

# 2019 DualSync TEMPEST e-3D TECHNICAL BULLETIN, 110618R2

The Tempest e-3D uses a unique cable and yoke system that equalizes the torsional stress in the limbs. This results in a more forgiving bow to shoot. With yoke cables anchoring at the axle, outside of the limbs, it maximizes the balancing effect of the yoke system while reducing the load on the cam bearings. These features also make for an easier bow to service and tune.

## Equalizing yoke system covered by patent 8,826,894 B1

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 5 **Counter Clock Wise (CCW)** turns from tightened position is recommended; more than 5 **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 & 8,662,062 B2

No bow press is required to change the draw lengths of **DualSync** bows. The only requirement is to have a 1/8" hex wrench to loosen and tighten the adjustable module screws. Refer to the accompanying chart to determine the correct module adjustment for the 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 cables 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. This has been enhanced with the use of **DARTON's low mount Bowstring Suppression Unit**. The bumper should be adjusted to just touch the 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. The **BNSS** is adjusted by loosening the set screw used to lock the rod in place. Slide the rod in or out accordingly to position the bumper relative to the bowstring and retighten the set screw. Apply bowstring wax to the bowstring in the area that it aligns with the suppressor bumper for best results.

An additional 5/16-24 threaded hole is provided below the Bowstring Suppression Unit for mounting additional accessories such as a counter balance system or field camera.

**DARTON's Progressive Torque Reduction Fiber Glass Cable Guard Rod** is designed to enhance the shootability of your DS Series bow. By flexing inward as cable tensions increase during your draw cycle it allows more rod offset for better vane clearance when your vanes pass the cables. You do not have to adjust the cable guard rod in or out to compensate for any change in peak weight adjustment or draw length.

Darton offers 2 different set of grips as accessory options for those who prefer a different grip feel. A set of Draw Stop Tabs are also available for small adjustments to the module draw stops as an accessory option.

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 is a 1/2" adjustment between each numbered adjustment. There is also an adjustable limb stop located on the perimeter of the cam that allows fine-tuning of the draw length and let-off. It is recommended you use only one limb stop.

Adj. mark w/G1 module	#1	#2	#3	#4	#5	#6	Axle – Axle	Brace Height	w/100 pounds tension	
									Bowstring	Power Cable
<b>Tempest e-3D</b>	25"	26"	27"	28"	29"	30"	36"	6 1/2"	57 15/16"	32 3/16"

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 cover damage to any bow caused by improper use of a bow press.**