

DARTON

PERFORMANCE ARCHERY GEAR

Built to Hunt

**TECHNICAL SERVICE &
WARRANTY MANUAL**

**Darton Archery
3540 Darton Road, Hale, MI 48739**

**web site: www.dartonarchery.com
email address: sales@dartonarchery.com**

**READ THE INSTRUCTIONS AND WARNINGS
IN THIS MANUAL CAREFULLY BEFORE
USING THIS DARTON PRODUCT**



DARTON

LIMITED - LIFETIME - WARRANTY

We at DARTON Archery are proud to stand behind the workmanship and overall quality of our bows by offering this Limited Lifetime Warranty.

This Warranty applies to the original owner and is nontransferable. The Warranty covers the riser against defects in material and workmanship for the lifetime of the bow, the limbs and eccentrics against defect in material and workmanship for ten (10) years from the original date of purchase based on Pro-Rated terms in conjunction with the Warranty language as described below.

1. From the date of purchase through the third (3) year of ownership all warranty repairs, replacements, or substitutions will be made at no charge (subject to the terms of this policy).

2. For the period from the beginning of the fourth (4) year to the end of the fifth (5) year from the date of purchase, all warranty repairs, replacements, or substitutions of Darton bow limbs and/or alloy eccentrics will be made at a charge of 50% of the manufacturer's suggested retail price.

3. For the period from the beginning of the sixth (6) year to the end of the tenth (10) year from the date of purchase, all repairs, replacements, or substitutions of Darton bow limbs and/or alloy eccentrics will be made at a charge of 80% of the manufacturer's suggested retail price.

Darton's limited warranty is conditioned upon proof of date of purchase and the other conditions stated below. It is important that your sales receipt be filed in a safe place for future reference as warranty repairs will not be performed under warranty without a copy of the dated sales receipt. Without a copy of the sales receipt, the manufacturing date will be used to determine if the bow is still under warranty. If the serial number is removed from the bow, the warranty is void.

Darton warrants that Darton bows will perform their intended function if used in accordance with the instructions provided. This limited warranty during the first (5) years covers ONLY replacement parts, substitutions, labor, and return transportation costs to the consumer for the repaired bow, or replacement with a reconditioned bow or an equivalent new product at Darton's option. During the second five (5) years the consumer is responsible for 80% of the normal repair charges and all shipping charges. After ten (10) years from the date of purchase, Darton will no longer accept any responsibility for the availability, repair, replacement, or substitution of any bow parts.

Strings, cables, arrow rests and component parts, cable guards and cable slides are expendable components of a bow and are subject to a variety of conditions that are beyond the control of Darton. Once the product has left our factory, these parts may undergo a number of influences that can alter, impede or prohibit alto-

DARTON ARCHERY
SERVICE & REPAIR FORM

For repairs, complete and detach this Service & Repair Form and return it to Darton Archery along with your bow. Call us at (989)728-9511 with any questions you may have. Please remove all accessories before shipping.

Name: _____

Address: _____

City: _____

State: _____ Zip: _____

Day Phone: _____

Eve Phone: _____

Time to Call: _____

Bow Model: _____

Peak Weight: _____

Set Weight: _____

Purchased: _____

Place: _____ Mo/Yr: _____

Serial Number: _____

Reason Bow Is Being Returned For Repair:

return your entire bow with this completed form to:
Darton Archery
3540 Darton Road, Hale, MI 48739
Attn: Repair Dept.



ATA Minimum Recommended Arrow Weights

ACTUAL PEAK BOW WEIGHT IN LBS.												
R E C U R V E	R W O H U E N E D L	E W N H E E R E G L	S C P A E M E D	ATA RECOMMENDED MINIMUM ARROW WEIGHTS (GRAINS)								
				25"	26"	27"	28"	29"	30"	31"	32"	33"
SE=95 PDF ESE=62 BH=9.5	SE=1.04 PDF SE=65.6 BH=9.0	SE=1.20 PDF ESE=71.3 BH=8.0	SE=1.3+ PDF ESE=75.1 BH=7.0	USING THE MINIMUM RECOMMENDED ARROW WEIGHT CHART * Select the column that describes the type of bow you shoot. * Move down that column to locate your Actual Peak Bow Weight. * Move horizontally across that row to your "ATA Draw Length" column. * The box at that location contains the minimum total arrow weight recommended for your equipment. 1. Arrow weight includes all arrow components - shaft, insert, point, fletching and nock. 2. Based on * 360 Grain Arrow * 30" Draw Length * 60# Peak Weight * Speed Cam. SE=Stored Energy * ESE=Energy Storage Efficiency								
				150	150	150	150	150	150	150	150	150
33	32	29	27	150	150	150	150	150	150	150	150	150
34-41	33-38	30-35	28-32	150	150	150	150	150	150	150	151	165
42-46	39-43	36-39	33-36	150	150	150	150	150	163	179	195	211
47-52	44-49	40-44	37-41	150	150	150	167	185	203	222	240	258
53-58	50-54	45-49	42-46	150	163	183	203	224	244	264	285	305
59-63	55-60	50-54	47-50	172	195	217	240	262	284	307	329	352
64-69	61-64	55-59	51-55	202	227	251	276	300	325	350	374	399
70-75	65-71	60-64	56-60	232	259	286	312	339	365	392	419	445
76-81	72-76	65-70	61-65	262	291	320	348	377	406	435	463	492
82-86	77-81	71-74	66-69	292	323	354	385	416	446	477	508	539
87-92	82-87	75-79	70-74	322	355	388	421	454	487	520	553	586
93-99	88-94	80-85	75-80	352	387	422	457	492	532	581	629	676

*ATA draw length equals distance from the low or pressure point of the grip to the string at full draw plus 1-3/4"



Warranty Information (con't)

gether the performance of these parts. Thus, Darton cannot and does not extend any warranty for these parts.

Transportation and insurance charges for the return of the bow to Darton are not covered. Damage caused by mishandling, abuse, improper stringing or modification of the product is not covered and will void the warranty. The use of arrows which weigh less than the minimum ATA recommended arrow weight (see page 13) will also void the warranty on all cast riser bows.

The terms of the Limited Warranty are a part of the sale between Darton and you. Darton MAKES NO OTHER WARRANTY, EITHER EXPRESSED OR IMPLIED, EITHER OF FITNESS OR OF MERCHANTABILITY, EXCEPT AS STATED ABOVE.

ANY SUCH ADDITIONAL WARRANTY IS EXPRESSLY DISCLAIMED. To the extent permitted by applicable law, Darton SHALL NOT be responsible for ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES OR EXPENSES OF ANY KIND OR SORT, WHETHER RELATING TO OR RESULTING FROM PERSONAL INJURY OR PROPERTY DAMAGE, OR OTHERWISE.

This limited warranty is valid only when repairs are performed by Darton.

This limited warranty gives you specific legal rights. You may also have other rights which vary from state to state. Unless prohibited by applicable law, this limited warranty extends only to you, the original purchaser, and is not transferable.

To obtain service on any Darton bow, return it with a copy of the dated sales receipt, shipping prepaid and insured, to: Darton Archery, attn: Customer Service, 3540 Darton Rd., Hale, MI 48739. All accessory items must be removed from the bow prior to shipping. Darton will not be responsible for damage or loss of any accessory item left on the bow.

Items not covered by either Warranty are strings, cables, cable guard slides, sleeve bushings, bearings and/or cosmetic appearance - scratches, chips, dings, etc. - caused through normal use and wear. There are no other warranties express or implied binding DARTON, its dealer or distributors.



Some facts you MUST know before you shoot your bow.

CAUTION - IMPROPER USE OF YOUR BOW COULD CAUSE SERIOUS PERSONAL INJURY.

- **WARNING - Never release the bowstring from a drawn position without an arrow attached to the string and on the arrow rest.** When a bow is dry fired, all the stored energy is transferred violently back into the bow. This action may cause serious damage to the bow, and it could cause personal injury to the shooter and/or bystander. Dry firing your Darton bow will void the warranty.
- Read, understand and heed all warnings and instructions including the owners manual before attempting to use the bow.
- Never allow children to use a bow without adult supervision.
- Do not use an arrow that is too short to remain on the arrow rest when the bowstring is fully drawn.
- Periodic inspection of the bow and its components is required for safe operation. Replacement of worn or damaged parts is necessary. The bow string and cables require special attention in this respect.
- Do not shoot a bow with a damaged arrow rest or frayed bowstring.
- Do not use an arrow lighter than recommended by the ATA arrow selection chart (pg. 13) as repeated use may cause damage to the bow and/or injury.
- Always use a "double pull" bow press when performing maintenance that requires the use of a bow press. Do not use a bow press that holds the bow only at the grip area of the handle.
- When using a bow press, do not over-stress your Riser or Limbs as damage to the bow and/or personal injury could result.
- Do not back the limb bolts out more than the recommended number of turns as noted for each bow model to decrease peak draw weight; doing so could damage the limbs and limb sockets.
- The use of safety glasses is strongly recommended when handling or operating the bow.
- When letting down a bow from the drawn position do so slowly and be prepared for a possible sudden change in force.
- Excessive offset of the cable guard may result in damage to cables and/or injury. See the Cable Guard section of this manual for proper set-up.
- Do not expose your bow to extreme heat or leave your bow in a vehicle during hot weather for extended periods of time.

Visit dartonarchery.com for additional information and latest updates.



Fine tuning your bow, cont'd.

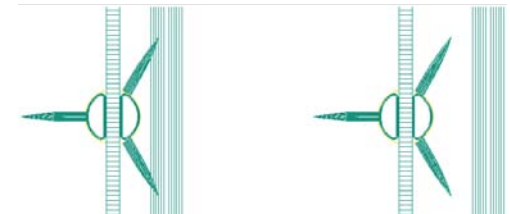
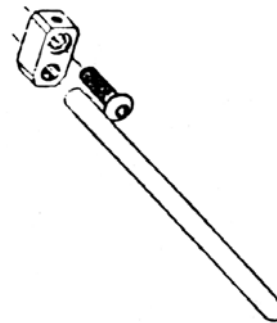
Cable Guard Adjustment for Bracket Mounted Rods.

Rotate the cable guard bracket to offset the cables only when it is necessary to gain fletching clearance for your arrows. Tighten the cable guard mounting screw.

NOTE: Excessive offset of the cable guard can result in damage to cables and possible injury.

The proper position for the cable guard offset bracket is approximately 45 degrees from the bow handle, either on a downward or an upward angle, keeping the cable rod the maximum distance from the closest wheel or cam.

NOTE: Check the tightness of the cable guard bracket bolt before shooting. Continue to tighten until it no longer is loose when checked. The lock washer is used to prevent the bracket from rotating and it needs to seat into the riser and the bracket; it may require re-tightening several times.



Rear views of nocked arrows

Arrow nocked without a cable guard. Thin, narrow alloy wheels bring the string and cables too close for the arrow fletching to clear the cables.

Arrow nocked with a cable guard. By rotating the rear-mounted cable guard you can clear the arrow fletching away from the cables.

Visit dartonarchery.com for additional information and latest updates.



Fine tuning your bow.

Arrow Selection.

The Archery Trade Association (ATA) established Minimum Recommended Arrow Weights based on the amount of energy that will remain in the bow after the shot. **Shooting arrows that weight less than what is recommended by the ATA may damage any DIE CAST Handled bow.** An ATA minimum Arrow Weight Chart listing recommended minimum arrow weights for various bows based on draw weight, bow type and ATA draw length is included in this manual. Look for your minimum arrow weight based on your draw weight, draw length and wheel type. For example: An energy wheel bow with a 67-72 lb. peak draw weight and a 30" draw length should use an arrow weighing no less than 406 grains.

Arrow Velocity Ratings.

Darton Performance bows achieve the fastest arrow velocities no matter what bow class you compare! Standard Rating Velocities that are published in Darton's fact sheets are based an IBO standard with bows being tested at 60 lbs. peak weight and a 30" draw length shooting a 300 grain arrow (5 grains per pound of peak weight).

Your local Darton Dealer can tune your bow to achieve peak performance. He can also determine your feet-per-second arrow velocity using a chronograph test. Your arrow velocities will vary depending on your bow's peak weight, draw length, tune and other factors. See the Darton Velocity Chart in the catalog listing year and model of bow. Darton youth bows are not manufactured to have 30" draw lengths and/or 60 lb. peak weights, therefore are not available.. Darton **recommends that all shooters keep at or above the ATA Minimum Recommended Arrow Weights found in this Manual for safe shooting.**

Adjusting the buss cable yokes.

Your compound bow may feature a yoke system which attaches the buss cables to the axles on the outside of the limbs. This makes adjustments easy, and allows for the proper alignment of the eccentric with the bowstring. There are normally 6 twists in the yoke on the cable guard side of each eccentric, and 4 twists in the opposite yoke. This counteracts the normal tendency for the wheel to lean slightly because of the cable guard offset and should be maintained.

NOTE: Darton bows use two different size pulleys on the axles to anchor the buss cables and to minimize any adjustment to the yoke to compensate for the cable guard.



Some facts you MUST know before you shoot your bow cont'd.

- Loosen limb bolts a total of five turns when storing the bow for extended periods.
- Do not torque limb bolts too tightly, since damage to the underside of the limb may occur.
- Inspect your bow frequently for frayed string or cables and replace accordingly.
- Do not expose the bowstring and cables to sharp edges of any type.
- Be careful of protruding elements and accessories such as the cable guard and quiver when operating the bow.
- Do not draw your bow when a draw length module is removed or loose.
- Do not touch or place fingers near wheels or cables while a bow is in use.
- Do not modify the bow in any way to increase draw weight or draw length over its designed and published limits.
- Wax your bowstring and Power Yoke buss cables often, especially during heavy use.
- Any bow can be dangerous and cause injury if released by the bow hand during any part of the draw cycle before the arrow is released
- Always use a bow sling when drawing the bow. (Alternative - Maintain a firm grip on the bow handle)
- Do not draw the bow beyond its maximum draw length.
- Make certain that the target area and path to and in back of the target are clear before shooting.
- Do not shoot straight up or in any other direction that can endanger persons or other objects.
- Do not point or aim a drawn bow at another person.
- Do not allow the bow limbs to strike any obstacle when the bow is being operated.
- The practice of altering or modifying the bow or components from the original manufacturer's specifications in any manner may place the user and others at serious risk and will void the manufacturer's warranty.
- Tighten cable guard mount after first few shots.
- Check frequently all module screws to be sure they are tight.

Visit dartonarchery.com for additional information and latest updates.



Some facts you **MUST** know before you shoot your bow cont'd.

ARROWS

- Select arrows using the manufacturer's arrow selection charts or other credible sources. Make certain that the arrows used meet minimum recommended weight requirements.
- Make certain that the arrows used are of proper length and stiffness for your draw weight and draw length.
- Inspect each arrow for defects before shooting it. Defective arrows are not safe to shoot.

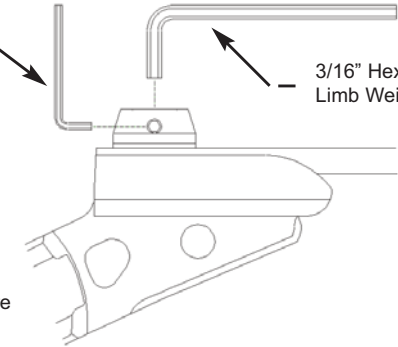
GENERAL

- Warning labels placed on the bow are there to warn against unsafe operation. They should not be removed or obliterated.
- Buyer and user have the duty to obey all safety rules and laws covering the ownership and use of these archery products.
- For additional tuning information refer to the Technical Bulletin included with your bow or go to www.dartonarchery.com (tech info)
- For technical service, repair information, or replacement parts call Darton Technical Service Department at 989-728-9511.
- For Darton Wearables go to www.dartonarchery.com or use the order blank included in this booklet



Adjusting the bow to your draw weight.

3/32" Hex Wrench for Limb Bolt Locking Set Screw



3/16" Hex Wrench for Limb Weight Adjustment

CAUTION: Do not over-tighten or back limbs off more than the prescribed number of turns

Your bow has been pre-set to approximately midway between the draw weights indicated on the limb. To adjust the draw weight to your shooting style requires simply loosening or tightening the limb bolts. Most Darton bows use the Darton patented Limb Locking system. This system requires you to loosen a set screw located in the limb washer before adjusting the limb bolt. Remember to re-tighten the set screw after the limb adjustment is complete.

To increase the draw weight, first loosen the limb bolt locking screws on the side of the riser, limb pockets or at the opposite end of the limb bolt. Next, use the appropriate Allen wrench and tighten the limb bolts in a clockwise direction. Each full turn is equivalent to approximately a three pound (3 lb.) increase. It's essential that you adjust first one limb bolt, then the other with an equal number of turns to maintain limb balance. When the desired weight is reached, retighten limb bolt locking screws.

WARNING: do not attempt to increase the draw weight beyond its indicated capabilities from the factory. A bow that is set over this weight can damage the limbs or riser, and will void the warranty.

To decrease the draw weight, loosen the limb bolt locking screws, and then turn the limb bolt counterclockwise. Do not exceed 4 full revolutions of the limb bolt from the fully tightened for machined riser bows with pivoting limb pockets, 6 revolutions for all other bows.

Visit [dartonarchery.com](http://www.dartonarchery.com) for additional information and latest updates.



Changing your string or buss cables.

Change your bowstring at the first sign of wear on all Darton bows. We recommend a Darton Dealer change your string or instructs you on the correct procedures listed below.

1. Use a bow press to relieve the tension from the strings and cables. Be sure to leave as much limb as possible to bend as you compress the bow. Don't bend the limbs any more than necessary to relieve the tension from the string and cables as damage to the limbs could occur and cause possible injury.
2. Remove the Bowstring and/or Cables that are to be replaced. Note where and how the cables are strung so you can use the reverse the procedure during replacement.
3. Attach one end of the bowstring or cable to its anchor post.
4. Before attaching the other end of the bowstring to its anchor post on the opposite cam twist it approx 22 – 28 times. Before attaching the cables to its anchor post on the opposite cam twist each cable the correct amount as required for tuning, 14 – 20 times.
5. Make sure the bowstring and cables fit correctly in their proper grooves.
6. Using the bow press slowly put tension back on the bowstring and cables.

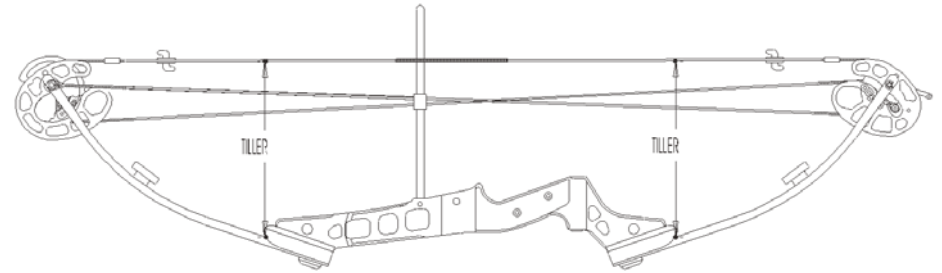


Tuning your bow.

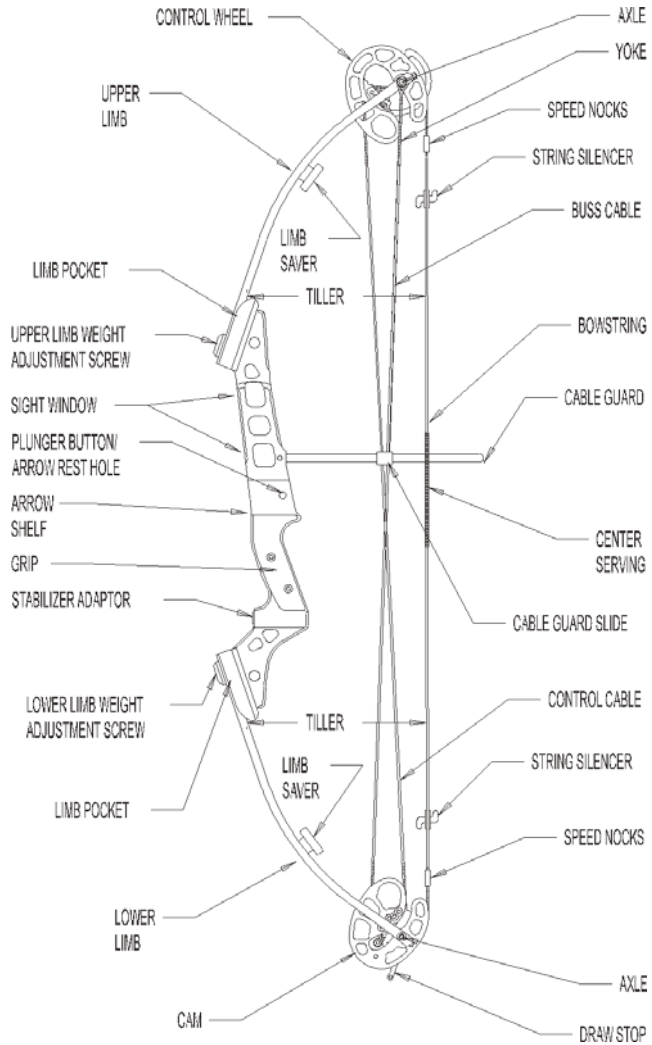
Tiller Measurement

Tiller is a measurement of how much each limb is flexed. This can be measured by checking the distance between the bowstring and each limb, measured at the point where each limb meets the riser. We precision match all limbs during manufacturing to ensure even, precise limb tiller.

The factory sets the tiller so that both the upper and lower measurements are the same



regardless of the cam type. If you increase or decrease your draw weight as described previously, check your tiller measurement to ensure it is the same on both ends. If your tiller measurement is not the same for both limbs, retighten each limb, then back out each limb bolt an equal number of turns. Always check cam synchronization after any limb adjustments or draw length changes.



Classic Clothing by Darton

Short Sleeve T-Shirts

85T112	Sports grey with logo on front	L	\$11.38
85T113		XL	\$11.38
85T114		XXL	\$12.80

Sports Shirts

86G301	Polo style w/embroidered logo	M	\$38.45
85G302		L	\$38.45
85G303		XL	\$38.45
85G304		XXL	\$42.14

Camo T- Shirts

86T402	Camo long sleeved T-Shirt w/logo	L	\$22.78
86T403		XL	\$22.78
86T404		XXL	\$23.72

Hats

86H402	Realtree Hardwoods Green®HD™ w/embroidered logo	\$9.92
86H501	Black w/embroidered logo	\$9.92

Name: _____

Address: _____ City: _____

State: _____ Zip: _____ Phone: _____

Item # _____ Qty: _____ Size: _____ Amount : _____

Item # _____ Qty: _____ Size: _____ Amount : _____

Postage: \$3.50

TOTAL: _____

Mail to: Darton Archery, Wearables, 3540 Darton Rd., Hale, MI 48739