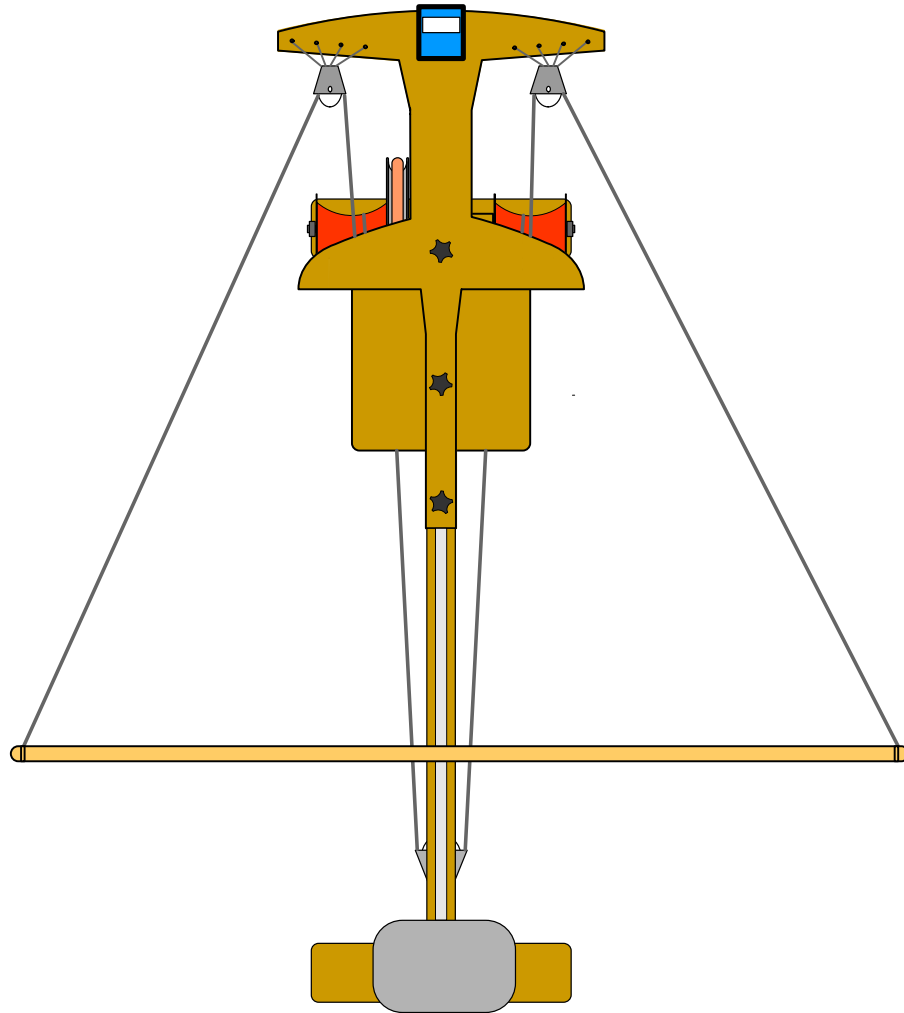


# Kayak Paddle Trainer



## User Manual

Visit our website at: [KayakTrainer.com](http://KayakTrainer.com)

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Read the material before using this product.

Failure to do so can result in serious injury.

**SAVE THIS MANUAL.**

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PRODUCT SPECIFICATIONS	
Resistance Levels	15 resistance settings
Dimensions	48" to 64"L x 16"W x 18"H
Weight	25 pounds
Designed use	consumer
Max user weight	300 pounds
Performance Monitor	<ol style="list-style-type: none"> <li>1. Cadence (Strokes Per Minute)</li> <li>2. Paddling Time (Minutes:Seconds)</li> <li>3. Velocity (miles/hour)</li> <li>4. Distance (miles)</li> <li>5. Power (Watts)</li> <li>6. Energy (Calories)</li> <li>7. 15 resistance levels (about 1to15 pounds pulling force)</li> <li>8. 2 dynamic resistance modes</li> <li>9. paddle pull indicator</li> </ol>
Isometric Resistance	Resistance setting changes the max pulling force. The resistance increases exponentially as the cadence and velocity increase
Batteries	Performance Monitor uses 2 type CR123 batteries
Materials	
Frame	Finished wood
Rope	5/16" braided synthetic fiber
Seat	Padded contour swivel seat
Foot brace	Adjustable foot brace
Pulley blocks	Marine low friction

**SAVE THIS MANUAL**

You will need this manual for the safety warnings and precautions, operating, inspection, maintenance and cleaning procedures, parts list and assembly diagram. Keep your invoice with this manual. Keep this manual and invoice in a safe and dry place for future reference.

**GENERAL SAFETY RULES AND PRECAUTIONS**

**WARNING:** Read the following important precautions and information before using the Kayak Paddle Trainer.

- Exercise can present a health risk; consult with a physician before beginning any exercise program with this equipment.
- Warming up and stretching before and after a workout will help minimize the risk of injuries.

- Maintain a clear area of 3.5 to 4 feet on the sides and back of the trainer for an unobstructed paddle stroke.
- Use a firm grasp on the handle and frame while lifting and moving the trainer. Do not lift the unit by the flywheel, ropes or movable parts as these may shift position causing you to drop the unit or pinch your fingers.
- Use the trainer on a flat, level, sturdy surface, away from moisture and dust. Do not store the trainer in a damp area or covered patio, or near water.
- Never allow more than one person on the trainer at a time.
- Remain seated while operating the trainer with feet either on the ground or on the foot braces. Adjust foot braces so knees are slightly bent.
- Increase the duration and intensity of exercise in small increments to avoid muscle strain and soreness.
- If you feel faint or dizzy, immediately discontinue use of this equipment.
- Watch what you are doing, and use caution and common sense while exercising. Do not use the trainer while under the influence of drugs, alcohol or medication.
- Keep other people and pets away from the trainer when in use.
- Always make sure screws and attachments are secured tightly prior to each use. Inspect and replace any frayed cords and rope.
- Do not operate the trainer where aerosol spray products are being used or where oxygen is being administered. Sparks from the generator may ignite a highly gaseous environment.
- Do not attempt to use your trainer for any purpose other than the purpose for which it is intended.

ASSEMBLY INSTRUCTIONS
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The unit has been partially disassembled for shipment in two boxes. The long mailing tube contains the paddle and the rectangular box contains the rest of the unit.

1. Locate a clear area of at least 6 foot by 8 foot so paddling motion is not impeded.
2. Remove all items from the boxes.
3. Attach the rope ends to the paddle using the double overhand sliding loop or slip knot to secure the rope to the paddle. The slip knot cinches onto the paddle when the rope is pulled and may be removed by pulling the knot away from the paddle

4. Adjust the take up pulley tension as follows: Press the cord clamp release button on bungee cord clamp and to increase or decrease the length of the bungee to maintain tension of the rope on the drive pulleys.
5. Turn on the PM power switch. You are ready to paddle.

PERFORMANCE MONITOR



**Basics**

The Performance Monitor (PM) is used to provide feedback of six different factors that indicate the level of performance being exerted by the paddler. The top three LEDs light up corresponding to the specific factor being displayed. The LEDs light up yellow to indicate factors in the yellow box or red to indicate factors in the red box; for example, when the third LED lights up red, the factor being displayed is the expended energy in calories. The six factors are displayed in turn in a cycle that takes 20 seconds and then repeats itself. If the flywheel stops rotating for more than 4 minutes, the power turns off to conserve battery energy. When the flywheel stops, the factors on the left side, the “yellow” factors read zero, while the “red” factors maintain their accumulated values. If the athlete resumes paddling before power turns off, the measurements continue as if the flywheel had not stopped. The PM may also be switched off by pressing the On/Off button continuously for 5 seconds.

**Exercise Level Setting**

When the PM is on, press the On/Off button to change the level setting. The first press will show the current level setting and subsequent presses will increment the level setting. The level starts at 1 when the unit is turned on and each press increases the level by one. After all

levels, the level count rolls over to 1 on the next button press. Levels 1-15 simulate flat water paddling with an increasing paddle resistance simulating river current, wind or kayak profile based resistance. There are two additional dynamic modes: (16) this mode slowly changes the resistance to simulate riding ocean swells with a slowly changing paddling resistance; and (17) this mode provides a faster changing resistance profile to simulate paddling into the storm with changing wave intensity and multiple random overlapping waves.

### **Trainer Functional Overview**

The paddler performs a kayak paddling motion that pulls on the ropes at the end of the paddle. The ropes in turn spin rollers on the flywheel axle and the flywheel. A flywheel belt drives a motor/generator that is connected to variable electronic load. The motor/generator and electronic load act as a brake, generating a variable resistance to the paddling motion.

The PM monitors the flywheel speed with a magnetic pickup. The flywheel revolutions per minute (RPM) produce the velocity and distance measurements. The RPM variations are monitored and used to produce cadence measurements and a stroke indicator light. The level settings and RPM data are used to control the variable resistance of the electronic load.

### **Performance Measurements**

A small computer in the PM is used to monitor flywheel RPM to calculate several measurements and display them to the paddler. These factors are explained below:

1. **Cadence**: The cadence is the stroke rate in Strokes Per Minute (SPM) where a stroke is defined as each time the paddle is pulled back against either water or tensioned rope.
2. **Time**: The time parameter indicates the duration of the workout session and is produced by the computer clock whenever the computer detects that the athlete is providing power to spin the flywheel.
3. **Velocity**: The velocity or speed parameter is similar to the velocity of a boat on the water and is directly proportional to flywheel speed.
4. **Distance**: The distance parameter indicates the distance traveled by the boat over the duration of the workout.
5. **Power**: The power is generated by the paddler and is a function of the flywheel RPM and the average force being generated by the paddler.
6. **Energy**: The energy is an indication of the amount of work that has been done during the exercise session. It is a product of the average power and duration of the exercise session.

## OPERATING INSTRUCTIONS

1. Take a few minutes to warm-up and stretch your body.
2. Take a seat on the trainer with feet on the floor and slowly move the paddle shaft in a wide controlled stroke to see that there are no obstructions to a full paddle movement. Reposition the trainer as necessary so an unobstructed stroke is obtained.
3. Adjust foot braces to comfort level. The optimal position is such that the knee is slightly bent but may be straightened when pushing off against the foot brace.
4. Adjust the bungee cord if necessary. Tighten or loosen the bungee cord such that the paddle rope is gripping and not slipping on the rollers.
5. Use proper paddling posture and technique to prevent common muscle and joint injuries. Sit with an upright or slightly leaning forward posture. Rely on your core muscles and not just your arm muscles for power. Start by holding the paddle at arms length with your arms parallel at shoulder width. If you lock your elbows you will find the only way to paddle is to rotate your torso and use your core muscles. Then, bend your elbows slightly and continue the same motion with your arms transferring the power from the core to the push and pull motion of the paddle.
6. Paddle at the desired cadence and duration to your liking and comparable to on water exercise.
7. Take a few minutes to cool down and stretch again.

## WARM-UP AND COOL DOWN

### **Warm-Up**

The purpose of warming up is to prepare your body for exercise and to minimize injuries. Warm up for two to five minutes before strength training or aerobic exercising. Perform activities that raise your heart rate and warm the working muscles. Activities may include brisk walking, jogging, jumping jacks, jump rope and running in place.

### **Stretching**

Stretching while your muscles are warm after a proper warm-up and again after your strength or aerobic training session is very important. Muscles stretch more easily at these times because of their elevated temperature, which greatly reduces the risk of injury. Stretches should be held for 15 to 30 seconds. Do not bounce.

Remember to always check with your physician before starting any exercise program.

### **Cool-Down**

The purpose of cooling down is to return the body back to its normal, or near normal, resting state at the end of each exercise session. A proper cool-down slowly lowers the heart rate and allows blood to return to the heart. The cool-down should include stretches after each strength training session.

## EXERCISE GUIDELINES

Base your exercise program on your physical condition. If you have been inactive for several years or are severely overweight, start slowly and increase your workout time gradually. Increase your workout duration and intensity gradually by monitoring your heart rate while you exercise.

Initially you may only be able to exercise within your target zone for a few minutes. As you continue exercising, your aerobic capacity will improve over a period of 6-8 weeks. It is important to pace yourself while you exercise so you don't tire too quickly.

For cardio respiratory training benefits, the American Heart Association recommends working out at a Target Heart Rate Zone of between 60% and 75% of your maximum heart rate based on age. To predict your maximum heart rate, use the formula  $220 - \text{Age} = \text{maximum heart rate}$ . For example, if you are 40 years old, your max rate is:  $220 - 40 = 180$ . Your exercise heart rate range is then  $0.6 \times 180 = 108$  to  $0.75 \times 180 = 135$  beats per minute. If just starting out, work out at the low end of your target heart rate zone. As your aerobic capacity improves, gradually increase the intensity of your workout by increasing your heart rate.

Measure your heart rate periodically during your workout with a heart rate monitor or by counting the number of heart beats for six seconds and multiplying the number by 10 to get your heart rate. For example if your six second heartbeat count is 15, your heart rate is 150 beats per minute. Adjust your exercise intensity such that your heart rate is within proper range for your age.

## TRAINER INSPECTION, MAINTENANCE AND CLEANING

1. Before each use, inspect the general condition of the trainer. Check for loose screws, misalignment or binding of moving parts, frayed rope or cords, cracked or broken parts and any condition that may affect the safe use of the trainer. Do not use the trainer if it is damaged; have the problem corrected before further use.
2. To clean, wipe with a damp cloth, using a mild detergent. Never use solvents such as alcohol, trichloroethylene, etc on the trainer.
3. If the rollers do not spin freely, it may be necessary to lubricate the main axle. Any light machine oil may be used. Apply oil sparingly to space between the shaft collar and the fender washer. Be careful not to get any oil on the roller surface or the rope. If this happens, the rope will fail to grip the roller. If oil gets on the roller, it must be cleaned. If oil gets on the rope it may have to be replaced.

PLEASE READ THE FOLLOWING CAREFULLY

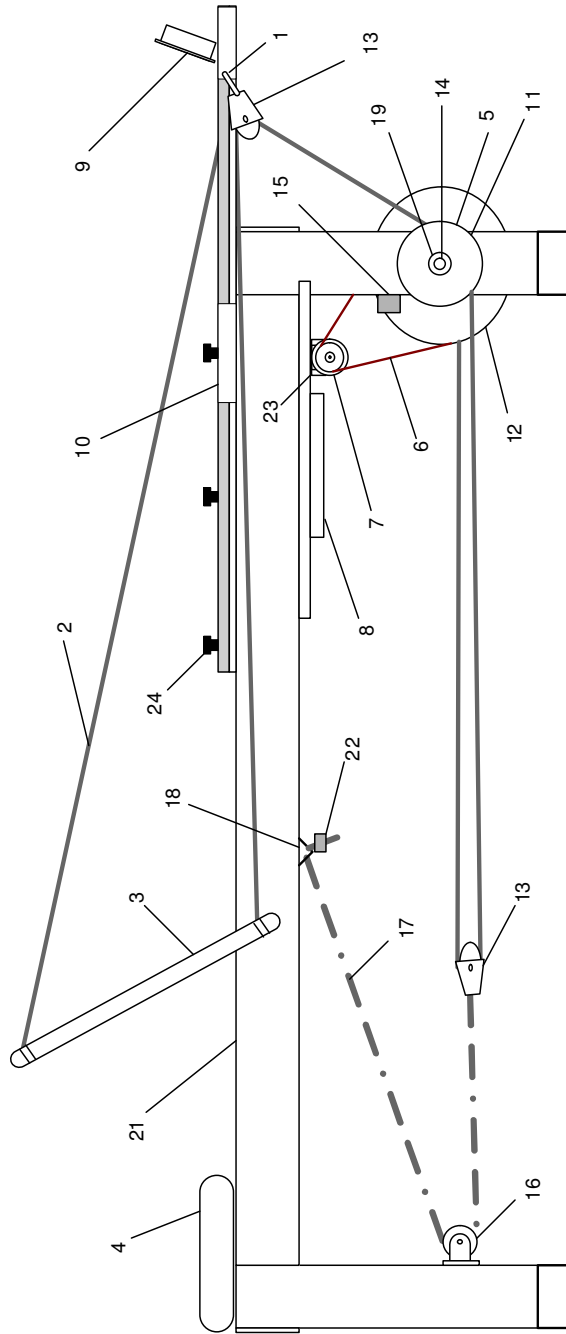
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PARTS LIST

Part	Description	No.	Part	Description	No.
1	Pulley mounting cord	016-01	13	Rope Block	016-13
2	5/16" rope	016-02	14	Axle	016-14
3	Paddle shaft	016-03	15	Magnetic Pickup	016-15
4	Seat	016-04	16	Upright block	016-16
5	Clutch roller	016-05	17	Bungee cord	016-17
6	Drive belt	016-06	18	Nylon eyelet	016-18
7	Generator	016-07	19	Shaft collar	016-19
8	Electronic load	016-08	20	Fender washer	016-20
9	Power meter	016-09	21	Wood frame	016-21
10	Foot brace	016-10	22	Cord lock	016-22
11	Bottom bracket bearing	016-11	23	Motor bracket	016-23
12	Flywheel	016-12	24	Star Knob	016-24



ASSEMBLY DIAGRAM



Note:  
Some parts are listed and shown for illustration purposes only,  
and are not available individually as replacement parts.

## WARRANTY

Korpi and Sons makes every effort to assure that its products meet high quality and durability standards and warrants to the original purchaser that for a period of ninety days from the date of purchase that the motor/generator, the belts and rope are free of defects in materials and workmanship. Korpi and Sons also warrants to the original purchaser, for a period of one year from the date of purchase, that all other parts and components of the product are free from defects in materials and workmanship (90 days if used as common gym equipment; for example in a school, exercise club or as rental equipment). This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, normal wear and tear, or lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. **THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.**

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

Kayak Paddle Trainer, PO Box 1161 – Syosset, NY 11791 – [KayakBTrainer@gmail.com](mailto:KayakBTrainer@gmail.com)