

Congratulations! You have just purchased the world's finest recurve bow. Hoyt's recurve bows have been designed for the serious recurve archer. Hoyt bows have brought home more Olympic and World medals than any other bow in the world.

Since 1931 Hoyt has led the way in recurve bow technology, We are proud to continue the tradition. With nearly three-quarters of the top archers around the globe shooting Hoyt recurves, no bow is more thoroughly tested and competition proven than a Hoyt. Now more than ever, you can shoot your shot and let your Hoyt do the rest.



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2014 RECURVE OWNER'S MANUAL





TABLE OF CONTENTS

Important Information	1
Owner's Personal Record	3
Recurve Bow Terminology.....	4
• Bow Length.....	5
• Draw Weight	5
Bow Assembly	6
• Installing Limbs	6
• Shooting String Installation.....	7
• Un-stringing your bow.....	8
• Adjusting Weight	9
• Adjusting Tiller	9
• Hoyt Hardlock Alignment System	10
Pivot Block Adjustment.....	13
• Adjusting Center Shot.....	14
• Brace Height Range Chart	15
• Fine Tuning	15
• Limb Maintenance	15
• Warranty	16





WARNING! YOU'RE RESPONSIBLE FOR ARCHERY SAFETY

Please read the following safety information. Disregarding these warnings may cause serious injury or death to you and or others.



1. Carefully Inspect your bow before each use. Carefully note the condition of the shooting string, limbs and riser before you shoot. Frayed bowstrings should be replaced. Damaged risers, limbs, etc. should be reported to your local dealer for inspection or replacement. Using a bow with damaged components may result in serious injury and further bow damage.

2. Never "Dry Fire" Your Bow. Dry fire means to draw and release the bowstring without firing an arrow. Firing a bow without an arrow (to absorb the energy) can cause severe damage to your bow and possible injury to the shooter or others nearby. Let down the bow slowly and carefully from any drawn position. Never try drawing a bow that does not fit your size or strength. Damage caused by a dry fire will not be covered under warranty.

3. Minimum Arrow Weight. Do not shoot an arrow weighing less than five grains for every pound of peak draw weight. For example: If your bow's peak weight is 40 pounds, do not shoot an arrow weighing less than 200 grains. Shooting an arrow below five grains per pound can cause damage to your bow and possible injury to the shooter or others nearby. Damage caused by shooting an arrow that is too light will not be covered under warranty.

4. Never Expose Your Bow To Extreme Heat or Prolonged Moisture. Excessive heat, such as a sunny day inside a closed vehicle, could cause component failure. Prolonged storage in a hot, dry attic or damp basement can also be damaging. Store the bow properly when not in use. Damage caused by extreme exposure will not be covered under warranty.


5. Be Sure of your Backstop. Make sure that the backstop you




use is large enough to catch a stray arrow and that it is thick enough that the arrow will not completely penetrate it. Make sure to position it in a safe direction away from people, animals, buildings and roads.

6. Be Sure of Your Target. Make sure that there are no people, animals, buildings, roads or other objects behind or near your target. Be absolutely sure of your target in low light conditions.

7. Inspect All Arrows. Before shooting, inspect your arrows for damages. Discard cracked or dented shafts. Replace damaged or loose fletchings and nocks. Never shoot a damaged arrow. Shooting a damaged arrow can cause serious damage to your bow and or injure the shooter or others nearby.



8. Always Be Safe. Never shoot straight up. Wear safety glasses when working on and shooting your bow. Be careful around the shooting string when using broadheads. Cutting the shooting string can cause serious damage to your bow and possible injury to you or others. Do not draw the bow beyond its maximum draw length. Never point or aim a drawn bow at another person. An adult must always supervise children.



9. Read and Heed All Warnings. Hoyt cannot be held responsible for injuries suffered or caused by misuse, unsafe or improper arrow and bow combinations. Hoyt cannot be held responsible for injuries sustained when using an altered, modified, or damaged Hoyt bow. In addition, always read the warning labels of any other product being used in conjunction with a Hoyt bow (target, arrows, quiver...) and adhere by the safety guidelines.



OWNER'S PERSONAL RECORD

Fill in the following personal bow record for your reference:

Riser Serial Number _____
(Located on the riser under the grip or in the limb pocket)



Limb Serial
Number _____
(Located on limb label)

Hoyt Riser Model _____

Purchased From _____

Purchase Date _____

Length _____ Weight _____



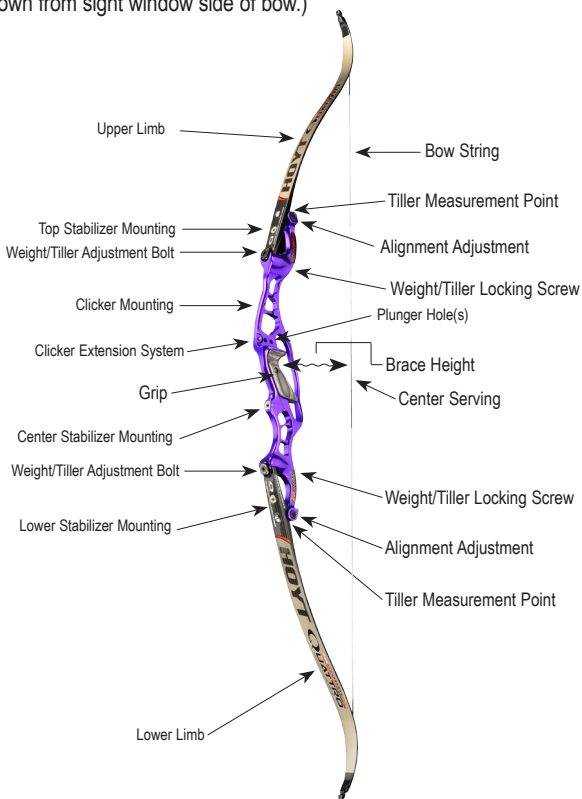
Save your sales receipt and serial number for your bow. The sales receipt, as well as your serial number, is your proof of date-of-purchase. **Proof of date-of-purchase will be required should your bow ever need warranty service.** The following space has been reserved for you to attach your sales receipt for safe and convenient keeping.

IMPORTANT!
A copy of your sales receipt is required for warranty purposes.

The sales receipt, as well as the serial number, is your proof of date-of-purchase. Proof of date-of-purchase will be required if your bow ever needs warranty service.

RECURVE BOW TERMINOLOGY

Understanding recurve bow terminology and measuring techniques is very important in setting up your new bow. Please familiarize yourself with the following terms and measurements. Refer to them as needed. (Bow shown from sight window side of bow.)



BOW LENGTH

Bow length is the distance from the tip of the top limb to the tip of the bottom limb of an unstrung bow with the tape following the limbs. Depending on which riser length and limb length you choose, you can tailor your bow to your specific needs. Refer to the following chart to determine your bow length.


Riser Length	Extra Short Limbs	Short Limbs	Medium Limbs	Long Limbs
21"	60"	62"	64"	66"
23"	62"	64"	66"	68"
25"	64"	66"	68"	70"
27"	66"	68"	70"	72"

DRAW WEIGHT

To determine the weight on your Hoyt bow, refer to the limb specifications located on each limb.

The weight marked on the limb is measured at a 28" standard A.T.A. (Archery Trade Association) draw length. A.T.A. draw length is measured at 26 1/4" to the throat of the bow grip plus 1 3/4". This produces an industry standard by which draw weights are measured.

Note: All limb weights are indicated for a 25" riser. Actual limb weight depends upon draw length, brace height, riser length and limb bolt setting.

MODEL	
TOP/BOTTOM	
LBS.	
LENGTH	
SERIAL #	
MADE IN THE U.S.A.	

BOW ASSEMBLY

INSTALLING LIMBS

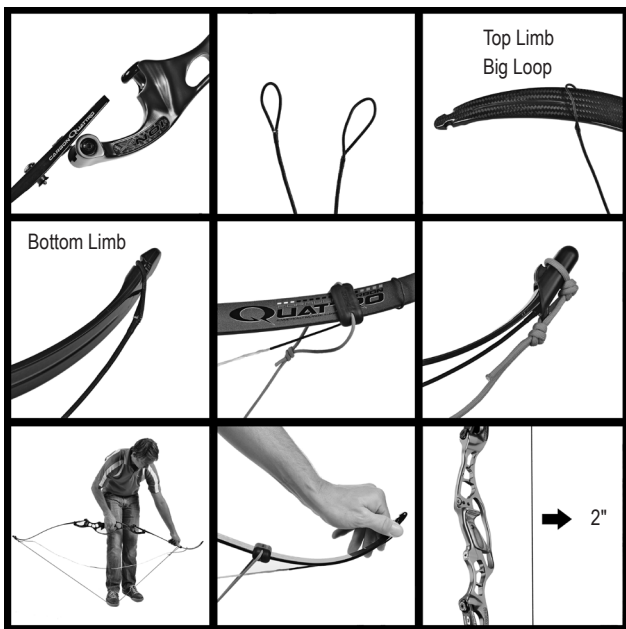


Carefully align the limb dovetail bushing with the corresponding slot in the riser pocket. Push the limb into the locket until the detent button engages. You will feel or hear a light “click” when this occurs, and the limb will stay in place under its own weight when fully seated. It is normal at this stage for there to be vertical movement possible with the limb.



WARNING!



Always use a bowstringer when stringing or unstringing a recurve bow. Serious injury could occur from improper installation.



SHOOTING STRING INSTALLATION

1. Verify that you are installing the correct size of string for the bow you are stringing. Carefully inspect the string for damage and for any knots that may have been accidentally tied from being stored.
2. Install the string by first placing the larger end loop on the top limb and slide the loop so it is approximately six inches from the limb tip. Place the smaller end loop on the bottom limb string groove. Then slide the upper end loop up the limb to take up any remaining slack in the string.
3. With the bottom end loop securely in the bottom limb string groove,





slide the bottom component of the recurve bow stringer over the string side of the bottom limb. Then slide the upper component over the top limb, place it approximately six inches from the limb tip. Make sure the upper component rests against the target side of the limb and that the cord that attaches the top and bottom pieces of the stringer is not tangled and is on the string side of the bow.

4. While standing up, with one hand hold the bow in the horizontal position with the shooting string parallel to the ground, as if the bow was pointed straight upward. The recurve bow stringer cord should be dangling at your feet.

5. Simply step on the cord with both feet. Simultaneously pull up on the bow with one hand so the cord is tightened, flexing the limbs as if it were being drawn. Slide the top end loop up the limb and secure it in the top limb string groove. Once the string is in place, relax the cord by letting the bow down and the shooting string will tighten, holding the bow in the strung position. Do not flex the limbs further than needed to install the string.



6. Carefully inspect the shooting string and verify that it is securely in the string grooves, and then remove the recurve bow stringer.

7. Without an arrow, pull the bowstring about two inches and let go to “seat” the limbs. This completes the assembly procedure. Do not exceed two inches. Dry firing your bow could cause severe damage to the bow and possible injury.

8. Carefully inspect the string for excessive wear and damage. **NEVER DRAW OR SHOOT A BOW WITH A DAMAGED BOW STRING.**

UNSTRINGING A RECURVE BOW

- 1.** Place the bottom component of the recurve bow stringer on the bottom limb tip, the cord must be on the shooting string side of the limb.
- 2.** Place the top section of the recurve bow stringer over the top limb,





the upper component should rest on the target side of the limb, approximately six inches away from the limb tip.

3. While standing up, with one hand hold the bow in the horizontal position with the shooting string parallel to the ground, as if the bow was pointed straight upward. The recurve bow stringer cord should be dangling at your feet.

4. Simply step on the cord with both feet. Simultaneously pull up on the bow with one hand so the cord is tightened. Flexing the limbs as if it was being drawn, slide the top end loop down the limb. Once the shooting string is relaxed, let the bow down and the shooting string and limbs will relax, and the bow will be in the unstrung position. Do not pull the limbs further than needed to relax the string.

5. Carefully remove the shooting string by first sliding the top loop down the limb, with enough slack in the string, remove the bottom end loop, then slide the top end loop up the limb and remove the string.

6. To keep the shooting string from losing its twists and adjusted length, clip or weave the top and bottom end loops together so the string will not become untwisted. Carefully inspect the string for excessive wear and damage. **NEVER DRAW OR SHOOT A BOW WITH A DAMAGED BOW STRING.**



ADJUSTING WEIGHT

Hoyt Recurve bows are adjustable over a range of approximately 10%. Factors which affect this include limb length, limb construction, and limb design and brace height.

- 1.** Unstring the bow using an appropriate recurve bow stringer.
- 2.** Using the longer of the two supplied Allen wrenches; loosen the tiller bolt locking screw (see image on pg. 5). If you plan to increase weight you will need to loosen this screw by more turns than you plan to add to the tiller screw.
- 3.** Turn the weight/tiller adjustment bolt clockwise to increase bow weight. Turn it counter-clockwise to decrease bow weight.
- 4.** Using both Allen wrenches, and holding the tiller bolt in place, re-lock the tiller bolt locking screw.



5. Restring the bow using an appropriate recurve bow stringer.

Note: From the bottomed out position, the tiller bolt should only be backed out to a maximum of six complete turns. If tiller bolt is backed out more than six turns damage to the bow or limbs may occur and warranty will be voided.

ADJUSTING TILLER

Tiller is a measurement which indicates the weight relationship of the top and bottom limb. This static measurement effects bow reaction and aiming. It is easily measured by noting the difference between the top limb butt to the string, and the bottom limb butt and the string. The difference (if any) is the tiller.

The degree of desirable tiller will vary from archer to archer, depending upon factors such as grip pressure, finger pressure, desired tuning pattern, desired aiming arc, desired bow reaction and more. As a starting point, it is usually easiest to tune a bow with 0 to 3/8" of tiller (distance from bottom limb to string is equal to that of the top limb, or less, by up to 3/8").

Typically, for most shooters with normal finger and hand pressure, anywhere from 0 to 3/8" of tiller is going to yield a bow which aims easily without "pulling" high or low, and which shoots more quietly.

Measure the tiller as shown in the diagram to the right. If you wish to increase tiller without affecting bow weight, unstring the bow and add turns to the bottom limb tiller bolt, then subtract the exact same number of turns from the top limb tiller bolt. After re-locking the bolts and set screws, restring the bow. Do the opposite to decrease tiller. You can increase both tiller and bow weight by adjusting the bottom limb only.

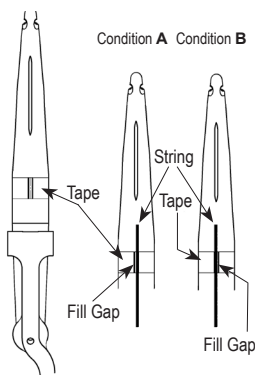
HOYT HARDLOCK ALIGNMENT SYSTEM

Hoyt's limb pocket design is the most precise, reliable pocket system available today. This system will maintain correct settings in the most severe conditions. Out of the package, Hoyt bows are factory pre-

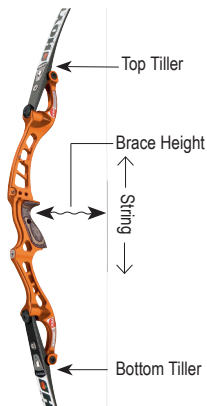
aligned and adjustment is optional when used with Hoyt limbs. In general, the vast majority of setups do not require alignment adjustments. Adjustments should not be made before the bow has been shot a minimum of 100 shots. This will allow the mating surfaces of limbs and riser to correctly seat to each other.

To make an adjustment, follow these directions:

1. With your bow in the strung position, place a piece of masking tape horizontally, approximately 4" (10cm) from the end of the riser on the archer's side of both limbs.
2. Locate the center of the limb with a measuring tape and draw a vertical center line on the masking tape.
3. Measure 1/16" (approx. 2 mm) from the drawn vertical center line and draw additional vertical lines on both left and right sides.
4. If the bow string lines up with the center line, your dowels are properly aligned. If you notice conditions A or B, proceed with the following directions.



5. Unstring the bow utilizing an appropriate bow stringer and remove the limbs.
6. Loosen the radial locking screw.
7. Unscrew the alignment locking screw and remove the alignment cap and washers. Pull the alignment dowel and washers out from the sight window side of the pocket.
8. **Instructions for CONDITION A:** Remove a washer from the right side of the dowel and add it to the left side of the dowel (see p. 7).





9. Instructions for CONDITION B:

Remove a washer from the left side of the dowel and add it to the right side of the dowel. (see p. 7).

Note: To correct the alignment only add washers to

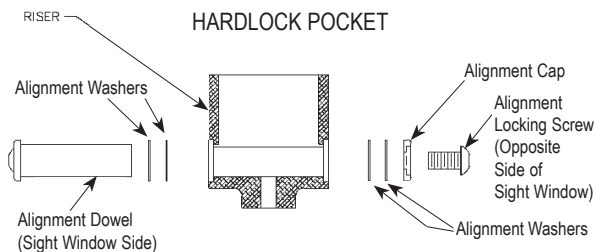
the side that has the gap, as indicated in conditions A and B. Only shift one washer at a time.

10. Once the washers are reconfigured, reinstall the alignment cap and lightly tighten the alignment locking screw.

Note: The factory alignment setting for all Hoyt Recurve bows is two .010 washers on each side of the dowel.

11. Rotate the dowel's dovetail to line up flush with the cut-out in the pocket. Once the dovetail and cut-out are aligned, firmly tighten the radial locking screw and alignment locking screw.

12. Reinstall the limbs and restring the bow utilizing an appropriate bow stringer and verify your alignment adjustment.





Pivot Block Adjustment

(Available on certain Hoyt recurves.)

Most Hoyt riser and limb combinations do not require adjustment.

The riser dovetail pocket is factory aligned and should only be adjusted by a qualified equipment technician. One full sweep of the block to the left or right will result in a corresponding .020" of lateral limb adjustment at the dovetail, which is the same adjustment range as is available for Hoyt risers equipped with the Hoyt Hardlock dowel system.

Attention: Remove the left & right locking screws (see photos) before making any adjustments.

Do not lose the locking screws. Replacements are available from Hoyt Customer Service or your dealer. Adjustments may be made with the bow in a strung position, however, Hoyt recommends unstringing the bow to reduce wear on the paint finish of the limbs.

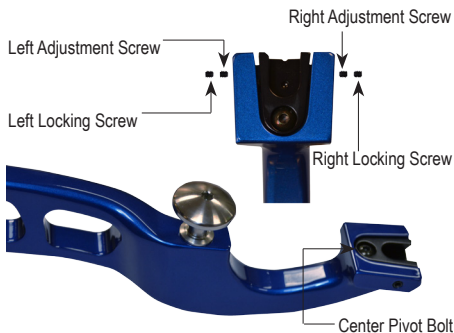
Do not attempt to adjust or remove the center pivot bolt on the alignment block.

With the locking screws removed, access the adjustment screws to make adjustments:

- Removing turns from the right side screw and adding an equal number of turns to the left side screw (viewed from the face or archer side of the riser) will move the limb tip to the LEFT.
- Removing turns from the left side screw and adding an equal number of turns to the right sidescrew (viewed from the face or archer side of the riser) will move the limb tip to the RIGHT.

Once the proper alignment is achieved, you should snug BOTH alignment bolts against the dovetail block to the tightened position. Then, replace the locking screws and snug them tightly.

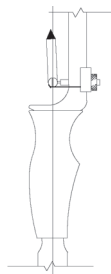
Adjustments can be made to the string to adjust brace height. Adding twists will increase the brace height while removing twist will decrease



the brace height. Generally, Hoyt does not recommend less than 10 twists in a string. Optimum brace height is one that gives a smooth bow action, good arrow flight, tight grouping and often yields the quietest shot.

ADJUSTING CENTER SHOT

The final step of tuning is to position your center shot. To start, position the arrow slightly outside of the center of the bowstring. To do that, begin by nocking an arrow and placing it on the arrow rest. Do not draw the bow, but position yourself behind the string side of the bow, looking down the arrow. Align the string down the center of the limbs and riser and check to see the position of the arrow tip relative to this line. Adjust the plunger or arrow rest until the inside edge of the arrow shaft aligns with this line.



BRACE HEIGHT RANGE CHART



Riser	Limb	X-Short	Short	Medium	Long
21" Grand Prix	Length	60"	62"	64"	66"
	String Length	57.25"	59.25"	61.25"	63.25"
	Brace Height	7.5 - 8.0"	8.0 - 8.5"	8.0 - 8.75"	8.5 - 9.0"
23" Grand Prix	Length	62"	64"	66"	68"
	String Length	59.25"	61.25"	63.25"	65.25"
	Brace Height	8.0 - 8.5"	8.0 - 8.75"	8.25 - 8.75"	8.5 - 9.0"
25" Grand Prix	Length	64"	66"	68"	70"
	String Length	61.25"	63.25"	65.25"	67.25"
	Brace Height	8.0 - 8.75"	8.25 - 8.75"	8.5 - 9.0"	8.75 - 9.5"
25" Formula HPX, ION-X & GPX	Length	64"	66"	68"	70"
	String Length	61.25"	63.25"	63.25"	67.25"
	Brace Height	7.25 - 8.0"	7.5 - 8.0"	7.75 - 8.25"	8.0 - 8.75"
25" Formula RX & Excel	Length	64"	66"	68"	70"
	String Length	61.25"	63.25"	65.25"	67.25"
	Brace Height	8.0 - 8.75"	8.25 - 8.75"	8.5 - 9.0"	8.75 - 9.5"
27" Formula HPX & ION-X	Length	66"	68"	70"	72"
	String Length	63.25"	65.25"	67.25"	69.25"
	Brace Height	7.5 - 8.0"	8.0 - 9.0"	8.0 - 8.75"	8.0 - 9.0"
27" Formula RX	Length	68"	68"	70"	72"
	String Length	63.25"	65.25"	67.25"	69.25"
	Brace Height	8.25 - 8.75"	8.5 - 9.0"	8.75 - 9.5"	8.75 - 9.5"

FINE TUNING

For advanced methods, see your local dealer. An additional source of detailed information is the Easton Arrow Tuning and Maintenance Guide, available for a nominal fee from Easton Technical Products, 5040 W. Harold Gatty Drive, Salt Lake City, UT 84116, (801) 539-1400 or online at www.eastonarchery.com.

LIMB MAINTENANCE


Hoyt limbs are very low maintenance. However, a few simple actions can help keep them looking new and prevent minor problems. The most common limb issue is loose hardware. Over time, the stainless-




steel button head screw holding the limb detent system in the limb can loosen. Use an Allen wrench to periodically re-tighten this screw. Do not over-tighten. The screw is designed to be removable to allow cleaning in the event of water immersion. However, the components are corrosion resistant and normal rainfall is not a problem. Lubricant is not required on any limb component when the limbs are used in Hoyt risers.

Hoyt foam limbs are water-resistant. Occasionally you may apply a light coat of quality car wax to the painted surfaces to keep them looking fresh, but this is not required. Wood core limbs are potentially susceptible to moisture infiltration if the protective finish is damaged (by a deep scratch, for example). The use of clear nail polish or clear automotive touch-up paint will help re-seal the wood and prevent moisture problems. After use in wet conditions, towel dry your limbs and riser to prevent water damage (do not use a heat source).

WARRANTY





RECURVE BOW RISER AND RECURVE LIMB WARRANTY
PLEASE READ THIS DOCUMENT CAREFULLY. IT CONTAINS
VERY IMPORTANT INFORMATION ABOUT YOUR RIGHTS AND
OBLIGATIONS, AS WELL AS LIMITATIONS AND EXCLUSIONS THAT
MAY APPLY TO YOU.



Hoyt warrants to the ORIGINAL OWNER that the Hoyt Recurve Bow Riser, will be free from defects in materials and workmanship for the lifetime of the product and Hoyt Recurve Limbs, will be free from defects in materials and workmanship for one year from date of purchase. Hoyt Recurve Bow Riser and Hoyt Recurve Limb warranty is regulated under the following terms and conditions:

1. The original owner must retain and provide an original and dated proof of purchase (sales receipt). THIS WARRANTY IS NOT TRANSFERABLE.
2. THE ORIGINAL OWNER MUST REGISTER THE RISER OR LIMBS WITH HOYT WITHIN 30 DAYS OF PURCHASE. To register your product, visit www.hoyt.com/customer_service/ to complete the



registration process electronically, or contact Hoyt at (801) 363-2990 to request a registration card.

3. All risers and limbs must have the original serial number factory-attached to the bow. The serial number must remain legible.



Exclusions from Warranty Coverage.

This Limited Lifetime Warranty covers normal use of the product, and Hoyt does not warrant and is not responsible for:

- 1.** The use of aftermarket products/accessories that alter Hoyt's specs or design.
- 2.** Damage to strings, damping materials, finish (including paint, anodize, powder coat and film-dipped finishes) resulting from normal wear-and tear.
- 3.** If bow shows sign of misuse, alteration, or mishandling, this warranty will be void.
- 4.** Use of arrows weighing less than 5 grains per pound of draw weight will void the warranty.
- 5.** Damage to 'other' accessories.
- 6.** Aftermarket replacement strings.
- 7.** Bows returned to Hoyt without a Return Authorization number obtained by a Hoyt Authorized Dealer.



OBTAINING WARRANTY SERVICE

To obtain warranty service, you must return your bow to a Hoyt Authorized Dealer. The dealer can help to determine if Hoyt factory service is required or if the dealer can complete the repair. Authorized Hoyt dealers may provide additional services and apply additional charges for service work performed by the dealer. If the bow must be returned to the factory, **THE BOW OWNER IS RESPONSIBLE FOR THE FREIGHT CHARGES TO HOYT.** Hoyt, in turn, will pay for the same return freight of the repaired product. Before any bow is returned to Hoyt, a Return Authorization (RA) number must be obtained through an Authorized Hoyt Dealer. Please note that Hoyt will not issue RAs to consumers. Bows returned to the factory without a Return Authorization number obtained from a Hoyt



Authorized Dealer may be denied warranty service. If Hoyt determines, in its sole discretion, that a bow qualifies for warranty repair, Hoyt will make every effort to repair the bow. Repairs may be performed with original parts when available. Hoyt reserves the right to make part substitutions on warranty coverage for any reason. If original parts are not available, suitable replacement parts/components may be used. If the Hoyt bow is not repairable, but qualifies for warranty coverage, Hoyt will replace the bow with a bow of similar feature and product class in Hoyt's sole determination. THERE ARE NO OTHER WARRANTIES EXPRESSED OR IMPLIED THAT EXTEND BEYOND THOSE WRITTEN HERE. NO AGENT, EMPLOYEE OR REPRESENTATIVE OF HOYT OR ITS DEALERS HAVE THE AUTHORITY TO BIND HOYT TO ANY AGREEMENT NOT HEREIN STATED.

LIMITATION OF LIABILITY



IN NO EVENT SHALL HOYT BE LIABLE UNDER ANY CIRCUMSTANCE TO YOU OR ANY OTHER PARTY FOR ANY SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE PRODUCTS, EVEN IF THE COMPANY OR ANY OF THE COMPANY AFFILIATES HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT SHALL HOYT OR ANY HOYT AFFILIATE BE LIABLE TO YOU OR ANY OTHER PARTY FOR LOSS, DAMAGE, OR INJURY OF ANY KIND BEYOND THE BOW ITSELF.

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



HOYT WARRANTY

593 North Wright Brothers Drive
Salt Lake City, UT 84116

Phone: (801) 363-2990 Fax: (801) 537-1470

Any bow returned must have the following:

- Must be sent postage paid.
- Must include a copy of the dated sales receipt.
- Must include a short note explaining the nature of the problem.
- Must include a Hoyt Return Authorization number.
- Should not include accessories unless otherwise instructed when the Return Authorization Number is obtained.

