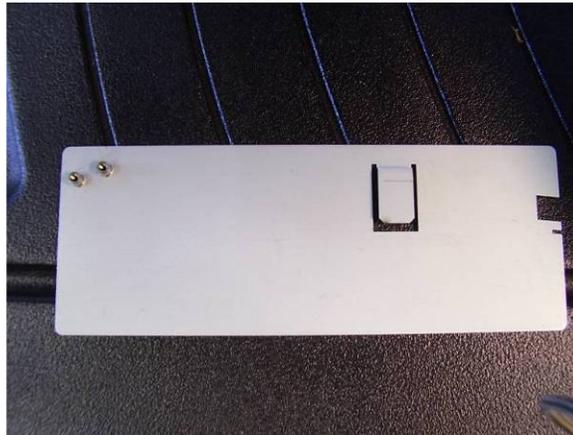


AMAYA XT/BRAVO X-Cable Tension Gauge User Instructions

The following instructions will guide you through checking and, if necessary, adjusting the X-Cable tension on your AMAYA XT or BRAVO machine. The X-Cable Tension Gauge (Melco PN 33909), shown in picture 1 below, is used to indicate the permissible range for proper X-Cable tension.



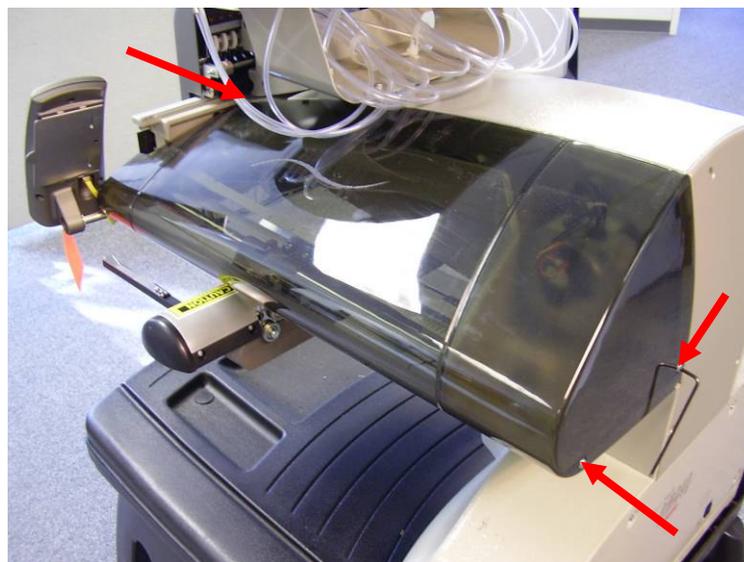
Pic. 1: X-Cable Tension Gauge, Melco PN 33909

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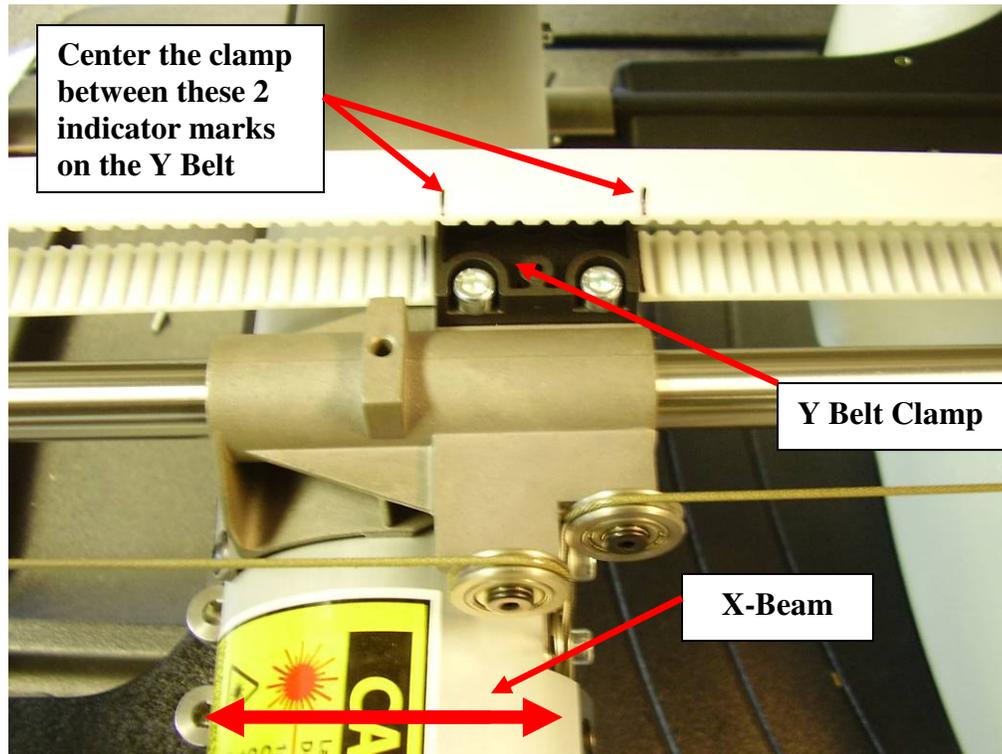
A. Determining if an X-Cable is Set to Required Specifications

1. Remove the right transparent Side Cover shown in picture 2 below. Using a 4mm bent Allen wrench, remove the three indicated screws and carefully remove the Side Cover.



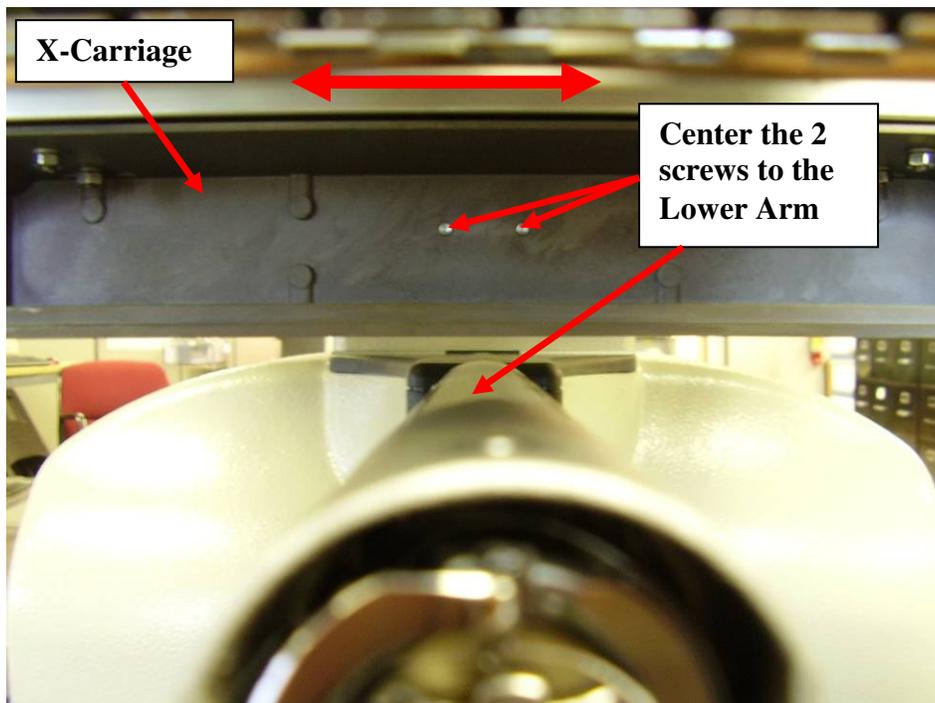
Pic. 2: Removing the right transparent Side Cover

2. Center the Y Belt Clamp between the two black indicator marks on the Y Belt, as shown in picture 3 below, by moving the X-Beam forward or back.



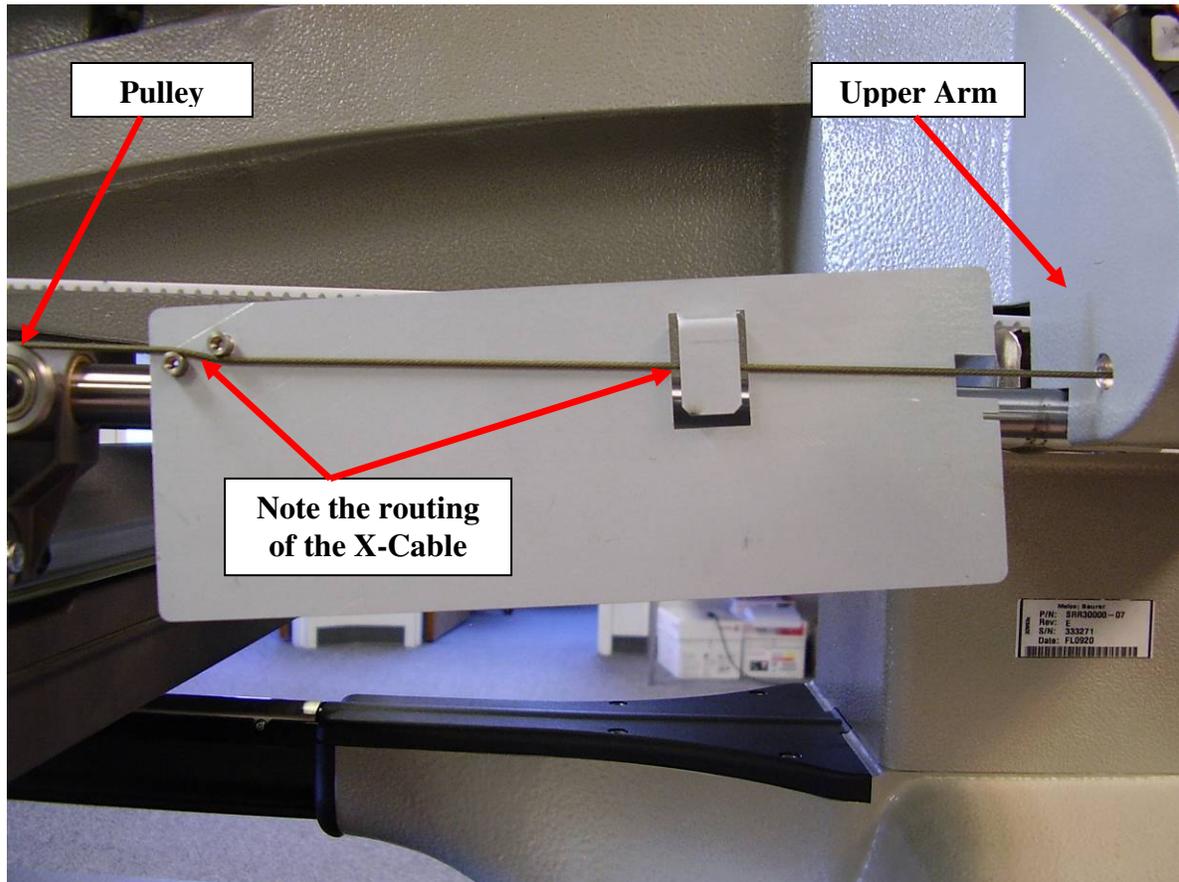
Pic. 3: Centering the X-Beam

3. Move the X-Carriage left or right until the two screws indicated in picture 4 below are centered to the Lower Arm.



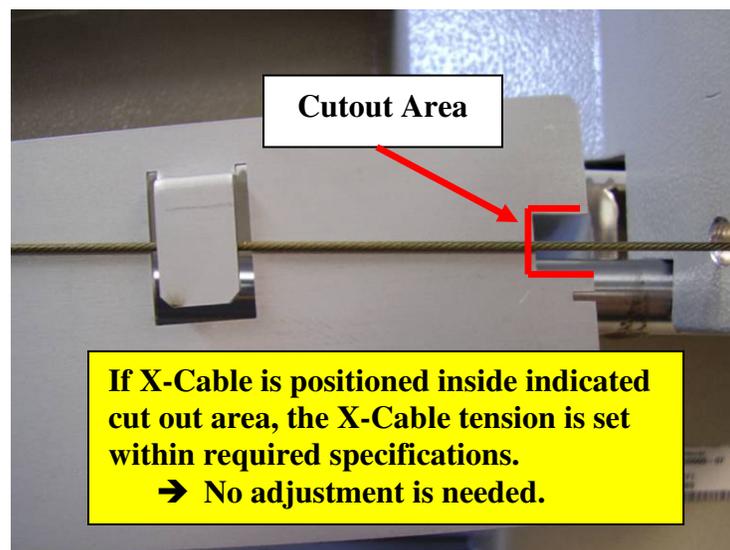
Pic. 4: Centering the X-Carriage

4. Position the X-Cable Tension Gauge on the X-Cable as shown in picture 5 below. Center the Gauge between the indicated Pulley and the Upper Arm.



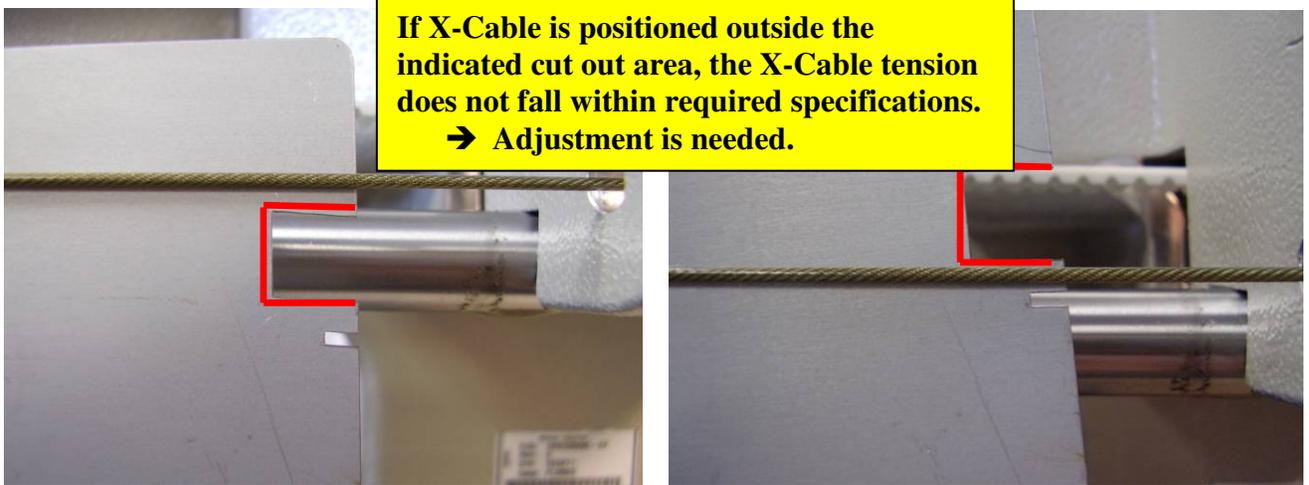
Pic. 5: Positioning the X-Cable Tension Gauge

5. A properly adjusted X-Cable will fall within the cutout area shown in picture 6 below. If the X cable falls within the cutout area, remove the fixture and re-install the Side Cover.



Pic. 6: Determining properly adjusted X-Cable tension

6. An improperly adjusted X-Cable will be positioned outside, either above (tension too low) or below (tension too high), the cutout area as shown in pictures 7 and 8 below. In this case the tension of the X-Cable requires adjustment. Follow steps 1-5 in section B below to properly adjust the tension of the X-Cable.

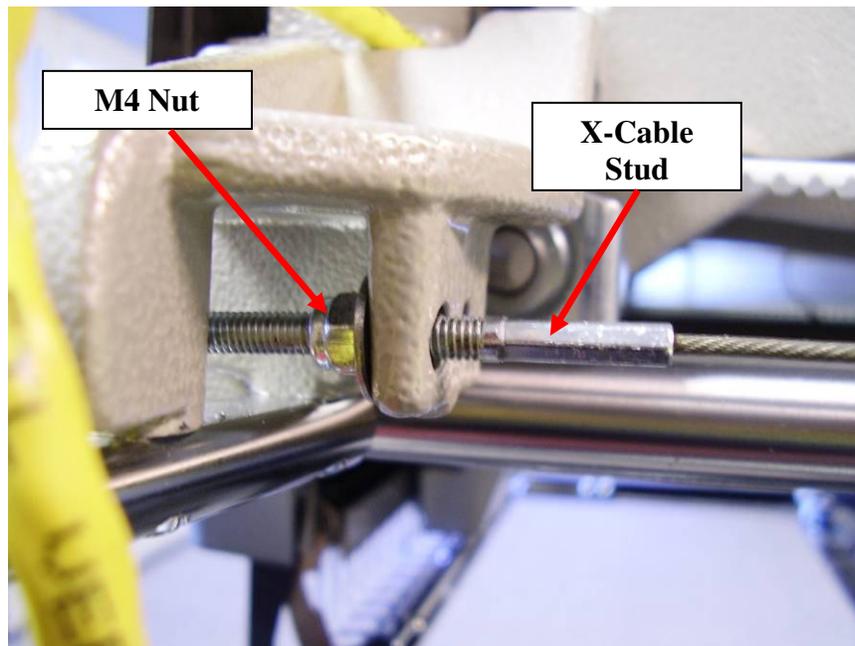


Pic. 7: X-Cable tension too low

Pic. 8: X-Cable tension too high

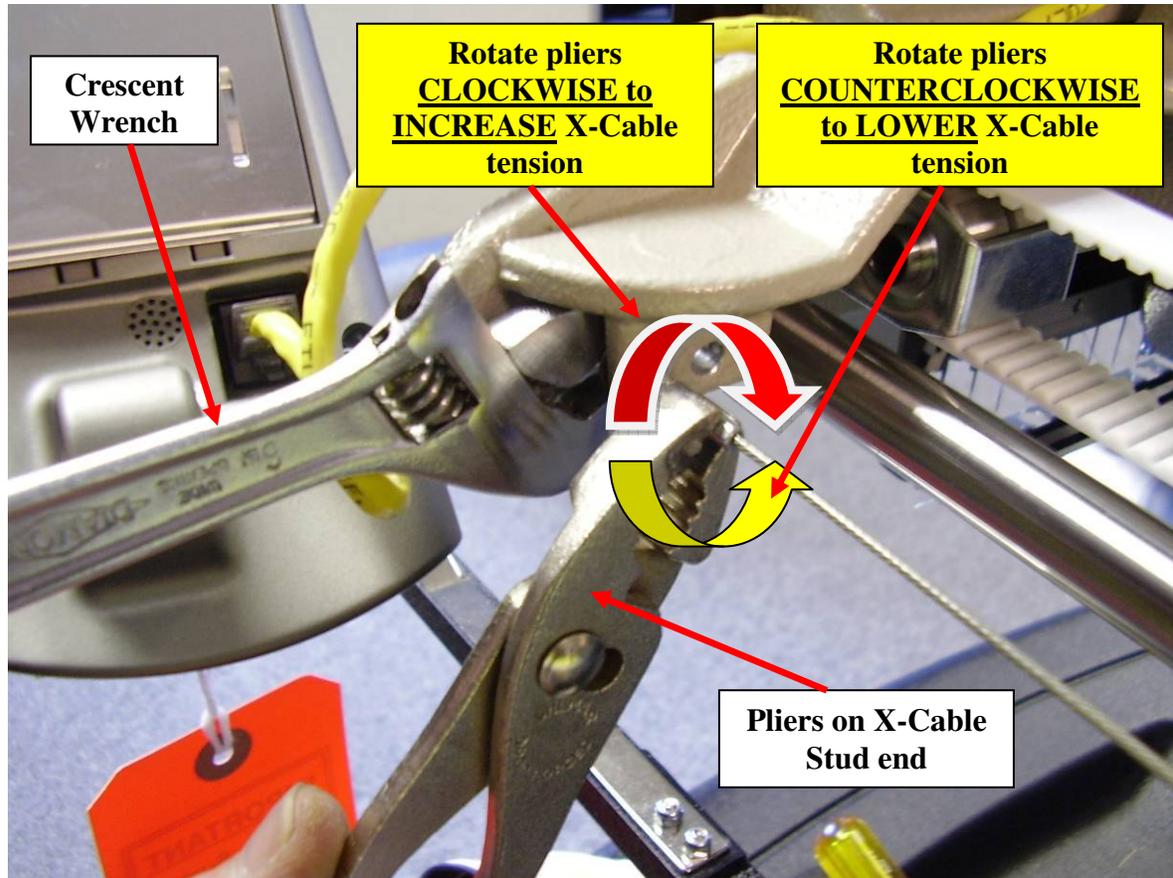
B. Adjusting an X-Cable that is Tensioned Outside the Required Specifications

1. Locate the M4 Nut and the X-Cable Stud at the end of the X-Cable where it mounts to the front of the Upper Arm as shown in picture 9 below.



Pic. 9: Locating X-Cable tension adjustment hardware

2. Using a small Crescent wrench grip the M4 Nut (shown in picture 9 above) and with a pair of pliers grip the X-Cable Stud at the end of the X-Cable as shown in picture 10 below.
 - To **increase the X-Cable tension** (→ X-Cable was located above the cut out area as shown in picture 7), **rotate the pliers clockwise** while holding the M4 Nut with the Crescent Wrench.
 - To **lower the X-Cable tension** (→ X-Cable was located below the cut out area as shown in picture 8), **rotate the pliers counterclockwise** while holding the M4 Nut with the Crescent Wrench.

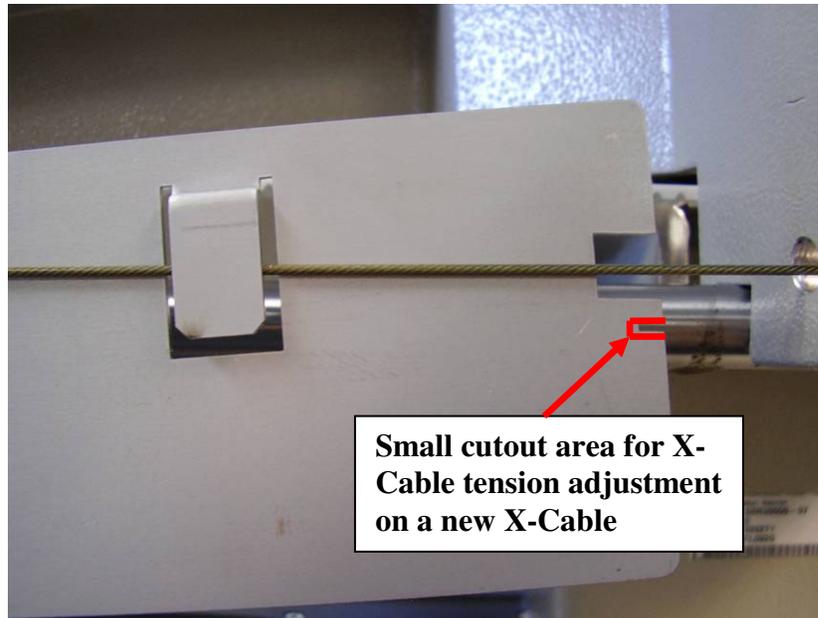


Pic. 10: Locating X-Cable adjustment nut

3. Remove the wrench and pliers and move the X-Beam full travel to the front and back and the X-Carriage full travel left and right a few times to ensure proper settling of the X-Cable tension.
4. Repeat steps 2 – 5 in section A and verify that the X-Cable is now adjusted to required specifications. If the X-Cable tension is adjusted properly, remove the fixture and re-install the Side Cover. If the X-Cable tension is still not adjusted properly, repeat steps 1-4 in section B until the X-Cable tension is adjusted correctly.

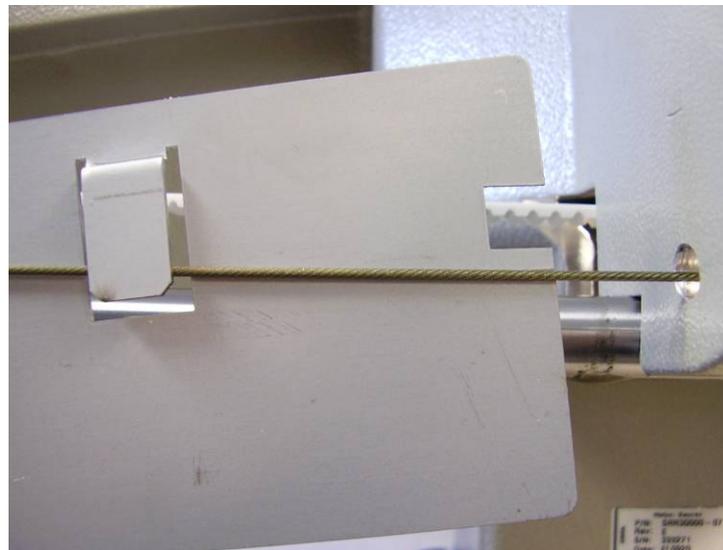
C. Adjusting the Tension on a Replacement X-Cable

1. If a new X-Cable had to be installed on the machine, the initial X-Cable tension adjustment should align the X-Cable with the small cutout area on the X-Cable Tension Gauge as shown in picture 11 below.



Pic. 11: Tension indicator on Gauge for new X-Cable

2. Follow steps 1-4 in section A to properly position the X-Cable Tension Gauge on the X-Cable.
3. Follow steps 1-3 in section B to adjust the tension in the X-Cable until the X-Cable aligns with the small cut out in the X-Cable Tension Gauge as shown in picture 12 below.



Pic. 12: Proper adjustment of X-Cable tension for new X-Cable

4. After initial adjustment of the tension in the new X-Cable the X-Cable will stretch (= X-Cable tension will decrease) to a point where the X-Cable will fall within the required operating range as shown in picture 6.