

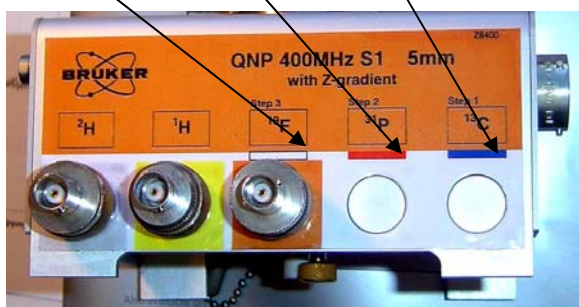
# Bruker NMR Systems - QNP tuning notes

(NOTE: Do not attempt to tune a probe unless you are checked out for probe tuning)!

The color of the **proton** tuning rods matches the color behind the connector –**YELLOW**.

The color of the tuning knobs for the **other nuclei** is given by the small color bars ABOVE the connector. The knobs are marked with a “T” for tune and “M” for match.

**19 F Silver    31P Red    13C Blue**

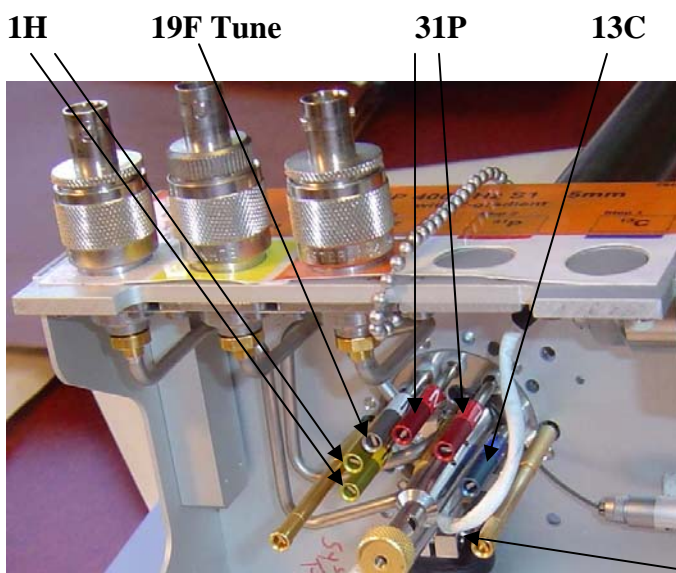


## If you cannot tune 19F:

Fluorine and phosphorus tuning are coupled, if the 31P is far off from its standard tune then the 19F will not tune properly.

If you cannot tune 19F, switch to 31P (you do not need phosphorus in your sample to tune the probe for 31P) and tune the probe with the appropriate knobs for 31P.

When you have finished with tuning 31P go back to 19F and tune.



**19F Match (silver)**

## CRITICAL POINTS

- 1) Carefully identify the color for that nucleus.
- 2) These rods have a limited number of turns. Do not leave any rod against its stop! If you hit a stop back off by at least 1/8 of a turn.
- 3) If a “dip” is not clearly visible on the “WOBB” increase “wobbsw” from 4 MHz to 12 MHz. If there still is no dip find Sara or Joe for help.