Manual Tuning BBI probe on NCB400

The BBI does not have an atma accessory so automatic tuning/matching is not possible. To tune/match the probe, it must be done manually by adjusting dials on the probe itself.

- 1. Put in sample and lock and shim as usual
- 2. Use the command wobb to enter manual tuning mode to see the tuning dip as seen below.



For 1H tuning (note the frequency that you are tuning on the bottom access which should be close to 400 MHz)
There are two green knobs under the probe (these are really sensitive so adjust them slowly).



- First adjust the tune (right know labeled T) to center the wobb dip on the screen. Using the adjustment rod hanging by the chain (tip should be slotted) slide the rod into the bottom of the knob and turn left or right. First move in one direction. If you feel any tension on the rod at one point stop you have reached the end of the tuning limit.
 - Once centered, adjust the match (left knob labelled M) and bring the tip of the dip to the baseline.
- 4. X tuning/matching:

If starting with an X nucleus experiment, you will first tune/match the X channel.

- The X tune and match are governed by a series of sliding dials. Look on the provided guide hanging on the probe to find the nucleus you would like to tune to.



- Using the rod with a little hook on the end, adjust the numbers to match those on the sheet.



- To fine adjust the tune and match slowly slide the last number on the right of each set of numbers.

CAUTION: When adjusting the sliding dials, pull/push straight up and down. **DO NOT** pull it towards you at all. This could cause the slide bars to bend and make it difficult to adjust

- Once done with the X channel, you should check the proton channel. To switch to the other channel click on the icon.
- 5. When finished with tuning/matching, click on the stop button is to exit the wobb mode.
- 6. Continue on by setting the receiver gain and acquisition