

Instruction Manual

F1 Model

v.1.2

KEEP THIS MANUAL TOGETHER WITH CROSSBOW

This Manual should always accompany this Lancehead Crossbow and be transferred with it upon change of ownership or when presented to another person. A copy of this Manual and any updates are available for free at www.Lancehead.com

USE ONLY LANCEHEAD COMPONENTS AND ACCESSORIES

Use of non-Lancehead authorized components and accessories, including non-Lancehead authorized arrows and nocks or non-lancehead authorized strings and cables, may cause the system to not operate as designed, potentially resulting in an unsafe condition that could lead to **serious injury or death**.

READ, WATCH AND FOLLOW ALL WARNINGS AND INSTRUCTIONS FOR THIS PRODUCT

Instructional videos available at www.Lancehead.com. If you have any questions or are unsure about anything in the warnings and instructions, stop and contact the customer service department at **(408) 357-0030, option 2**.

CROSSBOW SAFETY BASICS

ALWAYS keep the operating manual with the crossbow.

ALWAYS keep your crossbow pointed in a safe direction.

ALWAYS keep your finger off the trigger until ready to shoot.

ALWAYS keep your hands and fingers out of the bowstring path.

ALWAYS know your target, your line of fire, and what is beyond your target.

INTRODUCTION

Your Lancehead™ Crossbow is a deadly weapon that is designed specifically for hunting and target shooting purposes only. Use for any other purposes can cause serious injury or death.

No matter your level of experience with any crossbow, CAREFULLY READ THE ENTIRE MANUAL, its warnings and watch the instructional and safety videos (www.lancehead.com) before using your Lancehead™ Crossbow. It explains how to operate and handle your Lancehead™ Crossbow, and warns of the potential danger, including property damage, serious personal injury or death that can result from using it unsafely.

Your safety and the safety of others requires that you always remain aware of the danger inherent in handling your Lancehead™ Crossbow. You are responsible for safely operating your Lancehead™ Crossbow.

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LANCEHEAD CROSSBOW PARTS AND TERMINOLOGY

CROSSBOW



1. Anti-Dry Fire Catch
2. Arrow Rail
3. Arrow Retention Spring
4. Bowstring
5. Bowstring Spreader
6. Bowstring Pulleys
7. Bowstring Terminals
8. Cables
9. Cable Anchor
10. Cable Terminals
11. Cams
12. Cam Limb Mounts
13. Cam Tensioner Screw
14. Cocking Winch Port
15. Fairings

16. Flight Groove
17. Foregrip
18. Manual Safety Switch (Safe Position)
19. Manual Safety Switch (Fire Position)
20. Riser
21. Scope Mount (Picatinny Rail Type)
22. Scope Rings (1")
23. Scope Turrets
24. Stock
25. String Slot
26. Torsion Limbs
27. Trigger Lever
28. Trigger Release Catch

CROSSBOW ARROW (BOLT)



Shaft (20" or 22")



Fletching Vanes



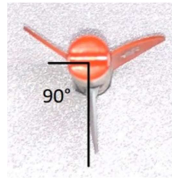
Odd Color Vane



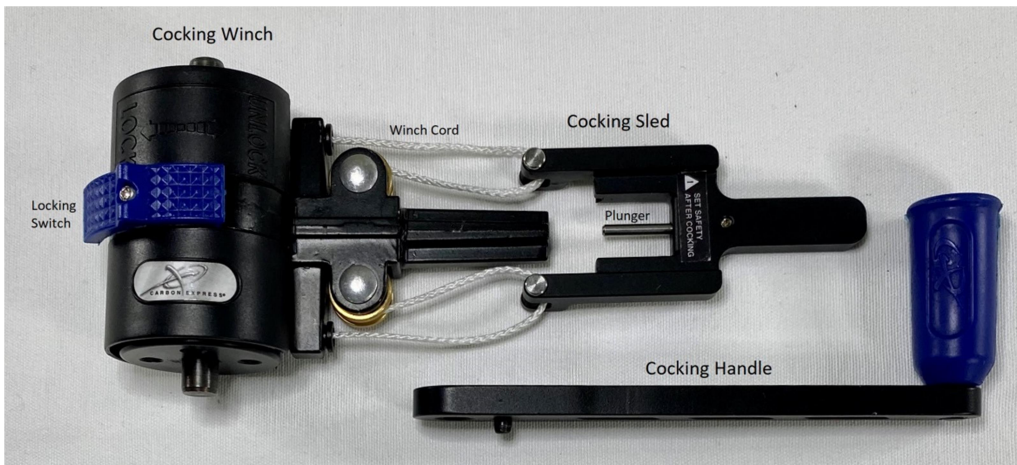
Halfmoon Nock



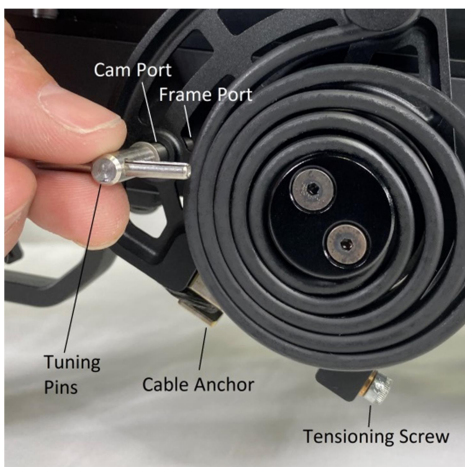
Nock Notch 90° Alignment to Odd Color Vane



COCKING WINCH



TUNING



TOOL KIT



SAFETY

The use of a crossbow requires considerable skill and should be treated with caution to avoid property damage, and/or injury or loss of life. Crossbows should only be used by those who are properly trained in safety or under the supervision of a qualified instructor. You must follow all written and video safety warnings and instructions provided with this product.

HAND AND FINGER SAFETY

The bowstring travels along the path of the crossbow stock at a high speed. The bowstring is a high-energy device and moves with such force it can cause significant injury if it contacts any part of the body during release. To avoid serious injury, you **MUST** keep all parts of the body away from the path of the bowstring and cable paths. Placing your hands, fingers, thumbs or other body parts in the path of the crossbow string or cables may cause serious injury. **NEVER** place any part of your body into the travel path of the crossbow string or cables. **NEVER** cock or shoot your crossbow when the fairings are not properly mounted on your crossbow or are damaged.

DANGER

- When you shoulder your crossbow to shoot, keep your foregrip hand squarely on the foregrip as shown in photo #1. Avoid sliding your hand in front of or behind the grip shown in photos #2 and #3, and avoid allowing that hand's thumb or fingers to move above the barrel's flight deck and into the bowstring's release path shown in photos #4 and #5. Failure to follow proper technique could result in a severe injury or amputation to any portion of your hand or body that is in the path of the bowstring upon release.

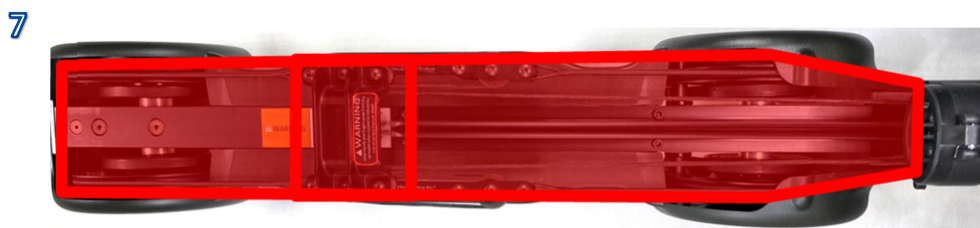


- Injury may occur while using a bench rest. Avoid allowing your foregrip hand to rotate to the side of the grip or to move in front of or behind the grip, thereby permitting your thumb and or fingers to move above the flight deck and into the bowstring's release path as shown in photo #6. Failure to follow proper technique could result in severe injury or amputation to any portion of your hand or body that is in the path of the bowstring upon release. See photos above for proper hand position.



WARNING

- Never place any body part, for any reason, in the path of the bowstring. Do not hold, carry, or hand a cocked or loaded crossbow to someone by grasping the barrel, spade or fore-stock inside the bowstring's release path as in photo #7.



SAFETY

- When loading an arrow (bolt), use the green bolt pliers supplied with your tool kit to handle the bolt as shown in picture #8. It is designed to keep your fingers clear of the bowstring while loading and unloading your crossbow. Alternatively, hold the bolt by placing your index finger on top of the arrow shaft between the two same-color fletching vanes and pinching these vanes together against your index finger using your middle fingers and your thumb. Position your ring finger and pinky on top of the shaft just behind the fletching to steady the arrow, as in photo #9a and #9b. This method keeps your fingers away from the travel path of the bowstring.



- For arrows with field points tips, direct the tip of the arrow through the space within the bowstring spreader, as in photo #10. When loading an arrow with a **fixed blade broadhead** use the flight groove in the rail to guide the blades through the spreader. This purpose is to keep blade away from strings. Do this by gently placing one of the blades in the flight groove to guide the broadhead through the center of the spreader as you push the arrow forward, as shown in photo 10a.



- Place the arrow shaft onto the barrel by inserting odd color fletching vane into the flight groove along the barrel so that the arrow shaft is supported within the flight groove, as shown in photo #11. Doing so is critical to ensure the halfmoon shape of arrow nock is aligned to seat into the bowstring. Otherwise you may dry-fire the crossbow and/or misfire the arrow, potentially causing personal injury, damage to the bow, or other property damage. Use fingertips to slide arrow along the flight groove back into the trigger release, as shown in photo #12. Always make sure the nock is seated firmly against the string immediately before firing, as shown in photo #13.



TRIGGER AND TRIGGER-SAFETY PROTOCOL

Protocol for crossbow triggers and their safety mechanism is similar to the protocol required when using firearms. Because triggers and their safeties are mechanical devices, they are subject to failure due to a number of causes such as abuse, misuse, tampering, wear and tear, neglect, operator error, loss of focus, and other causes. Never rely upon a mechanical device for safety.

The only safe approach to using a trigger is to assume that whenever you place your finger on it, it will fire.

! WARNING

- **ALWAYS SET THE MANUAL SAFETY SWITCH TO THE SAFE POSITION IMMEDIATELY AFTER COCKING THE CROSSBOW.**
- Visually verify your manual safety switch is in the SAFE (white) position when you engage or re-engage your safety, as shown in photo #14.



- Always keep your finger off the trigger until you are ready to take a shot.
- **DO NOT** disengage the trigger-safety [move it to the FIRE (red) position] until you are immediately ready to fire the crossbow, as in photo #15.



- **DO NOT** pull the trigger unless you intend to fire the crossbow.
- Only pull the trigger when you intend to fire the crossbow.
- **DO NOT** partially pull the trigger.
- When shooting, follow through on your trigger pull, just like a rifle.
- **DO NOT** 'slap' the trigger lever as the latch may bounce back and close, preventing you from reloading the crossbow. If this happens, pull the trigger lever to release the latch for reloading.
- **NEVER** manipulate or alter the trigger.
- **NEVER** apply lubricant to your trigger, it is frictionless and requires **NO LUBE**, as this will attract contaminants which reduce the trigger performance. If your trigger becomes contaminated, make sure your crossbow is NOT COCKED, then the UNLOADED trigger maybe cycled by closing the latch and pulling the trigger multiple times. You can also try light air pressure to blow the containinants out of your trigger.

GENERAL SAFETY

It is your responsibility to read and follow the written and video warnings and instructions provided and ensure that any other users also follow these warnings and instructions. Online safety instructions are available at www.lancehead.com. Keep and maintain your Owner's Manuals with your crossbow and make certain you provide them to whomever you loan or sell your crossbow.

! WARNING

- Take a hunter's education and safety course prior to hunting so that you understand all of the risks involved. In fact, most states require that you complete such a course before receiving your hunting license.
- Check your local, state, or provincial hunting regulations and regulations regarding use and transporting a crossbow. Make sure that your crossbow hunt follows the laws of the location in which you are hunting.

SAFETY

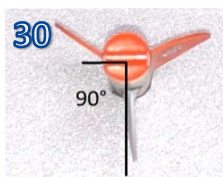
- Wear safety glasses when assembling, servicing, cocking, loading, and shooting your crossbow to protect against loss of or injury to your eyes from any number of causes such as, but not limited to, broken parts, cables, bowstrings, or cocking device draw cords and cocking sled.
- Your crossbow is a dangerous and deadly weapon designed for hunting and target shooting. Do not use it for any other purpose.
- **Always** treat your crossbow with the respect you would with any sporting arm. Treat every crossbow as if it were loaded. It can be dangerous or deadly if mishandled.
- **Always** point the crossbow in a safe direction.
- **Always** know your target and what is beyond it. Never shoot at a target on the horizon if you don't know what is on the other side.
- Before each shooting session, inspect your crossbow equipment for worn, loose, damaged or missing parts. Inspect the cables and crossbow string for signs of fraying or broken strands. Replace if any missing, lost or damaged parts are observed or suspected. DO NOT use the crossbow if these parts are missing or damaged.
- When carrying or transporting a cocked (always unloaded) crossbow, make sure the safety is in the SAFE (white) position. To avoid serious injury, be careful not to place any part of your body in the release path of the bowstring in case of an accidental discharge.
- Prior to using your crossbow, you should watch and follow the Owner's Instructional Videos at www.Lancehead.com and read and follow the **Hand and Finger Safety** (page 5), **Trigger and Trigger-Safety Protocol** (page 6), **Loading and Unloading Your Crossbow** (page 9), **Uncocking Your Crossbow** (page 12), **Cocking Your Crossbow** (page 13), **Sighting In Your Crossbow** (page 16), **Shooting Your Crossbow** (page 19), **Treestand Safety** (page 22), and **Arrow Requirements and Safety** (page 23) sections of this manual. Failure to follow the warnings and instructions may result in property damage and/or serious personal injury or loss of life.
- **Never** dry-fire your crossbow. Shooting without an arrow is damaging to the crossbow and could cause serious personal injury. In the event of a dry-fire, the bow must be inspected by an authorized dealer or by Lancehead LLC before being re-cocked or shot.
- **Always** make sure the arrow is fully seated in furthest back position immediately before each shot to reduce possibility of dry-fire.
- **Always** shoot arrows of the recommended weight, diameter, length and nock style for your particular crossbow model and accessory.
- Failure to use the correct type of arrow could lead to serious injury or death.
- **Never** attempt to shoot any projectile other than arrows specifically designed for use in your particular crossbow model and accessories.
- **Do not** leave your crossbow cocked for extended periods of time.
- Seek a doctor's advice if you take medication to be sure you are able to shoot and handle a crossbow safely. **Do not consume alcohol or performance impairing drugs before or while using your crossbow.** Impaired vision, motor skills and/ or judgement could lead to accidents that can cause serious personal injury or loss of life.
- Do not modify your crossbow or remove or deactivate its safety features. In addition to voiding your warranty, making modifications may make your crossbow dangerous or may cause serious property damage or personal injury, including loss of life.

LOADING AND UNLOADING YOUR CROSSBOW

LOADING AND UNLOADING AN ARROW SAFELY

⚠ WARNING

- Prior to using your crossbow, you should watch and follow the Owner's Instructional Videos at www.Lancehead.com, and read and follow the **Hand and Finger Safety** (page 5), **Trigger and Trigger-Safety Protocol** (page 6), **Loading and Unloading Your Crossbow** (page 9), **Uncocking Your Crossbow** (page 12), **Sighting In Your Crossbow** (page 16), **Shooting Your Crossbow** (page 19), **Treestand Safety** (page 22), and **Arrow Requirements and Safety** (page 23) sections of this manual. Failure to follow the warnings and instructions may result in property damage and/or serious personal injury or loss of life.
- **DO NOT** load an arrow in your crossbow until you are situated where you intend to shoot. In other words, do not walk or stalk with a loaded crossbow. It is especially easy to trip and fall in low-light conditions or over rough terrain. There are documented cases of loss of life caused from falling while walking with a loaded crossbow.
- **DO NOT** hand a loaded crossbow to another person or point a loaded crossbow in the direction of another person. Unload the arrow first with the safety ON and fingers off the trigger to avoid serious injury, including loss of life caused by an accidental discharge.
- Broadheads are razor sharp. Do not handle the blades with your bare hands and keep your arrows safely stored in a quiver when not in use. If mishandled, arrows can cause serious personal injury, including loss of life.
- When loading or unloading an arrow, do not allow any part of either hand inside the release path of the bowstring. If the crossbow were to fire accidentally with any part of your hand inside the bowstring's release path, you would sustain serious personal injury and possible amputation to parts of your hand left inside the bowstring's release path.
- Unload your arrow and return it to your quiver when you are finished hunting. An accidental discharge could cause serious personal injury, including loss of life.
- Only use crossbow arrows equipped with half moon style nocks, as shown in photo #29, 20-22 inches in length and fletching vanes NOT GREATER THAN 2" in length. Inspect the end of the arrow nock to ensure it is aligned at 90-degrees to the odd color fletching vane, as shown in photo #30. Otherwise you may dry-fire the crossbow and/or misfire the arrow, potentially causing personal injury, damage to the bow, or other property damage.



- Always inspect your arrow for any sign of damage prior to each shot. Damaged arrows could fail upon release, leading to personal injury or death. Do not shoot a damaged arrow. Inspect and discard any damaged arrow. To inspect the arrow shaft, flex it a few times and listen for any cracking noise and feel for any cracking vibration in the shaft, as these are signs of damage.

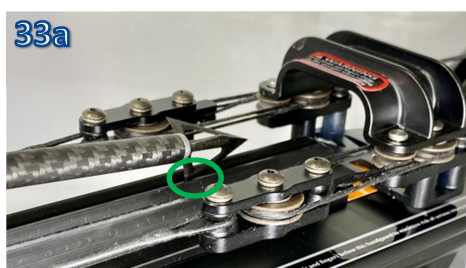
ARROW LOADING INSTRUCTIONS

! STOP: VISUALLY INSPECT CROSSBOW IS COCKED AND THE SAFETY SWITCH IS IN THE 'SAFE' (WHITE) POSITION

1. When loading an arrow (bolt), use the green bolt pliers supplied with your tool kit to handle the bolt as shown in picture #31. It is designed to keep your fingers clear of the bowstring while loading and unloading your crossbow. When loading an arrow, hold it by placing your index finger on top of the arrow shaft between the two same-color fletching vanes and pinching these vanes together against your index finger using your middle fingers and your thumb-- Position your ring finger and pinky on top of the shaft just behind the fletching to steady the arrow, as shown in photos #32a and #32b. This method keeps your fingers away from the travel path of the bowstring.



- For arrows with field points tips, direct the tip of the arrow through the space within the bowstring spreader, as in photo #33. When loading an arrow with a **fixed blade broadhead** use the flight groove in the rail to guide the blades through the spreader. This purpose is to keep blade away from strings. Do this by gently placing one of the blades in the flight groove to guide the broadhead through the center of the spreader as you push the arrow forward, as shown in photo #33a and 33b.

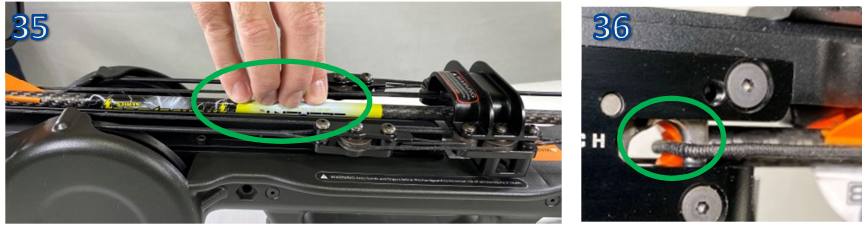


2. Locate the odd color arrow flect or vane, it is a different color from the other fletching vanes on the arrow and insert this odd color vane into the arrow's flight groove along the barrel so that the arrow shaft is supported within the flight groove, as shown in photo #34, as this is critical to ensure the halfmoon shape of arrow nock is aligned to seat into the bowstring. Otherwise you may dry-fire the crossbow and/or misfire the arrow, potentially causing personal injury, damage to the bow, or other property damage.



LOADING AND UNLOADING YOUR CROSSBOW

- Using the tips of your finger on the top of the arrow, slide the nock end of the crossbow arrow under the arrow retention spring along the barrel's flight groove, as shown in photo #35. Continue sliding the arrow shaft into the trigger box's string slot until it stops against the bowstring, as shown in photo #36. Always double-check to ensure the arrow nock is seated against the bowstring immediately before each shot by sliding the crossbow arrow shaft into the triggerbox, as the arrow may become unseated during handling or movement.

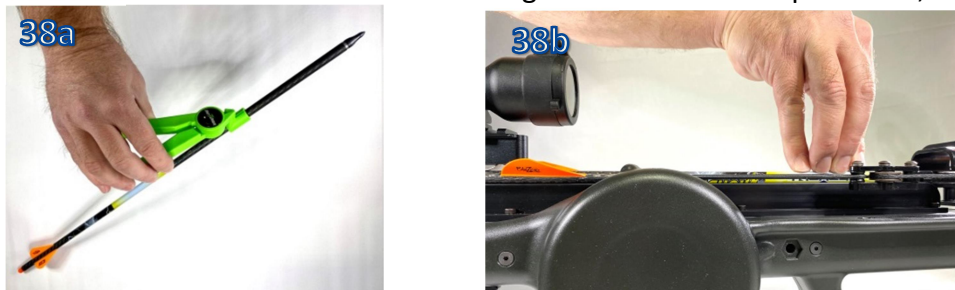


- If the arrow retention spring requires more force to keep the crossbow arrow properly seated in the flight groove with the nock against the bowstring, more retention force may be added to the retention spring by adjusting the set screw located on the top of the scope mount. Add arrow retention spring force by turning the 1/16" hex set screw clockwise, as shown in photo #37.



ARROW UNLOADING INSTRUCTIONS

- Ensure your finger is off the trigger and the manual safety switch is in the SAFE (white) position.
- When unloading an arrow (bolt), use the green bolt pliers supplied with your tool kit to handle the bolt as shown in picture #38a. Otherwise, using your finger tips on the top of the arrow shaft, slide the arrow forwards until the vanes of the fletching are clear of the scope mount, as shown in photo #38b.



- Grasp the arrow by the fletching vanes to remove the arrow, as shown in photo #39, and secure it in your quiver. **For arrows with fixed blade broadheads, push the arrow out through the front of the spreader. Do not attempt to pull the arrow back through the spreader, as it may risk damaging the strings.**



UNCOCKING YOUR CROSSBOW

⚠ WARNING

- The only safe way to uncock your crossbow is to shoot it using a practice arrow or the de-cocking bolt included with your crossbow.
- **DO NOT** attempt to uncock your crossbow using a cocking winch or by hand or by using a Rope-Cocker, or other mechanism because doing so could cause you to lose control of the bowstring, resulting in a dry-fire or possible serious personal injury and property damage.
- **DO NOT** dry-fire the crossbow to uncock it. The crossbow requires the weight of the arrow to absorb the bow's energy and to prevent damage to the bow or other property damage or personal injury from possible shattering of the bow assembly.
- **DO NOT** use aftermarket unloading arrows or discharge heads. The excessive weight of aftermarket unloading arrows or discharge heads may cause the bowstring to shoot over or under the nock, thereby dry-firing the crossbow.

UNCOCKING PROCEEDURE

1. The only safe way to uncock your crossbow is to shoot it using a practice arrow or the DE-COCKING BOLT included with your crossbow, as show in photo #40.



2. If your state allows you to carry an arrow with a practice or field point while hunting, keep the DE-COCKING BOLT in your quiver and shoot it into rock-free ground after your hunt. If you choose this option, aim roughly three-to-five feet in front of you. If you aim further out, you may bury your arrow and not recover it.
3. You can also carry a special purpose unloading target in your vehicle. Toss it on the ground, load your arrow, and fire it into the target, as shown in photo #41.



4. Finally, if you own a practice target at home, you can transport your cocked, unloaded crossbow in your car trunk or truck bed until you return home.

COCKING YOUR CROSSBOW

! WARNING

- Lancehead F1 crossbows are designed for use with **ONLY the cocking winch included with the purchase** of your crossbow. Never attempt to use a manual cocking rope or a cocking winch manufactured or supplied by another source. Using a cocking device other than supplied by Lancehead LLC may result in the inability to cock the device, property damage, serious injury, including the loss of life.
- **NOTE:** standard Carbon Express® Brand cocking winches (including the Quiet Crank Winch model) are **NOT COMPATIBLE** with Lancehead F1 crossbows, as they do not have the correct cocking sled and cord. Only use cocking winches purchased from Lancehead.com for use with your Lancehead F1 crossbow.



Quiet Crank®
Cocking Winch by
Carbon Express®



Lancehead™ Cocking Winch



! DANGER

- **DO NOT UNCOCK OR UNLOAD your crossbow using the cocking winch.** It is dangerous because doing so involves a number of hazardous steps that could cause serious personal injury and/or property damage. See **Unloading Your Crossbow** (page 9) for safe unloading instructions.
- Prior to using your cocking winch, you should watch and follow the Owner's Instructional Videos at www.Lancehead.com, and read and follow the **Hand and Finger Safety** (page 5), **Trigger and Trigger-Safety Protocol** (page 6), **Loading and Unloading Your Crossbow** (page 9), **Uncocking your Crossbow** (page 12), **Sighting In Your Crossbow** (page 16), **Shooting Your Crossbow** (page 19), **Treestand Safety** (page 22), and **Arrow Requirements and Safety** (page 22) sections of this manual. Failure to follow the warnings and instructions may result in property damage and/or serious personal injury or loss of life.
- **DO NOT** use your cocking winch if the draw cords are worn or frayed. A worn cord is subject to failure, which could cause unpredictable personal injury and/or property damage. Contact Lancehead's Service Department at **408-357-0030** or www.Lancehead.com for replacements.
- To prevent damage to the crossbow or injury to yourself or others near you, remove the cocking sled from the bowstring, and remove the cocking winch from the port before firing the crossbow.

COCKING PROCEDURE

1. Ensure the crossbow manual safety switch is moved to the FIRE (red) position and that the trigger latch is open. If the trigger latch is not open gently squeeze the trigger to open the trigger latch and visually confirm it is open, as shown in photo #16.

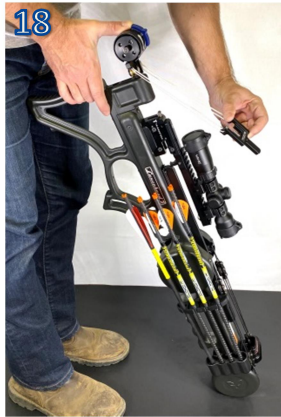


COCKING YOUR CROSSBOW

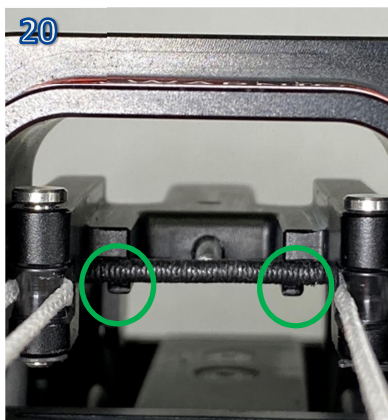
2. Mount the cocking winch onto the rear of the stock by inserting the “+” shaped mounting rod on the winch into the “+” shaped mounting port in the rear of the stock. Ensure the blue locking switch on the cocking winch is facing up and the cocking sled hooks are facing down, as shown in photo #17. Also, locate the crank handle and put it aside or in your pocket for easy access.



3. Once the winch is mounted, place the front of the crossbow on a relatively soft, rock-free portion of ground in front of you. With one hand move and **HOLD** the blue switch on the cocking winch to the “Unlock” position to disengage the winch sled, with the other hand guide the cocking hook over the scope towards the bowstring, as shown in photos #18. You may release the blue cocking winch switch when enough winch cord is available so that the cocking sled is positioned over the front bowstring spreader, as shown in photos #19.

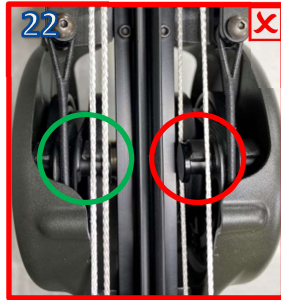


4. Insert the cocking sled into the spreader and over the top of the bowstring center serving and ensuring both of the hooks engage the bowstring throughout the entire tensioning process, as in photo #20.

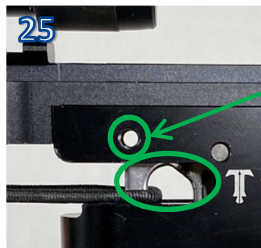


5. Attached the cocking crank handle to the side of the cocking winch. It can mount on either side to accommodate either right or left handed operation. Slowly make one clockwise turn of the crank handle to draw the slack out of the cocking cord.

- ! STOP AND INSPECT** the cocking cord to ensure it is clear of all the bow components, as shown in picture #21, and not stuck under components like the CAM limb mounts, as shown in photos #22. Also, ensure the cocking cord is positioned correctly in the winch pulleys, as shown in photos #23 and not misaligned as shown in photo #24.



6. Once the winch cables are clear and you are certain both hooks of the cocking sled are engaged on the bowstring, you may continue to smoothly crank the winch handle until the point that it is engaged into the rear of the trigger housing. You may hear the trigger latch engage as this happens. **! STOP AND VISUALLY INSPECT** the trigger latch inspection hole is clear and you cannot see the metallic trigger latch, as shown in photo #25.



Trigger Latch Inspection Hole

! WARNING

7. **IMMEDIATELY SET SAFETY SWITCH TO SAFE (WHITE) POSITION** by moving the manual safety switch downward to SAFE (white) position [failure to move safety to the 'SAFE' position may result in sever injury to person and or property damage]
8. To remove the cocking sled, put one hand on the cocking handle and with the other hand gripping the inside of the stock with your fingers in a position that allows your thumb to reach the bottom of the cocking winch locking latch, as shown in photo #26. Apply slight pressure to the cocking crank handle and move the winch locking switch to 'unlock' position by sliding forward with your thumb and holding to maintain the unlocked position. In a counter-clockwise motion, turn the crank one time to allow slack in the cocking cord and then remove the crank handle. While maintaining the winch switch in the unlocked position, use your cranking hand to grip the side of the cocking sled on that side of the bow. Slide the cocking sled directly forward and it will continue to take cocking cord out until it is clear of the front of the scope mount, as shown in photo #27. Gently wiggle upward to release it from the bowstring, as shown in photo #28.



SIGHTING IN YOUR CROSSBOW

SIGHTING IN SAFETY

⚠ DANGER

- Prior to sighting in your crossbow you must read and follow the warnings and instructions in the **Hand and Finger Safety** section on page 5 to avoid serious personal injury or amputation.

⚠ WARNING

- Prior to sighting in your crossbow, you should watch and follow the Owner's Instructional Videos at www.Lancehead.com, and read and follow the **Hand and Finger Safety** (page 5), **Trigger and Trigger-Safety Protocol** (page 6), **Loading and Unloading Your Crossbow** (page 9), **Uncocking your Crossbow** (page 12), **Sighting In Your Crossbow** (page 16), **Shooting Your Crossbow** (page 19), **Treestand Safety** (page 22), and **Arrow Requirements and Safety** (page 22) sections of this manual. Failure to follow the warnings and instructions may result in property damage and/or serious personal injury or loss of life.
- Ensure your crossbow is un-cocked and unloaded when making windage and elevation adjustments to your scope. An accidental discharge could cause serious property damage and personal injury, including loss of life.

SCOPE SIGHTING PROCEDURE

Lancehead F1 crossbows are equipped with Hawke XB1 scopes and fixed 1-inch Weaver style dovetail scope mounts. Scopes are mounted and are pre-sighted for 10-yards at the factory, meaning they are set accurately enough to hit within a 7-inch circle at that distance. Most likely, you will want to fine-tune your sight.

FOCUS AND RETICLE

1. Magnified Scope Focus Adjustment: If the reticle is not in focus when you look through the scope, adjust the focus by rotating the non-locking ring on the end of the rear bell (remove the dust cap first), as shown in photo #42.



2. Lighted Scope Adjustments: You can, however, view the yardage indication crosshairs in black when the Red and Green illumination intensity dial, as shown in photo #43, is turned off. Black crosshairs provide the best results in bright light conditions. The illuminated Red and Green dot views are intended for use in low-light conditions.



SIGHTING IN YOUR CROSSBOW

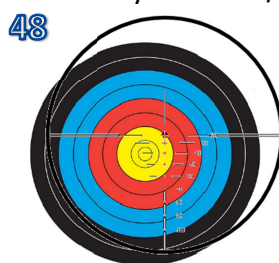
- Adjust the illuminated crosshairs brightness by turning the intensity dial on the scope. The higher the intensity number, the brighter the crosshairs will appear. Use the lowest intensity number possible to achieve maximum accuracy. The intensity dial is also the “on” and “off” switch. The power is off when the dial is set on “R” or “G” Illuminate the crosshairs by turning the intensity dial (in the Red or Green direction) to align your desired intensity number with the index dot located at the top of the dial. To conserve battery-life turn the power off when the scope is not in use. All Hawke illuminated scope models use a CR2032 coin style lithium battery. To insert a battery unscrew the battery compartment cap on the top of the rheostat adjustment turret and insert a new battery “+” side up. Warning: Always hold onto the lower half of the rheostat when loosening or tightening the battery compartment cap to ensure no damage is done.

ZEROING THE SCOPE SIGHTS

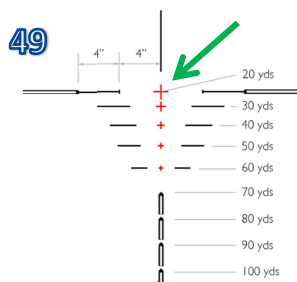
- Choose a place to shoot your crossbow with a safe backstop and ensure that no one can step unseen into or in front of the firing line, as show in photo #44. Use a bench rest to ensure a consistent point of aim, as shown in photo #45. Initially, place a target on the backstop at about 10 yards and take a shot at its center.



- Remove the dust covers from the windage and elevation turrets, as shown in photo #46. While maintaining the point of aim perfectly still at the center of the target, make suitable adjustments to bring the point of impact (POI) closer to the point of aim (POA). For example, if the arrow has landed high and to the right of the point of aim, as shown in photo #47, then required rotate the elevation turret counter-clockwise to raise the point of impact and rotate the windage turret counter-clockwise to move the point of aim until it is on the point of actual impact, as shown in photo #48. Both turrets move the POA a ½ minute of angle per click – this is equal to ½ inch at 100 yards or 1 /20 inch at 10 yards.



- After achieving an approximate zero at 10 yards, move back to a measured 20 yards and continue adjusting the turrets until the top cross of the reticle and the point of impact are the same. Use the top crosshair labeled 20 yds in your reticle, as shown in photo #49. At this range, each click equals 1 /10 of an inch (10 clicks to move the impact 1 inch). When you are happy with the 20 yard zero, replace the turret covers.



4. Turn the speed selector ring on your scope, shown in photo #50, to the number matching the advertised speed of your Lancehead crossbow. This step ensures the elevation marks in your reticle are calibrated to the approximate drop of your arrow at greater distances. Take a shot at 30 yards using the 30-yard elevation mark on your reticle to confirm successful calibration. Make necessary adjustments to you speed selector ring until you are hitting your intended target at this distance.

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MAINTAINING YOUR SCOPE

- Each Hawke scope is a precision instrument that deserves a high level of care. During manufacture the scope is purged with dry nitrogen and sealed to give a lifetime of reliability. Do not attempt to disassemble or clean the scope internally. Keep the protective lens covers in place when the scope is not in use. The external lens coatings should occasionally be wiped clean with the lens cloth provided or an optical quality lens paper. Remove any external dirt with a soft brush to avoid scratching the lens.
- Note: Unnecessary rubbing or use of a coarse cloth may cause permanent damage to lens coatings. To clean the external surface of the scope it is recommended that a silicone impregnated cleaning cloth is used to protect the scope against corrosion.
- Tips for safe storage: Always store in a moisture-free environment. Never store the scope in places such as the passenger compartments of vehicles on hot days, the high temperatures could adversely affect the lubricants and sealants.
- Avoid direct sunlight that can enter the objective or the ocular lens, damage may result from the concentration (burning effect) of the sun's rays passing through the scope.

SHOOTING YOUR CROSSBOW

SHOOTING SAFETY

DANGER

- Prior to shooting your crossbow, you should watch and follow the Owner's Instructional Videos at www.Lancehead.com, and read and follow the **Hand and Finger Safety** (page 5) to avoid serious personal injury or amputation.

WARNING

- Prior to shooting your crossbow, you must read and follow the warnings and instructions in the **Trigger and Trigger-Safety Protocol** section (page 4) to avoid property damage and/or serious personal injury or loss of life.
- Prior to using your crossbow, you must watch and follow the warnings and instructions in the Owner's Instructional Videos at www.Lancehead.com and read the **Cocking Your Crossbow** (page 13), **Uncocking your Crossbow** (page 12), **Loading and Unloading Your Crossbow** (page 9), **Sighting In Your Crossbow** (page 16), **Treestand Safety** (page 22), and **Arrow Requirements and Safety** (page 22) sections of this manual. Failure to follow the warnings and instructions may result in property damage and/or serious personal injury or loss of life.
- Be certain of your intended target and what is beyond it before pulling your trigger. An arrow can cause serious personal injury, property damage, or loss of life even beyond its effective hunting range.
- When hunting, avoid pulling the trigger just because you see movement or a portion of a game animal. That movement could be a hunter dressed in camouflage clothing or a hunter packing out a deceased game animal.
- When at a shooting range, make sure your loaded crossbow is always pointed down range. Accidentally pointing your crossbow in the direction of someone next to you while engaged in conversation is extremely dangerous and potentially life threatening if you experience an accidental discharge.
- Make certain others are well behind you when you are shooting. If the limbs, bowstring, cables or cocking unit cords were to break, you could seriously injure someone beside you.
- When target-shooting, set up in a safe, open area with a proper target and backstop.
- When handing your cocked crossbow to another person, unload your arrow first and make sure the trigger safety is engaged. Then be careful that both you and the other person do not grip the crossbow inside the bowstring's release path. An accidental discharge could cause serious personal injury, amputation, or loss of life.
- Inspect your crossbow prior to every use. Do not use the crossbow if damage is apparent or suspected. Never shoot a damaged crossbow.

SHOOTING INSTRUCTION AND TECHNIQUE

It is easy to make a bad shot. To shoot accurately you must practice proper shooting technique. Here are the steps to follow:

1. When shooting from a standing position, spread your feet approximately shoulder-width apart, and position your body either perpendicular to your target in a closed stance or quartering toward the target at a 45-degree angle in an open stance, as shown in photo #51. Choose the stance that is most comfortable to you.



2. Whether standing or sitting, shoulder the crossbow keeping your foregrip hand and fingers and thumb on the foregrip and below the arrow flight deck, as shown in photo #52. **DO NOT** place any portion of body into the path of the bowstring.



3. Position your cheekbone on top of the the middle of the stock's cocking-winch port housing and make sure you have a clear sight picture through the scope, as shown in photo #53.



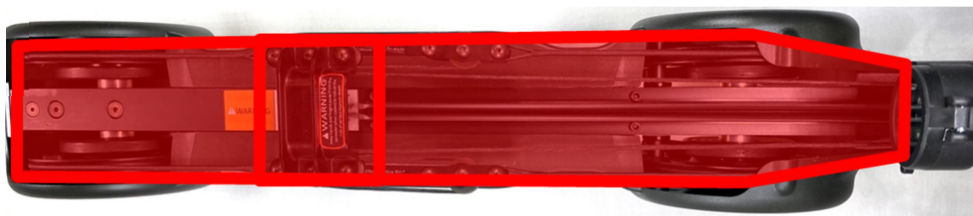
4. Position your trigger-finger on the side of the stock just above the trigger and pointing toward your target, as shown in photo #54. **DO NOT** place it on the trigger until you are ready to shoot.




5. Keep both elbows tight to your sides so your body's core will help support and steady the bow.

6. Ensure that your crossbow is clear of any obstacles they could interfere with it's moving parts once you pull the trigger.
7. If shooting from a benchrest, your foregrip hand is particularly vulnerable to misplacement. Be careful to keep your fingers and thumb below the surface of the arrow flight deck and away from the bowstring's release path. **DO NOT** place any portion of your body into the path of the bowstring, as shown in photo #55.

55



8. When ready to shoot, slide the trigger's safety switch from the SAFE (white) position to the FIRE (red) position  .
9. Place your trigger-finger on the trigger, take a breath, and slowly release about 1/2 of it. Squeeze the trigger slowly until the crossbow fires. This breath control and trigger pull technique will help keep your aim steady and improve your accuracy.
10. Follow the arrow flight through the scope until the arrow hits your target rather than looking up as soon as you pull the trigger. This follow-through technique will also improve your accuracy.

TREESTAND SAFETY

DANGER

- Prior to hunting from a treestand you must read and follow the warnings and instructions in the **Hand and Finger Safety** section on (page 5) to avoid serious personal injury or amputation.

WARNING

- Prior to hunting from a treestand, you must read and follow the warnings and instructions in the **Trigger and Trigger-Safety Protocol** section (page 6) to avoid property damage and/or serious personal injury or loss of life.
- Prior to hunting from a treestand, you must read and follow the warnings and instructions in the **Cocking Your Crossbow** (page 13), **Loading and Unloading Your Crossbow** (page 9), **Uncocking your Crossbow** (page 12), **Sighting In Your Crossbow** (page 16), **Shooting Your Crossbow** (page 19), and **Arrow Requirements and Safety** (page 22) sections of this manual. Failure to follow the warnings and instructions may result in property damage and/or serious personal injury or loss of life.
- Treestands are used at height. Whenever hunting at height there is an inherent danger of falling. Use only a treestand that has been tested by a third party testing laboratory to meet or exceed industry standards recognized by the Treestand Manufacturer's Association. Read and follow all written and video warnings and instructions that are provided with your treestand.
- When hunting from a treestand, always wear an approved safety harness, and keep it connected to a tree-strap while in the stand to protect against a life-threatening fall.
- To avoid a life-threatening fall, install a rope device with each treestand you purchase; which allows you to keep your harness attached to the tree at all times after leaving the ground.
- Cock but do not load your crossbow when you arrive at your treestand. It is too dangerous to cock a crossbow while in the standing position in your treestand. If you need to re-cock your crossbow while in the tree stand, you may use your cocking winch only if you are in a seated and secure position.
- To avoid injury from a potential fall, do not carry your crossbow while climbing up and into your stand. Attach a bow rope to the buttstock end of the bow so that you can safely pull it up to the stand once you are seated and buckled in.
- Once in your treestand and secured to the tree-strap, you can safely hoist your unloaded crossbow.
- When handling your crossbow in the treestand do not grab or hold it by the barrel and fore-stock, thereby putting your hand into the release path of the bowstring. Only handle the crossbow by the foregrip handle and stock.
- Following your hunt, ensure the safety switch on the SAFE (white) position and remove your arrow and return it safely and securely to your quiver. Attach the unloaded crossbow to your bow rope and lower it to the ground before you descend the tree. Uncock your crossbow only when you are safely on the ground.

ARROW REQUIREMENTS AND SAFETY

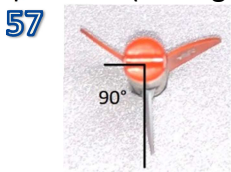
All Lancehead F1 crossbows are shipped with and require the use of halfmoon nock crossbow arrows and with 2-inch long vanes off-set by no more than 1-degree (or straight-fletched vanes). Failure to use crossbow arrows having halfmoon nock and 2" long vanes off-set by no more than 1-degree (OR straight-fletched vanes up to 4" long) will void your warranty.

Halfmoon Nocks

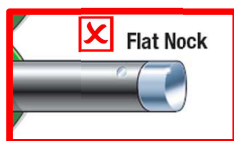
- The halfmoon nocks groove "holds" the bowstring in place to prevent "shoot-over" or "shoot-under" misfires, as shown in photo #56.



- Index the halfmoon-nock with the arrow's odd colored cock vane. The groove across the nock should be perpendicular (90 degrees) in alignment to the odd color cocking vane, as shown in photo #57.



- Do not use arrows with flat, capture or multi-groove nocks because they may cause the crossbow to malfunction, in which case there is significant risk that the bowstring will shoot over or under the nock and, thereby, cause a dangerous dry-fire that could damage the crossbow or cause personal injury or other property damage.



2" long vanes with a maximum of 1-degree offset OR Straight-Fletched Vanes up to 4" long

- The 2" long vanes offset by a maximum of 1-degree, as shown in photo #58 and #59 OR straight-fletch vanes with lengths up to 4" are the only fletching configuration that will fit properly within the flight groove of the arrow rail. Otherwise the fleching will miss-align the arrow with the flight groove, causing inaccuracy of the arrow flight and missing the intended target, cause personal injury or other property damage.



- If you are unsure of the offset of your crossbow arrow fletching vane, do not fire the arrow. You may obtain arrows meeting proper specifications at www.lancehead.com.

Arrow Safety Inspection

- Inspect your arrows before shooting them to determine that they are not bent or damaged. A bent shaft or damaged nock could cause the arrow to fly in an unintended direction which could potentially cause serious injury to you or a bystander.
- Inspect carbon arrow shafts for hairline fractures or cracks **before each use**. The shaft can be flexed with two hands, as shown in photo #60, and damaged shaft will make an audible crunching sound and should be discarded immediately. Firing a damaged carbon shaft can cause it to shatter, scattering fragments, which could seriously injure you or others.



Crossbow Arrow Dimensions

- Use only crossbow arrows (bolts) 20"- 22" in overall length.
- **The minimum total recommended crossbow arrow weight is 300 grains total weight, with crossbow arrows shafts of at least 300 spine and points or broadheads of not more than 100 grains.** While the Lancehead F1 is capable of launching lightweight crossbow arrows without damage to the crossbow, the arrow shafts must be able to support the weight of the points or broadhead during launch without damaging the shaft for safe operation. An arrow shaft breaking during launch may result in severe injury, including loss of life, and property damage. Additionally, many states require minimum hunting arrow weight at least 300 grains total weight. Make sure to confirm the arrow weight regulations in your jurisdiction prior to hunting.

CROSSBOW MAINTENANCE

! WARNING

Prior to performing any maintenance on your crossbow, you must read and follow the warnings and instructions in the **Hand and Finger Safety** (page 5), and **Trigger and Trigger-Safety Protocol** (page 6) sections of the manual.

- Keep your crossbow uncocked and unloaded when performing any maintenance on it to avoid the potential injuries and damage caused by an accidental discharge.
- Wear safety glasses when performing maintenance to protect your eyes from any unpredictable accidents which could damage them.
- **DO NOT** modify your crossbow, make custom adjustments to it, or remove or deactivate its safety features to avoid potential personal injury or property damage. Making modifications will also void your warranty.
- **DO NOT** cock, load, or shoot your crossbow if it requires maintenance or repair of any kind. If your bow is not in top working condition, it might malfunction and cause serious personal injury to you or others, or cause serious property damage.
- **DO NOT** perform any work on your crossbow that should be done at the factory or by a qualified professional with proper tools.
- **DO NOT** apply string wax to the center serving, barrel, or trigger because it will collect inside the trigger and eventually prevent the string from latching properly.
- **DO NOT** use heavy oil, grease, or substances similar to petroleum jelly to lubricate your barrel or the trigger mechanism components because they will attract dust and grit that will collect inside the trigger housing. Buildup of debris inside the trigger mechanism can cause the trigger to improperly function leading to property damage, injury or death.

TUNING WITH CABLE TENSIONERS

! DANGER

Only use a hand-operated allen wrench or hand-operated ratchet hex to engage the tensioning screws, as shown in photo #61.

- **Never use a powered screwdriver or drill** to operate your cable tensioning screws, such as a power screwdriver or drill, shown in photo #62. These devices operate at high speeds that risk damaging the screw by over-torquing or mistakenly backing the screws out of the cable anchor which may cause accidental limb discharge, leading to server injury and property damage.



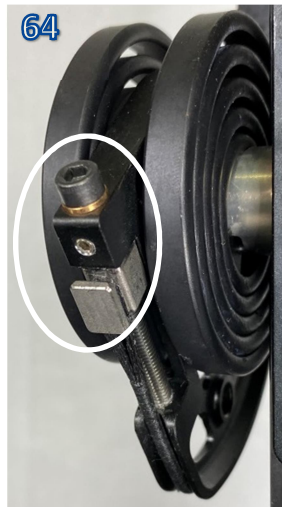
Procedure for balancing limb tensions

Your crossbow is pre-set to the near-maximum tension, as in photo #64. After the first several shots the cables and string may stretch a bit, and may require some adjustment to keep your crossbow in proper alignment and working efficiently.

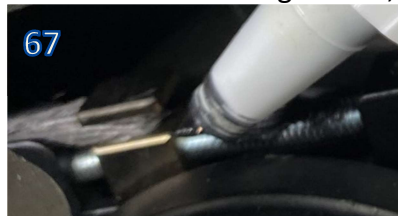
Minimum Tension



Maximum Tension



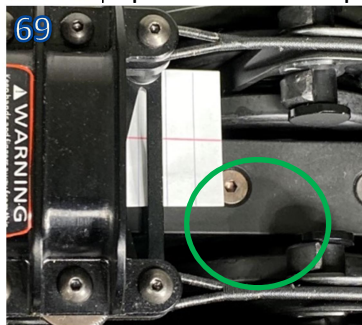
1. Before attempting to adjust tension of the cable anchors it is recommended to apply an anti-seize lubricant to the threads of all the tensioning screws, as shown in photos #66 and #67.



2. On the front cams, tighten each of the cam tensioning screws by turning in a clockwise direction until the anchors are positioned to just make contact with the wall of the cam, as show in photo 68. **DO NOT OVER TORQUE.** Perform the same operation on the rear cams.



3. Visually inspect the bowsting spreader located at the front of the crossbow to ensure it is aligned at a 90-degree angle with respect to the frame. You may use a small measuring square or the corner of a piece of binder paper to check for proper alignment as shown in photo #69.

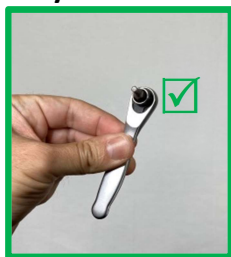


4. To adjust the alignment of the bowstring spreader, identify which side of the bowstring spreader needs to be moved towards the front of the crossbow to create a 90-degree alignment with the frame. On the side of the spreader that needs to be moved towards the front of the bow, loosen the the adjustment screw on the REAR cam on this side of the crossbow. This will allow this side of the bowstring spreader to move towards the front of the crossbow and be positioned in a 90-degree alignment with the frame, while preserving the maximum tension.
5. After tuning, you may need to check your sights to ensure accuracy.

CHANGING STRINGS AND CABLES

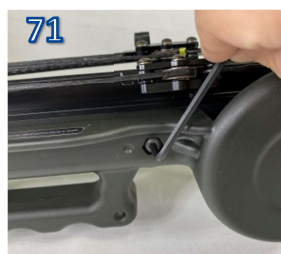


- **Never use a powered screwdriver or drill** to operate your cable tensioning screws, such as a power screwdriver or drill. These devices operate at high speeds that risk damaging the screw by over-torquing or mistakenly backing the screws out of the cable anchor which may cause accidental limb discharge, leading to severe injury and property damage.
- **Only use a hand-operated allen wrench or hand-operated ratchet hex** to engage the tensioning screws.



Procedure for String/Cable Change

1. Make sure your crossbow is unloaded and uncocked.
2. Remove the quiver by removing the two screws on the side of your crossbow, as shown in photo #70 and #71.



3. Remove the two fairings by removing the 8 screws, as shown in photo #72 and #73.



4. Before un-tensioning the cable anchors it is recommended to apply polymeric bowstring liquid (i.e. Scorpion Venom™) to all four cables (DO NOT USE WAX). Also, apply an anti-seize lubricant to the threads of all the tensioning screws.
5. On the front cams, un-tension one cam anchor $\frac{1}{4}$ of the way down the tensioning screw by rotating the tensioning screw counter-clockwise, then do the same procedure on the other front cam. This process will lower the cam ports towards the frame ports. Repeat this process until the cam anchors just make contact with the cam, as shown in photos #74 - #76. **STOP rotating the tensioning screw when the anchor just makes contacts with the cam**, as shown in photo #77, as further counter-clockwise rotations risk releasing the cable anchor, resulting in serious injury and property damage.



6. Visually inspect the side of the front cam ports to see if they are aligned with the port in the frame, as shown in photo #78.



7. If the FRONT cam ports are not yet aligned with the front frame ports, un-tension the REAR cam tensioning screws, alternating a few counter-clockwise rotations on each rear cam tensioning screw until the point that the FRONT cam ports are aligned to the front frame port.
8. Insert one cam pin (included in your tool kit) through the front cam port, the frame ports and the opposite front cam port, as shown in photo #79 and #79a. Micro adjustments to the rear cam tension screws may be necessary to align all the front ports so that the pin can easily slide through all the front ports. Check the pin fit by rotating the front pin within the ports to check for resistance—the pin will rotate easily when the ports are aligned.



9. On the rear cams, rotate the cam tensioning screws counter-clockwise on each cam, alternating between each cam to ensure the tension is balanced between each of the rear cams until the all the rear ports are in alignment and then insert the other pin through the rear ports. **STOP rotating the tensioning screw when the anchor just makes contacts with the cam**, as further counter-clockwise rotations risk releasing the cable anchor, resulting in serious injury and property damage.
10. After both pins are secure, rotate the rear cam tensioning screws in the counter-clockwise direction, until the rear cam anchors just make contact with the cam. The bowstring should be free of tension at this point.

11. Unhook the end of each of the bowstring loops from the bowstring hook located on the each of the rear pulleys, as shown in photo #80.



12. Take care to ensure the pulley cables stay within the cam grooves while unwrapping the old bowstring from the pulleys.

CABLE CHANGE

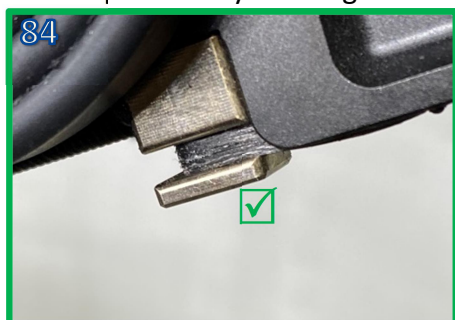
- a. At this point, if it is necessary to replace the cables, you may remove the cables from the cam anchors.
- b. The served ends of the cables may be removed from the pulleys by unfastening the screws holding the cable anchors, as shown in photo #81 and #82. You may need to slightly un-tension the other screws on the pulley to free the cables anchor sleeves.



- c. Remove cables anchor sleeves from the old cables and insert into the served end of the new cables, as show in phot #83.



- d. Insert the served cable ends with the sleeves into the pulleys and insert the cable anchor screws.
- e. Make sure to tighten all the pulley screws that were loosened.
- f. Re-attached the front and rear pulley by attaching the unserved ends into the cable anchors on each cam, as shown in photo #84. Make sure that none of the strands of the unserved cable ends are outside grooves in the anchor, as in photo #85. To do this It may be necessary to adjust the anchor position by rotating the tensioning screw.

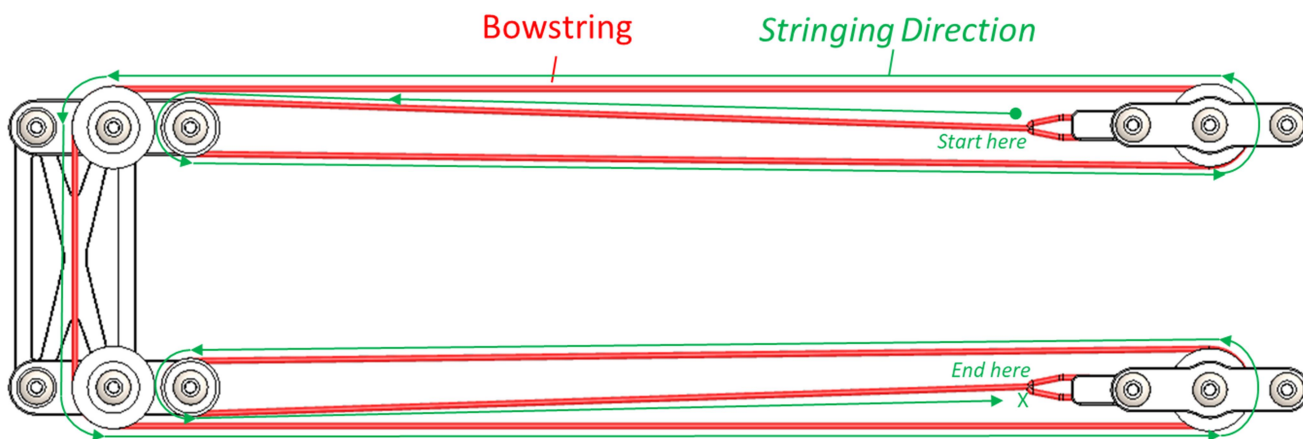


- g. Pull the cables around the cam grooves so that the pulleys are back in their original position over the cams-- **NO cable twists are necessary**. Pulleys are in a correct position with the screw heads facing upwards, as shown in photo #86.



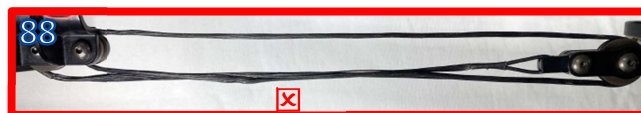
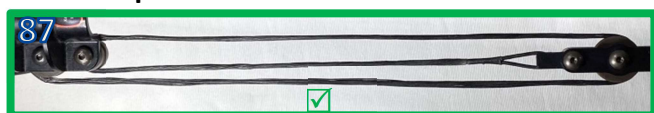
13. Unpackage the new bowstring and ensure twists are not added or untwisted. Doing so may result in difficulty in installing or impact performance.
14. Install the new bowstring by attaching one loop end to one of the rear pulley bowstring hooks, and following diagram for proper pulley wrapping. **STOP and visually inspect the string around each pulley to ensure all the strands of the bowstring are within the pulley U grooves. Also, visually inspect all cables to ensure they are aligned within the cam grooves.**

STRINGING DIAGRAM



! WARNING

Severe injury and property damage may result from improper string direction. Make sure that strings are clear of one another, as show in photo #87 and do not touch one another or cross one another, as shown in photo #88.



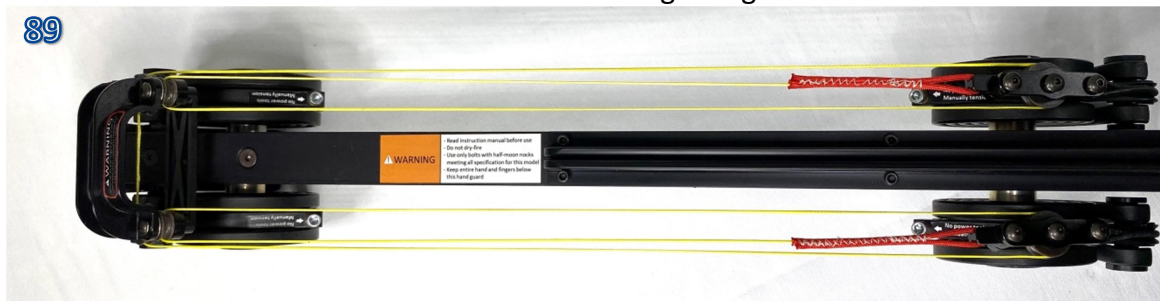
15. With the string and cables all properly secured, with all strands neatly organized around the anchors, you may now begin to tighten the tensioning screws on the rear cam by rotating clockwise. Again alternate tensioning each rear cam screw until the the rear cam pin is able to easily twist within the cam ports. At this point the rear cam pin is free to easily be removed by pulling straight out.
16. With the rear cam pin out, begin to tighten the front cable tensioning screws by rotating them clockwise. Alternate tensioning each front cam screw until the the front cam pin is able to easily twist within the cam ports. At this point the front cam pin is free to easily be removed by pulling straight out. And the bow is in the initial pre-tension position.

17. If additional pre-tension is desired, alternate tensioning each tension screw $\frac{1}{4}$ of the way up the tensioning screw until you reach the desired amount of pretension.
18. DO NOT over-torque the anchors to the extreme end of their tensioning capability. Doing so may damage the anchor or the tensioning screws leading to property damage, severe injury which could result in the loss of life. The tensioning screws are designed to be tensioned to the point where the anchors just make contact with the end of the cam channel.

Procedure for tensioning a fully un-tensioned crossbow

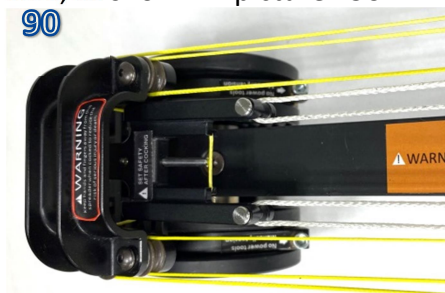
1. Should a string break occur, the crossbow will be in fully a un-tensioned position, and need to be returned to the pre-tensioned position to replace the string. Begin by removing any pieces of the old string and installing the yellow and red tuning string, as show in photo #89 . Use the stringing diagram in the prior to section of this manual to achieve the correct tuning string installation.

89



2. Mount the cocking winch into the "+" shaped port and engage the yellow tuning string with the cocking sled, as shown in picture #90.

90

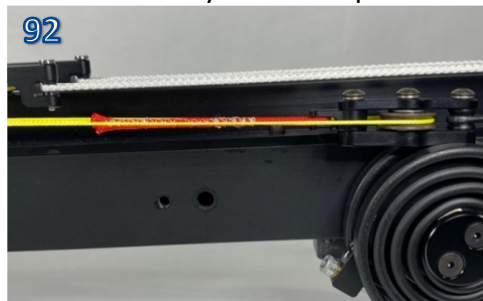


3. **STOP** and visually inspect to ensure the tensioning string is within all pulley grooves. Slowly tension the cocking winch and continue inspect the pulleys to ensure the tuning string stays inside all of the pulley grooves, as shown in photo #91 and #92.They tend to slip out until the pulleys have become level.

91



92



4. Continue to slowly add tension to position the front cam port in alignment with the frame. When the ports are in neat alignment, you make take your hand off the cocking winch and test the pin's fit in the ports. If the fit is tight, advance the cocking winch crank by $\frac{1}{4}$ turn and test the pin fit again. The ports in the cam and frame are designed to allow the pin to easily slide in, as shown in photo #93.



5. After the front pin is secured through both cams and the frame ports, slowly turn the cocking winch handle to align the rear cam ports with the frame port. Again, test the pin fit into the cam and frame ports until it easily slides in, as show in photo #94.



6. After both pins are secured in the front and rear cam and frame ports, the cocking winch may be removed and the tuning string can be removed, as shown in photo #95.



7. The new bowstring may now be installed. Follow the stringing diagram and instruction in the String Change section to complete the installation process.

GENERAL MAINTENANCE

Crossbow maintenance is required to ensure safety and proper crossbow functionality. Practicing routine crossbow **inspections before each use** will help small issues from become larger problems.

1. Make sure to inspect your crossbow for any loose or missing fasteners or parts. The following is a checklist of areas to inspect:
 - a. Cam Limb Mount Screws
 - b. Cocking Sled E-Clips
 - c. Bowstring Spreader and pulley fasteners and E-clips
 - d. Rail Mount fasteners/Scope ring mount fasteners
 - e. Trigger Release and fasteners
 - f. Riser Mounting fasteners
2. Ensure anti-seize lubricant is applied to all four cam tensioner screw threads.
3. Inspect the cocking winch cord, bowstring and cables for excessive wear.
4. Apply polymeric bowstring fluid to the **served portion** of the cables and the string.
5. If the crossbow is thoroughly wet, after using in the rain, dry off the crossbow with a soft, dry cloth and let it dry in a warm room for a day before returning it to the case. Re-apply polymeric fluid to served portion of cables.

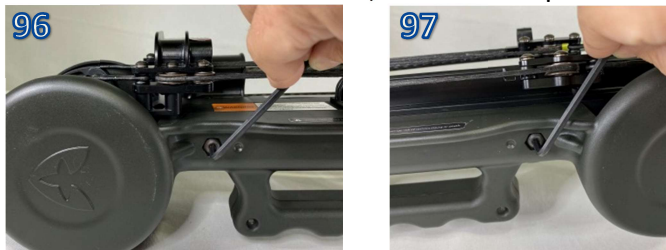
SWITCHING STOCK AND FAIRINGS

! WARNING

- **Never attempt to change or adjust any parts on the crossbow while it is in the cocked position.** Visually inspect your crossbow to ensure it is unloaded and uncocked BEFORE you attempt to remove the stock or plastic fairings.
- **DO NOT USE POWER TOOLS TO REMOVE OR TIGHTEN SCREWS,** as over torquing may result in stripped or damaged screws or plastic parts. ONLY USE MANUALLY OPERATED HAND TOOLS.

Procedure for Removing Plastic Covers

1. Position the crossbow resting its front cover and rear stock on a flat surface. Remove the quiver using a 5/16" hex manual key or ratchet by unfastening the two 1/4"-20 screws located just under the finger guards on one side of the crossbow, as shown in photos #96 and #97. **DO NOT** over torque the screws.



2. Reposition crossbow on its side with the fasteners heads that secure the plastic covering facing upwards. Using a 3/16" hex manual key or ratchet tool, begin removing the (two) 8-32 x 1/2" flathead screws on the front of the crossbow, as shown in photo #98.



3. Next, using the 3/16" hex manual key or ratchet, remove the remaining (six) 8-32 screws on the side of the crossbow and foregrip, as shown in photo #99.



SWITCHING STOCK AND FAIRINGS

- At this point, the plastic covers are free from the frame. Remove the top plastic cover by pulling straight up and setting aside. The frame can then be lifted up and out of the lower cover that is resting on the flat surface, as shown in photo #100.



- New covers may be installed at this time.

Procedure for Removing Stock

- Position the crossbow resting on its side on a flat surface. Using the long shank 1/8" hex manual key or ratchet, unfasten the (one) 10-32 screw located on the top of the crossbow just behind the trigger release mechanism, as shown in photo #101.



- Next, unfasten only four of the 10-32 screws underneath the frame, starting with the screw securing the finger guard, as shown in photo #102. Note, use the long shank hex bit provided with your tool kit to access the screw just above the hand grip (there are access holes in the stock to accommodate the longshank bit), as shown in photos #103 and #104.



- The cocking port may remain attached to the stock for removal, as it is connected with the remaining (two) 10-32 screws. The stock and cocking port is now free to slide rearwards out of the frame, as shown in photo #105.



- A new stock and cocking port may be installed at this time.

CROSSBOW TROUBLESHOOTING

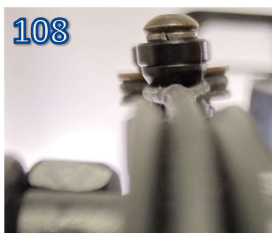
Maintaining String/Cable Performance

When the crossbow strings and cables are new, they tend to set into their working length after the first several shots. This may result in a minor losses in arrow speed. To compensate for this, additional twists may be added to the bowstring to restore the crossbow string to optimal length and restore arrow speed (never twist the cables). To achieve this, first follow the instructions for String Change. When the cam anchors are in their lowest tension settings and the pins are secured into the front and rear cam and frame ports, pull one end of the crossbow string and determine how much excess string length exists, as in photo #106. Measure the excess length in the crossbow string and then remove the entire string and measure it. Add twists into the crossbow string in the same direction as the existing twist direction, until the string's new length is reduced by the initial string excess length, as shown in photo #107. Reinstall the crossbow string to restore performance.



Rear Pulleys Not Level



Some offset tilt in the rear pulleys is expected, as in photo #108. More than 35 degrees of tilt, as shown in photo #109, may introduce more friction into the system and reduce arrow speed and string life. If the rear pulleys become severely tilted and are not level, it is due to a cable twist or excessive string twists. The bowstring is designed to reduce in lengths by about 1" over its entire length when twisted for proper operation. If too many twists are added the rear pulleys may tilt to the side. Follow directions for String Change and check the cables for twist. If necessary, replace the crossbow string.



Stuck on Anti-Dryfire

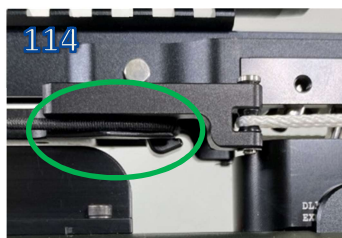
In the event the crossbow is fired without a crossbow arrow seated properly in the flight groove, the anti-dry fire string catch is designed to hold the string, preventing full deployment, as shown in photo #110.



- In this situation,  STOP! You must first visually inspect the bowstring for any signs of damage to bowstring or the serving. If it appear that there is any damage immediately place the crossbow in this condition into the hard-case, close and secure the case latches. Immediately contact Lancehead service to arrange a repair.
- Only after thorough visual inspection, and you can confirm that there is no damage to the bowstring can you proceed.
- First, make sure the safety switch is in the fire (red) position and that the trigger release latch is in the open position.
- Locate your cocking winch and leave the crank handle off.
- Ensure that the metal plunger rod in the center of the cocking sled is capable of easily pushing all the way down and that it easily returns outward. If not you may need to depress it a few times or check the set screw to make sure it isn't too tight.
- Mount the cocking winch into "+" shaped cocking port with the blue release switch facing upwards and the cocking hooks on the cocking sled facing downwards.
- With one hand press the blue winch release switch forward and with the other hand on the cocking port pull out just enough winch cord so that the cock sled clears the scope mounting rail.
- Gently place the cocking sled onto the bowstring just in front of the scope mount so that the bowstring is positioned between the two winch cord pulleys on the cocking port on the outside and the cocking hooks are between the bowstring, as shown in photo #111 and #112.  STOP and visually inspect the sides of the cocking sled to ensure the bowstrings are positioned within the guide-grooves of each sides of the cocking sled, as shown in photo #113.



- Place the crank handle on the cocking winch and slowly crank the winch handle to draw up any loose slack in the winch cord. Continue to slowly crank until the cocking sled reaches the anti-dry-fire latch.
- The hooks on the cock sled are designed to engage the bowstring while it is on the anti-dry-fire catch. Visually inspect the sled hooks to ensure they are aligned to the string, as shown in photo #114.



CROSSBOW TROUBLESHOOTING

- Slowly continue to crank until the cocking sled clears the anti-dry-fire catch. If the cocking sled becomes jammed and cannot clear the anti-dry-fire latch, do not proceed. Place the crossbow in the hardcase and contact Lancehead service.
- After the cocking sled clears the anti-dryfire latch, continue to crank the winch until the bowstring is engaged in the trigger release mechanism, just as you would during a normal cocking operation, remember to immediately set the manual safety to the SAFE (white) position.

RETURNING YOUR CROSSBOW FOR SERVICE

DISCREPANCIES MUST BE REPORTED WITHIN 10 DAYS OF RECEIPT OF SHIPMENT.

Please call Lancehead Customer Service Department at (408) 357-0030 Option #2 to obtain a Return Authorization (RA) number. During this process you will be sent an RA Request Form which needs to be completed before and RA issuance can be determined.

All RA requests received after 10 days will be accepted at Lancehead's discretion.

Returns without an RA number will not be accepted. An RA number is valid for 30 days. After that time you are required to call and request another number. All product returns must have an RA number boldly marked on the outside of each box, be properly packaged to avoid damage during shipment, and be shipped freight prepaid to:

Lancehead Crossbows
1185 Campbell Ave., F1
San Jose, CA 95126

All product returns are subject to a 20% restocking fee. Freight charges will not be refunded. Please include with the returned item, the packing slip that was attached to your order, a completed RA Request Form (with a valid RA number). Refunds will not be issued for used products.

You are required to follow the above described instructions when returning a defective item, or if a mistake was made on your order prior to shipping. We must receive the defective merchandise before we are able to ship a replacement item. In the event of a mistake on your order, you will be reimbursed for return shipping at UPS Ground Rates.

Please allow 7-10 business days after we receive your return to process your return.

WARRANTY

WARRANTY PROCEDURE

Please call the Customer Service Department at 408-357-0030 (Option #2) to obtain a Return Authorization Number for your Lancehead product. Returned merchandise will not be accepted without a Return Authorization Number displayed on the outside of the shipping container. Please have the crossbow serial number available when contacting the Customer Service Department.

5-YEAR NON-TRANSFERABLE LIMITED WARRANTY

Subject to the terms, conditions and limitations outlined below, Lancehead guarantees its crossbows will be free from defects in materials and workmanship that adversely affect the operation for a period of five (5) years from the date of purchase if the purchaser registers the crossbow within 30-days from the date of purchase. If the purchaser does not register the crossbow, this Limited Warranty is only for a period of 120-days from the date of purchase. Proper and safe use of Lancehead crossbows and customer satisfaction are important to Lancehead. Brief instructional videos explaining the safe use, adjustment and maintenance of your crossbow are part of the registration process and available at Lancehead's website at (www.lancehead.com). Please review these videos or contact our Customer Service Department at 408-357-0030 if you have any questions about the use, adjustment or maintenance of your crossbow.

This Limited Warranty only becomes effective if activated by the purchaser within 30 days of the purchase date by completing the warranty registration online or by contacting our Customer Service Department at 408-357-0030. Lancehead reserves the right, at its sole discretion, to accept proof of purchase in lieu of a complete warranty registration.

WHAT IS NOT COVERED: This Limited Warranty excludes and does not cover:

- Damage, failure, defects or wear of the scope, trigger mechanism, strings and cables;
- Damage caused by or resulting from abuse, neglect, alteration, modification, tampering or improper adjustment and/or maintenance of your crossbow in accordance with the adjustment and maintenance recommendations and procedures of Lancehead;
- Seized cable anchors and tensioning screw resulting from failure to apply anti-seize lubricant on tensioning screw and failure to apply polymeric bowstring fluid prior to tensioning or untensioning the cam tensioning screws;
- Damage or failure caused by or resulting from use of strings or cables other than Lancehead authorized cables and strings;
- Damage caused by or resulting from dry-firing or use of arrows that do not meet the specifications recommended in the Owner's Manual;
- Any damage caused by or resulting from a failure to fully remove the tuning pins from the ports before cocking the crossbow;
- Surface rust on torsion limbs resulting from damaged or missing surface coating;
- Normal deterioration or wear and tear resulting from use; and
- The crossbow if it is rented or loaned for use by others by a retailer, wholesaler, or shooting range operator, or other commercial business organization, whether or not a fee is charged for its use.

Brief instructional videos explaining the safe use, adjustment and maintenance of your crossbow are available at Lancehead's website at (www.lancehead.com). Please review these videos or contact Lancehead if you have any questions about the use, adjustment or maintenance of your crossbow.

DISCLAIMER OF IMPLIED WARRANTIES, EXCLUSIVE REMEDY AND LIMITATION OF DAMAGES: OTHER THAN THIS LIMITED WARRANTY, LANCEHEAD MAKES NO ADDITIONAL REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE. YOUR SOLE AND EXCLUSIVE REMEDY IS LIMITED TO REPAIR OR REPLACEMENT OF DEFECTIVE PART(S) OR WORKMANSHIP, AT LANCEHEAD'S SOLE DISCRETION. PARTS DETERMINED TO BE DEFECTIVE OR UNSAFE WILL NOT BE RETURNED WITH THE REPAIRED CROSSBOW. REPAIR OR REPLACEMENT PART COLORS AND/OR PATTERNS MAY VARY SLIGHTLY AND NOT MATCH ORIGINAL PART(S). IN NO EVENT WILL LANCEHEAD'S LIABILITY TO REPAIR OR REPLACE YOUR CROSSBOW EXCEED THE ORIGINAL PURCHASE PRICE. LANCEHEAD'S TOTAL LIABILITY FOR DAMAGES ARISING IN CONNECTION WITH THIS LIMITED WARRANTY SHALL NOT EXCEED THE PRICE YOU PAID FOR YOUR CROSSBOW REGARDLESS OF WHETHER SUCH CLAIM ARISES UNDER CONTRACT, TORT, STRICT LIABILITY, STATUTE OR OTHERWISE. IN NO EVENT AND UNDER NO CIRCUMSTANCES SHALL LANCEHEAD BE LIABLE FOR DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES, EXPENSES, LOST PROFITS, LOST SAVINGS, BUSINESS INTERRUPTION, PROPERTY DAMAGE, PERSONAL INJURIES (INCLUDING DEATH), EMOTIONAL DISTRESS, PAIN AND SUFFERING OR ANY OTHER DAMAGE ARISING OUT OF THE USE OR INABILITY TO USE YOUR CROSSBOW, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. ALL DISCLAIMERS AND LIMITATIONS OF LIABILITY SHALL STILL APPLY EVEN IF THE LIMITED REMEDY OF REPAIR AND/OR REPLACEMENT FAILS OF ITS ESSENTIAL PURPOSE.

*Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Limited Warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

Any action against Lancehead based on an alleged breach of this Limited Warranty must be brought within one (1) year of the claimed breach.

WARRANTY CLAIMS, REPAIR AND/OR REPLACEMENT: All warranty/repair returns are to be coordinated directly between the purchaser and Lancehead. To make a claim under this Limited Warranty, call our Customer Service Department at 408-357-0030 for a Return Authorization Number. Lancehead will not accept returned merchandise without a Return Authorization Number displayed on the outside of the shipping container. Include your name, address, daytime phone number, and a brief description of the claim inside the package. Insure your shipment and send it prepaid via the U.S. Postal Service, FedEx, or UPS to Lancehead at the address that will be provided by our Customer Service Department.

If a defect in materials and/or workmanship covered by this Limited Warranty exists, Lancehead, at its sole discretion, will either repair or replace the defective part, component and/or crossbow. Lancehead reserves the right to make the final decision regarding coverage under this Limited Warranty in all warranty matters. Any repair or replacement provided by Lancehead pursuant to this Limited Warranty may vary slightly in color or design from the original item in question.