WOODWAY® *USA*

OWNER'S MANUAL

1 - 8 0 0 - W O O D W A Y

INCLUDES THE FOLLOWING MODELS:

PATH	MERCURY S
WIDE PATH	MERCURY M
DESMO S	DESMO ELITE
DESMO M	DESMO PRO

WOODWAY® *USA*
For The Long Run®

W229 N591 Foster Court, Waukesha, Wisconsin 53186
Local Phone: 262.548.6235

WE HAVE YOUR SAFETY IN MIND.

When using any piece of fitness equipment, basic precautions need to be followed. Read, understand and carefully follow this manual to familiarize yourself with all warnings, instructions and procedures on the Woodway treadmill, in this Owner's Manual and with any labels that appear on the treadmill.

IMPORTANT SAFETY INSTRUCTIONS

DANGER - *To reduce the risk of electrical shock:*

- Do not modify the plug provided with the treadmill. It is equipped with a power cord with a grounding plug. If it will not fit in the outlet, have a proper outlet installed by a qualified electrician.
- Do not use any adapters, especially ones without grounding provisions. To do so could result in electrical shock hazard.
- Do not operate electrically powered treadmills in damp or wet locations.
- Do not operate the heart rate monitor transmitter in conjunction with an electrical heart pacemaker. The transmitter may cause electrical disturbances.
- Always unplug the treadmill before cleaning or servicing.
- Do not soak the treadmill surfaces with any liquid; use a sprayer or damp cloth. Keep all electric components, such as the motor, power cord, and power switch away from water.
- Do not attempt to service your treadmill yourself if you feel at risk.
- Do not place any liquids on any part of the treadmill, including the treadmill running surface.
- Always keep the running surface clean.

CAUTION

- Consult with your physician before beginning any exercise program, especially if you have any of the following: history of heart disease, high blood pressure, diabetes, chronic respiratory disease, elevated cholesterol, smoke cigarettes, or experience any other chronic disease or physical impairments.
- Pregnant women should consult their physician before beginning an exercise program.
- If you experience dizziness, chest pains, nausea or any other abnormal symptoms while utilizing the treadmill stop immediately. Consult a physician before continuing.

- A qualified mechanic should perform Service or repair work. It is preferable that mechanics have successfully completed our factory-authorized service school or equivalent.

WARNING - *To reduce the risk of injury to you and to others:*

- Set up and operate treadmills on a solid, level surface.
- Keep all loose clothing and towels away from the treadmill running surface.
- Keep the area behind the treadmill clear and at least FOUR FEET from walls or furniture.
- Keep hands away from all moving parts.
- Never leave children unsupervised around a treadmill.
- Inspect the treadmill for worn or loose components prior to use. Tighten/replace any worn or loose components prior to use.
- Read, understand and test the emergency stop procedures.
- ALWAYS USE THE EMERGENCY SAFETY LANYARD SUPPLIED WITH THE TREADMILL!! It can be clipped to an article of clothing while exercising. This is for your safety in case an emergency arises.
- Woodway treadmills are built to handle runners weighing up to 450 pounds at speeds up to 15 MPH. A treadmill running belt might not stop immediately if any object becomes caught in the belt or rollers.
- Care should be taken when mounting and dismounting the treadmill. Never mount or dismount the treadmill while the running belt is moving. Use the handlebar or handrails whenever practical.
- Wear proper athletic shoes, such as those with rubber or high-traction soles. Do not use shoes with heels or leather soles. Make sure no stones are embedded in the soles.
- Allow several minutes to bring your heart rate into the training zone shown elsewhere in this manual. Walk slowly after your workout to allow your body time to cool down and your pulse rate to decrease.
- The safety and integrity designed into the machine can only be maintained when the treadmill is regularly examined for damage and repaired. It is the sole responsibility of the user/owner or facility operator to ensure that regular maintenance is performed. Worn or damaged components shall be replaced immediately or the treadmill removed from service until the repair is made. Only manufacturer supplied or approved components shall be used to maintain and repair the treadmill.

WELCOME TO THE WOODWAY EXPERIENCE

MY WOODWAY _____ *ARRIVED* _____

Model Name ***Date***

Woodway's history began in Germany in 1974. Willi Schoenberger, a technical director in charge of planning a fitness center, noticed that the most important piece of equipment, the treadmill, didn't meet the most important requirements: a mechanically sound machine that is designed to meet human needs.

He envisioned a comfortable surface that didn't interfere with the natural biomechanics of running or walking. Also, he wanted to design a transportation system which eliminated the friction associated with the conventional (conveyor belt) treadmills. After intensive research, and trial and error (and in cooperation with the Deutsche Sporthochschule in Koln, Germany), Willi developed and patented a very unique and revolutionary treadmill design.

In 1975, Woodway GMBH was founded in Weil am Rhein, Germany. The name "Woodway" is derived from the German *"wald weg"* or "way of the woods" – the feel of running on a soft pine needle covered path in the forest.

In 1983, a manufacturing license was awarded to Sakai Medical, for the use of Woodway technology in the Japanese marketplace.

In 1988, a U.S. license was granted to a small, but well-established manufacturing company in Waukesha, Wisconsin. Woodway USA was formed when the U.S. incarnation of the Woodway was developed and completed in 1990. Woodway USA is very proud to be the primary manufacturer of Woodway Treadmills worldwide, exporting treadmills each month to Germany and Japan for international distribution, in addition to serving our domestic customers and clients.

Today, Woodway's design and manufacturing facilities in the United States, Germany and Japan make Woodway the largest specialized treadmill manufacturer in the world. Constant enhancements in quality, design and function are shared and implemented by all three Woodway manufacturers.

ITEMS & SERVICES AVAILABLE FROM WOODWAY

Replacement Safety Magnet $15.00

Service & Maintenance Manual $39.99
A comprehensive guide to maintenance procedures for Woodway brand treadmills.

Protective Treadmill Floor Mat $79.00
Designed to protect the flooring or carpeting below your Woodway and to keep your treadmill clear of obstructions such as thick carpeting.

Preventative Maintenance Kits:

MKIT – 1 $99.00
This kit includes:
1) Staticide; 2) Dry Graphite Lube; 3) Tube of black grease; 4) Canned Air;
5) Extension tool with TORX – 20 bit; 6) Set of 4 GLEN-TEK motor brushes

MKIT – 2 $99.00
This kit includes:
1) Staticide; 2) Dry Graphite Lube; 3) Tube of black grease; 4) Canned Air;
5) Extension tool with TORX – 20 bit; 6) Set of 2 PAC/SCI motor brushes

MKIT – 3 $59.00
This kit includes:
1) Staticide; 2) Dry Graphite Lube; 3) Tube of black grease; 4) Canned Air;
5) Set of 2 PAC/SCI motor brushes

Woodway Renewal Program up to $3,500.00
This entails having your treadmill shipped back to Woodway via Van Line (Woodway can coordinate these details; cost is additional). Your treadmill will then be thoroughly renovated by a Woodway Service Technician. Any worn or outdated features will be replaced, such as: the running belt and slats, side covers and trim plates, drive motor and encoder, IPC drive, drive belt, latest display board comparable to the board currently on the treadmill, HTD drive shaft, elevation potentiometer, fuse holder, interface board, tracking rollers, any worn bearings, re-powder coating of handrails and exterior hardware. The treadmill will then carry a 1 year parts and labor warranty.
It's like getting a brand new Woodway at a fraction of the cost.

* Prices above may not include shipping & handling.
* Contact the Woodway Service Department or your Sales Representative to order at 1-800-966-3929.

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CHAPTER ONE INTRODUCTION

1.1 THINGS TO CONSIDER BEFORE STARTING AN EXERCISE PROGRAM

CONSULT A PROFESSIONAL FITNESS TRAINER

It is advisable for all exercise beginners to consult a professional fitness instructor or personal trainer to develop an overall fitness evaluation/wellness program before starting an exercise routine.

CONSULT A PHYSICIAN

If you are over 40, have a history of heart disease, are overweight, or have not been involved in any kind of exercise program for several years, it is recommended that you see your physician as a precaution before engaging in a vigorous exercise program.

UNDERSTAND THE IMPORTANCE OF WARMING UP AND COOLING DOWN

It is important to warm up and cool down prior to and at the end of each work out, respectively. Always try to incorporate a series of basic leg stretches before and after each workout. Stretching provides the necessary flexibility to prevent sore muscles and injury during daily activities.

LEARN HOW TO TAKE YOUR PULSE PROPERLY

To select the Fitness Level that is most suitable to exercise, it is important to correctly determine your heart rate or pulse.

To do this, it is recommended that you use a good quality heart rate monitor. If you do not have a heart rate monitor, you can find your pulse by placing your fingers on the underside of your wrist or either side of your throat. While looking at the second hand on your watch, count how many heartbeats you feel within fifteen (15) seconds. Multiply this number by four to get your Beats Per Minute (BPM). Your heart rate will be needed when you take the Self-Fitness Test.

KNOW YOUR MAXIMUM HEART RATE

To determine your maximum heart rate, subtract your age from 220. The difference is the approximation of your maximum heart rate, as used by the American Heart Association and The American College of Sports Medicine. The only way to determine your true maximum heart rate is to have a stress test administered by your physician. The American Heart Association recommends that you have a stress test done if you have any history of heart disease or if you are over the age of 40 and beginning an exercise program.

During exercise, it is recommended that you not exceed 85% of your maximum heart rate. Our programs are designed to keep your heart rate within your Target Zone. Your Target Zone is an area between 60 and 75% of your maximum heart rate. Should you find your heart rate above the 75% level, you've probably selected a Fitness Level that is too high in that particular Fitness Program. You should either drop to a lower intensity level in the same Fitness Program, or use a less stressful Fitness Program.

1.1.1 HEART RATE CHART

AGE	MAXIMUM HEARTRATE	60% OF MAXIMUM HEART RATE	75% OF MAXIMUM HEART RATE	85% OF MAXIMUM HEART RATE
20	200 BPM	120 BPM	150 BPM	170 BPM
25	195	117	146	166
30	190	114	142	162
35	185	111	138	157
40	180	108	135	153
45	175	105	131	149
50	170	102	127	145
55	165	99	123	140
60	160	96	120	136
65	155	93	116	132
70	150	90	112	128
75	145	87	108	123
80	140	84	105	119

HOW OFTEN YOU SHOULD EXERCISE?

The biggest mistake made by people when starting an exercise program is that they try to do too much too fast. Give yourself time to get into shape. Think how long it took you to get out of shape. Remember: the key is consistency and duration of exercise, not intensity. Fitness Experts recommend that you start by exercising three to four days a week within your target heart rate for at least 20 minutes per session. Your ultimate goal should be to get yourself gradually to a level of fitness where you can comfortably keep your heart rate in the Target Zone for 50 to 60 minutes four to five times a week.

WEAR PROPER WALKING/JOGGING SHOES

To help avoid getting sore feet and muscles, it is suggested that you invest in a good pair of walking/jogging shoes. It is important to purchase a comfortable pair of shoes with good heel and arch support. Also, remember to regularly replace old or worn out shoes with new shoes.

STAY ACTIVE

Between workouts it is suggested that you simply stay active, eat well-balanced meals, and drink plenty of water. The combination of these activities should enhance your chances for a future of good health.

1.2 THEORY OF WOODWAY 'S FITNESS PROGRAMS

Today's research shows that we have underestimated the value of walking as an effective method of achieving good cardiovascular and aerobic conditioning.

Jogging was thought to be the best way to achieve these goals. Research now tells us that brisk walking actually can burn more calories than jogging and provide the fitness level needed to live a healthy life. Even well known authorities in the field of aerobics are reversing their ideas on the benefits of running over walking. In the January 1990 issue of Prevention magazine, Charlotte A. Tate, a board of trustee member of the American College of Sports Medicine stated, "The fact is, running a marathon doesn't make you any healthier than walking three miles three times a week at a fairly fast pace".

The key to a successful exercise program is consistency. It is the small advances over a long period of time that will give you the big benefits of fitness. Just as you can not wake up one morning and be a professional baseball player, you can not achieve fitness overnight. Any professional must learn his/her trade to become successful; so must you learn to give yourself time to achieve fitness. Take your time and give yourself a chance.

Woodway USA, Inc. has looked hard at today's research to form the philosophy behind our Fitness Programs. Consistency is the key. It is the TIME you dedicate to your exercise program, not the intensity level that is important.

Because walking is something that can easily be done by the unconditioned person as well as by the highly conditioned person, Woodway has dedicated many of our programs to walking and slow jogging. These programs are designed to GRADUALLY take you to a well-conditioned state and keep you there. Achieving fitness can be fun and not nearly as strenuous as you thought.

Most of our programs are dedicated to the general public, although we do meet the need of the fitness enthusiasts by including high intensity workouts for joggers and runners and elite athletes alike.

Technically, our programs spread a workload over as many muscle groups as possible at a low intensity (i.e. walking or jogging) for long periods of time. These programs gradually increase the workloads by using speed and incline to keep the activity as aerobic (vs. anaerobic) as possible. This will enable you to achieve the best kind of cardiovascular conditioning exercise. Because our programs are designed to do all of this for you, you do not need to worry about how to get into shape. Simply use your Woodway treadmill on a regular basis and let us worry about the technicalities. Just have fun!

1.3 TREADMILL SPECIFICATIONS

All models are equipped with six (6) rubber feet to support the unit; Belt speed accuracy on all models is +/- .2 MPH; and Belt ramp speed (from 0- treadmill top speed) is 30 seconds for full speed range.

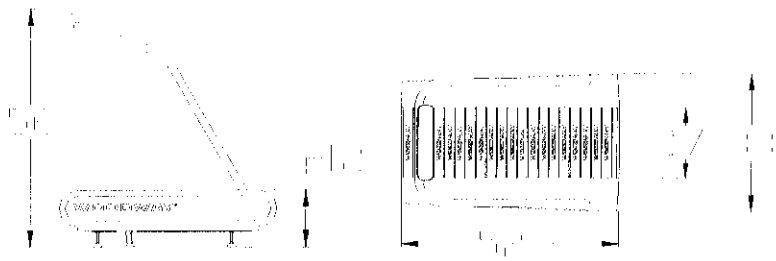
1.3.1 Woodway *PATH* TreadErgometer

Design Specifications:

- Patented Slat-Belt Transportation System:

-47 individual slats with vulcanized rubber surface of 35-40 shore hardness
-Toothed wire reinforced lateral belts and rollers - zero stretch and zero slip
-86 precision ball bearings including 8 guide bearing - 4 mm lateral tolerance

- 17" X 52" Running Surface
- 2 HP continuous (5 HP peak) servo drive motor.
- 110 V Power Supply
- Unitized steel frame with integrated black powder coated handrails
- 340 pound unit weight



Performance Specifications:

- 0 - 11 MPH; zero start, .1 MPH resolution
- 0 - 15% Incline
- Manual (non-motorized) Mode
- 400 lb. User Capacity

User Controls and Feedback Systems:

- Standard Controller includes:

Multiple readout displaying time, speed, incline, distance, pace, calories, and METs

- "User defined" Emergency Stop Magnet & Safety Lanyard

Options:

- Personal Trainer Control Board
- Polar Monitor circuitry (with PT control board) - HR controlled workout and display
- RS-232 Serial Interface Port
- Dynamic Mode

1.3.2 Woodway *WIDE PATH* TreadErgometer

Design Specifications:

• Patented Slat-Belt Transportation System:

-47 individual slats with vulcanized rubber surface of 35-40 shore hardness

-Toothed wire reinforced lateral belts and rollers - zero stretch and zero slip

-86 precision ball bearings including 8 guide bearing - 4 mm lateral tolerance

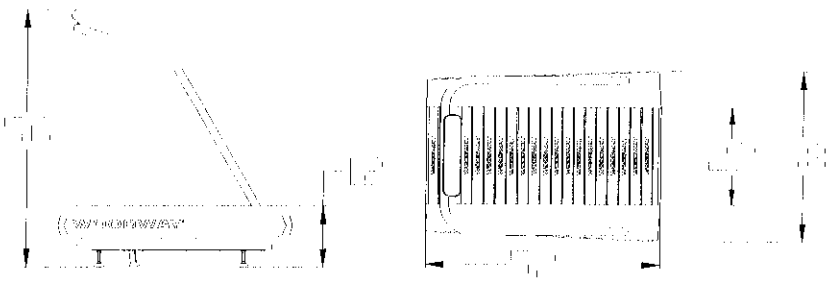
• 22" X 52" Running Surface

• 2 HP continuous (5 HP peak) servo drive motor.

• 110 V Power Supply

• Unitized steel frame with integrated black powder coated handrails

• 350 pound unit weight



Performance Specifications:

• 0 - 11 MPH; zero start, .1 MPH resolution

• 0 - 15% Incline

• Manual (non-motorized) Mode

• 400 lb. User Capacity

User Controls and Feedback Systems:

• Standard Controller includes:

Multiple readout displaying time, speed, incline, distance, pace, calories, and METs

• "User defined" Emergency Stop Magnet & Safety Lanyard

Options:

• Personal Trainer Control Board

• Polar Monitor circuitry (with PT control board) - HR controlled workout and display

• RS-232 Serial Interface Port

• Dynamic Mode

1.3.3 Woodway *MERCURY S* TreadErgometer

Design Specifications:

• Patented Slat-Belt Transportation System:

-60 individual slats with vulcanized rubber surface of 35-40 shore hardness

-Toothed wire reinforced lateral belts and rollers - zero stretch and zero slip

-116 precision ball bearings including 10 guide bearing - 4 mm lateral tolerance

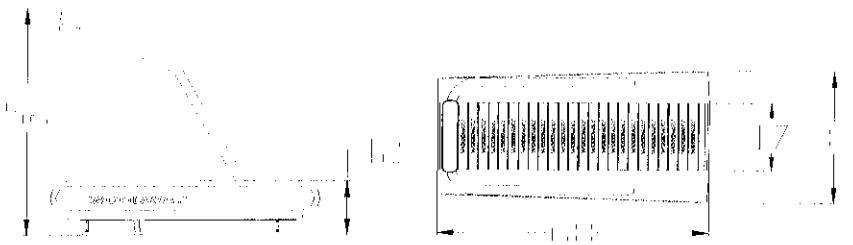
• 17" X 63" Running Surface

• 2 HP continuous (5 HP peak) servo drive motor.

• 110 V Power Supply

• Unitized steel frame with integrated black powder coated handrails

• 390 pound unit weight



Performance Specifications:

• 0 - 11 MPH; zero start, .1 MPH resolution

• 0 - 15% Incline

• Manual (non-motorized) Mode

• 450 lb. User Capacity

User Controls and Feedback Systems:

• Standard Controller includes:

Multiple readout displaying time, speed, incline, distance, pace, calories, and METs

• "User defined" Emergency Stop Magnet & Safety Lanyard

Options:

• Personal Trainer Control Board

• Polar Monitor circuitry (with PT board) - HR controlled workout and display

• 208 *or* 220 V - 50/60 Hz Power Supply

• 0 - 15 MPH Speed Range

• 0-25% Incline

• RS-232 Serial Interface Port

• Dynamic Mode

1.3.4 Woodway *MERCURY M* TreadErgometer

Design Specifications:

• Patented Slat-Belt Transportation System:

-60 individual slats with vulcanized rubber surface of 35-40 shore hardness

-Toothed wire reinforced lateral belts and rollers - zero stretch and zero slip

-116 precision ball bearings including 10 guide bearing - 4 mm lateral tolerance

• 17" X 63" Running Surface

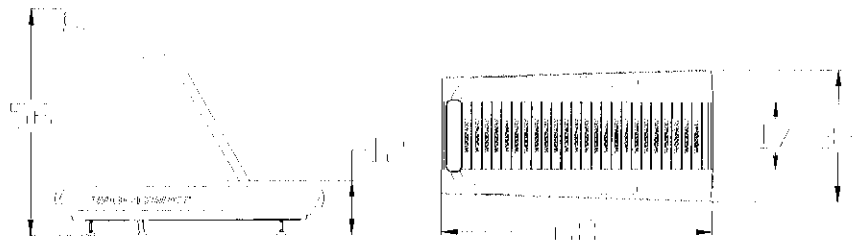
• 2 HP continuous (5 HP peak) servo drive motor.

• 110 V Power Supply

• Unitized steel frame with integrated black powder coated handrails

• Hospital Grade Specifications (micro-amp Leakage)

• 390 pound unit weight



Performance Specifications:

• 0 - 11 MPH; zero start, .1 MPH resolution

• 0 - 5 MPH Reverse Speed

• 0 - 15% Incline

• Manual (non-motorized) Mode

• 450 lb. User Capacity

User Controls and Feedback Systems:

• Standard Controller includes:

Multiple readout displaying time, speed, incline, distance, pace, calories, and METs

• "User defined" Emergency Stop Magnet & Safety Lanyard

Options:

• Personal Trainer Control Board

• Polar Monitor circuitry (with PT board) - HR controlled workout and display

• 208 *or* 220 V - 50/60 Hz Power Supply

• 0 - 15 MPH Speed Range

• RS-232 Serial Interface Port

• 0 – 25% Incline

• Dynamic Mode

1.3.5 Woodway *DESMO S* TreadErgometer

Design Specifications:

• Patented Slat-Belt Transportation System:

-60 individual slats with vulcanized rubber surface of 35-40 shore hardness

-Toothed wire reinforced lateral belts and rollers - zero stretch and zero slip

-116 precision ball bearings including 10 guide bearing - 4 mm lateral tolerance

• 22" X 63" Running Surface

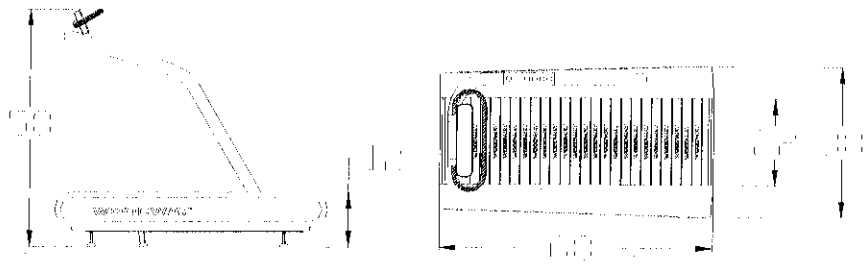
• Single side handrail with Switches (control of speed, incline and stop)

• 2 HP continuous (5 HP peak) servo drive motor.

• 110 V Power Supply

• Unitized steel frame with integrated black powder coated side handrail

• 450 pound unit weight



Performance Specifications:

• 0 - 12.5 MPH; zero start, .1 MPH resolution

• 0 - 15% Incline

• Manual (non-motorized) Mode

• 450 lb. User Capacity

• "User defined" Emergency Stop Magnet & Safety Lanyard

User Controls and Feedback Systems:

• Side handrail control of speed, incline and stop.

• Standard Controller includes:

Multiple readout displaying time, speed, incline, distance, pace, calories, and METs

Options:

• Personal Trainer Control Board

• Polar Monitor circuitry (with PT board) - HR controlled workout and display

• 208 *or* 220 V - 50/60 Hz Power Supply

• Dual Handrails

• 0 - 15 MPH Speed Range

• 0-25% Incline

• RS-232 Serial Interface Port

• Dynamic Mode

1.3.6 Woodway *DESMO M* TreadErgometer

Design Specifications:

• Patented Slat-Belt Transportation System:

-60 individual slats with vulcanized rubber surface of 35-40 shore hardness

-Toothed wire reinforced lateral belts and rollers - zero stretch and zero slip

-116 precision ball bearings including 10 guide bearing - 4 mm lateral tolerance

• 22" X 63" Running Surface

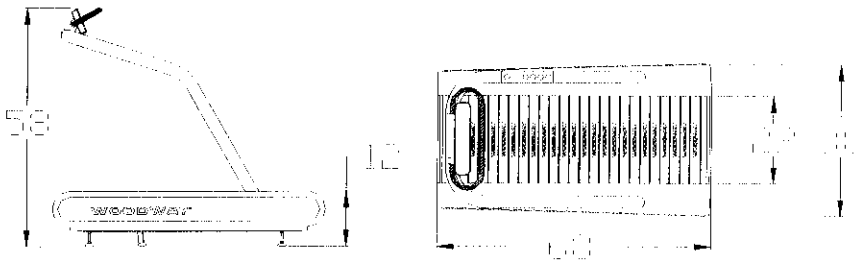
• 2 HP continuous (5 HP peak) servo drive motor.

• 110 V Power Supply

• Unitized steel frame with integrated black powder coated dual side handrails

• Hospital Grade Specifications (micro-amp leakage)

• 450 pound unit weight



Performance Specifications:

• 0 - 12.5 MPH; zero start, .1 MPH resolution

• 0 - 5 MPH Reverse Speed

• 0 - 15% Incline

• Manual (non-motorized) Mode

• 450 lb. User Capacity

User Controls and Feedback Systems:

• Side handrail control of speed, incline and stop.

• Standard Controller includes:

Multiple readout displaying time, speed, incline, distance, pace, calories, and METs

• "User defined" Emergency Stop Magnet & Safety Lanyard

Options:

• Personal Trainer Control Board

• Polar Monitor circuitry (with PT board) - HR controlled workout and display

• 208 *or* 220 V - 50/60 Hz Power Supply

• 0 - 15 MPH Speed Range

• 0 - 25 % Incline

• RS-232 Serial Interface Port

• Dynamic Mode

1.3.7 Woodway *DESMO PRO* TreadErgometer

Design Specifications:

• Patented Slat-Belt Transportation System:

-60 individual slats with vulcanized rubber surface of 35-40 shore hardness

-Toothed wire reinforced lateral belts and rollers - zero stretch and zero slip

-116 precision ball bearings including 10 guide bearing - 4 mm lateral tolerance

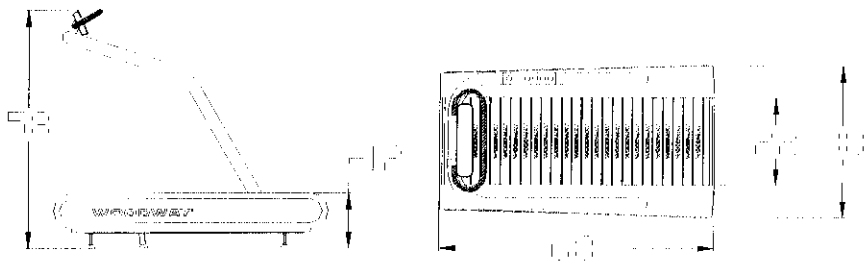
• 22" X 63" Running Surface

• 2 HP continuous (5 HP peak) servo drive motor.

• 220 V - 50/60 Hz Power Supply

• Unitized steel frame with integrated black powder coated side handrails

• 450 pound unit weight



Performance Specifications:

• 0 - 15 MPH; zero start, .1 MPH resolution

• Acceleration / Deceleration Quickness Control - 10 to 45 seconds zero to top speed

• 0 - 25% Incline

• Manual (non-motorized) Mode

• 450 lb. User Capacity

User Controls and Feedback Systems:

• Side handrail control of speed, incline and stop.

• Standard Controller includes:

Multiple readout displaying time, speed, incline, distance, pace, calories, and METs

• Dials for Acceleration / Deceleration Quickness control

• "User defined" Emergency Stop Magnet & Safety Lanyard

Options:

• Personal Trainer Control Board

• Polar Monitor circuitry (with PT board) - HR controlled workout and display

• 208 *or* 220 V - 50/60 Hz Power Supply

• Belt Reversal - 0 to 5 MPH

• 0 – 16.5 MPH speed range

• RS-232 Serial Interface Port

• Dynamic Mode

• Single Side Handrail

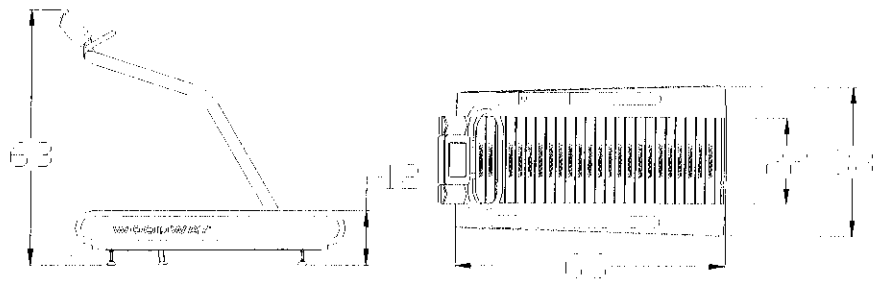
1.3.8 Woodway *DESMO ELITE* TreadErgometer

Design Specifications:

- Patented Slat-Belt Transportation System:

-60 individual slats with vulcanized rubber surface of 35-40 shore hardness
-Toothed wire reinforced lateral belts and rollers - zero stretch and zero slip
-116 precision ball bearings including 10 guide bearing - 4 mm lateral tolerance

- 22" X 63" Running Surface
- 2 HP (5 HP peak) servo drive motor.
- 110 V - 50/60 Hz Power Supply
- Unitized steel frame with integrated black powder coated handrails
- 1 year computer/screen warranty
- 515 pound unit weight



Performance Specifications:

- 0 - 12.5 MPH; zero start, .1 MPH resolution
- 0 - 15% Incline
- 450 lb. User Capacity

User Controls and Feedback Systems:

- Elite Controller: User log-in with automated fitness history including aerobic evaluations and tracking of personal goals.

-Administrative features such as, a multi-lingual capability, unlimited custom programmable workouts, messaging system (e-mail) and more.
-Cable ready color TV and optional VCR.

Options:

- Integrated VCR
- Heart Rate Transmitter / Receiver Module
- 0 - 15 MPH Speed Range (220v only)
- 208 *or* 220 V - 50/60 Hz Power Supply
- 0 - 25% Incline
- Belt Reverse - 0 - 5 MPH
- Acceleration/ Deceleration Quickness Control - 10 to 45 seconds zero to top speed
- RS-232 Serial Interface Port
- Dynamic Mode

1.4 ELECTRICAL SPECIFICATIONS

Power Requirements	
120 V ac	20 A, 60 Hertz
	20 A DEDICATED LINE REQUIRED** (cannot share neutral)
208/220 V ac	10 A, 60 Hertz
Motor Specifications	(Except Odyssey)
	DC with encoder
	2 HP, 5 Hp peak
Incline Type	Rack and Pinion
Incline Resolution	.1%
Incline Motor	ac Permanent Split Capacitor type
Power Cord and Type	10 feet, 3 prong
120 V ac	5-20P
208/220 V ac	6-20P
Wall Outlet Requirements	
120 V ac	NEMA 5-20R Receptacle (Dedicated circuit required**)
208/220 V ac	NEMA 6-20R Receptacle (Dedicated circuit required**)
Main Fuse	
120 V ac input	15 A slo-blo, 3AG
208/220 V ac	10 A slo-blo, 3AG
ODYSSEY (120 V ac)	5A slo-blo, 3AG
Heart Rate Pickup Assembly	(For Personal Trainer Display)
Pickup Range	Up to 30 inches
Heart Rate Range	Up to 200 Beats per Minute; Uni-directional

1.5 RUNNING BELT SPECIFICATIONS

General	Slats, overlapping, replaceable
Slat type	Rubber over aluminum support
Running Belt Hardness	Approximately 40 Shore D
Running Area	See detailed specifications/model (Ch.1)
Standard Color	Grey
Support	102 roller bearings, 10 roller guides standard;
	The Path = 64 roller bearings, 8 roller guides.
Lateral movement	+/- 8 mm

1.6 ENVIRONMENTAL SPECIFICATIONS

Degree of Protection	IP42
Operating Conditions	
Ambient Temperature:	+10°C to +40°C (0°F to +104°F)
Relative Humidity:	20 to 95%
Transportation & Storage Conditions	
Temperature Range:	-18°C to +49°C (0°F to +120°F)
Relative Humidity:	20 to 95%
Atmospheric Pressure Range	700hPa to 1060 hPa (20.67 to 31.3 inches of Mercury)

** A DEDICATED CIRCUIT *WHICH DOES NOT SHARE THE NEUTRAL* IS REQUIRED!

CHAPTER TWO *INSTALLATION OF YOUR TREADMILL*

In almost all cases, your Woodway treadmill is delivered fully assembled. Please make sure that the treadmill is fully inspected for any transportation damage. Report any damage to the carrier and to the factory.

2.1 GROUNDING INSTRUCTIONS

This treadmill must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a power cord with 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.

2.2 LOCATION REQUIREMENTS

Locate your treadmill on a structurally sound surface. If it is to be used above ground level set it up near the corner of the room to ensure maximum support during high-speed use. The surface should be reasonably level to ensure minimum frame flexing. Do not place the treadmill directly on shag or plush carpeting because of the moving parts underneath. If the operating area is thickly carpeted, set the unit on a mat (Woodway has a selection of mats available for purchase if needed; call 1-800-WOODWAY for details). This will reduce the lint that can get into the treadmill and also reduce carpet wear.

2.3 TRANSPORTING YOUR TREADMILL

CAUTION: This treadmill is heavy and could cause injury if proper lifting techniques are not utilized. Lifting Bars are supplied with the treadmill to move the treadmill.

Lifting bars are inserted into each bottom corner of the treadmill. Do not pull or lift on the cosmetic covers. If a flat dolly is available, place the dolly underneath the treadmill and push it to the desired location. If the treadmill must be disassembled, the cosmetic covers and the handrail assembly could be removed for easier transportation. Always unplug your treadmill before disassembly.

2.4 ELECTRICAL REQUIREMENTS

The maximum electrical power requirements of your treadmill at top operating speed is 20 A at 120 V ac. Therefore, the operating area must be equipped with an approved, dedicated 120 V ac, 60 Hz NEMA 5-20R grounded outlet and properly fused - CANNOT SHARE THE NEUTRAL! If an extension cable is needed, it must be at least 12 AWG with ground and no more than 10 feet long. For the 208 or 220 V ac input power options, the outlet must provide the appropriate ac voltage, 60 Hz at 15 A.

2.5 OUTLET COMPATIBILITY

The 120 V ac input Woodway treadmill comes standard with a 3-prong plug (NEMA 5-20P). The only outlet that the plug can be installed is a NEMA 5-20R – which does not share the neutral.

The 208 V or 220 V ac input Woodway treadmill has a 3-prong plug (NEMA 6-20P). It will only fit in a NEMA 6-20R outlet. DO NOT BEND OR REMOVE PRONGS. If other power cord plugs are required, please consult factory.

DESMO M Models: The 120 V ac input Woodway treadmill comes standard with a 3-prong, hospital-grade (NEMA 5-20P). The only outlet that the plug can be installed in is a NEMA 5-20R receptacle that does not share the neutral.
NOTE: For grounding reliability, only connect to the proper receptacle marked "Hospital Grade."

****BE CAREFUL - ANY ALTERATIONS TO THE PLUG CONFIGURATION COULD VOID YOUR WARRANTY.**

CHAPTER THREE *TREADMILL FUNDAMENTALS*

3.1 RUNNING BELT AND SUPPORT

3.1.1 BELT SURFACE

The patented running belt is made of individual slats mounted on a continuous set of tooth belts. The tooth belts mesh with the front pulley assembly, which meshes with the drive motor. This results in no belt slippage. The individual slats are comprised of two materials: a rubber based surface and an aluminum T-shaped frame. The rubber material, approximately ½ inch thick, and the aluminum T-slat makes a Woodway the "softest treadmill running surface in the world". The rubber running surface greatly reduces shock of impact and helps reduce the local extremity pain associated with long-term running. The positive belt engagement eliminates friction and heat, and therefore increases the longevity of the running surface and treadmill itself.

The Woodway rubber belt surface is unlike other treadmills (which normally utilize a fabric belt) and takes some getting used to. You may find, at first, that the surface has a "grip" to it you have not experienced before. The more often you utilize your treadmill the more you will become accustomed to the feel of it. With continuous prolonged usage, the running surface will eventually "smooth" itself in the areas that receive the most wear.

3.1.2 TRANSPORTATION SYSTEM

The transportation system is comprised of two bearing rail assemblies, an endless steel wire reinforced lateral belt, and 7-inch diameter toothed roller drums. The bearing rails support the running surface and are integral to reducing belt wear and friction.

The two endless lateral belts have many key functions: they hold the individual slats together, transfer power to and from the motor and runner and help keep the running belt from tracking to the left or right. The two bearing rails consist of three main parts: the bearing rail, individual bearings and the bearing-supported roller guides. A smooth section of the lateral belts roll over the bearings and roller guides.

The bearing rail supports all the bearings and roller guides and distributes the local loads throughout the treadmill. The roller guides on each side assist to reduce tracking error and help support the running belt. The individual bearings on each side also evenly distribute the load across the treadmill.

The toothed drums are used to transfer the load to and from the motor and to eliminate any slippage. The front drum assembly has an extra tooth pulley that is used by the motor. The drum assemblies have heavy-duty pillow blocks (bearings) which also reduce friction.

This unique transportation system results in very little friction and can even be used without power - you can simply push the running belt under your own power!

3.2 SERIAL NUMBER PLACEMENT

Each Woodway treadmill is assigned a serial number when built. The 7 or 8 alpha-numeric code can be found in two different locations on the treadmill. The serial number is on the main label located on the back of the display board housing. It is also on the front left section of the treadmill frame.

Sequential Number Assigned at Assembly {XXXXX}{XY} **Date Code of Manufacture**

The main label also includes information about your particular treadmill. It lists input voltage and current, and the options and/or features of your treadmill. Please refer to your packing slip or invoice or contact Woodway USA (1-800-WOODWAY) to determine the features you may have ordered, if you are in doubt, with your treadmill.

3.3 INCLINE SYSTEM

Woodway treadmills have a rack and pinion type of incline and can go to a maximum of 25% grade. The incline system is controlled by an ac gear motor and uses a chain and sprocket system to transfer power to a set of pinions. These pinion gears raise or lower the treadmill by gear racks. The gear racks have rubber feet and support most of the treadmill and person's weight when incline is used.

The feedback system is comprised of two sections: the incline potentiometer assembly, and the limit switches. The resolution is .1% grade and the accuracy is +/- .4% grade.

The feedback potentiometer assembly tells the display panel where the incline system is. An intermediate shaft rotates the potentiometer, via gears, when the incline system moves. The potentiometer is a one-turn potentiometer.

The limit switches are used to limit the incline system and do get used every time. After the display is turned on, the treadmill will automatically go to 0% or "home position." The display panel detects when the treadmill has tripped the 0% limit switch.

CHAPTER FOUR *SAFETY FEATURES*

4.1 EMERGENCY STOP SWITCH AND SAFETY LANYARD

The emergency stop switch, with safety Lanyard, is used to enable the belt. If the Stop Switch magnet is not placed on the front panel, or positioned properly, the belt will be disabled and will therefore not speed up. This is similar to an unplugged treadmill.

CAUTION: ALWAYS USE THE EMERGENCY STOP SWITCH WITH THE LANYARD!

This safety feature is to protect the user in case of an emergency or loss of balance. The plastic clip is intended to clip on an article of clothing while the treadmill is in use. When the activator (magnet) is pulled off, the belt will automatically and immediately be disabled and will coast to a stop.

4.2 HANDRAIL STOP SWITCH

The handrail stop (not standard on all models) switch can also be used to stop the treadmill. When the stop button is pressed, the treadmill will slowly ramp down and stop at zero speed and rest at zero incline. The display panel will then shut off.

4.3 BELT DRIVE CURRENT LIMIT

The treadmills have current limit features to reduce the power consumption and increase safety. The main feature is a current limit timeout. If the belt is stalled (stays in current limit) for more than 6 seconds, the motor drive will shut off and the belt will be able to be moved manually, or "freewheel". This feature becomes very useful if something should become caught in the belt, stopping it.

When the belt goes into this current limit mode, the treadmill must be turned off for at least 60 seconds to reset before it can be turned back on.

4.4 HOSPITAL GRADE (M MODELS)

Hospital grade requirements are important for medical clinics, physical therapy facilities and hospitals. The main features of the treadmill: hospital grade power plug and a low leakage input power transformer. A low leakage power transformer helps reduce the leakage current of the treadmill to less than 100 microAmperes (uA). The hospital grade feature is an option for the Desmo Pro model.

CHAPTER FIVE STANDARD DISPLAY BOARD

TO TURN ON THE TREADMILL:

- First make sure the Emergency Stop Magnet is positioned correctly. Without this, the display will not light up.
- Press and hold down the ON button. The display should activate and display all zeros.

TO ENTER SPEED AND INCLINE:

- Use either the display panel buttons or the handrail switches (not available on all models).
- The green arrows or buttons are the increase buttons, and the yellow arrows or buttons control the decrease modes of either speed or incline.

TO SET EITHER SPEED OR INCLINE:

- Press the appropriate buttons until the display shows the desired value. The treadmill will automatically begin to go to the desired speed or incline.

TO START THE CLOCK:

- Simply press the START button. This starts the clock from 00:00. The clock counts up until either the STOP or OFF buttons are pressed or the treadmill's power is turned off.

To reset the TIME, DISTANCE, and CALORIES:

- Press the RESET button.

To change between DISTANCE and CALORIES or SPEED and PACE:

- Press the MPH/DISTANCE button.

To revert back to the default displays:

- Press the MPM/CALORIES button. The TIME display will not be affected.

5.1 DISPLAYS & INDICATORS

The standard display has the ability to display four (4) parameters simultaneously. In all, seven (7) parameters can be displayed: Time, Speed, Pace, Distance, Calories, Incline and METS.

TIME:
The Time display shows the amount of the current workout. The display is in the MM:SS format and can display up to 99:59 minutes before going back to zero.

SPEED:
The Speed display shows the belt speed. The format is XX.YY in miles per hour. After three seconds of a speed change, the display will freeze to the last value measured. If any button is pressed, the speed display will update. This display also functions as the Pace display.

PACE:
The Pace display uses the same window as the Speed display. Pressing the MPM/- CALORIES button will show the Pace display. The XX:YY format is in minutes per mile.

DISTANCE:
The distance display will show the amount of miles compiled. The format is XX.YY and starts when the START button is pressed. The RESET button will clear the distance displayed. Pressing the MPM/CALORIES button will display the calories.

CALORIES:
The Calories display shows the accumulated caloric expenditure during the workload. The format is XX.YY and starts when the START button is pressed. The calories will be cleared when the RESET button is pressed. When the MPH/DISTANCE button is pressed, the display will go back to the Distance display and show the accumulated distance.

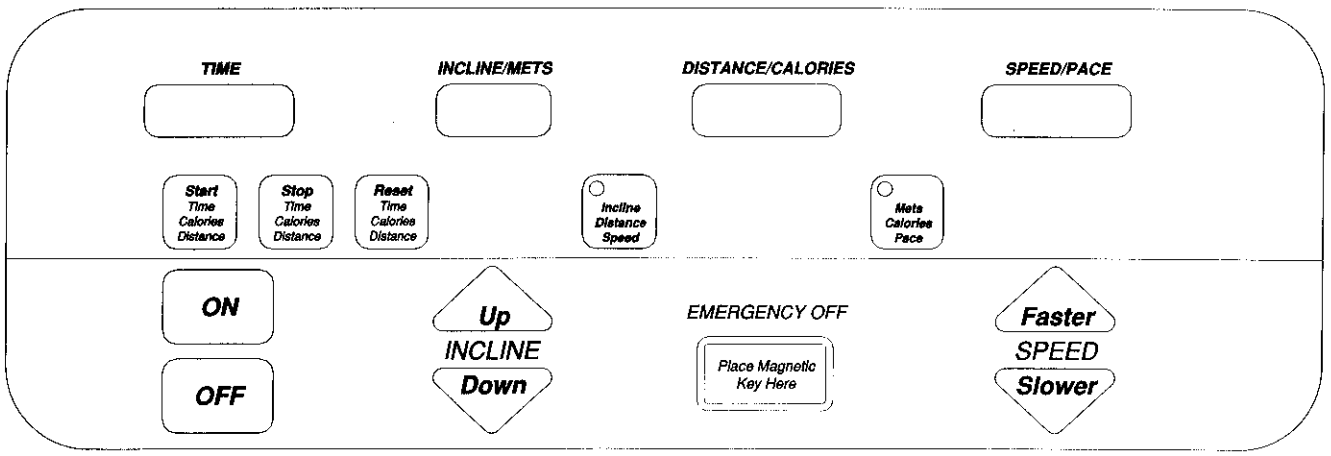
INCLINE:
The Incline display will show the incline of the treadmill. The display format is XX.Y in % grade.

METS:
The METS display shows the metabolic equivalent of the work out. It is a function of the speed and incline. This display is activated when the MPM/CALORIES button is pressed.

5.2 STANDARD DISPLAY PANEL

5.2.1 BUTTONS & FUNCTIONS

There are 11 buttons on the Standard display front panel. These are: ON, OFF, START, STOP, RESET, MPH/DISTANCE, MPM/CALORIES, SPEED UP, SPEED DOWN, INCLINE UP, INCLINE DOWN.



ON: The ON button turns on the front panel display. It does NOT turn on the treadmill. The displays should all read 00.0 after the ON button is pressed.

OFF: The OFF button will turn off the treadmill in an orderly manner. Pressing the OFF button will cause the treadmill to decrease in both speed and incline to zero AND start a two (2) minute countdown. If the treadmill is already at zero speed and incline, the display will shut off within two minutes. NOTE: The belt should still be firm, not loose or "freewheeling."

START: The START button will cause the clock to start counting up from zero. It will also start the distance and calorie accumulating.

STOP: The STOP button will stop the time clock, distance, and calorie accumulation. Pressing the START button will start the accumulation of time, distance and calories.

RESET: Pressing the RESET button will clear the accumulated time, distance, and calories. The START button will start the process all over again.

MPH/DISTANCE:

This button will set the SPEED/PACE and the DISTANCE/CALORIES displays to speed and distance values.

MPM/CALORIES:

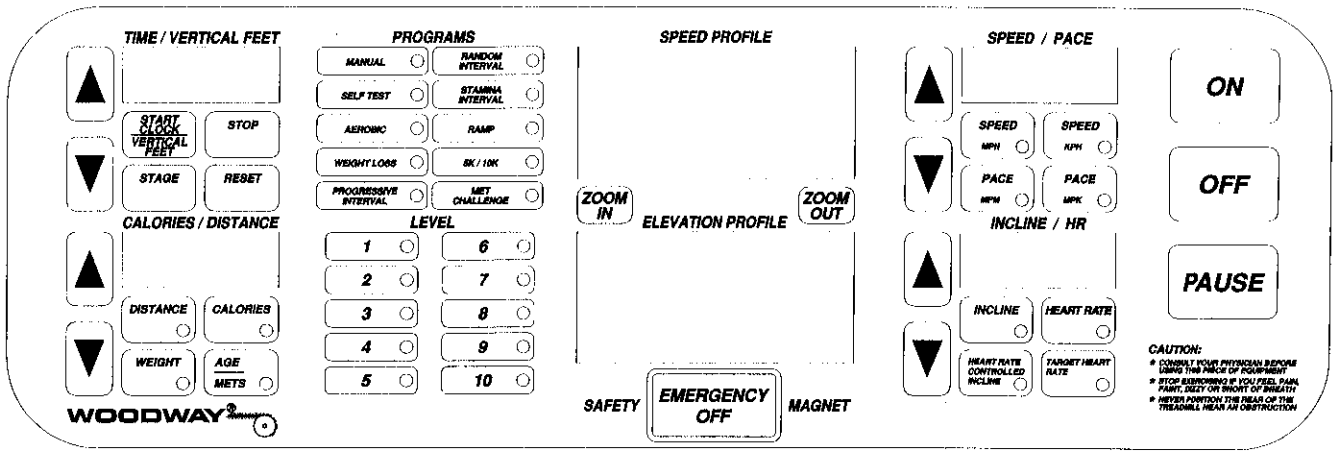
Pressing this button will cause the SPEED/PACE and the DISTANCE/CALORIES displays to show the present pace and caloric accumulation.

SPEED UP & DOWN:

These buttons control the treadmill belt speed. Pressing the button will cause the belt to change speeds. Once the button is no longer being depressed, the belt speed will stop changing.

INCLINE UP & DOWN:

These buttons control the incline system. Pressing these buttons will cause the incline display to show the desired incline value.



CHAPTER SIX *PERSONAL TRAINER (Dot Matrix) DISPLAY*

6.1 OVERVIEW

This display board allows the user to input program parameters to control treadmill operation and allows the user to monitor the progress of their workout. The control panel allows the user to control:

- Program Selection
- Workout Time
- Intensity Level
- Speed
- Incline
- Optional Target Heart Rate (in conjunction with Heart Rate Controlled Incline Program). See Chapter 7 for more information about the Polar Heart Monitor.

In order for the user to monitor the progress of their workout, the personal trainer board displays:

- Speed Profile
- Incline Profile
- Time/Vertical Feet
- Calories/Distance
- Speed/Pace
- Incline/Heart Rate

*** To properly calculate energy expenditure and target heart rate zone, it is recommended for users to enter their weight and age.*

TO TURN ON THE TREADMILL:

- First make sure the Emergency Stop Magnet is positioned correctly. Without this, the display will not light up.
- Press and hold down the ON button. The display should light up and begin prompting the user to enter information. The user can choose to follow the directions or simply enter the speed and incline values desired.

TO ENTER SPEED AND INCLINE:

- Press the appropriate buttons until the display projects the desired value. The treadmill will automatically go to the displayed speed and/or incline.
- The green arrows or buttons are the increase buttons, and the yellow arrows or buttons control the decrease modes of either speed or incline.

TO START THE CLOCK:

- Simply press the START button. This starts the clock from 00:00. The clock counts up until either the STOP or OFF buttons are pressed or the treadmill's power is turned off.

To reset the TIME, DISTANCE, and CALORIES:

- Press the RESET button.

To change from DISTANCE to CALORIES or METS:

- Press the appropriate button. The correct indicator will light up next to the button, indicating which display is being shown.

6.2 MODES OF OPERATION

The three modes of operation include: *Setup*, *Run* and *Done*.

6.2.1 SETUP MODE

Setup Mode includes all activities that occur before the clock begins counting. The treadmill immediately enters setup mode after the power has been turned on. The purpose of this mode is to allow the user to select and/or adjust the program parameters (age, weight, time, program and level) as desired.

To transition between Setup and Run Modes, either press the START (for all programs) or the Incline UP or Speed UP buttons (for the Manual Program).

6.2.2 RUN MODE

The purpose of the Run Mode is to execute a workout profile. *NOTE*: Once a user has entered the Run Mode, the following parameters CANNOT be adjusted: TIME, YOUR AGE and the PROGRAM selection. You can, however, adjust WEIGHT, LEVEL (for all programs except the Manual Program and the programmable User Programs), SPEED, INCLINE and TARGET HEART RATE (for Heart Rate Controlled Incline).

The transition from Run Mode to Done Mode will occur once one of the following actions takes place:

1) the OFF button is pressed, 2) the Timer expires, 3) the Distance is completed (5K or 10K), or 4) the STAGE button is pressed so that no more remaining time is left in the program.

6.2.3 DONE MODE

This mode brings the treadmill to a complete stop and returns the incline to zero. Upon completion of a program, the done mode is automatically entered.

In Done Mode Windows:

- In CALORIES/DISTANCE display view Total Distance Traveled in Miles is projected.
- Press CALORIES button & look in CALORIES/DISPLAY window to view Total Calories Burned.

Additionally, if a user is operating the treadmill so that the "User Programs" are enabled, the Done Mode will prompt the user to store the workout as one of the ten User Programs by pressing one of the LEVEL buttons.
NOTE: The User Programs feature is enabled at the factory by setting the DIP switch #4 (located in the upper control board) into the ON position.

The ON button powers up the treadmill. If the treadmill has been recently used, and the angle of the running belt has not yet fully returned to an incline of 0% grade, neither the treadmill display, nor the treadmill motor will turn on in response to the ON button.

6.3 POWER ON/POWER OFF/PAUSE/RESET BUTTONS

However, once the treadmill has fully returned to an incline of 0% grade, both the display board and the treadmill motor will respond when the ON button is pressed.

If the treadmill is turned ON, yet input buttons are not activated by the user, the treadmill will automatically shut off after scrolling twice through a series of requests for WEIGHT, AGE, TIME, PROGRAM and LEVEL.

By pressing the OFF button once, while the treadmill is in the RUN Mode, the workout and program ends. By pressing the OFF button a second time, the treadmill power turns off (provided the running belt has been gradually brought to a complete stop).

The treadmill will also automatically turn itself off after a short period of time if no other program is entered after the first time the OFF button is pressed.

Pressing the OFF button at any time while in the Setup Mode results in the loss of all previously entered Program parameters. The computer prompts you to re-enter/re-select desired values for WEIGHT, AGE, TIME, PROGRAM and LEVEL.

When pressed once, the PAUSE button will interrupt the current workout program and cause the following actions:

- The clock stops counting.
- The running belt gradually comes to a complete stop.

The RESET button resets all parameters to their default values, as if the power was turned off, back on, and then the START button was pressed. Therefore:

- The message PAUSE appears and blinks on and off in the Speed Profile Display window.
- The values displayed in each of the 4 LED Display windows remain unchanged.

When the PAUSE button is pressed again, the treadmill will resume the program where it left off. The following actions will occur:

- The clock resumes counting.
- The running belt gradually speeds up until the value in the Speed/Pace display window is reached.
- The PAUSE message disappears from the Speed Profile display window.
- The values displayed in each of the 4 LED display windows begin to indicate actual values.

- The workout starts over again in the Manual Program with all parameters reset to the default values (with the exception of the user's weight and age).
- The running belt gradually comes to a complete stop.
- The timer starts counting up from zero.

6.4 PROGRAMMING START/STOP/PAUSE/STAGE BUTTONS

The START CLOCK/VERTICAL FEET button has two functions. The function varies depending upon whether you are in the Setup Mode or in the Run Mode.

In the Setup Mode: If the user presses the START CLOCK button it begins the workout and triggers the timer to begin counting.

- The timer counts up from zero if you are using either the Manual program or the 5K/10K program. (These programs ignore any time selection that a user may have made during the Setup Mode).
- The timer counts down from the time you have selected for all other treadmill programs.
- If no time is entered during the Setup Mode, the default time of 20 minutes applies.

While in the Run Mode: If the user presses the START CLOCK/VERTICAL FEET button:

- The accumulated vertical feet traveled during the workout for 2 seconds is displayed, and
- The timer restarts (if the timer was stopped using the STOP button). This also restarts the calorie accumulation and the distance accumulation.

The STOP button stops the timer, the calorie accumulation and the distance accumulation. However, all other functions continue to operate.
Through the use of this button, the workout can be extended indefinitely.

The STAGE button enables the user to skip past one or more stages of the pre-programmed workout. Pressing the STAGE button therefore shortens the workout. The actual time subtracted from the workout will be 1/20th of the overall workout time specified.

Therefore, if the user inputs a total workout time of one hour (60 minutes), then each dot or segment of the display represents a time of (60 minutes/ 20 segments) which equals three (3) minutes/segment. One press of the STAGE button skips past one segment (in this case 3 minutes) of the workout. Two presses of the STAGE button skips past 6 minutes and so on.

The STAGE function does not apply when the Manual and 5K/10K Programs are being used since the clock is counting up not down during these programs. Therefore, there are no defined stages to "skip" through.

6.5 INPUTTING PROGRAM PARAMETERS (WEIGHT, AGE, TIME, LEVEL, SPEED & INCLINE)

If WEIGHT UP/DOWN arrow buttons (to left of CALORIES/ DISTANCE display) are pressed while the red LED in the AGE button is illuminated, the user can increase or decrease the weight parameters until the applicable value is indicated in the display window. The default weight is 150 pounds.

If AGE/METS UP/DOWN arrow buttons (to left of CALORIES/ DISTANCE display) are pressed while the red LED inside of the AGE button is illuminated, the user can increase or decrease the age parameters until the applicable value is indicated in the display window. The default age is 40 years.
You can only enter the AGE parameter during the Setup Mode. During the Run Mode, this key is reserved for exhibiting the METS value in the CALORIES/ DISTANCE Display window.

When the TIME UP or DOWN arrow buttons (to left of the TIME/ VERTICAL FEET display) are pressed, the workout time will be increased or decreased accordingly. The default time is 20 minutes for all of the programs except for the Manual and the 5K/10K program (which do not operate in accordance with any defined program duration).

LEVEL – A selection of varying levels, which reflect increasingly difficult Speed and/or incline profiles, is provided between 1 and 10. When one of the 10 LEVEL buttons is pushed, the corresponding Speed and incline settings for that level are selected and displayed on the Speed Profile Display and the Elevation Profile Display. The default Level is 1.
* There is an exception to this function when using the User Programs function. In this case, pressing one of the 10 LEVEL buttons retrieves the corresponding stored User Program from the treadmill computer's memory.

SPEED UP/DOWN – When the UP or DOWN arrow buttons to the left of the SPEED/PACE Display are pressed, the speed of the treadmill running belt will be increased or decreased accordingly.

- Any changes made to the Speed using the SPEED UP/DOWN buttons are only effective during the current program stage when operating any of the following Programs: Self Test, Aerobic,

Weight Loss, Progressive Interval, Random Interval, Stamina Interval, Ramp, MET Challenge and User Programs.

- Changes made to the Speed using the SPEED UP/DOWN buttons continue to be effective in all successive stages or until further changes are made in Speed when operating in any of the following programs: Manual, 5K/10K and Heart Rate Controlled Incline.

INCLINE UP/DOWN – When the UP or DOWN arrow buttons to the left of the INCLINE/HR Display are pressed, the incline or elevation of the treadmill will be increased or decreased accordingly. The treadmill incline is measured in % grade. A grade of 1% is equivalent to a 1-foot rise in elevation over a distance of 100 feet.

- Any changes made to the incline using the INCLINE UP/DOWN buttons are only effective during the current program stage when operating any of the following Programs: Self Test, Aerobic, Weight Loss, Progressive Interval, Random Interval, Stamina Interval, Ramp, MET Challenge and User Programs.

- Changes made to the Speed using the INCLINE UP/DOWN buttons continue to be effective in all successive stages or until further changes are made in incline when operating in any of the following programs: Manual, 5K/10K and Heart Rate Controlled Incline.

6.6 FITNESS PROGRAM OVERVIEW

Below is a brief description of the fitness programs in the Dot Matrix display board.

P – 1	Manual Mode	This program allows you to operate the treadmill at any speed, elevation, or length of time desired.
P - 2	Self - Fitness Test	Use this 20 minute program to determine your fitness level.
P - 3	Aerobic Conditioning	Used to improve your fitness level and increase your aerobic capacity.
P - 4	Weight Loss Program	This program is similar to aerobic conditioning but with a lower workout level and longer time.
P – 5	Progressive Interval	Increases your aerobic capacity by using a series of work/rest intervals.
P - 6	Random Interval	A different work out every time
P - 7	Stamina Interval	This program keeps the workout at the upper end of your aerobic capacity.
P - 8	The Ramp Program	Gradual elevation changes help you stretch your aerobic capacity.
P - 9	5 K & 10 K Runs	Training programs to condition you for these long simulations.
P - 10	The MET Challenge	This program will keep a constant workload while varying speed or elevation.

6.7 PROGRAM SELECTION BUTTONS

Selecting a program is very simple. After pressing the ON button, follow the prompting by the display panel. Press one of the 10 standard programs and then the intensity level; OR press one of the LEVEL buttons that have your stored custom program. If you wish to change the program duration (default to 20 minutes), use the TIME arrow buttons to set the time. Press the START button to begin the program. During the program, the speed and elevation values can be changed. See "Modify a program 'On the Fly'."

6.7.1 *MANUAL*

The Dot Matrix display will automatically go into the manual mode if, after the ON button is pressed, a speed or elevation button is pressed. The treadmill will also go in to the manual mode if the reset button has been pressed.

This program enables the user to have full control over the *Speed* and *Incline* parameters throughout the course of the workout. Changes made by the user during the workout are quickly reflected in the Speed and Incline of the treadmill. The parameters will not change until the user manually changes them. This program allows the user to customize their workout based on preference.

*If a user's treadmill is programmed so that "User Programs" are enabled, the previous Manual workout profile can be saved into one of ten memory locations for future use.

6.7.2 *SELF-TEST*

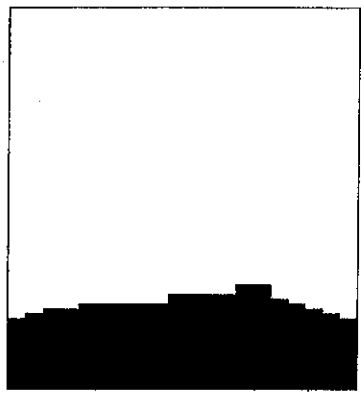
The self-test program provides a twenty-minute walk/jog test, which helps the user determine his/her optimum training level (based upon the desired aerobic training window defined by 60-85% of the user's maximum heart rate). Both the *Speed* profile and the *Incline* profile involve a series of stair step increases throughout the first two-thirds of the workout, followed by a gradual and steady decrease in both Speed and Incline during the last third of the workout.

LEVEL	MINIMUM SPEED	MAXIMUM SPEED	MAXIMUM ELEVATION
1	1.5	2.2	3.0
2	1.5	2.7	4.0
3	1.7	3.2	5.0
4	1.8	3.6	6.0
5	1.9	3.8	7.0
6	2.0	4.2	8.0
7	2.1	4.6	9.0
8	2.2	5.0	10.0
9	2.3	5.2	11.0
10	2.4	5.5	12.0

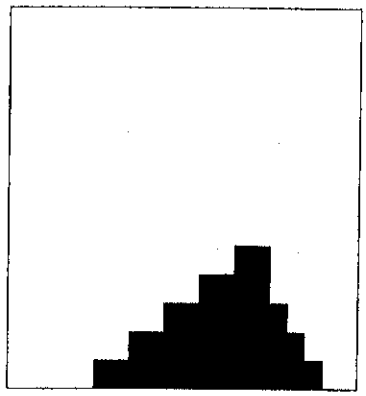
All programs are in 20 segments. The length of each stage is based on the time you enter divided into 20 segments. Each program begins with a slow warm-up and ends with a cool down period.

SELF-FITNESS TEST CHARTS

SPEED PROFILE



INCLINE PROFILE



6.7.3 *AEROBIC CONDITIONING*

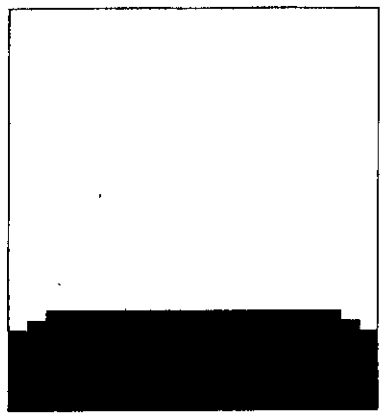
This is a conditioning program providing a constant *Speed* profile and a steady and gradually increasing the *Incline* profile throughout the duration of the workout.

The initial conditioning recommendation for users in poor to fair aerobic condition is to start at an approximate twenty minute workout duration and increase the workout by only five to ten minutes weekly until the desired duration is achieved.

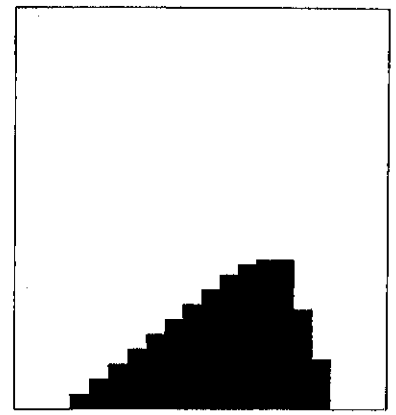
LEVEL	MINIMUM SPEED	MAXIMUM SPEED	MAXIMUM ELEVATION
1	1.6	2.0	3.0
2	1.9	2.4	4.0
3	2.0	2.8	5.0
4	2.1	3.2	6.0
5	2.5	3.5	7.0
6	2.6	3.8	8.0
7	2.8	4.1	9.0
8	3.0	4.4	10.0
9	3.0	4.7	11.0
10	3.1	5.0	12.0

AEROBIC CONDITIONING WORKOUT CHARTS

SPEED PROFILE



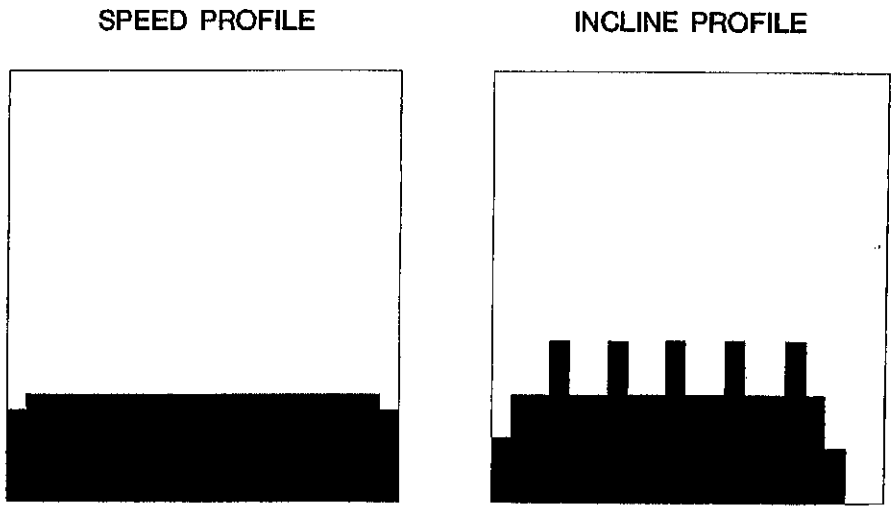
INCLINE PROFILE



6.7.4 *WEIGHT LOSS*

The weight loss program provides a form of interval training that focuses on achieving a high caloric burn. This is accomplished by performing long intervals at lower intensity levels, broken up by shorter intervals at higher intensity levels. The speed profile is constant, while the *Incline* profile changes to provide the varying levels of intensity throughout the workout.

LEVEL	MINIMUM SPEED	MAXIMUM SPEED	MAXIMUM ELEVATION
1	1.7	2.0	3.0
2	2.0	2.4	4.0
3	2.2	2.8	5.0
4	2.6	3.2	6.0
5	2.6	3.5	7.0
6	3.0	3.8	8.0
7	3.0	4.1	9.0
8	3.2	4.4	10.0
9	3.5	4.7	11.0
10	3.5	5.0	12.0



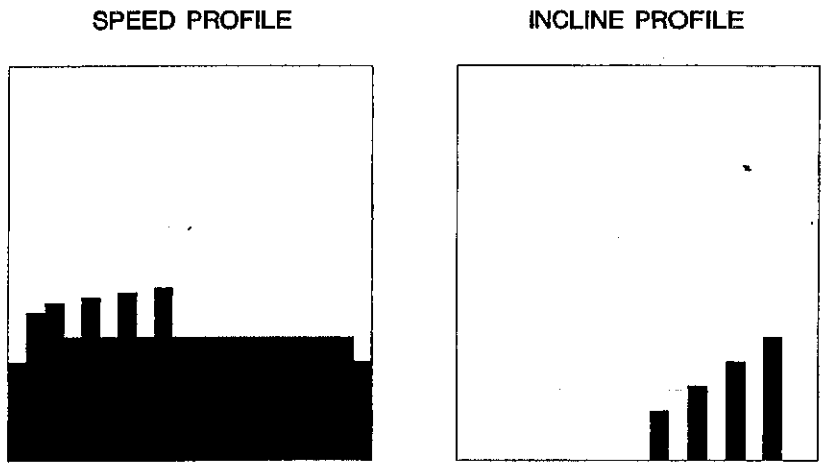
6.7.5 *PROGRESSIVE INTERVAL*

This program provides a challenging form of interval training, which uses changes in *Speed* (at a constant incline) to generate intervals during the first half of the program operation. It then changes in Incline (with minor changes in speed) to generate the intervals during the second half of the program operation.

- Rest intervals are equal in duration to the workout intervals throughout the length of the program.
- Maximum speed and the maximum incline do not occur at the same time.

LEVEL	MINIMUM SPEED	MAXIMUM SPEED	MAXIMUM ELEVATION
1	2.0	3.5	2.5
2	2.0	4.0	3.0
3	2.0	4.5	5.5
4	3.0	5.1	7.0
5	3.0	6.0	8.5
6	3.0	6.8	10.0
7	3.3	7.9	12.0
8	3.3	8.5	12.0
9	3.5	9.0	12.0
10	3.5	10.0	12.0

PROGRESSIVE INTERVAL CONT...



6.7.6 *RANDOM INTERVAL*

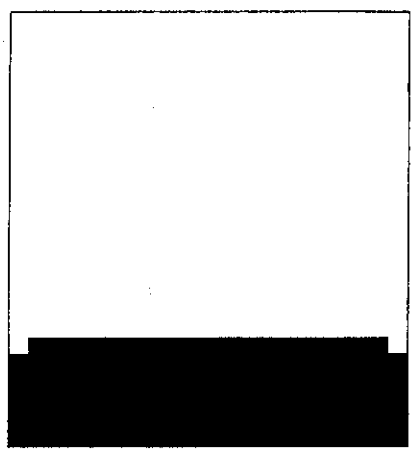
The random interval program is a variable workout profile in which the *Speed* and *Incline* are determined by the treadmill computer. True to its name, this program yields a different profile for every usage. It can be stored into memory for later retrieval. There are possible speed increments 10% higher than the user's tested level, but the incline will decrease to maintain the equivalent MET level. The random interval program will not exceed the Self- Test levels. First-time users should only select level 1,2 or 3.

6.7.7 *STAMINA INTERVAL*

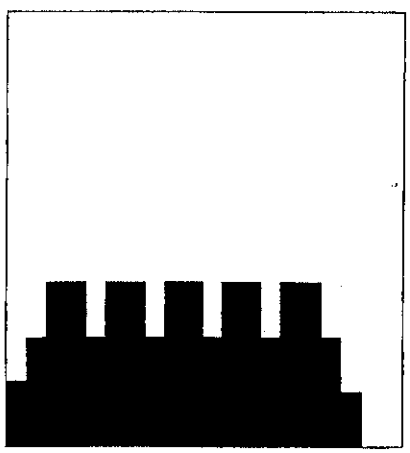
This program is designed to increase the user's endurance, strength and aerobic capacity. Intervals are generated through varying the *Speed* while maintaining a constant incline profile. Work intervals last twice as long as rest intervals and a user's heart rate should be maintained in the upper spectrum of the aerobic training zone.

LEVEL	MINIMUM SPEED	MAXIMUM SPEED	MAXIMUM ELEVATION
1	1.7	2.0	3.0
2	2.0	2.4	4.0
3	2.0	2.8	5.0
4	2.0	3.2	6.0
5	2.0	3.5	7.0
6	2.0	3.8	8.0
7	2.0	4.1	9.0
8	2.0	4.4	10.0
9	2.0	4.7	11.0
10	2.0	5.0	12.0

SPEED PROFILE



INCLINE PROFILE

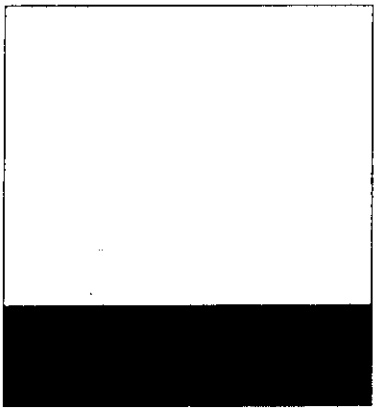


6.7.8 *RAMP*

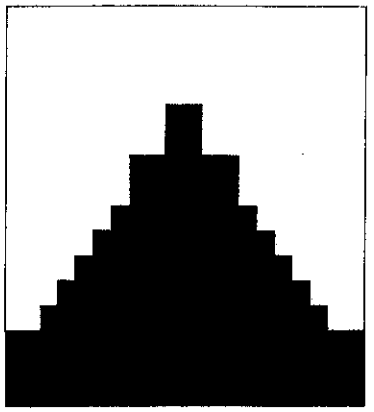
This program profile is designed to work the user through both the low end and high end of their aerobic training zone. The program maintains a constant speed throughout the workout. The *Incline* is gradually and consistently increased during the first half of the program and then gradually and consistently decreased during the second half of the program. The user is able to manually vary the speed during this workout to add variety to it.

LEVEL	MINIMUM SPEED	MAXIMUM SPEED	MAXIMUM ELEVATION
1	2.0	1.5	6.0
2	2.2	2.0	6.5
3	2.5	2.0	10.0
4	2.7	2.0	10.0
5	3.0	2.0	10.0
6	3.2	2.0	10.0
7	3.5	2.0	10.0
8	3.7	2.0	10.0
9	4.2	2.0	10.0
10	4.5	2.0	10.0

SPEED PROFILE



INCLINE PROFILE



6.7.9 *5K / 10K*

This program offers a simulated racecourse with a multitude of "hills." The user determines the *Speed* at which the race will take place.

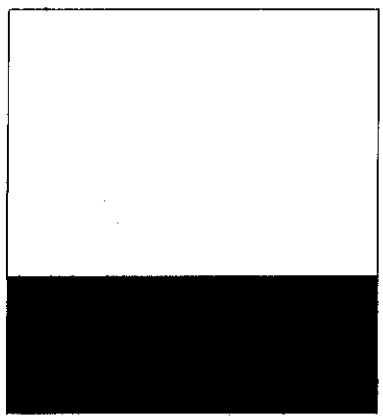
- By selecting levels 1 through 5, the 5K race is activated.
- By selecting levels 6 through 10, the 10K race is activated.

LEVEL	SPEED	MAXIMUM ELEVATION
1	2.7	4.0
2	3.6	6.0
3	4.2	8.0
4	5.0	10.0
5	5.5	12.0
6	2.7	4.0
7	3.6	6.0
8	4.2	8.0
9	5.0	10.0
10	5.5	12.0

NOTE:

LEVELS 1 THROUGH 5= 5K run
LEVELS 6 THROUGH 10=10K run

SPEED PROFILE



INCLINE PROFILE

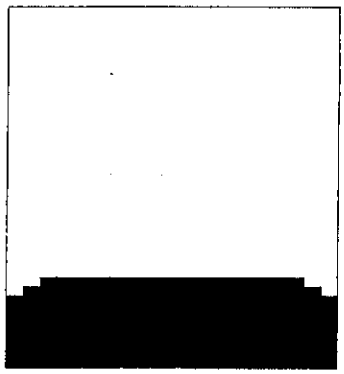
6.7.10 *MET CHALLENGE*

This program profile consists of a constant speed setting, combined with a double peak *Incline* profile. It will take the user through a challenging range of levels.

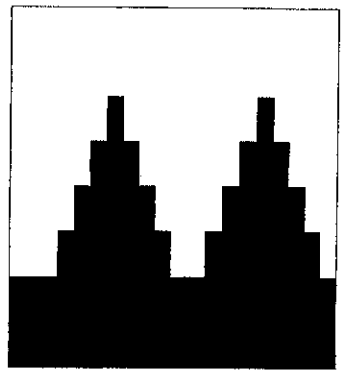
LEVEL	METS	MINIMUM SPEED	MAXIMUM SPEED	MAXIMUM ELEVATION
1	4	2.0	2.0	6.0
2	6	2.0	3.0	6.6
3	8	2.0	3.3	10.0
4	10	2.0	4.0	10.0
5	12	2.0	4.7	10.0
6	15	2.0	6.1	10.0
7	18	2.0	7.2	10.0
8	22	2.0	8.6	10.0
9	26	2.0	9.9	10.0
10	30	3.0	10.0	14.0

MET CHALLENGE CHARTS

SPEED PROFILE



INCLINE PROFILE



6.8 USER PROGRAM LIMITATIONS

It is possible to store most workout profiles upon completion of the workout, with the following exceptions:

- PROGRAMS CREATED UTILIZING THE HEART RATE CONTROLLED INCLINE PROGRAM (HRCI) CANNOT BE EFFECTIVELY RECALLED/REUSED.
- When reusing a stored program, it is not possible to implement the Level, Speed or Elevation buttons.

Actual workout time is saved as part of the workout profile. The user has the prerogative to override the save workout time by manually entering a different time.

6.9 DISPLAY CONTROL FUNCTIONS

6.9.1 SPEED PROFILE display graphically indicates the speed at which the treadmill running belt will be moving during various stages of each pre-programmed workout profile.

6.9.2 The ELEVATION PROFILE display graphically indicates the incline the treadmill will assume at various stages of each pre-programmed workout profile.

- When changes are made to either the Speed or Incline, these changes are then graphically reflected in the Dot Matrix Display. The appropriate dots are correspondingly turned on or off to reflect the new settings.
- Both the Speed and Incline Dot Matrix displays are divided into 20 segments. Each segment represents 1/20th of the total workout time. (For example, if you have input a total workout time of 60 minutes, then each dot or segment of the display represents a time of: 60 minutes/20 segments = 3 minutes/segment).

6.9.3 When ZOOM IN is pressed, this button changes both the speed and elevation profile displays so the smaller segment of the entire workout may be viewed in 4-times greater detail.

- While in this view, your current workout position is always indicated at the center of the speed and elevation Dot Matrix displays.
- The 10 dots to the left of center represent a portion of the workout just completed (equal to 1/8th of the total workout time).
- The 10 dots to the right of center represent a portion of the workout just ahead (equal to 1/8th of the total workout time).
- The dots scroll more quickly while in the Zoom In view because each dot represents a smaller unit of time (equal to 1/80th of the total workout time).

6.9.4 The ZOOM OUT button enables the user to return to the speed and elevation profile displays to the default viewing window so he/she can track their progress with respect tot the entire workout program.

- The dots scroll more slowly in the Zoom Out view because each dot represents a larger unit of time (equal to 1/20th of the total workout time).

6.9.5 The TIME/VERTICAL FEET display normally indicates the time remaining in the Program.

- When operated in either the Manual or 5K/10K Programs, however, the display indicates the time elapsed.
- If the START CLOCK/VERTICAL FEET button is pressed during the Run Mode, the accumulated Vertical Feet will display for 2 seconds, then the display will continue to display the time.

6.9.6 The CALORIES/DISPLAY window will indicate either:

- The accumulated number of Calories burned during this workout session if the CALORIES button is pushed. The LED on this button and the AGE/METS button will illuminate when pressed indicating that the display is currently exhibiting the accumulated Calories burned.
    - σ The Calories burned are calculated by taking into account the user's weight, the treadmill running belt speed and the treadmill incline.

- The rate at which you are expending energy in Calories/Hour (or METS) if the AGE/METS button is pressed. The red LED on this button will illuminate when pressed (and the red LED on the CALORIES button will turn off) indicating the display is exhibiting the METS rate.
    - σ The METS rate is calculated by taking into account the current settings for weight, speed and incline.

- The accumulated distance covered if the DISTANCE button is pressed. The red LED on this button will illuminate when pressed indicating the display is currently exhibiting the accumulated Distance covered.

6.9.7 The SPEED/PACE Display will indicate either:

- The present speed in Miles Per Hour if the MPH button is pressed. The yellow LED on the MPH button will illuminate when pressed indicating the speed is currently being displayed in units of miles/hour.
- The present speed in Kilometers per Hour if the KPH button is pressed. The yellow LED on the KPH button will illuminate when pressed indicating that the speed is currently being displayed in units of kilometers/hour.
- The Mile Pace (minutes per mile) if the MPM button is pressed. The yellow LED on the MPM button will illuminate when pressed indicating the pace is currently being displayed in units of minutes/mile.
- The Kilometer Pace (minutes per kilometer) if the MPK button is pressed. The yellow LED on the MPK button will illuminate when pressed indicating the pace is currently being displayed in units of minutes/kilometer

6.9.8 The INCLINE/HR Display will indicate either:

- The current treadmill angle, if the INCLINE button is pressed. The green LED on the INCLINE button will illuminate when pressed indicating the display is exhibiting the treadmill incline.
  - σ Since it takes anywhere from just a few seconds up to a couple of minutes for the motor to adjust the treadmill running belt to the desired incline, the value displayed in the INCLINE/HR display window may be slightly different that the current incline of the treadmill.

- The current heart rate of the exerciser if the HEART RATE button is pressed (must have polar monitor option). The green LED on the HEART RATE button will illuminate when pressed indicating the display is exhibiting the exerciser's heart rate.
  - σ The Heart Rate is only displayed if a valid heart rate of between 24 and 220 beats/minute is being received by the heart rate monitor.
  - σ If a heart rate outside the above mentioned range is received, or no heart rate is received, the display will be blank.

6.10 OPERATING THE HEART RATE CONTOLLED INCLINE (HRCI) PROGRAM (Optional)

This program requires the usage of the Polar™ ECG Wireless Monitor. The goal of this program is to adjust the *incline* of the treadmill in response to changes in the exerciser's heart rate. Based on the heart rate feedback the treadmill receiver chip collects from the monitor, the treadmill will automatically adjust to keep the exerciser as near as possible to his/her desired Target heart rate and maintain it there. (See Heart Rate Chart in Chapter 1).

- This successful operation of this program, therefore, depends upon the receiver obtaining a stable heart rate signal from the Polar transmitter.

Note: During the Setup Mode, if a requested program parameter (such as WEIGHT, AGE, TIME, PROGRAM or LEVEL) is not entered within approximately six (6) seconds, that parameter will automatically assume its default value and the next sequential parameter will be requested. Also, the HRCI is inoperable during the first two warm-up stages, and the last two cool down stages, of each program.

6.10.1 STEP-BY-STEP OPERATING INSTRUCTIONS

1) Put on the Polar chest strap.
2) Press the ON button.
3) Press the UP/DOWN arrow buttons to the left of the Calories/Distance display window to adjust the weight value appropriately. Once you've entered this information, the LED in the WEIGHT button will cease blinking. Wait for a couple of seconds for the treadmill to accept the input.
4) Press the UP/DOWN arrow buttons to the left of the Calories/Distance display window to adjust the age value appropriately. Once you've entered this information, the LED in the AGE/METS button will cease blinking. Wait for a couple of seconds for the treadmill to accept the input.
5) Press the UP arrow key to the left of the Time/Vertical display window to adjust the time value to reflect the desired duration of your workout.
6) Press one of the following Program buttons: Aerobic, Weight Loss, Progressive Interval, Random Interval, Stamina Interval, Ramp or MET Challenge. (You may not select either the Manual or 5K/10K workouts since both program utilize a "count up" algorithm.

The selected program profile will display in the speed and incline display windows. If the program does not commence within approximately six seconds, the following message will scroll across the Speed Profile Display window, "PRESS START."

7) Press the desired LEVEL button to select desired intensity level. (First-time users should select Levels 1-3 only).
8) Press the START/VERTICAL FEET button to begin the workout. The treadmill will respond by initiating the program and starting the countdown timer commencing form the time entered by the user.
9) Begin working out.
10) At any time during the workout, a user may enter the Heart Rate Controlled Incline Mode by pressing the HEART RATE CONTROLLED INCLINE button.
11) Press the TARGET HEART RATE button and adjust the target heart rate at which you prefer to work out by using the UP/DOWN arrow buttons to the left of the Incline/HR display window.
12) Press OFF to end the program or wait until the time has naturally expired. The total distance traveled (in miles) is displayed in the Calories/Distance display window. The total number of calories burned is available in the same display window by pressing the CALORIES button.
13) If the "User Programs" are not enabled you can either press OFF to turn the treadmill power off, or after about one minute the power will automatically shut itself off.

6.10.2 INCLINE ADJUSTMENTS IN RESPONSE TO THE HEART RATE VALUE

After the two warm-up stages, the actual measured heart rate signal is compared to the target heart rate value.

- If the difference is greater than 20 beats per minute (BPM) then the incline is adjusted by 3% each minute until the measured heart rate comes within 20 BPM of the target heart rate setting.
- If the difference is between 11 BPM and 20 BPM, then the incline is adjusted by 2% each minute.
- If the difference is between 5 and 11 BPM, then the incline is adjusted by 1% each minute.
- The incline will not adjust for difference less than 5 BPM, but the difference between the actual measure heart rate signal and the target heart rate value continue to be compared every 15 seconds.

- If at any time the actual measured heart rate signal exceeds the target heart rate value, then the green LED within the HEART RATE button flashes and the treadmill incline will decrease.

6.11 HOW TO PROGRAM A CUSTOM WORKOUT

There are two ways to enter a custom program -- from scratch or by modifying a standard program.

From Scratch:

1) Press ON button.
2) Press STAGE button.
3) Enter the total program time, using the TIME UP and DOWN arrow buttons. This time is divided equally into 20 program stages.
4) Enter the speed and incline for the first stage using the appropriate arrow keys.
5) Press STAGE button to advance to the next stage.
6) Repeat step 4 and 5 until the program is complete.
7) Press START CLOCK button to start the program.

To store the program: Press the OFF button (after the START CLOCK button has been pressed) & press any of the level (program storage) buttons. *Only the last 20 stages will be saved.*

Modifying a Customized or Standard Program:

1) Press On.
2) Press the appropriate button to retrieve the stored program.
3) Press the LEVEL button to retrieve a copy of the stored program or press the corresponding PROGRAM button and then intensity level button.
4) Using the UP and DOWN arrow keys, change the TIME display to the desired workout time.
5) Press the STAGE button to get to the appropriate stage to modify.
6) Enter the new speed and incline values.
7) Repeat steps 3 and 4 until the program is customized to your liking.
8) Press START CLOCK.

To store the program, press the OFF button and then any of the LEVEL (program storage) buttons.
Only the last 20 stages will be saved.

Modifying a Program "On the Fly":

- After selecting a program, intensity level and pressing the START button, the speed and incline can be modified in two different ways. During the program duration, pressing any of the LEVEL buttons will change the intensity level of the program.
- If, for any reason, a section of the workout is too intense or too easy, you can alter those values by simply pressing the Speed or Incline UP or DOWN buttons.
- Note: when the program enters the next phase of the workout, the original values will default. If these values need to be modified, they can be changed using the same method described above.

- If you desire to store this program using the new/revised values you can do so after the workout is completed. To store the program: Press the OFF button (after the START CLOCK button has been pressed) & press any of the level (program storage) buttons. *Only the last 20 stages will be saved.*

6.12 CONTROL PANEL MAINTENANCE CODES

Periodically upon starting the treadmill, maintenance codes will be displayed. These maintenance codes and their corresponding messages are:

- Every 5,000 miles – M1 & M2 will appear. This is a reminder message that it is time to perform Preventative Maintenance on the treadmill.

*** TO CLEAR THE MAINTENANCE CODE FROM THE CONTROL PANEL DISPLAY, PRESS THE DISTANCE BUTTON WHILE THE CODE IS BEING DISPLAYED.*

CHAPTER SEVEN *TREADMILL OPTIONS*

7.1 208 or 220 V INPUT POWER

The 208 or 220 V ac input voltage requirements are options for all Woodway treadmills. A power transformer is installed and wired for either 208 V ac or 220 V ac. A different power cord and plug is installed for 208 vs. 220 V operation. The remaining parts of the treadmill are unaffected.

7.2 DOUBLE HANDRAIL

The double side handrails can be ordered for models that only come with a single handrail to aid rehabilitation patients, those with a preference for double handrails or for those who are not used to walking or running on a treadmill.

7.3 HANDRAIL CONTROLS

One of the many unique features of the Desmo series treadmills is the option of side handrail controls. The handrail controls allow the user to adjust the speed and/or incline without needing to lean over the display to do so. This means the user does not have to "break stride," therefore reducing the possibility of losing balance and/or falling.

The handrail controls consist of 5 push buttons. These are: STOP, SPEED INC., SPEED DEC., ELEV. UP and ELEV. DOWN buttons.

7.4 BI-DIRECTIONAL BELT CONTROL

The Bi-directional belt control feature is standard on the medical model treadmills and is an option on the DESMO PRO model. The belt reversal circuit was designed to use a standard Woodway treadmill to simulate negative grades. The main use for the negative grade is rehabilitation and gait analysis. The incline system is not affected by this option. The speed in the normal or forward direction is 12 MPH (or 15 MPH optional). In the reverse belt direction, the speed is limited to approximately 4.5 MPH. This speed limitation is for safety reasons. Constant supervision is required while the treadmill is in reverse.

The key on the handrail is used to initiate the belt reversal process. Although the key can be switched at any time and at any speed, it is recommended that it not be done at high speeds.

The belt reversal system monitors the speed signal and will not reverse it unless the speed signal is less than approximately .1 MPH. The belt will then start creeping in the reverse direction, indicating that the system has reversed the belt direction. The position of the key will have no relationship with the belt direction.

Theory of Operation – The keyed switch is monitored for a change in position. Once a change in position is detected, the system starts an orderly shutdown until the belt is below .1 MPH. The belt direction is changed to the opposite direction. A new speed can now be entered on the Display panel. None of the other features are affected. The keys can be moved in any position for safety and convenience.

7.5 16.5 MPH & 18 MPH TOP SPEEDS

These options should only be ordered where constant supervision is available. These options are mainly used for sports medicine and training elite, conditioned athletes. The Desmo model is the only treadmill for which these options are available.

7.6 STANDARD & SPECIALTY COLORS

The standard frame colors are white or black. White treadmills are predominately used in the home, medical and sports medicine applications. The black treadmills are popular in the fitness clubs or high use areas. The standard running belt color is grey.
Woodway will always try to accommodate special color requests. Consult the factory for details.

7.7 POLAR™ ECG WIRELESS MONITOR

The Polar™ Heart Rate System and the Personal Trainer Display consists of three main elements: 1) the Sensor/Transmitter, 2) the Chest Band/Strap and 3) the Monitor/Console. The receiver of the wireless ECG system is built into the monitor/console unit of the Personal Trainer Display board. While operating under heart rate control modes, the computer monitors the exact measurement of and control over the activity of the heart. Heart rate frequency is displayed while the computer continually compares heart rate and adjusts wattage (load) to maintain heart rate to the preprogrammed personal data.

7.7.1 *How to Wear the Chest Strap*

The Sensor/Transmitter is worn just below the chest and at the top of the abdomen, preferably directly on bare skin (not over clothing). The transmitter should be centered below the pectoral muscles (breasts). Once the strap is secured, pull it away from the chest by stretching the band, and moisten the conductive electrode strips located underneath the snaps. If you wish to wear the band over a shirt, moisten the shirt under the area of the electrode strip. The transmitter is operational automatically while you are wearing it. It does not operate while it is disconnected from your body. However, as moisture may activate the Transmitter, please wipe it dry after use. The chest band is washable. After you have detached the transmitter, wash the band in warm water, using mild soap, and rinse thoroughly in clean water. Never scrub the transmitter surfaces.

7.7.2 *The Transmitter*

You must be within three and a half feet of the receiver (in the Personal Trainer Display Board) in order for the signal to transmit. Please take note that your Transmitter may fluctuate erratically if you are too close to other Polar™ equipment. Maintain at least a three-foot distance between other Polar™ units.

NOTE: Erratic heart rate reception may occur if the Polar™ Monitor is too close in proximity to strong sources of electromagnetic radiation, such as television sets, Personal Computers, electric motors and some other types of fitness equipment. Only one transmitter should be used inside the range of any one receiver as the receiver may pick up several signals simultaneously causing an inaccurate readout.

7.8 RS-232 REMOTE COMPUTER CONTROL

This option enables you to switch between the treadmill display or to a remote computer for remote control operation. Programs are available so consult the factory for details.

7.9 DYNAMIC MODE

When the emergency magnet is disengaged, the treadmill at an incline can be manually powered. When the Dynamic (Standard) Display Board is used in conjunction with this mode, the board will continue to operate and will display operating parameters.

CHAPTER EIGHT *TREADMILL MAINTENANCE*

8.1 CLEANING AND INSPECTION

Periodic cleaning and inspection will help lengthen the life of your treadmill and keep it looking good. It will also be easier to spot any problems that might not otherwise be found until it is too late.
Below is a guideline on cleaning and maintenance intervals. If the treadmill is in a dirty environment or under heavy-duty use, cleaning and inspection intervals should be done more frequently.
Do not use abrasive brushes or cleaners, as they will mar and scratch the paint and plastic surfaces. Also, do not soak any surface, as the sensitive electronics can be harmed.

CAUTION: TURN OFF TREADMILL AND DISCONNECT THE POWER CORD BEFORE CLEANING.

WEEKLY:

- Clean handrail, front display panel & cosmetic covers.
- Inspect power cord.
- Check overall condition of the treadmill.
- Vacuum underneath the treadmill.

EVERY SIX (6) MONTHS:

- Vacuum inside the treadmill (unplug and remove cosmetic covers).
- Inspect all nuts and bolts. Tighten any that are loose.
- Clean running surface.
- Spray running surface with an anti-static spray.
- Check the drive belt - replace if belt is shredding or teeth are missing.

YEARLY:

- Grease front and rear roller bearings.
- Change motor brushes every 20,000 miles, or 1 year in high-use applications.

8.2 LUBRICATION

8.2.1 BEARINGS

Almost all of the bearings used in the treadmill are pre-lubricated and do not need to be greased. On a yearly basis, the four (4) bearings located at the end of the front shaft and rear shaft will need to be lubed.

8.2.2 RUNNING BELT

The teeth on the bottom of the running belt are pre-lubricated to aid in reducing noise. There is no need to lubricate the teeth.
If the running belt is rubbing against the side of the drive pulleys, then a small amount of grease (i.e. Molykote or equal) on the edges of the belt slats will help reduce the noise. Be careful not to put too much grease on the belt, as it will only collect dust and dirt.

8.2.3 DRIVE BELT

As in the case of the running belt, the application of grease on the edge of the drive belt is only needed to reduce belt squeak and should be applied sparingly.

8.2.4 INCLINE SYSTEM

The incline systems on Woodway treadmills are greased at the factory. If utilized for many hours or if in a very dusty environment, the incline system will need to be checked. If lubrication is required, apply a small amount of grease on the chains and on the incline drive screws.

Remember: Too much grease will make a mess and will accumulate dust and dirt.

8.3 ADJUSTMENTS AND CALIBRATION

8.3.1 INCLINE SYSTEM

The Rack and Pinion style incline system is used in Woodway treadmills. The 15% & 25% incline systems use most of the same components and only differ in the rack travel.

8.3.1.1 LIMIT SWITCHES

CAUTION: If the limit switches are improperly adjusted, damage to the incline potentiometer could result.

1. If the incline potentiometer was not moved set the incline so that the resistance between the wiper and one end of the potentiometer is less than 50 ohms. Set the limit switch cam so that the cam is pushing up on the limit switch levers, tripping the upper limit switch. The maximum incline limit switch should not need adjustment.
2. Check the incline system calibration.

8.3.1.2 FEEDBACK POTENTIOMETER

No calibration is necessary if the potentiometer has not been changed or loosened.
Otherwise, the following procedure applies.

1. Make sure the treadmill is at its lower limit switch (home position).
2. The potentiometer resistance between the wiper and minimum end should be approximately 50 ohms +/- 10 ohms. If it is not, then loosen the potentiometer-mounting bracket and carefully rotate the potentiometer until it reads approximately 50 ohms. Retighten.

Check the range and recalibrate, if necessary.

8.3.1.3 SYSTEM CALIBRATION

To calibrate the incline system, make sure the limit switches and the feedback potentiometer have been set correctly

1. Turn on display by pressing ON button.
2. Press the RESET button for 5 seconds to enter the calibration mode. The Incline display will show the actual incline value.

3. Remove the CPU/Display mounting screws. Looking at the circuit board's left side, two blue potentiometers can be seen. These are the adjustment potentiometers for the incline system.
   Top potentiometer: Minimum incline adjustment
   Bottom potentiometer: Maximum Incline adjustment
4. To set the minimum incline - use the INCLINE DOWN button to reduce the incline to its minimum level. Turn the top potentiometer until the INCLINE display reads 0.0 (or between 0.0 and 0.1). NOTE: The display will NOT show a value less than 0.00.
5. Elevate the treadmill to its maximum incline using the INCLINE UP button. The display should read 15.0 or 25.0.
6. If the display does not show 15.0 or 25.0, adjust the lower potentiometer until the display reads the correct incline value.
7. Turn off treadmill to get out of the calibration mode.
8. The system is now calibrated.

8.3.2 RUNNING BELT

The belt should not require periodic adjustment. However, if the running belt or associated parts have been changed, then the belt tension should be checked.

8.3.3 TREADMILL MOUNTING FEET

Tools Required: 2 foot level, 3/4 inch wrenches

If the treadmill wobbles or seems unstable, the treadmill's mounting feet must be checked. Using the level, check the front and rear ends of treadmill. Loosen the tensioning nut and turn the foot until it is at the correct level. Tighten the tensioning nut.

NOTE: Sometimes the frame flexes from moving the treadmill. If the treadmill seems wobbly, try to push the handrail to one side or the other. This might straighten the frame and no mounting feet adjustment is necessary.

CHAPTER NINE *WARRANTY INFORMATION*

COMMERCIAL FITNESS USE – 3 years parts, 1 year labor
HOME USE – 4 years parts, 3 years labor
COMMERCIAL MEDICAL/REHAB USE – 4 years parts, 1 year labor

Woodway USA, Inc. warrants that all products and accessories will be free from manufacturing defects according to the applications/terms listed above. The warranty period commences on the original date of purchase (with the exception of the running belt component, which is warranted for a period of four years from the original date of purchase). This warranty is given only to the original purchaser. This warranty does not cover damage or equipment failure resulting from misuse, abuse, or failure to comply with electrical codes. Further, this warranty shall not apply if there is any modification to the products or accessories or if there is a failure to provide maintenance as outlined in the Owner's Manual.

WOODWAY USA, INC. GIVES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. THE WARRANTY OF FITNESS FOR A PARTICULAR USE IS HEREBY DISCLAIMED.

The buyer's remedy for breach of the expressed warranties contained herein shall be limited to the return of the product and accessories and repayment of the original purchase price. Provided, however, at Woodway USA's selection, it may repair and replace the non-conforming goods or parts. Woodway USA, Inc. shall not be liable for any incidental or consequential damages.

CHAPTER TEN *OUR GUARANTEE*

Woodway *USA* guarantees the repurchase of Woodway treadmill products for a period of up to four (4) years after original installation. A direct payment, or credit toward the purchase of a new Woodway, of 25% of the purchase price of the treadmill will be made to the owner of a Woodway treadmill. This guarantee is limited to the original owner. Contact Woodway for further details.

CHAPTER ELEVEN *TROUBLESHOOTING*

11.1 GENERAL

DO NOT attempt to service the treadmill yourself except for the minor maintenance described in this manual. Contact your authorized Woodway dealer, Service Center, or factory if your treadmill needs service.

If you are having problems with your treadmill, try to prepare answers to the following questions before you call our service center.

QUESTIONS:

--What is the make, model, and serial number of the treadmill?
--What happened prior to the problem?
--Did the problem happen unexpectedly or did it get progressively worse over time?
--If it is a noise problem, from where does the noise originate?
--Was someone using the treadmill at the time the problem occurred?
--Explain any other symptoms that you feel are relevant.

11.2 NO DISPLAY

If the treadmill's display does not light up when powered up, check the following items:

Input power fuse(s) - replace if blown
Power coming out of wall outlet
Check power with another piece of equipment (radio, fan, etc.). Check main fuse or circuit breaker. Move to another outlet.
Is the treadmill plugged in?
Is the safety magnet (activator) installed or positioned correctly? Try to reposition.
Check all connectors at display and at circuit boards.

11.3 BELT MOVEMENT

11.3.1 BELT LOOSE (CAN PUSH BY HAND)

Suggestions:
Is the Safety magnet or activator installed or positioned correctly? Try repositioning.
Is the Display working properly?
If the display works, and/or the incline works, unplug the treadmill and wait at least 60 seconds before plugging it back in.

11.3.2 BELT TIGHT (HARD TO PUSH)

Suggestions: Check to see if the Incline system works (if applicable). If the incline system works, check the handrail switches for binding caps and covers (press increase Speed button).

11.3.3 BELT BINDING

Suggestion: Check for obstructions and remove, if possible.

11.4 INCLINE DOES NOT WORK

Suggestions:
Check incline handrail switches for binding caps and covers.
Check for any noises from the incline motor (brake sticking? motor stalled?).

11.5 ERRATIC OR BLINKING DISPLAYS

Probable causes: Low line voltage; Too much load on same line.
Suggestion: remove other machines. Install treadmill on a dedicated line.

11.6 SQUEAKING SOUND(S)

Possible causes:
--Noisy bearing(s). Suggestion: grease or replace the bearings.
--Drive belt rubbing against drive pulleys. Suggestion: lightly grease edge of drive belt.
--Running belt rubbing against drive pulleys. Suggestion: lightly grease edge of running belt.

11.7 HANDRAILS

11.7.1 FRONT HANDRAIL

Removal Procedure:

1. Unplug treadmill and remove cosmetic covers.
2. Disconnect cable coming from the handrail.
1. Loosen the nuts holding the clamps to the handrail. Slide out the handrail, being careful not to pinch or cut the handrail harness(es).

Installation Procedure:

Reverse the above procedure.

PREVENTATIVE MAINTENANCE LOG

DATE	DESCRIPTION OF MAINTENANCE PERFORMED	BY WHOM?	RESULT/NEXT ACTION

NUMBERS TO KNOW

Your Treadmill Serial #(s): _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

(The serial number can be found on the back of the treadmill's display board housing & also on the front/left section of treadmill frame – side cover must be removed to locate on the frame).

WOODWAY MAIN NUMBER: **1-800-WOODWAY**

(966-3929)

- **Woodway Technical Support (ask for service)**
- **Woodway Customer Service**
- **Woodway Sales (let us know what state you live in)**

NOTES