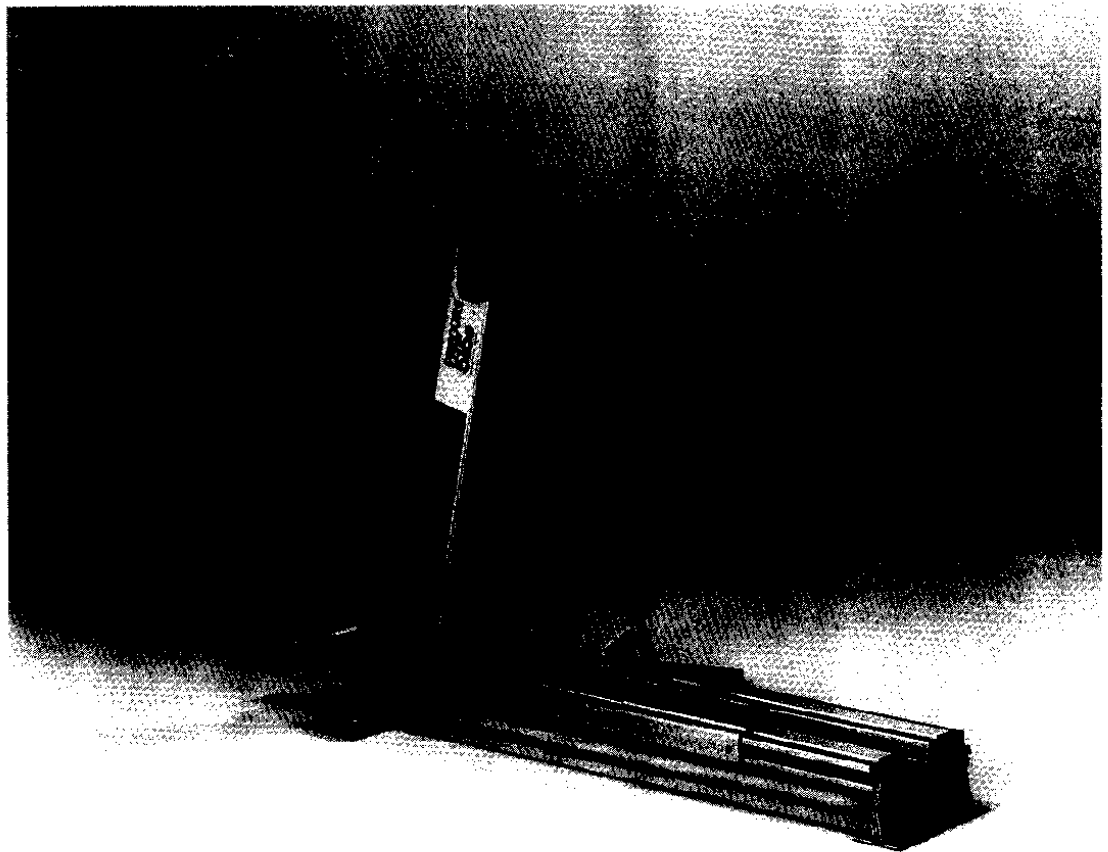


# PRECOR<sup>®</sup> USA 515e

Precision  
Ski Machine



**Owner's Manual  
Assembly and Operation**

# PRECOR<sup>®</sup> USA 515e

## Precision Ski Machine

***CAUTION: Before beginning any fitness program, you should have a complete physical examination by your physician.***

Congratulations on purchasing one of the finest ski machines available, the Precor 515e Precision Ski Machine. With its smooth foot pedal movement and efficient hand pulley system, the 515e ski machine duplicates for home users the feel of cross country skiing—one of the best all-around aerobic conditioners and body strengthening exercises available.

The ski machine's precision-welded construction provides stability and lasting durability. With the precision-balanced flywheel and long-wear nylon/dacron rope, the hand pulley system lets you imitate the natural poling technique of cross country skiing. As you work out, use the easy-to-reach resistance knob to increase or decrease your workload. You can also change workload by using the four-position step elevator which simulates skiing uphill.

The 515e Precision Ski Machine incorporates the latest microprocessor-controlled electronics, which let you monitor your progress and keep your workout interesting.

### Safety Information

Please review and observe the following safety guidelines:

- Read the Owner's Manual and follow all instructions.
- Assemble and operate the 515e ski machine on a solid, level surface.
- Never allow children on or near the 515e ski machine. Never leave children unsupervised around the ski machine.
- Check the 515e ski machine before each use. Do not use the ski machine if it is not completely assembled or is damaged in any way.
- Keep hands away from moving parts.
- Wear proper exercise clothing and shoes for your workout—no loose clothing. Do not wear shoes with heels or leather soles. Check the soles of your shoes and remove any embedded stones. Tie long hair back.
- Use care when getting on or off the 515e ski machine. Hold onto the upright support to maintain your balance when getting on and off the unit since the foot pedals can move.
- Do not rock the unit.
- Do not use accessory attachments that are not recommended by the manufacturer—such attachments might cause injuries.
- Do not overexert yourself or work to exhaustion.
- Stop your workout immediately if you feel any pain or abnormal symptoms, and consult your physician.

# Table of Contents

<b>Unpacking the 515e Precision Ski Machine .....</b>	<b>4</b>
<b>Assembling the 515e Precision Ski Machine .....</b>	<b>6</b>
<b>Using the Precor 515e Precision Ski Machine .....</b>	<b>12</b>
Understanding the Electronic Console .....	12
Pausing Your Workout .....	14
Setting Up a Pacer .....	14
Ending a Workout .....	14
How to Use the 515e Ski Machine .....	14
<b>General Aerobic Training Information .....</b>	<b>18</b>
How Hard Should I Exercise? .....	18
How Long Should I Exercise? .....	20
How Often Should I Exercise? .....	20
<b>Maintaining the 515e Precision Ski Machine .....</b>	<b>21</b>
Cleaning the Ski Machine .....	21
Configuring MPH or KPH for Speed Measurement .....	22
Changing the Batteries .....	22
Getting Service .....	22

## Unpacking the 515e Precision Ski Machine

Your 515e Precision Ski Machine is carefully inspected before shipment, so it should arrive in good operating condition. Precor ships the unit in six pieces as listed below and illustrated in Diagram 1:

- flywheel tension adjustment housing and rope assembly
- step elevator (packed in a separate parts box within the shipping container)
- base frame
- upright support
- upper assembly
- hardware kit (contents described below)

**Diagram 1**

515e Ski Machine assembly

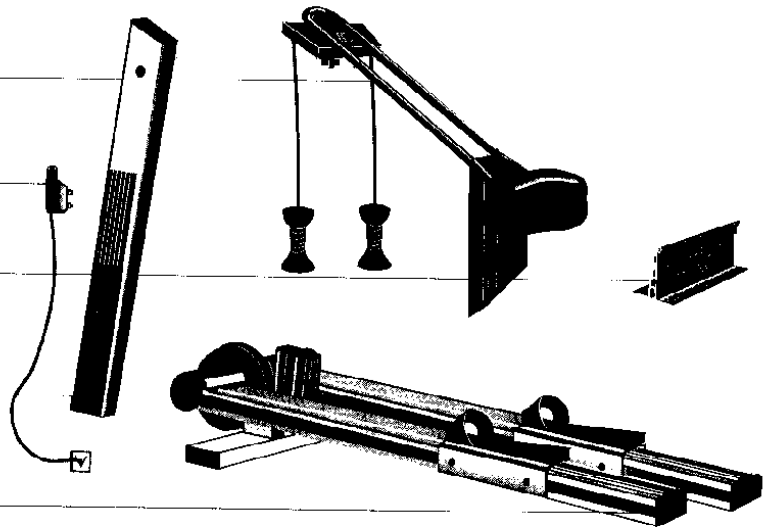
Upright support

Flywheel tension adjustment and rope assembly

Step elevator

Upper assembly

Base frame



A hardware kit, identified by its red cardboard backing, accompanies your ski machine. Diagram 2 illustrates the contents of the hardware kit. As you identify the contents of the kit, check them off below.

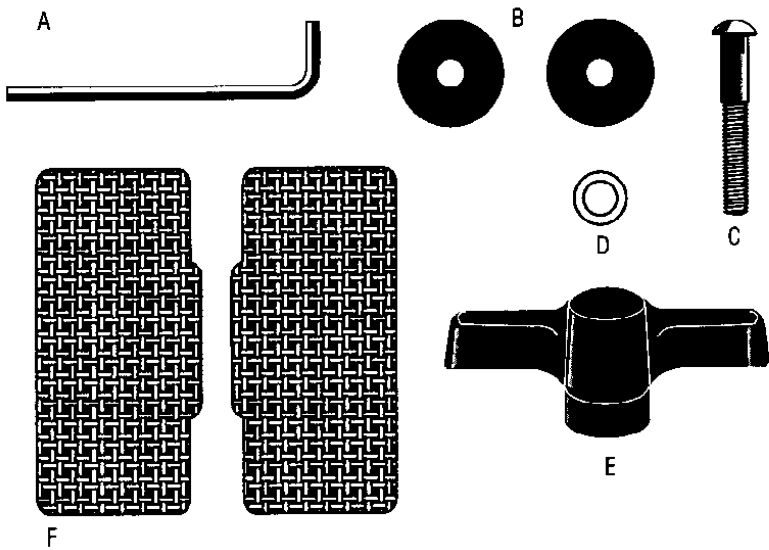
- (A) one 5/32" hex key
- (B) two black washers
- (C) one ribbed bolt
- (D) one plastic washer
- (E) one T-knob
- (F) two end pads

If any items are missing, contact your authorized Precor dealer. For the dealer nearest you, call 1-800-4-PRECOR.

**Note:** Other tools you might need to help in unpacking the unit are a scissors or utility knife.

**Important:** The packaging for this equipment was designed to protect it during shipment. If you plan to move in the near future, store the original packaging in a safe place in case you need to ship the 515e ski machine.

**Diagram 2**  
Contents of hardware kit



## Assembling the 515e Precision Ski Machine

You do not need any special knowledge or experience to set up the 515e Precision Ski Machine. However, it is important to carefully review and follow the instructions in this manual. If you do not assemble and use the 515e ski machine according to the following guidelines, you could void the Precor warranty.

### Installation Requirements

Follow these installation requirements when installing the ski machine.

- **Set up the 515e Precision Ski Machine on a solid flat surface.**
- **Locate the ski machine at least 3 feet from walls and furniture.** Be sure to allow ample space to the sides and rear of the machine to provide for ease of use and a safer mount and dismount.

### Assembly Instructions

To assemble the 515e ski machine, take the following steps:

1. **Separate Assemblies.** After removing the unit from its shipping container, separate the upper assembly from the base frame. Remove the cardboard packing and tape from the base frame.

**Note:** Due to the weight and size of the ski machine, assemble the unit close to the area where you plan to use it.

**Photo 1**  
Install step elevator and end pads

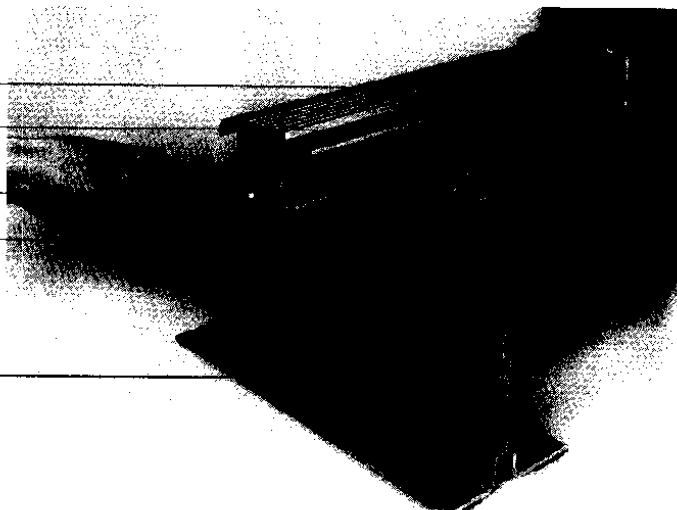
Base frame

Carriage track

Rear pulleys

End pads

Step elevator



**CAUTION:** The rear pulleys will be damaged if the step elevator is not used.

2. **Install Step Elevator.** (Photo 1) The step elevator protects the pulleys at the rear of the machine and provides varying inclines for your workout. Take the following steps to install the step elevator:
  - a. Remove the step elevator from its separate parts box.
  - b. Lift the rear of the machine and install the step elevator. Simply slide the end of the base into the desired level on the elevator.
  - c. Press down firmly on the rear of the carriage tracks to make sure the base is seated properly in the step elevator.

3. **Install End Pads.** (Photo 1) Take the following steps to install the end pads:
  - a. Remove the end pads from the hardware kit.
 

**Note:** A utility knife or scissors might be useful to help cut open the hardware kit.
  - b. Install the end pads by removing the backing from each pad.
  - c. Position a pad over the end of each carriage track with the tab facing up as shown in Photo 1.
  - d. Press firmly on the edge of the pads. The sticky surface on the end pad will allow it to adhere to the carriage track and remain in place.

**Photo 2**  
Place upright support over post on base

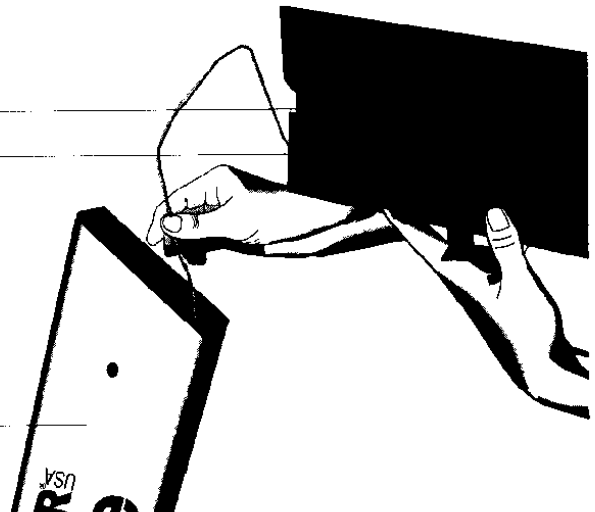
Upright support  
Cable connector  
Base



4. **Place Upright Support On Base.** (Photo 2) Position the upright support over the post on the base. With the T-knob bolt hole at the top and the keyhole cut-outs facing the front of the unit, place the cable connector into the upright support and lower the upright support onto the base column.

**Diagram 3**  
Feed wiring down into upright support  
Upper assembly  
Column support

Upright support



5. **Slide Upper Assembly onto Upright Support.** (Diagram 3) Take the following steps to mount the upper assembly onto the upright support:
  - a. Remove the packing and tape from the upper assembly if you haven't already done so.

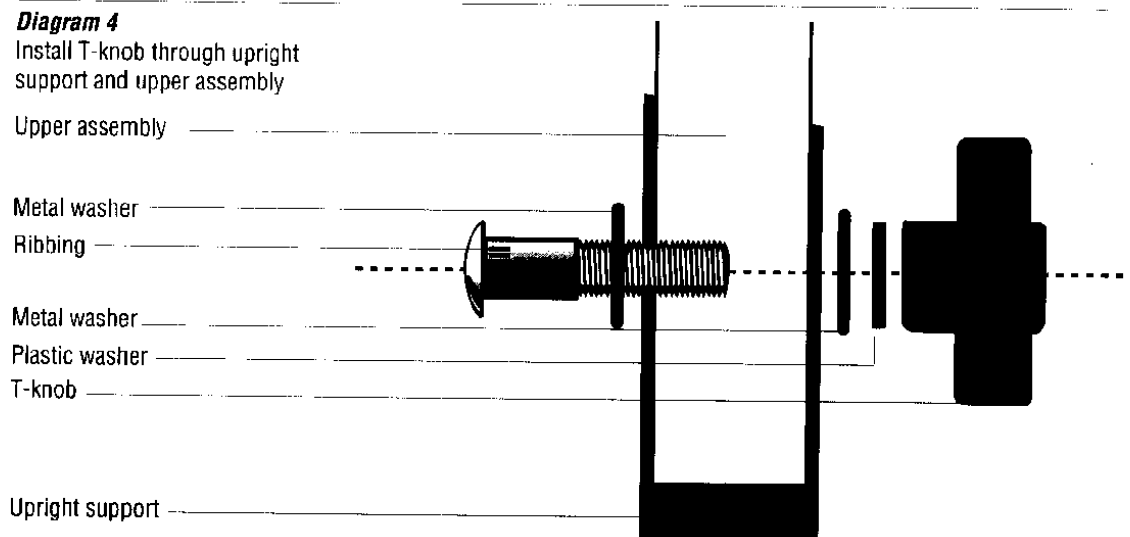
- b. Locate the cable wire inside the column support.
- c. Gently pull the cable out of the column support and unwind it.
- d. Position the upper assembly over the upright support.

**Note:** The electronic display should be facing forward with the support pad toward the rear of the unit.

- e. Feed the cable down into the upright support as shown in Diagram 3. Check to make sure that the cable is near the base because you will need to access it from the base of the upright support in step 7.
- f. Carefully slide the column support of the upper assembly onto the upright support, taking care not to pinch the cables.

**Important:** Cables pinched or otherwise damaged by improper installation will not be covered by the warranty.

**Diagram 4**  
Install T-knob through upright support and upper assembly



- 6. **Install Upper Assembly.** (Diagram 4) To connect the upper assembly to the upright support, take the following steps:
  - a. Remove the T-knob, washers, and bolt from hardware kit.
  - b. Place one black metal washer on the bolt and insert the bolt through the left side of the upright support.
 

**Note:** You may have to raise or lower the upper assembly to align the bolt holes. Use the support pad for leverage.
  - c. Place the second metal washer and T-knob on the right side of the support and hand-tighten. This allows the ribbing on the bolt stem to bite into the aluminum of the upright support and provides the necessary space to add the plastic washer.
  - d. Unscrew and remove the T-knob.
  - e. Place the remaining plastic washer on the bolt as shown in Diagram 4.
  - f. Replace the T-knob and tighten the T-knob fully to secure the upper assembly.



**Photo 3**

Lay upper assembly on base to connect wiring

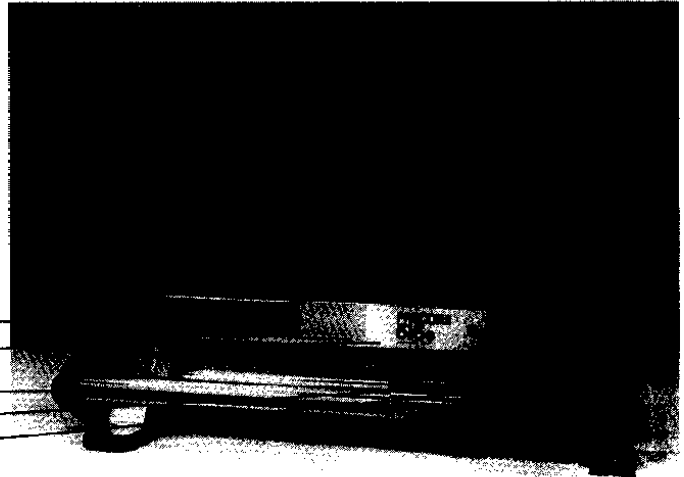
Connect wiring

Upright support

Base frame

Foot pedals

Support pad



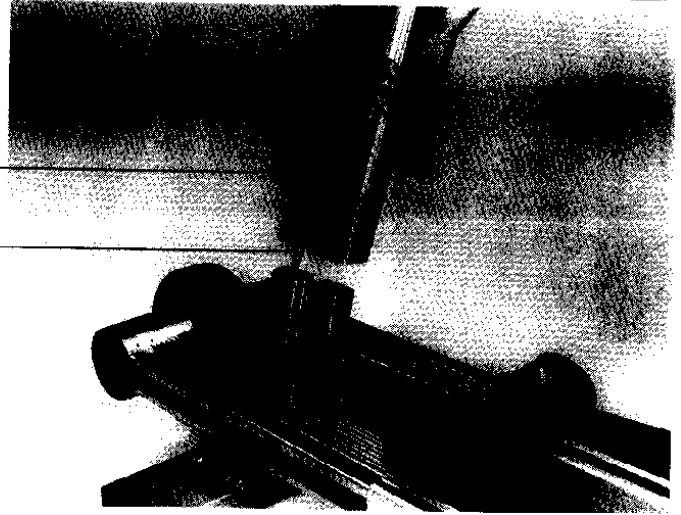
7. **Connect Electronic Cable.** (Photo 3) To connect the electronic cable, take the following steps:
  - a. Move the foot pedals to the rear of the base frame.
  - b. Lift the upper assembly and upright support off the base post. Lay the assembly on the base with the support pad resting on the foot pedals and the upright support balanced on the base post as shown in Photo 3.
  - c. Locate the electronic cable in the upright support and connect it to the wire in the base frame.
  - d. Gently pull the cable down the center of the base post. If the cable is not easily accessible, use the hex key found in the hardware kit to hook the cable and pull it within your reach.
  - e. Attach the cable to the cable connector protruding from the base post.
  - f. Tuck any excess wire into the upright support. Be careful not to pinch or crimp the cables.

**Important:** Cables pinched or otherwise damaged by improper installation will not be covered by warranty. To avoid damaging the wires, we recommend using a second person to help guide the upper assembly/upright support into place.

**Photo 4**  
Install upper assembly/upright support

Upper assembly/upright support

5/16" hex screws



8. **Install Upper Assembly/Upright Support.** (Photo 4) To reinstall the upper assembly/upright support onto the base, take the following steps:
  - a. Tip the joined upper assembly/upright support and reinstall onto the base post. Be careful not to pinch the cable.
  - b. Finger-tighten the four black hex screws into the back of the upright support. Complete the process by firmly tightening the screws using the hex key provided.

**Note:** Place the hex key in a safe place in case you ever need to disassemble the ski machine.

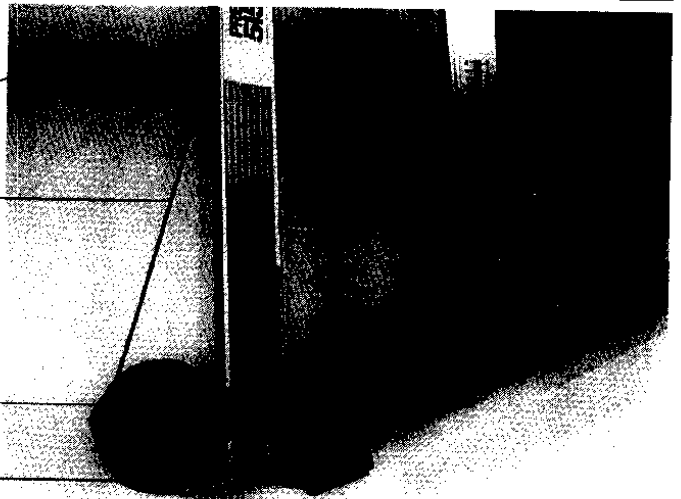
**Photo 5**  
Install flywheel tension spring and rope

Tension adjuster

Flywheel tension rope

Flywheel

Flywheel tension spring



9. **Install Flywheel Tension Spring.** (Photo 5) To attach the tension spring onto the base, take the following steps:
  - a. Remove the rubberband from around the flywheel tension rope assembly. (The flywheel tension rope assembly is a red rope and was attached to the hardware kit.)

- b. Locate the tension spring bracket beneath the flywheel at the front of the ski machine.
  - c. Hook the spring into the first hole (the hole furthest from the base). Attaching the spring to the first hole provides two additional settings, so as the rope stretches, over the course of time, the resistance you need during your workout can be maintained.
10. **Install Flywheel Tension Rope.** Feed the rope around the flywheel. Pull up on the rope and insert the tension adjuster into the keyhole cutouts on the front of the upright support. Push in and down to lock the adjuster in place. Photo 5 shows how to install the tension adjuster on the upright support.

**Note:** The knob on the tension adjuster should be set to the least resistance before using the ski machine for the first time. To make sure the setting is correct, turn the knob clockwise till it stops.

The Precor 515e Precision Ski Machine is now assembled and ready to use.

## Using the Precor 515e Precision Ski Machine

In addition to providing an excellent cardiovascular, low-impact workout, one of the advantages of the 515e Precision Ski Machine is that it is simple to use. With very little time or practice, you can learn how to use it safely and effectively. This section provides information about the following:

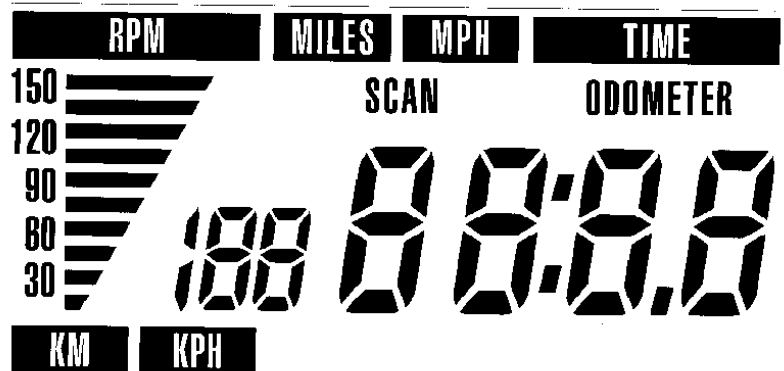
- using the electronic console
- pausing your workout
- setting up a pacer
- ending a workout

At the end of this section, you will find instructions for working out on the 515e ski machine. These instructions lead you through the process of using the ski machine, from practicing with the hand pulley system to mastering the kick and glide motions.

### Understanding the Electronic Console

Once you have assembled your 515e ski machine, it is ready to use. No complex instructions or mandatory programming steps are required to operate the ski machine—the electronic display is there only for reference. It provides motivating feedback about your workout to help you monitor your progress and meet your fitness goals.

**Diagram 5**  
Electronic console  
display



The console's convenient "hands free" feature lets you start and end a workout without touching any keys. Simply start using the machine to begin your workout. The displays automatically appear and provide information about your workout. A description of the seven displays and four keys appears after Diagram 5 which illustrates the electronic console displays.

### Electronic console displays

The seven displays that appear on the electronic console provide information about your workout. To select a specific informational display, such as TIME or MPH, press the MODE key until the desired information appears on the screen. Each display provides specific information as described below.

**TIME**—functions like a stopwatch, giving you total exercise time per session, up to 59 minutes and 59 seconds. The TIME display starts or stops automatically when you start or stop a workout. You must press the RESET key to reset the TIME display to 0. Use the TIME display to keep track of *how long* you have exercised in a given session.

**RPM**—shows revolutions per minute, up to 199. The bar graph on the left side of the display also gives this information, up to 150. Use this display to determine *exercise intensity* (how hard you are working out) at any given moment.

**MPH**—displays speed in miles per hour. This display lets you measure *exercise speed* at any given moment. (If desired, you can configure the ski machine to display speed in kilometers per hour. See *Configuring MPH or KPH for Speed Measurement* near the end of this manual for instructions.)

**MILES**—shows distance traveled up to 999.9 miles. With this display, you can track how far you have travelled during a specific length of time. You can also use this display to determine the length of your workout; once you have achieved the distance you want, use the Time display to determine how long it took you. (If desired, you can configure the ski machine to show distance in kilometers. See *Configuring MPH or KPH for Speed Measurement* near the end of this manual for instructions.)

**SCAN**—alternates automatically between TIME, MPH, and MILES every five seconds. The Scan function lets you monitor your workout without constantly pressing the MODE key to move between the different informational displays. The ski machine is preset to SCAN when you receive it from the factory.

**PACER**—appears in the bar graph on the left of the electronic display. It blinks at a constant rate (up to 150 times per minute), depending on the RPM that you choose. When you are exercising at the same rate as the pacer, the Pacer display stops blinking. It sets a tempo for you to follow which provides motivation and helps you to maintain your exercise intensity.

**ODOMETER**—indicates the total number of miles accumulated on the ski machine over time, up to 999.9 miles. After the ski machine passes the 999.9 mile mark, the odometer resets to zero and begins a new accumulation of miles. Use this display to track the amount of "mileage" your machine has on it.

---

#### **Electronic console keypad**

Each key on the ski machine's keypad provides specific functions. The following information explains the different uses of the four keys.

**START/STOP**—starts or stops a workout session. It is not necessary to press this key because the displays on the electronic console automatically appear when you start a workout and freeze when you complete your workout. However, if you prefer not to include a warm-up period as part of your workout statistics, press the START/STOP key at the end of your warm-up. The electronics begin recording statistics specifically about your workout session.

**MODE**—allows you to specify the information you want displayed. Simply press the key repeatedly until the desired feature is highlighted. The corresponding display appears simultaneously.

**PACER**—sets a pace tempo. The pacer appears in the bar graph on the left side of the display. To set the pace tempo or change the current pacer setting, press the PACER key until the desired RPM is highlighted.

**RESET**—resets the displays on the electronic console to zero. Note that pressing this key does not reset the Odometer and Pacer displays.

### **Pausing Your Workout**

The ski machine has an automatic auto-pause feature which lets you stop exercising for a ten-minute period. To pause your workout, simply stop using the ski machine. Five minutes after you stop exercising, the electronics' unique screen-saver feature turns off the screen and saves your position. When you resume working out, the electronics continue counting from the point you left off, which provides an accurate readout of your total workout time.

### **Setting Up a Pacer**

Setting a pace tempo provides motivation and helps you maintain your exercise intensity. To set up a pacer, press the PACER key until the highlighted portion of the bar graph indicates the desired revolution per minute (RPM). Once you begin your workout, the pacer stops blinking when you move at the same RPM as the pacer.

### **Ending a Workout**

To end your workout, simply stop performing the kick and glide motion on the ski machine. You can also press the START/STOP key. In either case, the displays on the console freeze, allowing you to review your workout statistics.

You can then do one of two things: either press RESET to return the displays to zero or let them stand, which lets you track total exercise time and miles over several exercise sessions. The electronics count TIME and MILES cumulatively, so if you do not press RESET at the end of your workout, the electronics will continue counting from the point you left off.

With the console's unique screen-saver feature you do not have to worry about turning off the console displays. Five minutes after you stop exercising the screen saver feature causes the displays to disappear.

***CAUTION: Before beginning any fitness program, you should have a complete physical examination by your physician.***

### **How to Use the 515e Ski Machine**

The movement involved in cross country skiing consists of the kick and the glide. With a little practice, you can learn the lower-body movements and the upper body poling technique (which on the 515e ski machine consists of a pulley system). You can then combine these two motions and in minutes you will find this rhythmic exercise as easy and natural as walking.

When using the ski machine, follow these general guidelines:

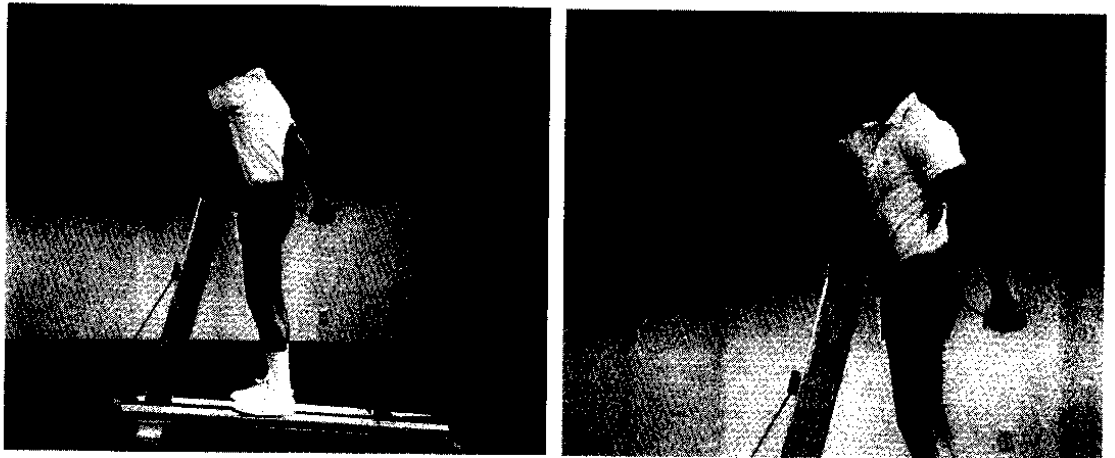
- At the beginning of a workout, take several minutes to bring your heart rate into your training zone, as shown in Diagram 7 later in this manual.
- After your workout, lower your activity level for several minutes to cool down your body and lower your pulse rate.
- Protect your knees by keeping them directly over your toes. Keep your feet parallel to the foot pedals at all times.
- Keep your shoulders and back relaxed.
- Hold your head up—looking at your feet or the floor strains your neck and back muscles.
- Gently stretch your lower body and back after a workout to help prevent stiffness or soreness.

To familiarize yourself with using the 515e ski machine, take the following steps:

1. Set the arm tension to the lowest setting by turning the T-knob, located underneath the electronic console, counterclockwise. Once you become familiar with the ski machine, you can increase the arm tension by turning the T-knob clockwise.
2. Maintain a level carriage track by placing the rear of the base frame on the appropriate step elevator setting.

**Note:** After mounting the rear of the ski machine into the step elevator, press down on the carriage tracks and base frame to be sure that the frame is seated properly in the step elevator. Use the step elevator at all times to prevent damage to the rear pulley system.

**Photos 6 and 7**  
Upper body motion

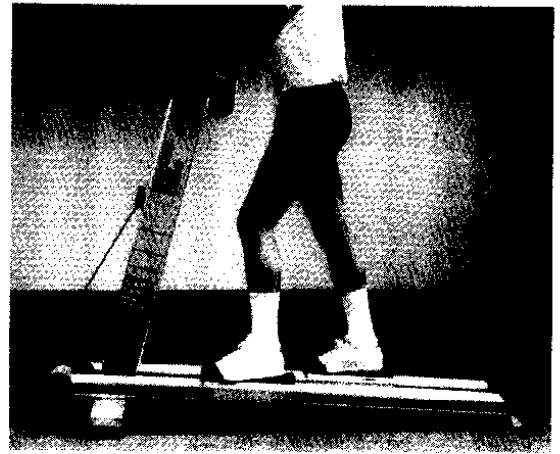


3. Adjust the support pad so that the lower portion of the pad is parallel to your pelvis, but does not interfere with the movement of your thighs. See Photo 6.

To raise or lower the support pad:

- a. Place the foot pedals at the rear of the carriage tracks.
  - b. Stand on the carriage tracks facing forward with your pelvis close to the support pad.
  - c. Locate the T-knob on the right side of the upright support.
  - d. Turn the T-knob counterclockwise and raise or lower the support pad into a comfortable position.
  - e. Once the support pad is in an appropriate position, tighten the T-knob by turning it clockwise.
4. To become familiar with the upper body motion, stand on the base frame facing forward in a position similar to the model in Photo 6.  
**Important:** Be sure the foot pedals are pushed all the way to the back of the machine as shown in Photo 6.
  5. Grab a rope handle with each hand and swing your arms so that constant tension is maintained on the arm swinging down. Swing arms along your sides, extending the forward arm as far as comfortable. See Photos 6 and 7.
  6. Once the upper body motion feels comfortable, continue to the next series of steps to learn the lower body movements.

**Photos 8 and 9**  
Lower body motion

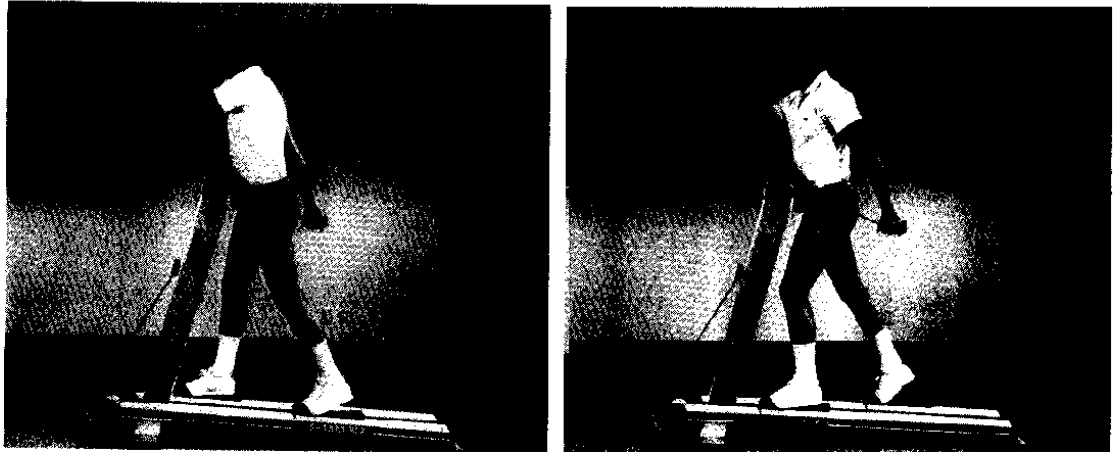


7. Place the rope handles on the support in front of the support pad. See Photo 8 and 9.
8. Dismount from the carriage tracks and locate the tension adjustment knob at the front of the upright support.
9. Set the flywheel resistance at its lowest setting by turning the tension adjustment knob counterclockwise till it stops. This provides the maximum amount of kick and glide with the least resistance. Once you become familiar with the kick and glide motion and wish to increase the resistance for a harder workout, turn the tension adjustment knob clockwise a portion at a time.
10. Mount onto the carriage tracks and place your feet into the toe pieces on the foot pedals.  
**Note:** The displays on the electronic console will appear once you begin moving the foot pedals along the carriage track.
11. Until you become familiar with the lower body, kick and glide motion, grasp the vertical bar that supports the rope pulley system with both hands (Photo 8).
12. Begin moving using a full walking stride. Place all your weight on one foot and push/kick back, using short strokes at first then going as far back as is comfortable. Your heel should lift off the "ski" at the end of the stride.
13. Shift your weight and repeat Step 12 with the other foot while sliding the first foot toward the front of the machine.
14. Continue the kick and glide motions until you have no hesitation between strides. Your weight should shift from one foot to the other as it would while running or walking. See Photos 8 and 9.



**Photos 10 and 11**

Both motions combined



15. After a couple of minutes with the kick and glide motion, try to coordinate the upper and lower body movements. Simply keep the legs moving, then add the arms, making sure that the right arm goes forward when the left leg goes forward. See Photos 10 and 11.

**Note:** Whenever you start exercising on the ski machine, always start with your legs in motion, then add your arms, coordinating the arms with the movement of the legs.

16. Continue using the 515e ski machine and start your workout by pressing the START/STOP key. You should exercise at a level that will allow your heart rate to reach your training zone within 5 minutes. (Refer to the section titled *How Hard Should I Exercise* to learn more about your appropriate training zone.) To get your heart rate into your training zone, you might have to adjust the flywheel resistance, arm tension, or elevation.

**Note:** Use the support pad for balance and support as needed during your workout. Leaning on the pad while exercising is not necessary and might hamper your movements.

17. After your initial warm-up period, maintain your heart rate in your training zone during your aerobic session.
18. When you are through exercising, cool down for 3 to 5 minutes by gradually reducing your activity level. If you increased the flywheel resistance, arm tension, or elevation earlier, change the setting(s) to the lowest setting(s) to help your body cool-down. A proper cool-down helps to transport excess lactic acid out of the working muscles, allowing them to recover faster.
19. To end your workout, simply stop performing the kick and glide motion on the ski machine. You can also press the START/STOP key. In either case, the displays on the console freeze, allowing you to review your workout statistics.
20. Either press RESET to return the displays to zero or let them remain on the screen. If you do not reset the displays, you can track your exercise time and miles over several sessions. Five minutes after you stop exercising, the displays automatically disappear from the screen.

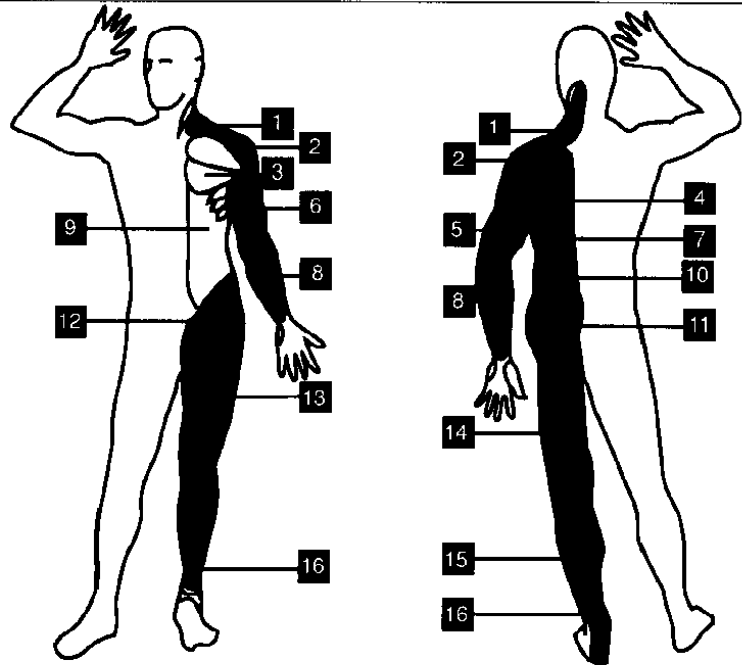
For best results, vary your workouts by changing duration, intensity, incline, and type of work (such as interval training). We recommend that you keep track of your workouts by writing them down; this way you can monitor your progress toward your fitness goals and also use the information as a reference in planning interesting, challenging workouts.

## General Aerobic Training Information

A workout on the Precor 515e Precision Ski Machine provides excellent and efficient cardiovascular conditioning, while strengthening and toning the thighs, calves, hips, back, and arms. Darkened areas in Diagram 6 indicate the muscles improved.

**Diagram 6**  
Muscles exercised during a cycle workout

1. Trapezius
2. Deltoid
3. Pectorals
4. Rhomboids
5. Triceps
6. Biceps
7. Latissimus Dorsi
8. Forearm Flexors/Extensors
9. Abdominals
10. Erector Spinae
11. Gluteals
12. Hip Flexors
13. Quadriceps
14. Hamstrings
15. Gastrocnemius/Soleus
16. Peroneus Longus/Brevis



To get the most out of each workout, a general understanding of the principles behind aerobic training is invaluable. The best source of fitness information is your specialty fitness dealer. In addition to providing information on which exercise equipment is the best for your individual needs, your specialty fitness dealer can provide useful advice on training, technique, and exercise physiology. Your dealer can also recommend good books on these subjects.

To help you get started in planning and carrying out your fitness program, this section provides some basic information on aerobic exercise—such as how hard you should work out, how long each session should be, and how often you need to exercise to benefit from a regular program.

### How Hard Should I Exercise?

Studies have shown that to achieve the benefits of aerobic exercise, it is necessary to work out hard enough raise your heart rate to a certain minimum level, called the “training zone.” Your training zone depends on your age and level of fitness.

**Diagram 7**  
Training zones

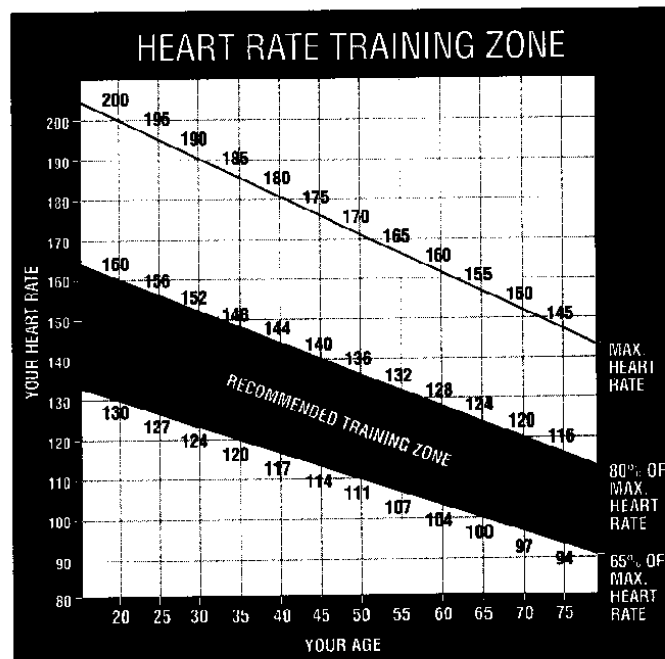


Diagram 7 shows your recommended heart rate zone, which is calculated using your age and your maximum attainable heart rate. The chart is based on a resting heart rate of about 72 for males and 80 for females. Your optimum training zone is between 65% and 80% of your maximum heart rate. For efficient aerobic exercise, work only hard enough to keep your heart rate in this zone. You will obtain the greatest fat-burning benefits when you exercise within the optimum training zone.

Pushing yourself beyond the recommended range, (that is, exercising so hard that your heart rate rises above 80% of maximum) can overstress your muscles. To increase cardiovascular improvement, exercise *longer*, not harder.

Keep in mind that this zone is an approximation, to be used as a guideline—individual heart rates vary according to several physiological factors. To determine your recommended training range, find your age on the chart, and then find the recommended heart rate between 65% and 80%. For example, if you are 35 years old, your training zone is between 120 and 148 beats per minute. Remember this zone—this is the heart rate zone you should try to maintain as you work out.

To determine your heart rate, take your pulse at a place that you can reach easily and comfortably while you exercise. Typical locations for measuring heart rate are directly over the heart on the left side of the chest, on either side of the neck, over the temple, or on the thumb side of either wrist. Wherever you measure your pulse, make sure that you use your index and middle fingers—*not your thumb*. Your thumb has a strong pulse which can affect your heart rate reading.

Once you locate your pulse, look at a clock with a second hand and count the beats for six seconds. Multiply that number by 10 to determine the total number of beats per minute. For example, if you count 14 beats over six seconds, the total number of beats per minute is 140. Compare the total number of beats with your training zone as identified in Diagram 7. If necessary, increase or decrease your activity level to bring your heart rate into your training zone. You can regulate your work level (and heart rate) by changing the flywheel resistance, arm tension, rear elevation, and your pace. *Remember—your heart rate is the definitive measure of how hard you are working.*

Regardless of your fitness level, avoid doing too much too soon. Setting the resistance level too high, using too high of a rear elevation, or moving at too fast of a pace are common errors. Give yourself time to become familiar with your ski machine and improve your fitness level. Then you can gradually increase your speed and incline to make your workouts more challenging.

#### **How Long Should I Exercise?**

The length of each exercise session depends on your fitness level. Exercise physiologists have determined that, to attain cardiovascular benefits from exercise, you should maintain your heart rate in the training zone for at least 15 minutes. This is in addition to your warm-up time, and does not include cool-down. You should always allow several minutes to bring your heart rate into the training zone, by starting out slowly and gradually increasing the work level. Similarly, use several minutes of light exercise after the workout to bring your heart rate down to near resting level.

The higher your fitness level, the longer you should maintain your heart rate in the training zone (between 20 and 30 minutes). Beginners should always start slowly, and gradually increase their sessions up to 20 minutes or more.

#### **How Often Should I Exercise?**

Research indicates that aerobic sessions of 20 minutes or more should be done at least 3 to 5 times a week to obtain significant cardiovascular benefits. Most experts agree that sensible eating habits and regular aerobic exercise are the keys to weight control and fitness. A recent study, which tracked several subjects over a period of years, conclusively shows that exercise, not dieting, is the key factor to successful long-term weight loss.

## Maintaining the 515e Precision Ski Machine

The 515e ski machine requires little maintenance. Periodically, you need to clean the ski machine and change the batteries in the electronic console when they wear down. Basic information about maintaining and using the ski machine is found in this section and includes the following:

- cleaning the ski machine
- maintaining tension as the flywheel rope stretches
- configuring MPH or KPH for speed measurement
- changing the batteries

### Cleaning the Ski Machine

The 515e ski machine is virtually maintenance-free except for periodic cleaning of the carriage track to ensure the smooth gliding action of the foot pedals. Use a damp cloth to remove dirt and dust from both inside and on top of the track.

**Important:** Do not spray any lubricants onto the carriage tracks.

When necessary, wipe the electronic console with a moist sponge or soft cloth. Dry with a clean towel. Do not pour water or spray liquids onto the electronic console.

### Maintaining Tension as the Flywheel Rope Stretches

Over time and extensive use the flywheel rope on the 515e ski machine stretches. To maintain the appropriate resistance during your workout, it may be necessary to move the tension spring, located underneath the flywheel, into the next hole on the tension spring bracket. The tension spring bracket on the ski machine provides three hole settings. As you move the spring toward the base of the ski machine the tension in the rope increases.

**Important:** You do not need to change the tension spring setting unless the tension adjustment knob, located on the front of the upright support, is turned as far counterclockwise as possible and has remained in that position for several workouts. If, during that time, you feel the need for more resistance during the kick and glide motions, you may want to move the tension spring setting.

To change the current tension spring setting and adjust the rope's tension, take the following steps:

1. Turn the resistance knob, located on the front of the upright support, clockwise to reduce tension on the flywheel rope.
2. Pull down on the rope while you remove the tension spring, located on the front of the base frame beneath the flywheel, from its current setting.
3. Move the tension spring toward the base frame and hook it into the next available hole on the spring bracket.

**Note:** The three available settings increase the flywheel rope's tension and help maintain the appropriate resistance during your workout. Do not randomly change the setting of the tension spring or you might compromise the strength of the flywheel rope.

### **Configuring MPH or KPH for Speed Measurement**

The 515e ski machine lets you specify how you want speed and distance measured, whether with MPH and miles or KPH and kilometers.

To change the current setting, take the following steps:

1. Press the PACER and START/STOP keys simultaneously and hold for four seconds. The entire display lights up momentarily, the console beeps twice, and "002" appears on the display.
2. Press the MODE key until 460 appears on the display.

**Note:** You can scroll through all the numerical displays by simply pressing the MODE key repeatedly until the desired number appears. Pressing START/STOP also backs up the display one option.

3. Press PACER to move between the two settings: miles and MPH or kilometers and KPH.
4. When the desired setting appears on the display, press RESET to activate the ski machine.

The ski machine is now ready to use.

### **Changing the Batteries**

Your ski machine is shipped with two "AA" alkaline batteries installed in the electronic console. When your electronic console no longer shows a digital readout or the count becomes erratic, you need to change the batteries.

To change the batteries, take the following steps:

1. Open the door on the side of the electronic console, discard the old batteries, and replace the old batteries with two new "AA" alkaline batteries. The entire display lights up momentarily, the console beeps twice, and "002" appears on the display.
2. Press the MODE key until 460 appears on the display.

**Note:** You can scroll through all the numerical displays by simply pressing the MODE key repeatedly until the desired number appears. Pressing START/STOP also backs up the display one option.

3. Press PACER to move between the two settings: miles and MPH or kilometers and KPH.
4. When the desired setting appears on the display, press RESET to activate the ski machine.

The ski machine is now ready to use.

### **Getting Service**

Do not attempt to service the 515e ski machine yourself except for the maintenance tasks as described in this manual.

For further information about product operation or service, contact an authorized Precor dealer (or a Precor Factory Authorized Service Company). To locate the Precor dealer nearest you, call 1-800-4-PRECOR.

**PRECOR** USA

Precor Incorporated  
P.O. Box 3004  
Bothell, WA USA 98041-3004

Precor is a registered trademark of Precor Incorporated.  
© 1987 Precor Incorporated.  
Protected by one or more of the following US and foreign patents:  
US D299,369; US 4,023,795; US D303,695; TW 14,334.  
Specifications subject to change without notice.  
1-800-4-PRECOR

P/N 30812-104  
8/92

**NOTICE:**

Precor is widely recognized for its innovative, award winning designs of exercise equipment. Precor aggressively seeks U.S. and foreign patents for both the mechanical construction and the visual aspects of its product design. Any party contemplating the use of Precor's product designs is hereby forewarned that Precor considers the unauthorized appropriation of its proprietary rights to be a very serious matter. Precor will vigorously pursue all such parties including through legal actions.