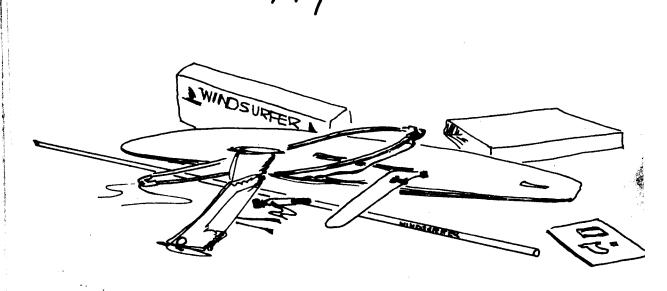
# OWNER'S MANUAL

UNSURFER

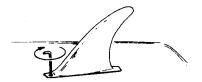


# WELCOME TO WINDSURFER® BOARDSAILING

And welcome also to an exploding sport. Boardsailing is an exciting, skill oriented sport offering the joys of personal challenge to novice and expert alike. Whether you look forward to entering top level Olympic competition or just enjoying a Sunday sail, I think you'll find the Windsurfer® line has a very personal and special appeal. As co-inventor of the free sail system concept and designer of the Windsurfer sailboard I join the hundreds of thousands of Windsurfer sailors throughout the world in welcoming you to the explosion. We invite you to add your ability to our sport and know you will soon be part of the fun.

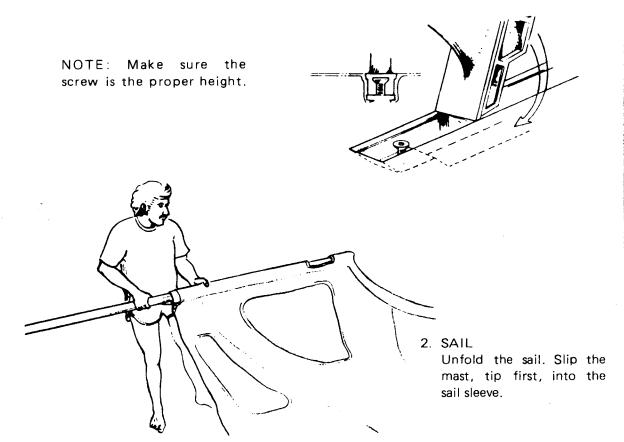


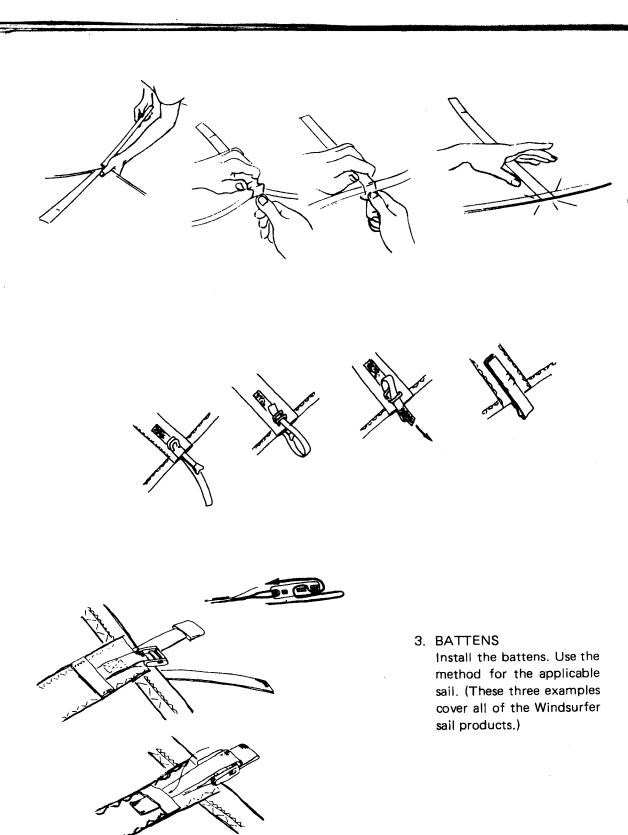
# **RIGGING INSTRUCTIONS**



#### 1. SKEG

Install skeg in skeg slot on bottom of hull using the two stainless steel screws and hex wrench provided.





#### 4. UNIVERSAL ASSMEBLY

ALL 1984 WINDSURFER TRACKS AND THE FREESTYLE UNIVERSAL PLATE WILL ACCOMODATE THE 1985 UNIVERSAL ASSEMBLY. 1985 WINDSURFER ACCESSORY TRACKS WILL BE COMPATIBLE WITH ALL EXISTING WINDSURFER UNIVERSAL ASSEMBLIES.

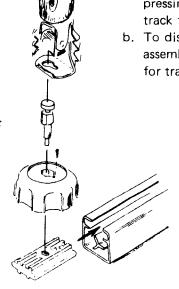
#### A. ORIGINAL ASSEMBLY OF SLIDER

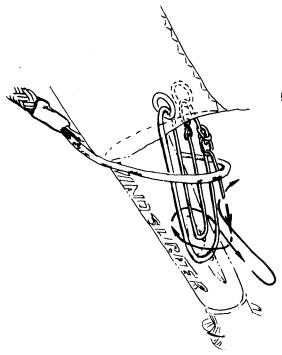
- 1. Loosen the track screws, but do not completely remove them from the board.
- 2. Lift the track at its forward end and place the slider into the track with the three ridges facing up or down. (Shown on page 9 with the three ridges facing up.)
- 3. Press the track back to its original flush position and re-tighten the screws.
- 4. The smaller hole in the slider is not used for assembly.

Note: Some sliders may require a firm tap to initiate entrance to the track.

#### B. RIG ATTACHMENT TO HULL PRIOR TO SAILING

- \*\*Three Points Of Attachment\*\*
- 1. Mast to Mast Base using the downhaul
  - a. This is the recommended method of attachment and detachment once the universal has been assembled to the track.
- 2. Universal to Knob Assembly
  - a. To assemble, engage the universal joint to the head of the knob assembly bolt, ensuring that the universal is flush with the knob. Tighten snugly, but do not over-tighten.
  - b. To disassemble, loosen the knob assembly sufficiently that the universal can slide off the bolt, then re-tighten the knob assembly onto the track.
- 3. Knob Assembly to Slider
  - a. Install the threads of the knob assembly a few turns into the slider while depressing the track pedal. Ensure that the tip of the bolt engages the slot in the track tube
  - b. To disassemble, loosen the knob assembly from the slider, then store the knob assembly separately. This method would only be used when stacking boards for transport.





#### 5. MAST BASE\*

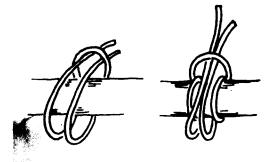
Slide the mast base of the universal assembly into the bottom of the mast. Feed the downhaul line. After tensioning the downhaul, make two half hitches using the loop for easy breakdown. Recommended breakdown is then accomplished by loosening the downhaul and separating the mast base from the mast.

**Bowline Knot** 





\*Note: It is important that the mast base be allowed to swivel freely. Sand and dirt will accumulate between the mast and base, eventually causing the mast base to freeze up inside the mast. The mast base should be removed and rinsed frequently to prevent this from occuring.

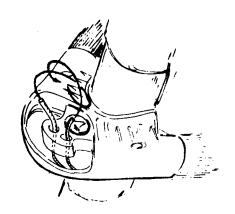


#### 6. INHAUL LINE

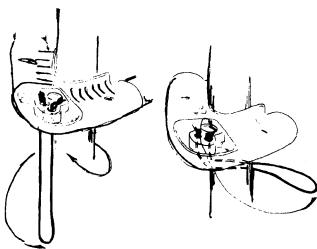
Tie the inhaul line to the mast as shown.

#### 7. MAST/BOOM ATTACHMENT

- A. Slide the top of the mast between the booms (making sure the logo on the boom handle is facing up) until the front end of the boom lines up with the opening in the sail sleeve.
- B. Fasten the booms to the mast using the method recommended in the picture.\*

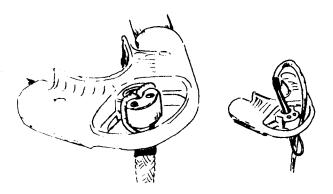


\*Recommended Method



\*Optional Method: Loop should be approximately 23 inches.

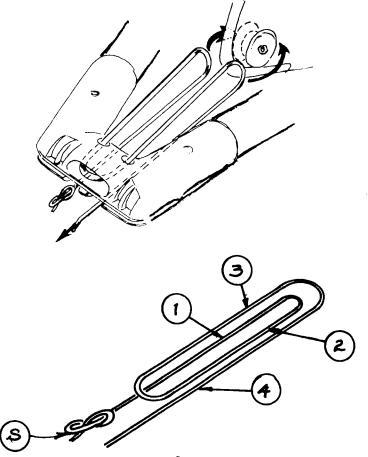




8. BUNGIE UPHAUL ATTACHMENT See diagram. Note: May not apply to all products.

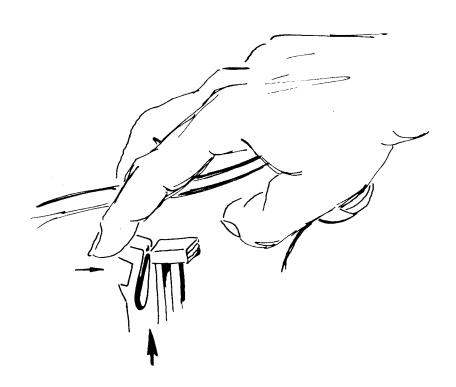
#### 9. FOUR PURCHASE OUTHAUL SYSTEM

Feed the outhaul line through the rear boom end and around the clew pulley as shown. Pull to the preferred tension. Note: Boom starts at 5 feet 6 inches ("5.5"); 24 inch extension is stock for the One Design.

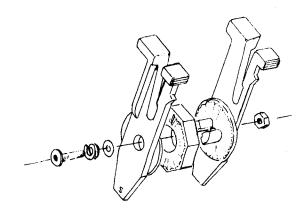


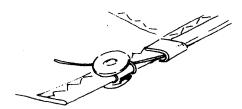
#### 10.CENTERBOARD

Slide the centerboard into the hull well until the clips snap in. To remove, pull back the tabs on the clips and lift the centerboard.

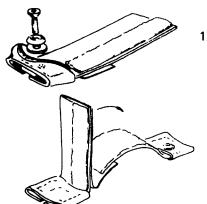


The ratchet system - used for locked settings of the centerboard under sail -NOTE: applies to the One Design, the Challenge, and the Rocket Express.



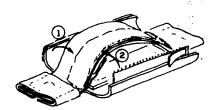


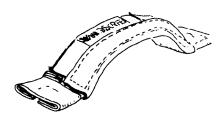
# 11. LEECH LINE TENSION See diagram.



#### 12.FOOTSTRAPS

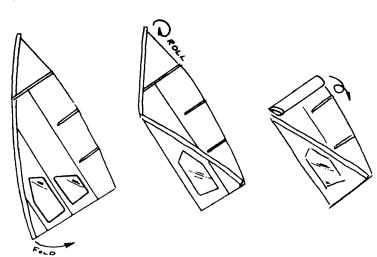
Note: On non-adjustable footstraps an incision must be made through neoprene before the footstrap can be screwed down.





#### 13.SAIL STORAGE

After use, the sail should be rinsed in cool water and allowed to air dry. To store the sail, either furl it on the mast, or roll it and place it in the sail bag.



#### 1985 UNIVERSAL ASSEMBLY

#### THREE FUNCTIONS IN ONE SYSTEM

- 1. Use on Pedal and Fixed Position Tracks to select any position along the track.
  - a. A fixed mast position can be attained anywhere along the track by assembling the slider with the three ridges facing down. Position the universal to the desired setting along the track while depressing the pedal. Complete by letting up on the pedal and tightening the knob clockwise. Setting the knob assembly between the notches on the track tube will keep the pedal in the desired flush position. Most sailors who have tried the new system favor this method for its simplicity.

Note: This method is recommended for use with the Rocket 83, Rocket 88, Rocket 99, and Rocket Express.

- 2. Use on Pedal Tracks to adjust position of mast while under sail.
  - a. Assemble with the three ridges of the slider facing up. This assembly allows the normal use of the adjustable mast track with pedal.
- 3. Use on Custom Skeg Boxes
  - a. Replace slider and bolt with part numbers 10158 and 10159 to use on a conventional skeg box.

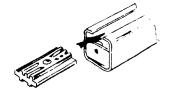
10158: H-Plate

10159: Skeg Box Track Bolt









# INSTRUCTIONS FOR RIGGING ROCKETS

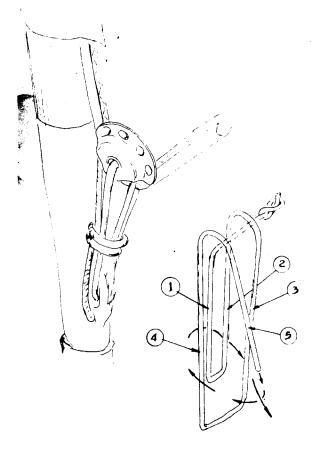
ALL ROCKETS USE STEPS 1 THROUGH 13 FROM THE PRECEDING SECTION, WITH APPLICABLE METHODS AND RECOMMENDATIONS.



ROCKETS 83, 88, 99, AND EXPRESS ALL COME STOCK WITH A 7.0L DURALAM SAIL, WHICH REQUIRES A 6 INCH MAST EXTENSION AND AN 18 INCH BOOM EXTENSION.

THE CHALLENGE COMES STOCK WITH EITHER A 7.5XL SAIL OR A SLALOM SAIL, BOTH OF WHICH REQUIRE A 12 INCH MAST EXTENSION AND A 24 INCH BOOM EXTENSION.

## R.A.F. SUPPLEMENT



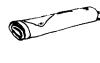
#### FIVE PURCHASE DOWNHAUL SYSTEM

- A. Recommendations For Rigging
  - 1. Downhaul halfway (for boom height.)
  - 2. Outhaul fully.
  - 3. Downhaul fully.
  - 4. Adjust outhaul if necessary.
  - 5. Battens and leech line tension last.

B. Recommended Storage For R.A.F. Sail

 Allow to air dry, roll, and place in sail bag.





# SAILING INSTRUCTIONS

The following is designed to provide the basic operational instructions required for Windsurfer boardsailing. It is in no way meant to be a substitute for training through the International Windsurfer Sailing Schools but will help familiarize you with terms and start you on your way in the absence of professional guidance. Mastery of the sport will take practice, but if you follow the basic rules your learning will be rewarding and fun. We strongly recommend that all beginners attend the programs offered by their local International Windsurfer Sailing Schools whenever possible.

# CHOOSE YOUR LEARNING SITE CAREFULLY

During your first attempts you will inevitably drift away from your starting point so remember:

- Avoid offshore winds and currents.
- \* Stay close to shore.
- \* Learn in a restricted area (lakes, ponds, small bays are best).
- \* Find steady, calm winds and water.
- Do not attempt to learn in winds over 8 knots.

# ALWAYS STAY WITH YOUR BOARD

The board provides positive flotation. If you can't sail back, paddle back. You can paddle much faster than you can swim, and you'll be seen more readily on your board. Use of a safety leash will prevent separation of hull and rig. However, if they do separate, retrieve the board first, as it will drift faster than the sail. NEVER LEAVE YOUR BOAT.

#### **USE COMMON SENSE**

- \* Wear a life jacket if you are not a strong swimmer.
- \* Wear a wetsuit if air or water temperature is below 65°
- \* Don't launch through big surf.
- Don't launch from beaches with hidden obstacles (shells, rocks, etc.)
- \* Before entering the water ask yourself the following questions:

Which way is the current going?

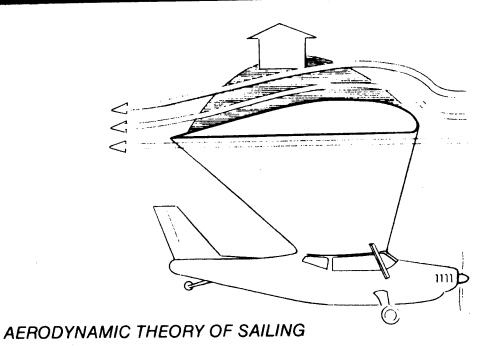
Where will the winds blow me?

Is the motorboat traffic heavy enough to worry about?

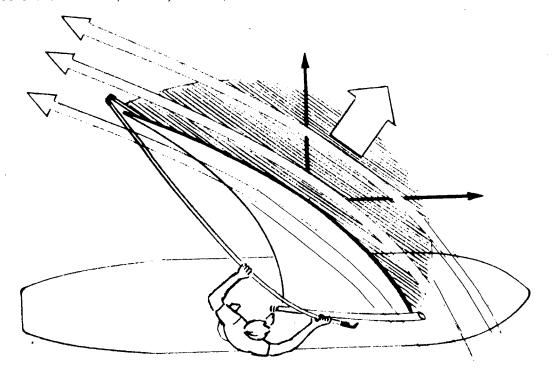
Where will I exit the water if I'm 1,000 yards downwind?...2,000 yards?

Are buildings, cliffs, going to change my winds?

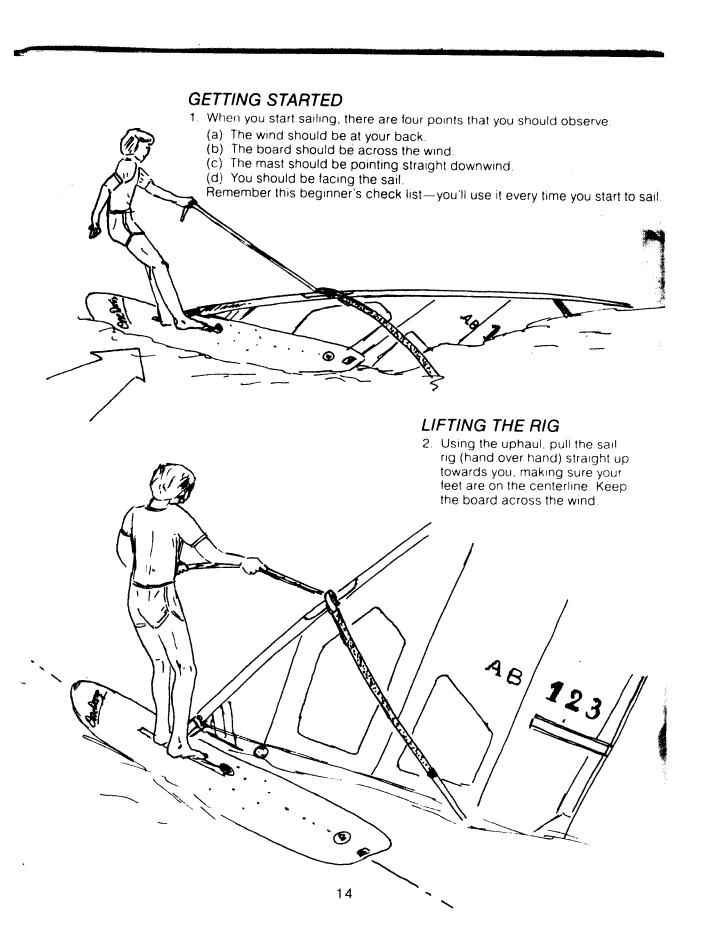
IS THIS A SAFE PLACE FOR ME?

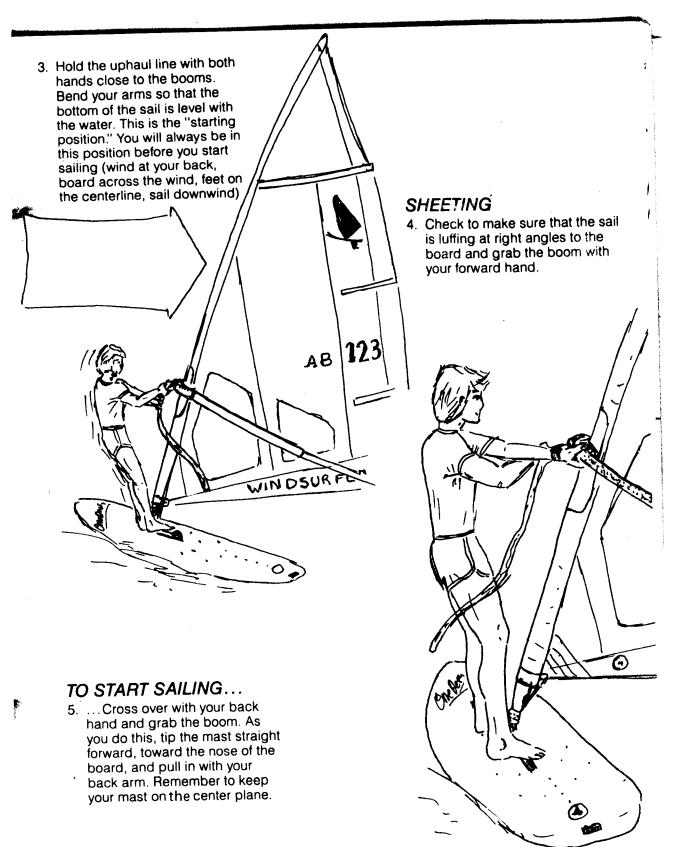


The same aerodynamic principles of lift used in air flight are also used in sailing. As air is forced over the top of a wing, and is forced at greater speed across the top than the bottom of the wing, a lower pressure area is created across the top, causing the wing to be *pulled* up. The same holds true for the sail. Air is moving faster across the front of the sail than the back, creating a low pressure area on the front side; therefore, the sailboat is *pulled* forward. The sail is not pushed by the wind, as is commonly believed, but rather *pulled* by the low pressure created by the sail shape and the wind.



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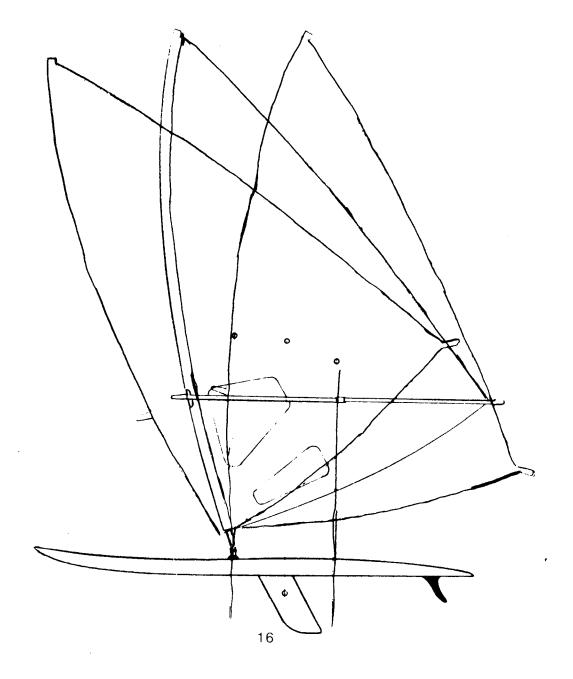
## STEERING

Steering is a function of the sail (center of effort) and its relationship to the daggerboard (center of resistance). By changing their relative positions to each other, the direction of the boat is changed.

NOTE: To steer, the position of the mast is changed forward and backward not from side to side. Always keep the mast on the center plane.

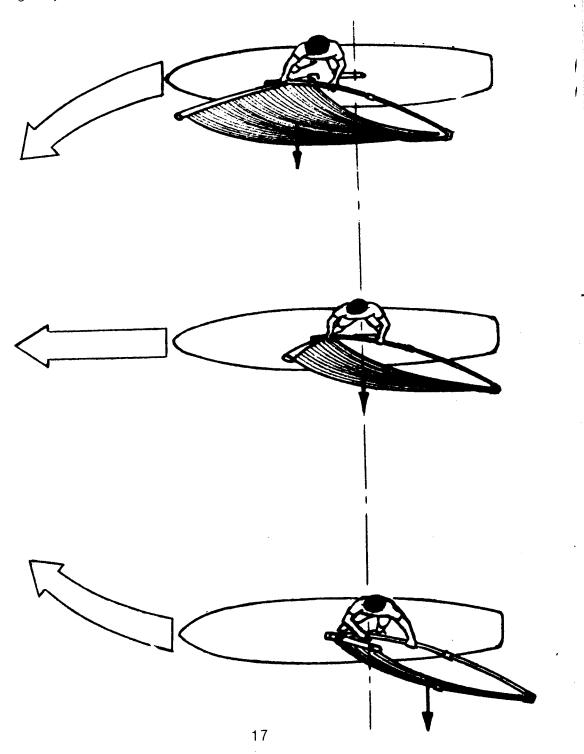
1. To sail in a straight line, keep the mast tipped slightly forward.

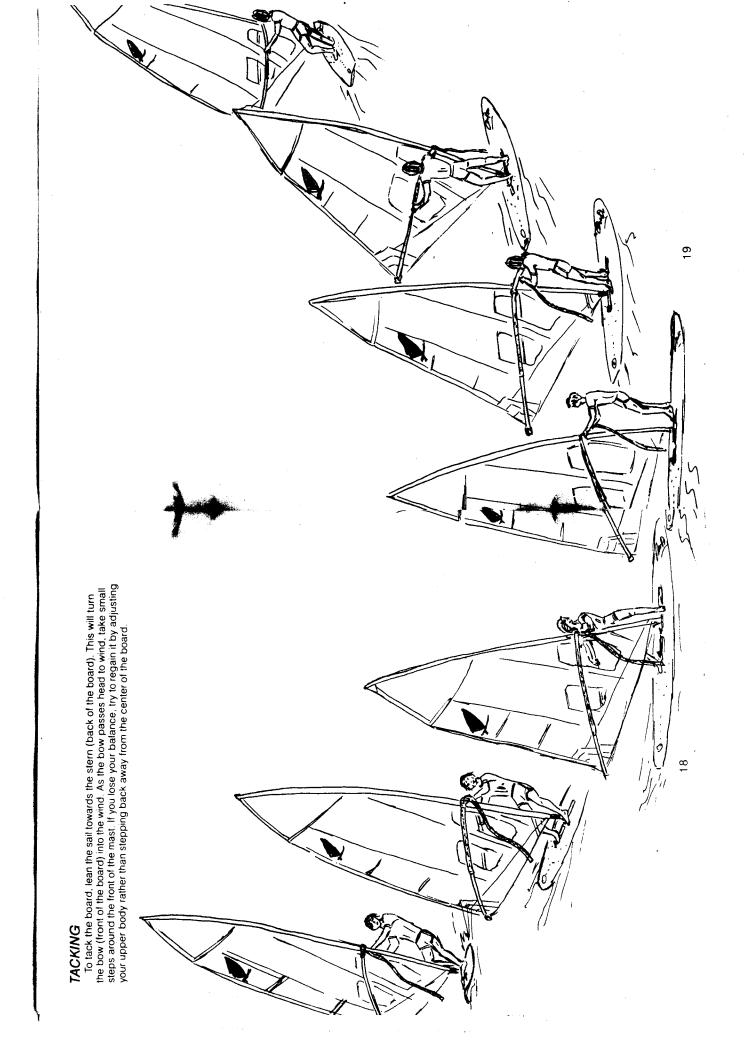
- To turn into the wind, tip the mast back —the front of the board will turn into the wind.
   To turn away from the wind, tip the sail forward—the front of the boat will turn away

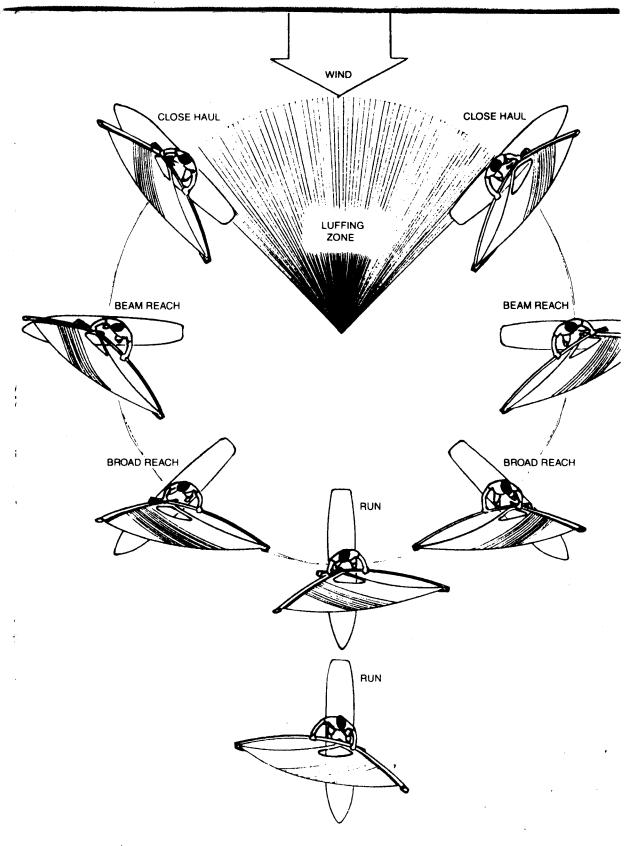


# **TURNING**

There are two ways to change direction; tacking through the eye of the wind and jibing away from the wind.







With your purchase of a Windsurfer One Design sailboard and the completion and return of your warranty registration card, you will receive one free copy of WINDSURFER NEWS and the opportunity to join the International Windsurfer Class Association at half price (\$6.00). The International Windsurfer Class Association (IWCA) is the largest one-design sailing class in the world. Members of the IWCA enjoy class sanctioned activities throughout the world. The annual IWCA membership fee entitles you to a membership card, a decal, a copy of the Class Rules and Constitution, and a subscription to WINDSURFER NEWS, the official quarterly publication of the IWCA.



#### WINDSURFING INTERNATIONAL, INC. LIMITED WARRANTY

WINDSURFING INTERNATIONAL, INC.

WARRANTS to the first retail purchaser that each model of its WINDSURFER® sailboard product line is free from defects in material and workmanship under normal use for a period of one year from the date of purchase. For this warranty to be effective THE WARRANTY REGISTRATION CARD MUST BE CORRECTLY COMPLETED AND MAILED TO WINDSURFING INTERNATIONAL, INC. WITHIN 14 DAYS AFTER THE DATE OF SALE TO THE FIRST RETAIL PURCHASER.

During the 1 year warranty period, WINDSURFING INTERNATIONAL, INC. will repair or replace, at its sole discretion, any part it judges to be defective in material or workmanship. Such repair or replacement, when approved by WINDSURFING INTERNATIONAL, INC. will be made by a selected authorized WINDSURFER Sport Center or WINDSURFING INTERNATIONAL, INC. located at 1955 West 190th Street, Torrance, California 90509. WINDSURFING INTERNATIONAL, INC. reserves the exclusive right to determine whether a part is defective.

#### WINDSURFING INTERNATIONAL,INC. LIMITED WARRANTY

WINDSURFING INTERNATIONAL, INC. ("WII")

AUTHORIZED WINDSURFER SPORTS CENTER(the "Center")

WARRANTS to the first retail purchaser that each model of its WINDSURFER sailboard line is free from defects in material and workmanship under normal use for the period of one year from the date of purchase. For this warranty to be effective, THE ENCLOSED WARRANTY REGISTRATION CARD MUST BE CORRECTLY COMPLETED AND RETURNED TO WIL BY AN AUTHORIZED CENTER WITHIN 7 DAYS AFTER THE DATE OF SALE TO THE FIRST RETAIL PURCHASER.

During the one year warranty period, WII will repair or replace, at its sole discretion, any part it judges to be defective in material or workmanship. Such repair or replacement, when approved by WII, will be made by a Center, or by WII, located at 1955 We 190th Street, Torrance, California, 90509. WII reserves the exclusive right to determine whether a part is defective or not. It placement parts furnished by WII are covered under warranty only for the remainder of the original one year warranty period.

It is mandatory that any claim under this warranty be discussed with a local Center before alleged defective boat or part is turned to the Center or WII. The bill of sale (indicating the date of purchase) must be presented to the Center when making a warranty claim. Transportation costs to the Center or to WII must be prepaid by purchaser, and in the event WII determines the part to be defective, WII will pay return shipping. If the part is not defective under the warranty, return shipment must be paid by purchaser.

THIS WARRANTY SHALL APPLY ONLY TO DEFECTS IN MATERIAL AND WORKMANSHIP AND SHALL NOT APPLY THE PRODUCT OR ANY PART THEREOF WHICH HAS BEEN SUBJECT TO ACCIDENT, NEGLIGENCE, ABUSE, ALTERATION, DAMAGE CAUSED BY USE IN SURF CONDITIONS, OR REPAIR BY ANYONE OTHER THAN WII OR A CENTER. WII WILL NOT BE LIABLE FOR ANY LOSS, DAMAGE, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, WHETHER BASED UPON WARRANTY, CONTRACT OR NEGLIGENCE, AND ARISING IN CONNECTION WITH THE SALE, USE OR REPAIR OF THE PRODUCT. The price of the WINDSURFER sailboard is a consideration in limiting WII liability. WINDSURFER SAILBOARDS USED IN COMMERCIAL ENTERPRISES ARE LIMITED TO A NINETY (90) DAY WARRANTY.

THE WARRANTY ON THE UNIVERSAL JOINT WILL BE EXTENDED TO A FIVE (5) YEAR PERIOD.

Note: Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation and exclusions may not apply to you.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER EXPRESS WARRANTIES. WII NEITHER ASSUMÉS, NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR US ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF THIS PRODUCT. ALL WARRANTIES, EXPRESSED OR IMPLIED, END ONE YEAR AFTER THE DATE, OF PURCHASE. Note: Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

WII reserves the right to make changes and improvements in subsequently manufactured sailboards without incurring any obligation to similarly after WINDSURFER sailboards previously purchased.

WINDSURFING INTERNATIONAL, INC., 1955 W. 190th Street, Torrance, California, 90509

# SEE YOUR LOCAL WINDSURFER® SPORT CENTER FOR YOUR WARRANTY REGISTRATION CARD