Spectral Window and Sweep Width

Spectral Window - range of resonant frequencies expected. This is how wide of a window you are looking at and where along the chemical shift axis this window is located. Think of it as SW and O1 combined.

Sweep Width (SW) – how wide the window is.

O1 – the offset or where the center of the spectrum is located.

The default ^{1}H parameters on the 500 (under the AcquPars tab) are:

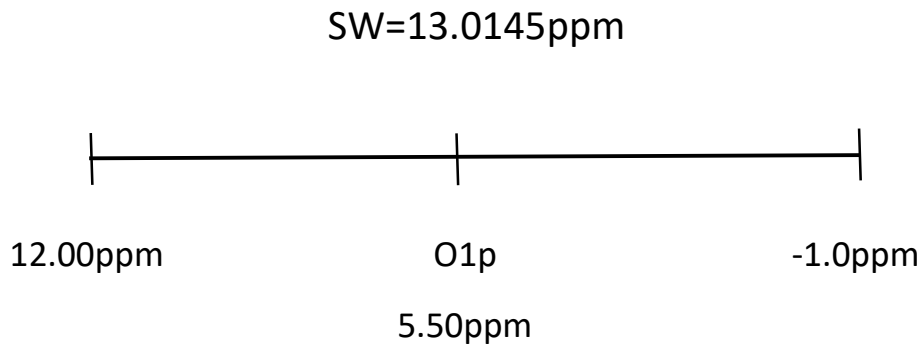
SW (ppm) = 13.0145

SWH (Hz) = 6510.417

O1 (Hz) = 2751.32

O1P (ppm) = 5.50

So, you get this:



If you change the value of O1P, your SW (size of your window) stays the same but your center changes. For example, if you change the O1P from 5.50ppm to 0ppm, your SW will still be 13.0145ppm. However, you will now "see" from 6.5ppm to -6.5ppm.

If you just change SW, your O1P stays the same, but your window will be larger.

All of your peaks must fall inside the spectral window, so SW and O1P should be adjusted as needed.