NAUTILUS

CHANGING THE GAME IN HEALTH AND FITNESS™

Model EV7.16 & EV7.18

NAUTILUS®

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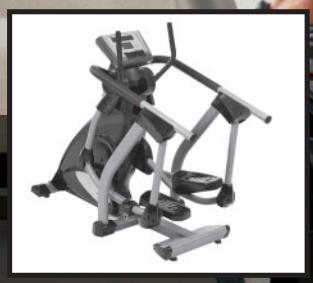
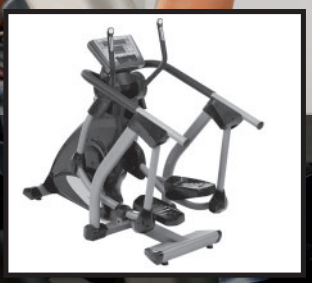


Model EV7.16



Model EV7.18

Pro Series Elliptical Trainer Owner's Manual

INTRODUCTION

Thank you for purchasing your Nautilus® Pro Series Elliptical Trainer. For more than 30 years Nautilus® has been producing the world's finest fitness equipment used in health clubs and homes around the globe. We hope this product meets your every expectation and is a valuable tool on the road to accomplishing all of your fitness goals.

Please carefully read through this manual to familiarize yourself with the operation of your new Nautilus® Pro Series Elliptical Trainer. Doing so will help to ensure you get the most use out of your machine and enjoy safe and productive workouts in the many miles ahead.

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Model EV7.16

Model EV7.18

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IMPORTANT SAFETY INSTRUCTIONS

The following definition applies to the word "**Warning**" found throughout this manual:

⚠ WARNING Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

PRIOR TO USING THIS EQUIPMENT, OBSERVE THE FOLLOWING WARNINGS:

1. Read and understand the complete Owner's Manual.
2. Read and understand all Warnings on this machine.
3. Keep children away from this machine and / or supervise them closely if they are near the machine or present during its operation. This machine is not suitable as a children's toy. There is a natural tendency for children to want to play on exercise equipment, and parents and others in charge of children should be aware of their respective responsibilities. Moving parts that may appear to present obvious hazards to adults may not appear to do so to children.
4. Consult a physician prior to commencing an exercise program. If, at any time, you feel faint or dizzy, or experience pain, stop and consult your physician.
5. Inspect this machine for loose parts or signs of wear. Do not use if found in this condition. Contact Nautilus Customer Service.
6. This machine contains moving parts. Use Caution. Do not wear loose clothing or jewelry.
7. This machine is designed for a user weight limit of 350 lb (159 kg). Do not use if you are over this weight.
8. This machine is for Consumer use only.
9. Care should be taken when mounting and dismounting the Elliptical exercise machine. The pedals should be in a stable position.
10. Disconnect all power before servicing this machine.
11. Do not operate this machine in damp or wet locations.
12. The recomended minimum clearance required around each Elliptical machine for access to passage around and emergency dismount shall be stated. The minimum dimensions are to be 19.7 in. (0.5m) on each side of the Elliptical.
13. Keep the foot pedals clean and dry.
14. Operate the machine in the manner described in this manual. It can be hazardous to over exert yourself during exercise.

General Guidelines For Safe Operation

ATTENTION

THESE GUIDELINES ARE DIRECTED TO YOU, AS THE OWNER OF THE MACHINE. YOU SHOULD INSIST THAT ALL USERS FOLLOW THE SAME GUIDELINES.

1. Obtain a complete physical examination from your medical doctor and enlist a health/fitness professional's aid in developing an exercise program suitable for your current health status.
2. When working out for the first time, use the MANUAL exercise program at lower levels of resistance until you feel comfortable and capable of higher workloads.
3. The intensity and duration of your exercise program should always be subject to how you feel. Never permit peer pressure to override your personal judgment while exercising.
4. Overweight or severely unconditioned individuals should be particularly cautious when using the machine for the first time. Even though such individuals may not have histories of serious physical problems, they may perceive the exercise to be far less intense than it really is, resulting in the possibility of overexertion or injury.
5. Although all equipment manufactured by Nautilus® has been thoroughly inspected by the manufacturing facility prior to shipment, proper installation and regular maintenance are required to ensure safety.

Installation and Placement

Your Nautilus® elliptical trainer should be located on a flat surface allowing room to safely enter and exit the machine. The foot pedals of the machine, while in use, will extend rearward past the foot print of the machine. Take this into account before placing machine. The machine rests upon six leveler feet. If the floor is not even, adjust these leveler feet up or down so that machine sits firmly in place. This machine must be plugged into a 110 V, grounded (3-prong) outlet (North American model) or 220 V grounded outlet (CE mark model) . Use of extension cords or power strips is not recommended.

Moving Your Machine

This machine is very heavy and awkward and requires two people to safely move from one location to another. To move, have two people lift up the back end of the machine until the transport wheels are in contact with the ground. The machine can now be rolled on the transport wheels. Note: The transport wheels are intended for indoor use only and should never be rolled on concrete or asphalt surfaces.

Guidelines For Getting Onto Your Elliptical Trainer

To get onto your Nautilus® Elliptical Trainer, grasp the handrails with both hands, place one foot onto the foot pedal and step onto the machine using the handrails for support and balance. Use the foot pedal that is in the lowest position to step up onto the machine as shown (fig 1).

Fig. 1

Adjusting Your Stride

To begin exercising, move your leading foot forward and down to begin the striding motion. The Nautilus® Pro Series Ellipticals use the patented My Stride® foot motion technology that automatically adjusts to your desired stride length, up to 32" (81 cm). While holding the handrails you can experiment with different stride lengths to determine what is most comfortable for you. There is no optimal stride length, however you will generally find that taller users or users exercising at higher speeds will prefer longer stride lengths (fig 2).

Fig. 2

Using the Upper Body Arms

Once you are comfortable with the operation of the machine you may then begin to use the Upper Body Arms to increase the workout intensity. Using the Upper Body Arms will more closely simulate a natural running motion and will provide arm resistance in both directions for a more full body workout (fig 3).

Reverse Direction

For added workout variety, your Nautilus® elliptical trainer may also be used in the reverse direction. Working out in the reverse direction will work the leg muscles in a slightly different area putting more emphasis on the quadriceps muscles. Direction may be changed at any point during the workout.

Fig. 3

Using the Controls

The machine's console is a computerized panel used to operate your elliptical trainer and to display all workout data. Take time to read through the following sections so that you can properly understand its operation and take full advantage of all of your machines workout options.

Key Functions

Start Key — Pressing the START Key will immediately begin your workout in a Manual Control Mode.

Reset Key — If you have incorrectly entered any data, pressing the RESET Key will return you to the previous screen and will allow you to re-enter data.

Program Key — Use the PROGRAM Key to select one of the preprogrammed workouts.

Enter Key — Confirms information selections and stores the information used to calculate workout statistics.

Level Up and Down Keys — These keys control the machine's resistance level (1-20). These keys are also used to adjust and select workout time, user weight, age and target heart rate.

Scan Key — During the exercise program, the Scan Key is used to select between various exercise statistics. When a workout is started, the display is in the Scan-On Mode and the various exercise statistics will be displayed every few seconds. Pressing the Scan Key will select between the various statistics and will lock on a specific readout.

My Nautilus™ Key — To access the My Nautilus™ menu, Press the MY NAUTILUS™ Key while in Standby Mode. Then use the My Nautilus™ key to advance through the My Nautilus™ Member Menu. Press the ENTER Key to confirm selection. For detailed information and My Nautilus™ member profile creation, refer to the My Nautilus™ section of the manual.

The Remote Operation Controls — ROC™ (Model EV7.18 Only)

The ROC™ keypads are located on the Upper-Body Arms above the contact heart rate grips (Fig. 5). These controls allow you to control the primary functions of the elliptical without removing your hands from the Upper-Body Arms. The ROC™ keypad on the left Upper-Body Arm includes a START Key and an ENTER Key. The ROC™ keypad on the right Upper-Body Arm includes the Level UP and DOWN Keys. These keys work exactly the same as the keys on the console. Refer to the explanation above for more information on the operation of the START Key, LEVEL UP and DOWN Keys, and the ENTER Key.

Fig. 5

Understanding the Display and Readout Information

The following describes the display functions and specifications on the Pro Series elliptical trainer.

Time — The workout time is displayed in the center of the upper display window. In Quick Start Mode, the timer will count up from 0:00. When using one of the preprogrammed workouts, the time will count down to 0:00 from the desired workout time you have entered.

Speed — Your speed is displayed in miles per hour (or kilometers per hour if your console is set in metric units) in the right side of the display window. This speed will be similar to the running speeds of a treadmill. For example, if you typically run on a treadmill at 5 mph (8.05 kmh), then 5 mph (8.05 kmh) on your elliptical will be approximately the equivalent workout rate. This is an approximation and does not take resistance level into consideration.

Heart Rate — Current heart rate is displayed in beats per minute.

Percentage of Maximum Heart Rate (Model EV7.18 Only) — An approximation of maximum heart rate is calculated by subtracting the user's age from 220. Percentage of maximum heart rate will only be displayed during Heart Rate Control Programs or when a program has been selected through the My Nautilus™ Menu, since these are the only times the user's age is known.

An Example of Calculating Maximum Heart Rate:

User is 40 years of age	**220 – 40 = 180** (180 beats per minute would be the approximate maximum heart rate for a 40 year old user)	**180 x 75% = 135** (135 Beats per minute would be the heart rate of a 40 year old user exercising at 75% of their max.)

(See the Heart Training Programs for more information.)

Distance — Provides a cumulative total of the equivalent distance, in miles (or kilometers if your console is set to metric units), you have traveled.

Calories — This readout is your cumulative calories burned for the current workout. Note, this is only an approximation. Your actual calories burned varies based on your age, weight, gender and metabolism.

Calories/Hour — Provides the rate at which calories are burned per hour based on the current intensity level, stride rate, and user weight.

DISPLAY & READOUT

Stride Rate — Displays the number of strides per minute. A stride is equal to 1/2 revolution of the crank or 2 strides per revolution.

My Stride (Model EV7.18 Only) — Displays the length in inches (or centimeters if set in metric units) of your elliptical stride. The Pro Series Ellipticals stride length can be adjusted from 0 – 32" (0-81 cm) in length.

Level – Displays the current intensity level between 1 (the easiest) and 20 (the hardest). This readout is shown on the left hand side of the display and appears as "L1" for level 1.

Watts — During a workout, this statistic displays the power output at the current intensity level and stride rate, displayed in watts (746 watts = 1 horsepower).

METs — A MET is the relative energy cost of exercise. MET stands for multiples of the resting metabolic rate. While you are sitting quietly, your body consumes oxygen at the rate of about 3.5 milliliters per kilogram of body mass per minute. When you exercise, your body needs more oxygen in order to function. For example, exercising at 10 METs requires ten times the resting rate of oxygen consumption, or about 35 milliliters per kilogram per minute. During a workout, the current MET level is displayed.

Workout Profile — The dot-matrix area of the display shows the actual course profile of the selected exercise program. The taller the column, the higher the resistance level for that segment of the program. The flashing column at the far left displays your current interval.

EV7.16 Console

EV7.18 Console

The Telemetry (e.g., Polar®) belt.

Heart rate monitoring helps you monitor your level of exertion by displaying your heart rate during exercise. There are two methods of monitoring heart rate on the Pro Series ellipticals:

- **Telemetry (e.g., Polar®) belt.** The wireless heart rate chest belt supplied with your elliptical transmits the heart beat signal to the receiver in the display. The display shows the heart rate in beats per minute and uses the heart rate value in heart rate control mode. (See Programming Instructions for more information).
- **Contact heart rate (EV7.18 Model Only).** Sensors on the handgrip detect heart rate and display it on the console.

⚠ WARNING

Pacemaker users should not use the telemetry transmitter without first consulting with their doctor.

Telemetry Heart Rate

The telemetry heart rate monitoring system consists of the receiver, located in the display, and a transmitter belt worn across your chest. The monitoring function is activated as soon as you strap on the chest belt and step within range of the receiver in the machine. Two electrodes on the underside of the chest belt sense the heart rate signal and send it to the receiver. On the EV7.18, the heart symbol on the display flashes to indicate that the display is receiving a valid signal. On the EV7.16, the far right decimal point in the Heart Rate Display flashes to indicate that the display is receiving a valid signal. A microprocessor in the console calculates the heart rate and shows it, in beats per minute, on the display.

Before you put the transmitter belt on, wet the two electrode patches (the grooved rectangles on the reverse side of the belt). Secure the transmitter belt as high under the pectoral muscles (chest) as is comfortable. The transmitter belt should fit snugly and comfortably, and allow normal breathing.

After the initial heart rate signal is detected, the display will enter a validation phase in which four good heart beat signals lasting four seconds are required before locking on telemetry heart rate signals for the duration of the workout session.

If your heart rate is not being displayed, try the following:

- Move closer to the display.
- Tighten the elastic band on the chest belt.
- Adjust the belt higher or lower on your chest.
- Remoisten the electrodes.

- Test your chest strap with a machine that you know is working, or with a heart rate watch that you know is working.

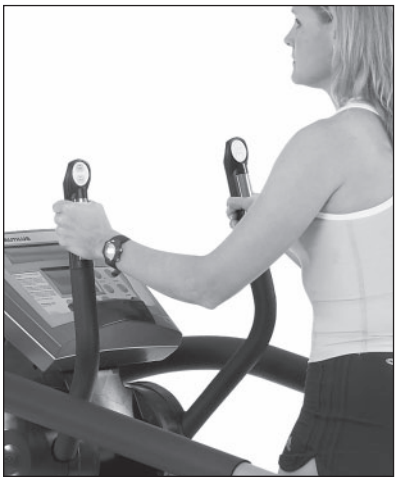
Maintaining the Transmitter Belt

Clean the chest belt regularly with mild soap and water, then dry thoroughly — residual sweat and moisture keeps the transmitter active and will drain the battery in the transmitter. Do not use abrasives or chemicals such as steel wool or alcohol for cleaning, as they can damage the electrodes permanently. The supplied chest belts use a sealed battery and are non-replaceable. On average, a chest strap battery should last for approximately 1500-2000 hours of use. Replacement belts can be purchased from an Authorized Nautilus® Fitness Retailer.

Contact Heart Rate (EV7.18 model only)

Through the use of stainless steel sensors built into the elliptical's Upper-Body Arms and using sophisticated software, heart rate can be checked at any time during a workout. As with the wireless telemetry chest belt, the heart rate is shown on the display in the same manner.

The contact heart rate system's ability to detect a heart rate signal is influenced by several factors. Movement of the hands while they are in contact with the sensors produces interference. For this reason, users should avoid moving their hands while using the contact heart rate grips. Calluses and hand lotion act as an insulating layer to reduce the signal strength. Also, the EKG signal generated by some individuals is not strong enough to be detected by the sensors. These individuals should opt for the telemetry method of heart rate monitoring.



Contact heart rate input signals are acquired only during contact between your hands and the stainless steel sensors on the handrails. To use the contact heart rate feature, place your hands around the handles so that your hands touch both the front and the back of the sensors (fig 6). After the initial contact heart rate signal is detected, the controller will enter a validation phase requiring a good heart beat signal within 10 to 15 seconds, or until the system acquires a valid signal. During the validation phase, the display will not recognize telemetry heart rate signals. If, during exercise, the heart rate displayed is erratic, it may be helpful to remove your hands from the handles, wipe them and place them back on the handles.

MY NAUTILUS™ SETUP AND OPERATION

My Nautilus™ menu is personal workout diary that records and tracks every workout. Tracking all your crucial exercise data is essential to knowing where you are on the road to achieving your fitness goals. My Nautilus™ will store up to five individual user's workout data including total workouts, total hours, total miles, average speed and resistance level, average heart rate and fastest mile times.

My Nautilus™ Member Setup

To set up a personal My Nautilus™ profile, complete the following steps.

1. Press the MY NAUTILUS™ key during Standby mode to scroll through the menu of My Nautilus™ members. If a profile has not been set up, the names will be displayed as USER 1, USER 2, etc.
2. After selecting an open user slot, **press and hold** the ENTER key for 3 seconds to begin setup. CHANGE NAME and the word NO will appear on the display.
3. Use the LEVEL UP/DOWN Keys to select YES and press ENTER to confirm.
4. ENTER NAME +/- will appear on the display. Enter your name (up to 16 characters) using the LEVEL UP/DOWN Keys pressing ENTER to confirm each letter. After your name is entered, **press and hold** the ENTER key for 3 seconds to store name. (Hint: You may also enter in numbers allowing you to create multiple profiles for the same user. For example you could create "JOHN 1" and "JOHN 2" for different workout tracking needs.
5. You will then be asked to input in your weight and age. Enter this information using the LEVEL UP/DOWN keys and press ENTER to confirm.
6. Profile Setup is complete. This new name will now appear in the My Nautilus™ member menu.

My Nautilus™ Operation

After the My Nautilus™ profile has been created using the steps above, simply press the MY NAUTILUS™ Key during Standby Mode to select the member name and press ENTER to confirm.

LAST WORKOUT will be shown on the display. Use the LEVEL UP/DOWN Keys to select between LAST WORKOUT, NEW WORKOUT and WORKOUT HISTORY. Press ENTER to confirm selection.

My Nautilus™ Options

- **LAST WORKOUT** — If you would like to repeat your last performed exercise workout, press the ENTER key and your workout will begin. This will immediately bring you to the beginning of your last completed workout and you will bypass entering program data.

- **NEW WORKOUT** — Selecting this will bring you to the Program Setup menu and allow you to select a new program for that day's workout. Weight and age entry will be skipped. Entering Program Setup in this manner also allows you to choose from 3 custom programs for each specific user.
- **WORKOUT HISTORY** — This allows you to review all your past workout data. The display will automatically scroll through your total hours, total workouts, fastest mile, average heart rate, average speed, average resistance level and total miles. (Average values are from last workout run, total values and fastest mile are from all workouts run) These statistics will be scanned for 4 seconds each in a continuous loop. Pressing LEVEL UP/DOWN keys will cause these statistics to stop scanning and will allow the selection of any statistic. Pressing ENTER will return to LAST WORKOUT menu selection. The unit will return to Standby Mode after 3 minutes of inactivity.

My Nautilus™ Profile Updates (Age or Weight Change)

To update your My Nautilus™ profile if your age or weight has changed, follow the steps below.

1. Press the MY NAUTILUS™ Key during Standby Mode to scroll through the My Nautilus™ profiles until your name is displayed.
2. Press and hold the ENTER key for 3 seconds. The words CHANGE NAME and NO will appear in the display.
3. If your name is displayed correctly, press the ENTER Key to confirm.
4. You may now update your weight and/or age using the LEVEL UP/DOWN keys or the numeric keypad and pressing ENTER confirm.
5. Your My Nautilus™ profile has been updated.

Erasing your My Nautilus™ Profile and Workout History

1. Press the MY NAUTILUS™ key during Standby Mode to scroll through the My Nautilus™ profiles until your name is displayed.
2. Press and hold the LEVEL UP and DOWN keys simultaneously. The words ERASE USER and YES will appear on the display.
3. Pressing LEVEL UP/DOWN will toggle the selection from YES to NO. To erase a user profile and all stored data, select YES and press ENTER to confirm. **Note: this permanently erases all workout history and custom programs for this profile!**

IMPORTANT

You must first enter the My Nautilus™ menu for workout data to be collected and stored. Workout History cannot be stored unless you have selected your profile from the My Nautilus™ menu at the beginning of each workout. When selecting NEW WORKOUT from My Nautilus™ menu and while setting up programs, you will not be prompted to enter weight, or age, if applicable.

The Quick Start Program

Provides an immediate start, without having to enter any user information. This program uses the standard default settings to calculate calories burned during a workout session.

To use the Quick Start Program:

1. Press the START Key.
2. The intensity level may be changed at any time during the workout by pressing the LEVEL UP Key to increase the resistance, or the LEVEL DOWN Key to decrease the resistance. Any changes to the intensity level will be displayed in the current flashing column. The new intensity level will continue through the rest of the workout until changed using the LEVEL Keys.

The Manual Program

The Manual Program allows you to control the intensity level of the elliptical during the workout, while accurately calculating exercise statistics based on your weight. The workout profile in the display window is divided into 30 equal intervals within the selected workout time.

To use the Manual Program:

1. Press the PROGRAM Key to enter program selection menu. Use the UP LEVEL Key to advance to the MANUAL Program.
2. Press the ENTER Key to confirm selection.
3. Enter your weight using the UP/DOWN LEVEL Keys and press the ENTER Key to confirm.
    - Your weight is used to calculate the number of calories burned during each minute of exercise and the total number of calories burned during the exercise session.
4. Enter the desired intensity level using the UP/DOWN LEVEL Keys and press ENTER to confirm value.
5. Enter the desired workout time using the UP/DOWN LEVEL Keys and press the ENTER Key to confirm and begin workout.

The intensity level may be changed at any time during the workout by pressing the UP and DOWN LEVEL Keys as desired. Any changes to the intensity level will be displayed in the current flashing column. The new intensity level will continue throughout the rest of the workout until changed using the Level Keys.

The Fat Burner Program

The Fat Burner Program is a 60-interval workout designed with moderate changes in intensity level designed to stimulate fat store assimilation for users on a weight control program. The profile in the center display indicates relative intensity. Any changes to the intensity level will not change the look of the remaining profile; however, the new intensity level will continue throughout the rest of the workout.

To use the Fat Burner Program:

1. Press the PROGRAM Key to enter program selection menu. Use the UP LEVEL Key to advance to the FAT BURNER Program.
2. Press the ENTER Key to confirm selection.
3. Enter your weight using the UP/DOWN LEVEL Keys and press ENTER to confirm.
   - Your weight is used to calculate the number of calories burned during each minute of exercise and the total number of calories burned during the exercise session.
4. Enter the desired intensity level using the UP/DOWN Keys and press ENTER to confirm value.
5. Enter the desired workout time and press the ENTER Key to confirm and begin workout.

The intensity level may be changed at any time during the workout by pressing the UP and DOWN LEVEL Keys as desired. Any changes to the intensity level will be displayed in the current flashing column. The new intensity level will continue throughout the rest of the workout until changed using the Level keys.

The Calorie Burner Program

The Calorie Burner Program is a 60-interval workout designed for users wanting to increase their aerobic capacity. The changes of the intensity in the program is greater than the changes in the Fat Burner Program, and designed specifically to condition the cardiovascular system. The profile in the center display indicates relative intensity. Any changes to the intensity level will not change the look of the remaining profile; however, the new intensity level will continue throughout the rest of the workout.

To use the Calorie Burner Program:

1. Press the PROGRAM Key to enter the program selection menu. Use the UP LEVEL Key to advance to the CALORIE BURNER Program.
2. Press the ENTER Key to confirm selection.
3. Enter your weight using the UP/DOWN LEVEL Keys and press ENTER to confirm.
   - Your weight is used to calculate the number of calories burned during each minute of exercise and the total number of calories burned during the exercise session.
4. Enter the desired intensity level using the UP/DOWN LEVEL Keys and press ENTER to confirm value.
5. Enter the desired workout time using the UP/DOWN LEVEL Keys and press the ENTER Key to confirm and begin workout.

The intensity level may be changed at any time during the workout by pressing the UP and DOWN LEVEL Keys as desired. Any changes to the intensity level will be displayed in the current flashing column. The new intensity level will continue throughout the rest of the workout until changed using the Level keys.

The Speed Intervals Program

This is a great workout for runners wanting to increase their speed. The Speed Intervals Program is an interval workout containing 8 alternating rest intervals with 7 work intervals. An interval cycle consists of a work phase and a recovery phase. You may scale the recovery intensity level and the work intensity level independently, which will be saved for the remainder of the workout.

For example, if you decrease the intensity level during a recovery phase then subsequent recovery phases will be the same intensity level. However, the intensity level in the work phase remains unchanged. To change the intensity level of the work phase, you must change the intensity level during an work phase. The two phases are independent of each other in regard to intensity levels. The relative intensity level is indicated on the profile and any changes to the intensity level will not change the look of the remaining profile.

To use the Speed Intervals Program:

1. Press the PROGRAM Key to enter the program selection menu. Use the UP/DOWN LEVEL Keys to advance to the SPEED INTERVALS Program.
2. Press the ENTER Key to confirm selection.
3. Enter your weight using the UP/DOWN LEVEL Keys and press ENTER to confirm.
    - Your weight is used to calculate the number of calories burned during each minute of exercise and the total number of calories burned during the exercise session.
4. Enter your Work Level using the UP/DOWN LEVEL Keys. This will be the more difficult interval of the program.
5. Enter your Rest Level using the UP/DOWN LEVEL Keys. This will be the easier, recovery interval of the program.
6. Enter your desired workout time using the UP/DOWN LEVEL Keys and press the ENTER Key to confirm and begin workout.

The intensity level may be changed at any time during the workout by pressing the UP and DOWN LEVEL Keys as desired. Any changes to the intensity level will be displayed in the current flashing column. The new intensity level will continue throughout the rest of the workout until changed using the Level keys.

Custom Intervals Program

Similar to the Speed Intervals Programs but with a greater degree of customization to allow you to create the perfect interval program for your fitness needs. With the Custom Interval Program, you have the ability to adjust your Work and Rest level and duration as well as being able to determine the number of intervals you wish to perform.

To use the Custom Intervals Program:

1. Press the PROGRAM Key to enter the program selection menu. Use the UP/DOWN LEVEL Keys to advance to the CUSTOM INTERVALS Program.
2. Press the ENTER Key to confirm selection.
3. Enter your weight using the UP/DOWN LEVEL Keys and press ENTER to confirm.
    - Your weight is used to calculate the number of calories burned during each minute of exercise and the total number of calories burned during the exercise session.
4. Enter your Work Level using the UP/DOWN LEVEL Keys. This will be the more difficult interval of the program.
5. Enter your Work Time using the UP/DOWN LEVEL Keys. This will determine how much time is spent in the more difficult Work Interval.
6. Enter your Rest Level using the UP/DOWN LEVEL Keys. This will be the easier, recovery interval of the program.
7. Enter in your Rest Time using the UP/DOWN LEVEL Keys. This will determine how much time is spent in the Recovery Interval.
8. Enter the number of intervals you wish to perform using the UP/DOWN LEVEL Keys. Press the ENTER Key to confirm information and begin workout.

The intensity level may be changed at any time during the workout by pressing the UP and DOWN Keys as desired. Any changes to the intensity level will be displayed in the current flashing column. The new intensity level will continue throughout the rest of the workout until changed using the Level keys.

Heart Rate Zone Trainer Program

This is a great beginner heart rate program. The Heart Rate Zone Trainer is a traditional "constant heart rate" program that allows you to exercise at a selected target heart rate by automatically adjusting the intensity level (resistance) during the workout. The default target heart rate is equal to 70% of your maximum heart rate which is calculated by the following equation: 220 – (Age) X 70%. To choose a different target heart rate at any time during the workout, use the UP and DOWN LEVEL keys to enter the new target heart rate, then press the ENTER Key.

To use the Heart Rate Zone Trainer Program:

1. Put the chest strap on. Remember to wet the electrodes underneath the chest strap. The console must detect a heart rate signal before it will allow you to select the Heart Rate Zone Trainer Program.
2. Press the PROGRAM Key to enter the program selection menu. Use the UP/DOWN LEVEL Keys to advance to the HEART RATE ZONE TRAINER Program.
3. Press the ENTER Key to confirm selection.
4. Enter your weight using the UP and DOWN Keys and press ENTER to confirm.
   - Your weight is used to calculate the number of calories burned during each minute of exercise and the total number of calories burned during the exercise session.
4. Enter your age using the UP/DOWN LEVEL Keys and press ENTER to confirm.
5. The console will display TARGET HEART RATE. A suggested target heart rate will be displayed, based on your age. Press ENTER to accept the calculated target heart rate, or enter a different target heart rate using the UP/DOWN LEVEL Keys and then press ENTER to confirm.

- The target heart rate selected by the console is based on age, and is equal to 70% of your maximum heart rate which is calculated by the following equation: (220 – Age) x 70%. (See chart below.)

6. Enter the desired workout time and press the ENTER Key to confirm.

To choose a different target heart rate at any time during the workout, use the UP and DOWN LEVEL Keys to adjust your target heart rate, then press the ENTER Key to confirm.

The following messages may be displayed during a workout:

CHECK HR BELT — Indicates that the heart rate signal has been missing for the last 30 seconds.

HR BELT NEEDED — No telemetry belt signal has been sensed during the initial setup time.

An Example of Calculating Maximum Heart Rate:

User is 40 years of age	**220 – 40 = 180** (180 beats per minute would be the approximate maximum heart rate for a 40 year old user)	**180 x 70% = 126** (126 beats per minute would be the heart rate of a 40 year old user working out at 70% of their maximum heart rate.)

Heart Rate Intervals Program

This Heart Rate Control Program allows you to completely customize your workout and determine your interval workout intensity based on your heart rate. You also have the ability to customize your "Work" and "Rest" intervals times using this program.

To use the Heart Rate Intervals Program:

1. Press the PROGRAM Key to enter the program selection menu. Use the UP/DOWN LEVEL Keys to advance to the HEART RATE INTERVALS Program.
2. Press the ENTER Key to confirm selection.
3. Enter your weight using the UP/DOWN LEVEL Keys and press ENTER to confirm.
    - Your weight is used to calculate the number of calories burned during each minute of exercise and the total number of calories burned during the exercise session.
4. Enter your age using the UP/DOWN LEVEL Keys. Press the ENTER Key to confirm.
5. A default "Work" Heart Rate will be displayed. This value will be 80% of your predicted maximum heart rate (220 – Age X 80%). Press the ENTER Key to accept this target or adjust higher or lower using the UP/DOWN LEVEL Keys.
6. Enter your "Work" Time using the UP/DOWN LEVEL Keys. This will determine how much time is spent in the more difficult Work Interval.
7. A default "Rest" Heart Rate will be displayed. This value will be 65% of your predicted maximum heart rate (220 – Age X 65%). Press the ENTER Key to accept this target or adjust higher or lower using the UP/DOWN LEVEL Keys.
8. Enter your "Rest" time using the UP/DOWN LEVEL Keys. This will be the easier, recovery interval of the program.
9. Enter your total workout time using the UP/DOWN LEVEL Keys. Press the ENTER Key to begin your workout.

After the first Rest and Work Interval, the program stores the resistance level and the end of each or the Rest and Work interval portion. Then, when the program moves to the second interval, the program will automatically change the resistance level to the previously saved level. This repeats until the workout time is complete and the program moves into the Cool Down stage.

Heart Rate Hill Intervals Program

A great program that slowly increases and lowers your heart rate as you exercise. In this program, you define a Work Target Heart Rate, Rest Target Heart Rate and Total Exercise Time. At the beginning of the program, your heart rate will gradually increase as the resistance increases to bring you into your Work Heart Rate Zone. As soon as you reach your Work Heart Rate, the resistance will begin decreasing to bring you into your Rest Target Heart Rate. Once your Rest Target Heart Rate is reached, the cycle will repeat. This continues through the entire program.

To use the Heart Rate Hill Intervals Program:

1. Press the PROGRAM Key to enter the program selection menu. Use the UP/DOWN LEVEL keys to select the HEART RATE HILL INTERVALS Program.
2. Press the ENTER Key to confirm selection.
3. Enter your weight using the UP/DOWN LEVEL Keys and press the ENTER Key to confirm.
   - Your weight is used to calculate the number of calories burned during each minute of exercise and the total number of calories burned during the exercise session.
4. Enter your age using the UP/DOWN LEVEL Keys. Press the ENTER Key to confirm.
5. A default "Work" Heart Rate will be displayed. This value will be 80% of your predicted maximum heart rate (220 – Age X 80%). Press the ENTER Key to accept this target or adjust higher or lower using the UP/DOWN LEVEL Keys.
6. A default "Rest" Heart Rate will be displayed. This value will be 65% of your predicted maximum heart rate (220 – Age X 65%). Press the ENTER Key to accept this target or adjust higher or lower using the UP/DOWN LEVEL Keys.
7. Enter your total workout time using the UP/DOWN LEVEL Keys. Press the ENTER Key to begin your workout.

Heart Rate Step Intervals Program

This is a simple five-step heart rate control program that allows you to preset five heart rate levels. During the workout, the total workout time selected will be divided equally by the five heart rate steps (segments). For example, if you select a workout time of 50:00, then each of the step segments would be 10:00 in length. This program gives you greater freedom to determine the level of intensity up or down for each step. The default values for each step is detailed below:

Step 1 — 80% of Maximum Heart Rate

Step 2 — 72% of Maximum Heart Rate

Step 3 — 85% of Maximum Heart Rate

Step 4 — 72% of Maximum Heart Rate

Step 5 — 85% of Maximum Heart Rate

Like with any of the Nautilus® heart rate control programs, you have complete freedom to change any of the defaulted heart rate targets at any point. The five steps detailed above are configured in an interval type workout, however you may chose to have the steps gradually increase or remain constant depending on your fitness needs.

To use the Heart Rate Step Intervals Program:

1. Press the PROGRAM Key to enter the program selection menu. Use the UP/DOWN LEVEL Keys to select the HEART RATE STEP INTERVALS Program.
2. Press the ENTER Key to confirm selection.
3. Enter your weight using the UP/DOWN LEVEL Keys and press ENTER to confirm.
    - Your weight is used to calculate the number of calories burned during each minute of exercise and the total number of calories burned during the exercise session.
4. Enter your age using the UP/DOWN LEVEL Keys. Press the ENTER Key to confirm.
5. Your Step 1 Target Heart Rate will now be displayed. Press the UP/DOWN LEVEL Keys to adjust as desired and press the ENTER key to confirm.
6. Repeat this process for Heart Rate Steps 2-5.
7. Enter your desired workout time using time using the UP/DOWN LEVEL Keys. Press the ENTER Key to confirm and begin workout.

The Nautilus® My Stride™ Programs

The Nautilus® My Stride™ Programs are highly interactive, "cross training" type programs that are designed to coach you through an entire workout program. My Stride™ Programs allow you to take full advantage of all the workout options and variety that the Nautilus® Pro Series Ellipticals provide.

There are three different My Stride™ Programs to choose from. These include Beginner, Intermediate and Advanced.

During operation, your machine will monitor your workout intensity and, at various stages during the workout, will advise you to change your speed and stride length, reverse your exercise direction and advise you when to use the upper-body arms.

To use the My Stride™ Programs:

1. Press the PROGRAM Key to enter the program selection menu. Use the UP/DOWN LEVEL Keys to advance to the desired My Stride Program. My Stride™ Program selections include BEGINNER, INTERMEDIATE and ADVANCED MY STRIDE™ Programs.
2. Press the ENTER Key to confirm selection.
3. Enter your weight using the UP/DOWN LEVEL Keys and press the ENTER Key to confirm.
   - Your weight is used to calculate the number of calories burned during each minute of exercise and the total number of calories burned during the exercise session.
4. The console will display ENTER LEVEL. Enter the desired intensity level using the UP and DOWN LEVEL Keys and press ENTER to confirm value.
5. Enter the desired workout time and press the ENTER Key to confirm selection and begin workout.

The intensity level may be changed at any time during the workout by pressing the UP and DOWN Keys as desired. Any changes to the intensity level will be displayed in the current flashing column. The new intensity level will continue throughout the rest of the workout until changed using the Level keys.

My Stride™ coaching information will appear in the upper display window. Listen for the audible signal (beeping tone) as this will indicate to you that a My Stride™ coaching update is being prompted.

Speed Workout Program

In this program you have complete control of your resistance level. The intent is to get you to vary the speed (strides per minute rate) of your workout. Exercising at different speeds can condition the muscles and cardiovascular system in different ways. Periodically training at higher speeds and lower resistance levels will also help to train your bodies fast-twitch muscles. The muscles fibers that are used for short, higher intensity movements. Great for tennis, softball or basketball.

To use the Speed Workout Program:

1. Press the PROGRAM Key to enter the program selection menu. Use the UP/DOWN LEVEL Keys to select the SPEED WORKOUT Program.
2. Press the ENTER Key to confirm selection.
3. Enter your weight using the UP and DOWN LEVEL Keys and press ENTER to confirm.
    - Your weight is used to calculate the number of calories burned during each minute of exercise and the total number of calories burned during the exercise session.
4. Enter your desired intensity level using the UP/DOWN LEVEL Keys and press ENTER to confirm value.
5. Enter the desired workout time using the UP/DOWN LEVEL Keys and press the ENTER Key to confirm and begin workout.

Try to keep the resistance at a moderate and constant level. Maintain a comfortable and steady pace for the first 5:00. Follow the coaching prompts to change your speed, faster or slower during your workout.

Calorie Goal Program

A manually controlled program that allows you to determine a calories burned goal. Your workout is only completed, when you burn the amount of calories you have selected. Remember, the greater your speed and resistance level, the faster your body will burn calories and the quicker your workout will be complete.

To use the Calorie Goal Program:

1. Press the PROGRAM Key to enter the program selection menu. Use the UP/DOWN LEVEL Keys to select the CALORIE GOAL Program.
2. Press the ENTER Key to confirm selection.
3. Enter your weight using the UP and DOWN LEVEL Keys and press ENTER to confirm.
    - Your weight is used to calculate the number of calories burned during each minute of exercise and the total number of calories burned during the exercise session.
4. Enter your desired intensity level using the UP/DOWN LEVEL Keys and press the ENTER Key to confirm value.
5. Enter your calories burned goal using the UP/DOWN LEVEL Keys and press the ENTER Key to confirm and begin workout.

Random Play Program

Never do the same workout twice! This program randomly generates a workout course profile so every workout is a unique adventure. The first four segments of the program are always lighter in resistance to provide an adequate warm-up period. After that, it's anybody's guess.

To use the Random Play Program:

1. Press the PROGRAM Key to enter the program selection menu. Press the UP/DOWN LEVEL Key to select the RANDOM PLAY Program.
2. Press the ENTER Key to confirm selection.
3. Enter your weight using the UP and DOWN Keys and press ENTER to confirm.
   - Your weight is used to calculate the number of calories burned during each minute of exercise and the total number of calories burned during the exercise session.
4. Enter your desired intensity level using the UP/DOWN LEVEL Keys and press ENTER to confirm value.
5. Enter the desired workout time using the UP/DOWN LEVEL Keys and press the ENTER Key to confirm.

The intensity level may be changed at any time during the workout by pressing the UP/DOWN LEVEL Keys as desired. Any changes to the intensity level will be displayed in the current flashing column. The new intensity level will continue throughout the rest of the workout until changed using the LEVEL keys.

The Nautilus® Fit Test Program

It is helpful to periodically test your fitness level to measure the success level of your current workout program and make adjustments to your exercise program going forward.

Understanding Sub-Maximal Exercise Testing

Before using the Fit Test Program for sub-maximal exercise testing, it should be noted that all sub-maximal tests make several assumptions:

- That a steady-state heart rate is obtained for each exercise workload.
- That a linear relationship exists between heart rate, oxygen uptake and workload.
- That the maximal heart rate for a given age is uniform.
- That the mechanical efficiency of the physical activity performed (i.e., oxygen uptake at a given workload) is the same for everyone.

It should be kept in mind that any one or all of the above mentioned assumptions might not be met during a sub-maximal exercise test. If for any reason one of the assumptions is not met, then errors in predicting VO2 max will occur.

Unfortunately, it is often quite difficult to meet all of the requirements for the four listed assumptions. For example, exercising at a given workload for only a few minutes can involve an insufficient amount of time for many individuals to achieve a true steady state. To ensure that a steady state has been achieved, the heart rate should be measured after two minutes of exercise at a given workload and again after the third minute of exercise at that workload. These two heart rates should then be compared. If a difference of more than five beats per minute between the two is found, the person should continue to exercise at one-minute intervals at the same workload until two successive heart rates differ by less than five beats per minute.

It is also important that the sub-maximal heart rates obtained be between 115 and 150 beats per minute, because it is within this heart rate range that a linear relationship tends to exist between heart rate and oxygen uptake or workload for most adults. When the heart rate is less than 115, many external factors (e.g., talking, laughing, apprehension, etc.) can greatly influence heart rate. Once the heart rate reaches a level between 115 and 150, external factors no longer influence heart rate, and a linear relationship exists. As the heart rate rises above 150, the heart rate/oxygen uptake relationship becomes curvilinear.

The third assumption involves maximal heart rate. Maximal heart rate is the greatest heart rate that can be measured when an individual is exercising to the point of volitional fatigue (i.e., exhaustion) during a graded exercise test. Several equations have been developed to estimate an average maximal heart rate:

- Maximal heart rate = 220 minus age (low estimate)
- Maximal heart rate = 210 minus [0.5 x age] (high estimate)
- Maximal heart rate = 226 minus age (estimate for older individuals)

Maximal heart rate can, however, vary greatly among different individuals of the same age. One standard deviation is ±12 bpm, which means that two-thirds of the population varies an average of plus or minus 12 heartbeats from the average given by a prediction equation. If an individual's age-predicted maximal heart rate is higher than that person's true maximal heart rate, then his/her estimated VO2 max will be an overestimation of the correct or actual value.

The final assumption addresses the issue of mechanical efficiency. Oxygen uptake at any given work rate can vary by approximately 15% between different individuals. Therefore, individuals vary in the amount of oxygen they require to perform a certain exercise workload. Some individuals are more efficient at performing a given task than others. As a result, the average oxygen consumption associated with a given workload may vary significantly from one person to another. Thus, VO2 max predicted by sub-maximal exercise tests tends to be overestimated for those who are mechanically efficient and underestimated for those who are inefficient.

The point to remember is that sub-maximal exercise testing, though not as precise as maximal exercise testing, is not without advantages. For example, the results of such testing can provide a fairly accurate reflection of an individual's fitness status without the cost, risk, effort (on the part of the subject) and time involved in max testing. If an individual is given repeated sub-maximal exercise tests and that person's heart rate response to a fixed workload is found to decrease over time, it is reasonably safe to conclude that the individual has made improvements in aerobic (cardio respiratory) fitness, irrespective of the accuracy of the VO2 max prediction.

Pretest Screening

Prior to any exercise test (maximal or sub-maximal), participants should complete a brief health/ medical questionnaire, have their resting blood pressure and heart rate measured, and provide an informed consent form. The Physical Activity Readiness Questionnaire (PAR-Q) is an example of a valid health/medical questionnaire for screening individuals prior to sub-maximal exercise testing. Canadian health and fitness practitioners have extensively (and quite successfully) used the PAR-Q to determine whether individuals should be given an exercise test. A "yes" answer to any of the following seven questions taken from the PAR-Q would disqualify a participant from taking part in an exercise test until appropriate medical clearance was obtained.

Physical Activity Readiness Questionnaire (PAR-Q)

1. Has your doctor ever said you have a heart condition and recommended only medically supervised physical activity?
2. Do you have chest pain brought on by physical activity?
3. Have you developed chest pain within the past month?
4. Do you tend to lose consciousness or fall over as a result of dizziness?
5. Do you have a bone or joint problem that could be aggravated by the proposed physical activity?
6. Has a doctor ever recommended medication for your blood pressure or a heart condition?
7. Are you aware, through your own experience or a doctor's advice, of any other physical reason against your exercising without medical supervision?

Nautilus® Sub-Maximal Fit Test

The Nautilus® Fit Test is a program that estimates maximal aerobic capacity based on heart-rate response to sub-maximal exercise.

The protocol is a series of 3-minute stages of continuous exercise at increasing intensity. The first stage is a warm-up at approximately 4 METs. The intensity of the remaining stages is based on the heart rate response to the warm-up. The test is designed to raise the steady state heart

rate of the subject to at least 115 beats/min. It is important to remember that two consecutive heart rate measurements must be obtained above 115 beats/min to predict VO2 max. The test typically lasts from 6 to 15 minutes. The test will terminate if the heart rate does not continue to rise from state to stage.

Each work rate is performed for 3 minutes, with heart rates recorded during the final 4 seconds of the second and third minutes of each stage. If the heart rates are within 5 beats/min, then the heart rate during the last minute is plotted against the work rate, and the program advances to the next 3-minute stage. The program continues for two to four stages until two steady state heart rates above 115 beats/minute are obtained in two consecutive stages. The line generated from the plotted points is then extended to the age-predicted maximal heart rate. A corresponding maximal work rate and VO2 max can then be calculated.

At the end of the 3rd minute of each stage, if the heart rates at the end of the 2nd and 3rd minute are not within 5 beats/min of each other, then that work rate is maintained for an additional minute. At the end of the 4th minute, the heart rate is compared to the heart rate at the end of the 3rd minute. If the heart rates are within 5 beats/min, then the heart rate during the 4th minute is plotted against the work rate. If the heart rate at the end of the 3rd and 4th minute are not within 5 beats/min, then the work rate is maintained for one more additional minute. If the heart rate at the end of the 4th and 5th minutes are within 5 beats/min, then the heart rate at the end of the 5th minute is plotted against the work rate. If the heart rate at the end of the 4th and 5th minutes are not within 5 beats/min, then the test failed.

Once two consecutive heart rate measurements are obtained above 115 beats/min range, then the test ends successfully and the results are displayed. Estimated maximum aerobic capacity is shown in ml/kg/min and METs. Next, the results are compared to normative values for others of the same age range and gender.

To use the Fitness Test Program:

1. Put the chest strap on. Remember to wet the underneath of the chest strap, over the electrodes.
2. Select the PROGRAM Key to enter the program selection menu. Use the UP/DOWN LEVEL Keys to select the FIT TEST Program.
3. Enter your weight using the UP/DOWN LEVEL Keys and press the ENTER Key to confirm.
4. Enter your age using the UP and DOWN Keys and press ENTER to confirm.
5. The console will display ENTER GENDER MALE / FEMALE. Select your gender using the UP and DOWN Keys and press the ENTER key to confirm.
6. The console will display BEGIN FIT TEST. Follow the onscreen prompts.
7. The test will be terminated early, and the messages “TEST TERMINATED / TRY AGAIN LATER” will be displayed if:

- You stop exercising at any point during the test.
- The heart rate response to each work level is the same or less than the previous work level.

- The heart rate never reaches 115 beats/min.
- The heart rate continues to rise after the fifth minute.

8. The test is complete when two consecutive steady-state heart rates are obtained above 115 beats/min. The test can be as short as 6 minutes, or as long as 15 minutes.

- No cool down is done at the end of the test.

9. The estimated maximal aerobic capacity is displayed in METs, and VO2 max . The results are compared to normative values of the same age and gender* (see below), then given a fitness rating of "Low", "Fair", "Average", "Good", or "High."

Fitness Rating Norms (VO2 max)

AGE		20 – 29	30 – 39	40 – 49	50 – 59	60 +
Men	High	51.4 +	50.4 +	48.2 +	45.3 +	42.5 +
	Good	51.3 – 46.8	50.3 – 44.6	48.1 – 41.8	45.2 – 38.5	42.4 – 35.3
	Average	46.7 – 42.5	44.5 – 41.0	41.7 – 38.1	38.4 – 35.2	35.2 – 31.8
	Fair	42.4 – 39.5	40.9 – 37.4	38.0 – 35.1	35.1 – 32.3	31.7 – 28.7
	Low	39.4 or less	37.3 or less	35.0 or less	32.2 or less	28.6 or less
Women	High	44.2 +	41.0 +	39.5 +	35.2 +	35.2 +
	Good	44.1 – 38.1	40.9 – 36.7	39.4 – 33.8	35.1 – 30.9	35.1 – 29.4
	Average	38.0 – 35.2	36.6 – 33.8	33.7 – 30.9	30.8 – 28.2	29.3 – 25.8
	Fair	35.1 – 32.3	33.7 – 30.5	30.8 – 28.3	28.1 – 25.5	25.7 – 23.8
	Low	32.2 or less	30.4 or less	28.2 or less	25.4 or less	23.7 or less

*Source: The American College of Sports Medicine, Guidelines for Exercise Testing and Prescription, 6th Edition, Lippincott Williams & Wilkins, Philadelphia, PA, 2000, p. 77.

Custom Workouts

These programs allow you to create and store your own custom course profiles. The Custom Program Menu can only be accessed through the My Nautilus™ menu. Each My Nautilus™ member can create and store three custom programs.

Creating a Custom Program

1. Press the MY NAUTILUS™ key while Standby Mode to scroll through the My Nautilus™ profiles until the desired name is displayed and press the ENTER key to confirm.
2. Use the UP/DOWN LEVEL Keys to select NEW WORKOUT and press ENTER to confirm selection.
3. Use the LEVEL UP/DOWN Keys to select a default, or previously entered, custom program, CUSTOM ONE, CUSTOM TWO or CUSTOM THREE. Press ENTER to edit a program.
4. The first segment of the program will flash on the left side of the dot matrix. Enter in your desired resistance level for this first segment using the LEVEL UP/DOWN keys and press ENTER to confirm.
5. Repeat this step for all 30 segments of the program.
6. Custom Program Setup is now complete. This program may now be selected from the program menu when selecting programs through the My Nautilus™ menu.
7. To change any or all Custom Program segments, repeat steps 1 through 5.

Selecting a Custom Program

1. Press the MY NAUTILUS™ key while in Standby Mode to scroll through the My Nautilus™ profiles until the desired name is displayed. Press the ENTER key to confirm.
2. Use the LEVEL UP/DOWN Keys to select NEW WORKOUT and press ENTER to confirm selection.
3. Use the LEVEL UP/DOWN Keys to select CUSTOM ONE, CUSTOM TWO or CUSTOM THREE. Press START Key to confirm desired program.
4. You will be prompted to enter in a workout time. Enter your desired workout time using the LEVEL UP/DOWN Keys and press the ENTER Key to confirm and begin workout.

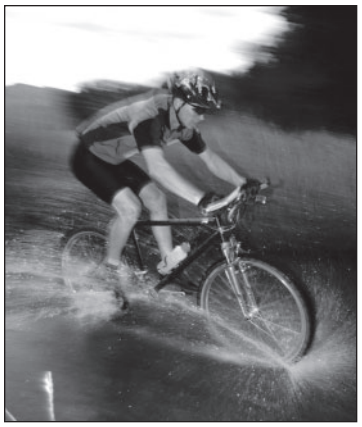
The dot-matrix area of the display will show the actual course profile of the selected custom program. The taller the column, the greater the resistance for that interval. The flashing column shows your current interval.

Results Mode Workout Summary

At the completion of each workout, the display will enter into the Results Mode. The Results Mode will recap your workout and display the following workout data:

- Total Time
- Total Distance
- Total Calories
- Average Calories Per Hour
- Average Strides Per Minute
- Average Stride Length (Model EV7.18 only)
- Average Watts
- Average Speed
- Average Level
- Average Heart Rate

Each statistic will be displayed for 4 seconds in a continuous loop. Pressing the LEVEL UP/DOWN Keys will cause these statistics to stop scanning and will allow the selection of any statistic shown above. Unit will return to Standby Mode after 3 minutes.



No single fitness program is suitable for all. All fitness programs should be designed by fitness professionals who are trained to tailor the program to the individual goals and fitness levels of each client. The following information on exercise intensity, duration, and frequency is based on averages and is included here only as a guideline for use by fitness professionals. Programs should be altered for comfort and safety when necessary.

Exercise and Health

It is not a secret that lack of exercise is increasingly becoming a major health issue. Obesity is on the rise, and being overweight can contribute to an increased risk in heart attack, diabetes, high blood pressure and other life threatening illnesses.

Most people do not get enough activity during the day to make up for the time they spend at their desks, driving their cars or sitting in front of their televisions. We have learned that exercising is not simply something we must do to look good and have a great body. Exercise is a requirement for health, and overall wellness, not to mention it can help you feel great!

The good news is that we are seeing more and more research that indicates we don't have to work out intensely to see the benefits. Sure, it is great if you can workout for 30-40 minutes at a time, five days a week. But it is not essential. Shorter bouts of exercise can have a great effect (especially if you are just starting out), and a little bit of exercise at a time is much better than none at all.

And what is really exciting is that research indicates that whether you are young or old, people who workout at light to moderate intensities may have an easier time sticking to their exercise programs than those people who work out harder and more often.

So, you do not need to be an athlete or a fitness "die-hard" to benefit from exercise… you just need to get started, work out at levels that are comfortable and enjoyable to you and stick with it!

Your New Home Fitness Program

There are many great reasons why home exercise equipment has increased in popularity over the years, but topping the list is convenience. For any fitness program to be successful, it must be something you will stick to on a regular basis. With home exercise equipment, you can roll out of bed, put on a pair of sweats and start working out while the coffee is brewing. No getting in the car and having to drive to the health club. No standing in line waiting for the equipment to become available.

And there is the comfort and safety factor. Who wants to walk or run outside when it is dark or is raining? Or try to ride a bike in the middle of heavy traffic? With your home exercise equipment, you can exercise in the comfort and security of your air-conditioned home.

Privacy and cleanliness are also important. Now you can exercise without feeling rushed or that anyone is looking at you (which is great if you are embarrassed about carrying around a few extra pounds). No more sharing sweaty equipment, or wondering if you will catch athlete's foot in the health club shower.

The biggest advantage, however, may simply be the time factor. With work schedules ever-changing and busy family obligations, a home gym offers the benefit of being able to work out when it is most convenient for you. No classes to time your schedule around, or peak times to avoid. This is especially convenient if you have children at home.

It couldn't be easier!

Steps to Getting Started

Once you have made the commitment to start exercising at home, here are some suggestions that may help you stay motivated.

The first step is the most difficult. Any new habit is difficult to establish at first, but it can be done. Be patient, and plan to start slow and easy. Less is more when you are first starting out… don't overdo it!

Get a physical exam. If you have been inactive for several years or new to an exercise program, be sure to ask your doctor before beginning any exercise program. Especially if you are over 30, have health problems or have a history of heart disease in your family.

Plan for your home fitness center. Set aside an area or a room in your house or apartment that is exclusively for fitness, and make sure that it is as comfortable as possible, so you'll enjoy using it. If you like music, watching television or looking outside while exercising, make sure these things are accessible. Remember, if you don't enjoy the space you are exercising in, you won't be motivated to continue your program.

Find an exercise buddy. Research has shown that starting an exercise program with someone can increase your chances of sticking to it. If you have a buddy that is also starting a program, you can encourage, motivate and challenge each other.

Make fitness a part of your schedule. Include it in your daily planner just as you would any other appointment. Plan ahead for the week so that you can be sure to fit it in. Even if you are pressed for time one day, a little exercise is better than none at all. Do what you can to fit it in, even if you have less time than you hoped for.

Use positive affirmations. Affirmations will help you program your subconscious to accept new beliefs. Saying to yourself a couple of times a day, "I am living a healthier lifestyle by exercising several times per week at home," can help you stay on track.

Set goals. Setting goals can be helpful in keeping you motivated, but remember to keep them realistic. Short-term and long-term goals can make this easier. How many days do you want to exercise this week? How many workouts would you like to have done in 90 days or a year?

Components of Fitness

Over the past 25 years, many people have focused on walking, running, cycling, swimming and other types of aerobic activity as their only means of exercise.

However, we have learned that two other components of fitness are just as important. These other two components are muscle strength and flexibility. So in addition to having a strong heart and lungs, we also need to be able to pick up a full bag of groceries and tie our shoes without having to sit down.

When developing your home fitness program, it is only appropriate that you develop all three components in order to achieve balanced overall fitness. Let's take a look at all three components:

Cardiovascular fitness is training the heart and lungs to be stronger and deliver more oxygen throughout your body with less effort. It can help reduce the risk of heart disease, and help you manage your weight. It is the cornerstone of fitness, and can be achieved in many ways such as walking or running on the treadmill or outdoors, climbing stairs, cycling, or swimming in the pool or ocean.

For many years, it was suggested that moderate level cardiovascular activity (activities that make you sweat and breathe and a moderate pace) should be done 3 — 4 days a week for 15 — 45 minutes at a time. It is now recommended that you attempt to do some cardiovascular activity EVERY day, if possible.

The good news is that the cardiovascular activity does not need to be moderately intensive everyday, nor does it need to be sustained for 15 – 45 minutes at a time.

So while it is ideal to challenge your heart and lungs by doing something like a strong power walk every other day for 15 — 45 minutes, it is more important to make sure you do at least a little bit of cardiovascular activity every day, even if you don't do it for very long or very intensely.

For example, you might try using your Nautilus® elliptical trainer for a scheduled, moderate level workout for 20 — 30 minutes on Monday, Wednesday, Friday and Sunday (see the intensity monitoring section for further details on how hard to workout). On the other days, you might try going for a leisurely stroll 10 minutes in the morning and in the evening (or whenever you can fit it in).

Whatever you do, just make sure you get your body moving, and your heart and lungs pumping for some period of time every day.

EXERCISE & FITNESS GUIDELINES

Muscular Strength is training your muscles to remain strong using resistance such as dumbbells, elastic tubing or your body weight. In the past decade, we have learned that building or maintaining muscular strength is extremely important for a balanced fitness program. And it is especially important as we get older.

We have learned through a variety of studies that those individuals who just train aerobically (without strength training) do maintain their cardiovascular endurance over the years, but they generally lose lean muscle mass as they get older. However, those individuals who combine strength training and cardiovascular training can maintain their lean body mass as they get older. What this means is that if you just do cardiovascular activity, your body will naturally lose muscle mass as you get older, and that means that you will actually get "fatter" as you age, unless you incorporate strength training.

We have also learned that consistent strength training helps maintain bone and muscle mass as we get older. For women, strength training (along with cardiovascular training) may also protect against post-menopausal bone loss and osteoporosis in their later years.

And strength training is not complicated. It is recommended that you do 8 — 12 repetitions of 8 — 10 major muscle groups at least 2 days a week. However, you don't have to do all these exercises at once. You can break them up into shorter workouts throughout the day. For example, you can do just upper body exercises in the morning, and your lower body exercises in the evening. Or, you can alternate strength exercises with cardiovascular exercise (often known as circuit training) by switching back and forth every couple of minutes.

The best part is you don't need complicated equipment or fancy machines. You can do everything you need to do with a simple pair of dumbbells, or you can try the new Nautilus® SelectTech® dumbbells, which provide you a wide variety of weight options in a revolutionary all-in-one dumbbell. You can use elastic tubing, or simply do body weight exercises such as push-ups or lunges.

Flexibility is being able to bend, reach, twist and turn with comfort and ease as we perform daily tasks, play or exercise. It is perhaps the most ignored component of fitness, but certainly the easiest one to incorporate into our daily lives because it can be done anywhere and almost at any time.

To maintain your flexibility, you simply need to stretch. This could be as simple as reaching for your toes, or reaching overhead when you wake up in the morning.

You can even incorporate stretching into your strength training workouts by stretching the muscles you have used immediately after you have completed your exercise set.

Like cardiovascular training, it is recommended that you stretch every day. However, you do not need to create a formalized program. You can simply make sure that you stretch your major muscle groups throughout the day. Make sure you include your thighs, calves, hamstrings, back, chest, neck and shoulders.

Do what feels good, but also remember to mix it up. Don't just do traditional "reach and hold" stretches. Also, try gently moving through a range of motion that is comfortable to you. For example, you don't have to stretch your neck simply by pulling on your head with your hand. You can also just rotate the neck slowly around and look side to side.

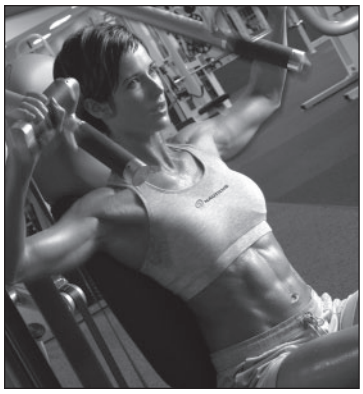
Nutrition

Of course, every good health and fitness program will also include a good nutrition component. Good nutrition is likely the most important factor in maintaining ideal body weight and managing weight loss.

There are a variety of schools of thought regarding which nutrition program, diet or eating plan is best. While we do not promote or endorse any particular one, here are some things to consider that will help you get on the road to a healthy diet:

Understand caloric balance. How many Calories you intake, and how many Calories you burn off will determine whether you will gain or lose weight day to day. It is impossible to achieve weight loss without some sort of "Caloric deficit" that can be obtained through cutting Calories, or burning off more than you take in. The wisest approach is to do a little of both — cutting Calories and exercising. It is the only proven long-term weight management program that is successful. You should ensure that you are consuming at least 1,200 Calories per day total. A total weight loss of no more than 2 pounds (1 kg) per week is recommended for long-term weight management.

Eat a variety of foods. Regardless of your eating plan, you should be sure to include a variety of foods in your diet, maximizing your intake of fruits and vegetables whenever possible. Colorful meals and snacks that are divided amongst the 4 food groups will ensure that you obtain the nutrients needed for your body to function at optimal levels. Any diet that focuses on just one food



group source or processed foods can be unhealthy in the long run, and should be avoided. Don't focus too much on any particular meal or snack, but rather on your overall intake of a variety of different foods during any given day.

Drink water. Our bodies are made up of over 70% water, and most of us don't drink enough. Carry water with you everywhere you go, and drink as often as you can. This helps the body function at optimum levels, and can significantly help with weight management.

Eat more often and be mindful of your portions. Research has shown that it can be helpful to eat smaller meals more often versus 3 larger meals a day if you are looking to promote healthy weight maintenance or weight loss. And we have discovered that many portions we eat are much larger than necessary, and can be laden with Calories. So, try snacking more and not eating so many large meals, and share your snacks or food with others (or break your portions in half) to help manage your Caloric intake.

Monitoring Your Intensity

When you are doing cardiovascular workouts, it is important that you work at the appropriate intensities when you are first starting out. It is also important that you workout at a variety of intensities after you have built a fitness base.

Research in recent years has indicated that one of the best ways to monitor your cardiovascular intensity is to pay close attention to how you are feeling when you workout. Most individuals can do a very good job of choosing the correct intensities if they simply categorize how they feel into one of four intensity "zones."

These zones could be described the following ways:

Zone 1	**• Easy** **• Warm-up** **• Cool-down**
Zone 2	**• Challenging, but comfortable** **• Steady endurance pace**
Zone 3	**• Challenging, and slightly uncomfortable** **• Race pace** **• Borderline out of breath**
Zone 4	**• Breathless** **• Not maximum, but winded** **• Can't keep the pace for very long**

When you are first starting out, you should exclusively work in the Zone 1 and Zone 2 intensities. After a few weeks, you can occasionally incorporate Zone 3 and Zone 4 intensities for short periods of time. Remember, when you begin to incorporate Zone 3 and Zone 4 intensities, you will find that you will likely have to drop down to Zone 1 intensities shortly thereafter as brief recovery periods.

For variety, you can spend a little bit of time in each of the four Zones during one workout, and then spend your time in just one Zone during the next workout.

Prenatal woman should always remain at Zone 1 and Zone 2 intensities, and anyone unaware of their current medical condition should also avoid Zone 3 and Zone 4 without prior clearance from their doctor.

These Zones can be translated into target heart rate numbers if your home fitness product has a grip or telemetric heart rate counter. Research has shown the best way to do this is not to establish heart rate numbers based upon age, but rather based upon how you feel.

The following chart will allow you to log your heart rate numbers based upon how you feel when working out. Simply log the heart rate numbers you find when you feel you are working at each of the specific intensities.

Zone	Description of Workout Intensity	Approximate Percentage of Maximum Heart Rate	Log Your Heart Rate	Your Heart Rate
1	• Easy • Warm-up • Cool-down	50% — 65%	Enter the heart rate you get when you are working in Zone 1 ▶	
2	• Challenging, but comfortable • Steady endurance pace	65% — 75%	Enter the heart rate you get when you are working in Zone 2 ▶	
3	• Challenging, and slightly uncomfortable • Race pace • Borderline out of breath	75% — 85%	Enter the heart rate you get when you are working in Zone 3 ▶	
4	• Breathless • Not maximum, but winded • Can't keep the pace for very long	85% — 90%	Enter the heart rate you get when you are working in Zone 4 ▶	

As you get in better shape, the heart rate number you obtain for each zone will get higher and higher, which means your heart is able to handle higher intensities. Or you may find that your numbers don't change, but you are able to stay in Zone 3 and Zone 4 longer than you used to.

Don't get too attached to any specific number or target heart rate. If you train properly, you will notice numbers that used to be difficult have now become easier. You will also notice that if you are sick or over-tired, you may find that numbers that usually feel fairly easy are one day much harder, and it is a good sign to take a break. If you notice that numbers that are usually very challenging are one day fairly easy, then it is a good time to push yourself.

Listening to your body, and using your heart rate numbers (when available) will enable you to keep track of your intensity and see your progress as you train.

Beating The Dropout Odds

The Surgeon General's Report on Physical Activity and Health summarizes a few main points:

1. Regular physical activity offers substantial improvements in health and well-being for a majority of Americans.
2. If you exercise regularly, you'll reduce your risk of heart attack, cancer, diabetes, high blood pressure, osteoporosis and even the common cold.
3. Regular exercise, regardless of the intensity, can help you control stress, sleep problems and depression.

The benefits of exercise and activity are AMAZING! And yet, many people do not exercise regularly. (For example, only 22 percent of Americans engage in exercise for 20 minutes a day.) And even among individuals who begin exercise programs, the dropout rate is about 50 percent.

So, how do you beat these odds? The answer appears to be in how your start and maintain your exercise program as well as how you create a habit of exercise.

Why are you starting an exercise program? For most individuals, it is to lose weight and look better, which are great reasons. However, since changes in your body shape and size can be gradual, and won't happen overnight, it is important to focus on other benefits so that you will remain motivated.

Thrive on the energy that exercise gives you. Watch your health risks scores go down. Pay attention to how much easier everyday activity is. Notice how much better you are sleeping. These kinds of additional benefits will continue to keep you motivated if you make them just as important to you as weight loss.

Additionally, try not to view exercise as punishment. Look at it as an investment in your health. If you don't feel motivated to workout one day, think of something that is appealing to you that is active, and change your workout. Try not to let your workout become routine or mundane, and always remember that some exercise is better than none at all. So, if you feel you are not motivated to continue, stop your workout early, or skip a day. It just might be the thing you need to get you excited about your next workout.

Possibly the most important thing is to keep progressing your exercise program slowly. Big increases in time or intensity can set you up for injury, and cause you to drop out. Unless you are a world-class athlete, there is no reason to workout at world-class levels. Remember to give yourself some days off and get proper rest.

Finally, try to anticipate lapses. If you are traveling, or your schedule is becoming busier, and you are fearful you may get off track, try planning ahead. For example, book a hotel that has a workout facility or change up your workout so that you keep your interest high and your boredom low. The bottom line is you must be creative and innovative to keep up your fitness program. With some imagination and planning, it is easy to do.

Exercise is one of life's joys. It energizes you, helps you look and feel better and puts you on the road to better health. Your home fitness equipment and gym is worth its weight in gold. Congratulations on making the choice to get started!

Suggested Reading:

The Complete Home Fitness Handbook by Edmund Burke, Human Kinetics Publisher.

Full Body Flexibility by Jay Blahnik, Human Kinetics Publisher.

Building Strength and Stamina by Wayne Wescott, PhD, Human Kinetics Publisher.

Cross-Training for Dummies by Tony Ryan and Martica Heaner, For Dummies Publisher.

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Management Menu

To access the Management Menu follow the steps below.

1. Press and hold the LEVEL UP and LEVEL DOWN Keys for three seconds while in Standby Mode.
2. Machine is now in Management Menu Mode. TOTAL HOURS will be shown on the display. Press the ENTER Key to advance.
3. MAX TIME will now be shown on the display and the elliptical's current maximum workout time will be displayed. The time can be adjusted up or down using the LEVEL UP/DOWN Keys if you wish to limit the maximum workout time. Press the ENTER Key to confirm and advance.
4. UNITS — ENGLISH will now be shown in the display. Use the LEVEL UP/DOWN Keys to select between ENGLISH or METRIC units. Press the ENTER Key to confirm and advance.
5. (EV7.18 Model Only) Up LCD Contrast will now be shown in the display window. Use the LEVEL UP/DOWN Keys to adjust the display contrast for the upper display window as needed. Default value is 7. Press the ENTER Key to confirm and advance.
6. (EV7.18 Model Only) Low LCD Contrast will now be shown in the display window. Use the LEVEL UP/DOWN Keys to adjust the display contrast for the dot matrix window as needed. Default value is 7. Press the ENTER Key to confirm and advance.
7. LANGUAGE – ENGLISH will now be shown in the display. Use the LEVEL UP/DOWN Keys to select English, French, German or Spanish languages. Press the ENTER Key to confirm and advance.
8. Machine will now exit Management Menu Mode and return to the Standby Mode.

The Nautilus® Pro Series Elliptical requires a minimal amount of maintenance and upkeep. For safety and long life of the machine, it is however important to follow the guideline detailed below.

IMPORTANT Do not operate machine if the unit is damaged or is not functioning properly. Contact your Nautilus® Fitness Dealer to obtain service.

Daily

Following each workout, use a clean, dry towel to completely wipe down the machine. Pay special attention to areas that tend to collect perspiration during use. Cleaning your machine regularly will help to prevent rust and corrosion.

Weekly

Clean the machine thoroughly using a mild ammonia-based cleaner and a clean cloth. Do not spray cleaner directly on to display panel or machine. Instead, spray cleaner onto cloth. Use automotive touch-up paint to cover up any scratches on the machine's painted surfaces. This will help to mitigate possible rust areas. The power cord should also be inspected to make sure there is no damage.

Annually

With regular use, it is advise that your Nautilus® Elliptical Trainer be inspected and internally cleaned by an authorized Nautilus® service technician. The service technician should remove the machine's shrouds and inspect the drive belt, bearings and roller wheels for damage and wear.

WARRANTY

All Nautilus® exercise products are warranted to the retail purchaser to be free from defects in materials and workmanship. Warranty coverage is valid to the original purchaser only and proof of purchase will be required. Any product sold or placed in an application not recommended by Nautilus® will void any warranty coverage set forth by Nautilus® warranty policies and procedures.

Time Period

Frame — Lifetime

All other mechanical and electrical parts — 4 Years

Labor — 1 Year

Warranty terms may differ outside the USA.

What This Warranty Does Not Cover

1. Any component on original equipment which carries a separate consumer warranty of the parts supplier.
2. Use in commercial setting such as health clubs, schools, hotels and hospitals.
3. Users weighing more than 350 lb (159 kg).
4. Any damage, failure or loss caused by accident, misuse, neglect, abuse, improper assembly, improper maintenance or failure follow instructions or warnings in Owner's Manual.
5. Use of product in a manner or environment for which it was not designed.
6. Rusting and corrosion of the frame is not included in the machine's lifetime frame warranty.

Limitations

The foregoing warranties are in lieu of and exclude all other warranties not expressly set forth herein, whether expressed or implied by operation of law or otherwise, including, but not limited to, warranties of merchantability or fitness for a particular purpose. Nautilus® shall in no event be liable for incidental or consequential losses, damages or expenses in connection with its exercise products. Nautilus®' liability hereunder is expressly limited to the replacement of goods not complying with this warranty or, at Nautilus®' election, to the replacement amount of the purchase price of the exercise product in question. Some states do not permit the exclusion or limitation of implied warranties or incidental or consequential damages, so the preceding limitations and exclusions may not apply to you.

Procedures

Warranty service will in most cases be performed by an authorized Nautilus® Fitness Dealer or Service Technician . The original purchaser must provide proof of purchase. Service calls and/or transportation to and from the Nautilus® Dealer are the responsibility of the purchaser.

1. Nautilus® will have the option to repair or replace any exercise product, which requires service.
2. Nautilus® will replace any equipment frame that is structurally defective with a new frame or replace the unit with a unit of equal value. Nautilus® is not responsible for labor charges associated with replacing defective frames.
3. Nautilus® is not responsible for dealer labor charges for the component changeovers completed after the labor related warranty period stated herein.
4. If you elect to repair an exercise product or part your self, using the services of someone other than an authorized Nautilus® Fitness Dealer or Service Technician, or use a replacement part not supplied by Nautilus®, Nautilus® shall not be liable for any cost, damage, failure or loss caused by the use of such unauthorized service or parts.

CONTACTING NAUTILUS

If you need assistance, please have both the serial number of your machine and the date of purchase available when you contact the appropriate Nautilus office listed below.

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Model EV7.16

Model EV7.18

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