

# Reflex

**Welcome to Reflex !**

Congratulations on becoming a member of the Reflex Family.

This is your **USER'S HANDBOOK**. It is an important document and should be read and kept in a safe place and readily available for future reference. It provides important information about your product, guarantee information, suggestions on how to protect yourself against injury, and how to adjust and use your Reflex equipment.

**Read it before using this product.**



## **WARNING**

### **USE ONLY ON WATER**

**USE OF THIS PRODUCT AND PARTICIPATION IN THE SPORT OF WATER SKIING INVOLVES INHERENT RISK OF INJURY OR DEATH. READ THIS USER'S HANDBOOK BEFORE USING THIS PRODUCT.**

Minimize risk, maximize fun: Ski safely, ski in control and do not ski at speeds which exceed the skier's personal ability or skill.

### **BEGINNERS SHOULD USE EXTRA CAUTION**

Use the correct size ski and binding.

Use only bindings which meet the highest safety standards and always follow the manufacturer's instructions and cautions.

If you use rubber bindings, wet your feet and bindings before fitting and adjust the binding before initial use for a snug but not tight fit.

If you use hard shell bindings, make sure that the binding and plate is secured to the ski and has no movement and the release is secure to the binding. Make sure that you can release your foot from the ski with your own strength on the dock before skiing.

**Keep in mind that even properly adjusted bindings may come loose or release in the event of a fall and this could result in injury.**

**DO NOT ATTEMPT LAND OR DOCK STARTS AS THIS SIGNIFICANTLY INCREASES THE POTENTIAL FOR INJURY OR DEATH.**

**DO NOT USE IN SHALLOW WATER OR NEAR THE SHORE, DOCKS, PILINGS, SWIMMERS OR NEAR OTHER WATERCRAFT.**

- Always wear U.S. Coast Guard Type III (PFD) vest. Refer to the U.S. Coast Guard website at <http://www.uscg.mil/> for further information on life vests and marine safety; or **CE buoyancy aid** and read the Vest Operator's Manual before use.

## **PRODUCT INSTRUCTIONS AND WARNINGS**

**Water sports are safe and fun for all levels of enthusiasts when proper caution is used and marine safety regulations are observed. This USER'S HANDBOOK is provided to enhance your enjoyment of the sport and to alert you to some of the potential dangerous conditions that can arise in all water sports. It does not cover all problems or situations that could arise.**

To reduce your risk of injury or death, follow these guidelines:

- Use a correctly sized ski and binding.
- Inspect the skis, fin, and bindings for loose screws, wear, cracks, delaminations or tearing. Do not use if damaged.
- Check foot straps (bindings) and fins prior to each use to ensure they are securely and properly fastened to the ski.
- Wet Rubber bindings and feet with water before adjustment or use.
- Adjust the rubber bindings for a snug fit, but not too tight.
- If you use hard shell bindings, make sure that the binding and plate is secured to the ski and has no movement and the release is secure to the binding. Make sure that you can release your foot from the ski with your own strength on the dock before skiing.
- The faster you ski, the greater your risk of injury. Exercise additional caution when skiing at competitive speeds. Beginners should be towed at slower speeds that allow for reasonable control and stability commensurate with their ability.
- Water skiing instruction, which includes general safety guidelines and proper skiing techniques to reduce your risk of injury, is strongly recommended.

**Keep in mind that even properly adjusted bindings may come loose or release in the event of a fall and this could result in injury or death.**

## **WATER SPORTS SAFETY CODE**

Water sports are fun and challenging but involve inherent risks of injury or death. To increase your enjoyment of the sport and to reduce your risks, use good judgment and common sense and follow these rules:

**THE WARNINGS AND PRACTICES SET FORTH IN THE WATERSPORTS SAFETY CODE REPRESENT SOME COMMON RISKS ENCOUNTERED BY USERS. THE CODE DOES NOT REPORT TO COVER ALL INSTANCES OF RISK OR DANGER. PLEASE USE COMMON SENSE AND GOOD JUDGMENT.**

### **BEFORE YOU START:**

- It is your responsibility to familiarize yourself with all applicable federal, state and local laws before you begin.
- It is your responsibility to familiarize yourself with the proper use of the equipment and the risks inherent in this sport before you begin.
- Know the waterways where you intend to ski.
- Always have a person other than the boat operator to act as an observer.
- The skier, observer (spotter) and boat operator must use agreed hand signals.
- Never start out until the skier signals that he/she is ready. The observer and skier should maintain constant eye contact.
- Be familiar with basic water ski safety and marine safety recommendations. Refer to the U.S. Coast Guard website at <http://www.usca.mil/> for marine safety information and the Ski Safety Guide at <http://www.uscgboating.org/safety/metlife> archived 9-21-2007/water ski.htm for basic safety tips.

## **YOUR EQUIPMENT AND YOUR TOW ROPE**

- Inspect all equipment prior to use. Check bindings, fins, and flotation device prior to each use. Do not use if damaged.
- Always wear U.S. Coast Guard Type III (PFD) vest. Refer to the U.S. Coast Guard website at <http://www.uscg.mil/> for further information on life vests and marine safety; or CE buoyancy aid and read the Vest Operator's Manual before use.
- Use the proper tow rope for the activity.
- Inspect tow rope and its attachments before using. Do not use a tow rope if frayed, knotted or damaged. Replace when signs of excessive deterioration are indicated by discoloration, broken filaments, unravelling or other obvious signs of wear on the rope or hardware.
- Tow ropes stretch during use. If a rope breaks or is suddenly released, it can snap back into the watercraft. Be aware of and warn all riders, skiers and occupants of the danger of rope recoil.
- Rope should be attached to the watercraft in an approved fashion with hardware designed for towing. Refer to your watercraft manual for instructions on proper tow rope attachment.
- Ensure tow rope is clear of all body parts prior to starting out or during use.
- Keep persons and ropes away from the propeller when the engine is running even in neutral. Shut off boat engine when picking up skier and skier is near the boat. **IF THE ROPE BECOMES ENTANGLED IN THE PROPELLER, SHUT OFF THE ENGINE AND REMOVE IGNITION KEY BEFORE ATTEMPTING TO RETRIEVE THE ROPE.**

## WHEN YOU SKI OR RIDE

- **DO NOT ATTEMPT LAND OR DOCK STARTS AS THIS SIGNIFICANTLY INCREASES THE POTENTIAL FOR INJURY OR DEATH.**
- USE THIS PRODUCT ON WATER ONLY.
- Before starting always remove any slack in the rope between watercraft and skier/ rider. Sudden shock loads may cause injury to skier/rider or rope failure, resulting in snap-back or breakage.
- Do not ski or ride in shallow water, near shore, pilings, docks, rafts, swimmers, other boats or other obstacles. Such obstacles are examples of risks that are inherent in the sport. Know the inherent obstacle risks.
- The driver and skier/rider must watch for and be able to stop or turn to avoid obstacles.
- Falling and the injuries that may result are inherent risks in the sport. Know the inherent risks.
- Always ski or ride in control and at speeds appropriate for your ability and within your limits. Observe recommended product speed limits.
- Do not ski or ride over ramps or jumps without prior instruction and/or training.
- Use a flag to signal others that a skier or rider is in the water.
- Do not operate watercraft, ski or ride under the influence of alcohol or drugs.

## LIMITED WARRANTY

### 2 YEAR LIMITED WARRANTY

Your Reflex equipment is warranted to be free of defects in materials and workmanship for a period of two (2) years from date of original purchase. Excluded in this limited warranty is damage due to misuse or abuse, improper care or maintenance, damage from binding mounts, damage due to improper handling and/or from bottom abrasions. This warranty is applicable only to water ski equipment purchased from an authorized Reflex dealer or directly from Reflex.

#### HOW TO OBTAIN WARRANTY REPAIR OR REPLACEMENT

To obtain warranty related repair or replacement, call or write Reflex customer service for a return authorization number and shipping instructions:

T (33) 4 98 01 62 08 [info@reflexworld.com](mailto:info@reflexworld.com)

Attach a card or letter securely to the product with your name, address, telephone number with country and area code, proof of purchase, and problem description.

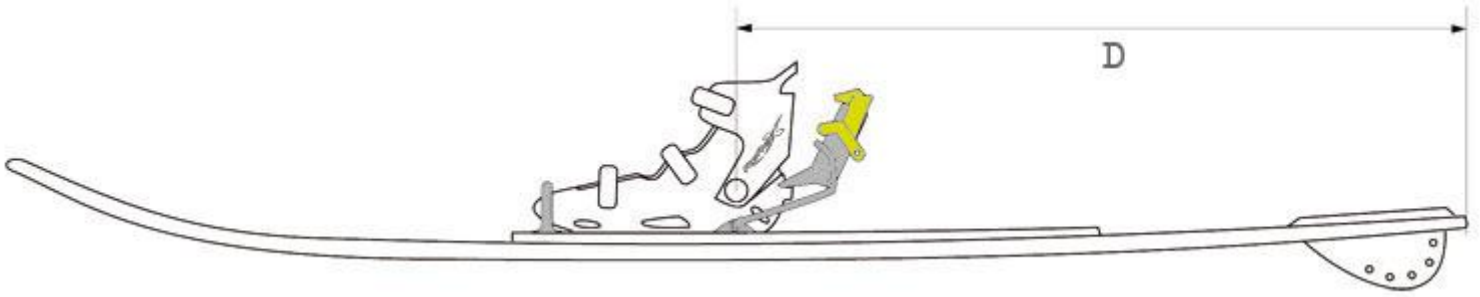
**Warranty service will be done only at Reflex. Shipping to that location must be prepaid by the ski owner.**

Reflex will return all skis covered under the 2 YEAR LIMITED WARRANTY, freight prepaid, by the method of their choice at no charge to the equipment owner.

Shipment of equipment for exchange or repair under the LIMITED LIFETIME WARRANTY to and from the repair facility is the responsibility of the ski owner. Equipment returned under the LIMITED LIFETIME WARRANTY will be replaced or repaired at the option of the Reflex factory. This warranty is applicable to the extent that any provision thereof is not prohibited by federal, state, or municipal law. This warranty gives you specific legal rights and you may also have other rights which vary from state to state and country to country.

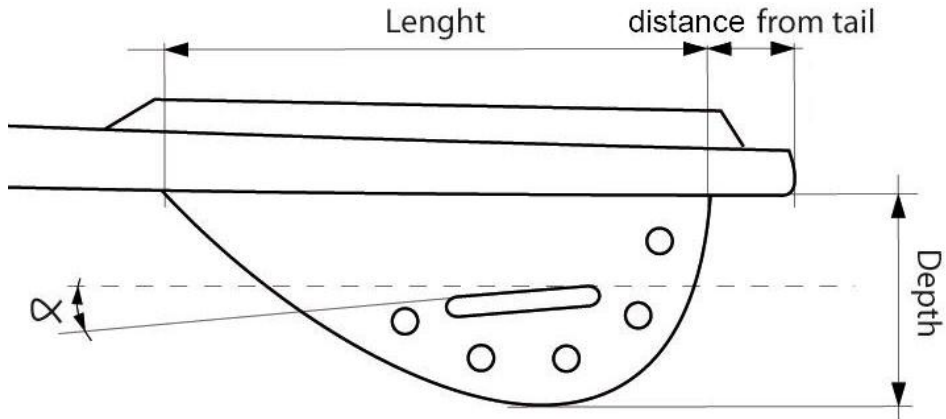
Write down your purchase information on this page and keep this for your records.

## CARBON SLALOM SET- UP



<b>D= Ankle to tail</b> This is the most accurate because this is the center of your body balance independently of the size of your foot.	ZEN							
	62"	63"	64"	65"	66"	67"	68"	69"
D= mm	780	785	795	805	820	835	840	855
D= inches	30.70	30.90	31.30	31.70	32.30	32.90	33.00	33.70

<b>D= Ankle to tail</b> This is the most accurate because this is the center of your body balance independently of the size of your foot.	HYBRID			FLOW			WARP
	64-66	65-67	66-68"	64-66"	65-67"	66-68"	
D= mm	800	810	820	800	810	820	67"
D= inches	31.50	31.90	32.30	31.50	31.90	32.30	815
							32.00



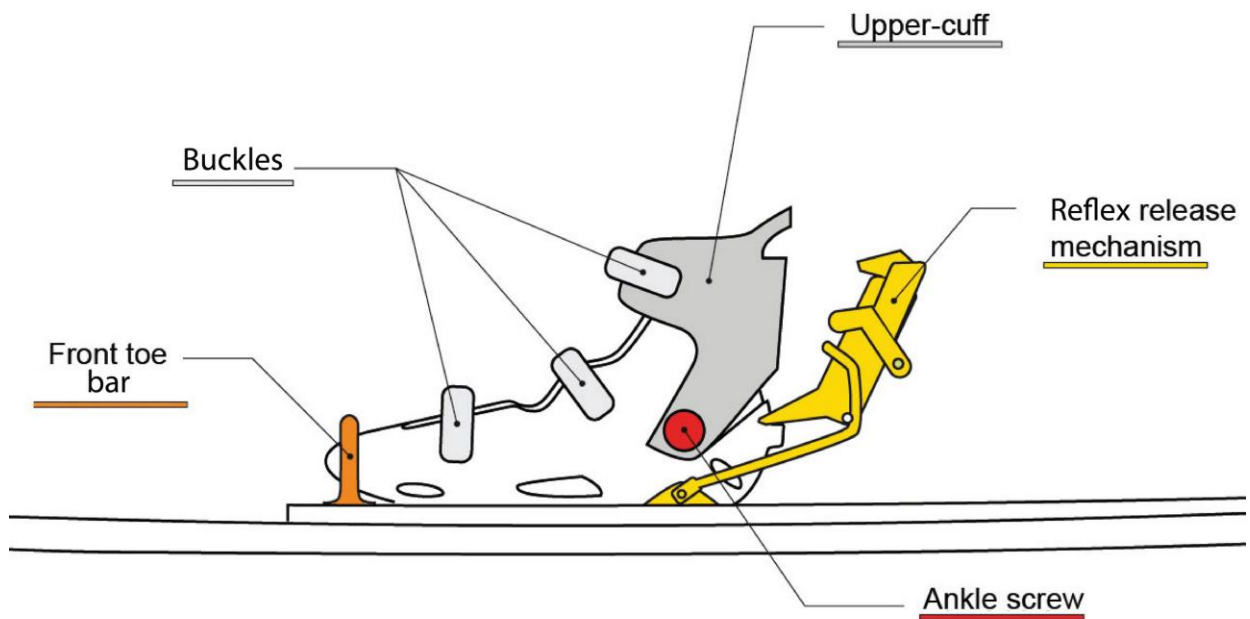
FIN MEASUREMENTS	ZEN		HYBRID		FLOW		WARP	
	All sizes		All sizes		All Sizes		67"	
UNIT	Inch	mm	Inch	mm	inch	mm	inch	mm
<b>Length</b>	6.7	170	6.79	172.5	6.730	171	6.810"	173
<b>Distance from tail</b>	0.9	23	0.81	20.6	0.750	19	0.84"	21.3
<b>Depth</b>	2.48	63	2.42	61.5	2.41	61.2	2.515"	63.8
<b>Winglet angle</b>	6 to 7		9°		6 to 7		7 to 8	





## HARD SHELL BINDING USER MANUAL

### 1. REFLEX SKITEC BINDING OVERVIEW



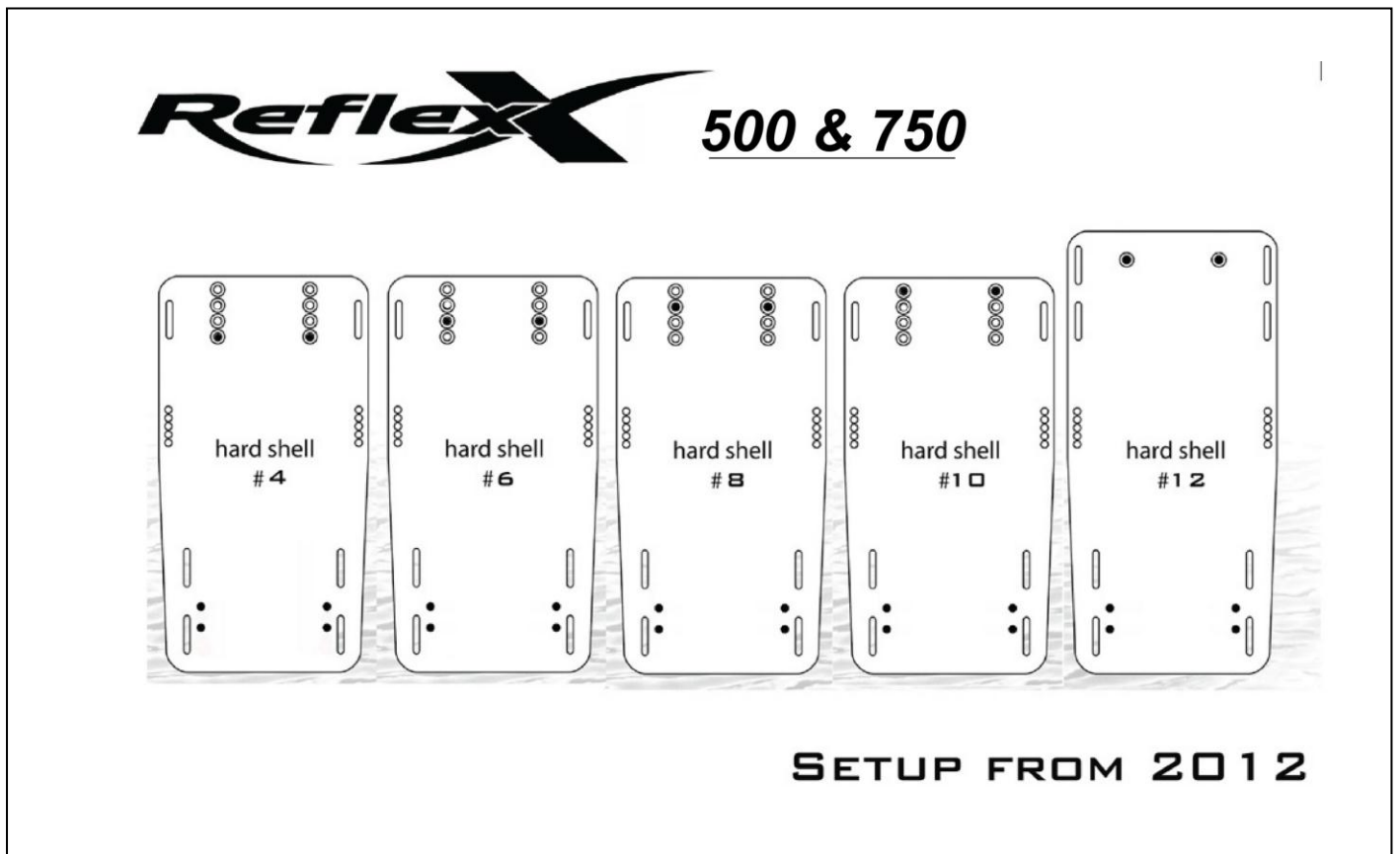
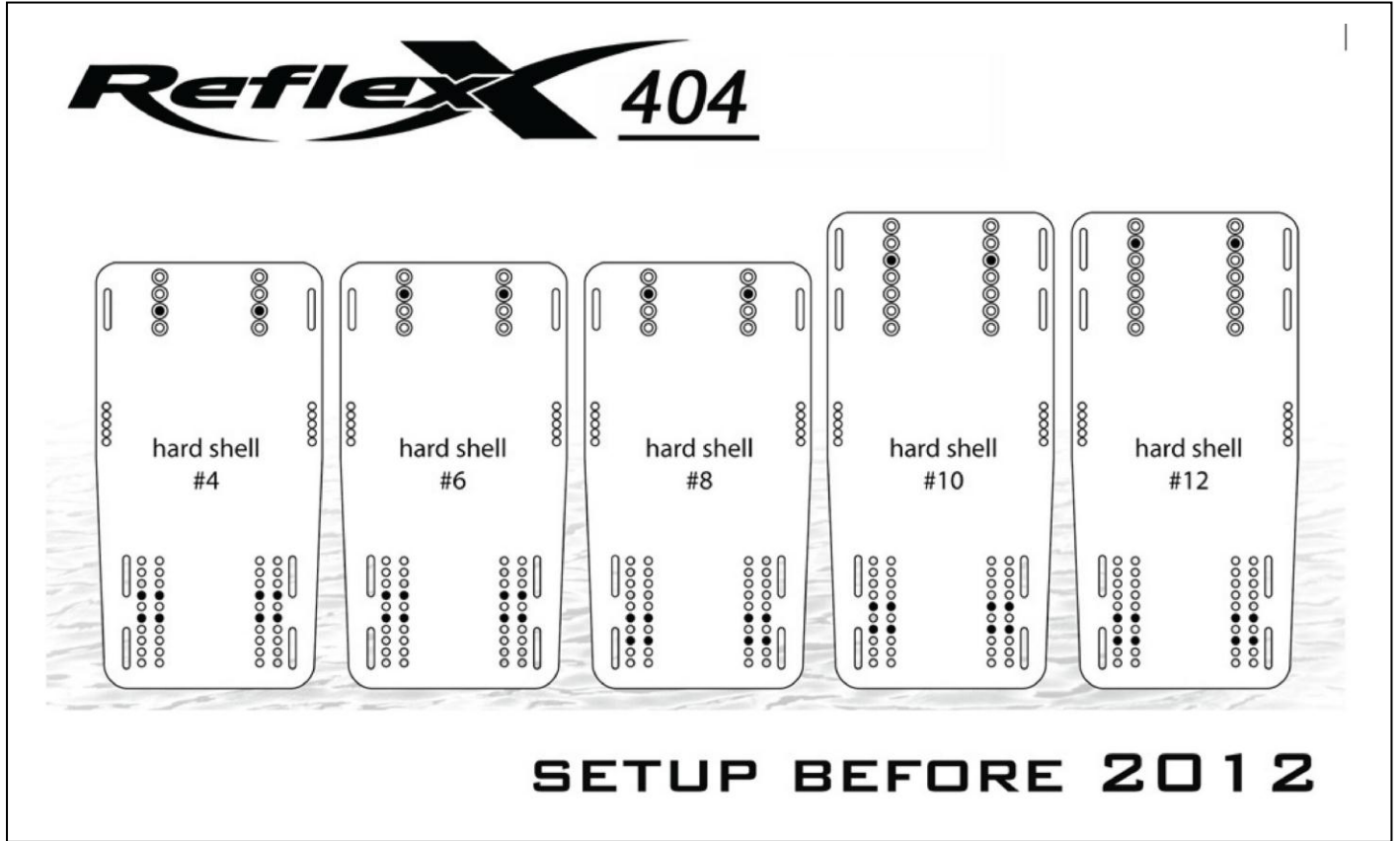
### 2. MOUNTING INSTRUCTIONS

The **Reflex** system, like with any other precision mechanism, requires that the mounting and adjusting instructions be followed exactly. Along with following these instructions, proper maintenance must be used in order to avoid serious injury or death.

1. You must have the factory measurement from your ski manufacturer of where to place your front binding on your ski.
2. Place plate and boot on ski and line up the hole pattern from the plate to the inserts of your ski. The plate has holes for virtually all ski brands but small adjustments are sometimes necessary. In this case use a "rat tail" file to send the plate holes until they line up perfectly.

### 3. SETTING UP THE RELEASE MECHANISM ON THE PLATE (YELLOW 404 & GREY 500)

Correct positioning of the release mechanism is critical to the proper operation of the system.  
(404 model is yellow or red, 500 model is grey)

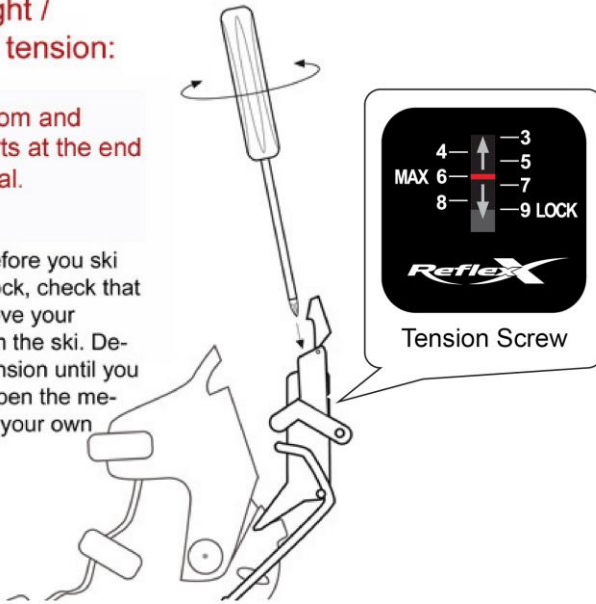


## 4. SETTING UP THE TENSION OF THE RELEASE MECHANISM

Skier weight /  
Maximum tension:

See the Slalom and  
Trickski charts at the end  
of this manual.

Every time before you ski  
and on the dock, check that  
you can remove your  
hardshell from the ski. De-  
crease the tension until you  
are able to open the me-  
chanism with your own  
strength.



The release mechanism must be set in accordance to the weight and the skiing style of skier.

For the large majority of skiers, the tension on the release mechanism should be set between 4 and 6. It is not recommended to set the tension on the release mechanism over 6 except for high level Trick skiers.

Doing so might prevent the system from releasing when necessary and cause injury or death.

Position the Boot between the front toe horseshoe and the release – you should feel a strong resistance before the release system clamps.

## 5. SIZE COMPARISON CHART

The length of your foot is the most important information that you need to choose your hardshells. The usual sizing that you use for your regular or sport shoes is not accurate enough.

SIZE						INTERNATIONAL SIZINGS			
Foot size cm	Foot size inch	Heat moldable liners (Black)	Thick liners (Silver)	Shell #	Inside shell length	Eur	Eng	US men	US women
23	9.1	S	36	4	25	36	3.5	-	5
24	9.4	S	37	4	25	37	-	-	-
25	9.8	M	38	6	26.5	38	5	6	6.5
25.5	10	M	39	6	26.5	39	-	-	-
26	10.2	M	40	6	26.5	40	7	8	8.5
27	10.6	L	41	8	28	41	8	9	9.5
27.5	10.8	L	42	8	28	42	-	-	-
28	11	XL	43	10	29.5	43	10	11	-
28.5	11.2	XL	44	10	29.5	44	-	-	-
29	11.4	XXL	45	12	30.5	45	11	12	-
30	11.8	XXL	46	12	30.5	46	-	-	-

# REFLEX 500 - WARNING.



Never wedge anything between the bottom of the hard shell and the base plate, except for the thin strip of grip tape that is supplied by the manufacturer.



KEEP THE ORIGINAL FACTORY SETTING AND STRICTLY RESPECT THE MOUNTING INSTRUCTIONS

## **If the cleat is lower than 57mm (2.24 inches):**

The downward and forward pressures are not strong enough: the REFLEX hard shell moves laterally.

## **If the cleat is over 57mm (2.24 inches):**

- 1) The downward forces increase and will result in not enough forward pressure, which in turn allows the toe of the hard shell to move in the toe loop.
- 2) This will force the side arms of the release to bend outward, which puts the entire mechanism under tension, and will cause the arm to break over time.
- 3) The system will also release prematurely.



57 mm

**NEVER MOVE THE CLEAT**



**NEVER USE A REAR HIGH-WRAP RUBBER BINDING.**

**NEVER MOVE THE CLEAT, NEVER WEDGE UNDER THE SHELL, KEEP THE ORIGINAL SETTING, NEVER USE IN ASSOCIATION WITH REAR RUBBER BINDING.**





## ENGLISH

1. Pre-heat oven to 212° F (100°C)

**CAUTION:** Do not heat above 100°C. Be certain that your oven is accurate.

2. Place liner in pre-heated oven for 5 minutes.

3. Place two athletic socks over your foot. The socks provide additional space and protection from the heat during the molding cycle.

4. Once the liner has been heated, using gloves, remove the liner from the oven.

5. Slip your foot into the heated liner and pull completely over your foot

6. Quickly place your foot into the shell.

Buckle your boot so that it is just snug. Do not over-tighten the buckles during the molding cycle.

7. Stand-up and allow liner to cool for 5 minutes.

8. Remove foot and repeat steps if needed. Liners can be reformed at any time.

## FRANCAIS

1 . Préchauffer le four à 100 ° C

**ATTENTION:** Ne pas chauffer à plus de 100 ° C. Soyez certain que la température de votre four soit exacte.

2. Placez le chausson au four pendant 5 minutes.

3. Placez 2 chaussettes de sport sur le pied. Les chaussettes fourniront plus d'espace et une protection contre la chaleur pendant le cycle de moulage.

4. Une fois que le chausson a été chauffé et en utilisant des gants, enlevez le chausson du four.

5. Sans perdre de temps, glissez votre pied dans le chausson chauffé.

6. Placez rapidement votre pied dans la coque. Fermez les boucles de votre chausse afin qu'elle soit juste serrée. Ne pas trop serrer les boucles pendant le cycle de moulage.

7. Mettez vous en position debout et laissez le chausson refroidir pendant 5 minutes.

8. Retirez le pied, le chausson a maintenant pris la forme de votre pied et de la coque. Vous pouvez répéter ces étapes si nécessaire car le liner peut être thermoformé plusieurs fois..

## REMEMBER

REFLEX users are experienced water skiers interested in maximizing performance and fun while minimizing risk.

This User Handbook is provided as a guide to assist you in safely using your Reflex equipment. It remains your responsibility to use sound judgement and observe applicable marine safety regulations.

If, after having read this USER'S HANDBOOK you have any questions, need assistance or have any comments or feedback, feel free to contact us at the following addresses:

REFLEX  
(AIRKIDE SARL)  
366 av Lambot, BP 312 83077 TOULON Cedex 9  
(France)  
Phone: +33 4 98 01 62 08

[info@reflexworld.com](mailto:info@reflexworld.com)

FR81 437 994 502

Ski safe and use common sense.



## **FREQUENTLY ASKED QUESTIONS**

### **I just started to ski in the slalom course, is the Reflex binding good for me?**

The Reflex system is especially well-suited for you because when comparing it with rubber bindings it only has advantages, no disadvantages.

- \* Easy to put on and take off.
- \* Greater comfort, thus more passes for the skier.
- \* Security in release from falls.

**How much do I have to weigh before I can start using the Reflex hardshell?** A person using the Reflex system should not weigh less than 88 pounds [40 kilos]. This is because even when the release mechanism is set at the minimum number it still may not release.

**What are the advantages versus rubber bindings?** The Reflex system provides many advantages for both slalom and trick skiers.

- \* More reactive
- \* Comfort from the adjustable buckles
- \* No cramps due to the thermo-formed liners
- \* Easy to put on and take off
- \* Security of release in an extreme crash due to the fact that you can precisely set your release mechanism
- \* Solid and durable

These advantages have convinced many high level skiers around the world to abandon their rubber bindings for the Reflex hardshell.

**How do I choose my size?** Your shoe size is not the most reliable method to determine your hardshell size. We recommend that you measure the exact length of your foot. The best way to do this is to stand and place the heel of your foot against a wall, then measure from the heel to the end of the front toe.

**Is the Reflex binding compatible with all the skis on the market?** There are 2 standard settings used for the inserts of skis on the market today. All our plates are adapted to fit both these insert settings. Also, because of our long slots on our plates it makes it easy to adjust the plate forward or backward on the ski.

**How do I set the release mechanism?** The release mechanism operates from a spring. You set the tension of this spring from a screw on the release. The setting of this spring is determined not only by the weight of the skier but also by the skier's level of skiing. Thus, a beginner skier will have a lower number on their setting than a seasoned competitor.

**How do I maintain my Reflex system?** The release mechanism should be rinsed on a regular basis to remove any debris. You should check to be sure that all screws are tight on the release system before each set. There should be no movement between the release system and the hardshell, nor between the hardshell and the front toe horseshoe. It needs to have a snug fit to be effective. There is possibility that with time the system could loosen so then you may need to move the release forward one hole. Due to the fact that the certain components of the system will last longer than others, it is possible to purchase certain components of the Reflex system separately.

**Can I make any modifications?** Reflex is constantly testing and improving our products. We do not recommend that you make any kind of modifications to our system. This could have hazardous results. We especially discourage to use another hardshell with our system, other than the Reflex hardshell. The rigidity of the Reflex hardshell is critical in the performance and the safety. We have available several kits with several options to upgrade your Reflex hardshell Carbon Upper, carbon bases, and aluminum buckles.

Check our website at [www.reflexworld.com](http://www.reflexworld.com)

