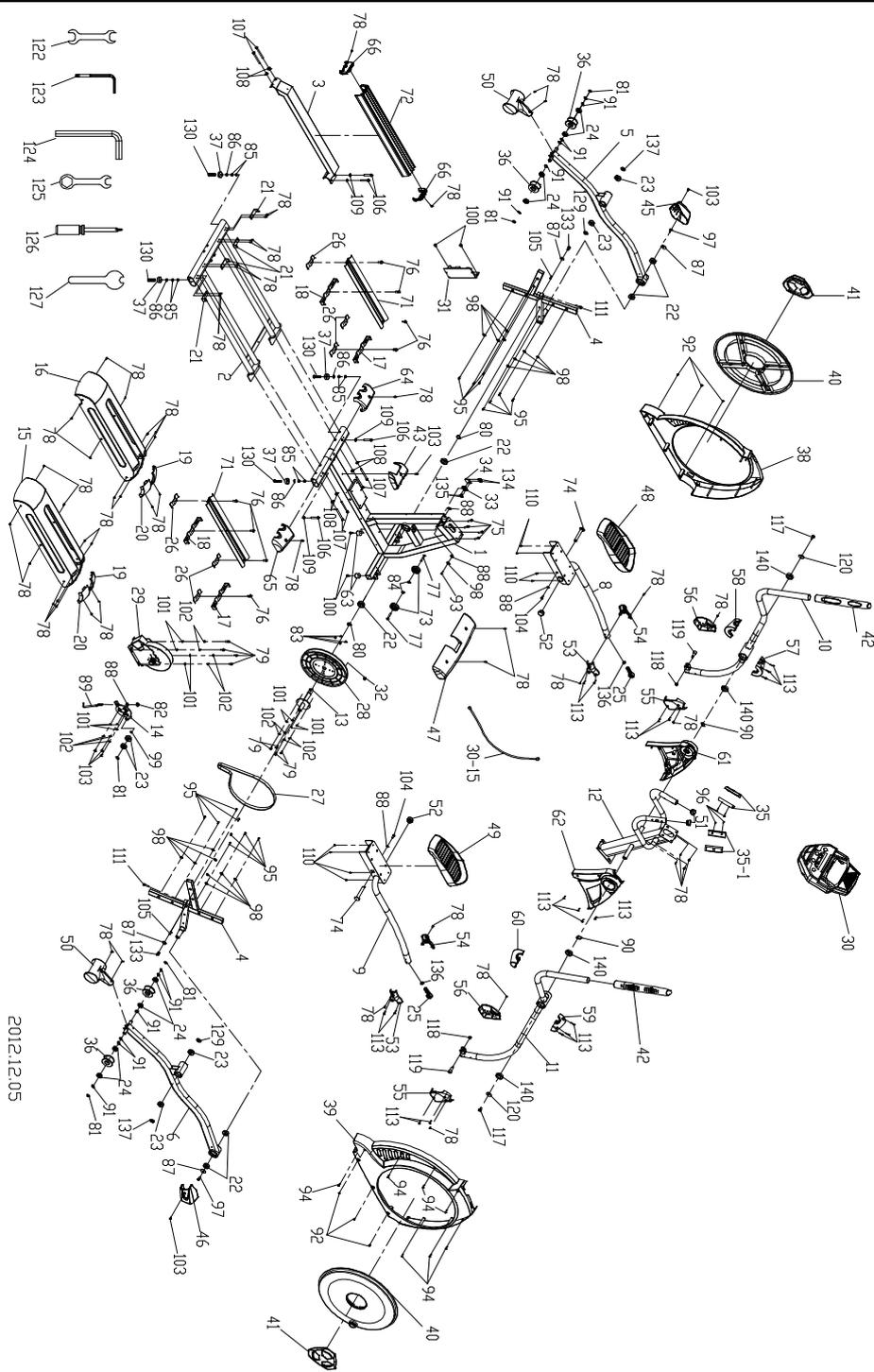
1. Wipe down all areas in the sweat path with a damp cloth after each workout.
2. If a squeak, thump, clicking or rough feeling develops the main cause is most likely one of two reasons:
  - i. The hardware was not sufficiently tightened during assembly. All bolts that were installed during assembly need to be tightened as much as possible. It may be necessary to use a larger wrench than the one provided if you cannot tighten the bolts sufficiently. I cannot stress this point enough; 90% of calls to the service department for noise issues can be traced to loose hardware or the rear rails being dirty.
  - ii. Dirt build-up on the rear rails and polyurethane wheels are also a source of noise. Noise from build-up on the rails can cause a thumping sound that you would swear is coming from inside the main body of the machine because noise travels, and is amplified, in the tubing of the frame. Clean the rails and wheels with a lint free cloth and rubbing alcohol. Stubborn build-up can be removed with your thumbnail or a non-metallic scraper, like the back edge of a plastic knife.
  - iii. Lubrication of rails: Only lubricate the rails if there is a persistent squeaking from the wheels. If there is no squeaking then it is preferable to not use lubrication as it will attract dirt and dust onto the wheels and rails. After cleaning, apply a small amount of lubricant on the rails with your fingers or a lint free cloth. You only need a thin coat of lubrication, wipe off any excess.
3. If squeaks or other noises persist, check that the unit is properly leveled. There are 4 leveling pads on the bottom of the rear rails, use a 14mm wrench (or adjustable wrench) to adjust the levelers.

## Maintenance Menu in console software:

The console has built in maintenance/diagnostic software. The software will allow you to change the console settings from English to Metric and turn off the beeping of the speaker when a key is pressed for example. To enter the Maintenance menu (may be called Engineering mode, depending on version) press and hold down the Start, Stop and Enter keys. Keep holding the keys down for about 5 seconds and the message window will display "ALTXXXX Engineering mode". Press the enter button to access the menu below:

- a. **Key test** (will allow you to test all the keys to make sure they are functioning)
- b. **Display test** (tests all the display functions)
- c. **Functions** (Press enter to access settings)
  - i. **Sleep mode** (Turn on to have the console power down automatically after 20 minutes of inactivity)
  - ii. **Pause Mode** (Turn on allow 5 minutes of pause, turn off to have the console pause indefinitely)
  - iii. **ODO reset** (reset the odometer)
  - iv. **Units** (Set to English or Metric display readings)
  - v. **Beep** (Turn on or off the beep when a key is pressed)
  - vi. **D/A test** (tests the brake resistance)
  - vii. **Elliptical or Bike** (sets the console software calculations)
- d. **Security** (Allows you to lock the keypad so no unauthorized use is allowed)

# EXPLODED VIEW DIAGRAM



# PARTS LIST

KEY NO.	PART NO.	DESCRIPTION	Q'TY
1	17180001	Main Frame	1
2	17180002	Rail Assembly	1
3	17180003	Rail Support Assembly	1
4	17180004	Cross Bar	2
5	17180005	Pedal Arm(L)	1
6	17180006	Pedal Arm(R)	1
8	17180008	Connecting Arm (L)	1
9	17180009	Connecting Arm (R)	1
10	17180010	Swing Arm (L)	1
11	17180011	Swing Arm (R)	1
12	17180012	Console Mast	1
13	17180013	Crank Axle	1
14	17180014	Idler Wheel Assembly	1
15	17180015	Right Shroud	1
16	17180016	Left Shroud	1
17	17180017	Rear Mounting Bracket (A)	2
18	17180018	Rear Mounting Bracket (B)	2
19	17180019	Front Cover, Top (L)	2
20	17180020	Front Cover, Top (R)	2
21	17180021	Rear L-Plate	4
22	17180022	6005_Bearing(NTN)	6
23	17180023	6203_Bearing	6
24	17180024	6003_Bearing	8
25	17180025	Rod End Bearing	2
26	17180026	Retaining Bracket, Aluminum Track	6
27	17180027	Drive Belt	1
28	17180028	Drive Pulley, 330mm	1
29	17180029	Flywheel	1
30	17180030	Console Assembly	1
30~15	17180030-15	1400m/m_Computer Cable	1
31	17180031	Generator/Brake Controller	1
32	17180032	Magnet	1
33	17180033	Sensor W/Cable	1
34	17180034	Sensor Rack	1
35	17180035	<a href="#">850m/m_Handpulse W/Cable Assembly</a>	2
35~1	17180035-1	<a href="#">850m/m_Handpulse W/Cable Assembly(Red)</a>	2
36	17180036	Sliding Wheel , Urethane	4
37	17180037	Rubber Foot	4
38	17180038	Side case (L)	1
39	17180039	Side case (R)	1
40	17180040	Round Disk	2
41	17180041	Round Disk Cover	2

KEY NO.	PART NO.	DESCRIPTION	Q'TY
42	17180042	Handle Bar Axle Inner Cover	2
43	17180043	Incline Bottom Cover	1
45	17180045	Pedal Arm Cover (L)	1
46	17180046	Pedal Arm Cover (R)	1
47	17180047	Front Stabilizer Cover	1
48	17180048	Pedal (L)	1
49	17180049	Pedal (R)	1
50	17180050	Slide Wheel Cover	2
51	17180051	Button Head Plug	2
52	17180052	Pedal End Cover	2
53	17180053	Connecting Arm Cover A (R)	2
54	17180054	Connecting Arm Cover A (L)	2
55	17180055	Connecting Arm Cover B (R)	2
56	17180056	Connecting Arm Cover B (L)	2
57	17180057	Front Handle Bar Cover (L)	1
58	17180058	Rear Handle Bar Cover (L)	1
59	17180059	Front Handle Bar Cover (R)	1
60	17180060	Rear Handle Bar Cover (R)	1
61	17180061	Console Mast Cover(L)	1
62	17180062	Console Mast Cover(R)	1
63	17180063	Rubber Foot Pad	2
64	17180064	Rear Stabilizer Cover (A)	1
65	17180065	Rear Stabilizer Cover (B)	1
66	17180066	End Cap, Aluminum Step Rail	2
69	17180069	Drink Bottle Assembly	1
70	17180070	Drink Bottle Holder	1
71	17180071	Aluminum Track	2
72	17180072	Aluminum Step Rail	1
73	17180073	Transportation Wheel	2
74	17180074	Ø17 x 117m/m_Carriage Bolt	2
75	17180075	M8 x 1.25 x 25m/m_Hex Socket Cap Screw	4
76	17180076	5/16" x 3/4" _Hex Head Bolt	8
77	17180077	5/16" _Button Head Socket Bolt	2
78	17180078	M5 x 12m/m _Phillips Head Screw	52
79	17180079	1/4" x 3/4" _Hex Head Bolt	8
80	17180080	Ø25_C Ring	2
81	17180081	Ø17_C Ring	5
82	17180082	M8 x 9T_Nyloc Nut	1
83	17180083	1/4" _Nyloc Nut	4
84	17180084	5/16" x 7t_Nyloc Nut	2
85	17180085	3/8" x 7T_Nut	8
86	17180086	3/8" x 19 x 1.5T_Flat Washer	4
87	17180087	5/16" x 35 x 1.5T_Flat Washer	4
88	17180088	5/16" x 23 x 1.5T_Flat Washer	5
89	17180089	M8 x 170m/m_J Bolt	1

KEY NO.	PART NO.	DESCRIPTION	Q'TY
90	17180090	Ø25_Wave Washer	2
91	17180091	Ø17_Wave Washer	12
92	17180092	5 × 16m/m_Tapping Screw	6
93	17180093	4 × 15m/m_Sheet Metal Screw	1
94	17180094	4 × 19m/m_Sheet Metal Screw	7
95	17180095	5 × 16m/m_Tapping Screw	16
96	17180096	3 × 20m/m_Tapping Screw	4
97	17180097	M8 × 1.25 × 15m/m_Socket Head Cap Bolt	2
98	17180098	1/4" × 19m/m_Flat Washer	17
99	17180099	Ø17 × 23.5 × 1T_Flat Washer	1
100	17180100	5 × 19m/m_Tapping Screw	4
101	17180101	1/4" × 13 × 1T_Flat Washer	11
102	17180102	1/4" Split Washer	11
103	17180103	M6 × 15m/m_Phillips Head Screw	6
104	17180104	5/16" × 15m/m_Hex Head Bolt	2
105	17180105	Woodruff Key	2
106	17180106	3/8" × 2-1/4" Button Head Socket Bolt	4
107	17180107	3/8" × 3-3/4" Button Head Socket Bolt	6
108	17180108	3/8" × 23 × 2T_Curved Washer	6
109	17180109	3/8" × 19 × 1.5T_Flat Washer	4
110	17180110	M5 × 10m/m_Phillips Head Screw	8
111	17180111	M8 × 30m/m_Socket Head Cap Bolt	2
113	17180113	Ø3.5 × 12m/m_Sheet Metal Screw	18
117	17180117	3/8" × 3/4" Hex Head Bolt	2
118	17180118	M10_Nut	2
119	17180119	M10 × 1.5(38mm)_Bolt	2
120	17180120	3/8" × 30 × 2.0T_Flat Washer	2
122	17180122	13.14m/m_Wrench	1
123	17180123	Combination M6 Allen Wrench & Phillips Head Screw Driver	1
124	17180124	M12_L Allen Wrench	1
125	17180125	17m/m_Wrench	1
126	17180126	Phillips Head Screw Driver	1
127	17180127	12m/m_Wrench	1
129	17180129	Ø36 × Ø22 × 2T_Stable Wheel Spacer	2
130	17180130	3/8" × 16UNC-2_Flat Head Socket Bolt	4
133	17180133	5/16" × 18UNC × 12m/m_Nylock Screw	2
134	17180134	4 × 12m/m_Sheet Metal Screw	2
135	17180135	3 × 10m/m_Sheet Metal Screw	2
136	17180136	M14 × 2.0 × 7m/m_Nut	2
137	17180137	19 × 32 × 3T_Nylon Washer	2
140	17180140	6005_Bearing	4

# **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.

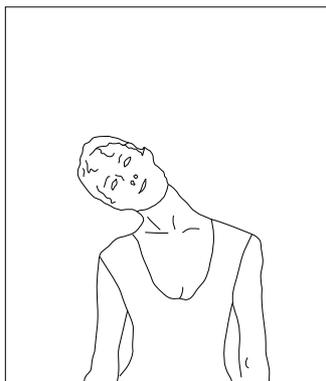
The rest period required between strength training exercises may vary from person to person. This will depend mostly on your level of fitness and the program you have chosen. Rest between exercises by all means, but do not allow this to exceed two minutes. Most people manage with half minute to one minute 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.

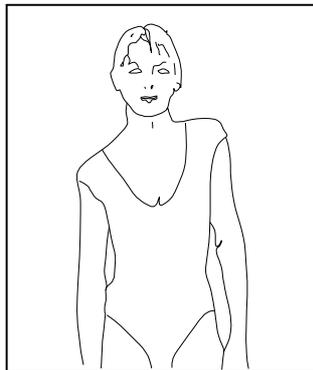
### HEAD ROLLS

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.



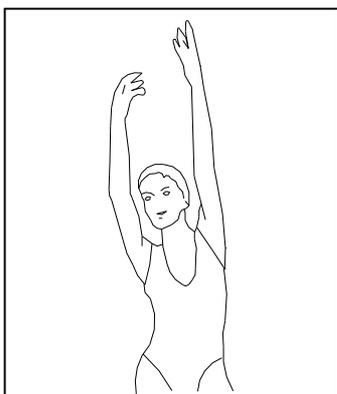
### SHOULDER LIFTS

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.



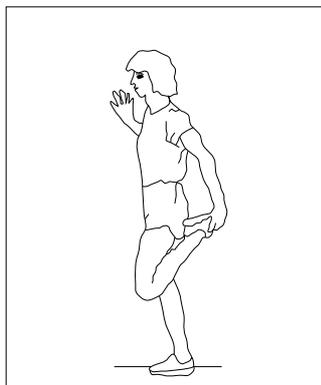
### SIDE STRETCHES

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.



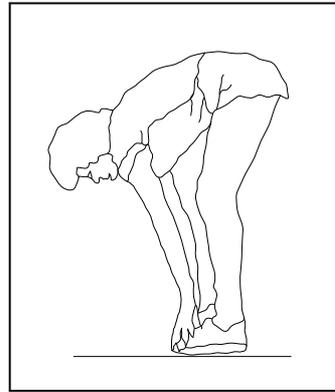
### INNER THIGH STRETCH

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.



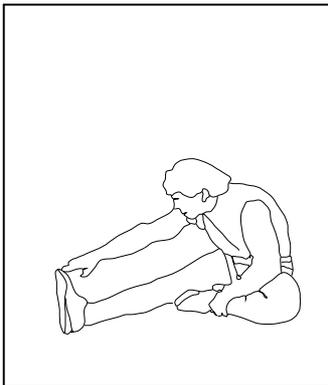
### TOUCHES

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.



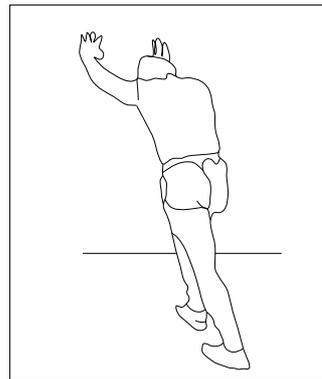
### HAMSTRING STRETCHES

Sit with your right leg extended. Rest the sole of your left foot against your right inner thigh. Stretch 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 toward your toe 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.



# **Manufacturer's Limited Warranty**

Dyaco 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 or in the absence of a sales receipt. Dyaco Canada Inc.'s responsibilities include providing new or remanufactured parts, at Dyaco 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 Dyaco Canada Inc. directly to a consumer. The warranty period applies to the following components:

Home Warranty		Commercial Warranty (Non-dues paying facility)	
Frame	Lifetime	Frame	Lifetime
Electronics	10 Years	Electronics	5 Years
Parts	10 Years	Parts	5 Years
Labor	2 Years	Labor	2 Years

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 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