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09



COMPOUND BOW OWNER'S MANUAL

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INTRODUCTION

Welcome to the Hoyt family!

As a member of an elite team, you will be pleased to know that you have purchased the finest crafted, most dependable bow on the market. Only the finest components go into every Hoyt bow - along with over 78 years of experience in bow technology and manufacturing. With some basic maintenance your new bow will provide you with years of good shooting and dependable service.



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BOW OWNER'S PERSONAL RECORD

Fill in the following personal bow record for your reference.

Bow Serial Number _____

(See page 23 for information on where your bow serial number is located.)

Hoyt Bow Model _____

Purchased From _____

Purchase Date _____

Draw Length _____ (in.) Draw Weight _____ (lb.)

String Length _____ (in.) Buss Cable Length _____ (in.)

Control Cable Length _____ (in.)

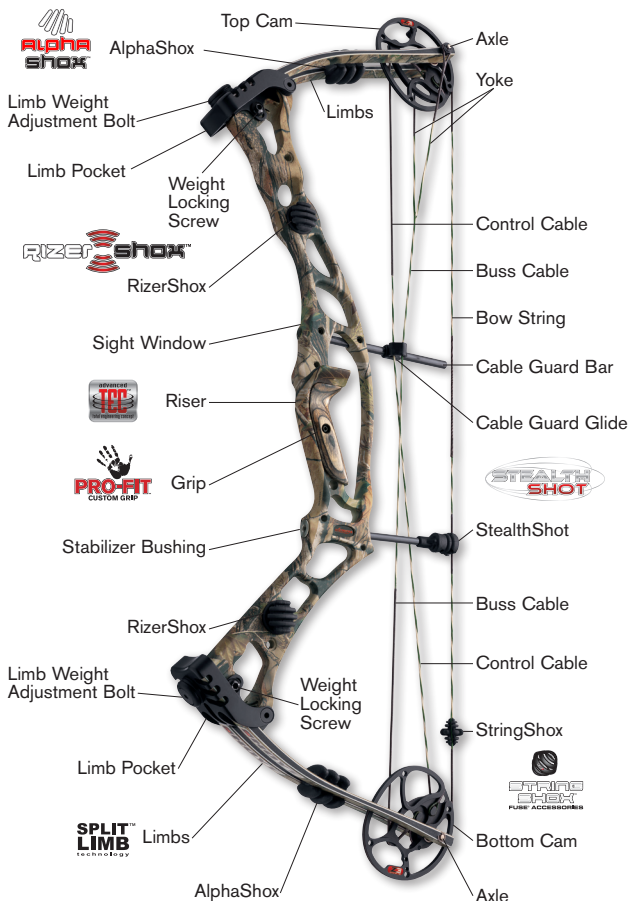
Important Notes:

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 staple or tape your sales receipt for safe and convenient keeping.

IMPORTANT!

Staple or tape your sales receipt
here for safekeeping.

COMPOUND BOW TERMINOLOGY



WARNING!

YOU'RE RESPONSIBLE FOR ARCHERY SAFETY

Please read the following safety information. Disregarding these rules may cause serious injury to yourself or others.

1. NEVER “DRY FIRE” YOUR BOW. Dry fire means to draw and release the bowstring without 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.

2. NEVER EXPOSE YOUR BOW TO EXTREME HEAT OR PROLONGED MOISTURE. Excessive heat, such as that experienced on a sunny day inside a closed vehicle, could cause component failure. Prolonged storage in a hot dry attic or damp basement could also be damaging. Store the bow properly when it is not in use.

3. CAREFULLY INSPECT YOUR BOW BEFORE EACH USE. Carefully note the condition of the bowstring, limbs and riser before you shoot. Frayed bowstrings should be replaced. Damaged or suspect limbs should be reported to your local dealer for inspection or replacement.

4. 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 cannot completely penetrate it. Make sure that it is positioned in a safe direction away from dwellings, roads and other people.

5. BE SURE OF YOUR TARGET. Make sure that there are no persons, livestock, buildings or other objects behind or near your target. Be absolutely sure of your target in low light conditions.

6. INSPECT ALL ARROWS. Before shooting, inspect your arrows for defects. Discard cracked or dented shafts. Replace damaged or loose fletchings and nocks.

7. ALWAYS BE SAFE. Never shoot straight up. Wear safety glasses when working on and shooting your bow. Be careful around strings and cables when using broadheads. Cutting strings and cables 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. Children **must** be supervised by an adult.

8. 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 or modified Hoyt bow.

COMPOUND BOW MAINTENANCE

Your bow is a mechanical device and as such, is subject to wear and need of periodic inspection, adjustment and service. Hoyt recommends that you take your bow to a Hoyt authorized pro shop at least once a year for a yearly professional maintenance and inspection. Areas to be inspected are axles, spacers, e-clips, strings, cables, limbs and riser (Hoyt Cam & 1/2 Performance System bows are equipped with sealed ball bearings and do not require axle bushing lubrication.).

The following information provides helpful instruction on the proper care and maintenance of your new Hoyt bow. Keep this manual as a handy guide for future reference.

STRINGS AND CABLES

Apply a light coat of bowstring wax to your bow's cables and string on a regular basis. Hoyt suggests once every two weeks during peak use. Use a high quality bowstring wax available at your local Hoyt pro shop. This will keep your bow's strings and cables in good condition. To assure best results, replace your string and cables when wear is evident or every two years under normal use conditions. Insist that FUSE string and cables be used on your bow. All Hoyt bow models come equipped with the FUSE Custom String System. Always replace your strings with FUSE brand strings. Beware of lesser quality string and cables as they may alter the performance of your bow or cause damage to it and possibly void warranty.

WARNING

**This bow is a deadly weapon.
Always abide by all safety advisements.
Children must be supervised by an adult.**

ECCENTRIC LUBRICATION

Cam & 1/2 Performance System bows (except for Versa Cam & 1/2) feature sealed ball bearings which do not require lubrication.

For conventional bearings or bushings, such as those found on AccuWheel and Versa Cam & 1/2, a light spot lubrication of the axles where they pass through the eccentric should be done on a regular basis (1,500 - 2,000 shots). In adverse hunting conditions where dirt, dust or moisture are encountered, lubrication may be done on a daily basis. Hoyt recommends you use a silicone or Teflon based lubrication or any other quality grease available at your local Hoyt Pro Shop. It is **NOT** recommended that you use "Penetrating Oils" such as WD-40, EZ-#7, Fast Break, etc.

BOW PRESS USE

Never allow your bow to be put into a bow press unless it is operated by a knowledgeable bow technician. Hoyt recommends that all necessary adjustments requiring the use of a bow press be done by an authorized Hoyt pro shop.

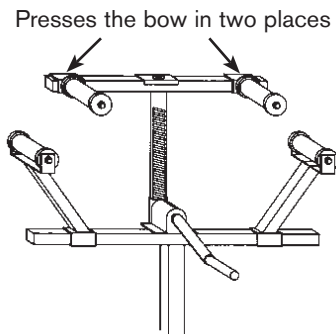


fig. 1 (An example of a Double Pull Bow Press)

Always use a double bow press like that shown in fig. 1 when working on your bow. **Never use a single pull bow press.** (See fig. 2)

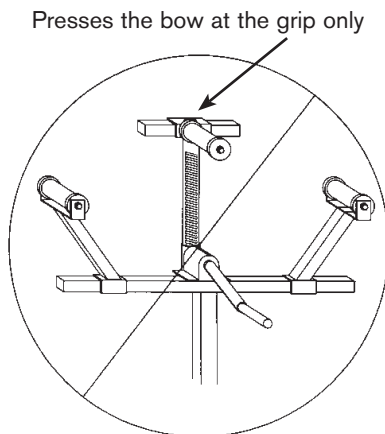
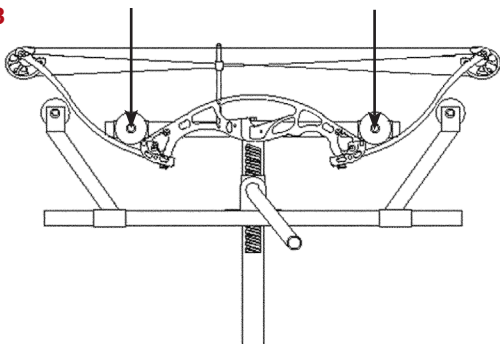


fig. 2 (An example of a Single Pull Bow Press)

Before putting your bow in a bow press, loosen both the top and bottom weight lock screws and weight adjustment bolts 5 to 7 turns from maximum weight (when limb bolts are fastened all the way down). When putting your bow in the press, **never put pressure on the riser!** Always position the rollers at the base of the limbs (where the limbs enter the limb pockets). (See fig. 3)

fig. 3



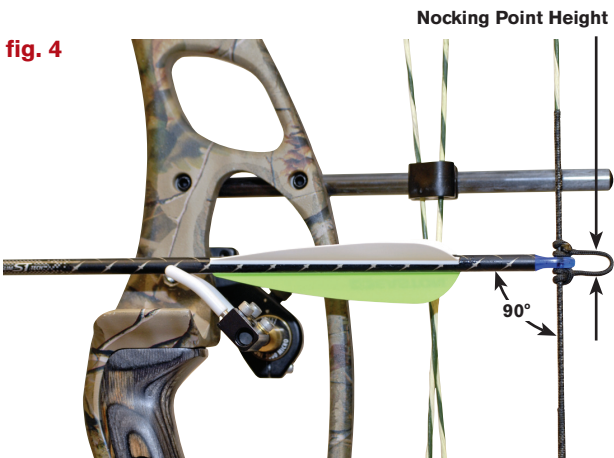
COMPOUND BOW SETUP

REST SELECTION

There are three basic types of arrow rests: Shoot Through, Fall Away, and Shoot Around. Hoyt recommends that you seek the advice of a qualified pro shop for the proper rest selection for your style of shooting.

NOCK SET INSTALLATION

A nock point is a reference on the string that marks the exact location for you to nock your arrow. A finger shooter should initially position the nock set at approximately 3/16" above level. The release shooter should position the nock or loop set so that the arrow sits at a 90 degree angle with the string and adjust height as needed (See fig. 4). **NEVER** shoot a bow without a nock set or with a nock point that has not been properly crimped. For proper installation Hoyt recommends that this be done by a qualified pro shop.



CABLE GUARD INSTALLATION

All Hoyt bows are designed with a built in cable guard bar attachment. Before mounting the cable guard bar, you must remove the rubberbands used only for shipping purposes. To insert the cable guard bar, simply slide the bar through the two mounting holes on the riser making sure that the bar is pushed completely through and flush with the end of the front mounting hole. After the bar has been inserted, fasten with the 1/4-20 x 1/2" set screws provided. (See fig. 5)

fig. 5

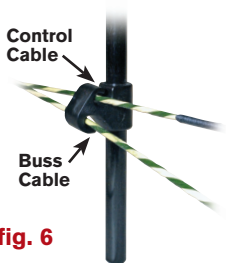
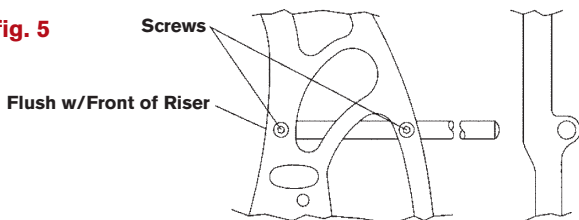


fig. 6

CABLE GUARD GLIDE INSTALLATION

To prevent your bow's cables from rubbing against each other, Hoyt uses a specially designed cable glide that has off-set cable slots. To correctly install the glide on all Hoyt bows, first place the glide on the cable guard bar. (See fig. 6) Next, push the control cable into the shorter front slot. Then, push the buss cable into the longer rear slot. **CAUTION: Do not pull bow back without proper installation of cable guard bar and glide.**

TILLER ADJUSTMENT

Tiller is the difference in distance between the upper limb to the string and lower limb to the string measured from the base of the limbs (where the limb and riser meet) at a 90 degree angle to the string. (See fig. 7)

The main function of tiller is to allow the archer to more easily and comfortably aim during the draw and release of the shot. Most bows will shoot best near even tiller, which means the distance from the string to the limb is the same on top and bottom. Tiller adjustments are made by adjusting either limb weight adjustment bolt. (See draw weight adjustment section pg. 14)



fig. 7

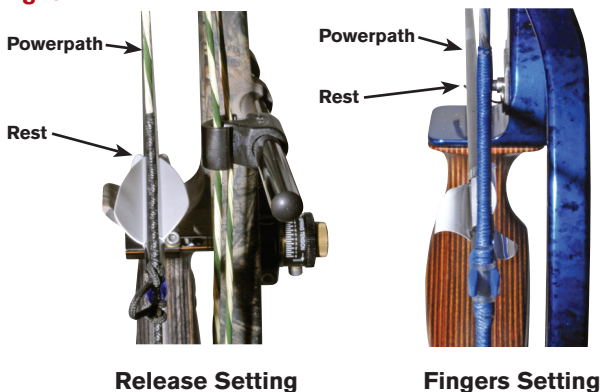


Example: If you have too much tiller on the bottom limb, decrease the weight on the top limb or increase the weight on the bottom. Hoyt recommends that you initially set tiller equal top and bottom.

CENTERSHOT

Centershot is the alignment of the arrow in the power path of the string. This is accomplished by moving the arrow rest left or right. Release shooters should line the arrow up with or just slightly outside of the power path of the string. (See fig. 8) Finger shooters should position the arrow so that the tip is just to the outside of the power path of the string. (See fig. 8)

fig. 8



Centershot is critical for accurate performance. These are initial centershot settings; for proper alignment Hoyt recommends this be done by a qualified pro shop.

FLETCH CLEARANCE

Fletch clearance is the ability of your vanes or fletchings to pass cleanly by or through your arrow rest without impacting the rest so severely that the arrow's flight path is disrupted. It is necessary that you have adequate vane clearance to achieve proper arrow flight. (See fig. 9)

fig. 9



Incorrect



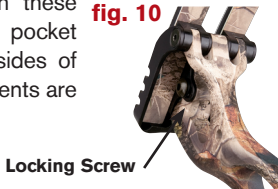
Correct

COMPOUND BOW ADJUSTMENT

DRAW WEIGHT ADJUSTMENT

Weight adjustments can easily be made by turning the weight adjustment bolt clockwise to increase weight or counter clockwise to decrease weight. Note: Always turn the top and bottom adjustment bolts in equal amounts. Some Hoyt model bows are equipped with a Dual Locking Pocket System. Before draw weight adjustments are made on these models you must first loosen the pocket locking screws located on both sides of the pocket. (fig. 10) When adjustments are complete, re-tighten screws.

fig. 10



Locking Screw

STEALTHSHOT STRING SUPPRESSION SYSTEM

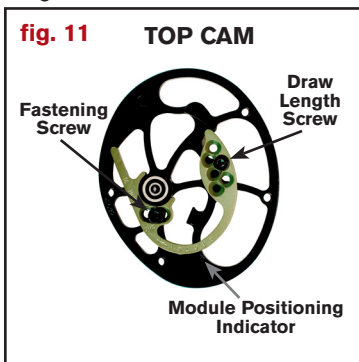
StealthShot is a highly effective noise and vibration dampening system. For optimum performance, make sure StealthShot's Navcom dampener is **just barely** touching the string at brace height. **Note:** It **should not** have any pressure applied to it at brace height.



DRAW LENGTH ADJUSTMENT

CAM & 1/2 PLUS, M4 CAM & 1/2, VERSA CAM & 1/2 AND ACCUWHEEL

TOP CAM: To adjust the draw length of Hoyt's cams with a rotating inner-cam module, use a standard Allen key to loosen the fastening screw and remove the draw length screw (See Fig. 11.). Rotating the inner-cam module in the (+) direction will lengthen the draw. Rotating the inner-cam module in the (-) direction will shorten the draw. Each lettered position will provide approximately 1/2 inch longer/shorter draw than the previous setting. Once the inner-cam module is in the desired location, reinstall and tighten the draw length screw first and then the fastening screw.

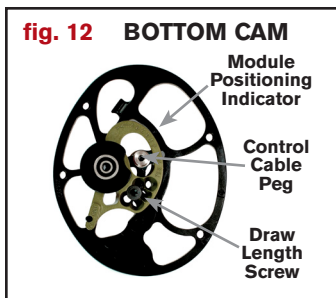


NOTE: On the Accuwheel, repeat the top cam draw length adjustment instructions on the bottom wheel as well.

BOTTOM CAM:

Remove the draw length screw, rotate the inner-cam module to the same lettered position as the top inner-cam module, and replace (See Fig. 12). You must have the inner-cam modules in the same lettered position or the bow will not tune properly.

It may be necessary to use Blue Lock-Tite on the inner-cam module screws to keep them secure.



NOTE: For screw removal on some models of bows it may be necessary to utilize a bow press so the cam can be rotated to a position in which the set screws are clear of the cables and limbs.

NOTE: On the Versa Cam & 1/2, to remove the control cable from the bottom cam, the bottom module must be rotated to a draw length of 20 inches or less. Failure to move the module prior to installation or removal of the lower control cable loop may result in damage to the string fibers and premature cable failure.

Warning: Never remove the stainless steel control cable peg unless the string is relaxed in a bow press.

XTR CAM & 1/2

To adjust the draw length on the Hoyt XTR Cam & 1/2 you should first determine the desired draw length at which you want the bow to be set. See list on the next page.

Cam	Module	Alpha Max 32 Draw Length	Alpha Max 35 Draw Length
XR2	XR2A	26	27
	XR2B	26.5	27.5
	XR2C	27	28
	XR2D	27.5	28.5
	XR2E	28	29
XR3	XR3A	28	29
	XR3B	28.5	29.5
	XR3C	29	30
	XR3D	29.5	30.5
	XR3E	30	31

No bow press is needed to make the following adjustments. Once you have determined the desired draw length, simply loosen and remove the module screws with a standard 7/64 Allen key. There are 3 screws on the top cam and 2 screws on the bottom cam that hold the modules in position. Once the screws have been loosened and removed, simply remove the modules from the cams. Then replace the modules with ones that correspond to the desired draw length (Do not over-tighten module screws. It may be necessary to use Blue Lock-Tite on the module screws to keep them secure. After the desired draw modules are installed, the draw-stop that is located on the bottom cam needs to be adjusted. Remove the draw stop with a 1/16 Allen key and reinstall it in the threaded hole that corresponds with the letter on the cam module. For example: Cam module XR2A would use draw-stop peg position A.

NOTE: Never draw back a bow with mismatched or missing cam modules and draw-stop peg, as serious injury and bow damage could occur.

NOTE: Draw length modules of various sizes may be purchased at your local Authorized Hoyt Dealer.

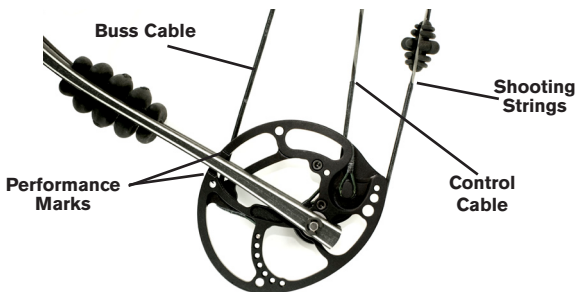
SPIRAL CAM & 1/2 AND Z3 CAM & 1/2

These cams are draw length-specific. To change the draw length it is necessary to change to a different size of cams.

NOTE: Not all Spiral Cam & 1/2 and Z3 Cam & 1/2 models utilize the same deflection of limb, shooting string, control cable and buss cable. When changing draw length with these two cams, consult an Authorized Hoyt Dealer for complete details.

fig. 13

BOTTOM CAM



PROPER CAM ORIENTATION

CAM & 1/2 PLUS, M4 CAM & 1/2, XTR CAM & 1/2, SPIRAL CAM & 1/2 AND Z3 CAM & 1/2

To verify proper cam orientation you should examine the cams' built-in performance marks on the bottom cam. To ensure the cam is in the proper position, be sure the limb lies between the engraved marks on the cam. The limb should lie somewhere between the specified marks, but does not need to

be centered. (See Fig. 13) This should be checked when the weight bolt is bottomed out (Tighten limb bolts all the way and back them out $\frac{1}{4}$ turn.), as the limb-to-cam relationship will change slightly as the limbs are adjusted throughout the weight range.

For the Cam & 1/2 Plus there are two different sets of performance marks engraved on the bottom cams. One set is a circle with a line through it (round mark) and the other is a line only (straight mark). On some cam sizes, one of the straight marks actually lies on one of the round marks, creating a circle with two lines through it. With all limb types, the limb should lie somewhere between the specified marks but does not need to be centered.

For Katera XL and Kobalt equipped with Cam & 1/2 Plus, the limb should lie between the straight marks. For all other bow models equipped with Cam & 1/2 Plus, the limb should lie between the round marks. The limb should lie somewhere between the specified marks but does not need to be centered.

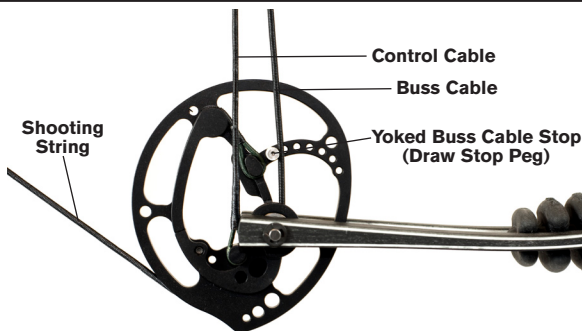
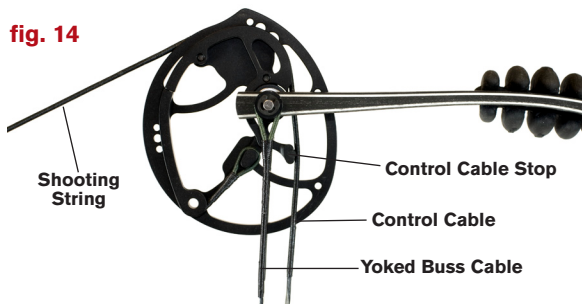
NOTE: If the limb does not lie within the designated marks this may indicate that the strings are not the proper length. To verify that the factory specifications of your bow are correct (cam orientation, draw length, draw weight, brace height, axle-to-axle, etc.), add or remove twists to your strings and cables to obtain the proper length. Once the adjusted strings are installed on the bow, only add twists to either the control cable or buss cable to synchronize the draw stops on the cams at full draw.

CAM SYNCHRONIZING

Hoyt Cam & 1/2 Performance Systems require very little maintenance. Once the shooting string, control cable and buss cable are set to the correct lengths, cam synchronizing should require little or no maintenance. Both top and bottom cams are slaved together via the control cable – forcing both cams to always move together, regardless of when the cables come into contact with the cable stops. There is a broad range where the

TOP CAM AT FULL DRAW POSITION

fig. 14



BOTTOM CAM AT FULL DRAW POSITION

synchronization of the cable stops on the buss cable track and control cable track can be positioned. Hoyt Engineers and Hoyt Professional Shooters alike have found that varying the cam synchronization has little or no variation on downrange arrow impact. If you feel that the cam synchronizing or positioning is incorrect due to the shooting string, control cable or buss cable not being in specification, note the following instructions (See Fig.14 for image of proper synchronization.).

Measure your strings and adjust them to the recommended factory length by adding or subtracting twists. Then reinstall the adjusted strings onto the bow.

When drawing the bow back, if the control cable stop on the top cam touches before the yoked buss cable stop on the bottom cam, shorten the control cable by adding twists.

When drawing the bow back, if the yoked buss cable stop on the bottom cam touches before the control cable stop on the top cam, shorten the yoked buss cable by adding twists.

NOTE: Hoyt measures bowstrings with the ATA standard method.

LET-OFF ADJUSTMENTS

The Z3 Cam & 1/2 provides 75% let-off and a softer wall when the draw-stop peg is not installed. Installing the peg into the 75% let-off hole will maintain the 75% let-off but provide a harder wall. To change the let-off to 65%, move the let-off peg to the 65% let-off location and add 2 to 3 twists to the buss cable to maintain optimum cam synchronization at full draw (Visit your Authorized Hoyt dealer for assistance.). Cam & 1/2 Plus is available with either 65% or 75% modules, which can be ordered from your Authorized Hoyt Dealer.

YOUR SERIAL NUMBER WILL BE LOCATED IN ONE OF THE FOLLOWING TWO LOCATIONS.

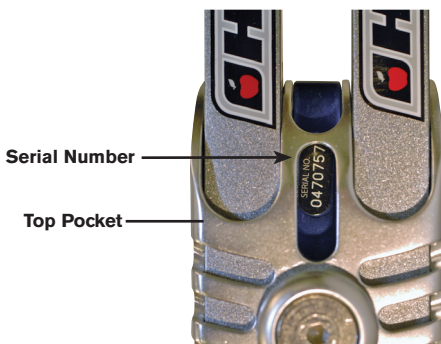


fig. 15

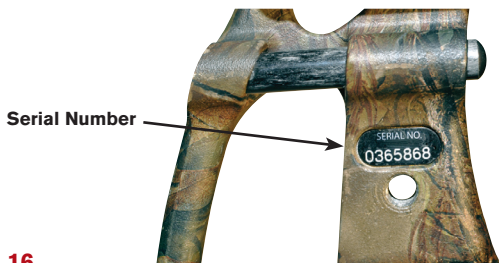


fig. 16

LOCATING YOUR BOW'S SERIAL NUMBER

The seven-digit serial number on most Hoyt compound bows is located on the riser between the top limbs and under the pocket (See fig. 15) or at the rest mount surface. (See fig. 16) If you have already attached a rest to your riser, you may have to remove it to see the serial number.

TUNING YOUR BOW

There are numerous methods you can use when tuning your Hoyt bow. Hoyt recommends working closely with your local pro shop when tuning your bow to ensure best results. For detailed tuning information, download Easton's tuning guide at www.eastonarchery.com/downloads.

BROADHEADS

Most archers discover that they must make slight tuning or sight adjustments when switching from practice points to broadheads (even at the same weight). Broadheads create a dramatic aerodynamic change in arrow flight. For this reason, slight adjustments may need to be made in nocking point height, rest position or bow weight to achieve desired broadhead flight. Always test shoot broadheads before hunting to ensure proper sight settings. Even expandable broadheads may require different sight settings than field points.

HOYT COMPOUND BOW WARRANTY

All Hoyt compound bows are warranted against defects in materials or workmanship to **the original owner** on all risers, limbs, limb pockets, and eccentrics for the life of the product.

ACCESSORIES

All Hoyt sights (excluding sight pins), arrow rests, and bow quivers (excluding hood foam and arrow gripper) are warranted 100% for the life of the product to the original owner.

Hoyt must perform warranty work. You must have the following items in order to obtain warranty work:

1. A dated proof of purchase (sales receipt).
2. Products must be purchased through an Authorized Hoyt Dealer (No exceptions!).
3. All compound bows must have a serial number.
(See page 26 for information on serial number location.)

Buying a Hoyt bow over the Internet voids all warranty.

Hoyt, at its discretion, voids all warranty claims either expressed or implied including but not limited to evidence of abuse, modification to original design, use of attachments or accessories that cause excessive stress.

Hoyt reserves the right to make substitutions on warranty coverage at Hoyt's discretion for any reason. **Warranty is subject to available parts.**

OBTAINING WARRANTY SERVICE

To obtain warranty service, you should return your bow to the pro shop where you purchased your Hoyt bow. The dealer can help to determine if Hoyt factory service is required or if the repair can be completed by the pro shop. 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, a **Return Authorization Number** must be obtained through an Authorized Hoyt Dealer. Bows returned to the factory without a Return Authorization number will be sent back. Do not send accessories with bow unless otherwise instructed to.

Write the RA number on the outside of the shipping

box and send the Hoyt bow requiring factory service to:

**Hoyt
543 N. Neil Armstrong Road
Salt Lake City, UT 84116**

There are no other warranties expressed or implied that extend beyond those written here. No agent, employee or representative of Hoyt or its dealers has the authority to bind Hoyt to any agreement not herein stated. Buyer agrees that the sole and exclusive remedies for breach on any warranty concerning Hoyt bows shall be repair or replacement of defective parts. Hoyt shall not be liable for injury or property other than the bows themselves. Hoyt reserves the right to replace defective parts according to availability with compatible replacement parts.