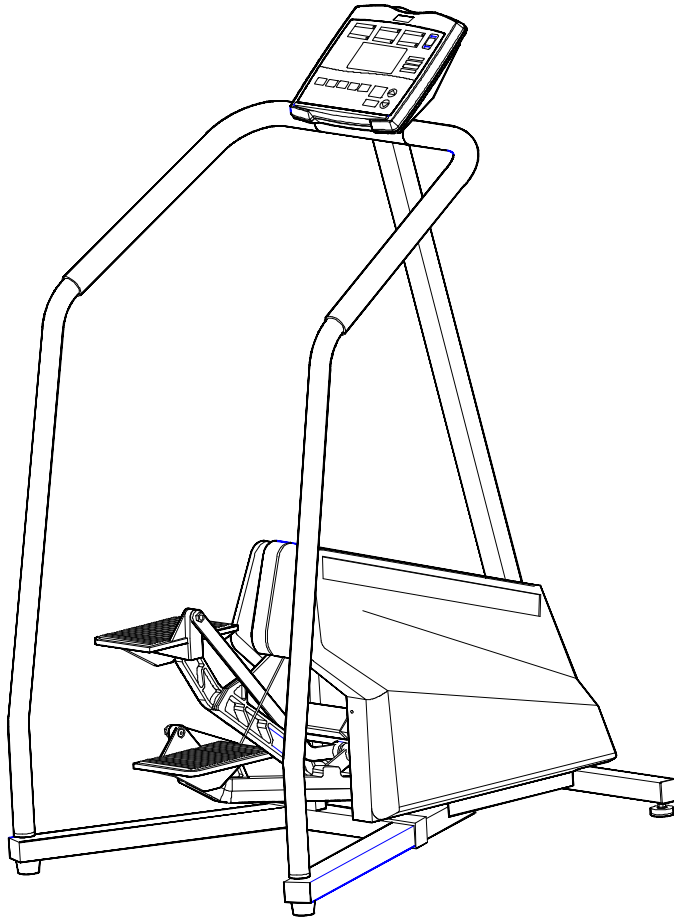# LT-03070

A PDF file was made for this manual, (see additional pages) but the quark files are NOT in the released directory.

ClimbMax® 1000
Owner's Manual

Tectrix Fitness Equipment
68 Fairbanks
Irvine, California 92618
(800) 767-8082
(714) 380-8082

Important Safety Instructions: Read and Save

1. Read all instructions before using this equipment.
2. DANGER: DISCONNECT FROM SUPPLY CIRCUIT BEFORE OPENING.
   AVERTISSEMENT: DECONNECTEUR DU CIRCUIT D'ALIMENTATION AVANT D'OURVRIR.
3. Unplug all electrical appliances before cleaning and after use.
4. Close supervision is necessary when this equipment is used by or near children or disabled persons.
5. Use this equipment for the intended use as described in this manual.
6. Never operate equipment that has a damaged power cord or plug.
7. Never drop or insert any object into any opening on this equipment.
8. Do not use outdoors.
9. To disconnect, switch off power switch (just above power cord plug), then remove plug from outlet.

In the presence of power line "noise" such as fast transients, the equipment may require that power be switched off and then back on again, to resume normal operation.

IMPORTANT GROUNDING INSTRUCTIONS

Warning:
Connect This Equipment to a Properly Grounded Outlet
ATTENTION -
BRANCHER CET EQUIPMENT UNE PRISE CORRECTEMENT RELIEÉ À LA TERRE

This equipment is for use only on a nominal 120-volt circuit and has a grounding outlet that looks like the outlet illustrated in Figure A, below. This equipment *must* be grounded. No adapter should be used. It has been supplied with a cord having an equipment grounding conductor and plug. This plug must be plugged *only* into a properly installed grounded outlet. Failure to do so can result in the risk of electrical shock. Do not modify the plug provided with this product—if it does not fit, have a qualified electrician install the proper style outlet.
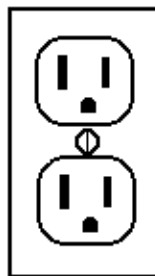

FIGURE A - Grounded Outlet

Parts of ClimbMax 1000 are covered by U.S. patent numbers: 4,938,474 and 4,949,993.
Tectrix and ClimbMax are registered trademarks of Tectrix Fitness Equipment, Irvine California.

ClimbMax 1000 Owner's Manual
Table of Contents

CHAPTER 1 - INTRODUCTION

Welcome to ClimbMax 1000, the perfect climber for your fitness facility or other group exercise environment. ClimbMax's durability, ease of use, and flexible programming make it ideal for both individual and partnered workouts.

ClimbMax's features include:

- Simple to Use: Press any key and ClimbMax's console leads you through the simple steps to start a workout. Or, just step on and start climbing.

- Continuous Performance Monitoring: The convenient, easy-to-read console shows the progress of the workout—vertical speed, calories burned, and more.

- Built-in Workout Profiles: Three standard workouts offer combinations of calorie burning, strength training, and endurance training to satisfy almost everyone.

- Optional Heart Rate Program: With its optional heart rate monitor, ClimbMax can program a workout to reach and keep you at your optimal heart rate.

- Setup Mode: You can change ClimbMax's default settings and limits to match the way you want to operate.

So, ClimbMax is ideal for all of these climbers:

- Someone who's never used a climber before uses manual mode, setting the speed to match what he or she can do.

- Regular exercisers who want to push themselves can use the standard programs to increase strength and endurance.

- Serious athletes can get their heart rates to the exact level they want, and keep them there for the duration of their workouts.

About This Book

This book is for you, the ClimbMax owner. While it includes complete details on using ClimbMax for a workout, it also contains assembly and setup information which the casual climber doesn't need to know.

Besides this introduction, this book contains:

Chapter 2 - Assembly and Setup
Everything about getting the ClimbMax ready to use, from taking it out of its shipping crate to setting its operation limits.

Chapter 3 - Let's Climb
How to use ClimbMax. Starting a workout, choosing a program, the console display, and more.

Chapter 4 - The Heart Rate Program
How to use the optional heart rate monitoring and programming features.

Chapter 5 - Testing
How to make sure your ClimbMax is operating properly.

Appendix A
How ClimbMax's level settings translate into climbing speeds.

Appendix B
Speed and energy conversion chart.

CHAPTER 2 - ASSEMBLY AND SETUP

This chapter describes how to unpack and assemble your ClimbMax, and how to use setup mode to configure the climber for your situation.

Assembly Overview

It's easy to assemble ClimbMax—it will probably take about 30 minutes. You need these common tools:

- 3/16" Allen Wrench
- 7/16" wrench or socket wrench and ratchet
- 1/2" wrench

Here's an overview of the steps in the assembly:

1. Unpack ClimbMax and make sure you have all the parts.

2. Follow the detailed instructions to assemble the ClimbMax.

3. Place the ClimbMax where it will be used and level it.

4. Plug in the power cord.

Unpacking ClimbMax 1000

Use the 7/16"or ½" socket or wrench to remove the clamps and screws or tie straps holding the chassis base to the pallet. Remove all parts from the shipping carton. Make sure you have all the parts by checking against the parts list.

*CAUTION: **Do not stand the display console upright tube on its end!*** Lay it flat instead. Standing it on end could damage the display ribbon cable.

Parts List

Your ClimbMax 1000 includes these parts:

Description	Qty	Part Number	Item #
Base Unit	1	70310W or 70310B	1
Left Foot Assembly	1	70056	2
Right Foot Assembly	1	70057	3
Front Foot Assembly	1	70058	4
Display Upright Assembly	1	70360	5
Left Handrail	1	61089 or 61119	6
Right Handrail	1	61090 or 61120	7
Configuration Kit	1	varies by country	--
Hardware Kit for CM1000	1	70362	--

The Hardware Kit for the CM1000 (part# 71100) contains:

Description	Qty	Part Number	Item #
5/16" x 2" Screw	4	41011	8
5/16" x 2.25" Screw	3	41050	9
5/16" Split Washer	7	43042	10
5/16" Nyloc Nut	3	42033	11
5/16" x 2.5" Button Cap Screw	2	41138	--
Bracket, Handrail Clamp	1	52078	12
#10 x 3/4" Phillips-head Screw	9	41009	--

The console and related materials for the ClimbMax 1000 are packed in the Configuration Kit included with the unit. This box contains:

Description	Qty	Part Number
Warranty Card	1	03006
Owner's Manual	1	03070
Service Manual	1	03071
Power Cord	1	Varies with country (14007 for USA)
ClimbMax Display Console	1	Varies with language

Assembling the ClimbMax 1000

Attach the Feet to the Base

Carefully turn the base (1) upside down. Attach the left (2) and right (3) feet using three of the 5/16" by 2.25" screws (9) and washers (10), and one 5/16" nut (11). Attach the front foot using two of the 5/16" by 2" screws (8) and washers (10). See Figure 1. Roll the base onto its feet.
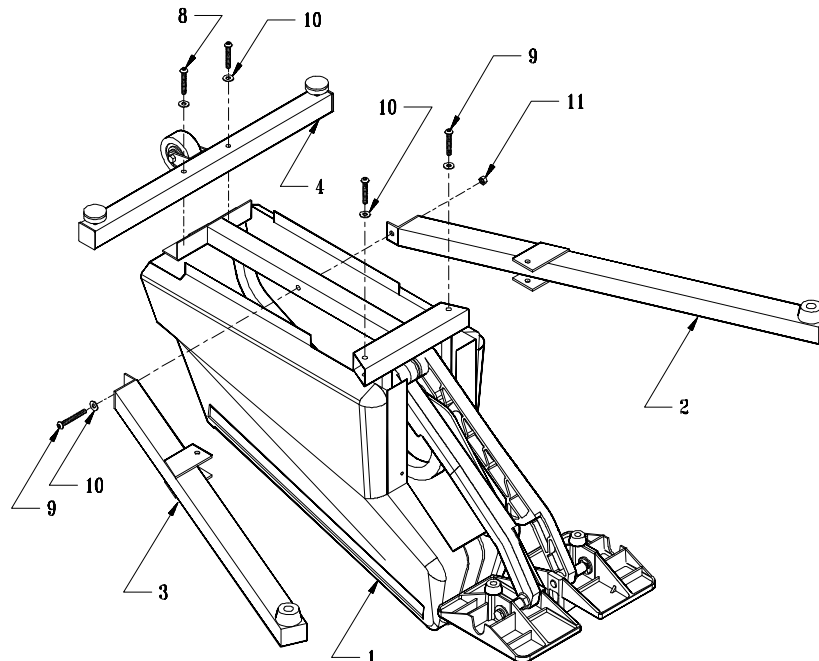
Figure 1 - Attaching the Feet

Attach the Display Upright

Attach the display upright (5) to the base (1) using two 5/16" by 2" screws (8) and washers (10) as shown in Figure 2. Be sure the ribbon cable goes through the slot, as shown, and the display console backplate is facing toward the base. Finger tighten the screws; you will finish tightening them with a wrench later, after installing the handrails.
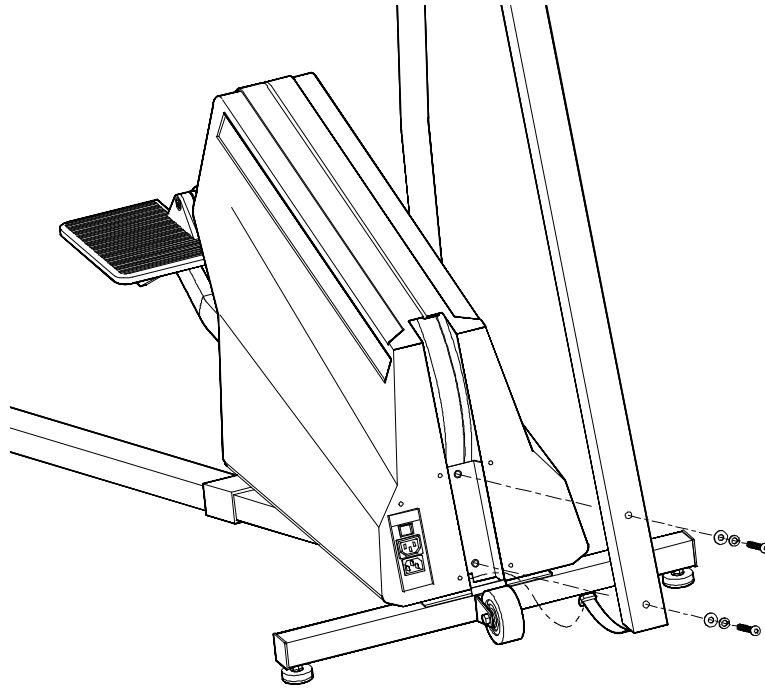
Figure 2 - Attaching the Display Upright

Attach the Display Console to the Display Upright

Remove the display console from the configuration kit. Attach the display ribbon cable from the display upright to the connector on the back of the console. Make sure it fastens securely.

Attach the display console to the console backplate using four of the #10 Phillips-head screws.

Attach the Handrails

Slip the left (6) and right (7) handrails over the plugs on the top of the rear feet. They will probably fit tightly; if necessary, use a spray cleaner as a lubricant. Rotate the handrails into the clamp bracket at the top of the display console upright (5). Slip the handrail clamp bracket (12) behind the handrails, as shown in Figure 3. Line up the holes and attach the bracket and handrails to the display upright using two 5/16" by 2" screws (8) and nuts (11).
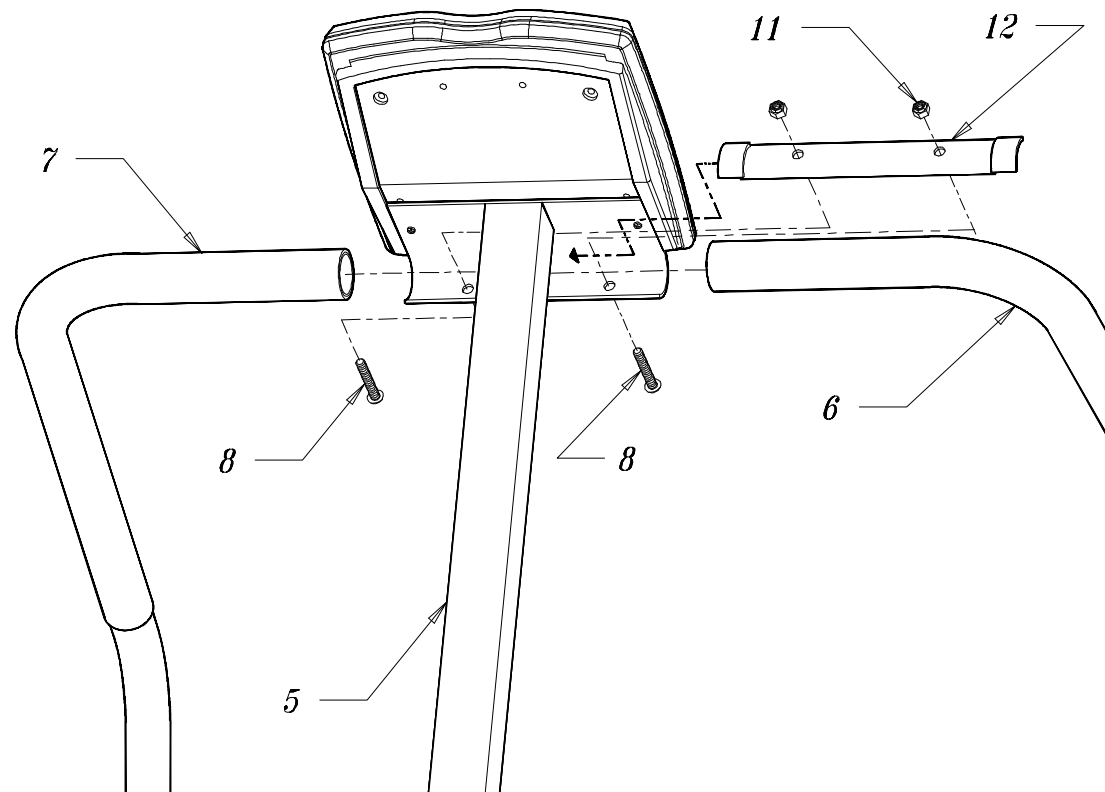
Figure 3 - Attaching the Handrails

You should now use a wrench to finish tightening the screws at the bottom of the display console upright. See Figure 2.

Attach the Optional Water Bottle Holder

If you have the optional water bottle holder, attach it to the console back plate using three #10 Phillips-head screws.

Important: If you don't use the water bottle holder, you must still put the three screws in the open holes to protect the electronics on the back of the console from the environment.

Plug in the Display Cable

Lay the ClimbMax on its right side. Take the lower end of the display ribbon cable (the one you routed through the slot in the base when attaching the display upright). Fold around the motor and plug it into the connector on the power board.

Level the ClimbMax

Move the climber to where it will be used. Press on either side of the front foot to see if you can rock it from side to side. If you can, or if it is not level, raise or lower the glides on the front foot until the climber is stable. Then, tighten the lock nuts on the front foot.

Plugging in the ClimbMax

The ClimbMax 1000 has both power in and power out sockets. You can plug a ClimbMax into either a wall outlet or the power out socket on another ClimbMax. Using the correct cord, plug one end into the "in" socket and the other end into the wall or another ClimbMax.

If you have daisy-chain power cords, you can connect up to 10 climbers using the same 10 amp outlet.

Setting Options

ClimbMax offers an easy-to-access setup menu to let you match the climber's default settings and limits to your users' needs and the way you want to run your facility. You can set the default and maximum workout length, the measurement units used on the display, and more.

To set options:

1. Enter Setup Mode by turning the climber off, then holding down the **Switch Display** key while turning it back on.

2. For each of the following settings, use the up and down arrows to choose the value you want, then press **Enter** to move on to the next option.

   - Longest Workout Time ("Long Prog"): The longest time a user is allowed to set for his or her workout. The original setting is 20 minutes. You can change this up to the absolute maximum of 60 minutes.

   - Default Workout Time ("Def Prog"): This is the default time shown when a user begins a workout. The factory setting is 20 minutes; you can set this as high as the the Maximum Workout Time.

   - Idle Time ("Until Idle"): How long the climber remembers workout information when someone stops during a workout. You can set this to 30 seconds, one minute, or two minutes. You can also choose to have no time-out; the climber will remember the information until someone presses **Clear** to start a new workout.

- Full Setup or Step and Go: If you choose "Step and Go," a climber can get on the ClimbMax and start climbing, without entering any workout information. The default is "Full Setup."

  When a user chooses "step and go" operation, ClimbMax uses the default workout length (the one you set as "Def Prog")and the default weight setting of 150 pounds (70kg).

- Beep On or Off: Should the console keys beep when pressed? Choose On or Off.

- USA Readout or International ("Intl"): The USA readout uses feet for distance and pounds for weight. The International readout uses meters and kilos.

3. When you're done setting options, press the **Clear** key twice to save your settings and leave setup mode.

   If you decide not to change the settings, turn the climber off without leaving setup mode. All settings keep their previous values.

Drive Cable Maintenance

With proper maintenance, your Tectrix ClimbMax will provide you with years of trouble-free exercise. Routine maintenance is essential to not only preserve the life of the equipment, but also to avoid any possibility of personal injury. Particular attention should be given to the condition of the ClimbMax drive cables. These cables will eventually wear out. We recommend drive cables be inspected regularly for signs of wear and replaced every 6 to 8 months with Tectrix-supplied replacement cables. *Failure to perform drive cable maintenance procedures could lead to cable damage and serious injury.*

CHAPTER 3 - LET'S CLIMB

So far, we've discussed what the facility owner needs to do to get the ClimbMax ready to use. This chapter describes how to use it; what each climber can do to get the most out of his or her ClimbMax workout.

Overview

This is how you work out on ClimbMax:

1. Get on.

2. Set how long you want to work out.

3. Set your weight.

4. Select manual mode or a program.

5. If you want, adjust the climbing speed.

6. Start climbing!

During your workout, watch your progress on the console; you can change your climbing speed at any time. When you're done, ClimbMax shows your total distance climbed, calories burned, and average speed.

The rest of this chapter tells you more about your choices at each of these steps. The heart rate control program is covered in Chapter 4.

Before You Start

To get the most out of a ClimbMax workout, be sure to follow these general exercise rules:

- Check with your doctor before starting any new exercise program.

- Wear comfortable workout clothing.

- Drink plenty of water or other fluids before, during, and after exercising.

- Stay loose and relaxed while working out.

- Maintain a balanced, upright posture while climbing.

- If you start to hurt, ***stop climbing***.

When climbing, you should have a smooth, stair-climbing action. The pedals should not hit the floor at the bottom of each stroke, or their upper limit at the top of the stroke. If they do, either climb faster or adjust the ClimbMax's speed setting as described later in this chapter. Find a speed and technique that's comfortable for you; this could be short, quick steps or long slow steps. Many climbers prefer to climb at the top of the stroke, keeping the pedals high without hitting the upper stop.

Use the handrails only for balance; putting your weight on your arms means you aren't getting the full benefit of the workout.

Your Workout

There are two basic ways to use ClimbMax: in manual mode or using one of the preset workout programs. The following sections tell you how to use each of these modes.

ClimbMax's advanced heart rate program feature is covered in Chapter 4.

Manual Mode

In manual mode, you tell ClimbMax how long you want to climb; you can adjust your climbing speed at any time during the workout. Follow these steps:

1. Get on ClimbMax.

   If your ClimbMax is set for "step and go" operation, you can just step on the pedals and start climbing. ClimbMax will automatically go into manual mode and use the default workout length. The calorie counts shown will be based on a 150 pound climber, so they may not be accurate for you. If you want to set the length and/or your correct weight, press the **Manual** key *before* you get on ClimbMax, set the length and weight as described, then start climbing.

2. The display will show the default workout length in the "Speed" field, and the light next to "Time" at the right of the console will flash. You can change the workout length using the up and down arrow keys, up to the maximum set for this ClimbMax. Press **Enter**.

1. The light next to "Weight" now flashes, and ClimbMax shows the default weight. Use the arrow keys to change this to your correct weight. ClimbMax uses this to calculate how many calories you burn during your workout, so be sure to allow for your clothing and shoes. In general, add

about five pounds to your base weight to get an accurate reading. Press **Enter**.

2. The light next to "Program" now flashes. Press the **Manual** program key.

3. Start climbing! If the speed is too fast or slow, press the up or down arrow key to adjust it until you're comfortable.

While you're climbing, the console shows your progress and statistics about your workout. For details about these displays, see the section "The Workout Display," later in this chapter.

You can raise or lower the workout level at any time by pressing the up and down arrows. Pick a speed that gives you a comfortable workout without causing pain. If you feel like you're straining to keep up, decrease the level until you can match it easily.

> You can also change from manual mode to one of the programmed workouts during your workout. Just press the key for the program you want, then follow the instructions later in this chapter.

If you need to pause during a workout, the climber will remember your workout information for a fixed amount of time. If you stop for longer than this "time-out interval," the ClimbMax resets itself, and you'll have to start a new workout. (See Chapter 2 for information on setting the time-out interval.)

When you finish, you see a workout summary giving the total distance you climbed, calories burned, and more. See "The Workout Display," later in this chapter, for a description.

Using the Preset Programs

ClimbMax includes three preset workout profiles you can choose from. (If you have the heart rate monitor option, there are four. The heart rate program is described in Chapter 4). These profiles vary the climber speed at set intervals to maximize either fat burning, strength training, or endurance building.

The graphs on the program keys show a "profile" of each workout. The higher bars indicate faster climbing. Each program begins with a warm-up and ends with a cool-down period; as you can see, the middle sections vary according to the type of workout.

1. Get on ClimbMax.

> If the ClimbMax is set for "step and go" operation, skip steps 2 and 3—just get on ClimbMax and press a program key. The program will use the default length and a weight setting of 150 pounds. If you want to set the length and/or your correct weight, press the program key *before* you get on ClimbMax, set the length and weight as described, then start climbing.

2. The display will show the default workout length in the "Speed" field, and the light next to "Time" at the right of the console will flash. You can change the workout length using the up and down arrow keys, up to the maximum set for this ClimbMax. Press **Enter**.

When you change the length of a program, ClimbMax intelligently adjust the program's profile to match your setting. For the fat burning and strength programs, it adds or removes repetitions of the center section; for the endurance program, it increases or decreases the length of the center section. The warm-up and cool-down periods stay the same. If you set the workout length to five minutes, you'll do just the warm-up and cool-down.

1. The light next to "Weight" now flashes, and ClimbMax shows the default weight. Use the arrow keys to change this to your correct weight. ClimbMax uses this to calculate how many calories you burn during your workout, so be sure to allow for your clothing and shoes. In general, add about five pounds to your base weight to get an accurate reading. Press **Enter**.

2. The light next to "Program" now flashes. Press the key for the program you want.

3. Start climbing!
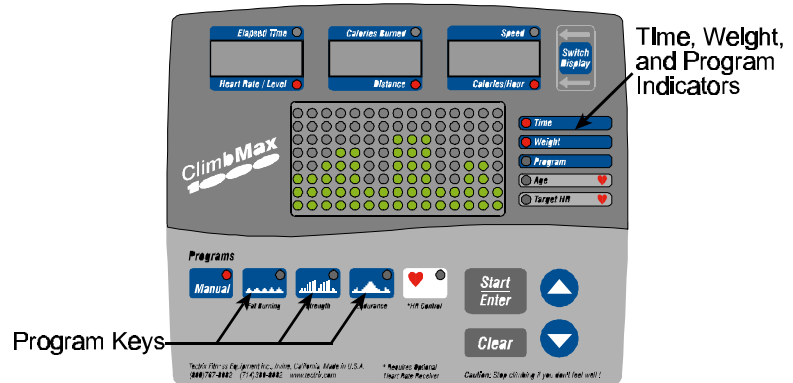
While you're climbing, the console shows your progress and statistics about your workout. For details about these displays, see the section "The Workout Display," later in this chapter.

ClimbMax starts at the default level for the program. You can raise or lower the level while you're climbing. This adjusts the entire program up or down the same number of levels. If you're interested in exactly how the level settings translate to vertical speed, see Appendix A. Pick a setting that gives you a comfortable workout without causing pain at the hardest parts of the program. If you feel like you're straining to keep up, decrease the level until you can match it easily.

If you need to pause during a workout, the climber will remember your workout information for a fixed amount of time. If you stop for longer than this "time-out interval," the ClimbMax resets itself, and you'll have to start a new workout. (See Chapter 2 for information on setting the time-out interval.)

When you finish, you see a workout summary giving the total distance you climbed, calories burned, and more. See "The Workout Display," below, for a description.

The Workout Display

During your workout, the ClimbMax console keeps you continuously updated about your progress. The Progress Indicators at the top of the console and the Workout Graph in the middle give you different views of your workout.
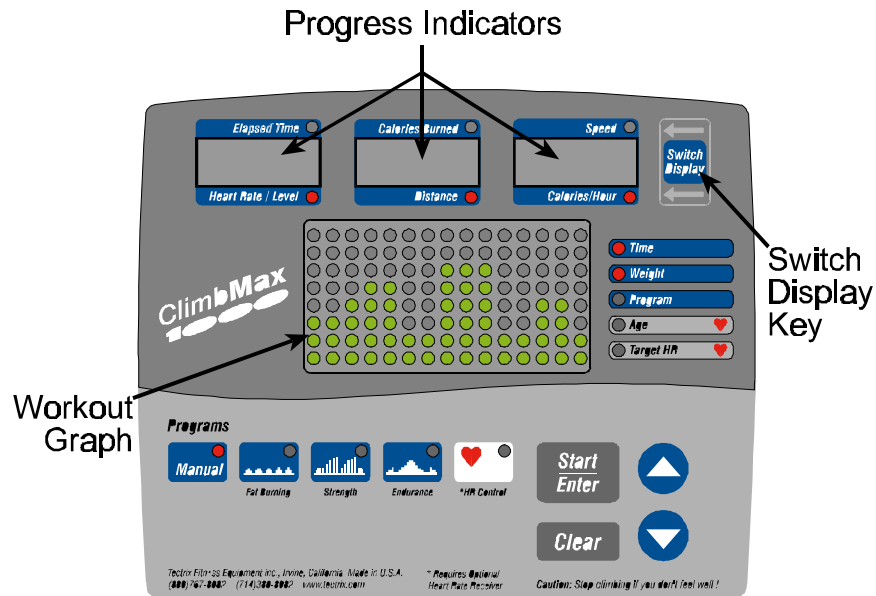
- The three Progress Indicators show six categories of information. At the beginning of a workout the three top categories are shown. Pressing the **Switch Display** button at the right of the fields switches between categories; the lights over and under each field indicate which information is currently displayed. If you hold down **Switch Display** for half a second, the fields will alternate between categories every five seconds.

The top three categories are:

Elapsed Time	How long you've climbed so far.
Calories Burned	The number of calories you've burned in this workout. This is based on the distance you've climbed and the weight you entered at the start of the workout. If you don't enter an accurate weight, the calorie number will not be correct.
Speed	Your current vertical speed in feet per minute or meters per minute. If your speed doesn't look very impressive, remember that each foot of climb is roughly equal to ten feet of running distance.

The three bottom categories are:

Heart Rate or Level   If you have the heart rate monitor option, this is your current heart rate in beats per minute. Without a heart rate monitor, this shows the level setting for the climber. In manual mode, this is your vertical speed; in a program, this is the base setting for the program—your climbing speed depends on where you are in the program.

Distance Climbed   In feet or meters. Each foot of climb is roughly equivalent to ten feet of running over level ground.

Calories/Hour   How fast you're burning calories—the number of calories you'll burn in an hour-long workout if you maintain your current pace for the entire time.

- The Workout Graph in the middle of the console uses columns of lights to show the progress of your workout. In manual mode, each column represents $1/15^{th}$ of your workout and shows the highest speed you reached in that period; each light is equal to ten feet per second.

  In a program, the Workout Graph shows a detailed view of the current portion of your workout: each column of lights represents a 15 second segment, so the entire display covers 225 seconds (a little under four minutes). The height of the columns shows the relative speed; the blinking column is where you are right now. As you go through your workout, the blinking column moves slowly from left to right; when it reaches the right-most column, your workout is almost over. For example:
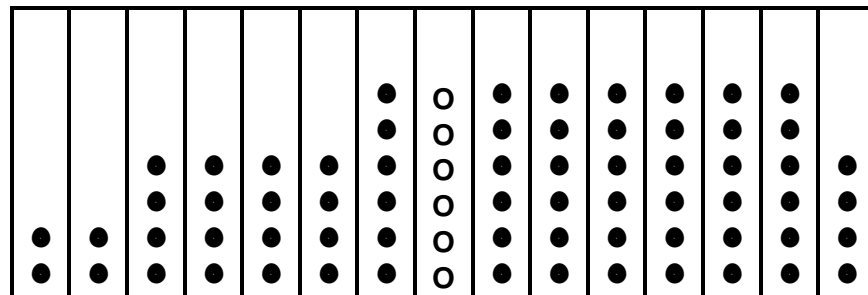
  The blinking column (shown as empty circles) indicates the workout is approximately half over. The speed will stay the same for the next 90 seconds (six columns), then decrease.

Workout Summary

After your workout, the Progress Indicators show "End," then alternate between the upper and lower sets of values (described above), so you can see the totals for your workout. The values will display for the time-out period set for your ClimbMax, or you can press **Clear** to clear the display and start a new workout.

CHAPTER 4 - THE HEART RATE PROGRAM

As an option, the ClimbMax includes a heart rate monitor harness you can wear during a workout to continuously monitor your heart rate. In either manual or program mode, the heart rate monitor merely gives you more information—it lets you see your current heart rate at any time.

However, used with the ClimbMax Heart Rate Control program, this option lets you design a workout tailored to your age and condition by gradually bringing you to your target heart rate, then keeping you at that heart rate for the rest of the workout. To use the heart rate program:

1. Get on ClimbMax.

   If the ClimbMax is set for "step and go" operation, skip steps 2 and 3—just get on ClimbMax and press the **HR Control** key. The program will use the default length and a weight setting of 150 pounds. You will still be able to enter your age and set your target heart rate. If you want to set the workout length and/or your correct weight, press the **HR Control** key *before* you get on ClimbMax, set the workout length, weight, age, and target rate as described, then start climbing.

2. The display will show the default workout length in the "Speed" field, and the light next to "Time" at the right of the console will flash. You can change the workout length using the up and down arrow keys, up to the maximum set for this ClimbMax. Press **Enter**.

1. The light next to "Weight" now flashes, and ClimbMax shows the default weight. Use the arrow keys to change this to your correct weight. ClimbMax uses this to calculate how many calories you burn during your workout, so be sure to allow for your clothing and shoes. In general, add about five pounds to your base weight to get an accurate reading. Press **Enter**.
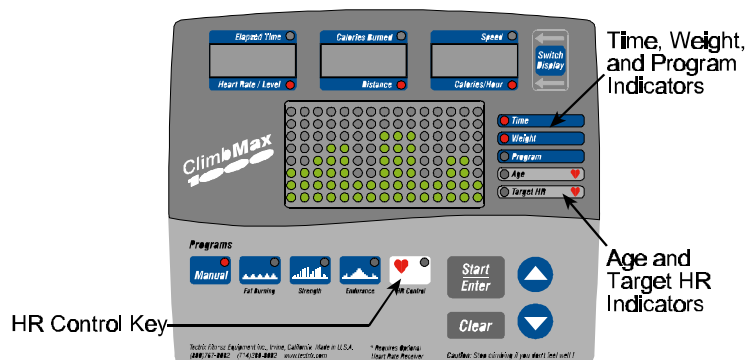
2. The light next to "Program" now flashes. Press the **HR Control** key.

3. The light next to "Age" flashes. Use the up and down arrow keys to set your age. Press **Enter**.

4. The display will show your target heart rate (based on your age) and the percentage of your maximum heart rate. Use the up and down arrow keys to set the target heart rate you want for this workout and press **Enter**.

5. Start climbing.

Over the first few minutes of your workout, ClimbMax will gradually build you up to your target heart rate. It will then keep you at this rate until the cool-down at the end of the workout.

While you're climbing, the fields at the top of the console show statistics about your workout. For details about this display, see the section "The Workout Display," in Chapter 3. The workout graph shows a horizontal line representing your target heart rate. Each column of lights is your heart rate for a segment of the workout, moving from right to left. Each light represents ten beats per minute. The blinking column is your current heart rate.

If you need to pause during a workout, the climber will remember your workout information for a fixed amount of time. When you resume, it will gradually bring you back to your target heart rate. If you stop for longer than this "time-out interval," the ClimbMax resets itself, and you'll have to start a new workout. (See Chapter 2 for information on setting the time-out interval.)

When you finish, you see a workout summary giving the total distance you climbed, calories burned, and more, including your heart rate as you recover. See "The Workout Display" in Chapter 3 for a description.

CHAPTER 5 - TESTING CLIMBMAX PERFORMANCE

You can test the electronics inside ClimbMax by using test mode. In test mode, you can adjust the tension of the drive belt, check the odometer reading, and test all the LEDs on the console.

To enter test mode, turn the ClimbMax off, then press and hold the **HR Control** key while turning it back on. All displays will light until you release the key.

In test mode, the red lights above and below the Progress Indicator fields show the state of the ClimbMax's various input/output signals:

Indicator	Signal	Normal
Elapsed Time	Not used	off
Calories	Slack Switch	on
Speed	RPM sensor off	-
Heart Rate/Level	Polar signal	off
Distance	Not used	off
Calories/Hour	Not used	off

The Elapsed Time field shows "CL1," indicating this is a ClimbMax 1000; Calories shows the version number of the ClimbMax's internal software; Speed shows the state of the slack switch (either "On" or "Off").

While the climber is in test mode, some of the console keys have special functions:

Switch Display	Displays the odometer reading and RPM sensor data. Press **HR Control** to return to the normal test mode display.
Up Arrow	Loosens the belt. The belt tensioning motor runs for as long as you hold the key down. Don't loosen the belt for too long, or you may tangle or unsnap the belt.
Down Arrow	Tightens the belt. The belt tensioning motor runs for as long as you hold the key down.
Endurance	Tests each LED digit group, in turn. Press the key again to go to the next group. Press **Clear** to return to the normal test mode display.
Strength	Tests each LED segment, in turn. Press the key again to go the next segment. Press **HR Control** to return to the normal test mode display.
Manual or **HR Control**	Clears special displays and returns to normal test mode display.
Enter or **Fat Burning**	Lights all display LEDs. Press **HR Control** to return to the normal test mode display.
Clear	From normal display, ends test mode.

To leave test mode, press **Clear**.

For more information about maintaining and servicing your ClimbMax, see the *ClimbMax 1000 Maintenance and Repair Manual*.

APPENDIX A - CLIMBER LEVEL TO SPEED CONVERSION

When you adjust the speed during a ClimbMax program, you're really adjusting the "level" you have the climber set to. While the climbing speed does increase as you raise the level, there is not a direct relationship between the level number shown in the Progress Indicator area and your vertical speed. (In manual mode, the level does equal your vertical speed.)

At lower levels, each level raises your speed by five feet per minute; at higher levels each level represents a ten foot increase. The following chart shows the climbing speed for each level setting you can use during a programmed workout. The lowest speed for each level is the speed at a height of one on the workout; higher speeds are for the more difficult parts of the program.

Exercise Level

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
150															●
140														●	●
130													●	●	●
120												●	●	●	●
110											●	●	●	●	●
100										●	●	●	●	●	●
90									●	●	●	●	●	●	●
80								●	●	●	●	●	●	●	●
75							●	●	●	●	●	●	●	●	
70						●	●	●	●	●	●	●	●		
65					●	●	●	●	●	●	●	●			
60				●	●	●	●	●	●	●	●				
55			●	●	●	●	●	●	●	●					
50		●	●	●	●	●	●	●	●						
45	●	●	●	●	●	●	●	●							
40	●	●	●	●	●	●	●								
35	●	●	●	●	●	●									
30	●	●	●	●	●										
25	●	●	●	●											
20	●	●	●												
15	●	●													
10	●														

APPENDIX B - SPEED AND ENERGY CONVERSIONS

The table below shows approximate values for energy used at various speeds during a ClimbMax workout. The values shown are for a 150 pound climber.

Ft/Min	M/min	MPH	Km/H	METS	KPM/S	Watts	Cal/Hour
10	3.0	3.2	5.2	1.6	3.5	34	146
15	4.6	3.7	5.9	2.4	5.2	51	219
20	6.1	4.1	6.7	3.1	6.9	68	292
25	7.6	4.6	7.4	3.9	8.6	85	365
30	9.1	5.0	8.1	4.7	10.4	102	438
35	10.7	5.5	8.9	5.5	12.1	119	511
40	12.2	5.9	9.6	6.3	13.8	135	584
45	13.7	6.4	10.4	7.1	15.5	152	656
50	15.2	6.8	11.1	7.8	17.3	169	729
55	16.8	7.3	11.8	8.6	19.0	186	802
60	18.3	7.8	12.6	9.4	20.7	203	875
65	19.8	8.2	13.3	10.2	22.5	220	948
70	21.3	8.7	14.0	11.0	24.2	237	1021
75	22.9	9.1	14.8	11.8	25.9	254	1094
80	24.4	9.6	15.5	12.5	27.6	271	1167
85	25.9	10.0	16.2	13.3	29.4	288	1240
90	27.4	10.2	17.0	14.1	31.1	305	1313
95	29.0	10.9	17.7	14.9	32.8	322	1386
100	30.5	11.4	18.5	15.7	34.5	339	1459
110	33.5	12.3	19.9	17.2	38.0	373	1605
120	36.6	13.2	21.4	18.8	41.5	406	1751
130	39.6	14.1	22.9	20.4	44.9	440	1896
140	42.7	15.0	24.3	21.9	48.4	474	2042
150	45.7	15.9	25.8	23.5	51.8	508	2188
160	48.8	16.8	27.3	25.1	55.3	542	2334
170	51.8	17.8	28.8	26.6	58.7	576	2480
180	54.9	18.7	30.2	28.2	62.2	610	2626
190	57.9	19.6	31.7	29.8	65.6	644	2772
200	61.0	20.5	33.2	31.4	69.1	677	2918

Notes:

1. The horizontal equivalent speeds (miles and kilometers per hour) are approximations based on average energy expenditure.

2. The Calories/Hour and METS figures are based on an estimate of 20% metabolic efficiency. Actual caloric use will vary for each individual.

3. Kilopond-meters/second (KPM/S) = (speed in meters/second) X (weight in kilos).

4. Watts = (speed in meters/second) X (weight in kilos) X (9.8 meters/second^2).

Declaration of Conformity

We declare that to best of our knowledge that the fitness equipment listed below, and manufactured by:

Tectrix Fitness Equipment Inc.

68 Fairbanks

Irvine CA, 92618, USA

conforms to:

Directive : EMC 89/336/EEC

Standards : IEC335-1, EN55014, EN50082-1

Product Name : ClimbMax (Series)
Model Numbers : 91000-91999
European Contact : Tectrix International, U.K. Ltd, 20 Hornsby Square, Southfields Industrial Park, Laindon, Basildon, Essex, SS15 6SD, UK   Phone 011-44-1268-412292

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