TradTech Bows
Precision Shooting
and User’s Guide

“When the First Shot Counts”
Introduction

Congratulations! You’ve purchased a TradTech Bow equipped with ILF Limb technology for hunting, field or 3D Archery. Your TradTech Bow is designed and built for serious shooting with deadly accuracy. TradTech Bows are the result of a cooperative effort between TradTech and Samick Archery. TradTech Bows use true ILF (International Limb Fitting) design for world class accuracy in a precision hunting weapon.

I insist that you carefully read pages 3, 4 & 5 and if you are inclined to put it together and “Just Shoot It”, this bow 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 Traditional 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 of TradTech Archery and Lancaster Archery Supply

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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.

2. **DO NOT ADJUST YOUR BOW NOW.** Shoot it and study this User’s guide before you adjust it in any way… **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 5 turns. **DO NOT** shoot your bow with the Limb Bolts adjusted tighter that 3 ½” turns from the factory base minimum setting or if starting to set-up, when loosened 1 ½ turns from snug. 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** Double-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 TradTech Bow everytime.
   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 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 on 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)

**WARRANTY**

The TradTech Bow riser and all TradTech limbs are warranted against defects in materials and workmanship 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@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.

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 and Samick harmless against all claims arising from the use of this equipment.
Proper Assembly and Stringing of your TradTech Bow

Installation of ILF Limbs:
Your TradTech 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 enter the stainless steel ILF dovetail bushings into the dovetail slot in the end of your bow riser’s open limb pocket, then place the limb butt fork groove onto the limb bolt bushing underneath the stainless steel limb bolt flange.

2. Firmly push the limb into the ILF dovetail limb socket base until the spring loaded detent button engages and the ILF dovetail and limb is fully seated. You will feel or hear a light click and then the limb will stop 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 the limb to not come back out easily.

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

Proper Stringing of Your TradTech Bow:
1. ALWAYS Double-Check that ILF Limbs are fully seated in the dovetail slot under the large limb bolt flange.
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.

Bow Length and Setting Draw Weight & Tiller

Bow Length:
Your choice of bow length is a personal one, guided primarily by your draw length in order to get your best shooting performance and smooth draw that doesn’t stack increasing draw weight above 2-3# per inch. Additionally, the limb bolt position modifies the ILF limb angle. The shorter your draw length, the more pre-load can be built into the limb angle by shooting your bow near the top of the weight adjustment range to increase performance. At longer draw lengths, shoot the bow toward the bottom half of the weight range will minimize any stacking and provide peak overall performance and shootability.

Draw Weight:
To convert the weight for an existing ILF limb to your TradTech Bow, add approximately 6 lbs. to the weight posted on your 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 marked on the bottom limb label. In general, purchase limbs on the lighter side as you can increase the draw weight from 2-4# 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 give you added performance by building pre-load into the limbs increasing stored energy for you. For draw lengths over 29”, try to avoid the top ½ of the weight range, shooting your bow near the base weight for the smoothest, most comfortable and forgiving draw cycle. Add or subtract ~2# of draw weight for each inch of draw length that is over or under 28” as measured to the front 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: 10 to 12 grains per pound of draw weight
For Target, 3D and Recreational Shooting: 6 to 8 grains per pound of draw weight (depends on weight)
Limb Tiller and Draw Weight Adjustment:

**Tiller:** Your TradTech 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.

**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 5 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 counter-clockwise 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 bronze limb bushings and then turning the Limb Bolts counterclockwise two(2) turns, then replacing and re-tightening the Locking Set Screws securely.

**Exceeding this maximum factory setting may result in difficulty removing/inserting your ILF limbs, increased weight stacking at full draw/decreased smoothness and dramatically increased stress on your limbs leading to potential early limb fatigue or failure.

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 CarbonWood, GlassWood, Black Max, or Longbow limbs then we have assembled your bow and re-checked the alignment to insure that it is absolutely perfect with your limbs. 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 the “Limb Tip” method. The “Limb Tip” method is preferred for all wood risers and as an alternative or second check for metal risers. This requires that the bow be properly strung and then drawn to full draw at least once before checking alignment. Lateral adjustments can be made with the bowstrung or unstrung, but never while drawn.
**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.

If your limb tip is leaning to the Right, 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.** 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.

19” Pinnacle Wood Riser
- Recurve Limbs Shrt. 60” Limbs 7 ½” - 8 ¼”
- Recurve Limbs Med. 62” Limbs 8” - 8 ½”
- Recurve Limbs Lng. 64” Limbs 8” - 8 ¾”
- ILF Longbow Limbs: Long 64” 8 ½” - 9”

17” Galaxy Wood Riser
- Recurve Limbs Shrt. 58” Limbs 7 ¼” - 8 ¼”
- Recurve Limbs Med. 60” Limbs 7 ½” - 8 ½”
- Recurve Limbs Lng. 62” Limbs 7 ¾” - 8 ½”
- ILF Longbow Limbs: Long 62” 8 ½” - 9”

15” Recon/Black Onyx Wood Riser
- Recurve Limbs Shrt. 56” Limbs 7 ½” - 8 ½”
- Recurve Limbs Med. 58” Limbs 7 ¾” - 8 ½”
- Recurve Limbs Lng. 60” Limbs 7 ¾” - 8 ¾”
- ILF Longbow Limbs: Long 60” 8 ½” - 9”

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 past our minimum recommended level may increase noise due to limb slap, increase forearm contact, 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.

**Installing an Elevated Arrow Rest:**
The Hoyt Hunter Rest or Cartel Rubber Rest are good choices in a simple elevated rest. To install a stick-on elevated rest, first CLEAN the riser sight window and rest surface with alcohol or acetone to eliminate all oil, dust, etc. 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 as to hold the arrow ½ - 5/8” above the arrow shelf and press down every area of the arrow rest mount plate to insure contact. After shooting/tuning, trace rest plate to mark for replacement if one would ever be required.

**Shelf Rugs and Side Plates:**
For bowhunting or 3D competition in some classes, your TradTech Bow can easily be set-up to shoot off the shelf. Use a black HD Velcro rug on the shelf and the leather pad on the side plate. You can add a matchstick, toothpick or cotton swab shaft under the leather pad to further offset your center shot if you prefer it. Other good shelf rests are the Bear Hair Rest and Sealskin rest.

**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 rest or side plate until the inside edge of the arrow shaft aligns with the bowstring line.

**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.

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

**Bare Shaft and Broadhead Fine Tuning Methods:**
NEVER mix these by shooting a bare shaft with a broadhead! It is unpredictable & extremely dangerous. It is critical 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 fletched 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 fletched arrows with weight matched field points at a distance you are confident shooting at between 12 & 20 yards; then shoot 1 or 2 bare, unfletched shafts (or fletched broadheads) using the same technique and intended impact point.

If your bare shaft (or broadhead) impacts above the fletched 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(s) to check the impact of the bare shaft or broadhead horizontally in relationship to your group of fletched 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 out away from the bow, decrease bow weight, shorten your arrow’s length, slightly lower brace height or decrease your inserts or field point and broadhead weight. When your bare shaft or broadhead impacts with or very near your group at this distance, you are well on your way to having a finely tuned bow. For even finer tuning, repeat this test at or beyond 20 yards if you are comfortable shooting at farther distances; small variations can be seen and corrected at greater distance.

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.

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 bowstring 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.

TradTech Bow and TradTech Limb Maintenance:
Your TradTech Bow riser is made of multiple hardwood and phenolic laminations. The only maintenance that may be required is to wipe dry after a rain and use a automotive wax once a year. TradTech limbs also have black steel button head hex screws at the top of the limb butt that should regularly be protected with light unscented oil. These have been treated with thread locker, but should be checked for tightness periodically. Your riser and limb’s clearcoat finish protects the riser and 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.