STAR TRAC
1000, 1200, 1600
Treadmills

OWNER'S MANUAL
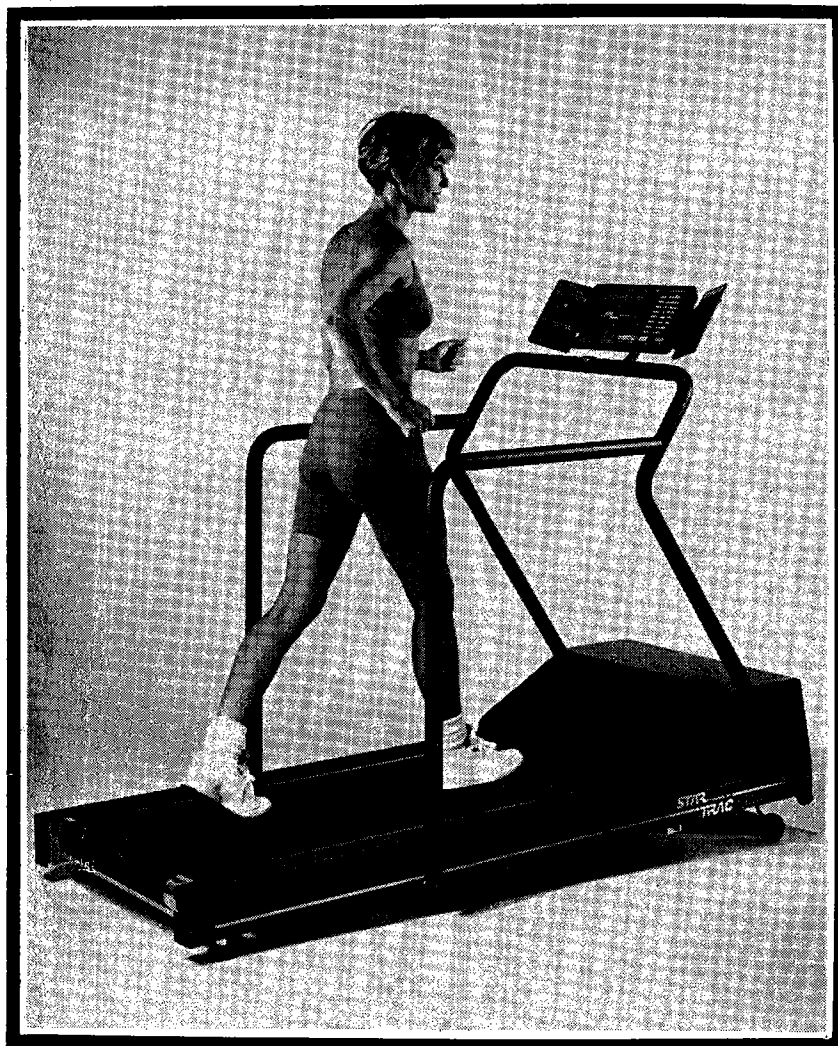
STAR BY UNISEN, INC.
® TRAC

WARNING

The STAR TRAC 1000, 1200, 1600 is designed for aerobic exercise.
Please check with your physician prior to beginning any exercise program.

Do not push yourself to excess. Stop if you are feeling faint, dizzy,
or exhausted. Use common sense when exercising on the STAR TRAC 1000,
1200 or 1600. Please read the Owner's Manual in its entirety before
operating the treadmills.

TABLE OF CONTENTS

INTRODUCTION

Welcome to the world of STAR TRAC. In your hands is the owners manual that will acquaint you with the Star Trac 1000, 1200 or 1600 model treadmills. From assembly to maintenance, this manual was prepared to help you have the most enjoyable treadmill experience possible. If you would like to speak with a Star Trac representative regarding your treadmill, please call 800-535-4634.

CHAPTER ONE
SAFETY NOTES

Consult your doctor prior to engaging in strenuous exercise.

DOs

Discuss your health or fitness program with a healthcare professional, especially if they have not exercised for several years, are over 35 or overweight.

Stop operating the treadmill if dizziness or faintness occurs.

Perform regular preventive maintenance.

Set goals (see "Getting Started").

Exercise at a lower speed until a level of comfort and security are reached.

Complement your walking/jogging/running with a nutritious diet.

Try holding weights while using the treadmill.

Wait until running belt has stopped before getting off the machine.

Try charting your progress using the feedback the treadmill gives you.

Use a tooth brush or compressed air to clean the RPM sensor and disc.

Unplug from outlet prior to cleaning.

Use only for its intended use, as described in this manual.

DO NOTs

Allow unsupervised children to operate treadmill.

Store treadmill outdoors or in an enclosed pool environment.

Jump on or off the treadmill while it is running.

Place filled water bottles or cups on the treadmill.

Stand or position your feet under the unit.

Allow running in bare or stocking feet.

Over tighten the running belt.

Use spray contact cleaners or any other product containing TRICHLOROTRI-FLUOROETHANE to clean the RPM (speed) sensor or plastic RPM disc.

Operate treadmill if it has a damaged cord or plug.

Drop or insert any object - hands or feet - into any opening or underneath treadmill.

Remove any guards or modify this equipment.

CHAPTER TWO
ASSEMBLY

This chapter details how to assemble your Star Trac. Please begin by verifying the following parts were included in your shipment:

PARTS LIST

1. Owner's Manual

2. Packaging Box

3. Star Trac Chassis

4. Two Side Handrails

5. Motor Shroud Screws

6. Motor Shroud

7. Tool Kit

8. Control panel assembly

NOTE: Other hardware (nuts, bolts, washers) will be attached to the handrails on treadmill.
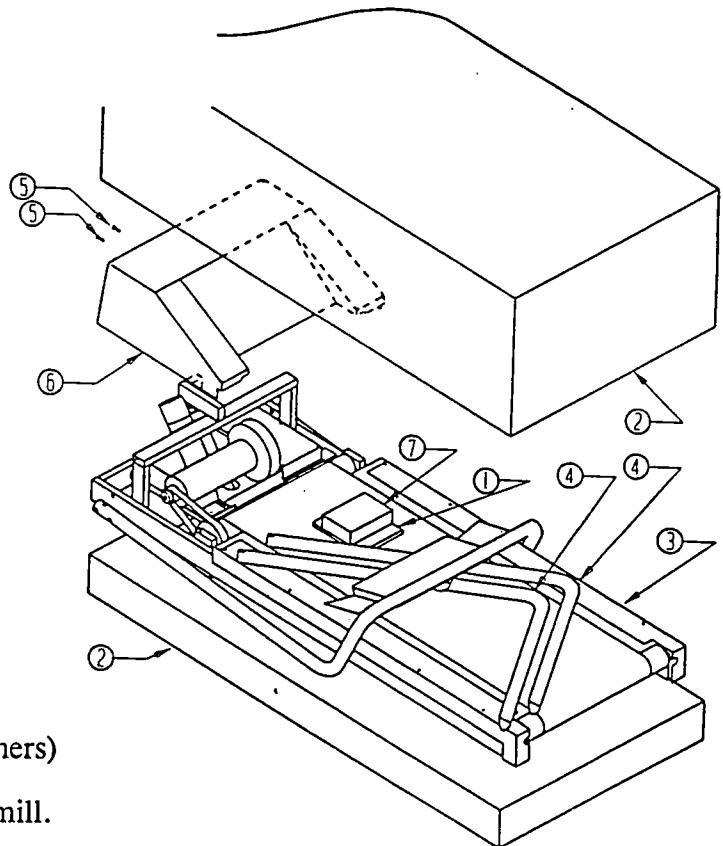
ASSEMBLY

Step One: Remove packaging material (protective plastics, box).

Step Two: Remove screws (#5) from the rear of the motor shroud (#6), and remove motor shroud.
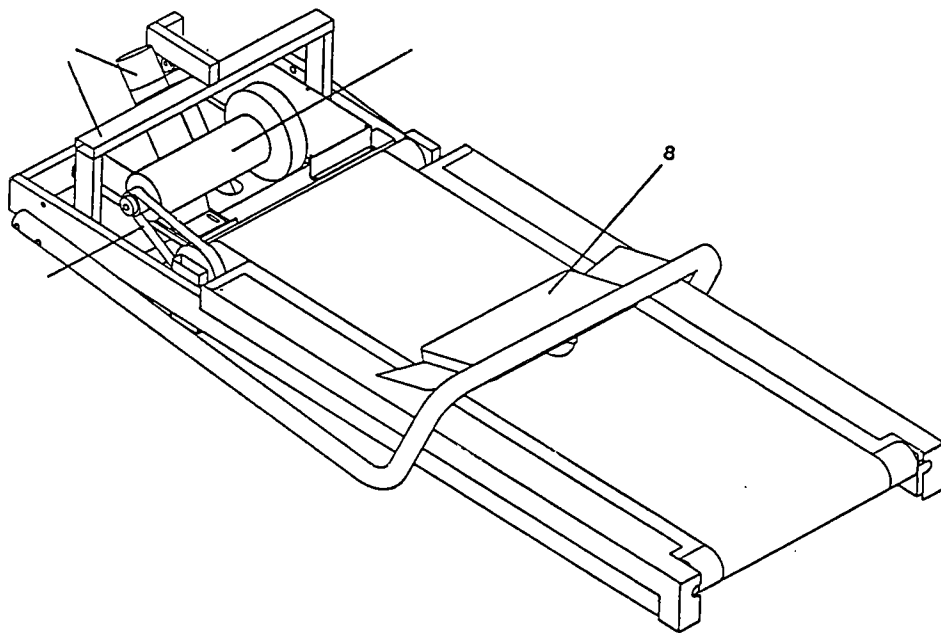
ASSEMBLY

Step Three: Remove the two screws from center of handrail where display console <u>will be</u> placed.

Step Four: Connect display cable from display console to handrail, making sure the cable's nine pins line up correctly. Connect two-pin stop switch cable.

Step Five: Position display console onto handrail and install screws, making sure the screws are not driven through the cable.

ASSEMBLY

Step Six:　Raise display handrail assembly until bolt holes near the base of the front end of the treadmill line up with the frame holes. Install bolts securing handrail assembly into upright position.
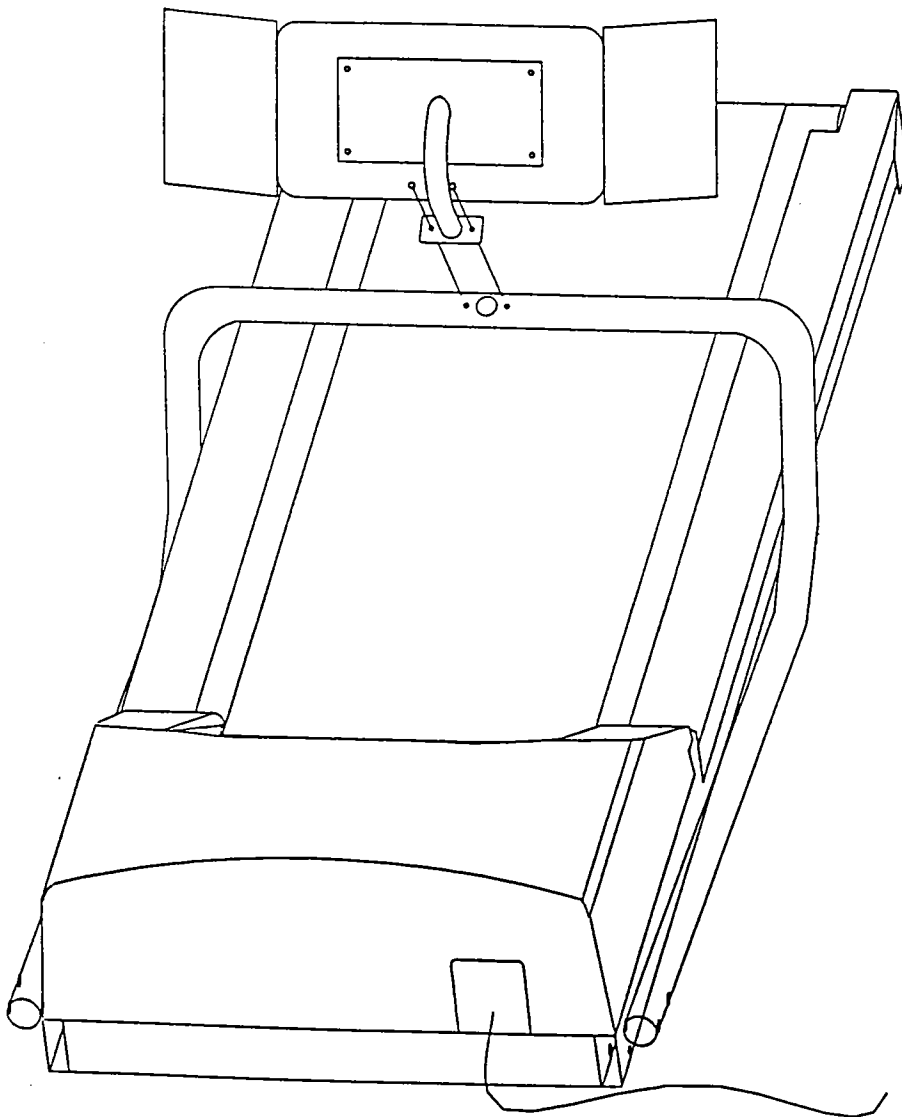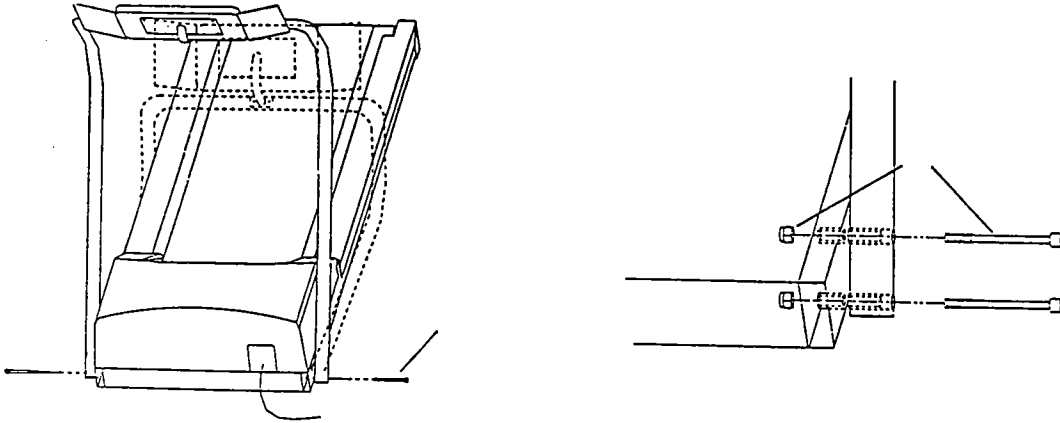
Step Seven:　Install side handrails - one at a time - starting with the upper screw connection. Handrail screw will be located in the end of the handrail. Do not overtighten because you may need to adjust side handrails for bottom connection to fit properly. Remove bolt, washer and nut from treadmill frame base. Position handrail so that screw hole lines up with treadmill frame screw holes. Install bolt, washer and nut. Tighten all screw and bolts.
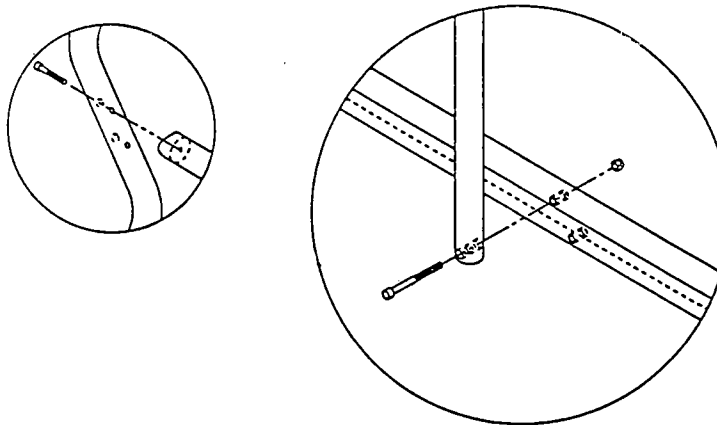
Step Eight:　Slip motor shroud into position. Install shroud screws.

ASSEMBLY

Step Nine: Your treadmill should now be assembled. Place treadmill in the location you

desire, near an outlet. Plug in the treadmill. DO NOT KEEP TREADMILL OUTDOORS.

NOTE: GROUNDING INSTRUCTIONS: This product must be grounded. If it should mal-
function or breakdown, grounding provides a path of least resistance for electric current to
reduce the risk of electric shock. This product is equipped with a cord having an equipment
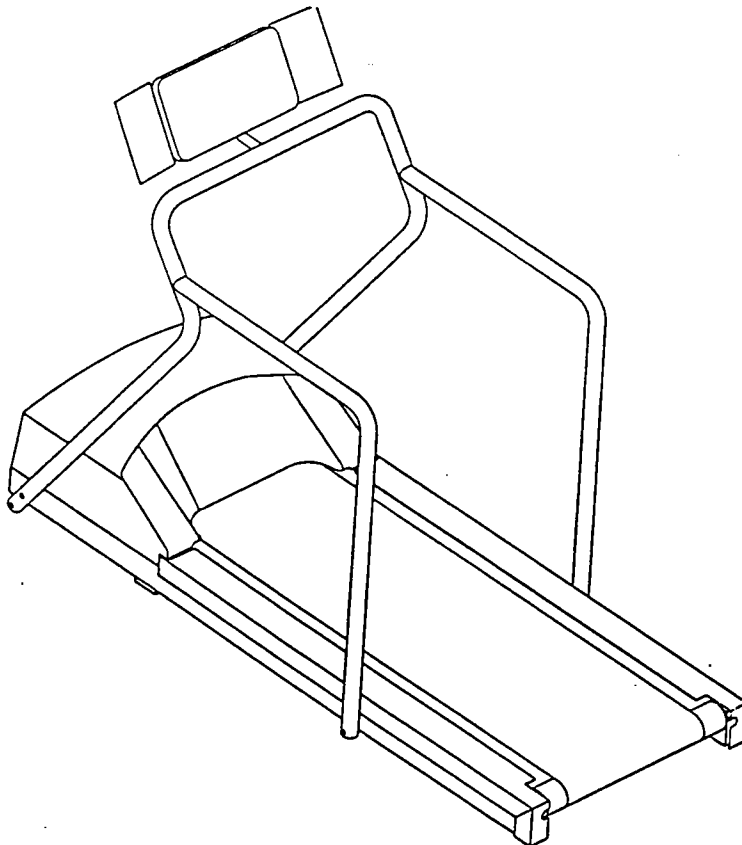-grounding conductor and a grounding plug. The plug must be plugged into an appropriate
outlet that is properly installed and grounded in accordance with all local codes and ordinances.

DANGER: Improper connection of the equipment-grounding conductor can result in a risk of
electric shock. Check with a qualified electrician or serviceman if you are in doubt as to
whether the product is properly grounded. Do not modify the plug provided with the product -
if it will not fit the outlet, have a proper outlet installed by a qualified technician.

This product is for use on a circuit having a nominal rating of equal to or grater than 120 volts
and can demand more than 15 amperes. It is equipped with a specific electic cord and plug to
permit connection to a proper electric circuit. Make sure that the product is connected to an
outlet having the same configuration as the plug. No adapter should be used with this product.
If the product must be reconnected for use on a different type of electgric circuit, the reconnec-
tion should be made by Certified Star Trac Service Representative.

CONTROL PANELS

PROGRAMMABLE

1. ELAPSED TIME
2. DISTANCE
3. SPEED
4. TOTAL CALORIES
5. LAPS
6. PACE
7. DISPLAY TRACK
8. ELEVATION SETTING
9. SHIFT KEY
10. NUMBER KEYS
11. SPEED CONTROL KEYS
12. ELEVATION CONTROL KEYS
13. HEART-RATE TIMER
14. START KEY
15. STOP KEY
16. PRESET PROGRAMS
17. CUSTOM PROGRAM KEY
18. INSTRUCTIONS

BASIC OPERATION

- Press **START**
- Press **+** or **−** to change speed
- Press **△** or **▽** to change elevation
- Press **STOP** to end operation

ADVANCED OPERATION

- Press **0**
- Respond to duration, weight and speed commands by entering information with number keys
- Press **START** after each entry

PRE-PROGRAMS

- Enter your choice **7** - **8**
- Respond to duration, weight and speed commands by entering information with number keys
- Press **START** after each entry

INTERVAL PROGRAM

- Press **9**
- Respond to duration, weight, speed, angle and laps commands up to five intervals by entering information with number keys
- Press **START** after each entry
- Press **START** two times after any laps command for less than five intervals

For additional information on STARTRAC institutional or home treadmills, call UNISEN INC. 14352 Chambers Rd. Tustin, CA 92680 U.S.A. (800) 228-6635
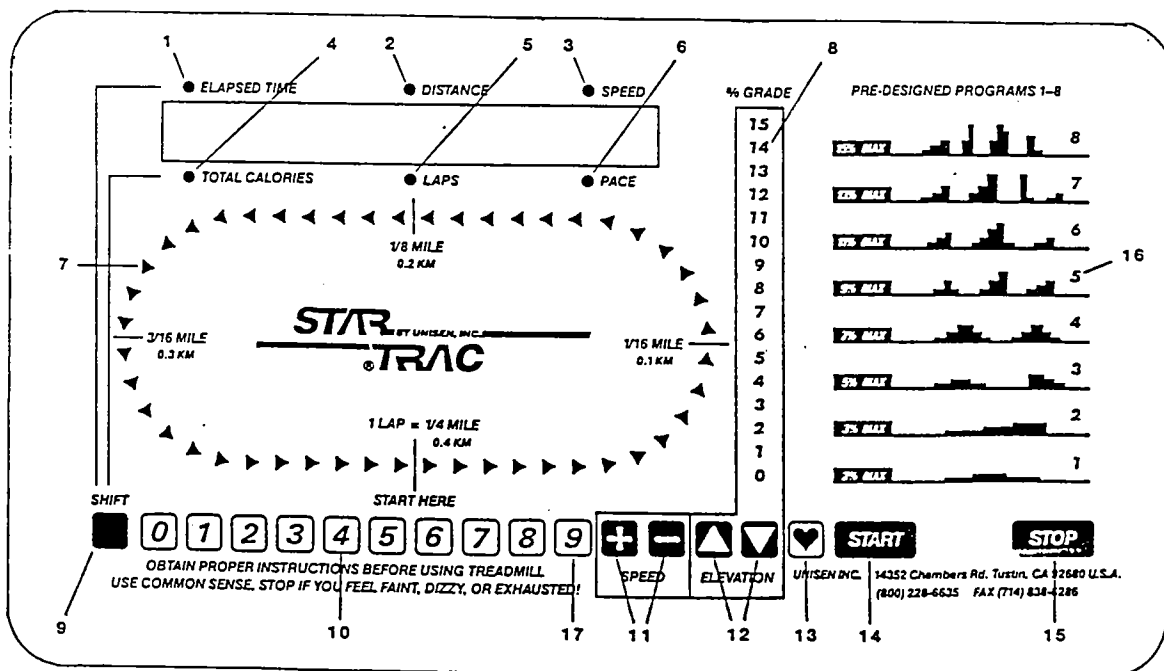
Startrac Terrain Profile
Program #1
Elevation

LEGEND

▓▓▓ Elevation

(Maximum 2%)

Percent Grade

Time (Minutes)

Speed

LEGEND

▓▓▓ HiSpeed %

Percent of High Speed Entered

Time (Minutes)

Startrac Terrain Profile
Program #2
Elevation

LEGEND
Elevation
(Maximum 3%)

Percent Grade

Time (Minutes)

Speed

LEGEND
HiSpeed %

Percent of High Speed Entered

Time (Minutes)

Startrac Terrain Profile
Program #3
Elevation

LEGEND
■ Elevation
(Maximum 5%)

Percent Grade vs. Time (Minutes)

Speed

LEGEND
■ HiSpeed %

Percent of High Speed Entered vs. Time (Minutes)

Startrac Terrain Profile
Program #4
Elevation

Startrac Terrain Profile
Program #5
Elevation

LEGEND
Elevation
(Maximum 9%)

Time (Minutes)

Speed

LEGEND
HiSpeed %

Time (Minutes)

Startrac Terrain Profile
Program #6
Elevation

LEGEND

■ Elevation

(Maximum 11%)

Percent Grade

Time (Minutes)

Speed

LEGEND

■ HiSpeed %

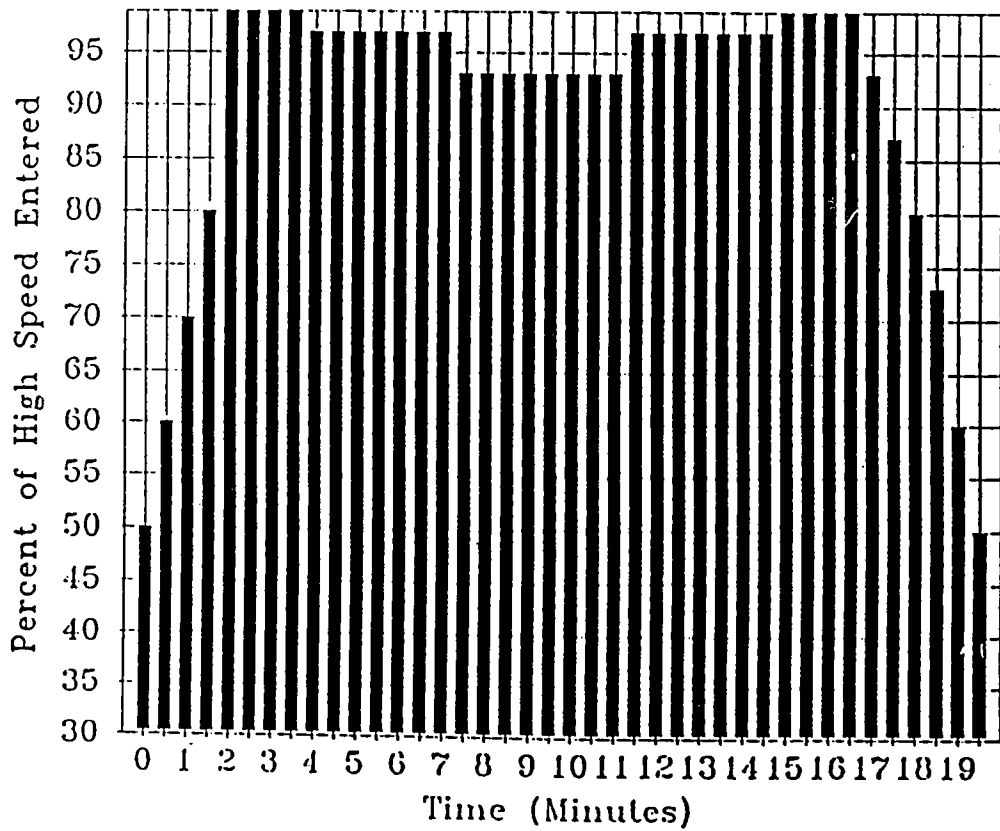Percent of High Speed Entered

Time (Minutes)

Startrac Terrain Profile
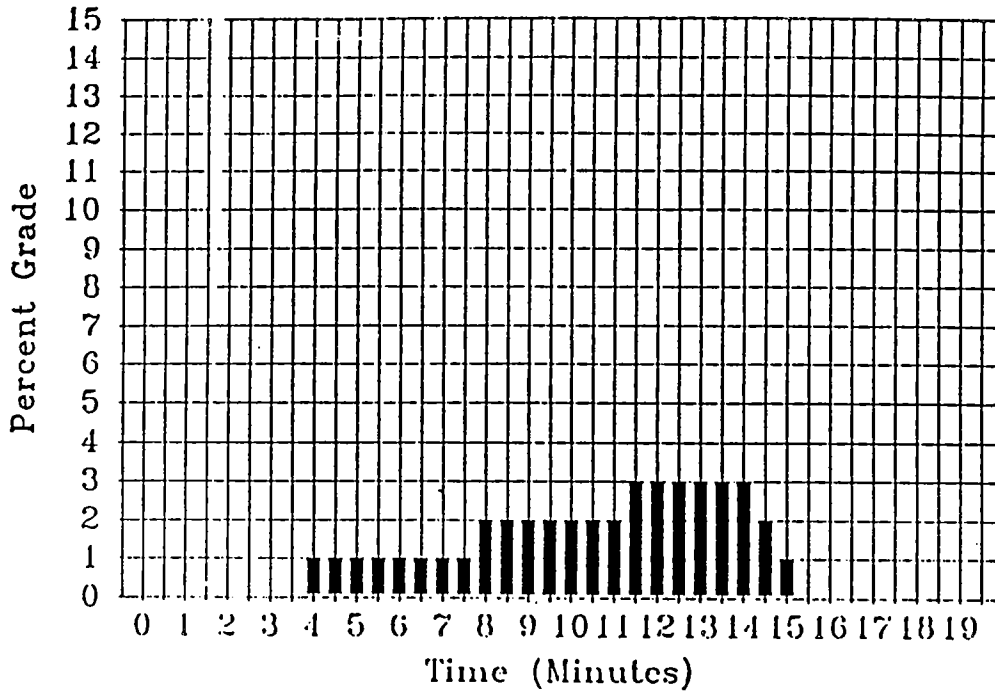## Program #7
Elevation
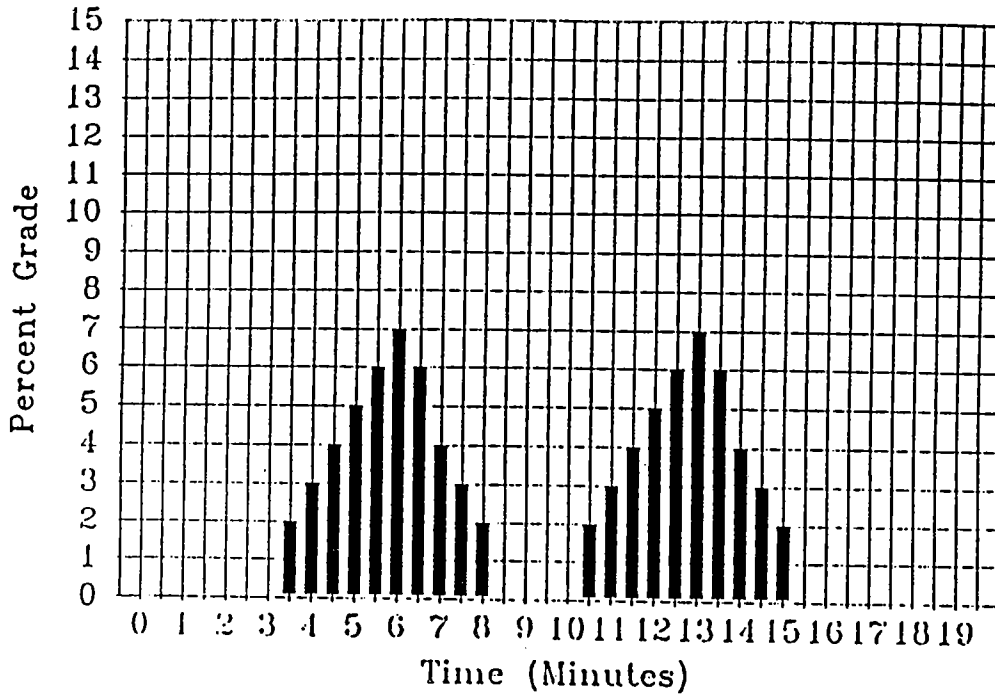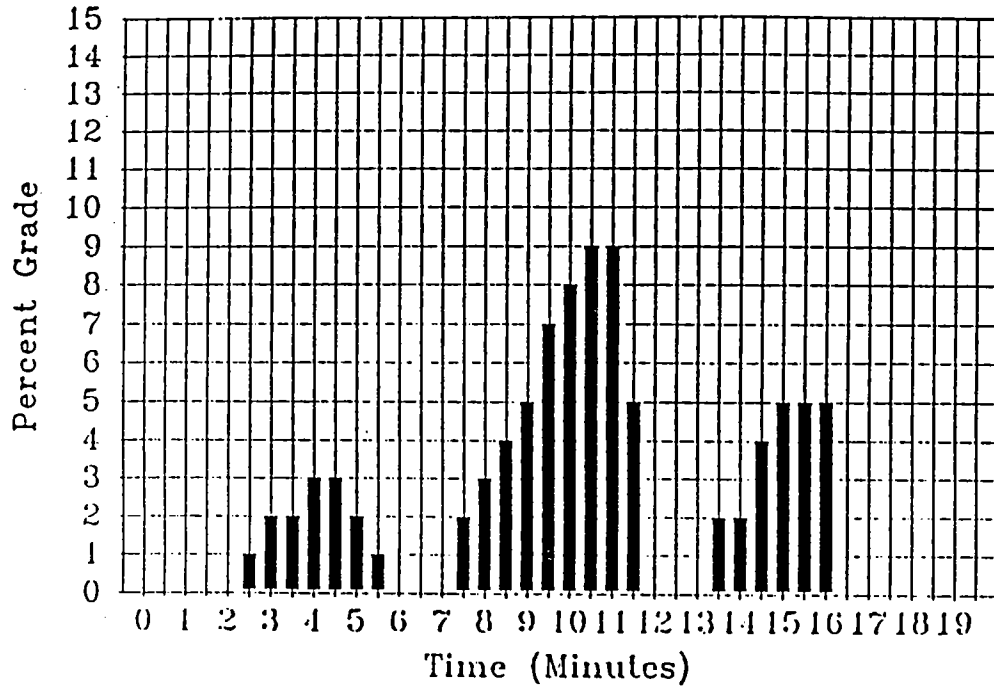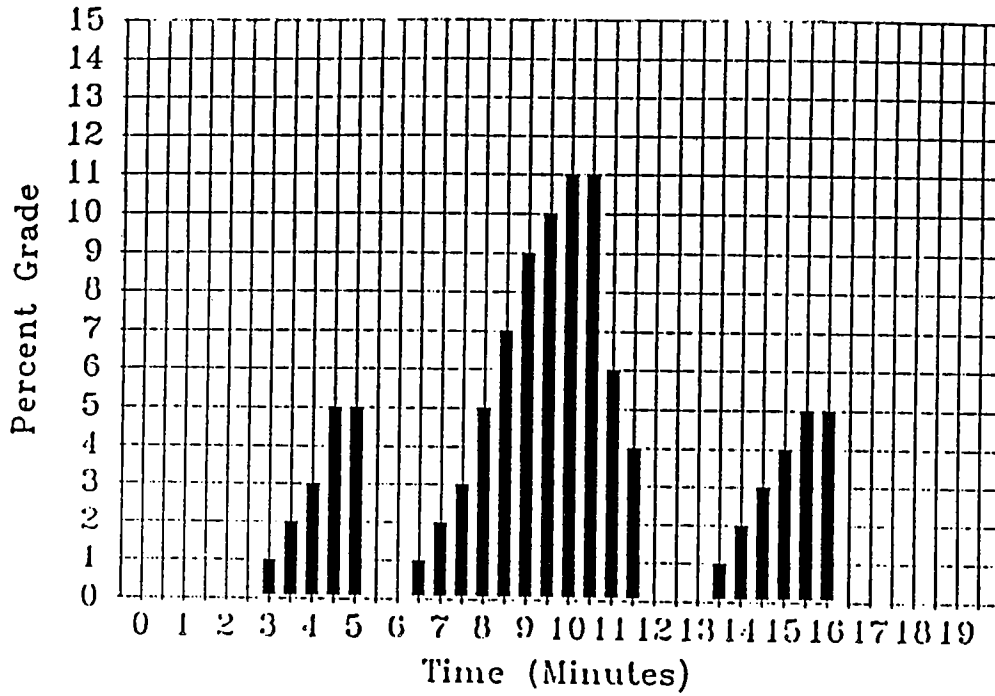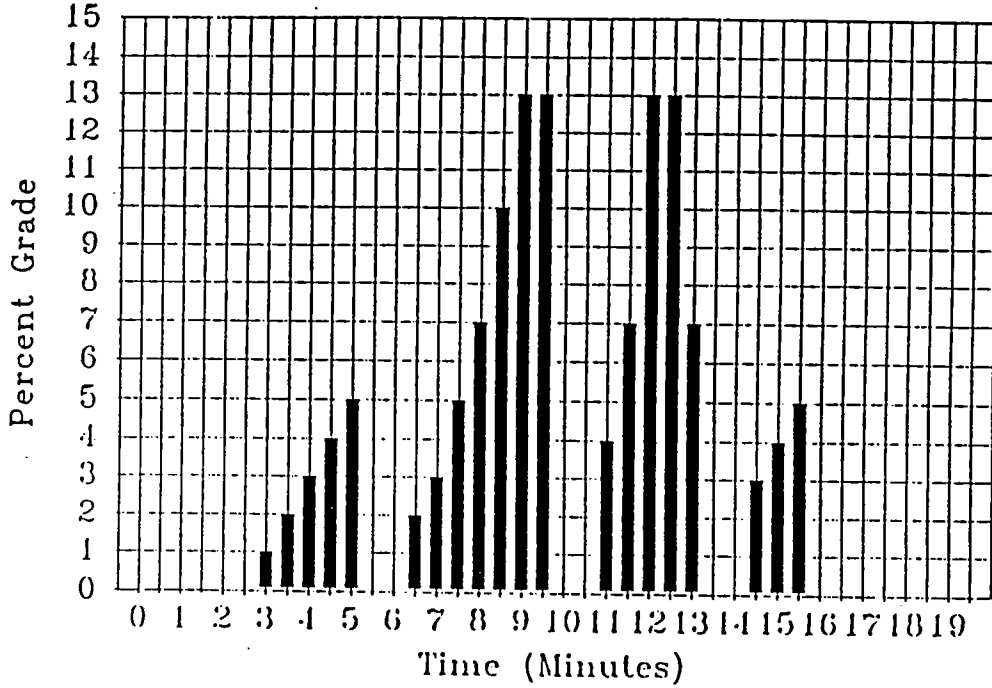
LEGEND

Elevation
(Maximum 13%)

Speed
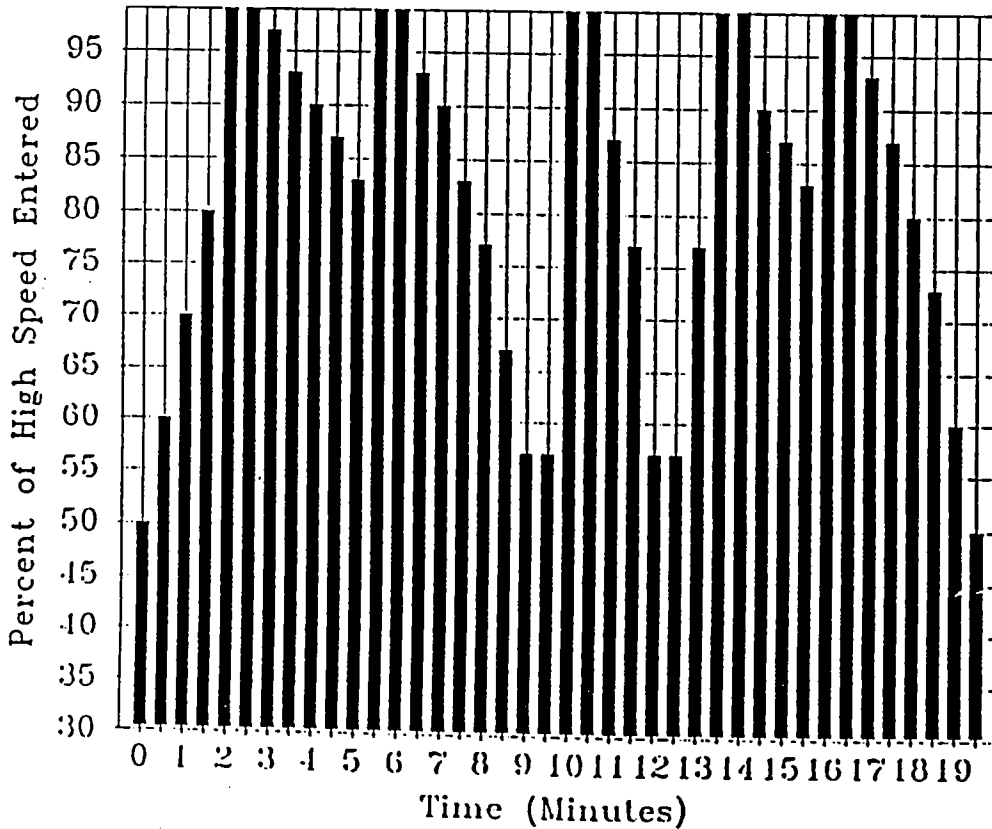
LEGEND

HiSpeed %

Startrac Terrain Profile
Program #8
Elevation

LEGEND

■ Elevation
(Maximum 15%)

Percent Grade

Time (Minutes)

Speed

LEGEND

■ HiSpeed %

Percent of High Speed Entered

Time (Minutes)
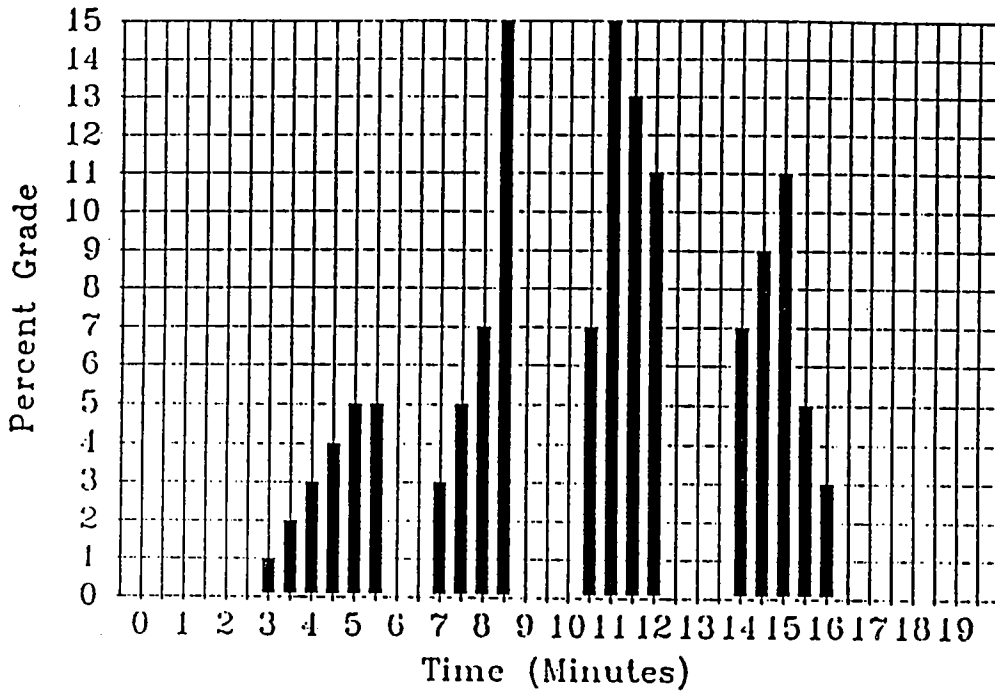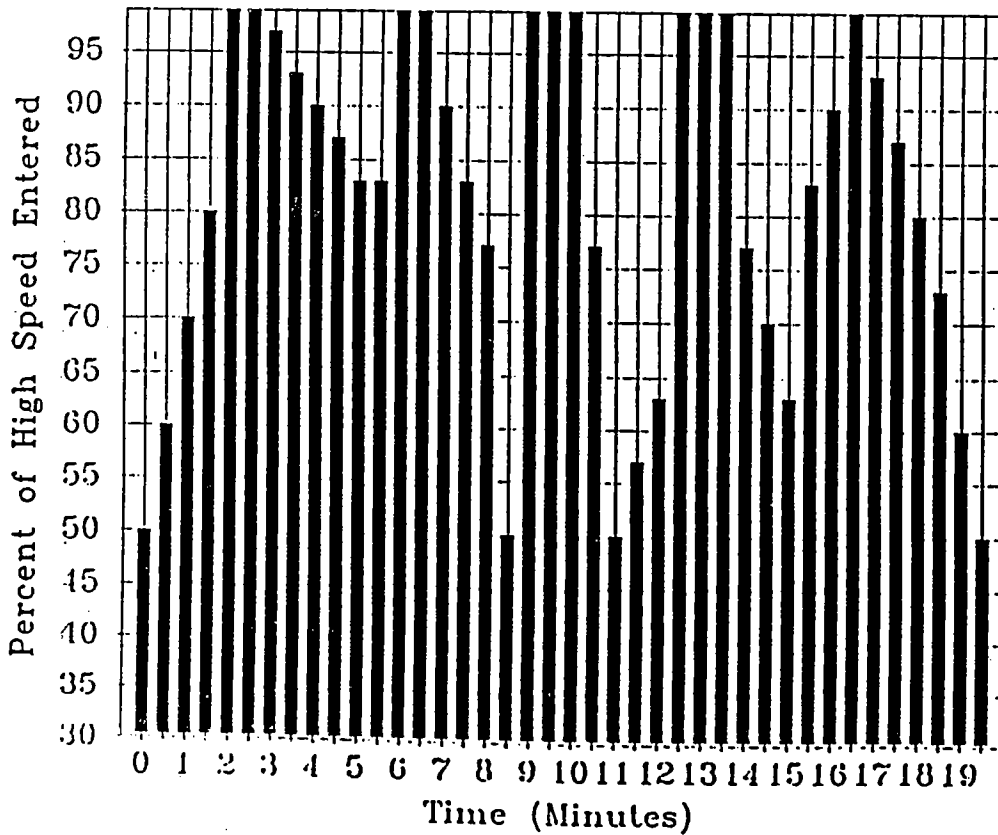
CONTROL PANELS

NON-PROGRAMMABLE

1.   ELAPSED TIME
2.   DISTANCE
3.   SPEED
4.   TOTAL CALORIES
5.   LAPS
6.   PACE
7.   DISPLAY TRACK
8.   ELEVATION SETTING
9.   SHIFT KEY
10.   NUMBER KEYS
11.   SPEED CONTROL KEYS
12.   ELEVATION CONTROL KEYS
13.   HEART-RATE TIMER
14.   START KEY
15.   STOP KEY
16.   INSTRUCTIONS
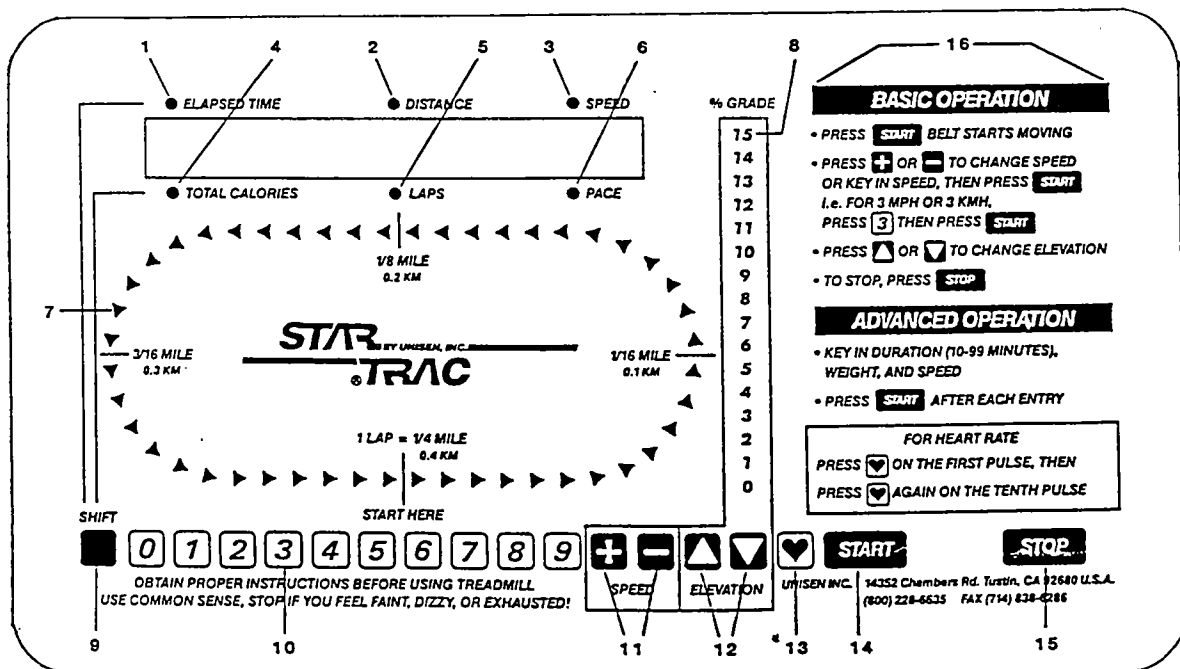
CHAPTER FOUR
OPERATING INSTRUCTIONS

After turning the unit on, "UNISEN" will be displayed on the control panel until a key is pressed. At this time, you may choose to operate the treadmill under **BASIC OPERATION** or **ADVANCED OPERATION**. The treadmill is entirely under your control. Speed and elevation can be changed upon command.

BASIC OPERATION -

In BASIC OPERATION, the users calorie expenditure is computed assuming the user's weight is 154 lbs (70 kg).

1. Stand on treadmill's belt and press START. The running belt will begin to accelerate to .5 mph (.08 kmh).

2. To adjust speed, use the speed keys. To key precise speed, press the number keys for the speed you desire then press START. For example, if you want to walk 3 mph (4.8 kmh), press the key numbered "3" then press START. The treadmill will automatically increase speed until 3 mph (4.8 kmh) is reached.

3. To adjust elevation in 1% increments, press the UP or DOWN elevation keys.

4. To end operation, press the STOP key, twice.

NOTE: To pause operation, press the STOP key once. You can resume operation at minimum speed by pressing the START key.

ADVANCED OPERATION -

In ADVANCED OPERATION, calorie expenditure is precisely computed based on the information you key in.

1. Choose the desired program 0 - 9. (Program "0" operates at a user selected speed for a user selected duration. Programs 1-8 are preset programs.) Respond to duration, weight, time and high speed using the number keys. Press START after each entry.

2. For program 9, interval training, use the number keys to choose the number of laps, speed and elevation for each interval and press START after each entry. In designing your own course in program 9, the user has five intervals to work with. However, if you want less than five, press START twice after last desired laps entry.

3. To end operation, press the STOP key, twice.

CHAPTER FIVE
HELPFUL HINTS

The Star Trac treadmill is equipped to provide you unlimited exercise opportunities. Experiment with these features to find the right combination for you.

ELAPSED TIME - Displays duration of your workout in minutes and seconds.

DISTANCE - Displays your workout length in miles (kilometers).

SPEED - Displays speed in miles per hour (kilometers per hour). A slow walk is 2-3 mph (3.2-4.8 kmh). A faster walk is 4-5 mph (6.4-8 kmh). Jogging speeds begin at 5 mph (8 kmh).

SHIFT KEY - To access Total Calories, Laps and Pace display, press the SHIFT key once. To return to Time, Distance and Speed, press the SHIFT key again.

TOTAL CALORIES - The treadmill automatically calculates your caloric expenditure based on your weight (in advanced or programmed modes). If you are operating in Basic or do not enter your weight, calories burned is figured assuming you weigh 154 lbs (70 kg).

LAPS - Displays your progress around the 1/4 mile (kilometer) track. Each time you pass the start line, the treadmill will add a lap to your workout.

PACE - Displays your workout speed in terms of the time required to complete one mile.

DISPLAY TRACK - The oval-shaped LED display shows your progress around a 1/4 mile (0.4 kilometer) track, starting from the bottom center and moving counter-clockwise. When 0.4 kilometers has been completed, the entire track will be lit.

HELPFUL HINTS

ELEVATION - Raise or lower the front of the treadmill using the UP/DOWN keys. Elevation is adjustable from 1% to 15% in 1% increments. A flashing LED will display the elevation you desire. Hint - using elevation will burn more calories and strengthen your lower-body muscles.

PRESET PROGRAMS - Choose from 8 programs (1 is the easiest, 8 is the most difficult). To begin a program, press the number that corresponds to the program you desire. Then respond accordingly using the numbers keys.

NUMBER KEYS - Number keys correspond to the preset programs on the programmable unit. Use the numbers keys to respond to duration, weight, speed in program modes. Numbers keys also can be used to enter speed desired. For example when operating the treadmill, press "3" then START and the treadmill will go 3 mph (4.8 kmh).

HEART-RATE TIMER - To check your heart rate, pause treadmill and find the pulse on your neck. On the first pulse beat you feel, press the heart-shaped button. Count ten pulse beats and on the tenth beat, press the heart-shaped key again. Your heart rate will be displayed.

START KEY - The get started easily, step on the belt and press START. The belt starts very slowly, taking ten seconds to reach .5 mph (0.8 kmh). The START key also acts as the ENTER key.

STOP KEY - Press the STOP key twice to end operation. The belt will come to a gradual stop. Do not attempt to jump off treadmill after pressing STOP. Rather, slow your pace along with the belt. By pressing the STOP key once, the treadmill pauses operation.

HELPFUL HINTS

SPEED CONTROL KEYS - Adjust speed in .1 mph (kmh) increments using the PLUS or MINUS speed keys. NOTE: Pressing the speed keys will start the machine at .5 mph (0.8 kmh).

CUSTOM PROGRAM KEY - Press "9" to design a personalized workout. Then, respond accordingly using the number keys.

FINISH - Five beeps signal the end of a timed program and the numerical display cycles through -- FINISH --, the user's total elapsed time, distance covered, average speed, total calories, laps completed and average pace.

BEEP SOUNDS - During operation, every speed, incline or program adjustment you will hear a beep sound. This is only to warn you that something is being adjusted.

CHAPTER SIX
GETTING STARTED

One of the best advantages of having a Star Trac treadmill is that it will become your own personal exercise partner. And, this partner doesn't mind keeping track of the time, distance, calories burned, pace or your heart-rate.

Even if you haven't exercised in years, it's not that difficult to get started walking or running again. Here's a few tips you may wish to follow in your pursuit of a healthy lifestyle. (Unisen recommends consulting your physician before starting a regular workout regimen.)

WALKING -

Begin slowly. Goal 1: Walk one mile at a comfortable pace, keeping track of your time. Your aim is to achieve a 4 mph (6.45 kmph) pace which is a 15-minute mile (9.3-minute kilometer). Goal 2: Walk 2 miles (3.2 km) at a comfortable pace, until you can finish in 30 minutes. Goal 3: Walk 3 miles (4.8 km) until you can walk it in 45 minutes. Ultimate Goal: Maintain this pace, walking 45 to 60 minutes, four times a week.

You can start walking today. There's no technique to learn and no special clothing required, except a pair of comfortable walking shoes. You're unlikely to get injured. Walking on a treadmill is safer and gentler on the joints and muscles than exercising outdoors where your feet pound pavement. That's especially good news if you're overweight. You're also more likely to stick with walking. It's easy, inexpensive and accessible.

Stay Motivated:
1. Schedule walks on calendar. You're more likely to take them seriously as exercise.
2. Watch your progress on the display track. It helps pass time and cuts down on boredom.
3. Imagine walking in your ideal outdoor location such as some beautiful woodlands - when using elevation, or hiking along the beach at sunset.
4. Set goals and reward yourself. Each time you reach your goal, reward yourself with a new pair of walking shoes or tickets to a sporting event, for example.
5. Plan a walking vacation. If you know you're going on a walking tour of Paris or a mountain hiking trip next summer, you'll look forward to getting in shape for it.

GETTING STARTED

RUNNING -

Goal 1: Before you begin running, you should be able to walk briskly for at least 30 minutes. If you're just starting to exercise, that 30 minutes may be devoted to entirely walking. When the 30 minutes no longer challenges you, gradually intersperse the walking with brief periods of running. Goal 2: Work up to running more than walking, until you can run the entire time. Ultimate Goal: To run 2 to 3 miles (3.2-4.8 kilometers) in 30 minutes, three to five days a week. Comments: You should always be able to talk while you exercise. To avoid injuries, don't run more than 15 miles (24 kilometers) per week.

Running is the most effective form of aerobic exercise. You can get a great workout quickly. The Star Trac offers a lot of feedback to follow your progress. Also, running on a treadmill simulates outdoor training precisely while reducing risk of injury.

Whether you're on a Star Trac or not, running is tough on knees, legs and feet. Don't try to do too much too soon. Beginners need patience.

<u>Stay Motivated:</u>
1. Work at avoiding injuries. Phase into the sport gradually. Try running late in the day when your muscles are well warmed and less vulnerable to injury. Invest in a good pair of running shoes; look for a lot of shock absorption and support in the heel area.

2. Get some group support, especially when you're beginning. Join a runner's club or run with a partner. It takes a few months to get hooked on running - you may need advice and support to get through the rough times.

3. Enter a short race. It's a great goal to work toward and the excitement of competition will keep you going. Try a 5K (3.1 mile) or 10K (6.2 mile) race.

CHAPTER SEVEN
PREVENTIVE MAINTENANCE

WHY PREVENTIVE MAINTENANCE?

If preventive maintenance procedures are not performed, normal wear and tear may cause some parts to come out of alignment or be worn causing other parts to do likewise. This may result in a severe breakdown. For this reason, we highly recommend the following preventive maintenance schedule be followed consistently.

DAILY - (If the treadmill is in a home environment, these steps should occur weekly.

1. Remove excessive accumulations of dust, dirt or other substances from the Star Trac with a cloth and diluted all-purpose cleaner (409, Fantastic). Avoid using cleaner under the running belt.

2. Clean between the belt and the running deck with a soft, dry cloth.

3. Inspect running belt for alignment and tension. (This does not mean tighten the belt every day, just make sure it is running straight and smooth.) The running belt should be centered on the tailroller. If the running belt slips, check tension of drive belt first.

4. Wipe the display panel, console, handrails and motor cover with a soft, clean cloth and diluted, all-purpose cleaner.

PREVENTIVE MAINTENANCE

WEEKLY - (If the treadmill is in a home environment, the following steps should occur monthly.)

1. Vacuum or dust the floor under and around the treadmill. You can elevate the treadmill to its maximum or carefully wheel the unit to another spot and then vacuum.

2. Inspect the deck/belt contact surfaces for unusual wear. A worn belt will have a melted or glazed appearance on its underside. A worn deck will have a spot on the top surface where the black layer is worn so thin the underlying fiber board is visible. If the deck is worn, it needs to be flipped or replaced. If the belt is worn, replace it.
NOTE: Always replace deck and belt together.

3. Check handrails for loosening of assembly screws and tighten as required.

PREVENTIVE MAINTENANCE

MONTHLY - (If the treadmill is in a home environment, the following steps should occur every six months.)

1. Elevate the motor cover and vacuum around the motor, the ventilation holes in the motor and motor cover. Avoid bumping the RMP sensor and disc, elevation sensor, the limit and zero-percent switch and the components of the motor control board.

2. Verify calibrations on VR2. See "Voltage Compensation Adjustments" on owner's manual.

3. Verify RPM sensor calibration while in test mode after VR2 adjustment. Press "Fast" key or "+" key until speed reaches 3.5 mph (5.6 km/h). The elevation percent grade display (0-15) should have 0-7 LED's lit with #8 LED blinking. If this is not the case, adjust the potentiometer (identical to VR2) on the RPM sensor counterclockwise to increase or clockwise to decrease. Make sure RPM sensor is clean and not obstructed with dust.

4. Clean and lubricate elevation screw.
Remove motor shroud. Elevate machine to 15%. Clean elevation screw with dry, clean cloth. Lubricate screw with 30 weight motor oil until screw is wet but not dripping. Return machine to 0%. Check elevation motor speed: Turn power OFF. While pressing the No. "8" key, turn power ON. Elevate machine to 10% and check elevation speed in the upper left hand corner of LED display - it should read between 3-35. If it does not read between these parameters, call Star Trac Product Support at 800-535-4634.

NOTE: Record and report any unusual symptoms (i.e. error readings, blowing circuit breakers) to the your Star Trac Authorized Dealer (or Star Trac Headquarters 800-535-4634).

CHAPTER EIGHT
DIAGNOSTIC TESTS

DISPLAY TEST MODE -

To test the display circuit board, hold the "5" key down while switching the treadmill on. All the lights on the display will stay lit until a key is pressed. After pressing a key the display will then show the revision number of the software. Pressing different keys, other than STOP will illuminate different patterns on the display. Pressing STOP ends the display board test.

NOTE: If the above does not occur properly, there is an error with the display board. Contact the Star Trac Service Hotline 800-535-4624 for a solution.

MOTOR TEST MODE -

WARNING: DO NOT RUN ON THE TREADMILL IN MOTOR TEST MODE.

To test the Motor Test Mode hold down the "8" key while switching the treadmill on. Alternating LED in the track will blink twice per second.

The numeric displays will show motor Revolutions Per Second, Speed Command Number (SCN) as a number between 3 and 240 and the belt speed in mph:

ELAPSED TIME	DISTANCE	SPEED
(RPS)	(SCN)	(MPH)
-50	71	3.5.LS1

- SPEED keys increase or decrease the speed command number (SCN).

- Elevation arrow keys will operate the elevation drive and the display will show the internal elevation count.

- The heart key tests the watchdog circuit on the motor control board, disabling both motors. The running belt will not operate until power is turned off and restarted.

- START key begins the "Burn-in" program. Error detection is enabled.

- STOP key exits to the motor test mode and "UNISEN" will be displayed.

RUNNING BELT - If belt tracking becomes necessary. The adjustment bolts are at the tail roller and require the 1/4" Hex key Driver. Turning the right bolt clockwise will cause the belt to move to the left and turning the bolt counter-clockwise will move the belt to the right. *Adjust one bolt only half a turn at a time.*

Run the belt slowly at 2-3 mph (3.2-4.8 kmph) while adjusting, then run it fast for 30 seconds or more to check the result. Adjust the belt to ride in the center of the running surface and motor shroud.

MOTOR BELT - Adjust the motor belt tension to eliminate slippage. To adjust motor belt to correct tension: Unplug the unit and lift off the motor shroud. Loosen the motor bolts and the tension bolt lock nut. Turn the tension bolt 1/4 turn clockwise. Tighten tension bolt lock nut and the motor bolts. Re-install the motor shroud and plug the unit in.

RUNNING DECK - The running bed surface is coated with a special wax. If your treadmill experiences a "thumping" noice, remove the accumulated wax on the tailroller. The procedure to remove the wax is as follows:

1. Turn the belt adjustment bolts counter-clockwise with a 1/4" Hex Key Drive far enough to loosen the running belt.

2. Remove the excess wax. DO NOT remove all the substance, as it is needed to lubricate the running bed and belt.

3. Turn the belt adjustment bolts clockwise and adjust the belt to ride in the center of the running surface and motor shroud. DO NOT over tighten, as this will distort the shape of the running belt.
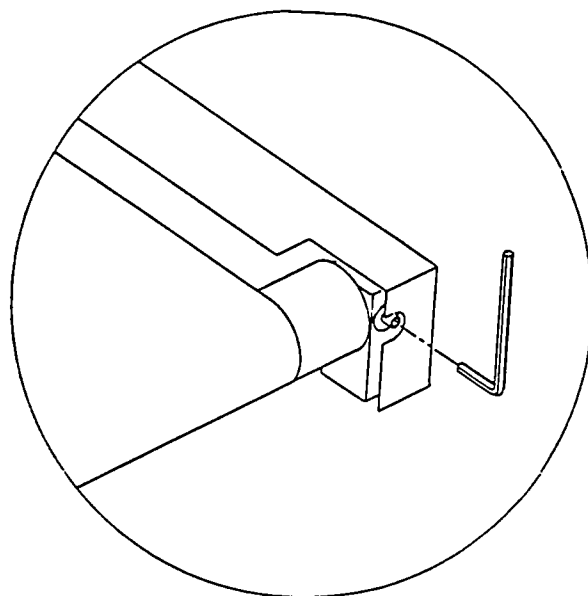
CHAPTER TEN
TROUBLESHOOTING

Should your Star Trac display an error code, record the error code and consult the following chart for possible solutions. Should you require further assistance call your STAR TRAC dealer or 800-535-4634. (Error messages can be cleared only by switching treadmill power off.)

ERROR CODE	PROBABLE CAUSES	SOLUTION
"FS ERROR 0" Fail-Safe Tripped	Power switch "OFF/ON" cycled too fast.	Shut power switch "OFF," wait ten seconds, then turn "ON."
	Faulty motor control board	Contact Unisen
	Faulty display cable	Contact Unisen
	Attempting to run after executing watchdog trip in motor test mode.	Shut power "OFF," wait ten (10) seconds then turn "ON."
"FS ERROR 1" Stuck key	Illegal key activated	Shut power switch "OFF," wait ten seconds, then turn "ON."
"SPD ERROR 0" Loss of feedback while running	Disconnected speed sensor	Check speed sensor cable
	Flywheel abrading speed sensor cable	Repair or replace sensor cable
	Misaligned speed sensor (relative to RPM sensor)	Reposition sensor to read RPM disc
	Faulty speed sensor	Replace speed sensor cable assembly
"SPD ERROR 1" Sudden change in speed greater than 2 mph	Misadjusted or faulty motor control board	Contact Unisen

ERROR MESSAGE	PROBABLE CAUSES	SOLUTION
"SPD ERROR 2" Initial feedback loss		See "SPD ERROR 0"
	Misadjusted or faulty motor control board	Contact Unisen
	Power switch "OFF/ON" cycled too fast	Shut power "OFF," wait ten seconds then turn "ON."
"CPU ERROR 0" Wandering program counter	Power switch failure cycled too fast	Shut power "OFF," wait ten seconds then turn "ON."
"CPU ERROR 1" 100 ms flag missed	Low voltage at CPU	Contact Unisen
	Intermittent connection display cable at display board or motor control board	Contact Unisen
"CPU ERROR 2" Snooper routine violation	Faulty digital logic on display board	Replace display board
"EL ERROR 0" 0% grade sensed above .5% grade	0% switch defective	Replace 0% switch
"EL ERROR 1" Stalled elevation	Elevation screw binding	Lubricate with lite oil
	Elevation screw dirty	Clean and lubricate elevation screw
	Open circuit in elevation motor	Check elevation motor connector
	Blown fuse	Contact Unisen
"EL ERROR 2" No elevation control	Bad elevation inver	Contact Unisen
"EL ERROR 3" Initial stall while seeking 0% elevation	Disconnected elevation motor	Contact Unisen
	Misadjusted elevation count sensor	Contact Unisen
	0% switch defective	Contact Unisen
	Blown fuse	Contact Unisen

SPECIFICATIONS

Chassis

3" x 1" rectangular spring steel uni-frame.

Mechanical

MOTOR: 1.5 HP continuous duty rated 90 volt DC motor.
FLYWHEEL: Eight inch (20.32 cm), 9 lb (4.05 kg). dynamically balanced flywheel.
ROLLERS: 3 inch crowned headroller and tailroller with dual permanently sealed bearings - virtually maintenance free.
DRIVE: 1" wide grooved drive pulley

Elevation

Motorized user selectible, single-screw lift mechanism. Range: 0 to 15% grade in 1% increments.

Speed Range

Selectable speed: .5 to 10 mph in .1 mph increments (.08 to 16 kmph)

Readouts

Multi-function motivational digital display:
- Programmable
- Eight Preset Programs
- Elapsed Time
- Distance (in miles/kilometers)
- Speed (in mph/kmph)
- Total Calories
- Laps (1 lap = 1/4 mile)
- Pace (minutes per mile/kilometer)
- Motivational Track Display
- Heart-Rate Timer
- Elevation (percent)

Display Panel

1. BASIC Operation. Press "START" and adjust speed by pressing the plus (+) or minus (-) keys. If you know your desired speed, enter speed using numbers keys. To change elevation, press the up and down arrow keys.

2. ADVANCED Operation. Select from 10 programs, "0-9" using numbers keys. Respond to duration, personal weight and speed commands using number keys. Press "START" after each entry.

Electrical

U.S. - 110 volt, single phase requires a 20 A dedicated eletrical circuit. Automatic circuit breaker in power switch. Standard with a 10-foot power cord and a 5-15 NEMA plug.

Euro - 220 volt, single phase requires a 20 A dedicated eletrical circuit. Automatic circuit breaker in power switch. Standard with a 10-foot power cord and a 6-20 NEMA plug.

Running Board

1 inch (2.54 cm) high density composite fiberboard with phenolic laminate. Reversible running deck treated with low friction wax.

Dimensions

Length:	74 1/2"	(189.23 cm)
Width:	28"	(71.12 cm)
with handrails	32"	(81.28 cm)
Height:	55"	(139.7 cm)
of running surface	7"	(17.78 cm)
Walking Area	18" x 48"	
	(45.72 cm x 121.92 cm)	
Weight	350 lbs. (157.5 kg)	

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