



YOUTH BOW OWNER'S MANUAL

Congratulations on your recent purchase! We at Diamond 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 and register your new Diamond bow. It is equally important to read through this owner's manual as there are valuable tips to help keep your Diamond trouble free for many seasons.

BEFORE USING YOUR NEW DIAMOND 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 Diamond product, the buyer agrees to hold harmless Diamond 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.

**REGISTER YOUR NEW DIAMOND BOW AT
REGISTRYOURBOW.COM**

within 30 days of purchase to be eligible for the lifetime warranty.

THE DIAMOND EXCHANGE

To accommodate your growing archer, Diamond has implemented The Diamond Exchange for the Razor Edge and Edge bows. Simply bring your bow to an Authorized Diamond Dealer and they will coordinate upgrading your bow limbs and replacing your string and cables for a small fee. **This offer is valid to the original owner only, and is subject to the draw weight range of the Razor Edge or Edge bow.**

LIFETIME WARRANTY

Authorized Dealer

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

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

Cables and strings, bearings, paint and/or hydrographic film transferred finishes. Bow accessories are also excluded: sights, quivers, rests, stabilizers and string and cable dampeners.

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. Damage caused

LIFETIME WARRANTY

by altered or damaged arrows and/or string dampening material, including original and after-market parts, is also excluded.

For the Warranty to be enforceable the original purchaser must complete and submit the warranty card or online registration form within 30 days of purchase.

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 3 business days of receiving it at our facility 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 Diamond 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 through your dealer. Bows returned to the factory without an RA number will not

be accepted. All returned bows must include the following:

- ◆ A large, readable RA number on the outside of the box.
- ◆ A copy of the sales receipt.
- ◆ Do not include accessories unless otherwise instructed. Diamond 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 Diamond. No COD shipments will be accepted. Diamond 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 your bow with a newer model of equal or greater value.
- ◆ Diamond reserves the right to substitute any parts required for warranty coverage at its sole discretion and for any reason.

DIAMOND RAZOR EDGE ADJUSTING THE DRAW LENGTH

It is very important that your Diamond bow is adjusted to fit you properly. Assistance in achieving a proper fit should be provided by your Authorized Diamond Dealer.

The Diamond youth bows are preset to factory specifications with Razor Edge models preset to 24 inches draw length. You may need to adjust your bow to match your draw length.

The draw length for all 2012 Diamond youth bows can be adjusted without draw length specific modules. The Rotating Mod System makes this feature possible. By simply rotating the module clockwise or counterclockwise, your draw length can be adjusted, typically in 1/2 inch increments. **(See Figure 1)**

1. Diamond recommends that you take your bow to your Authorized Diamond Dealer for draw length adjustment.
2. For draw length adjustments to the Razor Edge, use a 5/64 inch hex wrench to remove the module screws that attach the modules to the cams.
3. Notice the numbered indexing mark on the module and the indexing mark on the cam. All bows are factory preset to a 24 inch draw length; with the indexing marks aligned for this draw length setting. The numbered mark corresponds to draw length setting.
4. To lengthen the draw length, rotate the module so that the indexing mark on the cam is aligned with a higher numbered indexing mark on the module. For example, the Razor Edge is shipped with the indexing mark in the #24 posi-

RAZOR EDGE CONT.

tion at 24 inches of draw length; you would place it in the #29 position for a 29 inch draw length.

5. To shorten the draw length, rotate the module so that the indexing mark on the cam is aligned with a lower numbered indexing mark on the module. For example, the Razor Edge is shipped with the indexing mark in the #24 position at 24 inches of draw length; you would place it in the #19 position for a 19 inch draw length.

6. Replace both module screws on each cam and retighten. *We recommend applying blue Loctite 242 to the threads before replacing them at your desired setting. This will prevent the screws from loosening during normal use of the bow.*

7. Please note that no bow press is required to change the draw length of your Diamond Razor Edge bow.

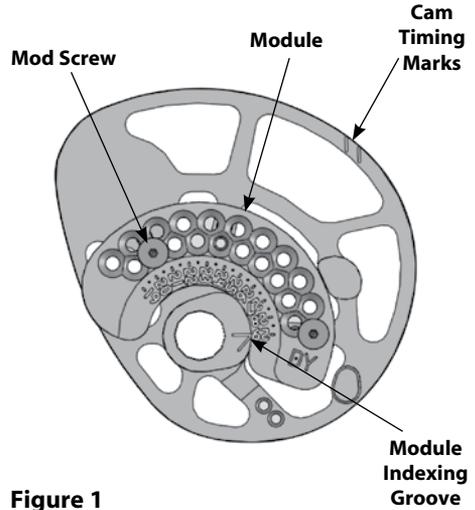


Figure 1

CAM TIMING

There are small indentations or “timing marks” on the module-side of the cam near its perimeter. When viewing the bow directly from the module side of the cam, the cable should be approximately centered in between the timing marks as shown in **Figure 1**. Adjusting the timing requires that the bow be put in a press, and as such, your Authorized Diamond dealer should perform all timing adjustments.

IMPROPER PRESSING OF A DIAMOND BOW CAN RESULT IN DAMAGE WHICH COULD VOID YOUR WARRANTY. WE RECOMMEND TAKING YOUR BOW TO AN AUTHORIZED DIAMOND DEALER FOR ALL MAINTENANCE PROCEDURES REQUIRING A BOW PRESS.

ADJUSTING THE DRAW WEIGHT

Draw weights can be adjusted downwards to 50 percent of the bow’s peak weight. For example, a 60 pound Razor Edge can be adjusted down to 30 pounds draw weight. With two peak weights available (29# and 60#), and the ability to back the original draw weight down 50 percent, the Razor Edge can cover a range from 15 to 60 pounds. Consult your local Authorized Diamond Dealer for information regarding weight adjustment for your bow model. All bows perform best at peak weight.

Draw weight can be adjusted by using a 1/4 inch hex wrench to either tighten or loosen the limb bolt. The draw weight should be adjusted equally on top and bottom limb bolt.

WARNING: DO NOT TURN THE LIMB BOLTS OUT MORE THAN 12.5 TURNS. Doing so could cause the limbs to break out of their pockets and result in bodily injury. The limbs should never entirely come out of the limb pockets.

DIAMOND ATOMIC

ADJUSTING THE DRAW LENGTH

It is very important that your Diamond bow is adjusted to fit you properly. Assistance in achieving a proper fit should be provided by your Authorized Diamond Dealer.

The Diamond youth bows are preset to factory specifications with Atomic models preset to 19 inches draw length. You may need to adjust your bow to match your draw length.

The draw length for all 2012 Diamond youth bows can be adjusted without draw length specific modules. The Rotating Mod System makes this feature possible. By simply rotating the module clockwise or counterclockwise, your draw length can be adjusted, typically in 1/2 inch increments. (See Figure 2)

1. Diamond recommends that you take your bow to your Authorized Diamond Dealer for adjustment to your bow's draw length.

2. For draw length adjustments to the Atomic, use a 7/64 inch hex wrench to remove the module screws that attach the modules to the cams.

3. Notice the numbered indexing mark on the module and the indexing mark on the cam. All bows are factory preset to a 19 inch draw length; with the indexing marks aligned for this draw length setting. The numbered mark corresponds to a draw length setting as specified in **Table 1**.

4. To lengthen the draw length, rotate the module so that the indexing mark on the cam is aligned with a lower numbered indexing mark on the module. For example, the Atomic is shipped with the indexing mark in the #6 position at 19 inches of draw length; you would place it in the #1 position for a 24 inch draw length. (See **Table 1**)

5. To shorten the draw length, rotate the module so that the indexing mark on the cam is aligned

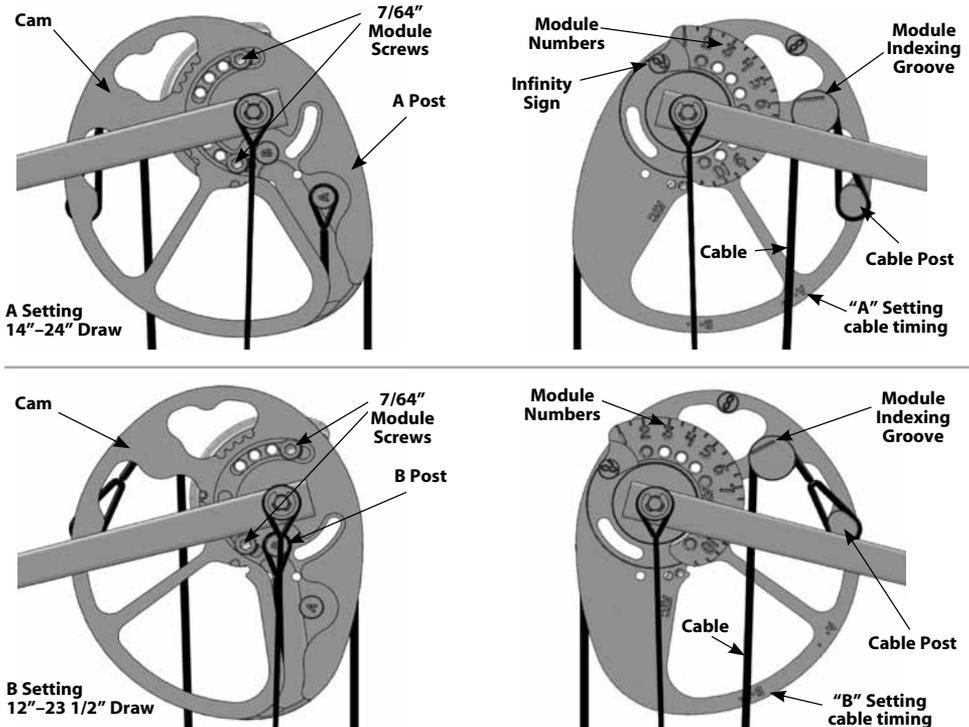


Figure 2. Diamond Atomic draw length adjustment.

Table 1: Diamond Atomic Adjustment Specifications

A Settings					B Settings				
Module Number	Draw Length (in)	Min. Weight (lbs)	Peak Weight (lbs)	Speed @ Peak Weight (fps)*	Module Number	Draw Length (in)	Min. Weight (lbs)	Peak Weight (lbs)	Speed @ Peak Weight (fps)*
1	24	12.3	29.0	191	1	23 1/2	11.7	25.6	179
1.5	23 1/2	12.2	29.0	187	1.5	23	11.6	25.1	173
2	23	11.9	29.0	183	2	22 1/2	11.4	24.7	170
2.5	22 1/2	11.8	29.0	179	2.5	22	11.1	24.4	167
3	22	11.6	29.0	175	3	21 1/2	11.0	24.0	163
3.5	21 1/2	11.4	29.0	171	3.5	21	10.7	23.5	159
4	21	11.1	28.4	167	4	20 1/2	10.3	23.2	154
4.5	20 1/2	10.8	28.4	162	4.5	20	9.9	22.9	149
5	20	10.6	28.2	157	5	19 1/2	9.6	22.6	145
5.5	19 1/2	10.3	28.0	153	5.5	18 1/2	9.3	22.4	139
6	19	10.2	27.8	148	6	18	8.9	21.9	135
6.5	18 1/2	10.1	27.5	143	6.5	17 1/2	8.6	21.7	129
7	18	10.1	27.3	138	7	17	8.1	21.5	123
7.5	17 1/2	9.9	27.3	134	7.5	16 1/2	8.0	20.8	117
8	17	9.6	27.1	129	8	16	7.8	20.2	110
8.5	16 1/2	9.5	27.1	123	8.5	15	7.4	19.4	**
9	16	9.5	27.1	119	9	14 1/2	7.0	18.6	**
9.5	15 1/2	9.5	27.1	116	9.5	14	6.3	18.1	**
10	15	9.5	27.1	112	10	13 1/2	6.3	18.1	**
10.5	14 1/2	9.5	27.1	108	10.5	12 1/2	6.3	18.0	**
11	14	9.5	27.1	105	11	12	6.3	18.0	**

* Speed calculated using 255 grain arrow, as provided with the bow

** Speeds below 100 fps are not calculated

with a higher numbered indexing mark on the module. For example, the Atomic is shipped with the indexing mark in the #6 position at 19 inches of draw length; you would place it in the #11 position for a 14 inch draw length. **(See Table 1)**

6. Replace both module screws on each cam and retighten. We recommend applying blue Loctite 242 to the threads before replacing them at your desired setting. This will prevent the screws from loosening during normal use of the bow.

7. Please note that no bow press is required to change the draw length of your Diamond Atomic bow.

The Diamond Atomic has the ability to be adjusted from 24 inches of draw length down to 12 inches of draw length. To enable the full range of adjustability, there is an “A” setting and a “B” setting available on the cam’s string posts. The letter “A” and letter “B” are engraved on top of the string posts as shown in **Figure 2**. The “A” Setting is preset at the factory and is required for draw lengths above 14 Inches. If a shorter draw length is required, then the “B” setting should be used. Please refer to the “SETTING THE DRAW WEIGHT”

section for the Diamond Atomic to learn how to set your bow in the “B” setting without a bow press. **Table 1** will describe the characteristics for both the “A” and “B” settings so please reference that table to set the bow up properly.

The Infinity Setting

Additionally the Diamond Atomic comes with a special setting called the Infinity setting. It is a setting for which the bow has zero let-off. In other words, the bow will maintain most of its peak holding weight for the entirety of the draw cycle. This setting is popular when more than one person may use the bow but have different draw lengths associated with them as its setting is for a maximum of 24.5 inches with no minimum. With the infinity setting, the bow will allow the users to draw the bow back to their comfortable draw lengths and not require the bow to be readjusted via module re-positioning. This setting is also popular when bowfishing. The module is simply adjusted to align its infinity sign with the module indexing mark on both the top and bottom cams **(See Figure 2)**.

CAM TIMING

There are small indentations or “timing marks” on the module-side of the cam near its perimeter. When viewing the bow directly from the module side of the cam, the cable should be approximately centered in between the timing marks as shown in **Figure 2**. There are timing

marks for both “A” and “B” settings. Both the top and bottom cams should be timed properly. It is recommended that your Authorized Diamond dealer should aid you in performing all timing adjustments.

SETTING THE DRAW WEIGHT

Draw weight on the Diamond Atomic is adjustable from 29 pounds downward to 6 pounds. Table 1 reflects the available draw weight settings for both the “A” and “B” string post settings. Please reference this table when setting up your bow. Draw weight can be adjusted by using a 3/16 inch hex wrench to either tighten or loosen the limb bolt. The draw weight should be adjusted equally on top and bottom limb bolt.

A new limb bolt design for draw weight adjustment has been introduced by Diamond this year. The limb bolt has been marked with increments to help you set up your bow. Each mark is reflective of approximately 8% of the bows original peak weight. Every bow configuration as seen in Table 1 has a slightly different result so therefore please consult your maximum and minimum draw weights available for each. This new feature is also a useful tool in keeping the limb bolts equal on both the top and bottom of your bow when you are adjusting draw weight. **As a safety precaution, the limb bolts should never be backed out beyond the limb bolt reference hole on the riser while the bow is being shot. Please reference Figure 3.**

The “A” and “B” Settings

When the application is strictly for bow adjustment purposes only, each limb bolt may be backed out an additional 4 - 5 complete turns in order to relieve the string and cable tensions enough to switch from the factory “A” setting over to the “B” setting on the string posts. It is recommended that each limb bolt is backed out evenly per each turn before proceeding to the next turn of the limb bolt. Please consult your Authorized Diamond Dealer before making this adjustment.

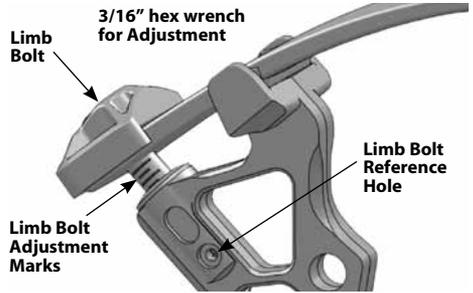


Figure 3. Atomic Draw Weight Adjustment

1. Before adjusting limb bolts, note setting on limb bolt adjustment marks for future reference. **(See Figure 3).**
2. When making the adjustment from the “A” to the “B” setting position, turn down limb bolts in small, equal increments, alternating from top limb bolt to lower limb bolt until the tip of the limb bolt is visible in the reference hole. **DO NOT draw bow back or shoot the bow when limbs are backed out past the limb reference hole.**
3. Once limb bolt tip is visible, continue to turn out limb bolts, in same manner as above until 4 full revolutions are made on each end. Check string and cable tension. If slack, stopping point is achieved. If still under tension, turn each end an additional 1 revolution. **Do not exceed the 5 (five) complete revolutions.**
4. At this point, string can be removed from one cam and installed on “B” setting. Install string end loop on post, ensuring that it is fully seated on post. Feed string around cam, ensuring that it is seated fully into cam track. Repeat process for opposite cam.
5. After cam/string adjustment is made, double check all string and cable post connections, as

DRAW WEIGHT CONT.

well as tracks to ensure they are seated properly.

6. Once all double checks are made, reverse tension adjustment, as described above. Again, make sure to tighten each limb bolt in small increments, alternating from top to bottom limb bolt, until reference point is achieved. **Make sure**

to keep hands clear of cams when tightening the limb bolts.

WARNING: DO NOT TURN THE LIMB BOLTS OUT MORE THAN THE RECOMMENDED AMOUNT WHEN SHOOTING YOUR BOW. Doing so could result in bodily injury.

DIAMOND YOUTH BOWS ADVANCED

Center Shot

Center shot can be set by measuring from the back of the riser to the arrow and then from the front of the riser to the arrow. Once this is equal, you are at the approximate center shot of your bow (see **Figure 4**). This is a good starting point when tuning your Diamond bow. Keep in mind, not all bows tune at exact center shot due to the variances in arrow spine, hand position, and your specific bow poundage. Adjust your arrow rest until the two measurements are equal.

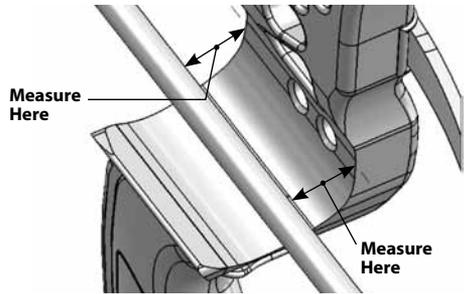


Figure 4. Determining Center Shot

BOW MAINTENANCE

Your Diamond 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 dealer for a complete inspection. Never leave your Diamond bow in an area of extreme temperatures. This will cause your string and cables to stretch which effects timing.

Before shooting your bow, always inspect the string and cables and check the limbs for any visible damage. If damage is found, take the bow to your local Diamond dealer for inspection or repair.

Your Diamond bow comes equipped with sealed bearings for both the cam and idler. There is no need to lubricate the bearings.

STRING AND CABLES

Your Diamond 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 10-20 times to settle the string as a result of relaxation during packaging and shipping.

Wax the string often. We recommend BCYML 6 synthetic string wax or an equivalent product. To wax the string, apply wax liberally to 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.

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

SAFETY & GENERAL INFORMATION

Your new Diamond 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.

Diamond bows are standardized to fit most manufacturers' accessories and will perform best when shot with a release.

ADULT SUPERVISION OF ALL CHILDREN UNDER THE AGE OF 18 IS REQUIRED. Diamond 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 and common sense when shooting any bow.

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.

ALWAYS wear safety glasses when operating or adjusting your 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 check all arrow components prior to shooting, including nock, insert and tip. Loose components can cause unbalanced arrow flight and partial dry firing of the bow. If an arrow has been damaged, or if you believe it has been damaged, do not shoot it again, as it could break on release, and sharp arrow pieces could strike and injure you or someone nearby.

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 (see "Adjusting Draw Weight" section for more information). Make sure the string and cables 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 bow. Further, it may 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 Diamond Dealer.

We encourage you to contact and utilize your local dealer as they can assist you with purchases, services and accessories. To locate the dealer nearest you, visit DiamondArchery.com/dealers. Frequently asked questions and additional contact information can also be found at DiamondArchery.com.



90554 HWY 99 NORTH, EUGENE, OREGON 97402
TOLL FREE: 877.447.0293 FAX: 541.284.4933
DiamondArchery.com

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