“When the First Shot Counts”
Choose

TRADTECH ARCHERY

TRADTECH TITAN II & TITAN III
Traditional Recurve Take-Down Bow
Precision Shooting and User’s Guide
UPDATED 10/2012

See www.TradTechArchery.com for News & Updates
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Introduction

Thank you for choosing a TradTech Titan bow and congratulations as you’ve purchased the world’s best performing Recurve Bow for hunting, field or 3D Archery. Your TradTech Bow is designed and built for serious shooting with deadly accuracy. TradTech bow designs are the result of my 40+ years as a World Class Olympic Recurve Competitor, Traditional Bowhunter, Coach, Archery Professional and Tool & Die Maker along with the engineering expertise of a mechanical and aerospace engineer. Your Titan Riser was CNC machined in the USA from 6061 T6 tempered aluminum billet using Aerospace Mil-Spec materials, tolerances and design. The Black Onyx or Recon is crafted by Samick, Korea’s leading Olympic recurve bow manufacturer from high-strength phenolic and rich zebra wood. Both bows use true ILF (International Limb Fitting) design for Olympic Gold Medal accuracy in a precision hunting weapon.

I strongly recommend that you carefully read pages 4, 5, and 6. If you are inclined to snap the limbs in and "Just Shoot It", the Titan will serve you well right out of the box, but to realize the true potential of your bow, I encourage you to take the time to read and try the techniques explained in this Shooter’s Guide. I’m proud of this bow as one of our leading contributions to recurve archery, so we take your success seriously. Thank you so much for your confidence in us, we want you to enjoy a lifetime of shooting pleasure with your new bow!

Yours in Archery,

Robert Kaufhold / President, and our team of Traditional Archery TechXPerts™ from TradTech Archery and Lancaster Archery Supply
IMPORTANT SAFETY INFORMATION

PLEASE READ BEFORE ASSEMBLING, STRINGING or USING YOUR BOW

1. **ALWAYS** inspect your bow’s riser and hardware components, limbs, bowstring, and arrow rest before stringing your bow and prior to each end of shooting. On your bowstring, watch for frayed or broken strands, “wormed” or separated serving; Check the riser and limbs for cracks, splinters or loose hardware. If a shot “sounds” funny, stop shooting and thoroughly check your entire bow and the arrow that was just shot carefully before resuming. Set your limbs by pulling the string 2-3” and pluck the string. To seat the limbs prior to shooting, otherwise your first shot will seat the limbs themselves with a “pop”.

2. **NEVER** adjust the TradTech bow’s limb bolts out beyond the factory minimum weight setting. This is found by loosening and removing the In-Line Limb Bolt Lock Screws and tightening your limb bolts lightly snug and then loosen counterclockwise a total of 3 turns.

   The limb bolts are under extreme pressure when your bow is strung or being shot. This requires a minimum of 6 threads to be fully engaged into the metal riser for maximum strength. Shooting your bow with the Limb Bolts out farther than the factory minimum setting increases the potential for threads to wear or eventually fail. The limb bolt could come out under tension resulting in serious injury to the archer. Your ILF limbs are designed to be shot within a specific range of limb pre-load angles, shooting the bow beyond the weight ranges described above may result in premature limb failure and be extremely detrimental to the shooting properties of your fine bow… Just don’t do it!

3. **ALWAYS** Check that the ILF Limbs are fully seated into the dovetail slot & under the limb bolt bezel.
   3a. **ALWAYS** use a recurve bow stringer to string or brace and unstring your Bow every time.
   3b. **NEVER** use or allow the use of the “Step-through” method to string/brace this or any other bow.
   3c. **ALWAYS** keep children and others clear of the area when stringing or unstringing any bow.
   3d. **ALWAYS** double check that both bowstring loops are properly seated in the limb’s string notches.

4. **NEVER DRY FIRE** your bow without an arrow in it or shoot any arrow that weighs less than 5 (five) grains per pound of draw weight. (40# bow = 200 grain arrow minimum)  Dry firing your bow could cause a catastrophic failure of the bowstring, limbs or even riser component leading to serious injury due to the jolt of unabsorbed stored energy normally used to propel the arrow forward. Do not allow anyone inexperienced to shoot your bow.

5. **NEVER** expose your bow to extreme heat, humidity or moisture, especially salt water. Excessive heat as found inside a closed and un-shaded vehicle on a hot, sunny day can cause limb failures or twisting, especially when strung. Prolonged storage in a hot, dry attic or damp basement could cause corrosion, blistering and damage, voiding the warranty. After your bow gets wet, wipe it down upon return from the field and apply light, unscented oil to blackened steel parts like limb bolts, set screws, moving arrow rest parts, etc. Touch up any chips or scratches in your limbs with polyurethane clear coat finish to reseal them from moisture.

6. **ALWAYS** abide by all safe rules of shooting and conduct, any bow and arrow is a lethal weapon. Supervise children or inexperienced archers. Never shoot straight up or higher than needed to hit your intended target. Only shoot in a safe direction, being sure of your target and what is behind or in the vicinity of it to avoid accidents. Inspect every arrow shaft and its nock for cracks or defects before shooting each shot to avoid a shattered arrow upon release. Do not raise your index finger or knuckle on your bow hand above the arrow shelf to avoid being cut by the broadhead or point at the end of your arrow. Take care when pulling an arrow from any target. Never point or aim a drawn bow at another person or something you don’t want to strike with an arrow.
TradTech Bow Satisfaction Guarantee

We offer retail customers a 100 percent Satisfaction Guarantee: At any time within the first 15 days of new bow ownership and if the bow is maintained in like new condition with packaging, a TradTech bow customer can trade limbs, return the riser/limbs or entire bow (minus a 10 Percent Return/Trade Fee of the Riser or Limb Cost) if he/she is not 100% pleased with the bow. The customer may apply the balance toward TradTech or Lancaster Archery Products of their choice or accept a refund or credit to their credit card. (minus the 10% Fee)

TradTech Warranty

The American-made CNC Machined Aluminum TradTech Titan Recurve Riser is warranted against defects in materials and workmanship for the lifetime of the bow to the original owner only. The screws, grip and hardware are warranted for 1 year. The finish is not covered by this warranty. TradTech Recon and Black Onyx Risers and recurve bow limbs by made Samick are warranted for 1 year. A dated receipt, invoice or proof of purchase is needed for warranty coverage. Evidence of abuse or misuse, any non-factory modification or the use of attachments or accessories resulting in damage or undue stress will void all warranty claims, whether expressed or implied by this warranty. Prior to returning a bow, please e-mail info info@TradTecharchery.com or call 717-431-1778 for a Return Authorization Number. The bow’s owner is responsible for the shipping cost to TradTech for service. TradTech will diagnose and remedy the issue within the terms of this warranty and return the repaired/replaced bow at our cost.

Please fill out and mail the warranty card on page 18 to register & activate your Titan Warranty (begins on sales date) or fill out the on-line warranty registration on TradTech Archery's website at www.TradTechArchery.com.

Legal Disclaimer: The purchaser or user accepts by the act of purchasing this bow, that they have read this manual and acknowledges that shooting archery is an inherently dangerous activity assuming all risks and liability and holds TradTech, Lancaster Archery Supply, Inc. and Samick harmless against all claims arising from the use of this equipment.
Anatomy of your TradTech Recurve Bow

- **Limb Tip**
- **Upper Limb**
- **Bow String**
- **Tiller Measurement Point**
- **Llas Adjustment Screws**
- **In-line Limb Bolt Weight/Tiller Locking Screw**
- **Nocking Screw Point**
- **Center Serving**
- **Bow Grip**
- **Plunger or Rest Hole (5/16-24 Threads)**
- **Center Stabilizer Mounting Hole (5/16-24 Threads)**
- **Logo Button Removable for Weight/Dampening System**
- **Weight/Tiller Adjustment Limb Bolt**
- **Lower Limb**
- **Back/Lower Stabilizer Mounting Hole (5/16-24 Threads)**
- **In-line Limb Bolt Weight/Tiller Locking Screw**
- **Llas Adjustment Screws**
- **Tiller Measurement Point**
Proper Assembly and Stringing of your TradTech Bow

Installation of ILF Limbs:
Your TradTech Recurve bow uses our genuine ILF (International Limb Fitting) System. It is quite convenient, secure, and easy to use, resulting in the most accurate and quiet limb mounting system available today.

1. Align and begin to insert the stainless steel ILF dovetail bushings into the dovetail slot in the end of your TradTech riser’s open limb pocket, then place the limb butt fork groove onto the bronze limb bolt bushing underneath the black washer and limb bolt bezel.

2. Firmly push the limb into the ILF dovetail limb socket base until the spring loaded detent button engages and the limb stops and is fully seated. You will usually feel or hear a light click as the limb stops when this occurs. Look for the limb butt plate edge to be within 1/16” of the end of the riser’s limb pocket and for the limb to not come back out easily. (see Proper Limb Position pic)

3. It is entirely normal for the limb to still move up/down on the limb bolt bushing or rock slightly sideways at the ILF dovetail until the bow is braced and strung under tension.

4. To Remove ILF Limbs, grip over the top of the limb just outside the riser and use your thumb to push against the end of the riser underneath the limb, popping it out of the dovetail. Usually, almost no pulling or arm strength is needed to do this if the technique is used properly. (see pics on Page 8)

NOTE: After stringing your bow, but before shooting your first arrow, check the seating of your limbs by pulling the string 2-3” and letting go. If you hear a “pop”, the limbs have seated correctly. If there is no “pop,” it simply means the limbs were already seated prior to stringing. If this step is not completed, the limbs may seat on the first shot with an audible “pop” which is normal. Another (and silent) method of seating your limbs is to place your knee on the backside of each limb at near-center and flex the bow towards you. (see pictures below)
Proper Stringing of Your TradTech Bow:

1. **ALWAYS** double-check that ILF Limbs are fully seated in the dovetail slot under the limb bolt bezel washer.
2. **ALWAYS** use a recurve bow stringer to string or unstring your TradTech Bow every time.
3. **NEVER** use or allow the use of the “Step-Through” method to string/brace this or any other bow.
4. **ALWAYS** keep children and others clear of the area when stringing or unstringing any bow.
5. **ALWAYS** double-check that both bowstring loops are properly seated in the limb’s string notches.

**Using a Recurve Bowstringer:**

Begin with the bowstring’s lower loop installed on the lower limb tip and the larger, upper loop slid down the upper limb.

Slip the Large Bow Stringer Tip Cup over the lower limb tip and bowstring notches making sure that the bowstring is captured properly in the notches.

Slip the Small Bow Stringer Tip Cup over the top limb tip being careful not to block the string notch openings.

Step on the Bow Stringer line with both feet spread shoulder width apart, pull up on the bow with your stronger/master hand to bend the limbs far enough to slide the upper loop forward into the bow string notches.

Be certain that the bow string is entirely seated firmly into both sides of the bow string notches in the limb.

Slowly relax the tension on the bow to allow the bow string to gain tension, recheck string notches.

Remove Bow Stringer Tip Cups from limb tips and store in a safe, convenient place until needed again.

To Unstring your bow reverse the procedure, pulling up to relax the string and slip the upper loop down the limb.
Determining Correct Bow Length and Setting Draw Weight & Tiller

Bow Length:
Your choice of bow length is a personal one, guided primarily by your draw length and ILF limb length in order to get your best shooting performance and smooth draw that doesn’t stack draw weight above 2-3# per inch. ILF limb length is more critical than overall bow length for different draw lengths.

• For archers with less than a 26.5" draw, a 56", 58", or 60" bow (short Limbs, 66"/25" riser) is recommended.
• For archers with 26.5-29.5" draws, a 58", 60", or 62" bow (medium ILF Limbs, 68"/25" riser) is recommended.
• For archers with a 29-31.5" draw, a 60", 62", or 64" bow (long ILF limbs, 70"/25" riser) is preferred.

Additionally, the limb bolt position modifies the ILF limb angle. The shorter your draw length within the range of any limb length above, the more pre-load can be built into the limb angle by shooting your bow near the top of the weight adjustment range to slightly increase performance. At longer draw lengths within any range, shooting the bow toward the bottom half of the weight range will minimize any stacking and provide peak overall performance and shootability.

Draw Weight:
Your TradTech bow features a 17" or 19" riser that results in a shorter bow and extremely efficient use of world-class ILF Olympic Recurve Competition Limbs. To convert the weight for an existing ILF limb to your TradTech Riser, add approximately 8 lbs. to the weight posted on your ILF Target limbs for a 25" target riser. If you’ve ordered your bow complete with our TradTech Limbs, then the base weight and bow length are accurately marked on the bottom limb label. In general, purchase limbs on the lighter side as you can increase the draw weight from 2-5# over the base weight. For shorter archers with less than a 27.5" draw, shooting the bow in the top/heaviest ½ of the weight range will yield added performance by building pre-load into the limbs increasing stored energy for you. For draw lengths over 29", shoot the bow in the bottom ½ near the base weight for the smoothest, most comfortable and forgiving draw cycle. Add or subtract ~2½# of draw weight for each inch of draw length that is over or under 28" as measured to the backside of your bow. (26¼" to grip pivot or plunger hole + 1 ¾")

Arrow Weights Recommended:
For Bowhunting Deer Sized Game: 8 to 10 grains per pound of draw weight (actual at your draw)
For Bowhunting Elk and BIG Game: 9 to 12 grains per pound of draw weight
For Target, 3D and Recreational Shooting: 5 to 8 grains per pound of draw weight (depends on weight)

Limb Tiller and Draw Weight Adjustment:
Tiller: Your Titan bow or riser is normally shipped with the tiller set at + 1/8". For archers shooting split finger(1 over, 2 under) we’d recommend between 1/8" and ¼" tiller; for shooting 3 fingers under or “string walking” under the arrow, use an even 0 to 1/8" tiller for best results. Tiller refers to the difference in the pre-load in the upper and lower limbs and is measured from the limb belly (where it meets the riser) to the bowstring at a 90° angle. The upper limb should generally have a higher/greater tiller measurement for a positive tiller. (Ex: Top: 6½", Bottom 6 3/8") To reduce the tiller measurement, increase the weight on that limb by turning the limb bolt right or clockwise; to increase tiller, reduce the weight by turning the limb bolt left or counterclockwise. To adjust tiller with no affect on draw weight, adjust each bolt the same amount in different directions as above. (See Anatomy of your TradTech Bow on page 6)

Draw Weight:
Your TradTech bow or riser comes with the draw weight set at the base minimum weight unless you’ve instructed us to customize it especially for you. This factory weight setting can always be duplicated by first loosening and taking the In-Line Limb Bolt Locking Set Screws out of the riser; then turn the limb bolts lightly snug against the bronze bushings and loosen exactly 3 turns counterclockwise to find the minimum setting, then replace and retighten the In-Line Limb Locking Set Screws securely.

**NOTE: DO NOT ADJUST THE LIMB BOLTS BEYOND THIS MINIMUM SETTING TO PREVENT RISER/LIMB DAMAGE AND POSSIBLE INJURY!**
To increase your bow’s draw weight; Use the 5/32” Hex Wrench to loosen each In-Line Limb Bolt Locking Set Screw counterclockwise by the number of turns you wish to increase the draw weight plus ½ turn. Then using the 3/16” Hex Wrench, tighten each Limb Bolt up to three(3) turns from the factory minimum base weight and re-tighten the In-Line Limb Bolt Locking Set Screws.

**The factory maximum weight setting can always be duplicated by removing the In-Line Limb Bolt Locking Set Screws and tightening the Limb Bolts lightly snug against the riser.**

**LLAS- Lateral Limb Alignment System:** Proper centering of the limb, riser and therefore the bowstring path greatly enhances accuracy and forgiveness, arrow spine flexibility, and tuning effectiveness. Your TradTech Riser has been factory aligned for use with all ILF Limbs.

Your TradTech riser features an accurate, precise and dependable Lateral Limb Alignment System designed by our good friend, world-renowned Italian archer Sante Spigarelli. This system is pre-set and precisely centered at the factory for optimum performance with TradTech and most quality ILF limbs. The LLAS will maintain its factory setting in the most severe conditions. If you ordered a TradTech Bow complete with TradTech Extreme BF or CarbonWood Limbs, then we have assembled your bow and re-checked the alignment to insure that it is absolutely perfect with your limbs. We have scribed a line in the brass LLAS and black anodized riser finish to record the factory setting for your future reference. Normally, most set-ups do not require additional lateral limb alignment adjustments, even when using another quality ILF limb from another manufacturer.

**Checking and Adjusting for Limb Center Alignment:** Lateral Limb Alignment can be checked and therefore adjusted using either or both the “Limb Tip” or the “Long Stabilizer” method. Our experience is that the “Long Stabilizer” method is easier to understand and see very small differences on precision CNC machined risers with factory stabilizer threads while the “Limb Tip” method is preferred for all wood risers and as an alternative or second check for metal risers. Both require that the bow be properly strung and then drawn to full draw at least once before checking alignment. LLAS adjustments can be made with the bow strung or unstrung, but never while drawn.
Long Stabilizer Method: Use Beiter Limb Line Gauges or place a piece of masking tape on each limb just above and below the riser at the ILF dovetail limb pockets. Precisely measure and mark a vertical line at the center point of each 1 1/2" wide limb just as it exits the riser at the ILF dovetail limb pockets. Screw a quality 24-36" target stabilizer into the stabilizer accessory hole and tighten. Rest the bow very gently on the bottom limb tip and stabilizer at nearly a vertical position. Position yourself to look perpendicular across the bowstring centering the bowstring along your limb center marks, riser hardware/holes and grip. Note the position of the stabilizer to the bowstring line in relation to the top and the bottom limb separately and as a whole.

If the long stabilizer is to the right of your bowstring, (see Stabilizer Right pic) then move the LLAS containing the ILF dovetail to the LEFT by using the small 3/32" hex wrench to loosen the left side LLAS set screw 1/4 turn counterclockwise, (making room for the LLAS to move toward that side), then tighten the right side set screw clockwise ¼ turn to drive the LLAS toward the left. Sometimes ¼ turn is too much and you’ll have to come back 1/8 turn the other way…Do not over-tighten these screws. ALWAYS draw the bow 2-3 times after making any LLAS adjustment to allow reseating of the limbs/bowstring BEFORE checking your adjustment for proper centering and lateral alignment.

If the long stabilizer is to the left of your bowstring, (see Stabilizer Left pic) then move the LLAS containing the ILF dovetail to the RIGHT by loosening the right side LLAS set screw 1/4 turn counterclockwise, (making room for the LLAS to move toward that side), then tighten the Left set screw clockwise to drive the LLAS toward the right. Sometimes ¼ turn is too much and you’ll have to come back 1/8 turn the other way… Never make more than a ½ turn adjustment at a time to the LLAS. Do not over-tighten these set screws. (see properly aligned Stabilizer Center pic) When bowstring/stabilizer is aligned, insert the long end of the 3/32” hex wrench into a set screw and tighten by turning the short end snug first, then tighten the other side’s screw and re-tighten the first side screw to securely set. Then re-check the alignment. ALWAYS draw the bow 2-3 times or unstring and re-string it after making any LLAS adjustment to allow reseating of the limbs/bowstring BEFORE checking your adjustment for proper centering and lateral alignment.
**Limb Tip Method:** Rest a limb tip on the floor with the bowstring up and the bow and limb tips facing down with the raised limb supported by your fingertip or a stationary rest such as a table edge. Position yourself to look directly down the bowstring line while glancing down to check the lateral location of the raised limb tip against the face of the limb directly behind it. The limb tip should be centered above the limb directly in line with the bowstring. *(see Limb Tip Centered pic)*

If your limb tip is leaning to the Right, *(see Limb Tip Right pic)* move the LLAS containing the ILF dovetail to the Left by loosening the left side LLAS set screw 1/8 to 1/4 turn counterclockwise, (making room for the LLAS to move toward that side), then tighten the right side set screw clockwise to drive the LLAS toward the left. Do not over-tighten these screws. ALWAYS draw the bow 2-3 times after making any LLAS adjustment to allow reseating of the limbs/bowstring BEFORE checking your adjustment for proper centering and lateral alignment.

If your limb tip is leaning to the Left, *(see Limb Tip Left pic)* then move the LLAS containing the ILF dovetail to the RIGHT by loosening the Right side LLAS set screw 1/8 to 1/4 turn counterclockwise, making room for the LLAS to move toward that side, then tighten the Left side set screw clockwise to drive the LLAS to the right side. Never make more than a ½ turn adjustment at a time to the LLAS. **Do not over-tighten these screws.** *(see Limb Tip Centered pic)* When bowstring/stabilizer is aligned, insert the long end of the 3/32” hex wrench into the first side’s screw and tighten by turning the short end snug first, then tighten the other side’s screw and re-tighten the original screw. ALWAYS draw the bow 2-3 times or unstring and re-string it after making any LLAS adjustment to allow reseating of the limbs/bowstring BEFORE checking your adjustment for proper centering and lateral alignment.

**String Groove Note:** If the string on any recurve bow favors the right side of the string groove, the limb tip will also be leaning to the right side.

**Brace Height:**
A bow’s brace height is measured from the bowstring to the grip throat or pivot point of the riser. This string or brace height is critical to your bow’s performance, tuning, and quietness when shooting. Use this guide in setting the brace height on your bow to maintain optimum performance.

*(Use of a T-Square Gauge to Check Brace Height)*
On the 17” Titan II Aluminum Riser

<table>
<thead>
<tr>
<th>Type of Limb</th>
<th>Length &amp; Correct Brace Height (for 17” Titan II Riser)</th>
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<tbody>
<tr>
<td>Short 58”</td>
<td>Medium 60”</td>
</tr>
<tr>
<td>ILF Recurve Limbs</td>
<td>7 1/4” - 8”</td>
</tr>
<tr>
<td>ILF Longbow Limbs</td>
<td>8 1/2” – 9”</td>
</tr>
<tr>
<td>Long 62”</td>
<td>7 1/2” - 8 1/4”</td>
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On the 19” Titan III Aluminum Riser

<table>
<thead>
<tr>
<th>Type of Limb</th>
<th>Length &amp; Correct Brace Height (for 19” Titan III Riser)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short 58”</td>
<td>Medium 60”</td>
</tr>
<tr>
<td>ILF Recurve Limbs</td>
<td>7 1/2” - 8 1/4”</td>
</tr>
<tr>
<td>ILF Longbow Limbs</td>
<td>8 1/2” – 9 3/4”</td>
</tr>
<tr>
<td>Long 62”</td>
<td>7 3/4” – 8 3/4”</td>
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You can generally make reasonable adjustments in your brace height by twisting/untwisting your string. Adding twists will increase your brace height, often quieting your bow, but resulting in your arrow reacting a bit weaker in dynamic spine and slightly lowering arrow velocity. Untwisting your bowstring will lower your brace height. Ensure you do not untwist past our minimum recommended level or it may increase noise due to limb slap, increase forearm contact, or stiffen the dynamic spine characteristics of your arrow while increasing arrow velocity. Do not untwist any string, especially a Flemish twist bow string to a point with less than 10 twists in it.

**Bow String Materials and Lengths:**

Your TradTech bow’s limbs are built for any high performance string material in either a Flemish twist or endless loop style bow string. Be sure to use a quality string with as little bulk near the end loops as possible for best results. Best materials include Brownell’s TS Plus, D75 or even Excel, their Dyneema and Vectran blend for great performance with no creep and loss of brace height. BCY’s DF’97 or Dyneema ‘02 are also good choices. Use this guide in choosing your bowstring lengths for your TradTech bow.

![Types of Limbs and String Lengths](image-url)

**For the 17” Titan II Riser:**

Short Limbs 58”AMO or 54 3/8”actual length  
Med. Limbs 60” AMO or 56 3/8” actual length  
Long Limbs 62” AMO or 58 3/8” actual length

**For the 19” Titan III Riser:**

Short Limbs 60”AMO or 56 3/8”actual length  
Med. Limbs 62” AMO or 58 3/8” actual length  
Long Limbs 64” AMO or 60 3/8” actual length
Installing an Elevated Arrow Rest:

TradTech recommends your choice of the following elevated rests for use on the Titan with a cushion plunger: AAE/Cavalier Champion II, T-300 or Super T-300 Hunter; Spigarelli SpigaRest2, SpigaEvolution Iron Rest; Cartel X-Pert or KAP Suppartner Magnetic rest or the Asahi ARE AM-110 Magnetic Rest.

(Shorter) Quality Cushion Plungers include: TradTech Stubby Cushion Plunger, Short Cartel Super Plunger, Cavalier Master Plunger, Shibuya DX Plunger Button. NAP’s CenterRest Flipper, Saber Rest, and the Hoyt Hunter Rest are good choices if a simple elevated rest is preferred without a plunger.

To install a stick-on elevated rest, first CLEAN the riser surface around the plunger hole with alcohol or acetone to eliminate all oil, dust, etc.; install the plunger until ~ 3/16” to ¼” sticks out from the riser. Warm the riser and rest to at least room temperature (do not install on a cold riser); Lightly place the stick on rest on the riser to center the plunger in the rest's hole and move to center your arrow as it rests against the plunger head or pin. When this is set, remove the arrow and press firmly on every area of the arrow rest mount plate to insure contact. After shooting/tuning, trace the arrow rest plate to mark for accurate replacement if needed.
**Shelf Rugs and Side Plates:**
For bowhunting or 3D competition in some classes, your Titan can easily be set-up to shoot off the shelf. Use black HD Velcro rug on the shelf and the leather pad on the side plate. You can add thick felt, a matchstick, toothpick, or cotton swab shaft under leather pad to further offset your center shot if you prefer.

Set your Center Shot on your Arrow Rest or Side Plate: (after Lateral Limb Alignment is checked)
Nock an arrow on the string and place it on your rest or arrow shelf. Rest your bow on the edge of a countertop or table with the arrow pointed away from you. Position yourself behind the bowstring, looking directly down the arrow shaft. Using one eye, align the string down the center of the limbs and riser to check the position of the arrow point relative to this line. Adjust the plunger or side plate until the inside edge of the arrow shaft aligns with the bowstring line.

Incorrect Centershot: Inside of Center
Correct Centershot: Just Outside of Center
Apply a Nocking Point:
All bows require a consistent nocking point to mark and secure the arrow’s position on the bowstring. Apply a brass or tied on nocking point at ~ ½” above 90° square with the level point of your arrow rest or shelf plate. Apply the nocking point with only light to medium tightness as you may need to move it to obtain perfect arrow flight. Use of a tied on “worm” nocking point allows adjustment, then lock with cyanacrylate glue such as Fast Fletch, Maxi-Cure, Goat Tuff, etc.

![Nocking Point Image]

Use the T-Square to Measure the Correct Nocking Point

Fine Tuning:
To get the optimum performance designed into your Titan, an arrow with a spine stiffness that matches your bow weight, draw/arrow length and shooting style is critical. Fine Tuning our TradTech Titan bow using the bare shaft and broadhead methods will insure the ultimate in accuracy for years to come. BEFORE starting, install ALL string silencers, silencing, vibration or other accessories and set your brace height at a level giving you the most silent shot that feels best to you.

Bare Shaft or Broadhead Fine Tuning Methods:
NEVER mix these by shooting a bare shaft with a broadhead! It is unpredictable and dangerous. It is important to correct for proper nocking point height first; If your arrow is shot with the nocking point either too low or too high, the arrows will “Porpoise” up and down toward the target resulting in poor accuracy, especially seen as diving or planning with broadheads. During this Nocking Point test, ignore where the fleted arrows/bare shafts with field points or broadheads impact horizontally, concentrate only on vertical groups and the relationship of the bare shaft or broadhead to the grouped arrows. Pick a spot or target and begin by shooting a relative grouping of 3 or more fleted arrows with weight matched field points at a distance you are confident shooting at between 12 & 20 yards; then shoot 1 or 2 bare, unfielded shafts (or fleted broadheads) using the same technique and intended impact point.

If your bare shaft (or broadhead) impacts above the fleted field point arrow group, move the nocking point up to lower it into the group; if your bare shaft (or broadhead) hits below the group, move the nocking point down to raise it into the group. Repeat this until the bare shaft (or broadhead) strikes the target at the same height.

(For a RH archer) If your arrow is coming out of the bow nock to the right (stiff) or nock to the left (weak), the arrows will “Fishtail” sideways toward the target or plane to the right or left when shooting broadheads. After the nocking point is correct as above, shoot the same group and then bare shaft(s) (or broadhead) to check the impact of the bare shaft (or broadhead) horizontally in relationship to your group of fleted field point arrows.
If your bare shaft (or broadhead) strikes to the left of the group, it is coming out stiff (nock to the right) and can be remedied as such; decrease the spring tension on your cushion plunger, move your centershot/shelf strike plate in toward the bow, increase bow weight or brace height, decrease you bow string strands/weight, or increase your insert/field point/broadhead weight. (weights must match)

If your bare shaft (or broadhead) impacts to the right of the group, it is coming out weak (nock to the left). To correct, increase the spring tension on your cushion plunger, move your centershot/shelf strike plate out away from the bow, decrease bow weight, shorten your arrow’s length, lower bow weight or brace height, increase bow string strands/weight, or decrease your inserts/field point/ broadhead weight.

When your bare shaft (or broadhead) impacts with or very near your group at this distance, your bow is on its way to being finely tuned. For finer tuning, repeat this test at or beyond 20 yards if you are comfortable shooting at farther distances; small variations can be seen & corrected at these distances.

If you make the above corrections and your bare shaft (or broadhead) is still more than 6” from your group to the left (stiff) or to the right (weak), you will need to make modifications in your set-up or choice of arrows or broadheads.

If your bareshaft impacts with your fletched arrows, but your fletched arrows do not fly or group well, wiggling or minnowing in flight (especially with broadheads), then fletching clearance is likely the culprit. On an elevated rest, turn the arrow nock to orient the fletching for better clearance; when shooting off the shelf, reverse nock your arrow with the cock feather in toward the bow; this will keep your bottom hen feather from striking your shelf and causing the poor arrow flight and accuracy.

**Other variables that affect dynamic arrow spine:**

The material, type and weight of your bowstring; A softer B50 Dacron Polyester string will creep and elongate on the shot more, making the arrow slower, reacting stiffer than Dyneema or Spectra based materials like FastFlight, TS Plus, D75, '02, 8125 or DF’97. High Performance blends using Dyneema and Vectran will have virtually no creep and will weaken arrow spine over B50 or Dyneema alone. These materials may be 1-3 fps slower than Dyneema alone and are known as Excel, Ultra-Cam, 450Plus, 452X. A traditional Flemish Twist string using two or three twisted bundles is softer and will “uncoil” slightly resulting in a stiffer arrow than an Endless Loop bowstring with loop and end servings. Adding weight to your bow-string makes your arrows react stiffer. Remember this when choosing nocking point and serving type, number of strands, silencers, etc. A lighter string weakens arrow spine and increases speed.

**Brace Height:** This has a great effect on arrow spine, speed, bow noise and vibration. It is best to shoot your bow where it is quietest and most pleasant to shoot, but keep in mind that a ½ to ¾ " change in brace height can have the same effect as 25 grains of point weight.

**Adding Weight to the Arrow:** Adding a lengthwise weight tube will very slightly stiffen the arrow spine, while adding weight only at the back of the arrow will substantially stiffen the dynamic spine just as weight at the front insert or point end will weaken the arrow’s spine.

**Titan Bow and TradTech Limb Maintenance:**

Your Titan riser is made of aircraft 6061T6 aluminum with a thick mil-spec hard coating anodize protecting it from scratches, corrosion, etc. The only maintenance that may be required is to lightly oil all steel screws that are black oxide coated to protect them against surface rust. (Limb Bolts, Limb Bolt In-line Lock Screws, (4) LLAS Set Screws inside counter-bored holes, grip screws)

TradTech limbs also have black steel button head hex screws at the top of the limb butt that should regularly be protected. These have been treated with thread locker, but should be checked for tightness periodically. Your limb’s clearcoat finish protects the limbs from moisture and should be touched up with clear nail polish or clear wood or automotive paint if they get deeply scratched or gouged. When coming in from a wet hunt or shooting session, towel dry your limbs and riser to keep them factory fresh.

If you want to freshen the cosmetics of your black anodized riser and walnut grip, at room temperature or above, use a very light coat of mineral oil applied with a terry cloth towel and rub in to buff and remove excess oil from the surface. On your limbs, apply a light coat of quality car wax to the clear coat finish, let dry and rub dry residue off.
Personal Settings and Shooting Notes:

String Material & Strands: ____________________________________________________________

Actual Length: ________________________________________________________________

Brace Height: _________________________________________________________________

Tiller:   Top _______________________   Bottom ____________________________

Weight @ ___________”   Draw Length _______________ #

Notes: ____________________________________________________________

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___________________________________________________________________________
Name: ____________________________________________________________

Address: ______________________________________________________________________________________________________

City: ___________________________ State: ________________ Zip: ___________________________

Telephone: ______________________________________________________________________________________________________

Email: __________________________________________________________________________________________________________

Bow Model: ______________________________________________________________________________________________________

Limb Model: ______________________________________________________________________________________________________

Length: ___________________________ Weight: ___________________________

Draw Weight: ______________________________________________________________________________________________________

Arrow Used: ______________________________________________________________________________________________________

Date of Purchase: __________________________________________________________

I Heard About the Bow:
- Trad Shoot/Rendezvous
- Word of Mouth/Friend
- Email
- Magazine Ad
- Web Ad/Banner
- Internet Forum
- Other
For more information on TradTech™ Archery Products visit us at www.TradTechArchery.com

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