

This Operation Manual describes the functions of the following products:

Life Fitness Treadmills:

95Ti

97Ti

See "Specifications" in this manual for product specific features.

Statement of Purpose: The treadmill is an exercise machine that enables users to walk or run, in place, on a moving surface.

Life Fitness **STRONGLY** recommends seeing a physician for a complete medical exam before undertaking an exercise program, particularly if the user has a family history of high blood pressure or heart disease, or is over the age of 45, or smokes, has high cholesterol, is obese, or has not exercised regularly in the past year.

If, at any time while exercising, the user experiences faintness, dizziness, pain, or shortness of breath, he or she must stop immediately.

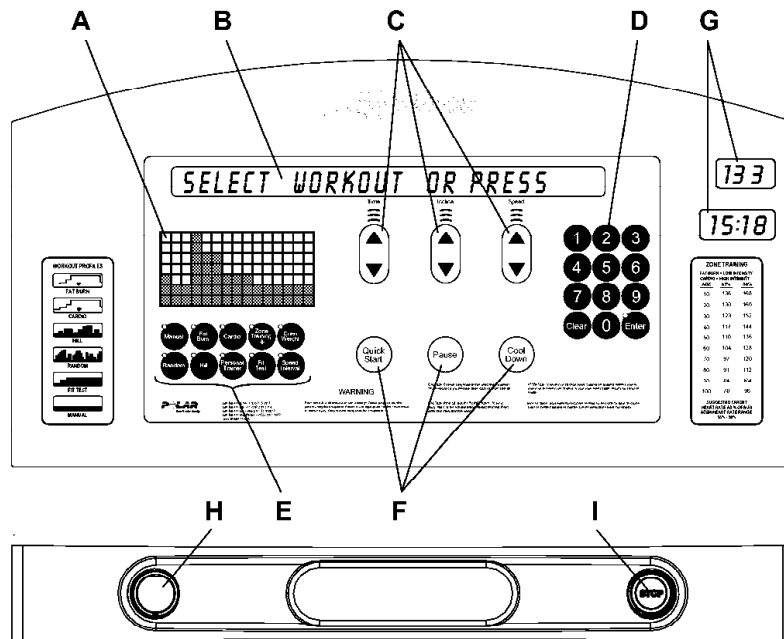
Life Fitness recommande **FORTEMENT** de consulter un médecin pour subir un examen médical complet avant de commencer tout programme d'exercice, et tout particulièrement si l'utilisateur a des antécédents familiaux d'hypertension ou de troubles cardiaques, s'il a plus de 45 ans, s'il fume, s'il a du cholestérol, s'il est obèse ou n'a pas fait d'exercice régulièrement depuis un an.

Si, pendant l'utilisation de l'appareil, l'utilisateur ressent un malaise, des vertiges, des douleurs ou des difficultés à respirer, il doit s'arrêter immédiatement.

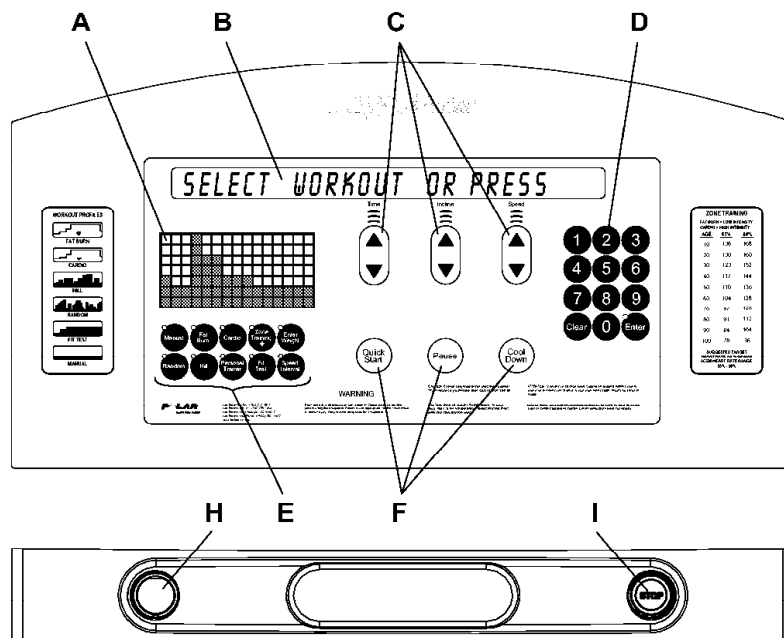
2 THE DISPLAY CONSOLE

2.1 DISPLAY CONSOLE OVERVIEW

The computerized display console on the treadmill allows the user to tailor a workout to personal fitness abilities and goals and to monitor progress. With this easy-to-use console, the user can track fitness improvement from one workout to the next.



97Ti



95Ti

2.2 DISPLAY CONSOLE DESCRIPTIONS

- A **WORKOUT PROFILE WINDOW:** During a workout, interval hills and valleys appear in this window as rows of light stacked in columns. The number of lit rows within a column corresponds to an incline percentage.
- B **MESSAGE CENTER:** This window displays step-by-step instructions for setting up a workout. During a workout, it displays calories, distance, time, incline and speed[†]. Additionally, the MESSAGE CENTER displays calories per hour, METS, Watts, pace in minutes per mile/kilometer, and distance climbed, if enabled to do so in the Manager's Configuration. See Section 5.1, titled *Entering and Using the Manager's Configuration*.

[†] Also heart rate on 95Ti.

- C **TIME, INCLINE, and SPEED ARROW keys:** Press these keys to increase or decrease the workout time, the incline of the treadmill deck, or the striding belt speed. The MESSAGE CENTER displays the input data in sections located just above the keys. Additionally, any of these keys may be pressed to set up a workout or to change Manager's Configuration settings.
- D **NUMERIC keypad:** Use NUMERIC keys to enter exercise time, difficulty level, belt speed, weight, distance, goal selection, gender, and target heart rate.

CLEAR key: Press this key once to clear data not yet entered. Press it twice in succession, while programming, to reset the treadmill and restart the programming sequence.

ENTER key: Press this key to confirm entries of workout setup values, as displayed in the MESSAGE CENTER.

- E **WORKOUT SELECTION keys:** Press any of these keys to select the program identified on the given key's label. These programs include: **FAT BURN, CARDIO, HILL, RANDOM, MANUAL, ZONE TRAINING +, FIT TEST, PERSONAL TRAINER,** and **SPEED INTERVAL.**

ENTER WEIGHT: Press this key to enter a user weight during a QUICK START workout. Use the TIME ARROW keys or the NUMERIC keypad to enter a weight value.

- F **QUICK START:** Press this key to begin a manual workout immediately, without having to select a workout program. Once the workout is in progress, use the ARROW keys or the NUMERIC keypad to change the intensity level or workout duration as desired.

COOL DOWN: Press this key to begin an automatically customized workout cool-down.

PAUSE: Press this key to stop the belt and hold the current workout. Continue the workout by pressing the PAUSE key a second time or by pressing the ENTER key.

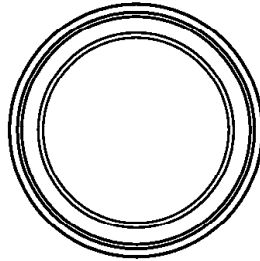
- G **YOUR ZONE™ HEART RATE PANEL (Model 97Ti only):**

HEART RATE: Displays the heart rate during a workout if the user grasps the Lifepulse™ sensors or wears a Polar®-compatible heart rate chest strap.

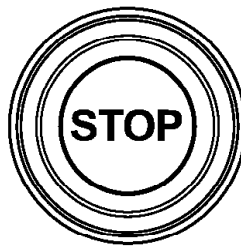
TIME IN ZONE: Displays the accumulated time that the heart rate stays within the selected target zone for a Heart Rate Zone Training workout. See section 3, titled *Heart Rate Zone Training Exercise*, for more information.

The Life Fitness Treadmill is equipped with a manual emergency stop system. Use either of the two features described below to stop the treadmill immediately.

- H A circular-shaped STOP magnet is located on the left side of the panel below the display console. A cord with a clip is attached to this magnet. Before starting a workout, attach the clip to clothing. To stop the striding belt on the treadmill, pull the cord, removing the magnet from the console. Replace the magnet to reset the system.

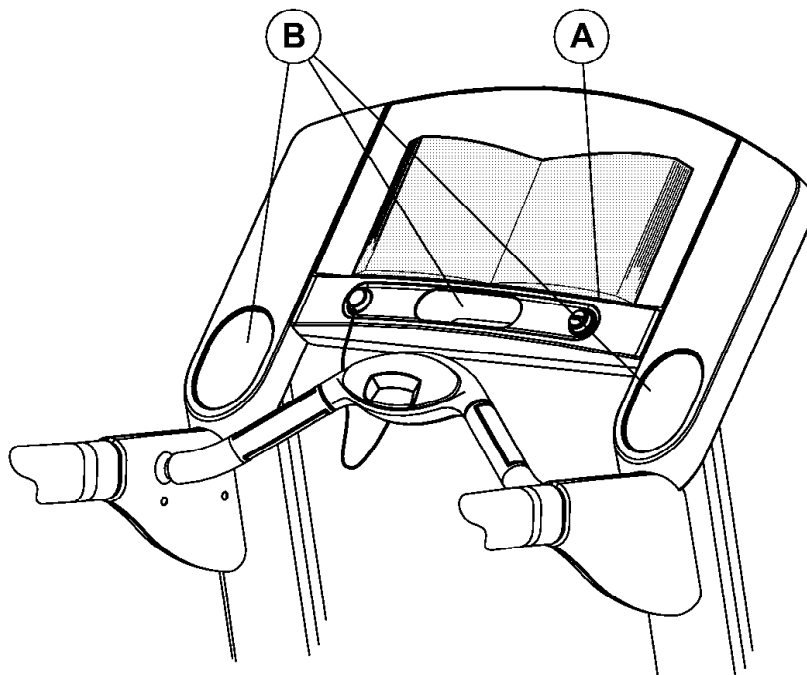


- I A circular-shaped STOP button is located on the right side of the panel below the display console. Press the button to stop the striding belt and end the current workout.



2.3 READING RACK AND ACCESSORY TRAYS

The display console design includes a built-in reading rack (A) allowing a book or magazine to be supported during the workout. Also included in the display console are three built-in accessory trays (B). Two side trays to accommodate large items such as water bottles and one center tray for smaller items such as personal media devices.



3 HEART RATE ZONE TRAINING® EXERCISE

3.1 WHY HEART RATE ZONE TRAINING® EXERCISE?

Research shows that maintaining a specific heart rate while exercising is the optimal way to monitor the intensity of a workout and to achieve maximum results. That is the idea behind the Life Fitness Heart Rate Zone Training® approach to exercise.

Zone Training identifies an exerciser's ideal heart rate range, or zone, for burning fat or increasing cardiovascular fitness. The zone is a percentage of the theoretical maximum† (HRmax), and its value depends on the workout. The Life Fitness Treadmill features five exclusive workouts designed to take full advantage of the benefits of Heart Rate Zone Training+ exercise:

- FAT BURN
- HEART RATE HILL™
- EXTREME HEART RATE™
- CARDIO
- HEART RATE INTERVAL™

Each workout offers different benefits, as discussed in Section 4, titled *The Workouts*.

NOTE: Consulting a fitness trainer is recommended for defining specific fitness goals and designing a workout program.

To change the target heart rate during a workout, simply enter a new target heart rate using the NUMERIC keypad.

To switch between programs during a workout, use the WORKOUT SELECTION keys.

The Heart Rate Zone Training® workout programs measure heart rate. Wear the optional telemetry chest strap, or grip the Lifepulse™ sensors, to enable the treadmill's on-board computer to monitor the heart rate during a workout. The computer automatically adjusts the incline level to maintain the target heart rate based on the actual heart rate.

ZONE TRAINING		
FAT BURN = LOW INTENSITY		
CARDIO = HIGH INTENSITY		
AGE	65%	80%
10	136	168
20	130	160
30	123	152
40	117	144
50	110	136
60	104	128
70	97	120
80	91	112
90	84	104
100	78	96

SUGGESTED TARGET
HEART RATE AS % OF MAX
ACSM HEART RATE RANGE:
55% - 90%

† Defined by the American College of Sports Medicine's "Guidelines for Exercise Testing and Prescription" as equal to 220 minus an individual's age.

3.2 HEART RATE MONITORING

THE LIFEPUULSE™ SYSTEM

To use the treadmill's Lifepulse™ system to check the heart rate during a workout, grasp the stainless steel sensors on the Ergo™ front handlebar. Two sensors are located on each of the handlebars. Contact must be maintained with all four sensors to obtain a heart rate. The console displays a heart rate within 20 to 30 seconds of contact with the sensors.

Do not attempt to grasp the sensors at speeds above 4.5 MPH, or 7.2 KPH. For these speeds, the use of a heart rate chest strap is recommended.

THE OPTIONAL HEART RATE CHEST STRAP

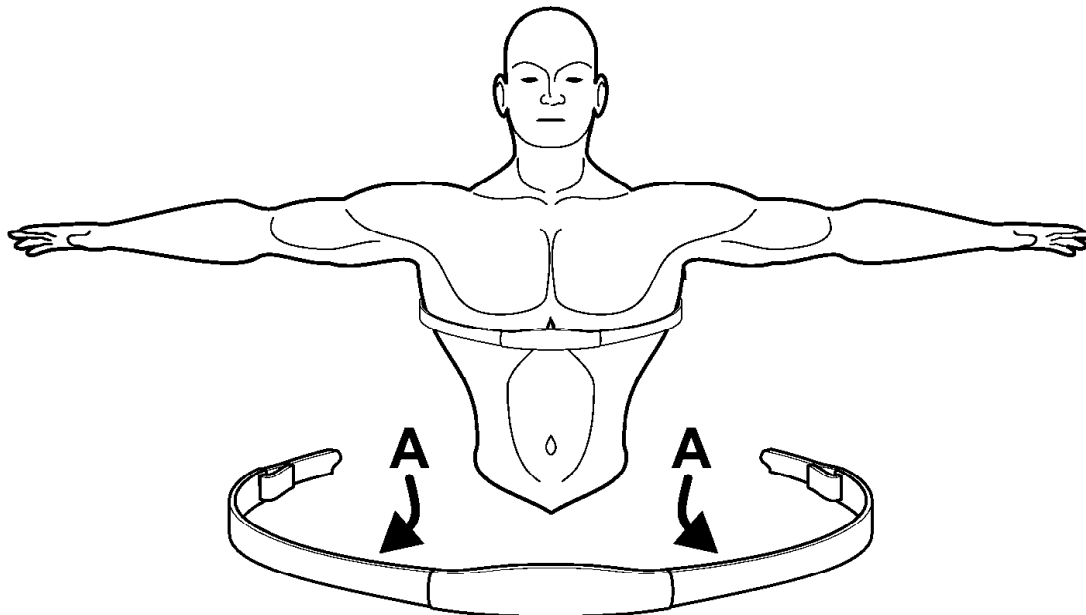
The Life Fitness Treadmill is equipped with Polar® telemetry, a heart rate monitoring system in which electrodes, pressed against the skin, transfer heart rate signals to the treadmill console. These electrodes are attached to a chest strap that the user wears during the workout. The chest strap is optional. To order it, call Life Fitness Customer Support Services at 1-800-351-3737.

See the diagram below for correct positioning of the strap. The electrodes (A), which are the two grooved surfaces on the underside of the strap, must remain wet to transmit accurately the electrical impulses of the heart back to the receiver. Moisten the electrodes. Then, secure the strap as high under the chest muscles as possible. The strap should be snug, but comfortable enough to allow for normal breathing.

The transmitter strap delivers an optimal heart rate reading when the electrodes are in direct contact with bare skin. However, it functions properly through a thin layer of wet clothing.

If it becomes necessary to re-moisten the chest strap electrodes, grasp the center of the strap, pull it away from the chest to expose the two electrodes, and re-moisten them.

During the setup of a heart rate zone training workout, the user will be required to enter a start-up speed. If a heart rate chest strap is not detected, the maximum allowable speed is 4.5 mph. If a heart rate chest strap is detected, the maximum speed is 12 mph (15 mph on the 97Ti).



4 THE WORKOUTS

4.1 WORKOUT OVERVIEWS

The following workouts are preprogrammed for the Life Fitness Treadmill.

QUICK START is the fastest way to begin exercising. After the QUICK START key is pressed, a MANUAL workout begins immediately.

MANUAL is a constant effort workout in which the user can change resistance level or speed at any time.

RANDOM is an interval training workout of constantly changing intensity levels that occur in no regular pattern or progression.

HILL is an interval training workout. Intervals are periods of intense aerobic exercise separated by regular periods of lower-intensity exercise.

SPEED INTERVAL enables the user to toggle between two chosen speeds with the touch of a single button.

SPORT TRAINING™ (5K) is a distance-goal workout that simulates an actual terrain with varying incline levels. It is designed to assist runners in training for a 5-kilometer, or 3.1-mile, race. Accessible through the PERSONAL TRAINER workouts button.

SPORT TRAINING™ (10K) is a distance-goal workout that simulates an actual terrain with varying incline levels. It is designed to assist runners in training for a 10-kilometer, or 6.2-mile, race. Accessible through the PERSONAL TRAINER workouts button.

PERSONAL TRAINER workouts are accessed through the PERSONAL TRAINER key. These include the pre-programmed **DISTANCE GOAL**, **CALORIES GOAL**, and **TIME IN ZONE GOAL** workouts, as well as up to six custom workouts, which may be programmed by a fitness club manager or other authorized staff.

HEART RATE HILL™ takes the user through three different hills based on the target heart rate*. The user wears a heart rate chest strap, or grasps the Lifepulse™ sensors continuously.

HEART RATE INTERVAL™ alternates between a hill and a valley based on the target heart rate*. The user wears a heart rate chest strap, or grasps the Lifepulse™ sensors continuously.

EXTREME HEART RATE™ is an intense workout for more experienced users. It is designed to get the heart rate up and down as quickly as possible. The user wears a heart rate chest strap, or grasps the Lifepulse™ sensors continuously.

FAT BURN is a low-intensity workout for burning the body's fat reserves. The user wears a heart rate chest strap, or grasps the Lifepulse™ sensors continuously. The program adjusts the intensity level through changing the incline (elevation), based on the actual heart rate, to maintain the rate at 65 percent of the theoretical maximum†.

† Defined by the American College of Sports Medicine's "Guidelines for Exercise Testing and Prescription" as equal to 220 minus an individual's age.

* Target Heart Rate (THR) is a percentage of the theoretical maximum (HRmax). A 40-year-old user's recommended THR for the HEART RATE HILL workout is 144, or 80 percent of the maximum; so the equation would be $(220-40) \cdot 80 = 144$.

CARDIO is a higher intensity workout for more fit users, emphasizing cardiovascular benefits and maximum fat burning. The user wears a heart rate chest strap, or grasps the Lifepulse™ sensors continuously. The program adjusts the intensity level, based on the actual heart rate, to maintain the rate at 80 percent of the theoretical maximum.

FIT TEST offers six different workouts to measure cardiovascular fitness compared to other people of the same age and gender.

FITNESS TESTS are similar to the FIT TEST workout, except that these programs are based upon specific predefined protocols. The available tests are:

- **ARMY PHYSICAL FITNESS TEST (PFT)** - *(U.S. MILITARY)*
- **NAVY PHYSICAL READINESS TEST (PRT)** - *(U.S. MILITARY)*
- **MARINES PHYSICAL FITNESS TEST (PFT)** - *(U.S. MILITARY)*
- **GERKIN PROTOCOL** - *(INTERNATIONAL ASSOCIATION OF FIRE FIGHTERS)*
- **PHYSICAL EFFICIENCY BATTERY (PEB)** - *(U.S. FEDERAL LAW ENFORCEMENT)*

4.2 USING THE WORKOUTS

Select a workout or log on to a fitness network exercise database. See Section 4.5, titled *Logging on to the Network* for details. The following chart lists the steps for setting up each workout.

Use the NUMERIC keypad to enter the values when prompted by the MESSAGE CENTER; or use TIME, INCLINE, or SPEED ARROW keys to scroll to desired values displayed on the MESSAGE CENTER. Press ENTER to confirm each selection. These entered values can be changed during all workouts, except for those found under the **FIT TEST** button.

LIFE FITNESS TREADMILL WORKOUT SETUP STEPS

<p>QUICK START Press QUICK START Begin workout</p> <p>MANUAL Press MANUAL Enter weight Enter time Enter incline Enter speed Begin workout</p> <p>RANDOM Press RANDOM Enter weight Enter time Enter level Enter speed Begin workout</p> <p>FAT BURN** Press FAT BURN Enter weight Enter time Enter age Enter THR* Enter speed Begin workout</p> <p>CARDIO** Press CARDIO Enter weight Enter time Enter age Enter THR* Enter speed Begin workout</p> <p>HILL Press HILL Enter weight Enter time Enter level Enter speed Begin workout</p> <p>PERSONAL TRAINER WORKOUTS Press PERSONAL TRAINER repeatedly until PERSONAL TRAINER WORKOUTS appears; press ENTER Select the desired workout number, from 1 to 6; press ENTER Begin workout</p>	<p>CALORIES GOAL Press PERSONAL TRAINER repeatedly until CALORIES GOAL appears; press ENTER Enter weight Enter calories Enter incline Enter speed Begin workout</p> <p>DISTANCE GOAL Press PERSONAL TRAINER repeatedly until DISTANCE GOAL appears; press ENTER Enter weight Enter distance Enter incline Enter speed Begin workout</p> <p>TIME IN ZONE GOAL Press PERSONAL TRAINER repeatedly until TIME IN ZONE GOAL appears; press ENTER Enter weight Enter time Select Fat Burn or Cardio Enter age Enter THR* Enter speed Begin workout</p> <p>SPORT TRAINING™ Press PERSONAL TRAINER repeatedly until SPORT TRAINING 5K or SPORT TRAINING 10K appears; press ENTER Enter weight Enter level Enter speed Begin workout</p> <p>HEART RATE HILL™** Press ZONE TRAINING+ repeatedly until HR HILL appears; press ENTER Enter weight Enter time Enter age Enter THR* Enter speed Begin workout</p>	<p>HEART RATE INTERVAL™** Press ZONE TRAINING+ repeatedly until HR INTERVAL appears; press ENTER Enter weight Enter time Enter age Enter THR* Enter speed Begin workout</p> <p>EXTREME HEART RATE™** Press ZONE TRAINING+ repeatedly until EXTREME HR appears; press ENTER Enter weight Enter time Enter age Enter THR* Enter walk speed Enter jog speed Begin workout</p> <p>FIT TEST** Press FIT TEST repeatedly until FIT TEST appears; press ENTER Enter weight Enter age Enter gender Enter speed Begin workout</p> <p>PEB TEST Press FIT TEST repeatedly until PEB TEST appears; press ENTER Enter weight Enter age Enter gender Enter speed Begin workout</p> <p>GERKIN PROTOCOL** Press FIT TEST repeatedly until GERKIN PROTOCOL appears; press ENTER Enter weight Enter age Enter THR* Begin workout</p>	<p>NAVY PRT Press FIT TEST repeatedly until NAVY PRT appears; press ENTER Enter YES or NO to question: ELEVATION LESS THAN 5000 FEET ABOVE SEA LEVEL? Enter weight Enter age Enter gender Enter speed Begin workout</p> <p>ARMY PFT Press FIT TEST repeatedly until ARMY PRT appears; press ENTER Enter weight Enter age Enter gender Enter speed Begin workout</p> <p>MARINES PFT Press FIT TEST repeatedly until MARINES PFT appears; press ENTER Enter YES or NO to question: ELEVATION LESS THAN 4500 FEET ABOVE SEA LEVEL? Enter weight Enter gender Enter speed Begin workout</p> <p>SPEED INTERVAL Press SPEED INTERVAL Enter weight Enter time Enter incline Enter jog speed Enter run speed</p>
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* Target Heart Rate (THR) is a percentage of the theoretical maximum (HRmax). For example, a 40-year-old user's recommended THR for the FAT BURN workout is 117. The FAT BURN workout targets 65 percent of the maximum, so the equation would be $(220-40) \times .65 = 117$.

** This workout requires the user to wear the telemetry chest strap or grasp the Lifepulse™ sensors.

4.3 WORKOUT DESCRIPTIONS

QUICK START

QUICK START is the fastest way to begin exercising. After the QUICK START key is pressed, a MANUAL workout begins. For accurate caloric expenditure, enter weight using the ENTER WEIGHT button. The incline level is set to zero by default. Change the level using the INCLINE ARROW key. Change the speed using the SPEED key, up or down as desired, or use the NUMERIC keypad to enter a new speed value.

MANUAL

The **MANUAL** program is a constant effort workout in which the user can change resistance level or speed at any time.

RANDOM

The **RANDOM** program creates a terrain of hills and valleys that varies with each workout. More than one million different patterns are possible.

FAT BURN

The **FAT BURN** workout is designed to maintain a user's heart rate at 65 percent of the theoretical maximum[†] (HRmax) for optimal results. Throughout the workout, the user wears a chest strap or grasps the Lifepulse™ sensors. If the user is not wearing a chest strap, the WORKOUT PROFILE WINDOW displays a heart shape, and the MESSAGE CENTER displays a prompt to grasp the sensors. The console continuously monitors and displays the heart rate, adjusting the intensity level of the treadmill to reach and maintain the target*. This system eliminates over- and under-training, and it maximizes the aerobic benefits of exercise by using the body's fat stores for fuel.

NOTE: *The intensity level is changed by incline. Speed can be only changed by the user*

CARDIO

The **CARDIO** workout is virtually identical to **FAT BURN**; however the target heart rate is calculated at 80 percent of the theoretical maximum[†] (HRmax)**. The higher target promotes cardiovascular improvement by placing a heavier workload on the heart muscle.

NOTE: *The intensity level is changed by incline. Speed can be only changed by the user.*

NOTE: *Change the target heart rate at any time by using the NUMERIC KEYPAD.*

[†] Defined by the American College of Sports Medicine's "Guidelines for Exercise Testing and Prescription" as equal to 220 minus an individual's age.

* Target Heart Rate (THR) is a percentage of the theoretical maximum (HRmax). For example, a 40-year-old user's recommended THR for the FAT BURN workout is 117, or 65 percent of the maximum, so the equation would be $(220 - 40) \cdot 65 = 117$.

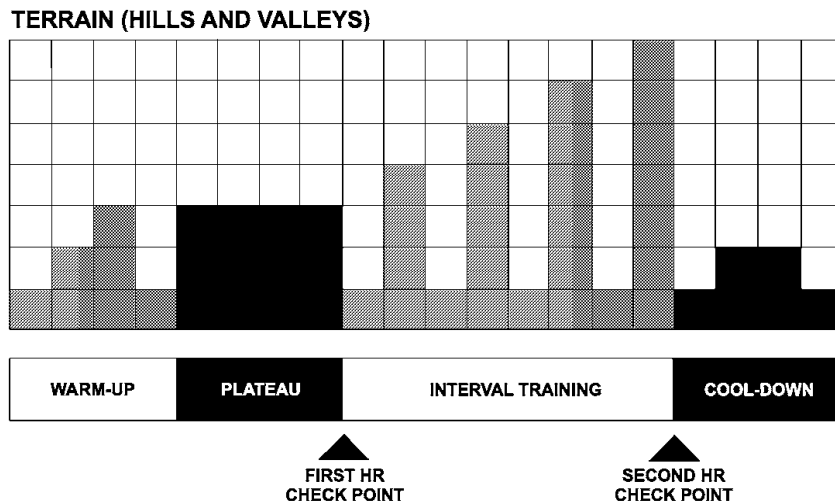
** Target Heart Rate (THR) is a percentage of the theoretical maximum (HRmax). A 40-year-old user's recommended THR for the CARDIO workout is 144, or 80 percent of the maximum; so the equation would be $(220 - 40) \cdot 80 = 144$.

HILL

The Life Fitness-patented **HILL** workout offers a variety of configurations for interval training. Intervals are periods of intense cardiovascular exercise separated by regular periods of lower-intensity exercise. The **WORKOUT PROFILE** window represents these high and low intervals as columns of light, which together have the appearance of hills and valleys. The computerized interval training workout has been scientifically demonstrated to promote greater cardiorespiratory improvement than steady-pace training.

The **HILL** workout goes through four phases, each marked by different intensity levels. The **WORKOUT PROFILE** window displays the progress of these phases. As noted in the descriptions below, the heart rate should be measured at two stages in the workout to gauge its effectiveness. Wear the chest strap or continuously grip the Lifepulse™ handles. The **MESSAGE CENTER** does not display a request for a heart rate measurement, as it does with **CARDIO**, **FAT BURN** and the **HEART RATE ZONE TRAINING** programs.

- 1 **Warm-up** is a phase of low, gradually rising resistance, which brings the heart rate into the lower end of the target zone and increases respiration and blood flow to working muscles.
- 2 **Plateau** increases the intensity slightly, and keeps it steady, to bring the heart rate to the low end of the target zone. Check the heart rate at the end of this phase.
- 3 **Interval Training** is a series of increasingly steeper hills, alternating with valleys, or stints of recovery. The heart rate should rise to the high end of the target zone. Check the heart rate at the end of this phase.
- 4 **Cool-down** is a low-intensity phase that allows the body to begin removing lactic acid, and other exercise by-products, which build up in muscles and contribute to soreness.



Each column, as seen in the WORKOUT PROFILE WINDOW and the chart above, represents one interval. The overall duration of the workout determines the length of each interval. Each workout is made up of 20 intervals, so the duration of each interval is equal to the duration of the entire workout divided by 20.

1 to 9 minutes: A workout with a duration of less than 10 minutes is insufficient for the **HILL** program to complete all four phases adequately. The program, therefore, condenses a workout of this duration at various stages.

10 to 19 minutes: The interval durations initially are set at 30 seconds for a 10-minute workout. For every minute over 10, each interval increases by three seconds. A 15-minute workout consists of 20 intervals at 45 seconds each.

20 to 99 minutes: All intervals last 60 seconds. If the user adds minutes to the pre-set duration while the workout is in progress, the program adds hills and valleys that are identical to the first eight intervals of the Interval Training phase. This pattern repeats until the workout is completed.

CUSTOM WORKOUTS

The treadmill console stores up to six custom workouts. These workouts are created by fitness club managers or other authorized personnel. For information on creating these workouts, see the topic titled *Programming Custom Workouts* in Section 5, titled *The Manager's Configuration*.

To use custom workouts, press the PERSONAL TRAINER button repeatedly until the MESSAGE CENTER displays "PERSONAL TRAINER WORKOUTS". Then, press ENTER. The MESSAGE CENTER displays a prompt to select a custom workout number, ranging from 1 to 6. Using the ARROW keys or the NUMERIC keypad, select the number and press ENTER. If a workout has not been created for that number, the MESSAGE CENTER simply scrolls to the next number. If a workout has been created for the selected number, the MESSAGE CENTER displays successive prompts to enter the weight and choose a speed. After these entries are provided, the workout begins.

CALORIES GOAL

This workout is designed to promote weight loss and weight control. The objective is to burn a certain number of calories in the selected time duration. Once the objective is met, the workout automatically goes into a cool-down phase, and ends afterward.

DISTANCE GOAL

This workout is designed to build endurance. The objective is to cover a certain distance in miles. Once the objective is met, the workout automatically goes into a cool-down phase, and ends afterward.

NOTE: When a user sets this goal with the *TIME ARROW* keys, the console displays the values in .10-mile increments.

TIME IN ZONE GOAL

The Time in Zone Goal program, a feature of Heart Rate Zone Training®, enhances **FAT BURN** and **CARDIO** workouts by setting a duration for staying within the target zone as the workout goal. Once the duration objective is met, the workout goes into a cool-down phase.

SPORT TRAINING™

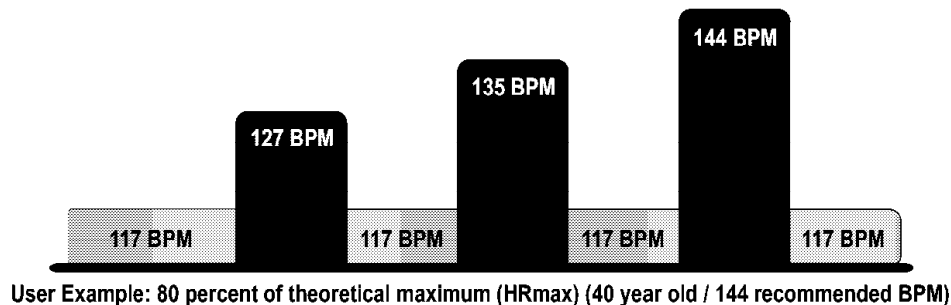
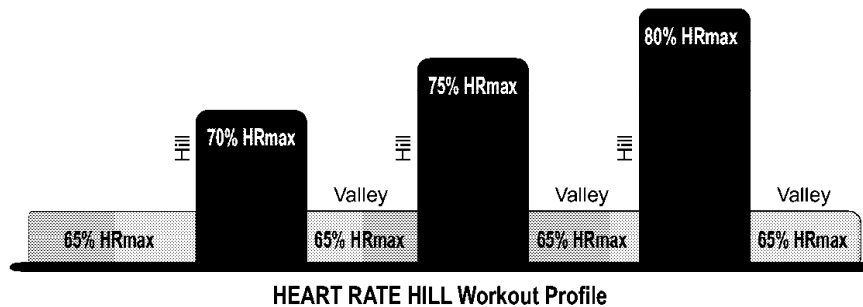
This distance-goal workout is designed for runners training for races. The program creates realistic terrains by setting different incline levels throughout the course. Incline grades depend on the difficulty levels selected during the workout setup. A 1.5 percent incline grade, which is the baseline level, simulates a flat running surface. A zero percent grade simulates running downhill. Incline durations range between 30 and 60 seconds. The course ends when the distance goal is met. Two Sport Training™ programs are available on the treadmill:

- **SPORT TRAINING™ (5K)** is a 5-kilometer, or 3.1-mile, course.
- **SPORT TRAINING™ (10K)** is a 10-kilometer, or 6.2-mile, course.

HEART RATE HILL™

This program combines the standard **HILL** workout profile with the concept of Heart Rate Zone Training. The default target heart rate* is calculated as 80 percent of the theoretical maximum† (HRmax), but the user can adjust the target rate during the workout setup. All hills and valleys are percentages of HRmax. The workout consists of three hills that target three heart rate goals: The first hill brings the heart rate to 70 percent of HRmax. The second hill increases the rate to 75 percent of HRmax. The third hill matches the Target Heart Rate bringing the heart rate to 80 percent of HRmax. The valley always is defined as 65 percent of HRmax.

After a standard three-minute warm-up, the workout progresses toward the first hill and heart rate goal. Once the user reaches 70 percent of HRmax, the hill continues for one minute. When the minute expires, the level decreases into a valley. Once the user's heart rate falls to 65 percent of HRmax, the valley continues for one minute. Then, the next hill begins with its corresponding heart rate goal. After the user completes the third hill/valley pair, the program returns to the first hill and repeats the cycle as long as the duration allows. At the end of the duration, the workout goes into a cool-down phase. If the heart rate goes above the theoretical maximum for more than 45 seconds, the treadmill automatically goes into pause mode. If the user does not reach a heart rate goal after five minutes, the MESSAGE CENTER displays a prompt to increase or decrease speed, depending on whether the workout is in a hill or valley phase. The program does not proceed to a new heart rate goal until the user reaches the current goal.

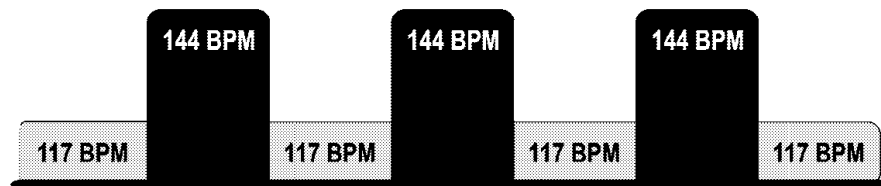
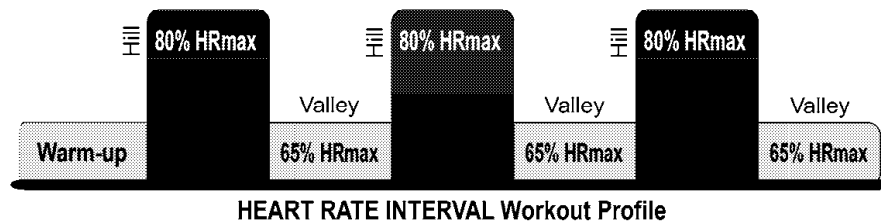


† Defined by the American College of Sports Medicine's "Guidelines for Exercise Testing and Prescription" as equal to 220 minus an individual's age.

* Target Heart Rate (THR) is a percentage of the theoretical maximum (HRmax). A 40-year-old user's recommended THR for the HEART RATE HILL workout is 144, or 80 percent of the maximum; so the equation would be $(220-40) \cdot 80 = 144$.

HEART RATE INTERVAL™

This program also combines the standard **HILL** workout profile with the concept of Heart Rate Zone Training. The default target heart rate* is calculated as 80 percent of the theoretical maximum† (HRmax), but the user can adjust the target rate during the workout setup. The workout alternates between a hill, which brings the heart rate up to the target rate of 80 percent of HRmax, and a valley, which brings the heart rate down to 65 percent of HRmax. After a standard three-minute warm-up, the workout progresses toward the first hill and heart rate goal. Once the goal is reached, the hill continues for three minutes. Then, the level decreases into a valley. Once the 65 percent of HRmax goal is reached, the valley continues for three minutes, after which the next hill begins. The user's fitness level determines the number of hills and valleys encountered within the duration. At the end of the duration, the workout goes into a cool-down phase. If the heart rate goes above the theoretical maximum† for more than 45 seconds, the treadmill automatically goes into pause mode. If the user does not reach a heart rate goal after five minutes, the MESSAGE CENTER displays a prompt to increase or decrease speed, depending on whether the workout is in a hill or valley phase. The program does not proceed to a new heart rate goal until the user reaches the current goal.



† Defined by the American College of Sports Medicine's "Guidelines for Exercise Testing and Prescription" as equal to 220 minus an individual's age.

* Target Heart Rate (THR) is a percentage of the theoretical maximum (HRmax). A 40-year-old user's recommended THR for the HEART RATE INTERVAL workout is 144, or 80 percent of the maximum; so the equation would be $(220-40) \cdot 80 = 144$.

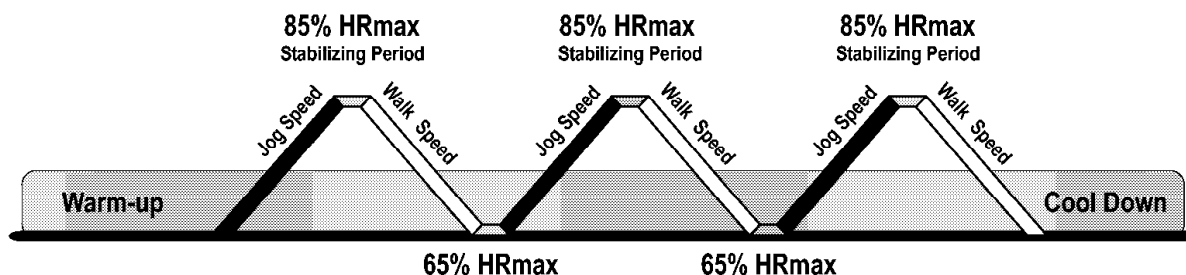
EXTREME HEART RATE™

This intense, varied workout is designed to help more experienced users to break through fitness improvement plateaus. The workout alternates between two target heart rates* as quickly as possible. The effect is similar to that of running sprints. The user must wear a chest strap or grip the Lifepulse™ sensors throughout the workout.

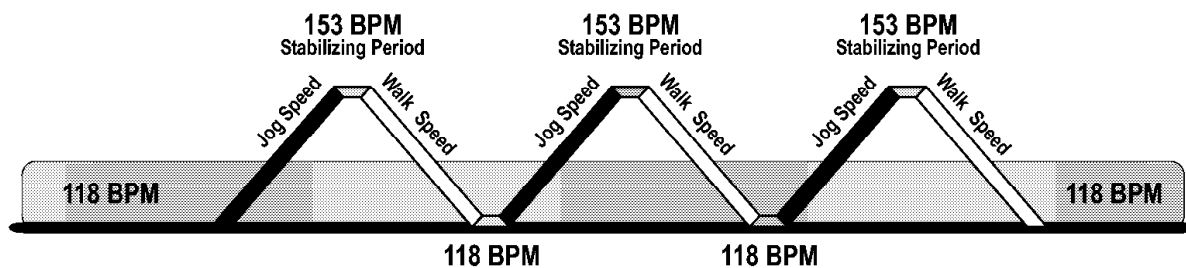
NOTE: It is recommended that users who run at speeds faster than 4.5 MPH wear the chest strap and do not use the Lifepulse™ sensors.

When setting up the workout, the user enters a target heart rate and selects a walk speed and a jog speed. After a standard three-minute warm-up, the treadmill accelerates to the jog speed, and the incline increases, until the user reaches the target heart rate goal of 85 percent of the theoretical maximum† (HRmax). That target rate is maintained for a stabilizing period. Then, the incline is reduced to 0 percent, and the treadmill slows to the walk speed. When the heart rate falls to the 65 percent of HRmax goal, it is maintained there for a stabilizing period. The program repeats the alternating of speeds and incline levels, continuing this pattern throughout the duration.

If the user does not reach a heart rate goal after five minutes, the MESSAGE CENTER displays a prompt to increase or decrease speed, depending on whether the workout is in a hill or valley phase. The program does not proceed to a new heart rate goal until the user reaches the current goal.



EXTREME HEART RATE Workout Profile



User Example 85 percent of theoretical maximum (HRmax) (40 year old / 153 recommended BPM)

† Defined by the American College of Sports Medicine's "Guidelines for Exercise Testing and Prescription" as equal to 220 minus an individual's age.

* Target Heart Rate (THR) is a percentage of the theoretical maximum (HRmax). For example, a 40-year-old user's recommended THR for the EXTREME HEART RATE™ WORKOUT is 153. The workout program targets a standard 85 percent of the maximum, so the equation would be $(220-40) \cdot 85 = 153$.

FIT TEST

The treadmill Fit Test program is another exclusive feature of this versatile treadmill. The Fit Test workout measures cardiovascular fitness and can be used to monitor improvements in endurance every four to six weeks. The user must grasp the hand sensors (if equipped) when prompted or wear a heart rate chest strap, as the test score calculation is based on a heart rate reading. The workout duration will be five minutes at a 5% incline. Immediately afterward, the console will take the user's heart rate reading, calculate a fitness score, and display the score in the MESSAGE CENTER.

The Fit Test is considered to be a submax VO₂ (volume of oxygen) test. It gauges how well the heart supplies oxygenated blood to the exercising muscles, and how efficiently those muscles receive oxygen from the blood. Physicians and exercise physiologists generally regard this test as a good measure of aerobic capacity.

To set up the Fit Test:

- Press the FIT TEST button repeatedly until the FIT TEST option appears in the message center. Press ENTER to select the FIT TEST option.
- The message center will prompt for a user weight (ENTER WEIGHT). Use the NUMERIC KEYS or UP/DOWN ARROW KEYS to input your weight. Press ENTER to accept the weight.
- The message center will next prompt for a user age (ENTER AGE). Use the NUMERIC KEYS or UP/DOWN ARROW KEYS to input your age. Press ENTER to accept the age.
- The message center will next prompt for a user gender (SELECT GENDER). Using the UP/DOWN ARROW KEYS, select a gender. Press ENTER to accept the gender selection.
- The message center will next prompt for a workout level (ENTER SPEED)(2-4.5 mph). Consult the following recommended fit test level chart for an appropriate effort level based on your age, gender and activity level. Use the NUMERIC KEYS or UP/DOWN SPEED ARROW KEYS to enter the corresponding level.

After the five-minute FIT TEST is completed, a FIT TEST score will be displayed.

FIT TEST PROGRAM SUGGESTED EXERTION LEVELS

	Inactive	Active	Very Active
Treadmill Fit Test Level	2-3 mph	3-4 mph	3.5-4.5 mph
	3.2-4.8 kph	4.8-6.4 kph	5.6-7.2 kph

NOTE: Treadmill will incline to 5% after a one minute warm-up.

Suggested exertion levels should be used as a guideline for setting up the Fit Test program. The goal is to elevate the user's heart rate to a level that is between 60%-85% of their theoretical maximum heart rate (220-age).

Within each suggested range, these additional guidelines can be used:

Lower Half of Range	Upper Half of Range
higher age	lower age
lower weight	higher weight*
shorter	taller

* In cases of excessive weight, use lower half of range

The computer will not accept:

- heart rates less than 52 or greater than 200 beats per minute
- body weights less than 75 pounds (34 kg) or greater than 400 pounds (181 kg)
- ages below 10 or over 99 years
- data input that exceeds human potential

If you make an error when entering any Fit Test data, you can correct it by pressing CLEAR, inputting the correct information, and pressing ENTER.

It is important for you to take the Fit Test under similar circumstances each time. Your heart rate is dependent on many factors, including:

- amount of sleep the previous night (at least seven hours is recommended)
- time of day
- time you last ate (two to four hours after the last meal is recommended)
- time since you last drank a liquid containing caffeine or alcohol, or smoked a cigarette (at least four hours is recommended)
- time since you last exercised (at least six hours is recommended)

For the most accurate Fit Test results, you should perform the Fit Test on three consecutive days and average the three scores.

NOTE: To receive a proper Fit Test score, the work done must be within a training heart rate zone that is 60 percent to 85 percent of the theoretical maximum heart rate (HRmax). This rate is defined by the American College of Sports Medicine's "Guidelines for Exercise Testing and Prescription" as equal to 220 minus an individual's age.

The tables below list fit test results.

RELATIVE FITNESS CLASSIFICATION FOR MEN

Men	Estimated VO2 Max (ml/kg/min) Per Age Category				
	20-29	30-39	40-49	50-59	60+
Rating					
Elite	52+	51+	48+	45+	42+
Excellent	50-51	48-50	46-47	42-44	39-41
Very Good	47-49	45-47	43-45	40-41	36-38
Above Average	44-46	42-44	40-42	37-39	33-35
Average	41-43	39-41	37-39	34-36	30-32
Below Average	38-40	36-38	34-36	31-33	27-29
Low	35-37	33-35	31-33	28-30	24-26
Very Low	<35	<33	<31	<28	<24

RELATIVE FITNESS CLASSIFICATION FOR WOMEN

Women	Estimated VO2 Max (ml/kg/min) Per Age Category				
	20-29	30-39	40-49	50-59	60+
Rating					
Elite	44+	42+	39+	35+	34+
Excellent	42-43	40-41	37-38	33-34	32-33
Very Good	39-41	37-39	35-36	31-32	30-31
Above Average	37-38	35-36	32-34	29-30	28-29
Average	34-36	32-34	30-31	27-28	25-27
Below Average	31-33	29-31	27-29	25-26	23-24
Low	28-30	27-28	25-26	22-24	20-22
Very Low	<28	<27	<25	<22	<20

Life Fitness developed this rating scale based on VO2 max percentile distributions referenced in *American College of Sports Medicine's "Guidelines for Exercise Testing and Prescription"* (6th Ed. 2000). It is designed to provide a qualitative description of a user's VO2 max estimation, and a means of assessing initial fitness level and tracking improvement.

FITNESS TESTS

The Life Fitness Treadmill features fitness tests based upon specific predefined protocols.

- **PHYSICAL EFFICIENCY BATTERY: 1.5 miles**
The Physical Efficiency Battery is used by U.S. Federal Law Enforcement, U.S. Federal Bureau of Investigation, and other federal organizations for the hiring and maintenance of federal jobs.
- **GERKIN: Submaximal VO2**
The Gerkin Protocol is a graded submaximal VO2 test used by the International Association of Fire Fighters to determine fitness for fire department duty.
- **NAVY PRT: 1.5 miles**
The running portion of the U.S. Navy Physical Readiness Test is a distance goal test based on the time needed to complete the required distance and is used by the U.S. Navy and Naval academies to measure aerobic capacity.
- **ARMY PFT: 2.0 miles**
The U.S. Army Physical Fitness Test is a physical performance test used to assess muscular endurance and cardiorespiratory fitness.
- **MARINES PFT: 3.0 miles**
The U.S. Marines Physical Fitness Test is a physical performance test used to assess muscular endurance and cardiorespiratory fitness.

Scores for these tests are based on finishing time, age, and gender.

To set up one of these tests, press the FIT TEST key repeatedly, until the MESSAGE CENTER displays the name of the desired test. Then, press ENTER. If the selected test is either the **NAVY** or **MARINES** test, the MESSAGE CENTER displays a question as to whether the test is taking place below a certain altitude. For the **NAVY** test, the altitude is 5,000 feet above sea level; and for the **MARINES** test, the altitude is 4,500 feet above sea level. Using the ARROW KEYS, select the answer "ABOVE 5,000 FEET"(**NAVY**) / "ABOVE 4,500 FEET"(**MARINES**) or "BELOW 5,000 FEET"(**NAVY**) / "BELOW 4,500 FEET"(**MARINES**) by toggling between these words displayed in the MESSAGE CENTER. Press Enter.

At the MESSAGE CENTER prompts, enter the weight, age, gender, and desired speed, using the ARROW keys or the NUMERIC keypad. Press ENTER after each entry. Then, begin the workout. To ensure an accurate test score, do not change these entries once the workout begins.

For all FITNESS TESTS except **GERKIN**, after the distance goal is reached, the workout program goes into a cool-down. The duration of this phase depends on the amount of time taken to complete the test. For less than five minutes, the cool-down is one minute. For five to 15 minutes, the cool-down is three minutes. For longer times, the cool-down is five minutes. The user can abort the cool-down by pressing the STOP button or the CLEAR key. After the cool-down is aborted or completed, the MESSAGE CENTER displays the finishing time and a point score for the PEB, Army, and Marines tests; or a qualitative score, such as EXCELLENT, for the Navy test.

For the Gerkin test, the time at which the heart rate reached the target heart rate and is maintained for 15 seconds, and a converted VO2 MAX value will be shown in the MESSAGE CENTER during the workout summary.

SPEED INTERVAL

This program allows the user to toggle between user defined JOG and RUN speeds. The SPEED INTERVAL button will flash throughout the workout. The user can toggle the speeds at any time during the workout by pressing the speed interval button. The current speed will appear in the speed display window.

The preset JOG and RUN speeds cannot be changed during a workout. The speed can be adjusted at any time during a workout using the SPEED ARROW keys. Toggling the JOG and RUN speeds using the SPEED INTERVAL button will reset the speeds to the preset JOG and RUN speeds.

4.4 MAXIMIZING WORKOUTS ON A LIFE FITNESS TREADMILL

SELECTING A LEVEL

The steps for setting up a **HILL**, **RANDOM**, **SPORT TRAINING 5K**, and **SPORT TRAINING 10K** workout include selecting a level. The word "level" refers to a range of incline percentages. The treadmill features 20 levels, with Level 1 having the lowest average incline grade and Level 20 having the highest.

LEVEL	% Incline	LEVEL	% Incline
1	0.0 - 1.5	11	2.0 - 8.5
2	0.0 - 2.2	12	3.0 - 9.2
3	0.0 - 2.9	13	3.5 - 9.9
4	0.0 - 3.6	14	5.0 - 10.6
5	0.0 - 4.3	15	5.5 - 11.3
6	0.0 - 5.0	16	6.5 - 12.0
7	0.0 - 5.7	17	7.0 - 12.7
8	0.0 - 6.4	18	8.0 - 13.4
9	0.5 - 7.1	19	8.7 - 14.1
10	1.5 - 7.8	20	9.0 - 15.0

Within each level are seven incline percentages, or hills. During a workout, each hill appears in the WORKOUT PROFILE window as rows of light stacked in a column. The number of lit rows within a column corresponds to an incline percentage. For example, in Level 5, the lowest incline is 0.0 percent and is represented as one lit row. The highest incline, 4.3 percent, is represented by a column with all seven rows lit.

In the **HILL** and **RANDOM** workouts, these varying hills occur for equal durations, as discussed in the **HILL** workout description. When the workout program brings up a new hill, the incline percentage changes automatically to match that hill.

To change levels during a workout, use the ARROW keys or the NUMERIC keypad.

USING INSTAPACE™ FEEDBACK

The InstaPace™ Feedback feature enables users to monitor their pace, or rate of minutes per mile, while running on the treadmill. This feature must be enabled in the Manager's Configuration. See Section 5, titled *The Manager's Configuration*, for more information. The MESSAGE CENTER displays the MPH and pace simultaneously when the user adjusts the treadmill speed with the ARROW KEYS. If the user adjusts the speed using the NUMERIC keypad, the MESSAGE CENTER displays the pace after the treadmill reaches the new speed.

USING ZEROOUT™ SPEED CONTROL

If, during a workout, a user decreases the speed to the minimum and continues to hold the DECREASE SPEED ARROW, the speed falls to 0 MPH, which is pause mode. The minimum speed is 0.5 MPH, unless changed in the Manager's Configuration. See section 5.2, titled *Configuration Settings*, for more information.

COOL-DOWN

Life Fitness' unique Cool-Down Protocol automatically customizes every cool-down based on each user's workout performance. Workout performance factors, such as speed, incline, duration, and heart rate, determine the duration and intensity of the cool-down.

DIMMING

The dimming feature controls the brightness of the treadmill console display. To change the default brightness setting, press the PERSONAL TRAINER button repeatedly until the MESSAGE CENTER displays "DIMMING," and press ENTER. Then, use the ARROW keys to increase or decrease the brightness to the desired setting, and press ENTER to save the new setting; or press CLEAR to revert to the default brightness setting.

If a new brightness setting is selected for a workout, that setting remains in place until it is manually changed, or the workout concludes. When a new workout begins, the brightness reverts to the default setting.

4.5 LOGGING ON TO THE NETWORK

When the treadmill is connected to a network, the MESSAGE CENTER displays a prompt to log on with a personal ID number. Press ENTER. Then, using the NUMERIC KEYPAD, enter the correct digits of the ID number, and press ENTER again.

Refer to Section 5.1 "*Using Quick Start Disable*" for detailed information regarding network configuration options.