

# 2012 DualSync 3900 TECHNICAL BULLETIN, 011712R0

Each **DualSync** bow has an adjustable peak weight range of up to 10 pounds. Be sure the (2) screws used to lock each of the pivoting limb pockets in place are loosened (1/2 turn). After you are certain all adjustment locking screws have been loosened, tighten limb bolts **Clock Wise (CW)** so the limbs are evenly adjusted. Count the bolt turns while tightening the limbs for later reference if you want to readjust the limbs. A maximum of 4 **Counter Clock Wise (CCW)** turns from the tightened position is recommended; more than 4 **Counter Clock Wise (CCW)** turns will cause the screws to bind in the adjustment slot at the side of each limb pocket and may cause damage to the bow. Be sure to re-tighten all adjustment locking screws when limb adjustment is completed.

**DualSync Cams covered by patent 6,990,970**

No bow press is required to change the draw lengths of **DualSync** bows. The only requirement is to replace the modules. Refer to the accompanying chart to determine the correct module for required draw length. There is no need to retune the bow after the draw length is changed. If cables and/or cable guard slide are removed for any reason, be sure to replace the cables in their original positions as this will affect the way the power cables and yoke cable track in their respective grooves.

**DARTON** has included their patented **Tuning Mark System** on all **DualSync** bows to assist the individual shooter to achieve optimum performance. By lining up the power cables between the tuning lines on each cam, you can achieve the advertised draw lengths and performance. The cable lengths are adjusted by placing the bow in a press to remove tension from the cables. The cables are then adjusted by twisting to make them shorter, untwisting to make them longer. If they are not lined up or in the same relative position on each cam, you will lose some draw length and stored energy. Be sure the axle to axle measurement is checked after the bow is tuned. The correct axle to axle measurement will assure excellent performance.

Darton's Quad Limb design coupled with its DualSync Cam System provides a new level of smoothness not obtainable before. Additional bowstring dampening is achieved with the **DARTON's Bowstring Suppression System** that is included with the 3900. **The bumpers should be adjusted with a small gap or just touching the bowstring.** There is a collar installed on the upper rod that supports its bowstring bumper. This collar is adjusted to absorb the impact to the rubber bumper instead of the rod end to extend the life of the bumper and bowstring. If there is too much of a gap between the rod end and the inside of the bumper, your bowstring may be deflected and slide off the bumper. Be sure to re-tighten the set screws in the collar if any adjustments are made. The upper **BNSS** is adjusted by loosening the set screws that hold the cable guard rod in place and moving the assembly as a unit. Once the bumper gap is adjusted re-tighten the set screws. The upper **BNSS** is covered by patent 5,720,269. A low mount Bowstring Suppression Unit is also included with the 3900. The low mount **BNSS** is adjusted by loosening its jam nut and then rotating the rod in or out accordingly to position the bumper relative to the bowstring. The low mount **BNSS** bumper does not require the use of a collar. **Anytime the limbs are adjusted an adjustment should be made to the BNSS for correct bumper position relative to the bowstring.** Apply bowstring wax to the bowstring in the area that aligns with the suppressor bumpers for best results.

**DARTON's NEW Progressive Torque Reduction** cable guard rod is designed to enhance the shootability of your DS Series bow. By reducing torque to the limbs as cable tensions increase during your draw cycle and allowing more rod offset for better vane clearance, you will notice the advantages right away. To take maximum advantage of this design be certain your cable rod is adjusted to allow the cable slide to move in toward the center of the bow during your draw cycle. If your limbs are backed out to reduce peak weight you need to adjust the cable guard rod out to compensate for the change in brace height to retain correct bowstring gap. When adjusting for bowstring gap you are also adjusting the cable guard rod location accordingly.

Each DualSync bow includes a 2<sup>nd</sup> set of grips for those who prefer a smoother, smaller feel.

The DS 3900 come with 3 draw stop adjustment module sets that allow changes of the let-off down to 65% with minimum change to the draw length. If there is any noise caused from the draw stop contacting the power cable, or if you choose to soften the feel of contact, position one of the felt adhesive-backed pads included with each accessory package on the end of the draw stop.

In addition to the draw lengths listed below there are also 1/2" modules available, i.e. 1.5, 2.5, 3.5, 4.5, 5.5 & 6.5.

Modules - Model	#1	#2	Draw lengths		#5	#6	#7	Axle – Axle	Brace Height	w/100 pounds tension	
			Bowstring	Power Cable						Bowstring	Power Cable
DS 3900	24"	25"	26"	27"	28"	29"	30"	327/8"	5.00"	58 1/8"	31 5/8"

Bowstrings measurements are with twist, Power cable measurements are without twist. Add (8-12) twist to Power Cables to get correct tune. Yoke cables for the 3800 measure 14".

**Refer to information provided with each bow on the correct use of a bow press.**

**Darton's warranty does not cover damage to any bow caused by improper use of a bow press.**