

## OWNER'S MANUAL

MODEL NO.  
16607601950-1

### **XE 195**

- Assembly
- Operation
- Maintenance
- Parts
- Warranty

#### **CAUTION:**

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

# ***SPIRIT***



**Retain For Future Reference**

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**ATTENTION**

This elliptical is intended for residential use only and is warranted for this application. Any other application voids this warranty in its entirety.

# ***SPIRIT***

**CONGRATULATIONS ON YOUR  
NEW ELLIPTICAL**

Thank you for your purchase of this quality elliptical from Dyaco Canada Inc. Your 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 go to [www.dyaco.ca/warranty.html](http://www.dyaco.ca/warranty.html) and complete the online warranty registration.

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**

Please visit us at [www.dyaco.ca/warranty.html](http://www.dyaco.ca/warranty.html) to register your purchase.

# IMPORTANT SAFETY INSTRUCTIONS

**WARNING** - Read all instructions before using this appliance.

**DANGER** - To reduce the risk of electric shock, disconnect your elliptical from the electrical outlet prior to cleaning and/or service work.

**WARNING** - To reduce the risk of burns, fire, electric shock, or injury to persons, install the elliptical on a flat level surface with access to a 110-volt, 15-amp grounded outlet with only the elliptical plugged into the circuit.

**DO NOT USE AN EXTENSION CORD UNLESS IT IS A 14 AWG OR BETTER, WITH ONLY ONE OUTLET ON THE END:**

1. Before beginning, this or any exercise program, consult a physician. This is especially important for persons over the age of 35 or persons with pre-existing health conditions.
2. Do not operate elliptical on deeply padded, plush or shag carpet. Damage to both carpet and elliptical may result.
3. Keep children away from the elliptical. There are obvious pinch points and other caution areas that can cause harm.
4. Keep hands away from all moving parts.
5. Never operate the elliptical if it has a damaged cord or plug. If the elliptical is not working properly, call your dealer.
6. Keep the cord away from heated surfaces.
7. Do not operate where aerosol spray products are being used or where oxygen is being administered. Sparks from the motor may ignite a highly gaseous environment.
8. Never drop or insert any object into any openings.
9. Do not use outdoors.
10. To disconnect, turn all controls to the off position, then remove the plug from the outlet.
11. Do not attempt to use your elliptical for any purpose other than for the purpose it is intended.
12. The hand pulse sensors are not medical devices. Their purpose is to provide you with an approximate measurement in relation to your target heart rate. Use of a chest transmitter strap (sold separately) is a much more accurate method of heart rate analysis. Various factors, including the user's movement, may affect the accuracy of heart rate readings. The pulse sensors are intended only as exercise aids in determining heart rate trends in general.
13. Wear proper shoes. High heels, dress shoes, sandals or bare feet are not suitable for use on your elliptical. Quality athletic shoes are recommended to avoid leg fatigue.

**SAVE THESE INSTRUCTIONS - THINK SAFETY!**

# IMPORTANT ELECTRICAL INSTRUCTIONS

## WARNING!

**NEVER** remove any cover without first disconnecting AC power. If voltage varies by ten percent (10%) or more, the performance of your elliptical may be affected. Such conditions are not covered under your warranty. If you suspect the voltage is low, contact your local power company or a licensed electrician for proper testing.

**NEVER** expose this elliptical to rain or moisture. This product is **NOT** designed for use outdoors, near a pool or spa, or in any other high humidity environment. The operating temperature specification is 5 to 48 degrees Celsius (40 to 120 degrees Fahrenheit), and humidity is 95 non-condensing (no water drops forming on surfaces).

**Circuit breakers:** Avoid AFCI/GFCI circuit breakers if possible. These breakers may occasionally trip during use because of the high inrush currents from the elliptical drive motor. This condition is an issue with all elliptical and other products with large motors or electric heating elements like ovens.

New laws in your area may require these breakers. If you do have these breakers and outlets in your home and are experiencing nuisance tripping, you should check to see if there are any other devices plugged into the same circuit like fluorescent lights with electronic ballasts, coffee maker, space heater, etc. Optimally the elliptical should be the only device plugged into the circuit.

Our elliptical have surge suppressors built in to help avoid nuisance tripping. We have tested several AFCI/GFCI breakers and outlets with our products that do not trip when only the elliptical is connected. Brands we have tested are Eaton (Cutler-Hammer Series), Leviton (Smart lock pro) and Schneider Electric (Canadian home series).

# IMPORTANT OPERATION INSTRUCTIONS

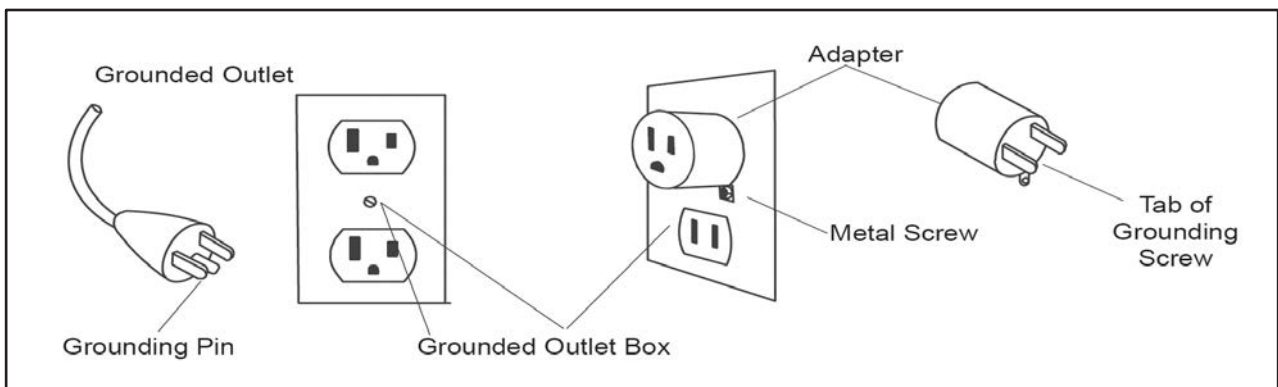
- **NEVER** operate this elliptical without reading and completely understanding the results of any operational change you request from the computer.
- Understand that changes in resistance do not occur immediately. Set your desired resistance level on the computer console and release the adjustment 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. Unplug the elliptical during an electrical storm as a precaution.
- Use caution while participating in other activities while pedalling on your elliptical, such as watching television, reading, etc. These distractions may cause you to lose balance which may result in serious injury.
- Do not use excessive pressure on console control keys. They are precision set to function properly with little finger pressure.

## Grounding Instructions

**This product must be grounded.** If your equipment should malfunction or break down, grounding provides a path of least resistance for electric current, reducing the risk of electric shock. This product is equipped with a cord having an equipment-grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

**DANGER** - Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product if it will not fit the outlet; have a proper outlet installed by a qualified electrician.

This product is for use on a nominal 110-volt/15 amp dedicated circuit and has a grounding plug that looks like the plug illustrated below. A temporary adapter that looks like the adapter illustrated below may be used to connect this plug to a 2-pole receptacle, as shown below, if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet (shown below) can be installed by a qualified electrician. The green-coloured rigid ear-lug, or the like, extending from the adapter, must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adapter is used, it must be held in place by a metal screw.

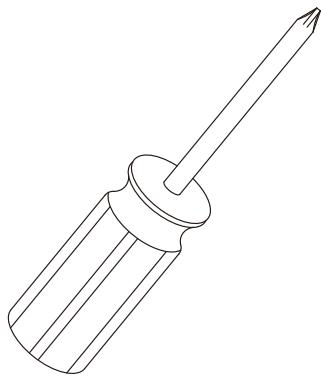


# ASSEMBLY INSTRUCTIONS

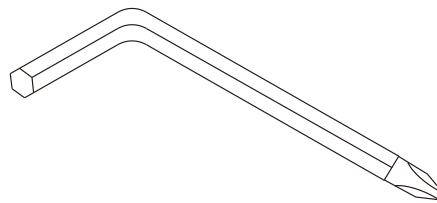
## PRE-ASSEMBLY

1. Using a razor knife (Box Cutter), cut the banding straps that wrap around the carton. Reach under the bottom edge of the carton and pull it away from the cardboard underneath, separating the staples that join the two together. Lift the box over the unit and unpack.
2. Carefully remove all parts from carton and inspect for any damage or missing parts. If damaged parts are found or parts are missing, contact your dealer immediately.
3. Locate the hardware package. The hardware is separated into four steps. Remove the tools first. Remove the hardware for each step as needed to avoid confusion. The numbers in the instructions that are in parenthesis (**#**) are the item number from the assembly drawing for reference.

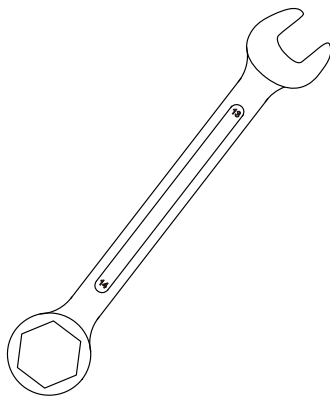
## ASSEMBLY TOOLS



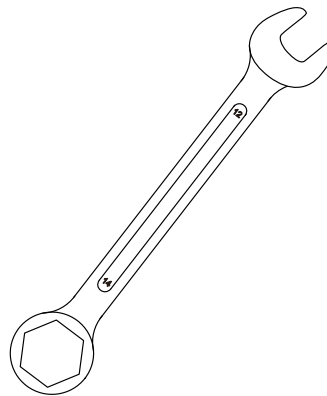
**#157.** Phillips Head Screwdriver (1 pc)



**#177.** Combination M5 Allen Wrench & Phillips Head Screwdriver (1 pc)



**#155.** 13/14mm Wrench (1 pc)

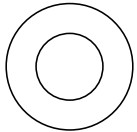


**#158.** 12/14mm Wrench (1 pc)

# STEP 1: Rail Assembly & Console Mast

1. At the top opening of the **MAIN FRAME (1)**, there is a **COMPUTER CABLE (44)** tied to a twist tie wire. Feed the twist tie wire and **COMPUTER CABLE (44)** into the bottom of the **CONSOLE MAST (12)** and out of the opening at the top.
2. Install the **CONSOLE MAST (12)** into the receiving bracket on the top of the **MAIN FRAME (1)**. Be extremely careful not to pinch the cables between the tubing. If the cable gets pinched, this may affect the electrical functions of the console.  
*NOTE: There is one bolt already installed in the receiving bracket that will engage with the slot at the bottom of the Console Mast. This needs to be tightened last, after the three other console mast bolts.*
3. Place a **SPLIT WASHER (152)** onto the **BOLT (105)**, and hand tighten through the left side of the console mast. Place a **CURVED WASHER (153)** onto each **BOLT (103)** and thread both into the front of the console mast tube. Fasten these front bolts as tight as possible with the **WRENCH (155)**. Next, firmly tighten the two left-side bolts with the same wrench.
4. Connect the 2 **HAND PULSE CABLES (48)**, **RESISTANCE CABLE (50)**, and **COMPUTER CABLE (44)** to the back of the **CONSOLE (43)**. Do not force the connectors; they will only fit one way and are different sizes to prevent confusion. Store the excessive cable in the **CONSOLE MAST TUBE (12)**.
5. Attach the **CONSOLE (43)** to the bracket of the Console Mast tube with 4 **PHILLIPS HEAD SCREWS (116)**. Tighten the screws with the **PHILLIPS HEAD SCREWDRIVER (157)**.
6. Attach the **REAR RAIL ASSEMBLY (15)** to the **RAILS (2 & 3)** with 2 **BUTTON HEAD SOCKET BOLTS (176)** and **CURVED WASHERS (153)** on each side. Tighten using the **COMBINATION M5 ALLEN WRENCH & PHILLIPS HEAD SCREWDRIVER (177)**.
7. Slide the Rail Assembly into the **MAIN FRAME (1)**. Insert one **BUTTON HEAD SOCKET BOLT (176)** through each side and attach a **FLAT WASHER (137)** and a **NYLOC NUT (130)** to each joint on the inside.
8. Locate the **CONSOLE MAST (12)** and **CONSOLE MAST COVERS (72) & (72-1)**; attach the covers onto the mast base with 3 **SCREWS (120)**.

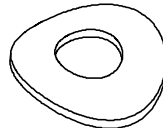
## HARDWARE



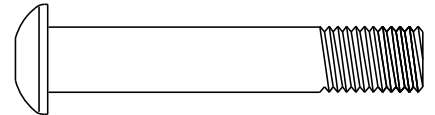
**#137.** 3/8" x 19 x 1.5T  
Flat Washer (2 pcs)



**#116.** M5 x 10m/m  
Phillips Head Screw  
(4 pcs)



**#153.** 3/8" x 23 x 2T  
Curved Washer (6 pcs)



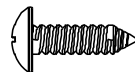
**#176.** 3/8" x 2-1/4"  
Button Head Socket Bolt  
(6 pcs)



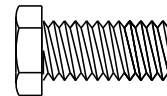
**#152.** 3/8" x 2T  
Split Washer (1 pc)



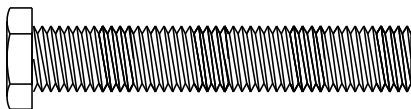
**#130.** 3/8" x 7T  
Nyloc Nut (2 pcs)



**#120.** 3.5 x 16m/m  
Sheet Metal Screw (3 pcs)

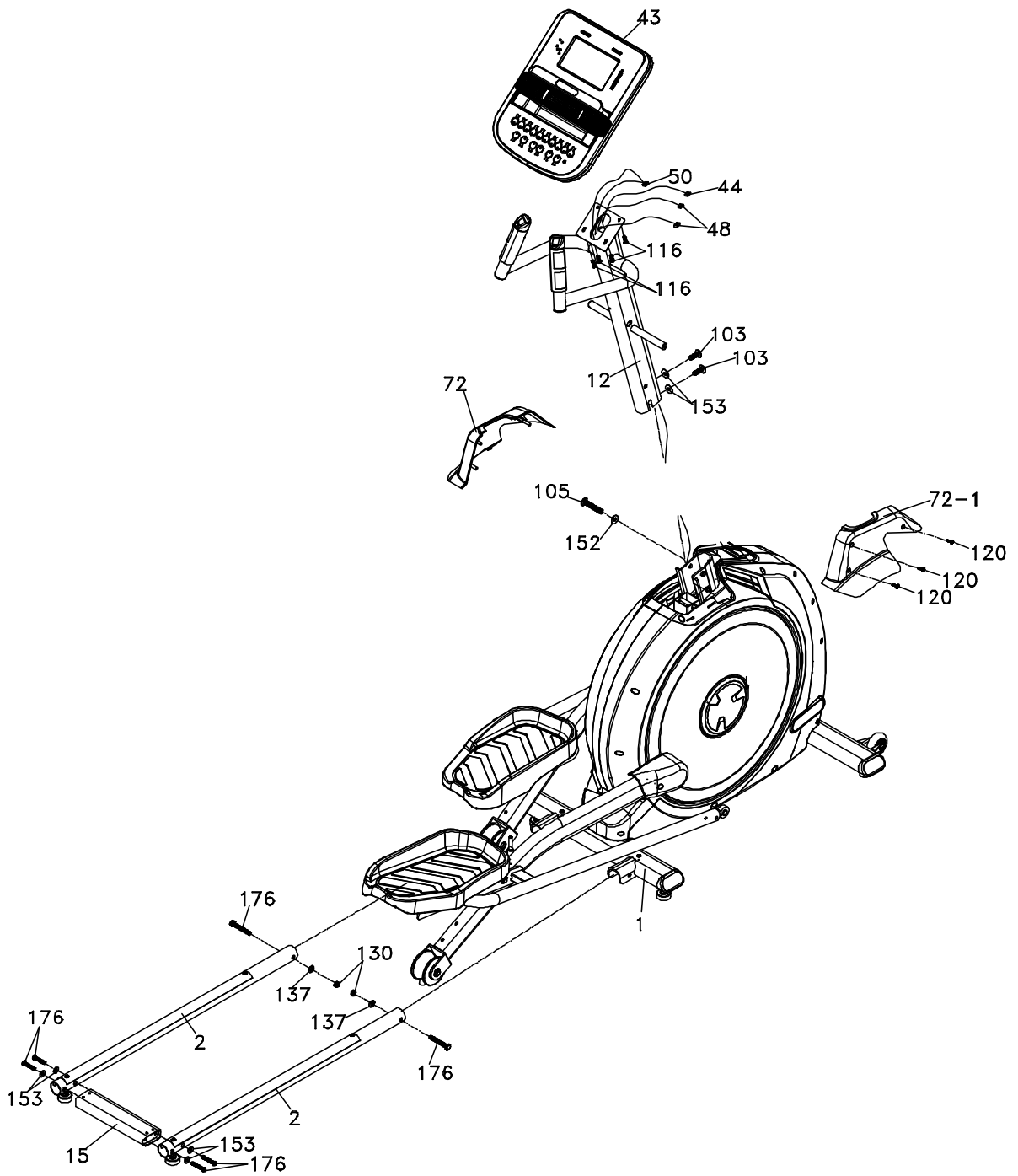


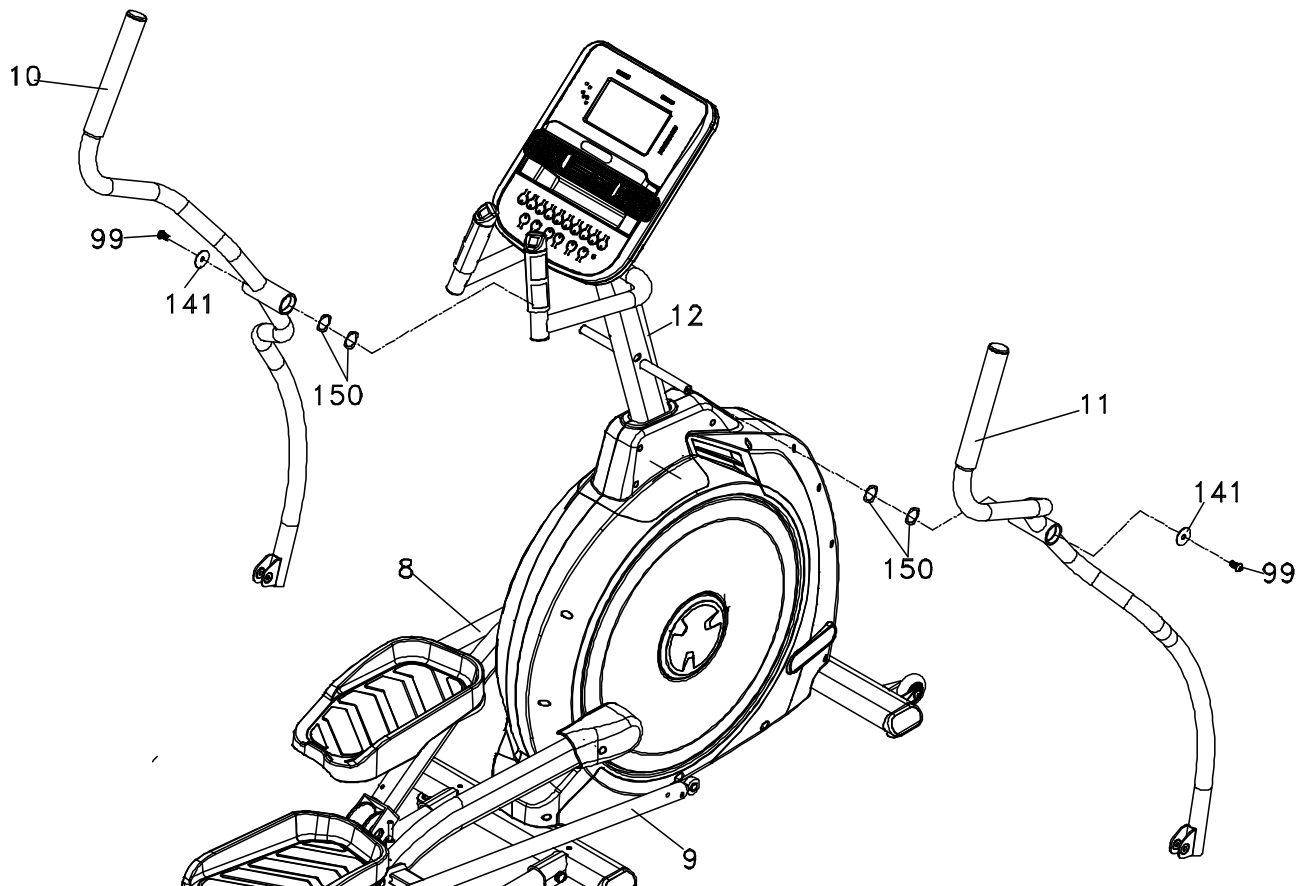
**#103.** 3/8" x 3/4"  
Hex Head Bolt (2 pcs)



**#105.** 3/8" x 2-1/4"  
Hex Head Bolt (1 pc)







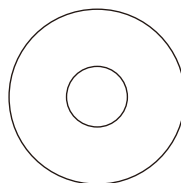
## STEP 2: Connecting & Lower Swing Arms

1. Slide 2 **WAVE WASHERS (150)** onto both the Left and Right Console Mast axle. Slide the **SWING ARMS (L) and (R), (10 & 11)** onto the appropriate side of the axle. **NOTE: Make sure the arms are attached as shown in the illustration.**
2. Place a **FLAT WASHER (141)** onto each **BOLT (99)** and fasten in the end of the left and right axle. Tighten with the **WRENCH (155)**.

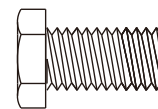
### HARDWARE



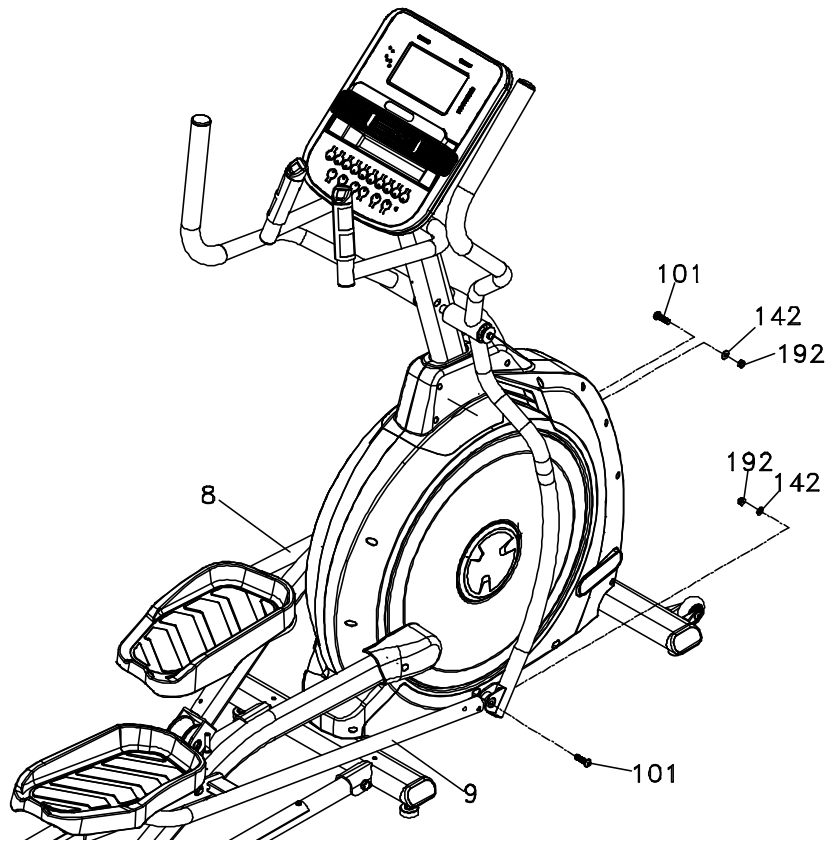
**#150.** Ø 17 m/m  
Wavy Washer (4 pcs)



**#141.** 5/16" x 23 x 1.5T  
Flat Washer (2 pcs)



**#99.** 5/16" x 15mm  
Hex Head Bolt (2 pcs)



## STEP 3: Connecting Arm

1. Untie the twist tie that holds each bushing to the Connecting Arm end. Align the hole in the end of the **CONNECTING ARMS (L & R) (8 & 9)** with the hole in the bracket of the **SWING ARMS (L) AND (R), (10 & 11)**. The **CONNECTING ARM** ends should be inside of the **SWING ARM (L) AND (R), (10 & 11)** brackets. Slide a **HEX HEAD BOLT (101)** through each **SWING ARM (L) AND (R), (10 & 11)** bracket and each Connecting Arm end.
2. Slide a **FLAT WASHER (142)** onto each bolt, then fasten the arms together by tightening a **NYLOC NUT (192)** to each bolt using the **WRENCHES** provided (**155 & 158**).

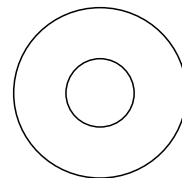
### HARDWARE



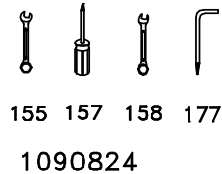
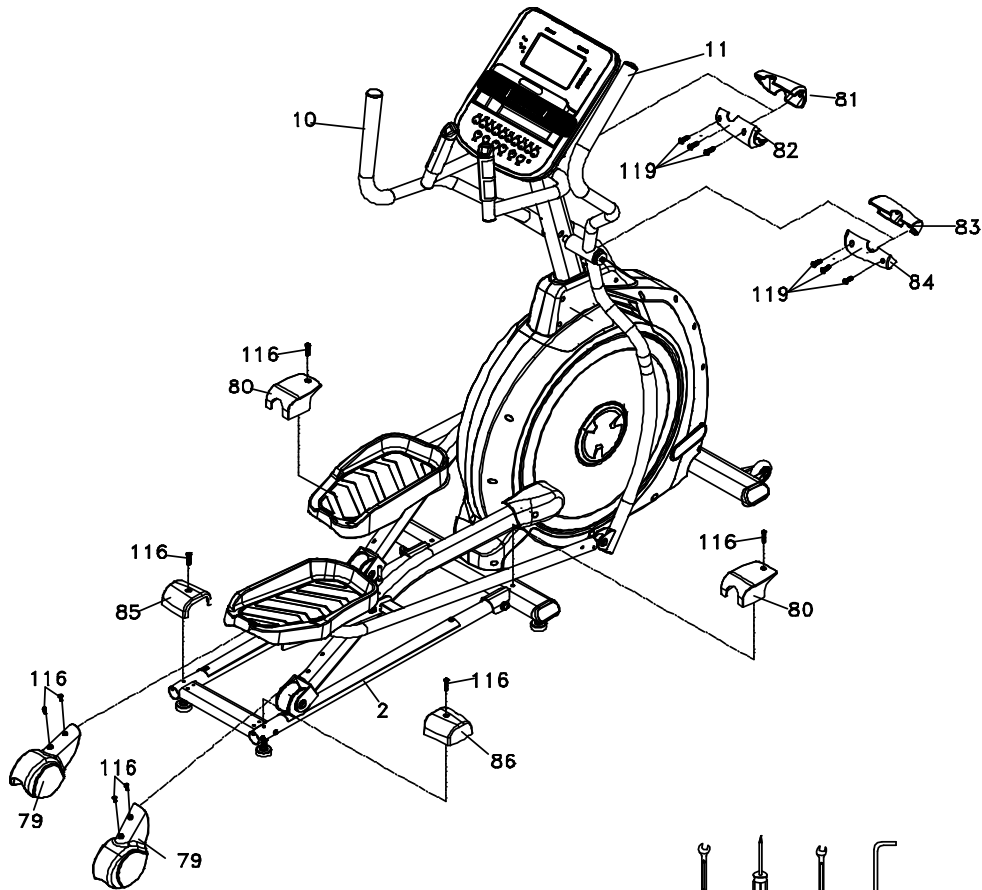
**#192.** 5/16" x 9T  
Nyloc Nut (2 pcs)



**#101.** 5/16" x 1-1/4"  
Hex Head Bolt (2 pcs)



**#142.** 5/16" x 20 x 1.5T  
Flat Washer (2 pcs)



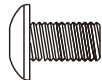
## STEP 4: Plastic Parts

1. Fasten the two **WHEEL COVERS (79)** to the rollers with 4 **PHILLIPS HEAD SCREWS (116)**. Tighten with the **PHILLIPS HEAD SCREWDRIVER (157)**.
2. Attach the **MIDDLE STABILIZER COVERS (80)** to the mid-stabilizer tube with 2 **PHILLIPS HEAD SCREWS (116)**. Attach the **LEFT REAR STABILIZER COVER (85)** and **RIGHT REAR STABILIZER COVER (86)** to the rear stabilizer tube with 2 **PHILLIPS HEAD SCREWS (116)**. Tighten all 4 screws with the **PHILLIPS HEAD SCREWDRIVER (177)**.
3. Install the **LEFT HANDLEBAR COVERS (81 & 82)** and **RIGHT HANDLEBAR COVERS (83 & 84)** over the Handle Bar axle connections with 3 **SHEET METAL SCREWS (119)** on each side. Tighten with the **PHILLIPS HEAD SCREWDRIVER (157)**.
4. Look closely at the four-floor levellers underneath the middle and rear of the elliptical. If any of these aren't in contact with the floor, use the **WRENCH (155)** to loosen the bottom nut. Once the nut has been loosened, turn the rubber caster clockwise until it makes solid contact with the floor. Retighten the bottom nut to prevent it from moving.

### HARDWARE



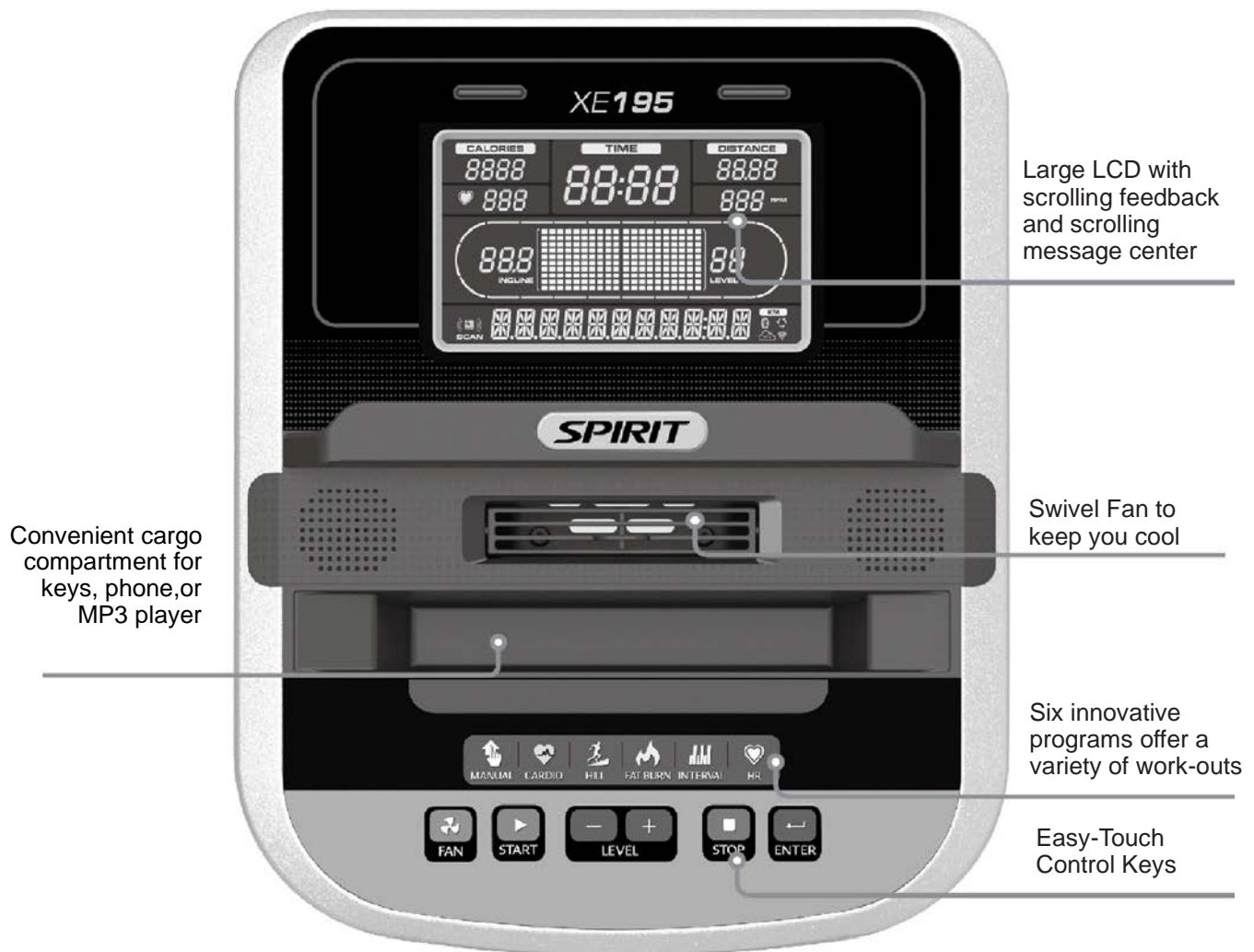
**#119.** Ø 3.5 × 12mm  
Sheet Metal Screw (6 pcs)



**#116.** M5 × 10mm  
Phillips Head Screw (8 pcs)

# OPERATION OF YOUR ELLIPTICAL

## GETTING FAMILIAR WITH THE CONTROL PANEL



## Power

When the power cord is connected to the elliptical, the console will automatically power up.

When initially powered on, the console will perform an internal self-test. During this time all the lights will turn on. When the lights go off, the Message Center will show the software version (i.e., VER 1.0). The distance window shows the distance total, and the time window shows the total hours of use. 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 of the programs, and the Message Center will be scrolling the start up message. You may now begin to use the console.

## 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, and the workload may be adjusted manually by pressing the **Level Up/Down** keys. The dot matrix display will have only the bottom row lit at first. As you increase the workload, more rows will light, indicating a harder workout. The elliptical trainer will get harder to pedal as the rows increase.

There are 20 levels of resistance available for plenty of variety. The first 5 levels are very easy workloads, and the changes between levels are set to a good progression for de-conditioned users. Levels 6-10 are more challenging, but the increases in resistance from one level to the next remain small. Levels 11-15 start getting tough as the levels jump more dramatically. Levels 16-20 are extremely hard and are good for short interval peaks and elite athletic training.

## Basic Information

The Message Center will initially be displaying the Program name. When in scan mode during a program, speed will be displayed for four seconds, then move on and display Watts (indication of workload). If 100 watts is displayed, you are doing enough work to keep a 100-watt light bulb lit. The data changes to Laps completed Segment time, Max level. Pressing the **Enter** key again will bring you back to the beginning.

The **Stop** key actually has several functions. Pressing the **Stop** key once during a program will pause the program for 5 minutes. If you need to get a drink, answer the phone or any of the many things that could interrupt your workout, this is a great feature. To resume your workout during Pause, just press the **Start** key. If the **Stop** key is pressed twice during a workout, the program will end, and the console will display your Workout Summary (Total time, Avg. Speed, Avg. Watts, Avg. HR, total Laps). If the **Stop** key is held down for 3 seconds or a third time during the program, the console will perform a complete **Reset**. During data entry for a program, the **Stop** key performs a previous screen or segment function. This allows you to go back to change programming data.

## Program Keys

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-setting mode.

The elliptical trainer has a built-in heart rate monitoring system. Simply grasping the hand pulse sensors on the stationary handlebars or wearing the heart rate transmitter (see Using Heart Rate Transmitter section) will start the Heart Icon blinking (this may take a few seconds). The Pulse Display Window will display your heart rate or Pulse in beats per minute.

The console includes a built-in fan to help keep you cool. To turn the fan on, press the key on the left side 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 is necessary during the Heart Rate programs 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.

**CALORIE NOTE:** Calorie readings on every piece of exercise equipment, whether it is in a gym or at home, are not accurate and tend to vary widely. They are meant only as a guide to monitor your progress from workout to workout. The only way to measure your calorie burn accurately is in a clinical setting connected to a host of machines. This is because every person is different and burns calories at a different rate. Some good news is that you will continue to burn calories at an accelerated rate for at least an hour after you have finished exercising!

## Entering A Program And 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 work out 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 Center. If you start a program without changing the settings, the default or saved settings will be used.

**NOTE:** Age and Weight default settings will change when you enter a new number. So the last Age and Weight entered will be saved as the new default settings. If you enter your Age and Weight the first time you use the elliptical, you will not have to enter it every time you work out unless either your Age or Weight changes or someone else enters a different Age and Weight.

# PROGRAMMABLE FEATURES

## Manual

The Manual program works, as the name implies, manually. This means that you control the workload and not the computer. To start the Manual program, follow the instructions below or just press the **Start** key.

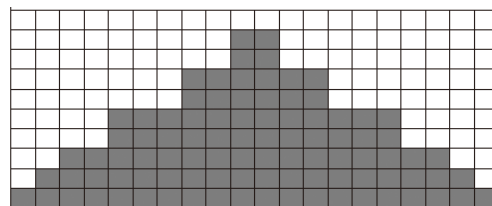
1. Press the **Manual** key, then press the **Enter** key.
2. The Message Center will ask you to enter your Age. You may enter your age using the **Level Up/Down** keys, then press the **Enter** key to accept the new value and proceed on to the next screen.
3. You are now asked to enter your Weight. You may adjust the Weight value using the **Level Up/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 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.
6. Once the program starts, you will be 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 workload at any time, press the **Level Up** key; the **Level Down** key will decrease the workload.
7. During the Manual program, you will be able to scroll through the data in the Message Center by pressing the **Enter** key.
8. When the program ends, you may press **Start** to begin the same program again or **Stop** to exit the program.

## Preset Programs

The elliptical has four different programs that have been designed for a variety of workouts. These four programs have factory preset work level profiles for achieving different goals.

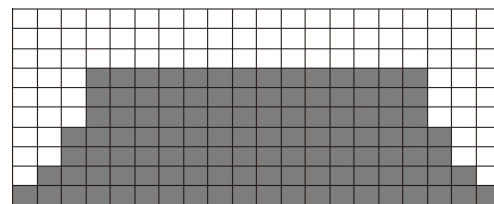
### HILL

This program follows a triangle or pyramid type of gradual progression from approximately 10% of maximum effort (the level that you chose before starting this program) up to a maximum effort which lasts for 10% of the total workout time, then a gradual regression of resistance back to approximately 10% of maximum effort.



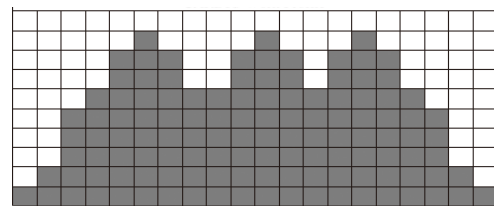
### FAT BURN

This program follows a quick progression up to the maximum resistance level (default or user input level) that is sustained for 2/3 of the workout. This program will challenge your ability to sustain your energy output for an extended period of time.



### CARDIO

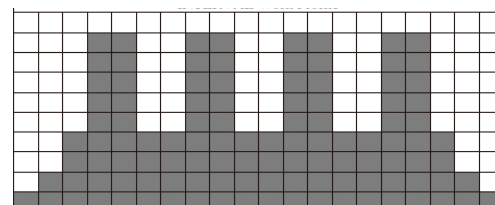
This program presents a quick progression up to near maximum resistance level (default or user input level). It has slight fluctuations up and down to allow your heart rate to elevate and then recover repeatedly before beginning a quick cool down. This will build up your heart muscle and increase blood flow and lung capacity.



### INTERVAL

This program takes you through high levels of intensity, followed by recovery periods of low intensity.

This program utilizes and develops your "Fast Twitch" muscle fibres which are used when performing tasks that are intense and short in duration. These deplete your oxygen level and spike your heart rate, followed by periods of recovery and heart rate drop to replenish oxygen. Your cardiovascular system gets programmed to use oxygen more efficiently.





## PROGRAMMING PRESET PROGRAMS

1. Select the desired program key, then press the **Enter** key.
2. The Message Center will ask you to enter your Age. You may adjust the age setting using the **Level Up/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 value using the **Level Up/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 Resistance Level. This is the peak exertion 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.
7. If you want to increase or decrease the resistance at any time during the program, press the **Level Up/Down** keys on the console or above the heart rate sensor grips of the stationary handlebars. This will change the resistance 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 also would be distorted and not a true representation of the actual profile. When you make a change to the resistance, the Message Center 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 **Enter** key.
9. When the program ends, the Message Center 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

# HEART RATE PROGRAMS

Before we get started, 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.

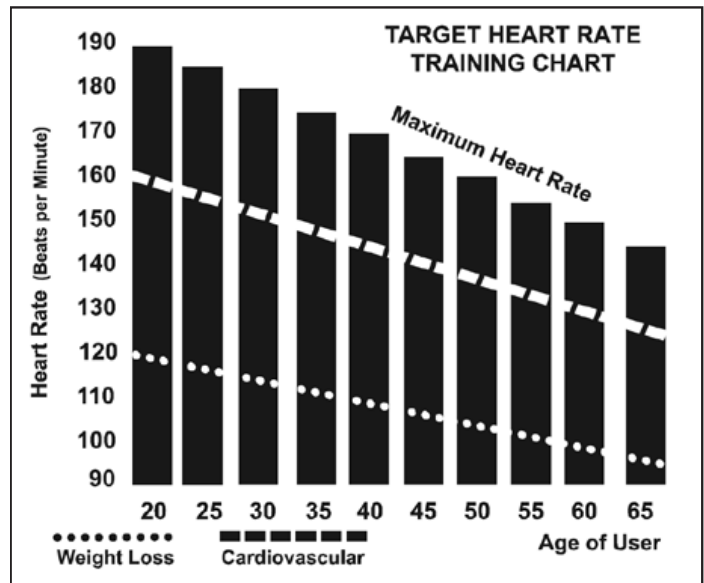
To determine the benefits range in which you wish to train, you must first determine your Maximum Heart Rate. This can be accomplished by using the following formula: 220 minus your age. This will give you the Maximum heart rate (MHR) for someone of your age. To determine the effective heart rate range 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.

# 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 work out 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 Borg 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 up 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 (OPTIONAL)

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 centred 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 heartbeat electrical signals. However, plain water can also be used to pre-wet the electrodes (2 ribbed oval areas on the reverse side of the belt and both sides of the transmitter). It's also recommended that you wear the transmitter strap a few minutes before your workout. Some users, because of body chemistry, have a more difficult time 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). 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 for interference that 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 your dealer.

# HEART RATE PROGRAM OPERATION

Note: You must wear the heart rate transmitter strap for these programs.

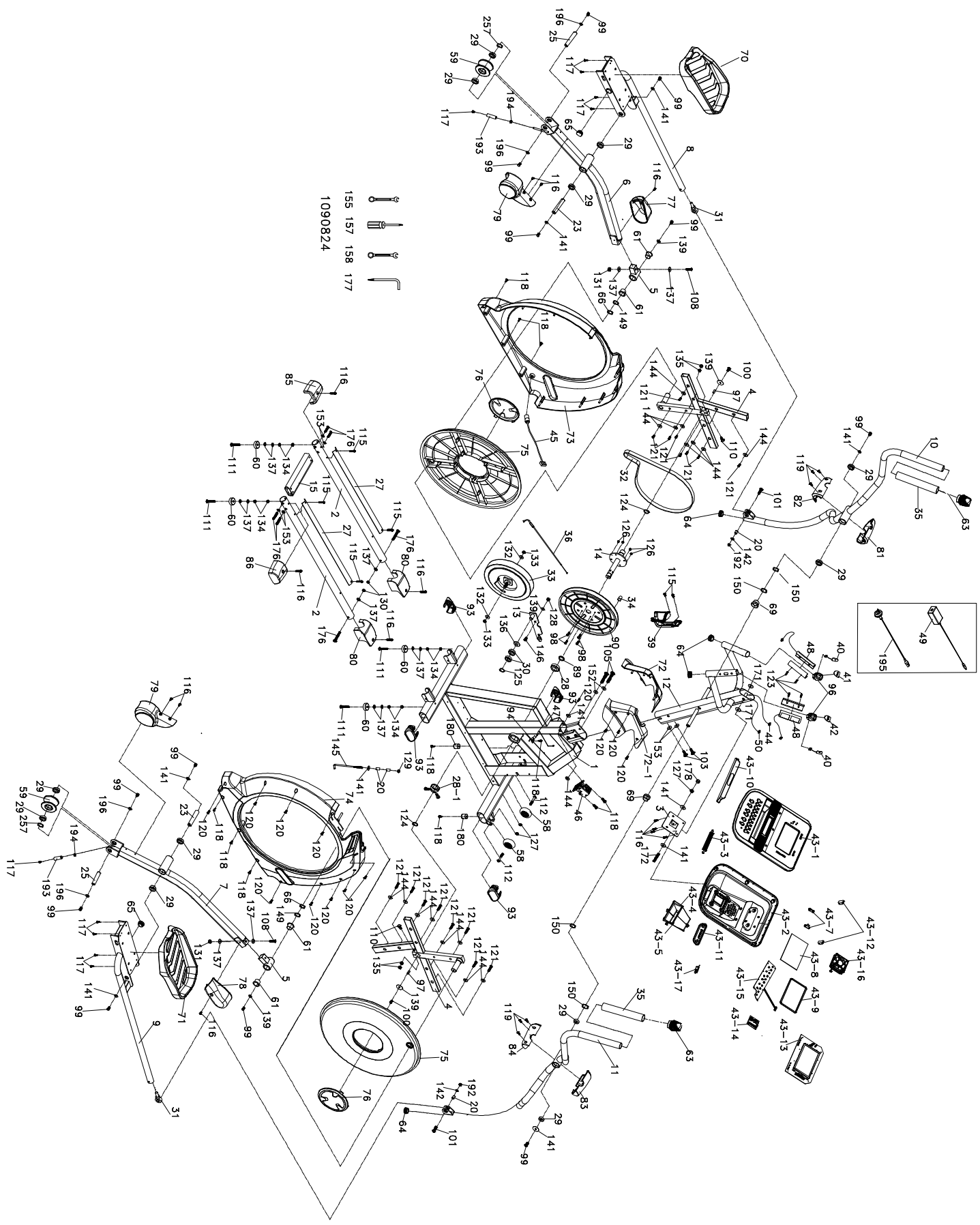
The Heart Rate program default setting is 60% of your projected maximum heart rate. The 60-80% range is more conducive for fat loss goals, and 81-100% ranges are generally used for cardiovascular conditioning goals and high-intensity interval training.

To start an HR program, follow the instructions below or just select the **HR** key, then the **Enter** key and follow the directions in the Message Center.

After selecting your heart rate target, the program will attempt to keep you at or within 3-5 heart beats per minute of this value. Follow the prompts in the Message Center to maintain your selected heart rate value.

1. Press the **HR** key, then press the **Enter** key.
2. The Message Center will ask you to enter your Age. You may enter your age using the **Level Up/Down keys**, then press the **Enter** key to accept the new value and proceed on to the next screen.
3. You are now asked to enter your Weight. You may adjust the weight value using the **Level Up/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 Heart Rate Target. This is the heart rate level you will strive to maintain during the program. Adjust the level using the **Level Up/Down keys**, then press **Enter**.  
*Note: The heart rate that appears is based on the % you accepted in Step 1. If you change this number, it will either increase or decrease the % from Step 1.*
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.
7. If you want to increase or decrease the workload at any time during the program, press the **Level Up/Down key**. This will allow you to change your target heart rate at any time during the program.
8. During the HR program, you will be able to scroll through the data in the Message Center by pressing the **Enter** key.
9. When the program ends, you may press **Start** to begin the same program again or **Stop** to exit the program.

# EXPLODED VIEW DIAGRAM



# PARTS LIST

NO.	PART NO.	DESCRIPTION	Q'TY
1	6019501	Main Frame	1
2	6019502	Rails	2
3	6019503	Console Holder Assembly	1
4	6019504	Cross Bar	2
5	6019505	Bushing Housing, Pedal Arm	2
6	6019506	Pedal Arm (L)	1
7	6019507	Pedal Arm (R)	1
8	6019508	Connecting Arm (L)	1
9	6019509	Connecting Arm (R)	1
10	6019510	Swing Arm (L)	1
11	6019511	Swing Arm (R)	1
12	6019512	Console Mast	1
13	6019513	Idler Wheel Assembly	1
14	6019514	Crank Axle	1
15	6019515	Rear Rail Assembly	1
20	6019520	Rod End Sleeve	4
23	6019523	Axle for Pedal	2
25	6019525	Axle for Slide Wheel	2
27	6019527	Aluminum Track	2
28	6019528	6005_Bearing	1
28-1	6019528-1	6005-2RS_Bearing	1
29	6019529	6003_Bearing	12
30	6019530	6203_Bearing	2
31	6019531	Rod End Bearing	2
32	6019532	Drive Belt	1
33	6019533	Flywheel	1
34	6019534	Magnet	1
35	6019535	Handgrip Foam	2
36	6019536	Steel Cable	1
39	6019539	Drink Bottle Holder	1
40	6019540	Resistance Button W/Cable	2
41	6019541	Handgrip Resistance Label (UP)	1
42	6019542	Handgrip Resistance Label (DOWN)	1
43	6019543	Console Assembly	1
44	6019544	1200m/m_Computer Cable	1
45	6019545	600m/m_DC Power Cord	1
46	6019546	Gear Motor	1
47	6019547	400m/m_Sensor W/Cable	1
48	6019548	850m/m_Handpulse W/Cable Assembly	2
49	6019549	Power Adaptor	1
50	6019550	900m/m_Resistance Connecting Cable	1

<b>NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>Q'TY</b>
58	6019558	Transportation Wheel	2
59	6019559	Slide Wheel , Urethane	2
60	6019560	Rubber Foot	4
61	6019561	WFM-2528-21_Bushing	4
63	6019563	Button Head Plug	2
64	6019564	Ø32 x 1.8T_Round Cap	4
65	6019565	32 x 2.5T_Round Cap	2
66	6019566	Ø25.5 x 33.5 x 1.5T_Nylon Wave Washer	2
69	6019569	Ø30 x 19m/m_Mast Bushing	2
70	6019570	Pedal (L)	1
71	6019571	Pedal (R)	1
72	6019572	Console Mast Cover (L)	1
72~1	6019572-1	Console Mast Cover (R)	1
73	6019573	Side Case(L)	1
74	6019574	Side Case(R)	1
75	6019575	Round Disk	2
76	6019576	Round Disk Cover	2
77	6019577	Pedal Arm Cover (L)	1
78	6019578	Pedal Arm Cover (R)	1
79	6019579	Slide Wheel Cover	2
80	6019580	Middle Stabilizer Cover	2
81	6019581	Front Handle Bar Cover (L)	1
82	6019582	Rear Handle Bar Cover (L)	1
83	6019583	Front Handle Bar Cover (R)	1
84	6019584	Rear Handle Bar Cover (R)	1
85	6019585	Rear Stabilizer Cover (L)	1
86	6019586	Rear Stabilizer Cover (R)	1
89	6019589	Spacer Bushing	1
90	6019590	Drive Pulley	1
93	6019593	Oval End Cap (Bevel)	4
94	6019594	Sensor Rack	1
96	6019596	Handgrip End Cap	2
97	6019597	7 x 7 x 19L_Woodruff Key	2
98	6019598	1/4" x 3/4" _Hex Head Bolt	4
99	6019599	5/16" x UNC18 x 15m/m_Hex Head Bolt	12
100	60195100	5/16" x UNC18 x 15m/m_Flat Head Socket Bolt	2
101	60195101	5/16" x 1-1/4" _Hex Head Bolt	2
103	60195103	3/8" x 3/4" _Hex Head Bolt	2
105	60195105	3/8" x 2-1/4" _Hex Head Bolt	2
108	60195108	3/8" x 2-1/4" _Socket Head Cap Bolt	2
110	60195110	M8 x 40m/m_Socket Head Cap Bolt	2
111	60195111	3/8" x 2" _Flat Head Socket Bolt	4
112	60195112	5/16" x 1-3/4" _Button Head Socket Bolt	2



<b>NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>Q'TY</b>
115	60195115	M5 x 12m/m_Phillips Head Screw	6
116	60195116	M5 x 10m/m_Phillips Head Screw	14
117	60195117	M5 x 10m/m_Phillips Head Screw	10
118	60195118	5 x 19m/m_Tapping Screw	11
119	60195119	3.5 x 12m/m_Sheet Metal Screw	6
120	60195120	3.5 x 16m/m_Sheet Metal Screw	13
121	60195121	5 x 16m/m_Tapping Screw	16
123	60195123	3 x 20m/m_Tapping Screw	4
124	60195124	Ø25_C Ring	2
125	60195125	Ø17_C Ring	1
126	60195126	1/4" x 8T_Nyloc Nut	4
127	60195127	5/16" x 7T_Nyloc Nut	3
128	60195128	M8 x 7T_Nyloc Nut	1
129	60195129	M8 x 9T_Nyloc Nut	1
130	60195130	3/8" x 7T_Nyloc Nut	2
131	60195131	3/8" x 11T_Nyloc Nut	2
132	60195132	3/8" x UNF26 x 4T_Nut	2
133	60195133	3/8" x UNF26 x 11T_Nut	2
134	60195134	3/8" x 7T_Nut	8
135	60195135	M8 x 6.3T_Nut	4
136	60195136	Ø17x 23.5 x 1T_Flat Washer	1
137	60195137	Ø3/8" x Ø19 x 1.5T_Flat Washer	14
139	60195139	Ø5/16" x Ø35 x 1.5T_Flat Washer	5
141	60195141	Ø5/16" x Ø23 x 1.5T_Flat Washer	10
142	60195142	Ø5/16" x Ø20 x 1.5T_Flat Washer	2
144	60195144	Ø1/4" x 19m/m_Flat Washer	17
145	60195145	M8 x 170m/m_J Bolt	1
146	60195146	M8 x 20m/m_Carriage Bolt	1
149	60195149	Ø25_Wave Washer	2
150	60195150	Ø17_Wave Washer	4
152	60195152	Ø10 x 2T_Split Washer	2
153	60195153	Ø3/8" x 23 x 2T_Curved Washer	6
155	60195155	13/14m/m_Wrench	1
157	60195157	Phillips Head Screwdriver	1
158	60195158	12/14m/m_Wrench	1
171	60195171	5/16" x 25 x 3T_Nylon Washer	2
172	60195172	5/16" x 2-1/2" _Hex Head Bolt	1
176	60195176	3/8" x 2-1/4" _Button Head Socket Bolt	6
177	60195177	Combination M5 Allen Wrench & Phillips Head Screwdriver	1
178	60195178	13m/m_Bolt Cap	1
180	60195180	Rubber Foot Pad	2
192	60195192	5/16" x 9T_Nyloc Nut	2
193	60195193	Ø15 x Ø8.5 x 50L_Sleeve	2

<b>NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>Q'TY</b>
<b>194</b>	<b>60195194</b>	E-Clip	2
<b>195</b>	<b>60195195</b>	Transformer Power Cord	1
<b>196</b>	<b>60195196</b>	Ø5/16" x Ø23 x 3.0T_Flat Washer	4
<b>257</b>	<b>60195257</b>	Spacer Bushing	2

# GENERAL 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 several 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.
  - 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 nonmetallic scraper, like the back edge of a plastic knife. 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.
  - iii. The crank arm nut needs to be retightened
  - iv. If squeaks or other noises persist, check that the unit is properly levelled. There are 2 levelling pads on the bottom of the rear stabilizer; use a 14mm wrench (or adjustable wrench) to adjust the levellers.

## ENGINEERING MODE MENU

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 Engineering Mode Menu, press and hold down the **Start**, **Stop** and **Enter** keys. Keep holding the keys down for about 5 seconds, and the message center will display Engineering Mode Menu. Press the **Enter** button to access the menu below:

1. Key Test (Will allow you to test all the keys to make sure they are functioning)
2. LCD Test (Tests all the display functions)
3. Functions (Press **Enter** to access settings and **Up** arrow to scroll)
  - i. Display Mode (Turn off 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 (Resets the odometer)
  - iv. Units (Sets the display to readout in English or Metric display measurements)
  - v. Beep (Turns off the speaker, so no beeping sound is heard)
  - vi. Motor Test
  - vii. Safety
4. Security (Allows the keypad to be locked to prevent unauthorized use)

# 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. 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:

## Limited Warranty

Frame and Brake:	Lifetime
Parts:	5 Years
Labour:	1 Year

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

The warranty shall not apply to exercise units that 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., 5955 Don Murie Street, Niagara Falls, Ontario L2G 0A9. 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

# dyaco

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