



## THANK YOU

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

**BEFORE USING YOUR NEW BOWTECH 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 BowTech product, the buyer agrees to hold harmless BowTech 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

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Every BowTech 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 Hush Kit\*\* on some models. 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%.

\*\* The Hush Kit is comprised of VibraBlocks™, String Silencers and cable muffler.



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90554 Highway 99 North • Eugene, OR 97402

## LIFETIME WARRANTY

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All BowTech bows not sold over the Internet 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, cables and strings, HushKit, 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 warranty card or online registration form within 30 days of purchase.**

### AUTHORIZED DEALER

The BowTech Warranty covers product purchased from Authorized BowTech Dealers. BowTech products purchased through the Internet are not warranted. Contact BowTech 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 BowTech 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. BowTech will not be responsible for loss or damage to any accessory left on the bow when shipped.

## LIFETIME WARRANTY CONT.

The bow owner is responsible for the return prepaid freight to BowTech. No COD shipments will be accepted. BowTech 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.
- BowTech 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 BowTech bow, it is very important that it is adjusted to fit you properly. Assistance in achieving proper fit should be provided by your Authorized BowTech Dealer.

### CHANGING THE DRAW LENGTH

BowTech bows are factory tuned and preset to a 29" draw length. Any alterations to the original factory setup could inhibit performance. You may need to reset your draw to the correct length.

One of the features of the 2009 bows is the draw length adjustability of the bow without the need for additional draw-length specific modules (except on the 82nd Airborne). The Rotating Mod System makes this feature possible. By simply rotating the module clockwise or counter-clockwise, your draw length can be adjusted in 1/2" increments.

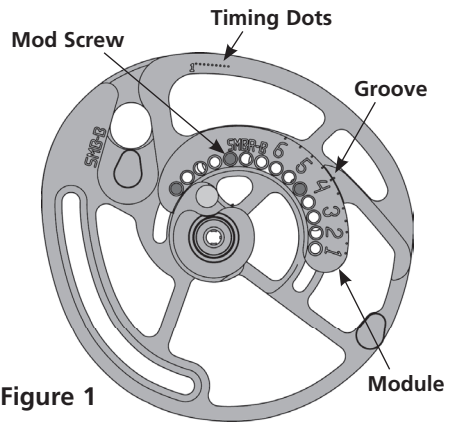


Figure 1

1. Using an Allen wrench, remove the three "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 screws for removal.

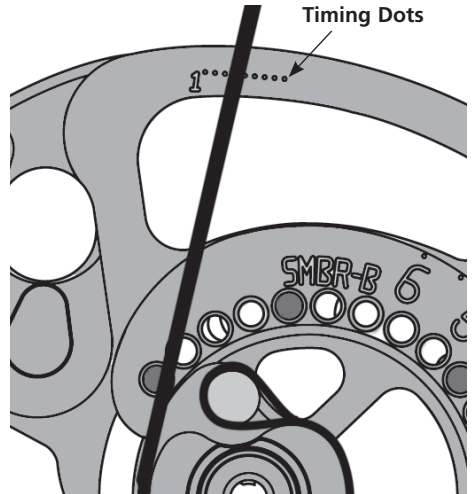
2. Notice that a "groove" on the cam corresponds with a number to denote draw length. All bows are factory pre-set to a 29" draw length with the groove lining up with the corresponding number.

3. To lengthen the draw length, remove the three Mod Screws and rotate the module counter-clockwise (when looking at the lower cam—reverse if looking at the upper cam). The “1” setting always corresponds to the longest possible draw length. After rotating the module to the desired location, replace the screws.

4. To shorten the draw length, remove the Allen screws and rotate the module clockwise (when looking at the lower cam—reverse if looking at the upper cam). The largest number setting always corresponds to the shortest possible draw length. After rotating the module to the desired location, replace the screws.

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

The 82nd Airborne is modular adjusted to individual draw lengths. Simply remove the Allen screws, remove the existing mod, slide in the new draw length mod, and replace the Allen screws. When changing the draw length module, it is also always necessary to readjust the post setting (see your Authorized BowTech Dealer for assistance). Draw length modules are available in 1/2” increments on this model.



**Figure 2**

### TIMING THE BOWTECH CAMS

There are small indentations or “timing dots” on the module-side of the cam near its perimeter (**Figure 2**). When holding the bow in the shooting position, a number “1” is engraved just below the first of the 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 should intersect a specific timing dot.

Adjustments can be made to either advance or retard the cam. This action requires the use of a bow press, and as such, your Authorized BowTech Dealer should perform all timing adjustments.

## TUNING AND PROPER FIT CONT.

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### PAPER TUNING

Paper tuning is the process of shooting an arrow through paper to see the flight path that your arrow is taking. 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 BowTech 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 BowTech Bow, perfect arrow flight should be easy to achieve.

### ADJUSTING THE DRAW STOP

BowTech bows are unique in that they use a slotted draw stop that allows minute adjustment instead of the limitations of preset drilled holes. Adjusting these cams to your preferred shooting style can be a relatively easy task.

The draw stop settings are designed to make minute changes in increments as small as 1/16" in draw (up or down) from the draw-length originated by the module. Depending on bow model, draw stop may be adjusted via a slotted post, or a tapped-hole eccentric with an oval shaped draw stop for fine adjustment (e.g. Admiral, Captain, Sentinel and Brigadier).

For models equipped with a slotted post (the 82<sup>nd</sup> Airborne, Swat and Sniper): move the draw post to customize the module for your individual draw length, stopping the cam rotation exactly where you want it. The post rotates until it comes into contact with the limb of the bow, resulting in the most solid wall on the market and the most precise anchor point available. **The post should not be adjusted more than 1/2 mark from factory mod specifications.**

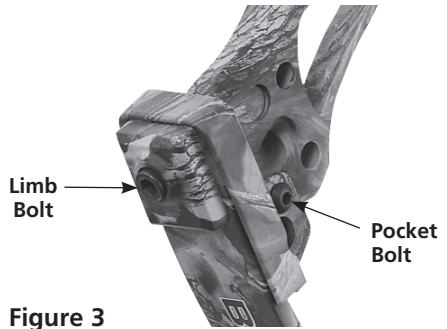
Start by loosening the Allen screw on the post. Loosen just enough to allow movement either toward the 1 (short) or 10 (long) markings on the cam. **WARNING: NEVER ATTEMPT POST ADJUSTMENT WHILE DRAWING THE BOW.** When adjusting the post, very little movement is required to dramatically affect the settings. **DO NOT OVER OR UNDER ADJUST.** Setting the post too short results in a very low let-off, with almost zero valley. Setting the post too long causes the cables to contact the mod stop, making the Binary Cam System less efficient and also giving very high let-off. **Never move post more than 1/2 mark from factory settings.** Doing so will effect performance, let-off and draw length. Post adjustment incorporates all the settings necessary for BowTech models using the Binary Cam. Improper adjustment results in performance inefficiencies and can be dangerous. When

## TUNING AND PROPER FIT CONT.

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drawing the bow, make sure that the post stops the draw cycle. Correct any over-rotation by moving the post setting toward the "1" marking on the cam. In doing so, you will return to the correct let-off and valley.

Your Authorized BowTech Dealer can assist you with proper post adjustment. Models equipped with a multi-hole eccentric module draw stop are capable of an infinite range of adjustability. The module rotates with the cam until it comes into contact with the cables, providing an effective back wall. Adjusting this draw stop



**Figure 3**

is as drastic as adjustments to slotted postdraw stop. Use caution. Contact your BowTech dealer for assistance making draw stop adjustments. Any changes made to the draw stop will directly affect let-off.

## CHANGING LET-OFF

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Changing the let-off is accomplished with ease. It may require a post setting and/or a module change. The draw stop affects the bow's let-off by stopping the rotation of the cam on the module track before it over rotates and before the cables contact the mod stop slot. Let-off can be adjusted up to 80%.

**NOTE:** Post setting adjustments allow fine tuning to achieve individual draw length requirements, however adjusting the draw length will affect the let-off and valley at the same time. Achieving an exact let-off at a specific draw length may require some trial and error of minor modifications and/or the use of a scale. See your Authorized BowTech Dealer for assistance.

On 4 of the 2009 models (Admiral, Captain, Sentinel and Brigadier) the let-off is also adjustable by loosening the Allen screw inside the draw stop post and moving the oblong shape back and forth for fine adjustments, or move the draw stop into another perimeter tapped hole for more let-off adjustment.

## ADJUSTING THE DRAW WEIGHT

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### SETTING THE PEAK WEIGHT

Peak draw weights are adjustable approximately 10 pounds downward depending on the model. Consult your local Authorized BowTech Dealer for information regarding weight adjustment for your bow model. All bows perform best at peak weight.

Draw weight can be adjusted by using an Allen wrench to either tighten or loosen the limb bolt. Important: On some models, before adjusting the limb bolt an Allen wrench must be used to loosen the pocket bolts located on the side of the limb pocket (**Figure 3**). Loosen this bolt one-half turn and then take the 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 on the Center Pivot models (Admiral, Captain, Sentinel) equals approximately 1 pound of draw weight reduction. On other models, one full turn of loosening equals approximately 4 pounds of draw weight reduction. We recommend that the maximum weight reduction for each bow is 10 pounds. This will ensure maximal performance for the bow while also maintaining our high standards for safety.

The Center Pivot models (Admiral, Captain, Sentinel) are "self-pressing". Loosening (back-out) the limb bolts approximately 3" (1" at a time, switching between the top and bottom limbs) relaxes the bow so you can remove and replace the string and cables without needing a bow press.

**Remember:** After making the adjustment to the limb bolt, be sure to retighten the 2 pocket bolts with the 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. 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.

### NOCK POINT

A good starting point for your nock point is level to 1/8" high. This can vary due to arrow rest selection, arrow spine and shooting form.



## **BOW MAINTENANCE.**

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Your BowTech 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 BowTech 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 BowTech dealer for inspection or repair.

Your BowTech bow comes equipped with sealed bearings in both cams. There is no need to lubricate cams. It is recommended that if you hunt in dusty or wet climates that you periodically have your axles removed and wipe away any dust or debris from them.

## **STRING & CABLES.**

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Your BowTech 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 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.

## **TROUBLE SHOOTING**

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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.

BowTech recommends replacing the string and cables once a year or every

## TROUBLE SHOOTING CONT.

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2,500 shots, whichever comes first, to maintain optimum performance.

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 show excessive wear, contact your Authorized BowTech Dealer to have them install new BowTech replacement parts. This keeps your bow shooting consistently without voiding your warranty.

Proper lubrication of the limb pivots 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 timing marks on a regular basis to make sure the factory setting is maintained. This ensures the draw length and draw weight remain consistent.

All BowTech 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 in this owner's manual.

## ABOUT SPEED

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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.

STRING ACCESSORY	SPEED LOSS
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
String Loop	1 - 3 fps (without brass nocks)
VibraBlocks	0 - 2 fps

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 BowTech Dealer.*

## SAFETY & GENERAL INFORMATION

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Your new BowTech 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.

BowTech 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** BowTech 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.

## **SAFETY AND GENERAL INFORMATION CONT.**

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Bows and arrows are NOT toys. For maximum safety and enjoyment, always exercise caution, common sense and safety rules 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 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 (see "Adjusting Draw Weight" section for more information). 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 bow. 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 BowTech Dealer.

## OWNER'S RECORD

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Date of Purchase: \_\_\_\_\_ Purchase Price: \_\_\_\_\_

Bow Model & Year: \_\_\_\_\_

Serial Number: \_\_\_\_\_ Brace Height: \_\_\_\_\_

Draw Length: \_\_\_\_\_ Draw Weight: \_\_\_\_\_

IBO Speed Rating: \_\_\_\_\_ String Length: \_\_\_\_\_ Cable Length: \_\_\_\_\_

Dealer Purchased From: \_\_\_\_\_

Dealer's Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone No: \_\_\_\_\_

Email Address: \_\_\_\_\_

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