

## 2022 MENTOR Jr. - DualSync - TECHNICAL BULLETIN, 010622r4

The MENTOR DualSync bow has an adjustable peak weight range. The **29 lb. PEAK WEIGHT** is adjustable **15 – 29 lbs.** To adjust peak weight first tighten your limb bolts down to be sure the limbs are even. Count the turns when you tighten the limbs down, so you know where you started from. A maximum of 6 Counter-Clockwise turns from the tightened position is recommended, more than 6 turns and the bow will not perform as advertised. Too many turns and the bow could become un-safe. An inspection hole shows the number of threads remaining at the end of each limb bolt. Do not shoot the bow unless at least one thread is visible.

**No bow press is required** to change the draw lengths of a DualSync bow. With the MENTOR, all you need to do is **change modules**. Refer to the accompanying chart to determine the correct module for your draw length. There is no need to retune the bow after the draw length is changed. If you need to remove your cables or cable guard slide, be sure to replace them in their original positions or it will affect the way the power cables track in their respective grooves.

**MENTOR cams** include 2 anchor post for the bowstring on each cam, A & B. Using the A post on each cam will give you the draw lengths listed below. Using the A post on one cam and the B post on the other cam will result in approx. ½" shorter draw. Using the B post on both cams will result in approx. 1" shorter draw. Shortening the draw length this way will also lower the peak weight by approximate 5 lbs. You do not have to re-tune your bow after changing anchor posts. Whenever using the "B" post you need to adjust the length of the Bow String Suppressor rod accordingly.

Darton's Parallel Limb Design coupled with its DualSync Cam System provides satisfying smoothness with each shot. This is improved with the use of **DARTON's low mount Bowstring Suppression Unit.** The **bumper should be adjusted to just touch the bowstring.** If there is a gap between the rod end and the inside of the bumper, your bowstring may be deflected and slide off the bumper. The **BNSS** is adjusted by loosening its set screws and then moving the rod or adjustable bracket in or out accordingly to position the bumper relative to the bowstring. Apply bowstring wax to the bowstring in the area that aligns with the suppressor bumper for best results. There is an additional 5/16-24 threaded hole located below the suppression rod to attach a V-Bar Mounting Bracket or other accessory.

DARTON includes their patented **Tuning Mark System** on all DualSync bows to assist the individual shooter/tuner in getting optimum performance. By lining up the power cables between the tune lines on each cam when using **bowstring anchor post "A"**, you will get the advertised draw lengths and performance. When using **bowstring anchor post "B"**, use the tuning marks labeled "B" on the cam. A bow press is required to change bowstring anchor post. The cable lengths are adjusted by first putting the bow in a press to remove tension from the cables. The cables can then be adjusted by twisting to make them shorter and untwisting to make them longer. If they are not lined, up or in the same relative position on each module, you will lose some draw length and stored energy. The shoot-ability will remain the same. Be sure the axle-to-axle measurement is checked after the bow is tuned. The correct measurement will assure good performance.

**Remove the screws from each module to change draw length. Re-position the correct module for your draw length, replace screws and tighten.** The chart below lists the draw length obtained with each set of modules when using the "A" bowstring anchor posts. Total draw length adjustment range is 19 1/2" to 26".

A set of Universal Training Module are available with a usable draw length of 19" to 26", with no adjustment necessary. It is recommended that only an arrow suitable for at least 28" of draw length be used for safety reasons. There is a draw stop that can be used with the Universal Mods that will limit draw length for shorter arrows. **Mass Weight: 3.4 lbs.**

Module choice	#1	#2	#3	#4	#5	#6	Axle – Axle "A" post	w/100 pound tension		Power Cable
								Brace Height "A" post	Bowstring	
Draw length	21"	22"	23"	24"	25"	26"	30 1/2"	5 1/4"	50"	36 11/16"

Bowstrings and Power Cable measurements are with twist. Add or subtract twist in Power Cables to get correct tune. Axle – Axle tolerance is +/- 1/16".

For additional warranty or tuning information visit our web site [www.dartonarchery.com](http://www.dartonarchery.com) or call Darton Service at 989-728-9511. To order parts, draw length modules or Darton Apparel call Darton Service at 989-728-4231.

**Before pressing bow, back limbs out 4 turns from MAX setting. Darton's warranty does not**