

# ROOS

*2007 Owner's Manual*

**Congratulations on your recent purchase!** We at Ross know that you have a choice when it comes to your archery equipment, and we want to thank you for choosing us as your hunting partner. Your feedback is important to us, as it is our desire to provide you with the absolute finest customer service in the industry. So please take the time to go online at [www.HuntWithRoss.com](http://www.HuntWithRoss.com) and register your new Ross bow. It is equally important to read through this owner's manual as there are valuable tips to help keep your Ross trouble free for many seasons.

**BEFORE USING YOUR NEW ROSS BOW, READ AND UNDERSTAND THE FOLLOWING MATERIAL OUTLINED IN THIS MANUAL. FAILURE TO FOLLOW ANY OF THESE WARNINGS AND INSTRUCTIONS CAN DAMAGE THE BOW AND MAY CAUSE SERIOUS INJURY TO YOURSELF AND/OR OTHERS.**

**Disclaimer of Liability: By accepting a Ross product, the buyer agrees to hold harmless Ross and all associated parties from liability for any damage to persons or property, which may result, for any reason, from the use of this product.**

#### BIRTH CERTIFICATE

Every Ross bow has completed a comprehensive quality control process. They have been individually shot, tested, and measured to ensure compliance with our strict performance standards.

Performance testing is completed using a Custom Chronograph, Heavy Duty ProShop Meter and digital scales\*. Speed ratings have been obtained with factory installed brass nock and Flatline Suppression System\*\* components. The use of these accessories decreases velocity by 5-8 fps. Final factory test results are documented in writing and attached as a "Birth Certificate" to every bow shipped.

*IBO speed ratings are the industry standard and are calculated by shooting a 350-grain arrow using a 70# bow with a 30" draw.*

*\* Digital scales used for peak draw and arrow weights have a variance of +/- 1%.*

*\*\* Flatline Suppression System includes; string silencers, limb vibration dampeners and cable rod muffler. Mass bow weights are taken with Flatline components and brass nock installed.*

#### LIMITED LIFETIME WARRANTY

All Ross bows not sold over Internet auctions (e.g. ebay) come with a non-transferable lifetime warranty to the registered original owner. This warranty protects against any failures of the product due to defects in material or workmanship and does not include any damage due to abuse, misuse or modification to the bow's design. The following exclusions apply.

#### EXCLUSIONS

Cable slide, string and cables, Flatline Suppression System components, bearings, paint and/or hydrographic film transferred finishes.

Damage caused by abuse, mishandling, dry-firing, alteration or modification to original product. Other excluded damages are those resulting from either loose mod screws or shooting arrows less than five grains per pound of draw weight. **For the warranty to be enforceable the original purchaser must complete and submit the online registration form within 30 days of purchase.**

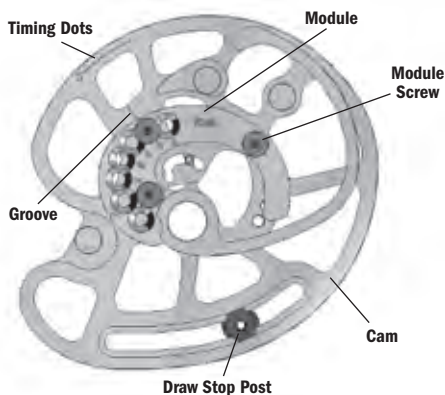
#### AUTHORIZED DEALER

The Ross warranty covers product purchased from Authorized Ross Dealers. Ross products purchased through Internet auctions are not warranted. Contact Ross to confirm that your purchase is through an authorized dealer.

#### WARRANTY SERVICE

Our goal with all warranty returns is to have the bow shipped out the door and on its way back to you within 72 hours of receiving it at our facilities in Eugene, Oregon. You are our greatest asset, and we will give you the highest quality and most efficient service in the industry.

All products requiring warranty service must be returned to an authorized dealer for inspection and diagnosis of any problem. Your Ross dealer will help in determining whether factory service is required, or if the service needed can be performed at the dealer's facility. In the event that a bow must be returned for factory service, a Return Authorization (RA) number must first be obtained



**Figure 1** Cardiac cam

through your dealer. Bows returned to the factory without an RA number will not be accepted. All returned bows must include the following: **(1) A large, readable RA number on the outside of the box. (2) A copy of the sales receipt.** Do not include accessories unless otherwise instructed. Ross will not be responsible for loss or damage to any accessory left on the bow when shipped. The bow owner is responsible for the return prepaid freight to Ross. No COD shipments will be accepted. Ross will perform the warranty service required and return the product prepaid.

All methods of shipping by UPS or FED-EX only. Sender should insure all shipments.

If your bow cannot be repaired, we reserve the right to replace it with a newer model of equal or greater value. *Ross reserves the right to substitute any parts required for warranty coverage at its sole discretion and for any reason.*

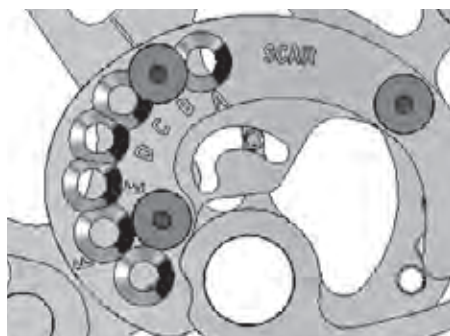
#### TUNING AND PROPER FIT

Once you have purchased a Ross bow, it is very important that it is adjusted to fit you properly. Assistance in achieving proper fit should be provided by your Authorized Ross Dealer.

#### CHANGING THE DRAW LENGTH

One of the features of the new Ross cams is the draw length adjustability of the bow without the need for additional draw-length specific modules. The Single Rotating Module makes this feature possible on all Ross bows. By simply rotating the module clockwise or counter-clockwise,

*Note: We recommend applying blue Loc-Tite 242 to the threads of the module screws before replacing them at your desired setting. This will prevent the screws from backing out during the normal use of the bow.*



**Figure 2** The Cardiac rotating module



**Figure 3** The Carnivore rotating module

your draw length can be adjusted in 1" increments (on the Cardiac cam), and in 1/2" increments on all other models, with little more than an Allen wrench.

- Using a 3/32" Allen wrench, remove the 3 "Module screws" that attach the module to the cam (**See Figure 1**). Note: Depending on your draw length, you may need to press the bow to be able to access all three screws for removal.
- Notice that a "groove" on the cam corresponds with a letter to denote draw length. All bows are factory preset for a 29" draw length. For example, the Cardiac 31 is pre-set to with the groove lining up with the letter "B" (**See Figure 2**). The Cardiac 34 is factory pre-set to a 29" draw length with the groove lining up with the letter "C".
- To lengthen the draw length, remove the 3 Allen screws and rotate the module counter-clockwise. The "A" setting always corresponds to the longest



**Figure 4**

possible draw length (**See Figure 3**). After rotating the module to the desired location, replace the 3 screws.

4. To shorten the draw length, remove the 3 Allen screws and rotate the module clockwise. The “F” setting always corresponds to the shortest possible draw length. After rotating the module to the desired location, replace the 3 screws.

#### TIMING THE CARDIAC CAM

There are 15 small indentations or “timing dots” on the module-side of the cam near its perimeter (**see Figure 4**). When holding the bow in the shooting position, a number “1” is engraved just above the first of the 15 timing dots. Notice that the down cable bisects the indentations and partially obscures some of them from sight. The position of the down cable in relation to the timing dots is an indication of the bow’s timing. When properly timed, the down cable of the Cardiac 31 should intersect just above the sixth timing dot while entirely obscuring the seventh dot. On the Cardiac 34, the down cable should intersect just above the eighth timing dot.

#### TIMING THE CARNIVORE CAM

There are 13 small indentations or “timing dots” on the side of the cam opposite the module near the cam perimeter. For the Carnivore 31, there should be 9 dots visible on the inside of the limb on each cam if the bow is properly timed. For the Carnivore 34, there should be 8 dots visible on the inside of the limb for proper timing.

In the event your bow is not properly timed, adjustments must be made to either advance or retard the cam. This action requires the use of a bow press, and as such, your authorized Ross dealer should perform all timing adjustments.

#### PAPER TUNING

Paper tuning is the process of shooting an arrow through paper to evaluate the arrow’s flight path. This is usually done at a distance of six to ten feet from a stretched piece of paper. Ultimately you want a tear that shows the point of your arrow going through the center of your fletching. Your Ross dealer will be able to help you in making the minor adjustments to either your rest or nocking point. Please realize that to achieve perfect arrow flight, you must have a properly spined arrow with little to no fletching contact, good form and a smooth release. With the forgiving nature of your Ross Bow, perfect arrow flight should be relatively easy to achieve.

#### NOCK POINT

A good starting point for your nock point is level to 1/8” above the berger holes. This can vary due to arrow rest selection, arrow spine and shooting form.

#### ADJUSTING THE DRAW WEIGHT

On all Ross bows, draw weight can be adjusted by using a 3/16” Allen wrench to either tighten or loosen the limb bolt. **Important: Before adjusting the limb bolt, a 5/32” Allen wrench must be used to loosen the bolts located on either side of the limb pocket.** Loosen these bolts one-half turn and then take the 3/16” Allen wrench to tighten or loosen the main limb bolt.

At peak weight, the main limb bolt should be fully tightened and then loosened by a quarter turn. **Note: Do not shoot your bow with the limb bolt fully tightened.** To reduce your bow’s draw weight, loosen the limb bolt while remembering the following ratio: One full turn of loosening equals 4 pounds of draw weight reduction. We recommend that the maximum weight reduction for each bow is 10 pounds or 2.5 full turns from peak weight. This will ensure maximal performance for the bow while also maintaining our high standards for safety.

*Remember: After making the adjustment to the limb bolt, be sure to retighten the 4 pocket bolts with the 5/32” Allen wrench.*

**WARNING: DO NOT TURN THE LIMB BOLTS OUT MORE THAN THE RECOMMENDED AMOUNT.** Doing so could cause the limbs to break out of their pockets and result in bodily injury .

#### CENTER SHOT

With an arrow nocked on the string, look down the string and line it up with the center to the grip. Then, adjust your arrow rest until your arrow runs straight with your string. The distance from the side of your riser to the center of

the arrow should measure approximately 7/8". This is a good starting point in the tuning process.

#### TILLER ADJUSTMENTS

The tiller is a measured distance from the point where the limb enters the limb pocket to string at a 90 degree angle. Tiller adjustments are applicable to the Cardiac bow only. Since your cam and idler wheel are precision matched, even tiller is easily adjusted and will help in achieving optimal accuracy. If there is a variance in tiller measurements between the top and bottom limb, loosen the limb locks and make small adjustments to one of the limb bolts until even tiller and proper draw weight is achieved. Then retighten limb lock bolts.

#### BOW MAINTENANCE

Your Ross bow was made with the highest quality components to last for a lifetime of use in the field with proper maintenance. It is important that you NEVER draw and release a bow without an arrow on the string. This could not only hurt you, but can damage your bow. **If the bow is dry fired at any time, take it to your local Authorized Ross Dealer for a complete inspection.** Never leave your Ross bow in an area of extreme temperatures. This will cause your string and cable to stretch.

Before shooting your bow, always inspect the string and cable and check the limbs for any visible damage. If damage is found, take the bow to your local Authorized Ross Dealer for inspection or repair.

Your Ross bow comes equipped with sealed bearings in both the cam and/or idler wheel. There is no need to lubricate either of these items. It is recommended that if you hunt in dusty or wet climates that you periodically have your axles removed and cleaned by an Authorized Dealer.

#### STRING & CABLES

Your Ross custom bowstring is manufactured to provide long string life and absolute consistency, shot after shot. This results in greater accuracy and less time spent re-tuning your equipment.

It is recommended that you cycle the bow 100-150 times to remove shrinkage from the string as a result of relaxation during packaging and shipping. Separate the bowstring and install your peep sight. To properly align the peep sight, simply twist the string from the bottom in 1/2-turn increments until the peep sight aligns. In rare cases, this procedure may need to be repeated after cycling an additional 200 shots.

Wax the string often. We recommend BCYML 6 synthetic

string wax or an equivalent product. To wax the string, apply wax liberally to the entire length of string. Rub briskly with fingers until the string appears slick. Remove all excess wax with a clean cloth. We recommend that you wax every other time you shoot your bow to lengthen the life of your string and cable sets.

*Ross recommends replacing the string and cables once a year or every 2,500 shots, whichever comes first, to maintain optimum performance.*

#### TROUBLESHOOTING

There are factory installed speed nocks located on the string at various distances from the axle(s). These nocks enhance the speed and performance of the bow. Installing additional nocks, removing them or changing the location of the factory installed speed nocks will reduce performance and speed.

Examine your bow for wear and tear before you shoot (mod screws, axles, bushings, cables, cable slide, e-clips and string). If any one of these items shows excessive wear, contact your Authorized Ross Dealer to have them install new Ross replacement parts. This keeps your bow shooting consistently without voiding your warranty.

Proper lubrication of the limb pockets limits wear and tear. Add enough lubricant to these areas to create a barrier between each working part and to optimize the performance of the bow. **NOTE: Only industry standard lubricants should be used. DO NOT USE WD-40.**

Inspect your cam position on a regular basis to make sure the factory setting is maintained. This ensures the draw length and draw weight remain consistent.

All Ross bows use AMO standards for measuring draw lengths (measured from the pivot point, or throat, of the grip to the bottom of the valley, plus 1-3/4").

Always use a properly spined arrow with a minimum weight of five (5) grains per pound (IBO standard). An arrow with legal IBO weight is not necessarily properly spined. The bow must be able to transfer its energy to the arrow without any loss. Likewise, the arrow spine must be able to absorb the bow's energy. If the arrow is not properly spined, it will kick out, lose speed and have poor flight. If the arrow is properly spined, it achieves true, straight flight with maximum speed. Use an arrow chart to determine what shaft is needed to fit the specifications of your bow.

Make sure the weight of the arrow tip is matched to the arrow's shaft strength. If the weight of the tip is too light or too heavy, poor arrow flight occurs. Use an arrow chart

to find out what tip weight is needed to match the arrow shaft. Try to maintain 7% to 10% forward weight for your tip selection.

The arrow nock should be 3/16" to 3/8" above the center of the T-square, depending on the shaft diameter. This is a good starting point to achieve proper arrow flight.

Make sure the cams are properly tuned as instructed in the tuning section of this owner's manual.

#### ABOUT SPEED

How Do Manufacturers Rate Speed? IBO Speed Ratings are an industry standard of measurement used by all manufacturers. Speed ratings are based on a bow produced with a draw weight of 70# and a draw length of 30" using a five (5) grain per pound arrow (350 grain). Any deviation from these settings causes a drop in arrow velocity. NOTE: The chart below is a general guide for the amount of speed lost when accessories are added to your string.

Speeds vary depending on placement and manufacturer of string added accessories. Speed loss of arrows over the IBO standard of five (5) grains per pound (350 grains @ 70# draw weight): Every 3 grains of added arrow weight results in 1 fps speed loss. Example: 30 grains over IBO results in 10 fps speed loss. Additionally, any accessories added to the bowstring cause the bow to lose speed.

*If you need assistance with setting up, tuning or solving an arrow flight problem, contact your Authorized Ross Dealer.*

<b>String Accessory</b>	<b>Speed Loss</b>
Brass Nock .....	2 - 4 fps
Peep Sight .....	3 - 6 fps
String Silencers.....	2 - 6 fps
E-Buttons.....	2 fps each
Rubber Peep Tube .....	6 - 10 fps
Flatline™ Limb Dampeners .....	0 - 2 fps
String Loop .....	1 - 3 fps

*(without brass nocks)*

Every effort has been made to ensure the accuracy of information and typographical content within our owner's manual. Ross reserves the right to modify and/or discontinue products without notice and at its discretion.



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#### SAFETY & GENERAL INFORMATION

Your new Ross bow is a highly tuned, precise shooting machine. It requires special care and handling to achieve and maintain peak performance. The string, cables and limbs are under extreme tension, which creates an incredible source of energy that must not be taken for granted. Please respect this power and use it properly.

**WARNING: NEVER DRY FIRE THE BOW**  
NEVER draw a bow without an arrow nocked. Doing so could cause personal injury and/or damage the bow. When drawing a bow for inspection or demonstration, never release the string at full draw to let down. Hold onto the string and do not let it slip out of your hands. Without the resistance of a properly weighted arrow to absorb the energy, you may damage the bow and cause personal injury to yourself and/or others.

**ADULT SUPERVISION OF ALL CHILDREN UNDER THE AGE OF 18 IS REQUIRED.** Ross has designed your bow to be a safe and fun product. However, as with any shooting style product, safety rules must be observed. It is HIGHLY recommended that these rules be read before using any bow.

Bows and arrows are NOT toys. For maximum safety and enjoyment, always exercise caution, common sense and safety rules when shooting any bow.

ALWAYS use an appropriate backstop for maximum safety. An appropriate backstop must be constructed of a durable material and must extend beyond the perimeter of the target. The recommended backstop size is determined by the accuracy and ability of the shooter. With a low level of shooter accuracy, the backstop perimeter requirement must be increased appropriately.

NEVER aim or draw any bow in the direction of a person. Aim and draw ONLY in the direction of an appropriate target. ALWAYS have a full view of the path to and beyond the target when shooting.

ALWAYS inspect arrow and fletching prior to shooting for imperfections such as cracks, splits or splinters.

Most arrow manufacturers recommend a flex test on the shafts. Damaged arrows must not be used and should be destroyed.

NEVER retrieve arrows or allow anyone else to do so until all arrows have been shot.

NEVER draw the bow without properly adjusted limb bolts. Make sure the string and cable are properly attached to the correct post and in the correct tracks in order to avoid possible injury.

**DO NOT** attach anything to the cables or string that could create excessive wear or slice the string material. This will void the warranty.

**DO NOT** cross cables in any configuration other than the configuration set by the factory. This will have an adverse effect on the performance and shootability of your Ross. Further, it will cause extreme wear to the string, cable and cable-slide/roller guard.

Any alteration from the factory specifications or the adjustments outlined herein will void the factory warranty. ALL maintenance must be performed at an Authorized Ross Dealer.

## OWNER'S RECORD

REGISTERED TO: \_\_\_\_\_

DATE OF PURCHASE: \_\_\_\_\_ PURCHASE PRICE: \$ \_\_\_\_\_

BOW MODEL & YEAR: \_\_\_\_\_

SERIAL NUMBER: \_\_\_\_\_ BRACE HEIGHT: \_\_\_\_\_

DRAW LENGTH: \_\_\_\_\_ DRAW WEIGHT: \_\_\_\_\_ IBO SPEED: \_\_\_\_\_

STRING LENGTH: \_\_\_\_\_ CABLE LENGTH: \_\_\_\_\_

DEALER PURCHASED FROM: \_\_\_\_\_

DEALER'S ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

PHONE NO: \_\_\_\_\_

EMAIL ADDRESS: \_\_\_\_\_

Register your new Ross bow at [HuntWithRoss.com](http://HuntWithRoss.com)