**Sonnie's basic guide on how tune your bow!**

Before reading this I would like you to understand that I am relatively new to tuning bows and this guide is my idea on how to achieve a basic bow tune in a very easy readable step by step way. If you are sure that something I have written is incorrect please email and I will research further and correct.

**Step One (Set-up)**

Before you tune your bow it must be set up properly with everything you wish to tune and shoot with e.g. rest, button, bow sling, stablizers and string nocks.

I followed this guide ;

<http://www.worldarchery.org/UserFiles/Document/FITA%20website/07%20Publications/02_downloads/Coaches_Manual_Lev2/11_Recurve_Equipment.pdf>

Pages 4-8 are about setting up your bow. Once you have your set-up done, don't change anything. We are going to be tweaking what you already have.

**Step Two (Brace Height)**

Brace height is the measurement from the centre of your button to your string. This will affect the noise level of your bow, the amount your arrows' flex and therefore the grouping of your arrows. What you want to achieve at this point is a nice sounding bow. If your bow is making a loud noise when you release, it is wasting the energy that you are putting into the limbs by making  that noise. You want this energy to leave the bow through your arrows and not converted to sound. You tune this by twisting and untwisting the string which makes it longer or shorter. Start by setting your brace height at your limb manufacturer's lowest recommended brace height. Record this on a bit of paper, shoot some arrows, listen to your bow and see what your grouping is like. Record this in a simple way like..          B.H         21.2cm                 Noise.   Loud                Group size. Large (dinner plate sized).

Now put 10 twists into the string and record the new B.H and shoot again recording the new Noise and Group. Keep adding 10 Twists at a time and recording the results until you start to reach your maximum recommended B.H. By this point you will have a nice set of results. Now it is possible to look at your results and see the B.H range where your bow performed the best, for example this could be between 22cm and 23.2cm. That is still a big range and to find your best tune you need to repeat this test starting at 22cm and only putting 3 twists in each time. This will give you a smaller B.H Range, keep repeating this until you have a definitive B.H and then you have finished. This does take a lot of time so make sure you write it down and keep it safe for future use!

**Step 3 (Nocking Point)**

To tune your nocking point you should shoot a fletched group and a bare shaft arrow at 10-20 yards. You can tune your nocking point by seeing where the bare shaft goes in comparison to your fletched group. If your bare shaft is consistently going too high this means your nocking point is too low. conversely if your bare shaft is consistently going too low this means your nocking point is too high. Adjust your nocking point up and down until your bare shaft is just lower than your fletched group (about 1-2 inches). When you have found a good nocking point mark it on your brace height with a pen.

**Step 4 (Pusher Button)**

The pusher button affects the way your arrows leave the bow. If your arrows are too stiff or weak for your bow you can tune your button to minimise the effects of this. As with step 3 I do this with a bare shaft test at 10-20 yards. Shoot 4 arrows 3 fletched and 1 bare shaft and see where the barer shaft is going in comparison to the fletched. What you are looking for; if you are right handed your bare shaft should be just to the left of your fletched group (about 1-2 inches) and to the right if you are left handed. If your bare shaft is going way to the left of your group this means your arrows are to stiff, loosen the pressure on you button and this will move your group right a tad and your bare shaft a lot closer to your group. If your bare shaft consistently is going way to the right this means your arrows are to weak and if you stiffen up your pusher button it will get your bare shaft closer to your group.

**Step 5 (Summary)**

Double check everything you have done and keep tuning till you're happy with the tune of your bow. No matter how good your tune is, it will not compensate for poor technique. The more consistent you shoot the more reliable and beneficial the tuning of your bow will be.