Graphical Tuning on the 400 MHz

1. Disconnect the cable of the channel you wish to tune at the filter and connect it to the tuning panel port. Leave the channel set to zero (off) and the attenuation at 9.

2. In VnmrJ, click the **Probe Tune** button in the center tool bar or enter `qtune` in the command line. If this button isn’t available, click the **Start** tab.

3. By default, the panel will open to H1 tuning with a blank canvas. Use the Tune frequency drop down menu to change the nucleus if tuning a different channel, such as C13.

   The **Power** should be set to 60 and the Gain set to 50.
4. Click the [Start QTune] button to start the tuning process. The canvas will appear as shown here and the [Quit] button will be disabled. The LCD display on the tuning panel (where the cable is attached) will turn on, but the displayed numbers can be ignored as they don’t correspond to tuning performance in this mode.

5. Click the [Auto Scale] button in the lower left to display the tuning dip. You can use the [*2] and [/2] buttons or the mouse scroll wheel to further adjust the vertical scale and appearance of the tuning dip.

If you still don’t see the dip, you can increase the Span by factors of 10 up to 200. This can later be returned to 10 once the tuning dip is close to center.

6. Use the tune (top) knob on the tuning stick of the appropriate channel on the probe to center the tuning dip about the magenta line. If needed, use the match (bottom) knob of the tuning stick to lower the tuning dip to its minimum. You may need to alternate between tuning and matching to achieve both a low and centered dip.

! Be careful to not force either the tune or the match past their stop points.
7. The default number of points is set to 512. This produces a roughly shaped tuning dip that is responsive to changes made with the match and tune knobs. You can increase the # Points from the drop-down menu to get a smoother line. This will take longer for changes to be reflected on the screen and should only be considered for fine adjustments (when the dip is already near minimum and centered).

8. When satisfied with the tuning, click the Stop Q Tune button. You may then repeat 3-7 to tune another channel or click the now-enabled Quit button to exit the probe tuning mode.