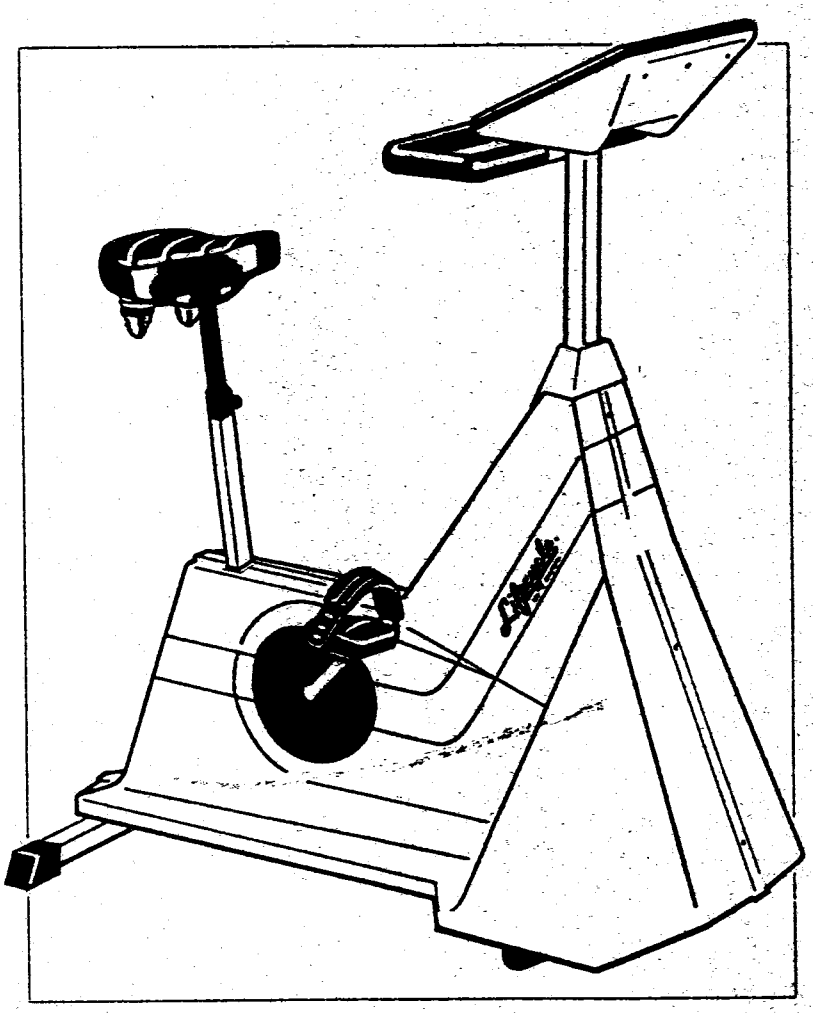
Model 6000 Lifecycle® Aerobic Trainer

OPERATION MANUAL

How To Get The Most Out Of Your Lifecycle® Workout



Lifecycle®
Aerobic Trainer

INTRODUCTION

How To Get the Most Out of Your Lifecycle® Workout

Congratulations...and welcome to the world of Life Fitness, Inc. and the Lifecycle® aerobic trainer.

THE LIFECYCLE® OPERATION MANUAL

Your new Lifecycle® is the culmination of over 17 years of technological innovation. Today, it is recognized as the world's most popular and most advanced computerized stationary bicycle.

The Lifecycle® offers a host of exclusive features designed to help you achieve your fitness goals more quickly and enjoyably. Its patented Hill-profile, instant visual feedback and fitness scoring computation provide the exceptional motivation that will help you stay with your conditioning program.

Who rides the Lifecycle®? People who value time and who need to make every minute count. Olympic athletes, movie stars, busy executives, top government administrators, sports celebrities and housewives all make the Lifecycle® their exercise choice. Whether at a fitness facility, at home or at the office, riding a Lifecycle® is an excellent way to lose weight and improve your cardiorespiratory condition. And it's fun! More health clubs use Lifecycle® for cycling than any other computerized stationary bike.

Why ride a Lifecycle®? Lifecycle® aerobic training is more than just a motivating experience. Regular aerobic exercise, such as on a Lifecycle®, improves energy and endurance, reduces body fat, lowers your probability of heart disease, and tends to prolong life.* Consistent workouts can also diffuse the effects of everyday stress. Competitive athletes train aerobically to increase their heart strength, lung capacity and muscular endurance.

Read this Manual Now. Before beginning your Lifecycle® Personal Exercise Plan (PEP), it is essential that you read this entire manual. It explains how to operate your Lifecycle®, and helps you design an aerobic workout tailored to your personal fitness needs.

If you have further questions regarding the operation of your Lifecycle®, please call PRODUCT SUPPORT at (800) 351-3737 toll free, or (312) 451-0036.

*Paffenbarger, R.S. Jr., Hyde, R.T., Wing, A.L., et al: Physical Activity, All-cause Mortality and Longevity of College Alumni. N Engl J Med 1986:314(March 6):605-613.

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A Bally Company

We bring fitness to life.®

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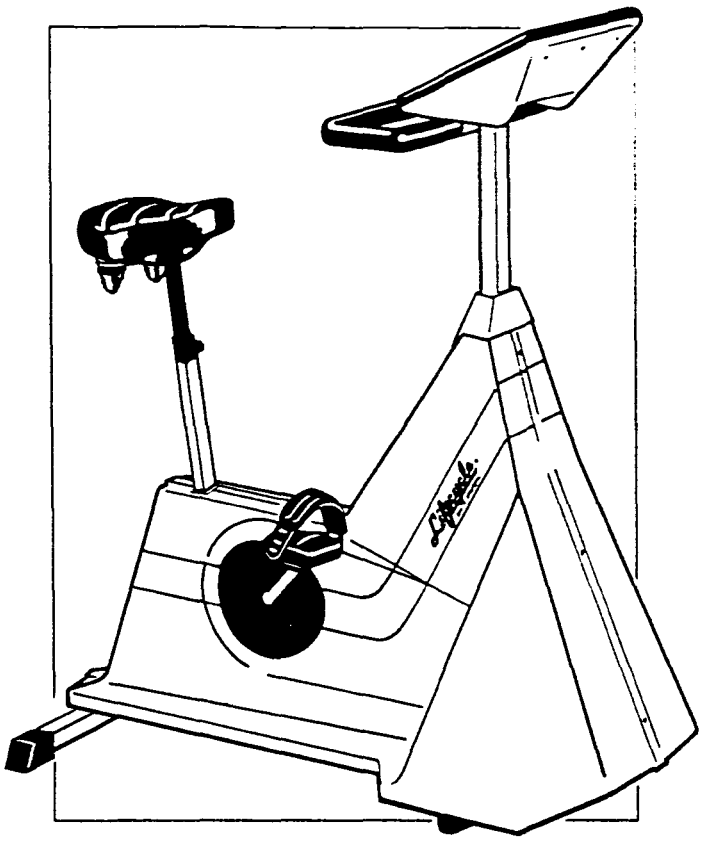

The Lifecycle® Model 6000 aerobic trainer is lightweight, easy to move from room-to-room and features the same motivating Hill Profile program that has attracted thousands of loyal users in health clubs around the world.

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FIGURES

TABLES

U.S. Patent no.'s 3,767,195 and 4,358,105

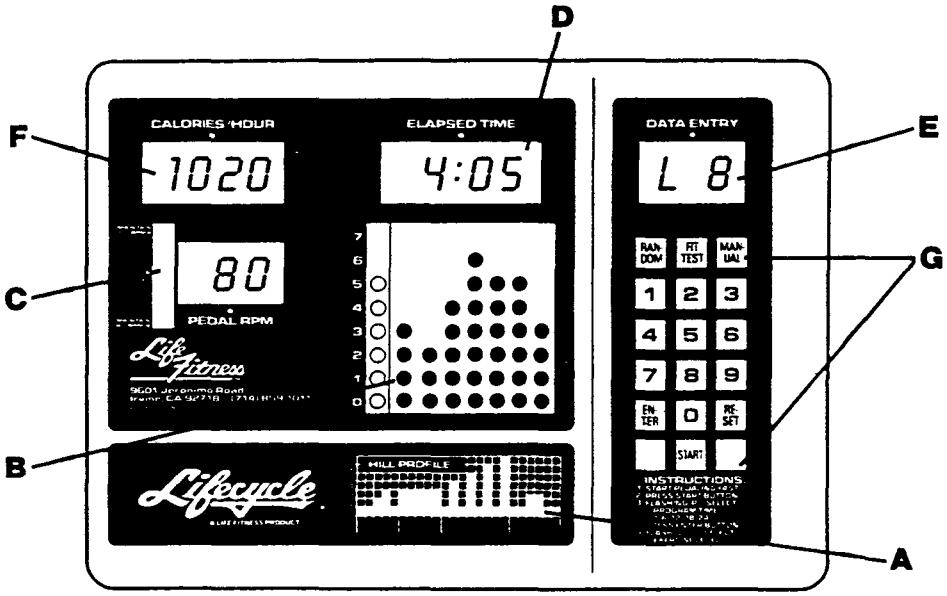
HOW TO USE THE DISPLAY CONSOLE

The Lifecycle® aerobic trainer's computerized display console allows you to watch your progress as you ride.

The on-board computer lets you tailor your workout to your individual fitness capabilities and provides a unique means of measuring your fitness improvement from one workout to the next. You'll want to challenge yourself by gradually increasing exercise intensity and exercise time as your endurance improves.

The display is simple to program and easy to use. It shows only data essential to using the bike effectively.

Figure 1: Display Console



A. HILL PROFILE GRAPHIC DIAGRAM: This graphic diagram visualizes the hills and valleys encountered when you select the Hill Profile program - a patented, scientifically developed interval training system - unique to the Lifecycle® aerobic trainer. You have a choice of 9 timed programs ranging from 1 through 24 minutes, and can ride the Hill Profile, Random and Manual programs at 12 different levels of intensity (difficulty). The Hill Profile graphic diagram is not applicable to either the Random or Manual programs.

B. LED MATRIX WINDOW: This matrix of LED "lights" shows your present position (yellow column) and the upcoming terrain (red columns). As you pedal, the lights move across the screen from right to left. The higher the yellow column of lights, the harder you will be pedaling.

The Lifecycle® is automatically programmed to put you in the Hill Profile mode. With the Hill Profile, you will encounter the terrain visualized in diagram "A" on page 8. If you choose to ride the Random program, you will encounter a series of random hills and valleys - with over one million variations, so you'll never make

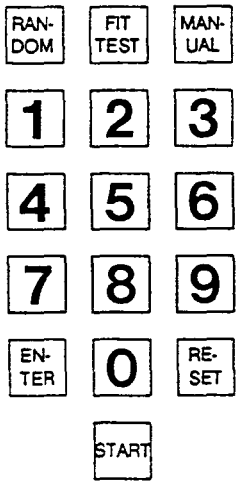
the same ride twice. If you choose the Manual program, you will ride at a steady-pace, that is, hills and valleys will not appear in the LED matrix window.

C. PEDAL RPM WINDOW: Your pedaling speed, measured in revolutions per minute (RPM), is displayed here. A small red light in the narrow vertical window to the left of the PEDAL RPM window instructs you to maintain either 80 RPM or 100 RPM. The light flashes when you are pedaling faster or slower than the recommended speed.

D. ELAPSED TIME WINDOW: The elapsed time indicates how long you have been pedaling. The elapsed time window also functions as a STOP WATCH when checking pulse. It is activated when either the "RESET" or "FIT TEST" key is pressed. (See specific instructions to reset the exercise program or to use the FIT TEST feature described on page 34.)

E. DATA ENTRY WINDOW: This window displays the data of multiple functions. First it displays the riding time you entered. Next it displays the level of difficulty you entered (1 through 12), which remains visible during your entire ride, except when you activate the FIT TEST feature (see page 34 for a complete description of FIT TEST)

Figure 2: Keyboard



F. CALORIES/HOUR WINDOW: This shows the estimated number of calories per hour that you are burning by working at the selected level of difficulty.

G. KEYBOARD: The keyboard is used to enter information. You can select a program duration of 1,2,3,4,5,6,12,18 or 24 minutes for the Hill Profile program. (You cannot enter an exercise time for the Random or Manual programs; which allow indefinite, open-ended rides.) The keyboard is also used to select a level of difficulty from 1 to 12 or enter FIT TEST information (heart rate, age and weight).

"START" KEY: This key is used to activate the display console. press it only after you are pedaling briskly at approximately 80 RPM. With experience you'll get a "feel" for this speed.

NUMERIC KEYS: Use these keys to enter your riding time, level of difficulty and FIT TEST data.

"ENTER" KEY: This key enters the riding time of your Hill Profile program into the Lifecycle® on-board computer. It is also used to separate each component of the FIT TEST scoring feature. You do not have to press the "ENTER" key after selecting a level of difficulty.

"RESET" KEY: Use this key to put your exercise program on hold or to re-start a program. To put your exercise program on hold, press the key once and keep on pedaling. (If you stop pedaling, all power is lost and the display goes blank.) Pedal resistance is at a minimum while the program is on hold. You can use this "rest" feature if you begin to feel tired to the point of discomfort.

When the "RESET" key is pressed once, the bike's stop watch feature is activated and the time is displayed in the ELAPSED TIME WINDOW. Use this stop watch to time your rest period or to time the pulse check procedure. To resume your exercise program, simply press the "ENTER" key.

To cancel the current exercise program, press "RESET" twice. (The current exercise program is also cancelled when you stop pedaling.)

"FIT TEST" KEY: This key is used to calculate your relative level of cardiorespiratory fitness. See page 34 for complete instructions before attempting to operate this unique feature.

"RANDOM" KEY: Use it when you want to bypass the standard Hill Profile program and access the computer's Random program which offers over one million different combinations. The Random program is fun and challenging because you never know what is coming up next! You can ride the Random program indefinitely at a level of difficulty ranging from 1 to 12. Change the level of difficulty at any time during a ride by simply entering another number.

"MANUAL" KEY: This key is used when you want to bypass the standard Hill Profile program and exercise at a constant level of pedal resistance. It runs the Manual program indefinitely at a level of difficulty ranging form 1 to 12. Pedal resistance is equal in intensity to the highest hill encountered on the standard Hill Profile program at the same intensity level. For this reason, the Manual program provides a much more difficult workout than the Hill Profile program.

NOTE: See the section "How to Operate The Hill Profile Program" on page 28 for step-by-step display console programming instructions.

HOW TO DEVELOP YOUR PERSONAL EXERCISE PLAN (PEP)

No two people are exactly alike, and therefore, no two Personalized Exercise Plans should be identical. People vary widely in their health and fitness status. Their goals, motivation, age, physical condition, exercise experience and time constraints are different. That's why riding the Lifecycle® aerobic trainer is an ideal form of exercise. It is designed to deliver a computerized workout tailored specifically to your individual training capacity.

START WITH A MEDICAL EXAM

This section provides the general guidelines you need to develop your PEP. Remember that you are your own best coach, since you know your limitations and expectations better than anyone.

The American College of Sports and Medicine and the American Medical Association have established medical screening guidelines for exercise, and we strongly recommend that if you have not had a recent physical exam, you should consider the start of our PEP as an appropriate time to see your physician.

Medical clearance for use of the Lifecycle® should definitely be obtained by individuals over 45 who have a major risk factor for coronary disease, such as heart disease, high blood pressure, high cholesterol levels, cigarette smoking or a family history of heart disease. Medical clearance should be obtained by al persons, regardless of age, with cardiorespiratory disorders, diabetes, bone and/or joint disease, or persons who have any symptoms of coronary disease.

In general, anyone starting a vigorous exercise regimen should see a physician for a medical exam. The extent of the exam will depend on the physician's preliminary evaluation of the individual's health status.

Planning Your Aerobic Workout

YOUR GOALS:
Goals determine the direction and type of exercise plan that is right for you. An individual wishing to reduce his or her risk of heart disease will train less strenuously than a competitive athlete.

There are two major goals of aerobic exercise.

1. Cardiorespiratory improvement
2. Fat loss

Varying the frequency and intensity of the aerobic workout changes the focus from one goal to the other. High intensity aerobic exercise for shorter periods of time promotes cardiorespiratory improvement, and burns mostly muscle glycogen as fuel. Low intensity aerobic exercise for longer periods of time promotes fat loss, because these longer periods of exercise burn more calories from stored fat.

If you are working to reduce the probability of heart disease or improve endurance, you goal is to build a stronger heart and lungs (cardiorespiratory improvement). By expanding lung capacity, your body's intake and utilization of oxygen is increased. Regular aerobic exercise on the Lifecycle® accomplishes this and improves muscle endurance at the same time.

FIT Guidelines

FIT stands for FREQUENCY of exercise, INTENSITY of exercise and the amount of TIME (duration) you spend exercising. These are the three variables in designing an effective Personal Exercise Plan (PEP). Here's how to use the FIT guidelines to develop your PEP:

FREQUENCY. . . refers to how many times you ride your Lifecycle® each week. If your objective is to improve cardiorespiratory fitness, you should ride the Lifecycle® at least three times a week, with no more than two days between workouts. At first, you should give your muscles a chance to adapt to increased activity.

When you begin your FIT regimen, do not exercise more than once every other day. This should prevent muscle soreness and fatigue. Even after you have progressed sufficiently, the American College of Sports Medicine still recommends that you workout not exceed 5 times per week. Increased frequency yields minimal additional cardiorespiratory improvement and increases the risk of muscle strain. Only highly trained, competitive athletes should consider daily workouts. However, if your goal is fat loss, you should exercise more frequently for longer periods of time at a lower level of intensity.

INTENSITY. . . refers to how hard you work your heart. A heart rate of 75% of your theoretical maximum heart rate is the threshold above which optimum cardiorespiratory training occurs for those who are medically fit. 90% of your theoretical maximum heart rate is a safe upper limit for these same people.* Select a level of intensity that puts your heart rate between 75% and 90% of your theoretical maximum for cardiorespiratory improvement. Beginners will want to exercise at a heart rate which is closer to 75% while highly trained athletes may want to exercise closer to 90% of the theoretical maximum heart rate. (See Table 1 on page 44 for an approximation of the theoretical maximum heart rate and your Training Heart Rate Range (THRR) for your age category.)

Adjust the intensity (level) of your workout to keep our heart rate within its most effective range. You will find that it is more difficult to pedal at the same level of intensity on the Hill Profile program. Figure 5 on page 27 compares the intensity levels of the three Lifecycle® programs.

TIME. . . refers to the number of minutes you spend exercising within your THRR. Optimal cardiorespiratory and endurance improvements come with prolonged use of 12 to 24 minute rides. Beginners might start with the 6 to 12 minute Hill Profile program. As you adapt, extend the duration of your workout. The 18 to 24 minute Hill Profile programs are available for this purpose. Be sure to keep your heart rate within your THRR by adjusting the intensity level.

*American College of Sports Medicine, Guidelines for Exercise Testing and Prescription, Third Edition (Lea & Febiger: Philadelphia, 1986), p. 32.

Begin with a 6 minute Hill Profile program. As you become more comfortable, extend to 12 minutes, then to 18 or 24 minutes when you feel you are ready to do so.

It is recommended that those just beginning to use the Lifecycle®, even if in excellent condition, start with the standard Hill Profile program.

If your objective is **FAT LOSS**, it is better to ride for a longer duration. You will find that a lower level of intensity allows your to ride longer. You can increase the intensity as you progress. A heart rate range of 65% to 75% of the theoretical maximum heart rate is the preferred range for fat loss training.

HOW TO EXERCISE EFFECTIVELY

Exercising too hard is as ineffective as not working hard enough. In fact, overdoing it can be harmful. For an effective workout, determine your optimal workout frequency, duration and intensity and stick to it!

Calculating Your Training Heart Rate Range

To approximate your THRR, you must first calculate your theoretical maximum heart rate. Subtract your age from 220. (This formula is recognized by the American College of Sports Medicine as a method for determining your theoretical maximum heart rate.*) For example, if you are 35 years old, your theoretical maximum heart rate is 185. If your goal is fat loss, you can establish your THRR by multiplying this number (185) by 65% to establish the lower limit, then by 75% to establish the upper limit. If your goal is cardiorespiratory fitness, you can establish your THRR by multiplying 185 first by 75% to establish the lower limit, then by 90% to establish the upper limit.

Figure 3 (page 15) or Table 1 (page 44) can be used to determine your theoretical maximum heart rate and THRR for your age category.

Examples:
Cardiorespiratory Training for age 35:
Lower limit: (220 less 35 = 185) x .75 = 138 beats/min.
Upper limit: (220 less 35 = 185) x .90 = 166 beats/min.

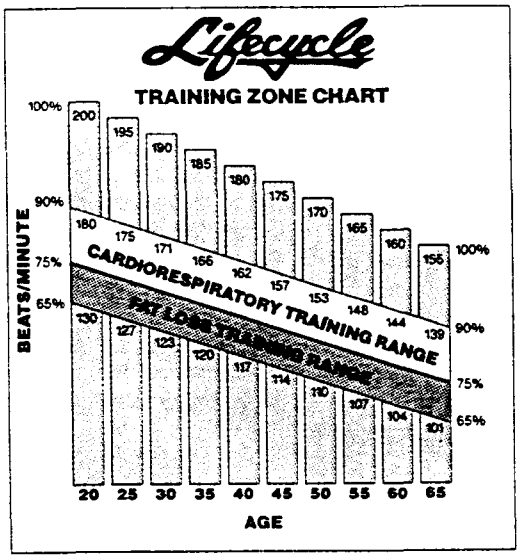
Fat Loss Training Range for age 35:
Lower limit: (220 less 35 = 185) x .65 = 120 beats/min.
Upper limit: (220 less 35 = 185) x .75 = 138 beats/min.

Note: A stress test administered by your doctor, is the most accurate method of determining your maximum heart rate and overall cardiorespiratory condition. We strongly recommend that you see your doctor before beginning any exercise program, especially if you have a history of high blood pressure, heart problems or if you are over the age of 45. You and your doctor can decide whether a maximum stress test is advisable.

By making sure your heart rate stays within this range during your workout, you will achieve optimal training benefits with minimal stress to your cardiorespiratory system. As you fitness program progresses, your aerobic capacity will build and your body will begin to show the benefits of what is referred to fitness experts as "the training effect."

*American College of Sports Medicine, Guidelines for Testing and Prescription, Third Edition (Lea & Febiger: Philadelphia, 1986), p. 32.

Figure 3: Training Heart Rate Range (THRR) chart



It is not recommended to train above 90% of your theoretical maximum heart rate.

CARDIORESPIRATORY TRAINING RANGE -- between 75% and 90% of your theoretical maximum heart rate.

FAT LOSS TRAINING RANGE -- between 75% and 90% of your theoretical maximum heart rate.

For most people, training benefits are difficult to achieve below 65% of your theoretical maximum heart rate.

Checking Your Pulse

For best results, stay within you THRR during exercise. To do this, check your pulse periodically during your workout on the Lifecycle®. (See Figure 4 on page 24 for the times to check your heart rate during the Hill Profile program.)

You may wish to use an electronic pulse meter, but your own two fingers will suffice. Your pulse can be conveniently monitored in two locations: (1) half way between the ear and wind pipe on your neck or (2) on the thumb side of the inside of your wrist. To monitor your pulse, hold your index and middle fingers together against either site. (The neck site is easiest during exercise.) **CAUTION:** *Do not press too hard, especially when taking a neck pulse. Excessive pressure can reduce blood flow, and cause the heart to slow down.*

A 15-second count is recommended. Your heart rate per minute is 4 times the 15-second count.

Warming Up and Cooling Down

A warm-up ride on your Lifecycle® gradually increases your pulse rate and your recommended THRR. This promotes blood flow to working muscles and meets the body's increased demand for oxygen. The length of the warm-up period of the standard Hill Profile program will vary depending upon the duration of the ride you selected. The warm-up period is 2 1/2 minutes if you select a 12 minute ride; 1 1/4 minutes in a 6 minute ride; 3 1/2 minutes in an 18 minute ride; and 4 1/2 minutes in a 24 minute ride.

The cool-down period, which lasts 1 1/2 minutes in a 6 minute ride; 3 minutes in a 12 minute ride; 4 1/2 minutes in an 18 minute ride; 6 minutes in a 24 ride, decreases the activity level of your heart until it has returned to 55% of its theoretical maximum rate. A proper cool-down period assures sufficient blood flow to the muscles which helps remove the end products of exercise, including lactic acid. Accumulation of these end products is a major cause of muscle soreness. The harder the workout, the longer the cool-down should be.

Research suggests that in order to minimize the chance of injury, stretching exercises should be performed after the cool-down period, while muscles and joints are still warm. This is especially true if you follow your aerobic workout with a weight training session. Proper stretching techniques are illustrated on pages 17 and 18.

The Hill Profile program includes built-in warm-up and cool-down periods. The Random and Manual programs do not. When using the Random and Manual programs, you should gradually increase the workload at the beginning of the ride and then decrease you effort during the final minutes of the ride in order to provide effective warm-up and cool-down periods.

Proper Stretching Techniques

Stretching is perhaps the most neglected element of physical conditioning, because people do not associate flexibility with the more glamorous aspects -- speed, strength and a lean body appearance. However, without significant flexibility, real gains in fitness are unnecessarily difficult to achieve and maintain.

Flexibility as a Fitness Safety

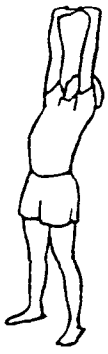
Limber joints, muscles and connective tissue provides the freedom of motion that makes exercise easier and more enjoyable to perform and lessens the risk of injury. Without proper, consistent stretching, ligaments and tendons can become taut and shortened, with decreased circulation. These inflexible tissues are more prone to chronic soreness or rupture than loose, stretch-conditioned tissues. And, nothing is more discouraging than nagging injuries. Stretching helps people of all ages and levels of fitness to prepare themselves for the exertion required to participate in a program of regular muscular and aerobic training.

See page 17 for illustrations of recommended stretching exercises.

STRETCHING EXERCISES

Follow the sequence indicated in these stretching illustrations.

When stretching, remember to move slowly into a stretch to where you feel resistance, but not pain. Hold that position and breathe deeply and slowly for 5-10 seconds. Remember to stretch both sides of your body when the illustration calls for arm or leg stretching. When the illustration calls for shoulder or neck rotation, perform five rotations in each direction.



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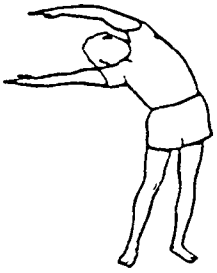

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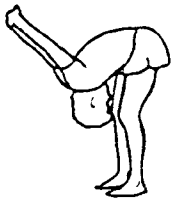

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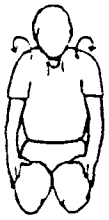

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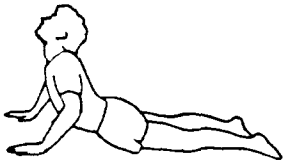

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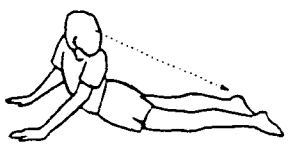

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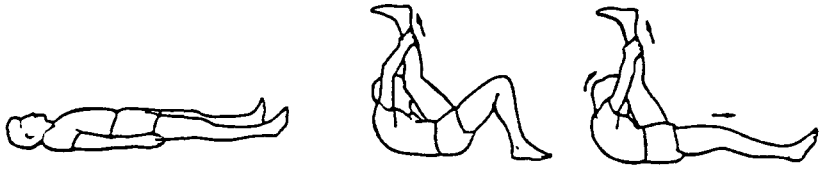

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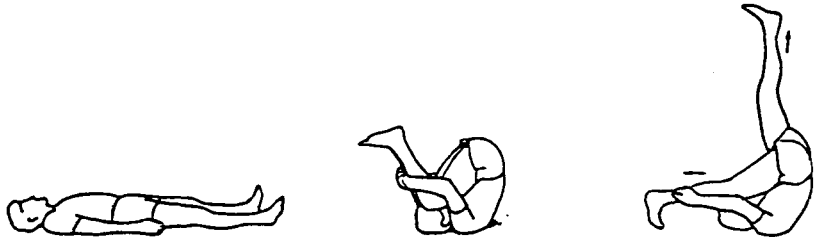

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*Reproduced, in part, with permission of James M. Rippe, M.D., Co-Author. The Sports Performance Factors (Rippe and Southmayd). Putman Publishing Group, 1986.

Tips for Good Stretching Results

Stretching is a special discipline that requires concentration and patience for best results. Follow these tips and practice the stretches shown in the illustrations that follow at least 3 times a week for 15 minutes per session. You'll progress safely and surely.

1. Dress Comfortably. Wear loose-fitting, soft fabric clothes without restrictive belts, elastic or lager buttons or buckles. Breathable cotton or softly woven wool is preferable to synthetic cloth. Go without shoes or slippers when stretching.

2. Stretch Slowly. Move in and out of your stretches with slow, controlled motions and hold in a static position when you've stretched as far as comfortable. Fast, bouncy, ballistic motions can actually signal the muscles to contract, and defeat the purpose of stretching. Concentrate on the body part you are working. You can close your eyes and imagine your muscles loosening slowly and gradually.

3. Practice Abdominal Breathing. Learn to breathe from your diaphragm, so that your stomach, rather than your rib cage and shoulders, rises and falls with each breath. Abdominal breathing encourages relaxation, lessens muscular tension and helps lower blood pressure.

4. Learn Your "Stretching Zone." Stretch gradually to the point that you feel resistance, but never to the point of pain, and never use muscular effort to increase a stretch. Some discomfort is natural, but the gentle forces of gravity and your body weight will determine the limits of your safe, effective "stretching zone."

5. Start Easy. Start each session with the stretches you find easiest. This will help you relax, concentrate and warm up for the more difficult parts of your routine.

6. Empty Stomachs Make Stretching Easier. You'll find your stretching routines easier and more pleasant if you do them on an empty stomach. This refers to liquid as well as solid foods.

7. Pre- and Post-Workout Stretches. Always stretch to warm and loosen tissues in preparation for exertion. And, since muscles tighten up after exertion, stretch afterwards to promote circulation and minimize stiffness from lactic acid build-up. You don't have to perform all the stretches pictured on the following pages before and after you work out, but be sure to perform those that most directly effect the muscles you use during exercise.

Do's and Don't's for Minimizing Soreness and Muscular Stress

The following do's and don't's will help reduce the chance of soreness and increase the effectiveness of our workout.

- **Do** set realistic goals and objectives.
- **Do** exercise within your THRR.
- **Do** warm up and cool down properly.
- **Do** stretching exercises before you begin your Lifecycle® program.
- **Do** stretching exercises after you complete your cool-down.
- **Don't** increase duration by more than 10% per week.
- **Don't** increase intensity by more than one level per week.
- **Don't** increase intensity and duration at the same time.
- **Don't** overextend yourself in hot and/or humid weather.
- **DO OBTAIN PROPER MEDICAL CLEARANCE PRIOR TO STARTING YOUR PERSONAL EXERCISE PROGRAM, BY HAVING A PHYSICAL EXAM.**

HOW TO CHOOSE AN AEROBIC TRAINING METHOD

How hard you work out during your Lifecycle® exercise session depends on your fitness goals and physical condition. Your PEP (Personal Exercise Plan) should fit your goals and preferences. If you don't enjoy your workout, you won't continue. Basically, design a workout that you can live with. Page 11 explains how to develop your Personal Exercise Plan.

This section describes the two aerobic training methods that are available on the Lifecycle® -- interval training and steady-pace training.

Note: A Lifecycle® Training Log is included at the back of this manual so you can record information on your progress.

Interval Training

Interval training, which is offered by selecting the Hill Profile program or Random program, provides periods of high-effort aerobic activity separated by regular intervals of low-intensity exercise. By varying the workload throughout the exercise session in this way, your heart rate will range between the high and low ends of your THRR. You can also change the levels of intensity during your ride by simply pressing a numbered key which is greater than the one your entered at the beginning of your ride. Likewise, you can select a lower number.

The Lifecycle® aerobic trainer is unique in the fitness industry. Its patented, computerized interval training program has been scientifically demonstrated to yield statistically significant cardiorespiratory improvement compared to steady-pace training. And, the Lifecycle® goes one step further. Its Hill Profile program offers "interval training with progressive overload." Not only does it offer the challenge of alternating hills and valleys, but the hills and valleys become progressively more difficult during the course of the ride. (See Figure 4 on page 24.)

Interval training is extremely popular with individuals ranging from elite athletes, whose performance depends on power and speed, to patients in medically supervised rehabilitation facilities. A study conducted at the Human Performance Laboratory of Oregon Health Sciences University* compared interval and steady-pace training and concluded that interval training offered the following advantages:

- Greater cardiorespiratory fitness gains per unit of time -- approximately 60% greater than steady-pace training
- A feeling of less discomfort and less muscular fatigue than steady-pace exercising
- Reduced boredom and the potential for increased adherence to the overall exercise plan

*Allen, D., McDougal, K.G. and Pickens, D.W., A Physiological Comparison of Interval vs. Steady-Pace Training (Abstract), Medicine and Science in Sports and Exercise, 19:S62, 1987.

Steady-Pace Training

For those who prefer steady-pace training, it is available on the Lifecycle®. It is activated by the Manual key on the Display console and provides a steady, fixed level of pedal resistance. You can create your own program using the Manual program simply by changing levels during the course of your ride. For example, if you are riding the Manual program at Level 4 and wish to increase the pedal resistance, merely press a numbered key which is greater than 4. Likewise, you can select a lower number.

Some exercise physiologists believe in the combined use of both steady-pace and interval training. The Hill Profile and Manual and Random programs of the Lifecycle® offer this variety. If our time is limited, however, we recommend that you choose the Hill Profile program because it can provide 60% greater cardiorespiratory improvement per unit of time than steady-pace training.

If for some medical or physiological reason you have been advised to maintain a steady heart rate while you are exercising, select the Manual program. It is easier to maintain a consistent heart rate using the Manual mode than the Hill Profile or Random modes.

Also, if your goal is fat loss, you may wish to use the Manual program at a low level of intensity and ride for a longer period of time at each exercise session.

See page 33 for instructions on how to operate the Lifecycle® Manual program.

HOW TO CHOOSE A LIFECYCLE® COMPUTERIZED PROGRAM

Three computerized programs are available on your Lifecycle®:

1. **The Hill Profile Program**
2. **The Random Program**
3. **The Manual Program**

The Hill Profile Program

The Lifecycle® aerobic trainer's patented Hill Profile program (See Figure 4 on page 24) offers the ideal configuration for interval training. The Hill Profile program is available in various durations from 1 to 24 minutes. You can select rides of 1, 2, 3, 4, 5, 6, 12, 18 and 24 minutes. Each Hill Profile program is comprised of four periods: 1) Warm-Up, 2) Test, 3) Interval Training, and 4) Cool-Down.

This unique feature of the Lifecycle®, "interval training with progressive overload," results in a greater improvement in cardiorespiratory fitness* -- and it's this scientifc innovation that distinguishes the Lifecycle® from all other aerobic training equipment.

Warm-Up Period: Gradually brings your heart rate into the lower portion of your THRR and increases respiration. Blood-flow to working muscles also increases.

Test Period: Increases your heart rate so that it is within your THRR. Take your pulse (HR check) at the end of the test period to ensure that you have entered your THRR.

Interval Training Period: Comprised of a series of hills and valleys. During this period, you are confronted with four successively higher hills. Each one is separated from the next by a valley or recovery period. Take your pulse at the end of the interval training period to ensure you have stayed within your THRR.

Cool-Down Period: Reduced pedal resistance which calls for pedaling at 80 RPM for 1/3 of the time, then faster (100 RPM) for the second 1/3, followed by a return to 80 RPM for the last 1/3. The last 1/3 of this exercise period gradually reduces your heart rate to the lower end of your THRR. It also allows your body to begin removing accumulated end products of exercise, such as lactic acid, which tend to build-up in muscles during your workout and contribute to muscle soreness.

An integral part of the end product dissipation process is the period of rapid pedaling (100 RPM) midway throughout the cool-sown period mentioned above. A small flashing "light" to the left on the Pedal RPM Window on the display console signals you to increase from 80 RPM to 100 RPM and then to resume 80 RPM again.

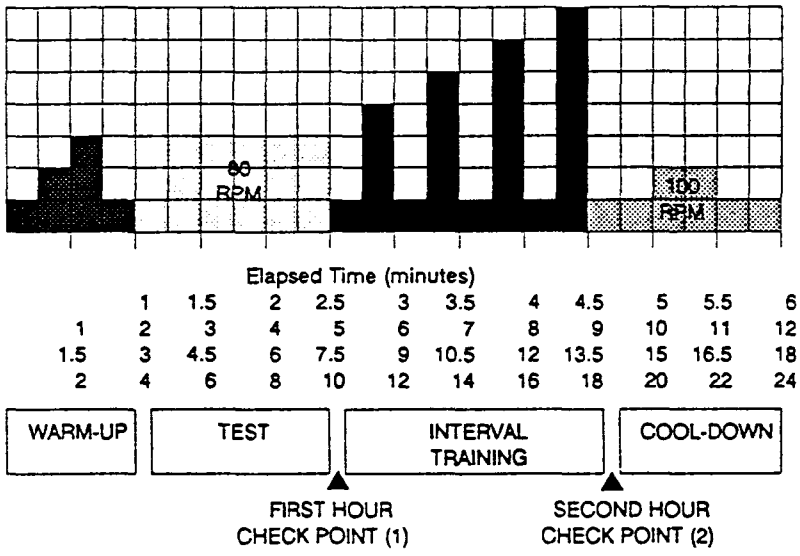
* Allen, D., McDougal, K.G. and Pickens, D.W., A Physiological Comparison of Interval Training vs. Steady-State Training (Abstract), Medicine and Science in Sports and Exercise, 19:S62, 1987.

Heart Rate Check Points: Your heart rate should be checked near the end of the Test period and at the end of the interval training period. (See Figure 4 below for the exact time of each heart rate check point.) Always take your pulse at the times indicated to make sure you are staying within your personal THRR.

The Hill Profile program (Figure 4) shows the terrain encountered during the ride on the Lifecycle® aerobic trainer. Hills and valleys are simulated on the display console by columns of red and yellow "lights" in the LED Matrix Window. The columns move from right to left as you pedal.

Hill Profile information continued on page 28.

Figure 4: Hill Profile Program



FOR CARDIORESPIRATORY TRAINING:

(1) FIRST HEART RATE CHECK POINT -- At the first heart rate check point, your pulse should be between 75% - 80% of the theoretical maximum for your age category for cardiorespiratory training.

(2) SECOND HEART RATE CHECK POINT -- At the second heart rate check point, your pulse should be between 85% - 90% of the theoretical maximum for your age category for cardiorespiratory training.

FOR FAT LOSS TRAINING:

(1) FIRST HEART RATE CHECK POINT -- At the first heart rate check point, your pulse should be between 65% - 70% of the theoretical maximum heart rate for your age category for fat loss training.

(2) SECOND HEART RATE CHECK POINT -- At the second heart rate check point, your pulse should be between 70% - 75% of the theoretical maximum for your age category for fat loss training.

Figure 5. Relative Program Intensities
Comparison of relative levels of intensity of the three Lifecycle® exercise programs.

	Hill Profile	Random	Manual
Level of	3-4	2	1
Intensity	5-6	3	2
(Pedal Resistance)	7-8	4	3
	9-10	5-6	4
	11-12	7-8	5
		9	6
		10	7
		11	8
		12	9
			10
			11
			12

Interpretation: Level 3 or 4 in the Hill Profile program is equivalent to Level 2 in the Random Program and Level 1 in the Manual program. In other words, it is more difficult to pedal at the same level of intensity in the Manual Program than on the Random program, and the Random program is more difficult to pedal at the same level of intensity than the Hill Profile program.

HOW TO OPERATE THE HILL PROFILE PROGRAM

Operating your Lifecycle® is as easy as riding a bike. There are just a few keys to press. Understanding how to operate the Hill Profile program is extremely important, so please read through this entire section before you ride any program on your Lifecycle®.

A Word About Stretching

Stretching is an important first step in any type of physical activity, and that includes stationary cycling. However, it is recommended that stretching be performed only after the muscles being stretched have been pre-warmed. A brief warm-up ride on the Lifecycle® is a good way to prepare your legs for stretching. Stretching promotes blood circulation which results in greater muscle elasticity. This helps decrease the chance of muscular strain. For an illustrated description of stretching exercises, see PROPER STRETCHING TECHNIQUES which begins on page 17.

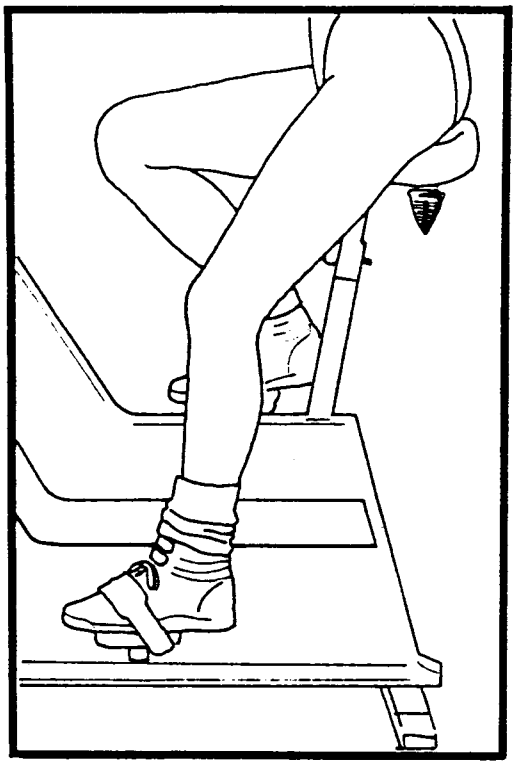
Step 1: Adjust Seat Height (see Figure 6 on page 29)
Proper seat height is important. A seat that is too low can place excessive strain on knees and thigh muscles, and a seat that is too high can irritate feet, ankles, hips and knees. To adjust the seat properly, sit on the seat and place the ball of your foot on the pedal. You should be able to move through the bottom of the pedaling stroke without locking your knees or shifting your hips on the seat. Your seat is too low if you have more than a slight bend in your knee when your leg is extended. If you feel like you are standing on tiptoe the seat is too high. Your Lifecycle® is equipped with a seat adjustment pin which makes it easy to raise or lower the seat position. Make sure the seat pin is completely inserted; the round end should touch the seat post.

CAUTION: DO NOT ATTEMPT TO ADJUST THE SEAT WHILE YOU ARE ON THE BIKE. ATTEMPTING TO DO SO WHILE YOU ARE RIDING OR FAILURE TO INSERT THE SEAT PIN PROPERLY MAY RESULT IN SERIOUS INJURY!

Step 2: Start Pedaling
The Lifecycle® does not require electricity from an outside source. You supply the power by pedaling. Start pedaling briskly BEFORE you start the Lifecycle®. If you are not pedaling briskly enough when you press the "START" key, you may cause a temporary malfunction. If this occurs, stop pedaling for a couple of seconds, then start pedaling again.

Step 3: Press the "START" Key
Once you are pedaling briskly at a speed of approximately 80 RPM press the "START" key. Activating the display at lower RPM may cause a temporary malfunction. While this causes no damage, you must stop pedaling and start over. When you press "START", a flashing "P" appears in the DATA ENTRY window. If the "P" does not keep flashing, you may be pedaling too slowly.

Figure 6: Correct Seat Height Adjustment



Step 4: Select Exercise Program
The flashing "P" in the DATA ENTRY window is prompting you to enter a program. The Lifecycle® offers 3 exercise programs:

1. Hill Profile Program

2. Random Program

3. Manual Program

IMPORTANT NOTE: The Lifecycle® is pre-programmed to enter the Hill Profile program automatically. That is, after you start pedaling and input numbers on the keyboard, you will automatically be in the Hill Profile mode. The instructions that follow pertain to the Hill Profile program only. To operate the Random program or Manual program, see specific instructions in the next section, "HOW TO OPERATE THE RANDOM AND MANUAL PROGRAMS."

Step 5: Select Exercise Time
If you want to ride the Hill Profile program, respond to the flashing "P" by entering the program time - 1,2,3,4,5,6,12,18 or 24 minutes. NOTE: The Lifecycle® does not accept Hill Profile programs of durations other than those listed here. To ride the Hill Profile program for twelve minutes, press 1 and then 2. The number 12 will then appear to the right of the "P" in the DATA ENTRY window as follows:

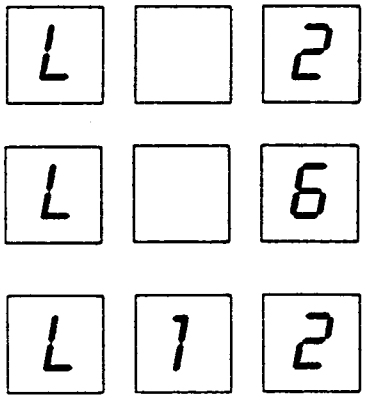
If you choose to ride for 12 minutes, for instance, both digits must be pressed within 2 seconds of one another, or the second digit overrides the first digit as the selected exercise time. This means you could have inadvertently programmed 2 when what you really wanted was 12. The exercise level you select is displayed in the DATA ENTRY window throughout the program.

Next, press the key marked ENTER. This enters P12 into the computer memory and sets the Hill Profile program for 12 minutes. Note that you initiated the Hill Profile program by first selecting and exercise time, then pressing "ENTER". Helpful hint: If you wish to ride a 12-minute Hill Profile program (which is considered the "standard" ride), you can bypass entering the number 12 at the flashing "P" by merely pressing the "ENTER" key. This will automatically give you a 12-minute ride. For rides of duration other than 12 minutes (1,2,3,4,5,6,18 or 24) you must enter your desired number of minutes and press the "ENTER" key.

Step 6: Select Level of Intensity (Difficulty)
After you select an exercise time, an "L" appears in the DATA ENTRY window. "L" stands for the level of intensity (difficulty).

The available levels of difficulty are 1 through 12 for the Hill Profile, Random or Manual programs. Select a comfortable level for your workout. If you choose level 12, for instance, both digits must be pressed within 2 seconds of one another, or the second digit overrides the first as the selected exercise level. this means you could have inadvertently programmed 2 when what you really wanted was 12. The exercise level you select is displayed.
Examples:

Figure 7. Data Entry Display



NOTE: YOU MAY CHANGE THE LEVEL OF INTENSITY AT ANY TIME DURING AN EXERCISE PROGRAM BY PRESSING ANOTHER NUMBER ON THE KEYBOARD.

Step 7: Maintain Pedal RPM
It is very important that you pedal at the correct speed. Speed on the Lifecycle® is expressed in revolutions per minute (RPM). Maintain the speed indicated by a small light in the narrow vertical window immediately to the left of the PEDAL RPM window. Except for specified periods during the Hill Profile and Random programs, the ideal speed is 80 RPM. Since the Hill Profile and Random programs include peaks and valleys, your cycling speed may vary with the

HOW TO OPERATE THE RANDOM AND MANUAL PROGRAMS

To thoroughly understand how to operate the Random and Manual programs, you must be familiar with the previous section of this manual, "HOW TO OPERATE THE HILL PROFILE PROGRAM."

If you wish to activate the Random or Manual programs, follow this sequence:

Step 1: Adjust Seat Height -- Make Sure Seat Pin is Properly Inserted

Step 2: Start Pedaling Briskly at 80 RPM

Step 3: Press "START" Key

Step 4: Select Either "RANDOM" or "MANUAL" Keys
The flashing letter "P" in the DATA ENTRY window is the computer's way of asking you for the type of program you with to ride. If you wish to select the Random or Manual program, press the "RANDOM" or "MANUAL" key on the keyboard. It is not necessary to press the "ENTER" key.

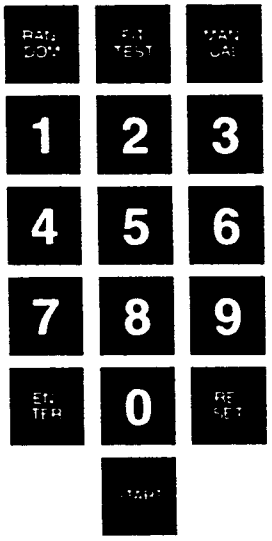
Step 5: Do Not Select and Exercise Time
The next consideration is duration. Unlike the Hill Profile mode, you can ride Random or Manual programs indefinitely. There is no need to enter an exercise time. Instead, set a mental goal for minutes you intend to ride.

Step 6: Select Level of Intensity
Level 1 is easiest; level 12 is most intense.

Step 7: Maintain Your Speed (80 RPM)

Step 8: Check Your Heart Rate
Press "RESET" key once. This puts the program on hold. Count heart beats in 15 seconds and multiply by 4.

Figure 8: Selection of RANDOM or MANUAL Programs.



Step 9: Resume Your Program by Pressing the "ENTER" key

Step 10: If You Wish, You Can Change the Level of Intensity at Any Time -- Simply Press a New Number

See page 32 for "Making Changes During Your Ride."

HOW TO OPERATE FIT TEST

The Lifecycle® FIT TEST is another exclusive feature of this versatile aerobic trainer. Think of it as your "relative fitness score." Use FIT TEST to monitor improvement in your endurance every 4 to 6 weeks.

The FIT TEST feature can be performed on the Hill Profile program and the Manual program, not the Random program. The Hill Profile FIT TEST can only be performed when you have entered 6, 12, 18 or 24 minutes, not 1 through 5 minutes. It is easiest to perform the FIT TEST when in the Hill Profile's 12-minute ride. FIT TEST can also be performed on the Manual program, but since you cannot enter a time, only advanced riders should consider this option.

How FIT TEST Works

1. Begin Pedaling and press the "START" key.

2. Enter your usual exercise level. Select the 12-minute Hill Profile program.

3. At the 5-minute mark, utilize the STOP WATCH feature to take your pulse. First press "RESET" once. This puts your exercise program on hold and activates the STOP WATCH feature. Continue pedaling. Take your pulse for 15 seconds and multiply by 4. This will give you your heart beats per minute. When your pulse rate is obtained, press "ENTER" to resume your exercise.

4. After determining your pulse rate and resuming your exercise, press the "TEST" key. The DATA ENTRY window flashes "Hr" (heart rate). Use the numeric keys to enter the heart rate you just calculated (beats/min) in Step 3. Press "ENTER."

5. Next, the DATA ENTRY window flashes "Yr" (year). Use the numeric keys to enter your age. (No fair cheating.) Press "ENTER."

6. The DATA ENTRY window now flashes "Lb" (pounds). Use the numeric keys to enter your body weight in pounds. Press "ENTER." (If you measure your body weight in kilograms, use Table 2 on page 46 to convert kilograms to pounds.)

7. Finally, the DATA ENTRY window flashes "=" (equal sign) and your FIT TEST score. Figure 8 on page 36 shows relative fitness scores of other men or women in your age category.

8. To resume your program, simply press the "ENTER" key.

Remember, the proper use of this score is to measure your progress rather than to compare your RATING to other people. When you retest, check for improvement.

FIT TEST Tips

- The FIT TEST score is easiest to determine using the 12-minute Hill Profile program described in Step 2.
- The computer does not accept heart rates less than 90 beats per minute or greater than 199; body weights less than 74 pounds or greater than 399; and ages that exceed 99 years.
- If you make an error when entering any FIT TEST information, you can correct it by re-entering the accurate data BEFORE you press the "ENTER" key.
- Heart rate is dependent on many factors. It is important to take your FIT TEST under similar circumstances each time.

Do Your Best To Standardize:

- amount of sleep the previous night (7 or more hours is recommended);
- time of day of the test;
- time you last ate (2 to 4 hours after your last meal is recommended);
- time since you last drank a liquid containing caffeine or alcohol, or smoked a cigarette (4 or more hours is recommended); and
- time since you last exercised (at least 6 hours is recommended).

For the most accurate FIT TEST results, perform the FIT TEST on three consecutive days and average the three scores.

Your Resting Heart Rate is Important

Another excellent indicator of cardiorespiratory health is your resting pulse. An average resting pulse is approximately 72 beats per minute. A lower pulse indicates a stronger, healthier heart. Monitoring your resting pulse is an easy way to measure the effectiveness of your exercise program. Take your pulse each day at the same time, preferably upon awakening and before you get out of bed. As your Personal Exercise Plan (PEP) continues, you'll notice a decrease in your resting heart rate. Be patient. This improvement takes at least 8-10 weeks.

Figure 9: FIT TEST Scoring Table

MEN			AGE		
RATING	**20-29**	**30-39**	**40-49**	**50-59**	**60-69**
Elite	55 +	52 +	50 +	48 +	45 +
Excellent	50-54	47-51	45-49	43-47	40-44
Good	45-49	42-46	40-44	38-42	35-39
Above Average	40-44	37-41	35-39	33-37	30-34
Average	36-39	33-36	31-34	29-32	26-29
Below Average	31-35	28-32	26-30	24-28	21-25
Poor	26-30	23-27	20-25	18-23	16-20
Very Poor	< 26	< 23	< 20	< 18	< 16

WOMEN			AGE		
RATING	**20-29**	**30-39**	**40-49**	**50-59**	**60-69**
Elite	49 +	46 +	44 +	42 +	40 +
Excellent	44-48	41-45	39-43	37-41	35-39
Good	39-43	36-40	34-38	32-36	30-34
Above Average	34-38	31-35	29-33	27-31	25-29
Average	30-33	27-30	25-28	23-26	21-24
Below Average	25-29	22-26	20-24	18-22	16-20
Poor	20-24	17-21	15-19	13-17	11-15
Very Poor	< 20	< 17	< 15	< 13	< 11

HOW TO STAY MOTIVATED or. . ."STAYING WITH IT"

Maintaining consistent exercise habits is a big challenge. Adherence to a training program gives you tremendous rewards. Once you begin to notice how much better you look and feel, you will wonder how you ever got along without a regular exercise program. You'll look forward to your next workout.

But the physiological and psychological benefits are not immediately apparent. Sometimes it is hard to stay motivated until you begin to see results. The following tips are a few of the more popular and effective strategies used by successful athletes, coaches, and sports physiologists to maintain a high degree of motivation.

1. Practice Self-Responsibility. When it comes to the bottom line, you make the decision whether to exercise or watch TV, whether to refuse that extra pastry or to indulge. While the pressures of daily life often seem to force you into putting off your exercise, remember that it's your health that's concerned, and you can say "yes" or "no" to the temptation to pass up working out "just this one time."

2. Practice Self-Discipline. Discipline is the day-to-day ability to make the health-conscious decision every time you have a choice. It requires reminding yourself of the image you've created mentally of how you want to be, or how you want to look, and consistently working on your reinforcement of that image through the right actions. A routine time and place for exercise is a simple first step. You might even consider writing down your exercise session in your daily appointment book, as if it were a business operation. This will ensure that other activities will not interfere.

3. Rehearse Mentally. Visualizing the actions of exercising and creating mental pictures of yourself in peak physical condition, enjoying the benefits of vibrant physical health will program you toward fitness success. Many athletes and performers actually rehearse their skills and shows with mental pictures prior to taking the field or walking on stage. It prepares them for the activity by eliminating apprehension and makes the activity more exciting, and even more enjoyable.

4. Gain Fitness Knowledge. The press and broadcast media are constantly full of new diets, exercise plans, product descriptions and testimonials about state-of-the-art health programs. But there is so much to learn, and so many people and companies are making claims for their own particular offerings, that you must become a shrewd student of fitness to decipher what works best for you. Read authoritative periodicals by expert authors. Attend seminars and trade shows. Evaluate each new product and system you encounter against what you have already learned to be accurate information.

5. Be Realistic. The degree of endurance, strength and figure appeal you can reach is always determined by your genetic potential, your fitness program, and your environment. Don't compare yourself just to top athletes or celebrities. Judge real development by improvement from where you start. You will have a sense of pride and accomplishment when you achieve goals you have set for yourself, and nothing is more motivating than success.

6. Keep a Progress Chart. A daily log, like the one included at the end of this manual, helps you monitor your progress objectively. Subjective comments about how you feel during and after your workout can keep you aware of subtle changes as you improve, and this is a good way to catch yourself in slumps.

7. Enlist the Support of Family and Friends. Tell those close to you about your fitness goals and ask them to support your efforts. Working out with a friend can produce amiable challenges and be twice the fun of exercising alone.

HOW TO CARE FOR YOUR LIFECYCLE®

Your Lifecycle® trainer is backed by the engineering excellence of Life Fitness, Inc., and it is one of the most rugged and trouble-free pieces of exercise equipment on the market today. As one of the most popular stationary bikes in health clubs across the country, the Lifecycle® regularly stands up to marathon use – 18 hours a day, 7 days a week.

Here are some preventative maintenance tips which will keep your Lifecycle® bike running at it's best:

- To ensure optimal function of your Lifecycle®, keep it in a cool, dry place.
- Check the tightness of the crank nuts at least every 3 months so that the crank bearings are held firmly in place. If loose, tighten the nuts until they are snug, but don't overtighten them. Over-tightening can cause damage to the crank bearings inside.
  NOTE: Crank nuts are reverse threaded. Turn clockwise to loosen and counter clockwise to tighten.
- Occasionally apply automotive wax to seat post to keep it from binding or, if needed, lubricate the seat post with drop or two of light machine oil.
- Make sure the two springs on the underside of the seat are kept tight at all times. To do this, just turn the springs in the cups, and if necessary, tighten the nuts at the end of the springs with a 1/2" wrench. This will extend the life of the seat.
- Keep the display console free of fingerprints and salt buildup caused by perspiration. Use a 100% cotton cloth lightly moistened with water and mild detergent. Other fabrics, including paper towels, may scratch the surface.

CAUTION: Do not step on any portion of the housing when getting on or off the bike. This can cause the housing to crack. The correct way to get on or off our Lifecycle® aerobic trainer is to step over the housing with one leg so that you straddle it. Then place one foot on a pedal in its downward position, step up on it, and sit down on the seat.

HOW TO REPLACE THE BATTERY

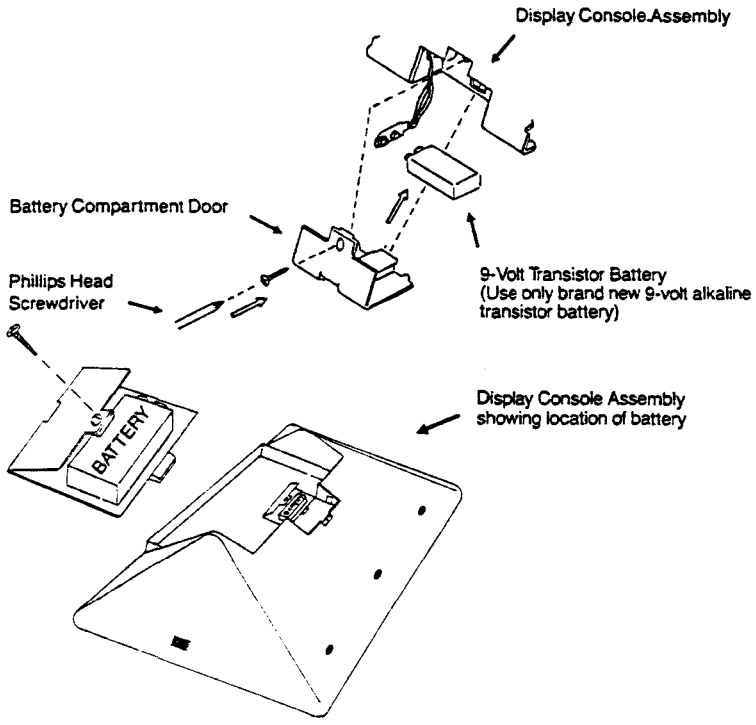
A 9-volt alkaline transistor battery is located in a small compartment in the lower center on the back of the display console (as you view it from the seat). Occasionally, this battery needs to be replaced. Follow these steps:

Step 1: Remove the recessed screw from the DISPLAY CONSOLE ASSEMBLY using a Phillips head screwdriver.

Step 2: Gently pull the battery wires out so that your can disconnect the old battery and connect the new ALKALINE TRANSISTOR BATTERY, as shown.

Step 3: Cradle the ALKALINE TRANSISTOR BATTERY on the BATTERY COMPARTMENT DOOR and install by first inserting the tab on the back of the BATTERY COMPARTMENT DOOR into the opening on the DISPLAY CONSOLE ASSEMBLY, and then, by gently pushing up, carefully tuck the battery wires back into the DISPLAY CONSOLE ASSEMBLY while reinserting the door. Tighten the screw until snug. **CAUTION: DO NOT OVERTIGHTEN.**

Figure 10: Replacing the Battery



HOW TO SOLVE OPERATING PROBLEMS

Symptom: No Power

- Perhaps you need to replace the 9-volt battery. Replace only with a 9-volt alkaline transistor battery.

Symptom: Hard to pedal

- Your Lifecyle® may be harder to pedal during its break-in period. This "tightness" usually subsides after the first 10 to 15 hours of use.
- Perhaps you selected a level of intensity that is too difficult for you at this time. If so, try a lower level and graduate to a higher level when you are ready.
- Perhaps you need to replace the 9-volt alkaline transistor battery. See instructions on page 40.

Symptom: Keys do not respond (not including "START" key)

- Are you trying to enter a duration for the Hill Profile program which is not available? Remember, the Lifecycle® will not accept Hill Profile programs other than 1, 2, 3, 4, 5, 6, 12, 18 or 24 minutes.
- Rub the keyboard gently with your fingertips. The switches may just need to be warmed by your fingers in order to get them to respond properly.

Symptom: Shuts off during ride

- Did you stop pedaling or slow your pedaling speed below 80 RPM? Interrupting the pedal cadence, even for a short period, can cause the display console to go blank.
- Did you program the correct time? If you want to ride the 12, 18 or 24 minute program, it's important that you enter the digits within two seconds of each other. Failure to enter each number properly may result in a 2 minute program instead of a 12 minute program. Also, be sure both numbers are displayed before pressing the "ENTER" key.

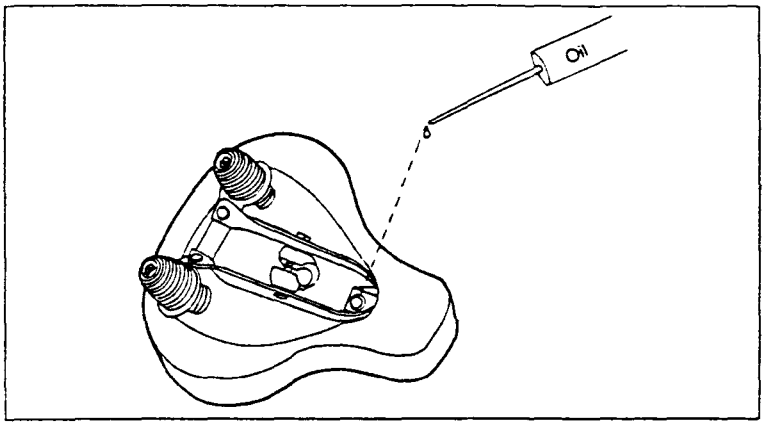
Symptom: Lights flicker or fade in and out

- Are you pedaling fast enough? Pedaling below 40 RPM may cause the "lights" in the LED Matrix window to flicker or fade in and out.
- Perhaps you need to replace the 9-volt battery. Replace only with a 9-volt alkaline transistor battery.

Symptom: Squeaky seat

- Place a few drops of oil on the front rivet on the underside of the seat.
- Tighten the nuts at the end of the springs with a 1/2" wrench.

Figure 11: Oiling Seat Springs



If these tips do not solve your operating problems, or if you need any further assistance, call the Life Fitness Product Support Dept. using the trouble-shooting hot line numbers listed below. Do not attempt to perform any internal repairs yourself.

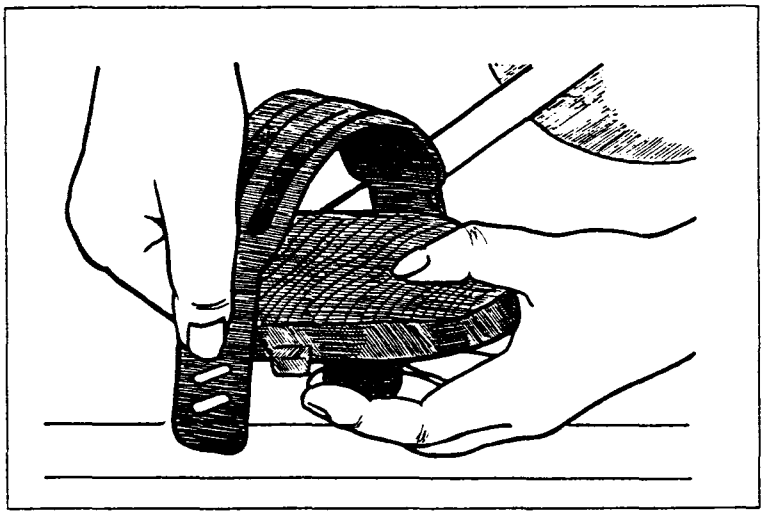
Life Fitness Product Support Department:
Toll Free (800) 351-3737 or (312) 451-0036

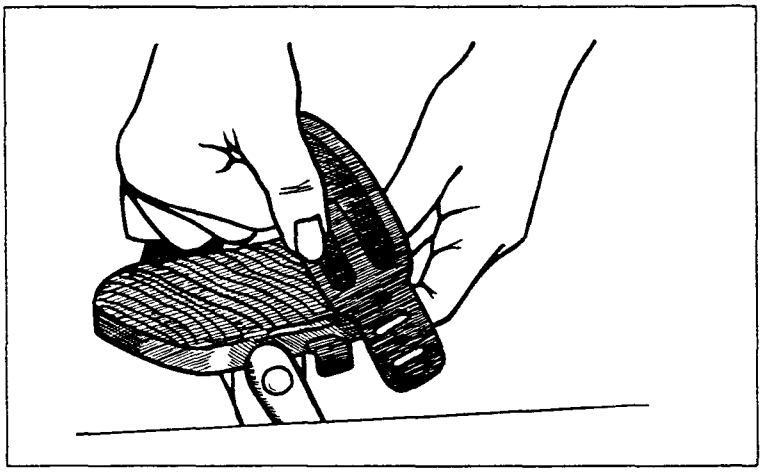
HOW TO ADJUST FOOTSTRAPS

Each pedal has a nylon reinforced rubber footstrap with 2 inside slits and 5 outside slits. To change the width of the strap, simply grasp the outside of the strap and pull out from the knob and down. Once the slotted-end of the strap is removed, choose the width that feels the most comfortable when riding. When the desired width has been chosen, insert the strap slit onto the knob and pull the strap up. The strap will click when locked into place.

CAUTION: DO NOT ATTEMPT TO ADJUST THE FOOTSTRAPS WHICH YOU ARE RIDING THE BIKE. ATTEMPTING TO DO SO WHILE YOU ARE RIDING MAY RESULT IN SERIOUS INJURY.

Figure 12: Adjusting the Footstraps





NOTE: This inside strap should not be adjusted unless you have extremely small feet.

Table 1: Training Heart Rate Range (THRR) for Cardiorespiratory Improvement

Age	Max HR*	65% HR	75% HR	90% HR	Optimal Training HR**
20	200	130	150	180	160
21	199	129	149	179	159
22	198	129	148	178	158
23	197	128	148	177	158
24	196	127	147	176	157
25	195	127	146	176	156
26	194	126	145	174	155
27	193	125	145	174	154
28	192	125	144	173	154
29	191	124	143	172	153
30	190	124	142	171	152
31	189	123	142	170	151
32	188	122	141	169	150
33	187	122	140	168	150
34	186	121	139	167	149
35	185	120	139	167	148
36	184	120	138	166	147
37	183	119	137	165	146
38	182	118	136	164	146
39	181	112	136	163	145
40	180	117	135	162	144
41	179	116	134	161	143
42	178	116	133	160	142
43	177	115	133	159	142
44	176	114	132	158	141
45	175	114	131	158	140
46	174	113	130	157	139
47	173	112	130	156	138
48	172	112	129	155	138
49	171	111	128	154	137
50	170	111	127	153	136
51	169	110	127	152	135
52	168	109	126	151	134
53	167	109	125	150	134
54	166	108	124	149	133
55	165	107	124	149	132
56	164	107	123	148	131
57	163	106	122	147	130
58	162	105	121	146	130
59	161	105	121	145	129
60	160	104	120	144	128
61	159	103	119	143	127
62	158	103	118	142	126
63	157	102	118	141	126
64	156	101	117	140	125
65	155	101	116	140	124
66	154	100	115	139	123
67	153	99	115	138	122
68	152	99	114	137	122
69	151	98	113	136	121
70	150	98	112	135	120

See footnotes and explanation on page 45.

* Theoretical maximum heart rate is recognized by the American College of Sports Medicine.*

** Optimal training heart rate is hypothetical, based on an average person in the population; however, exercising at a specific heart rate is a precise determination that can only be made by a qualified medical personnel.

A greater percentage of calories are burned when you average between 65% and 75% of your theoretical maximum heart rate . Fat is burned best when there is plenty of oxygen available in the blood. Working out at a lower heart rate for a longer period of time tends to optimize the amount of fat burned. Lower intensity exercise allows you to work out longer thus allowing you to burn more <u>total</u> calories.

* American College of Sports Medicine, Guidelines for Exercise Testing and Prescription (Lea & Febiger: Philadelphia, 1986), p. 32.

Table 2. Weight Conversion Chart

Kilograms to Pounds

kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb
34	75	48.5	107	63	139	77.5	171	92	202	106.5	234
34.5	76	49	108	63.5	140	78	172	92.5	204	107	235
35	77	49.5	109	64	141	78.5	173	93	205	107.5	237
35.5	78	50	110	64.5	142	79	174	93.5	206	108	238
36	79	50.5	111	65	143	79.5	175	94	207	108.5	239
36.5	80	51	112	65.5	144	80	176	94.5	208	109	240
37	81	51.5	113	66	145	80.5	177	95	209	109.5	241
37.5	83	52	114	66.5	146	81	178	95.5	210	110	242
38	84	52.5	116	67	147	81.5	179	96	211	110.5	243
38.5	85	53	117	67.5	149	82	180	96.5	212	111	244
39	86	53.5	118	68	150	82.5	182	97	213	111.5	245
39.5	87	54	119	68.5	151	83	183	97.5	215	112	246
40	88	54.5	120	69	152	83.5	184	98	216	112.5	248
40.5	89	55	121	69.5	153	84	185	98.5	217	113	249
41	90	55.5	122	70	154	84.5	186	99	218	113.5	250
41.5	91	56	123	70.5	155	85	187	99.5	219	114	251
42	92	56.5	124	71	156	85.5	188	100	220	114.5	252
42.5	94	57	125	71.5	157	86	189	100.5	221	115.5	253
43	95	57.5	127	72	158	86.5	190	101	222	115.5	254
43.5	96	58	128	72.5	160	87	191	101.5	223	116	255
44	97	58.5	129	73	161	87.5	193	102	224	116.5	256
44.5	98	59	130	73.5	162	88	194	102.5	226	117	257
45	99	59.5	131	74	163	88.5	195	103	227	117.5	259
45.5	100	60	132	74.5	164	89	196	103.5	228	118	260
46	101	60.5	133	75	165	89.5	197	104	229	118.5	261
46.5	102	61	134	75.5	166	90	198	104.5	230	119	262
47	103	61.5	135	76	167	90.5	199	105	231	119.5	263
47.5	105	62	136	76.5	168	91	200	105.5	232	120	264
48	106	62.5	138	77	169	91.5	201	106	233		

Session No	Date	Resting Heart Rate	Body Weight	Program Selection / Level		Length of Ride	Heart Rate #1	Heart Rate #2	Fit Test Score*	Comments
1	3/1	70	185	Hill	3	12 min.	108	143	No	Felt great starting, but fatigued too fast.
2	3/2	72	184½	Hill	3	12 min.	110	152	No	A half pound lost! Yeah!
3	3/4	71	184	Hill	4	18 min.	109	150	No	Felt guilty about missing yesterday. 6 tough extra mins.
4	3/5	70	184	Man.	4	12 min.	108	149	46	NOT BAD! That's in the "good" range for a 45 yr. old like me.
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										

SAMPLE

*Take 3 days consecutively and average. Measure every 4 to 6 weeks.

Session No.	Date	Resting Heart Rate	Body Weight	Program Selection / Level		Length of Ride	Heart Rate #1	Heart Rate #2	Fit Test Score*	Comments
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										

*Take 3 days consecutively and average. Measure every 4 to 6 weeks.