OWNER'S MANUAL

MODEL NO. 16604703800 **FS380**

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



CAUTION:

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

Keep this manual for future reference. Serial number

Write the serial number in the space above for reference. Serial number can be found at the front bottom section of the elliptical.





Manufacture's Limited Warranty

Dyaco Canada Inc. warrants all its home use 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:

Home Use Limited Warranty

Frame Lifetime
All Other Components 2 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 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. 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. You can visit us at 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

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IMPORTANT SAFETY INFORMATION

THIS UNIT IS INTENDED FOR HOUSEHOLD USE ONLY READ ALL INSTRUCTIONS BEFORE USING THIS ELLIPTICAL

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

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

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



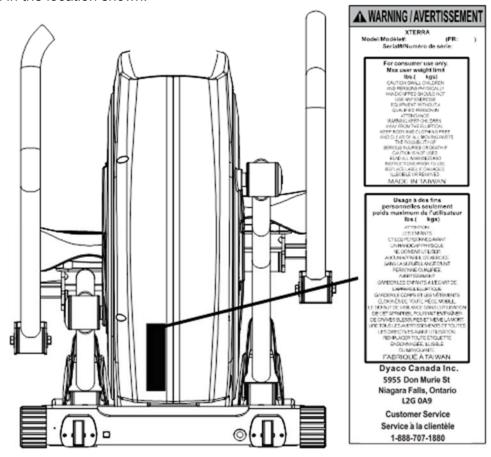
WARNING

It is the responsibility of the owner to ensure that all users of this elliptical are adequately informed of all warnings and precautions. Read the OWNER'S OPERATING MANUAL and all warnings posted on the elliptical and follow it carefully before using your elliptical.

Review all warnings labels that affixed to the elliptical. Inspect your exercise equipment prior to exercising to ensure that all nuts and bolts are fully tightened before each use. Functional and Visual inspection of the equipment shall be made after assembling your elliptical

- 1. Never operate the elliptical if it is not working properly, if it has been dropped, damaged, or exposed to water.
- 2. Set up and operate the elliptical on a solid level surface. Do not use outdoors or near water. Do not place the unit on a loose rug or uneven surface. It is recommended to use an equipment mat to prevent the unit from moving while it is being used, which could possibly scratch or damage the surface of your floor. It is recommended to have a minimum of 3 metres safe clearance on all sides of the elliptical while in use.
- 3. Keep the elliptical indoors, away from moisture and dust. Do not put the elliptical in a garage, covered patio or near water.
- 4. Do not operate the elliptical where aerosol products are used or where oxygen is being administered.
- Do not insert any objects into any openings.
- 6. Inspect and properly tighten all parts of the elliptical regularly.
- 7. Keep children and pets away from this equipment at all times and while exercising.
- 8. Handicapped individuals should have medical approval and close supervision when using this elliptical.
- 9. Do not place hands or feet under the elliptical. Always keep hands and legs off of the elliptical when others are using it.
- 10. Always hold the handlebars when mounting, dismounting, or using the elliptical. Keep your back straight when using your elliptical, do not arch your back. When you stop exercising, allow the pedals to slowly come to a complete stop.
- 11. To disconnect, turn all controls to the off position, then remove plug from outlet.
- 12. Use the elliptical only for its intended use as described in this manual. Do not use any attachments that are not recommended by the manufacturer.
- 13. User weight should not exceed 300lbs (136 kgs).
- 14. Never allow more than one person on the elliptical at once.
- 15. Warm up 5 to 10 minutes before each workout and cool down 5 to 10 minutes afterward. This allows your heart rate to gradually increase and decrease and will help prevent straining muscles.

- 16. Never hold your breath while exercising. Breathing should remain at a normal rate in conjunction with the level of exercise being performed. If dizziness, nausea, chest pains, or any other abnormal symptoms are experienced while using this equipment, STOP the workout at once. CONSULT A PHYSICIAN IMMEDIATELY.
- 17. The pulse sensor is not a medical device. Various factors, including the user's movement, may affect the accuracy of heart rate readings. The pulse sensor is intended only as an exercise aid in determining heart rate trends in general.
- 18. Start your program slowly and very gradually increase your resistance.
- 19. 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.
- 20. Always hold on to a handlebar while making control changes
- 21. Use caution while participating in other activities while using your elliptical such as watching television, reading, etc. These distractions may cause you to lose balance, resulting in serious injury.
- 22. The decal shown below has been placed on the elliptical. If the decal is missing or illegible, please call our Customer Service Department toll-free at 1-888-707-1880 to order a replacement decal. Apply the decal in the location shown.



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

SAVE THESE INSTRUCTIONS

IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic precautions should always be followed, including the following: Read all instructions before using this appliance.

DANGER - To reduce the risk of electric shock:

Always unplug this appliance from the electrical outlet immediately after using and before cleaning.



WARNING - To reduce the risk of burns, fire, electric shock, or injury to persons:

- 1. An appliance should never be left unattended when plugged in. Unplug from outlet when not in use, and before repairing or cleaning.
- 2. Never operate this appliance if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water. Return the appliance to a service center for examination and repair.
- 3. Do not carry this appliance by supply cord or use cord as a handle.
- 4. Keep the cord away from heated surfaces or flames.
- 5. Never operate the appliance with the air openings blocked. Keep the air openings free of lint, hair, and things alike.
- 6. Connect this appliance to a properly grounded outlet only.

 The use of an extension cord with this product is not recommended. If an extension cord is needed, use a short (less than 10 feet) heavy gauge (14 gauge or better) extension cord with a three prong (grounded) plug and receptacle
- NEVER remove any cover without first disconnecting AC power supply.
- If A.C. 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. Maximum environmental ratings are 40-120 degrees Fahrenheit, 95% humidity non-condensing (no water droplets forming on surfaces).

NEVER use your elliptical during an electrical storm. Surges may occur in your household power supply that could damage elliptical components.

Failure to follow all guidelines may compromise the effectiveness of the exercise experience, expose yourself (and possibly others) to injury, and reduce the longevity of the equipment.

SAVE THESE INSTRUCTIONS - THINK SAFETY!

Transportation

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



POWER CONNECTOR – FRONT, LEFT SIDE OF UNIT

HOW THE ELLIPTICAL WORKS

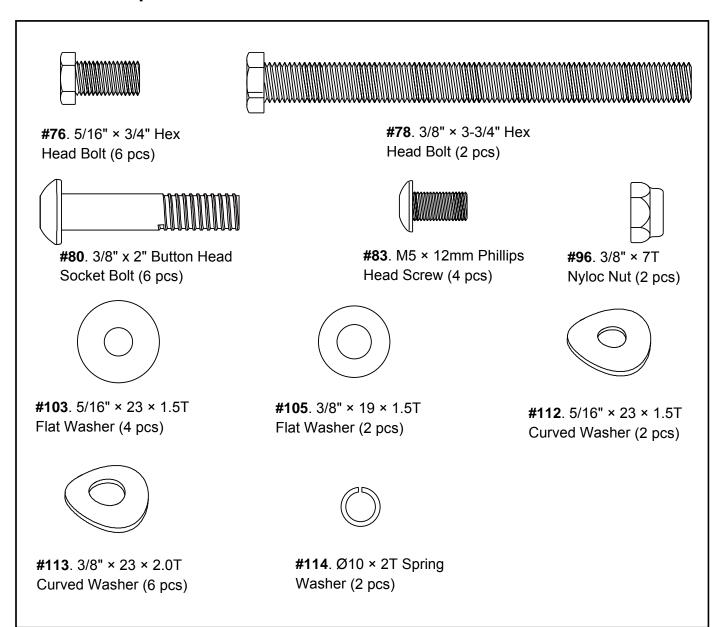
The elliptical allows your feet to move in a natural elliptical path, minimizing the impact on your knees and ankles.

- Dual Action Handles for total body workout
- Stationary handlebar for stability

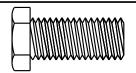


ASSEMBLY PACK CHECKLIST

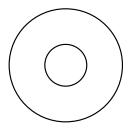
Hardware Step 1



Hardware Step 2



#76. 5/16" × 3/4" Hex Head Bolt (2 pcs)



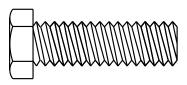
#104. Ø8.5 x 26 x 2.0 Flat Washer (4 pcs)



#124. Ø17x0.5T Wave Washer (2 pcs)



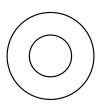
#77. 5/16" × 15mm Button Head Socket Bolt (2 pcs)



#115. 5/16" × 1-1/4"mm Hex Head Bolt (2 pcs)

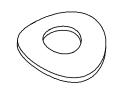


#93. 5/16" × 7T Nyloc Nut (2 pcs)



#116. 5/16" x 20 x 1.5T Wave Washer (2 pcs)

Hardware Step 3(not shown at actual size)



#112. Ø8 × 23 × 1.5T Curved Washer (6 pcs)



#76. 5/16" × 3/4" Hex Head Bolt (6 pcs)

Hardware Step 4(not shown at actual size)



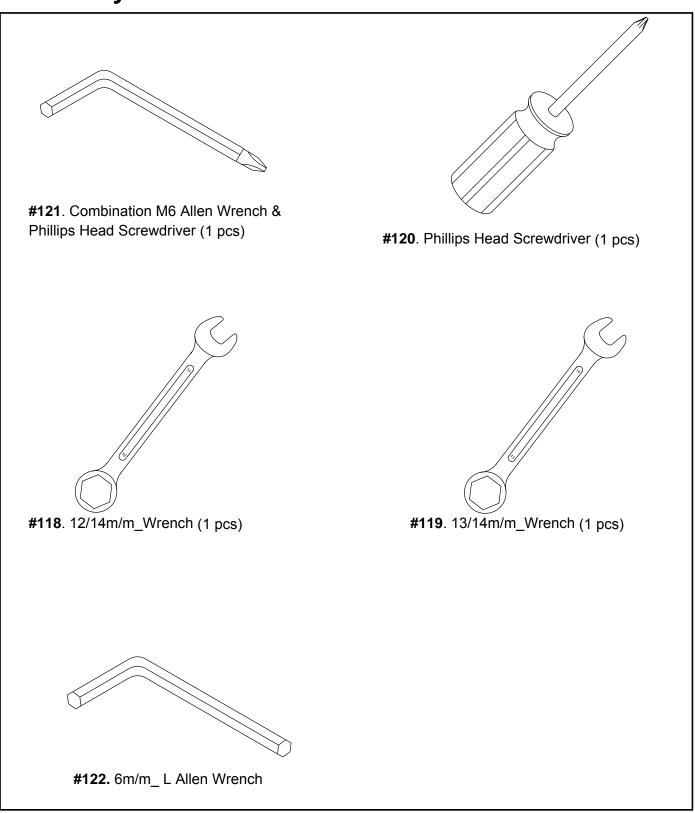
#86. 3.5 × 12mm Sheet Metal Screw (6 pcs)



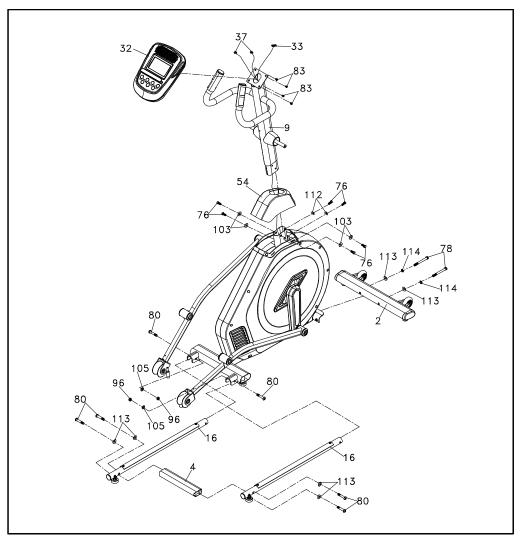
#84. M5 × 15mm Phillips Head Screw (4 pcs)

ASSEMBLY INSTRUCTION

Assembly Tools



Console Mast & Front Stabilizer

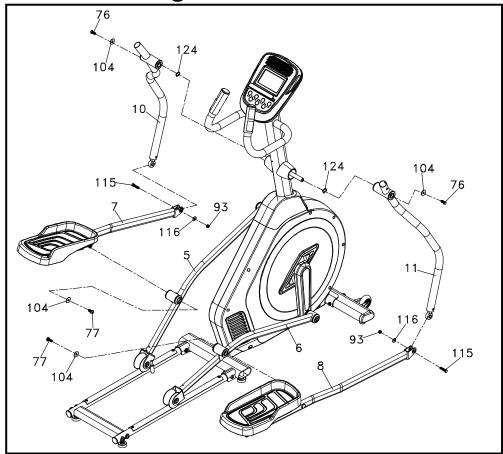


- 1. Slide the Rear Rail into the Main Frame (1). Insert one Button Head Socket Bolt (80) through each side and attach a Flat Washer (105) and a Nyloc Nut (96) to each joint on the inside.
- 2. Attach the Rail Connecting Tube (4) to the Rear Rails (16) with two Button Head Socket Bolts (80) and Curved Washers (113) on each side. Tighten using the L Allen Wrench (122).
- 3. Locate the Console Mast (9) and Console Mast Cover (54) and slide the Cover onto the Mast as far as it will go. Make sure the Console Mast Cover (54) is facing the correct way.
 - At the top opening of the Main Frame (1) of the elliptical is a Computer Cable (33).
 - Unravel and straighten out the Computer Cable (33) and feed it into the bottom of the Console Mast tube (9) and out of the top opening.
 - Install the Console Mast (9) into the receiving bracket in the top of the Main Frame and secure with 6 of Hex Head Bolts (76) and 4 of Flat Washers (103), 2 Curved Washers (112). Install, and tighten by using the Wrench (118).

NOTE: There is an electrical wire running through the Console Mast Tube **(9)**. Be careful not to damage or pinch this Computer Cable **(33)** during this procedure.

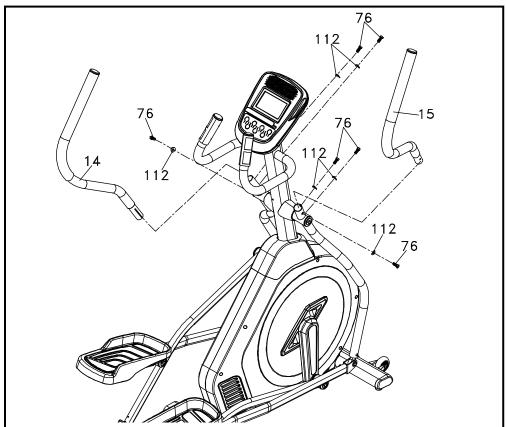
- 4. Connect the Front Stabilizer Bar (2) with the main frame at front joining plate by using 12/14 mm Wrench (118) to tighten 2 of Hex Head Bolt (78), 2 of Split Washers (114) and 2 of Curved Washer (113).
- 5. Place Console Assembly (32) on Console Mast, the Computer Cable (33) and Handpulse W/Cable Assembly (37) and Handpulse W/Cable Assembly (Red) plug into the console (the same color to same color), Place console on the Console Mast and secure with 4 Phillips Head Screw (83) by Phillips Head Screwdriver (120) (Note: Make sure the wires are inserted into the riser (Do not pinch the wire).

Lower Swing Arms



- Place 2 Wave Washers (124) into the center axle of Console Mast. Then place Lower Handle Bar (L) (10) into left center axle of Console Mast, secure with a Hex Head Bolt (76) and Flat Washer (104) with the Wrench (118). Repeat on the Lower Handle Bar (R) (11) into right center axle of Console Mast.
- 2. Insert the shaft of the left connecting arm (7) into the bushing on left pedal arm (5) and secure with Button Head Socket Bolt (77) and Flat Washer (104) by using the Combination M6 Allen Wrench & Phillips Head Screwdriver (122). Repeat on the right connecting arm (8) and right pedal arm (6).
- 3. Remove the strap from Rod End Bearing of Connecting Arm (L) (7). Align Connecting Arm (L) (7) and Lower Handle Bar (10) and secure with a Hex Head Bolt (115), Flat Washer (116) and Nyloc Nut (93) with wrenches (119) and (118). Repeat to the right with the Connecting Arm (R) (8) into Lower Handle Bar (R) (11).

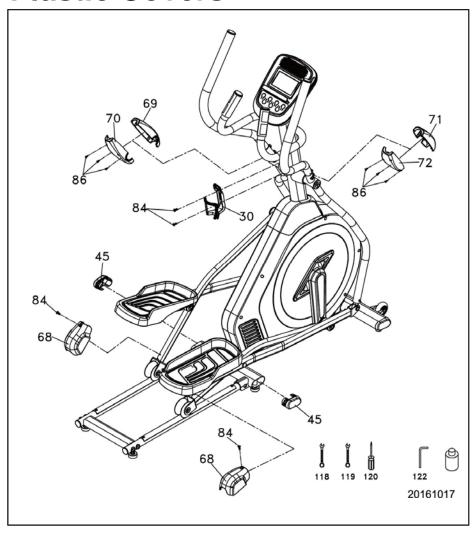
Upper Swing Arms



1. Insert the Left and Right Swing Arms (14 & 15) into the Lower Left and Right Lower Handle Bars (10 & 11) secure with 6 Hex Head Bolts (76) and 6 Curved Washers (112) by using the Wrench (118).

4

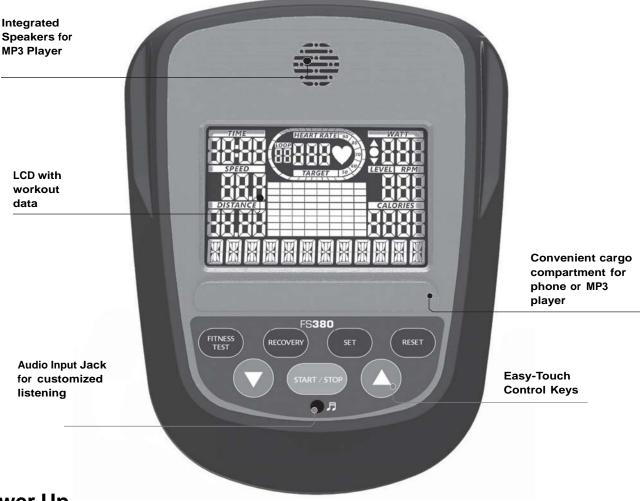
Plastic Covers



- 1. Install Drink Bottle Holder (30) on Console Mast with 2 of Phillips Head Screws (84) and use the Phillips Head Screwdriver (120).
- 2. Attach the front (69) and rear (70) handle bar covers together on the left swing arm shaft and use 3 Sheet Metal Screws (86) and secure with Phillips Head Screwdriver (120). Repeat on the right side on handle bar covers (71) and (72).
- 3. Insert 4 Oval End Cap (45) into the Main Frame for each corner.
- 4. Attach the slide wheel cover (68) to each pedal arm with a Phillips head screw (84).

OPERATION OF YOUR CONSOLE

Console



Power Up

Power the elliptical on by plugging it into an appropriate wall outlet.

When turned on, the display with emit 1 beep as all LCD displays light up. The text window will display "WELCOME" by scrolling.

Note: When there is no signal or data input for 4 minutes, the machine will enter sleep mode. Pedaling the machine or key selection will wake-up the computer.

NEVER operate this elliptical without reading and completely understanding the results of any operational change you request from the computer. Understand that changes in resistance do not occur immediately. Set your desired level on the computer console and release the adjustment key. The computer will obey the command gradually.

TIME: 00:00~99:59 min/sec SPEED: 0.0~99.9 kph/mph DISTANCE: 0.0~99.99 km/miles

WATT: 0~999 W

LEVEL: 24 RPM: 0~999 CALORIES: 0~9999

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▲ • ▼ RPM indicator for constant watt exercising

LOOP (Lap): 0~99 (30 Bars -1 Loop)

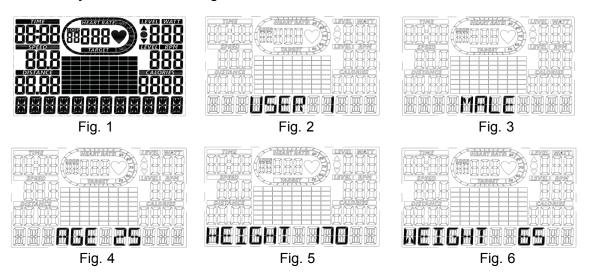
Heart Rate: 0, 40~240

Target Heart Rate: 50%, 60%, 70%, 80%, 90% Target

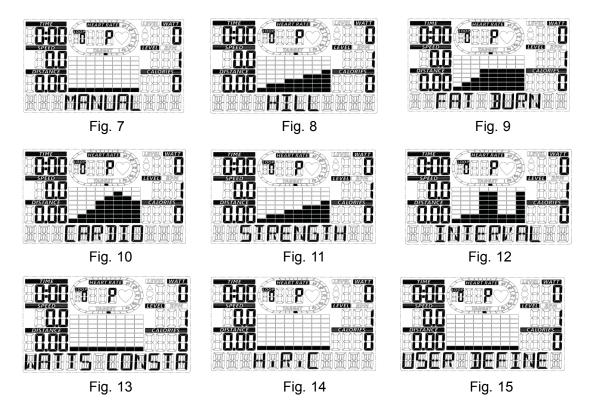
Profiles: 8x8 segments String Display: Alphabet x12

Console Operation

1. The console beeps after turning on the power and LCD is with full display for 2 seconds, as shown in fig. 1 following by showing the software version and system specification for another 2 seconds. To set the personal information, press UP (▲)/DOWN (▼) buttons followed by "SET" button to confirm. Setting process: USER→Sex→Age→Height→Weight, as shown in figs. 2 ~ 6. It enters ready mode after setting.

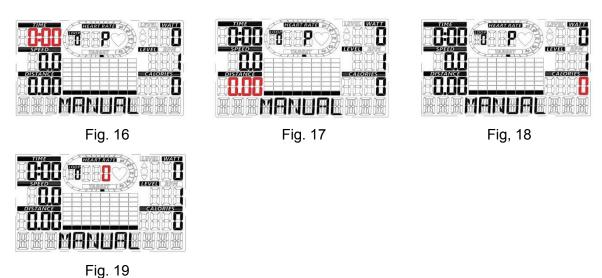


2. Under ready mode, press "START" button or "QUICK START" to begin the workout. (Directly enter manual mode) or press UP(▲)/DOWN(▼) button to choose Manual, Hill, Fat Burn, Cardio, Strength, Interval, Watts Constant, H.R.C or User Define program (fig. 7 ~ fig. 15) and press "SET" button to enter.



3. Choosing Manual Mode:

- (a) Choosing Manual and press "SET" button to enter. Press "START" to directly begin the workout without setting parameters, or press "SET" button to start setting parameters. First parameter is TIME.
- (b) To set time, press UP (▲)/DOWN (▼) buttons (Fig. 16). When finish, press "SET" button to go to next step.
- (c) To set distance, press UP (▲)/DOWN (▼) buttons (Fig. 17). When finish, press "SET" button to go to next step.
- (d) To set calorie, press UP (▲)/DOWN (▼) (Fig. 18). When finish, press "SET" button to go to next step.
- (e) To set Heart Rate, press UP(▲)/DOWN(▼) (Fig. 19), When finish, press, press "START" to begin the workout or "SET" to go to TIME window for setting.
- (f) During the workout, press "UP (▲)/DOWN (▼)" button to change the load.



4. Choosing Hill Mode:

- (a) Choosing Hill and press "SET" button to enter. Press "START" to directly begin the workout without setting parameters, or press "SET" button for next step to set TIME.
- (b) To set time, press UP (▲)/DOWN (▼) buttons (Fig. 20). When finish, press "SET" button to confirm and then press "START" to begin the workout.
- (c) When there is TIME setting, **Profiles** goes to next time section (TIME / 20).
- (d) During the workout, pressing UP (▲)/DOWN (▼) button changes the resistance load.
- (e) Since there is only 8x8 format for the **Profile**, the profile rolls from left to right after start as the workout goes on.

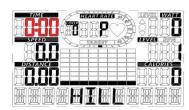


Fig. 20

5. Choosing Fat Burn Mode:

- (a) Choosing Fat Burn and press "SET" button to enter. Press "START" to directly begin the workout without setting parameters, or press "SET" button for next step to set TIME.
- (b) To set time, press UP (▲)/DOWN (▼) buttons (Fig. 21). When finish, press "SET" button to confirm and then press "START" to begin the workout.
- (c) When there is TIME setting, **Profiles** goes to next time section (TIME / 20).
- (d) During the workout, pressing UP (▲)/DOWN (▼) button changes the resistance load.
- (e) Since there is only 8x8 format for the **Profile**, the profile rolls from left to right after start as the workout goes on.

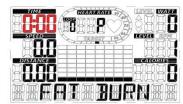


Fig. 21

6. Choosing Cardio Mode:

- (a) Choosing Cardio and press "SET" button to enter. Press "START" to directly begin the workout without setting parameters, or press "SET" button for next step to set TIME.
- (b) To set time, press UP (▲)/DOWN (▼) buttons (Fig. 22). When finish, press "SET" button to confirm and then press "START" to begin the workout.
- (c) When there is TIME setting, **Profiles** goes to next time section (TIME / 20).
- (d) During the workout, pressing UP (▲)/DOWN (▼) button changes the resistance load.
- (e) Since there is only 8x8 format for the **Profile**, the profile rolls from left to right after start as the workout goes on.

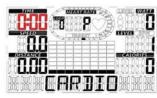


Fig. 22

7. Choosing Strength Mode:

- (a) Choosing Strength and press "SET" button to enter. Press "START" to directly begin the workout without setting parameters, or press "SET" button for next step to set TIME.
- (b) To set time, press UP (▲)/DOWN (▼) buttons (Fig. 23). When finish, press "SET" button to confirm and then press "START" to begin the workout.
- (c) When there is TIME setting, **Profiles** goes to next time section (TIME / 20).
- (d) During the workout, pressing UP (▲)/DOWN (▼) button changes the resistance load.
- (e) Since there is only 8x8 format for the **Profile**, the profile rolls from left to right after start as the workout goes on.



Fig. 23

8. Choosing Interval Mode:

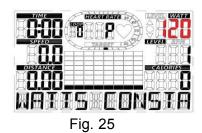
- (a) Choosing Interval and press "SET" button to enter. Press "START" to directly begin the workout without setting parameters, or press "SET" button for next step to set TIME.
- (b) To set time, press UP (▲)/DOWN (▼) buttons (Fig. 24). When finish, press "SET" button to confirm and then press "START" to begin the workout.
- (c) When there is TIME setting, **Profiles** goes to next time section (TIME / 20).
- (d) During the workout, pressing UP (▲)/DOWN (▼) button changes the resistance load.
- (e) Since there is only 8x8 format for the **Profile**, the profile rolls from left to right after start as the workout goes on.

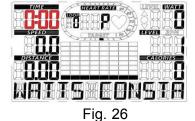


Fig. 24

9. Choosing Watts Constant Mode:

- (a) Choosing Watts Constant and press "SET" button to enter. Press "START" to directly begin the workout without setting parameters, or press "SET" button for next step to set WATT.
- (b) To set WATT, press UP (▲)/DOWN (▼) buttons (within the range 10~350 without recyclable function with default value 120, as shown in Fig. 25). When finish, press "SET" button to confirm and go to next step for TIME setting.
- (c) To set time, press UP (▲)/DOWN (▼) buttons (Fig. 26). When finish, press "SET" button to confirm and then press "START" to begin the workout.
- (d) The LOAD value varies according to the preset WATT values for the workout after start, or controlled by pressing "UP" (▲) or "DOWN" (▼) buttons to change the WATT value.
- (e) During the workout, watt window displays "●" to indicate the runner speed is within the standard range. (Fig. 27).
- (f) During the workout, watt window displays "▲" to indicate runner speed is 25% higher than the standard value and suggest the runner to slow down the speed. (Fig. 28) If the value changes to "---"and with a short beep sound every two seconds, this indicates that the runner speed is 50% higher than the standard value (Fig. 29). If it is still 50% higher after one minute, there will be 2 short beep sounds every second and the console stops automatically after 30 seconds.
- (g) During the workout, watt window displays "▼" to indicate runner speed is 25% lower than the standard value and suggest the runner to speed up (Fig. 30). If the value changes to "---"and with a short beep sound every two seconds, this indicates that the runner speed is 50% lower than the standard value (Fig. 31). If it is still 50% lower after one minute, there will be 2 short beep sounds every second and the console stops automatically after 30 seconds.





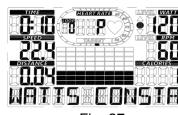
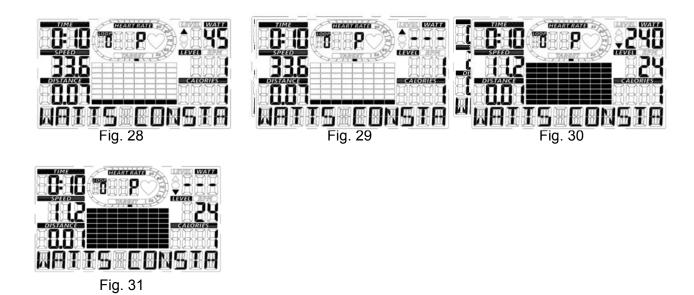
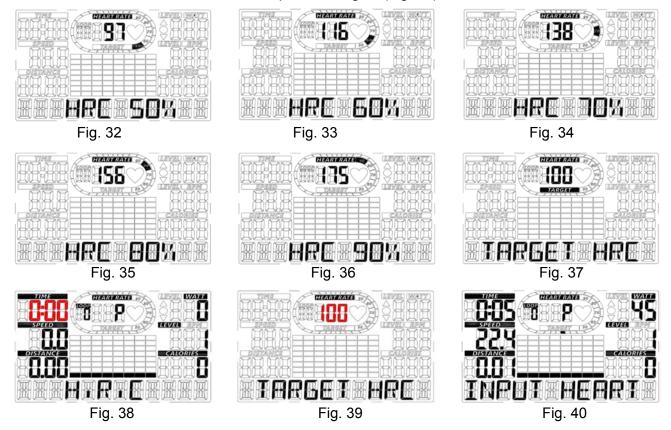


Fig. 27



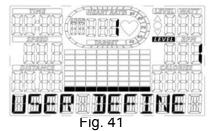
10. Choosing H.R.C. Mode:

- (a) Choosing H.R.C and press "SET" button to enter and immediately go to next step for percentage setting.
 - (b) To set percentage, press UP(▲)/DOWN(▼) buttons to choose 50%, 60%, 70%, 80%, 90% or TARGET mode (Fig. 32~37). The PULSE window will show the corresponding target H. R. value. When finish, press "SET" button to go to next step for TIME setting (Fig. 38).
 - (c) If TARGET mode is selected, go to next step for setting H.R. value (default value is 100 as shown in fig. 39).
 - (c) H.R.C mode is for workout mode with. H. R. input. If there is no H.R. input, LCD will show message "INPUT HEART" to remind the user to input H. R. signal (Fig. 40).



11. Choosing User Define Mode:

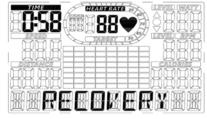
- (a) Choosing User Define and press "SET" button to enter and immediately go to next step for program profile setting.
- (b) There are 20 segments for profile setting. Press UP (▲)/DOWN (▼) buttons to set LOAD then press SET button to confirm and go on for next setting (Fig. 41).
- (c) During setting, you may press "RESET" button to return to previous setting.
- (d) When finish, press and hold "SET" button to exit for either TIME setting or pressing "START" button to directly begin the workout.
- (e) During the workout, pressing UP (▲)/DOWN (▼) button changes the resistance load.



12. Recovery Function:

- (a) Only when there is heart rate signal input and H.R. value appears in "HEART RARE" window, the "RECOVERY" button is effective.,
- (b) The user must input H.R. signal, as shown in fig. 42, to run "RECOVERY" function (1 minute). LCD will show the test result (Fig. 43) after I minute of test.

RECOVERY	1	2	3	4	5	6
Score	Best	Very Good	Good	Normal	Bad	Very Bad



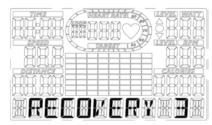
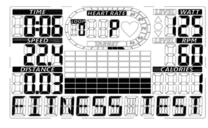


Fig. 42

Fig. 43

13. Fitness Test Function:

- (a) This function operates in the electronic mode standby mode.
- (b) Press UP (▲)/DOWN (▼) buttons for Age setting. When finish, press "SET" button to confirm then press "START" button to begin the workout.
- (c) After pressing "START" button, LCD will show "3" "2" "1" to count down 3 seconds then switch the display to workout image with default LEVEL. During the test, it is impossible to make adjustment (Fig. 44).
- (d) This is the test item of your body according to the age input by the user and test time as a test result judgement. The testing target is DISTANCE 3miles. When finish, LCD will display the test result as shown in fig. 45. During the test, if "STOP" is pressed and quit, LCD will display "FAILURE" as shown in fig. 46.





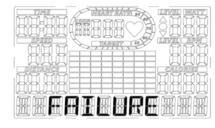


Fig. 44

Fig. 45

Fig. 46

Heart Rate

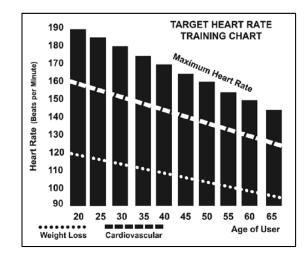
The old motto, "no pain, no gain", is a myth that has been overpowered by the benefits of exercising comfortably. A great deal of this success has been promoted by the use of heart rate monitors. With the proper use of a heart rate monitor, many people find that their usual choice of exercise intensity 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 predicted Maximum Heart Rate. This can be accomplished by using the following formula: 220 minus your age. This will give you the predicted Maximum Heart Rate (MHR) for someone of your age. To determine the effective heart rate range for specific goals you simply calculate a percentage of 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 cardio vascular system. This 60% to 80% is the zone to stay in for maximum benefit.

For someone who is 40 years old their predicted 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. After calculating your MHR 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 MHR 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 MHR 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 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 on the factors discussed earlier. If your body is strong and rested, you will feel strong and your pace will feel comfortable. 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 difficult. Again, this will show up in your RPE and you will train at the proper level for that day.

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 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. The majority 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 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.
- 3. If squeaks or other noises persist, check that the unit is properly leveled before calling the service department.

Elliptical Noises

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

Exploded View Diagram

Parts List

KEY NO.	PART NO.	Description	Q'TY
1	7038001	Main Frame	1
2	7038002	Front Stabilizer Bar	1
3	7038003	Crank Arm Assembly	2
4	7038004	Rail Connecting Tube	1
5	7038005	Pedal Arm (L)	1
6	7038006	Pedal Arm (R)	1
7	7038007	Connecting Arm (L)	1
8	7038008	Connecting Arm (R)	1
9	7038009	Console Mast	1
10	7038010	Lower Handle Bar (L)	1
11	7038011	Lower Handle Bar (R)	1
12	7038012	Crank Axle	1
13	7038013	Idler Wheel Assembly	1
14	7038014	Swing Arm (L)	1
15	7038015	Swing Arm (R)	1
16	7038016	Rear Rail	2
17	7038017	Axle Stopper	1
18	7038018	Axle for Slide Wheel	2
19	7038019	Ø11.9 × Ø8.5 × 15m/m_Rod End Sleeve	4
20	7038020	6004 Bearing	2
21	7038020	6203_Bearing	2
22	7038021	6003_Bearing	4
23		M12 × P1.75_Rod End Bearing	2
24	7038023	2.5T × 565m/m_Aluminum Rail	2
25	7038024	Steel Cable	1
26	7038025	Drive Belt	1
27	7038026		1
	7038027	Flywheel	1
28	7038028	Magnet	
29	7038029	Handgrip Foam	2
30	7038030	Drink Bottle Holder	1
32	7038032	Console	1
33	7038033	1350m/m_Computer Cable	1
34	7038034	300m/m_DC Power Cable	1
35	7038035	Gear Motor	1
36	7038036	350m/m_Sensor W/Cable	1
37	7038037	850m/m_Handpulse W/Cable Assembly	2
38	7038038	Power Adaptor	1
41	7038041	Ø20 × Ø40_Oval End Cap	2
42	7038042	Transportation Wheel	2
43	7038043	Ø78_Slide Wheel , Urethane	2
44	7038044	Drive Pulley	1
45	7038045	Ø40 × Ø80_Oval End Cap	4
46	7038046	Ø25 × 25mm_Rubber Foot Pad	2
47	7038047	Ø32(1.8T)_Button Head Plug	4
48	7038048	Ø35 × 10m/m_Rubber Foot	4
49	7038049	Cover Swing Arm Axle	2

KEY NO.	PART	Description	Q'TY
50	7038050	Sleeve	2
51	7038051	Bushing	4
52	7038052	End Cap Stopper	4
53	7038053	Bushing	8
54	7038054	Console Mast Cover	1
55	7038055	Side Case (L)	1
56	7038056	Side Case (R)	1
57	7038057	Side Case Plate(L)	1
58	7038058	Side Case Plate(R)	1
59	7038059	Pedal (L)	1
60	7038060	Pedal (R)	1
61	7038061	Ø32 × 1.8T_Round Cap	2
63	7038063	Crank Arm Cover	2
66	7038066	Ø42 × Ø19 × 15L_Bushing	8
67	7038067	Ø42 × Ø19 × 21L_Bushing	4
68	7038068	Slide Wheel Cover	2
69	7038069	Front Handle Bar Cover (L)	1
70	7038070	Rear Handle Bar Cover (L)	1
71	7038071	Front Handle Bar Cover (R)	1
72	7038072	Rear Handle Bar Cover (R)	1
73	7038073	7 × 7 × 19m/m_Woodruff Key	2
74	7038074	3/8" × 2" Flat Head Socket Bolt	4
75	7038075	1/4" × UNC20 × 3/4"_Hex Head Bolt	4
76	7038076	5/16" × UNC18 × 3/4"_Hex Head Bolt	22
77	7038077	5/16" × 15m/m_Button Head Socket Bolt	2
78	7038078	3/8" × 3-3/4"_Hex Head Bolt	2
79	7038079	M8 × 35m/m_Socket Head Cap Bolt	2
80	7038080	3/8" × UNC16 × 2" Button Head Socket Bolt	6
81	7038081	5/16" × UNC18 × 1-3/4"_Button Head Socket Bolt	2
82	7038082	M5 × 10m/m Phillips Head Screw	10
83	7038083	M5 × 12m/m_Phillips Head Screw	4
84	7038084	M5 × 15m/m_Phillips Head Screw	8
85	7038085	5 × 19m/m Tapping Screw	11
86	7038086	3.5 × 12m/m_Sheet Metal Screw	18
87	7038087	3.5 × 16m/m_Sheet Metal Screw	9
88	7038088	3 × 20m/m_Tapping Screw	4
89	7038089	Ø17_C Ring	1
90	7038090	Ø20_C Ring	2
91	7038091	7 × 14 × 0.8T_E-Clip	2
92	7038092	1/4" × 8T Nyloc Nut	4
93	7038093	5/16" × 7T Nyloc Nut	4
94	7038094	M8 × 7T Nyloc Nut	1
95	7038095	M8 × 9T Nyloc Nut	1
96	7038096	3/8" × 7T_Nyloc Nut	2
97	7038097	M8 × 6.3T Nut	4
98	7038098	3/8" × UNF26 × 4T Nut	2
99	7038099	3/8" × UNF26 × 11T Nut	2
100	70380100	3/8" × 7T Nut	8

KEY NO.	PART NO.	Description	Q'TY
101	70380101	Ø5 × Ø15 × 1.5T_Flat Washer	8
103	70380103	Ø5/16" × Ø23 × 1.5T_Flat Washer	6
104	70380104	Ø8.5 × Ø26 × 2.0T_Flat Washer	8
105	70380105	Ø3/8" × Ø19 × 1.5T_Flat Washer	6
106	70380106	Ø17 × Ø23.5 × 1.0T_Flat Washer	1
107	70380107	Ø20 × Ø30× 2T_Flat Washer	1
109	70380108	M8 × P1.25 × 155L_J Bolt	1
110	70380110	M8 × 20m/m_Carriage Bolt	1
111	70380111	M5 × 5m/m_Slotted Set Screws	2
112	70380112	Ø8 × 23 × 1.5T_Curved Washer	8
113	70380113	Ø3/8" × 23 × 2.0T_Curved Washer	6
114	70380114	Ø10 × 2T_Split Washer	2
115	70380115	5/16" × 1-1/4"_Hex Head Bolt	2
116	70380116	Ø5/16" × Ø20 × 1.5T_Flat Washer	2
117	70380117	Ø5/16" × Ø23 × 3T_Flat Washer	4
118	70380118	12/14m/m_Wrench	1
119	70380119	13/14m/m_Wrench	1
120	70380120	Phillips Head Screwdriver	1
121	70380121	Combination M5 Allen Wrench & Phillips Head Screw	1
122	70380122	6m/m_ L Allen Wrench	1
123	70380123	Ø20.5 × Ø27 × 0.3T_Deflector Fan Grill	1
124	70380124	Ø17 × 0.5T_Wave Washer	2
125	70380125	Ø1/4" × 19m/m_Flat Washer	1
126	70380126	Transformer Power Cord	1
127	70380127	400m/m_Audio Cable	1

USER DIRECTION

IMPORTANT

The elliptical comes with two Dual Action Handles and a Stationary Handlebar. Always hold the Stationary Handlebar when getting on and off the elliptical.

First time users should familiarize themselves with using the elliptical by using the Stationary Handlebar first and then progressing to the Dual Action Handles.

Once you have familiarized yourself with using the elliptical, you can progress to using the Dual Action Handles to provide a total body workout. Hands can be positioned on the Dual Action Handles at the most appropriate position for your height and arm length.

Caution should always be taken when getting on and off any exercise machine. Please follow the safety steps below.



Ensure the left Foot Pedal is in the lowest position and grasp the Stationary Handlebar with both hands.

Place your left foot on the left Foot Pedal and get secure.

Lift your right foot over machine and place on right Foot Pedal. Get balanced and begin your workout.



Important

To get off, come to a complete stop and reverse the procedure. Always wear rubber-soled shoes, such as tennis shoes.



Correct Position



Your body should be in an upright position so that your back is straight. Keep your head up to minimize neck and upper back strain. Always try and use the elliptical in a rhythmical and smooth motion. If you find yourself feeling uncomfortable, or experience a surging type feeling, there is probably too much tension.



The elliptical can be used in forward or reverse notion.



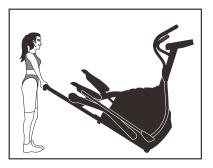
When going in reverse, bend your knees slightly more. More emphasis is on the buttocks and hamstrings in the reverse motion.

MOVING YOUR ELLIPTICAL

The elliptical can be easily moved from room to room.



1. Move to the front of the machine and ensure swing arms are even (one foot pedal at top of Elliptical Disk and other at bottom).



2. Grasp both Dual Action Handles together and pulling back on handles, tip machine towards you.

TRAINING GUIDELINES

EXERCISE

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

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

Basic Components of Physical Fitness

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

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

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

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

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

Aerobic Fitness

The largest amount of oxygen that you can use per minute during exercise is called your maximum oxygen uptake (MVo2). This is often referred to as your aerobic capacity.

The effort that you can exert over a prolonged period of time is limited by your ability to deliver oxygen to the working muscles. Regular vigorous exercise produces a training effect that can increase your aerobic capacity by as much as 20 to 30%. An increased MVO2 indicates an increased ability of the heart to pump blood, of the lungs to ventilate oxygen and of the muscles to take up oxygen.

Anaerobic Training

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

The Training Threshold

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

Progression

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

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Overload

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

Specificity

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

Reversibility

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

WARM UP

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

Warm Down or Cool Down

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

HEART RATE

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

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

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

As a rule of thumb, the maximum heart rate is 220 minus your age. As you increase in age, so your heart, like other muscles, loses some of its efficiency. Some of its natural loss is won back as fitness improves.

The following table is a guide to those who are "starting fitness".									
Age	25	30	35	40	45	50	55	60	65
Target heart Rate 10 Second Count	23	22	22	21	20	19	19	18	18
Beats per Minute	138	132	132	126	120	114	114	108	108

Pulse Count

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

The target is not a magic number, but a general guide. If you're above average fitness, you may work quite comfortably a little above that suggested for your age group.

The following table is a guide to those who are keeping fit. Here we are working at about 80% of maximum.

Age	25	30	35	40	45	50	55	60	65	
Target heart Rate 10 Second Count	26	26	25	24	23	22	22	21	20	
Beats per Minute	156	156	3	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.

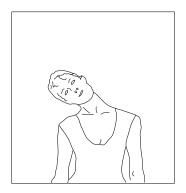
The rest period required between strength training exercises may vary from person to person. This will depend mostly on your level of fitness and the program you have chosen. Rest between exercises by all means, but do not allow this to exceed two minutes. Most people manage with half minute to one minute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

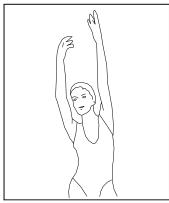
HEAD ROLLS

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.



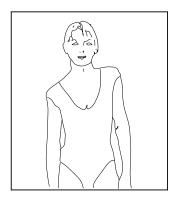
SIDE STRETCHES

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.



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.



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.



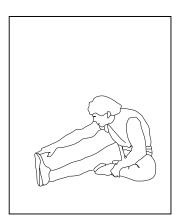
INNER THIGH STRETCH

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.



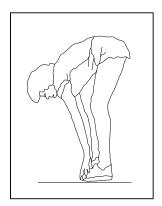
HAMSTRING STRETCHES

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



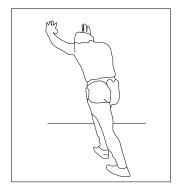
TOUCHES

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.



CALF / ACHILLES STRETCH

Lean against a wall with your left leg in front of the right and your arms forward. Keep toward 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.





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