

Operating instructions for the probe PH MASDVT850W6 BL2.5 ^{14}N - ^{31}P /F-H (H13889/0001)

1. Changing $\lambda/2$ -mode to $\lambda/4$ -mode

$\lambda/2$ mode	X f/MHz	^{19}F - ^1H f/MHz
e.g. ^{13}C - $^{31}\text{P}/^1\text{H}$	213 – 344	799.9 - 850.1

$\lambda/4$ mode	X f/MHz	^1H f/MHz
e.g. ^{14}N – $^{29}\text{Si}/^1\text{H}$	61 - 168	850.13

The probehead is delivered in $\lambda/4$ – mode with a short circuit screw!

1. Unscrew (but don't remove) 4 screws at the flange of the *shielding tube* and remove the tube
2. In case of operating in $\lambda/2$ -mode, e.g. $^{13}\text{C}/^1\text{H}$, or experiments in the upper X-range (**144...253MHz**) it is necessary to open the *short circuit screw* (at the $\lambda/2$ -tube of the ^1H -channel, see fig. 1, below) and additionally fix a rangecoil only for ^{31}P as shown in fig 3. In the other case in $\lambda/4$ -mode, e.g. $^{15}\text{N}/^1\text{H}$, or experiments in the lower X-range (**52...194MHz**), use the marker at the $\lambda/2$ -tube and *carefully turn in* this screw until one has contact with the inner conductor of the $\lambda/2$ -line, see fig. 2, below.
Do not turn this screw too far in order to avoid bending or damage of the inner conductor
3. Slide on the shielding tube and lock it
4. First tune and match ^1H , and then X. Repeat this procedure for fine tuning.

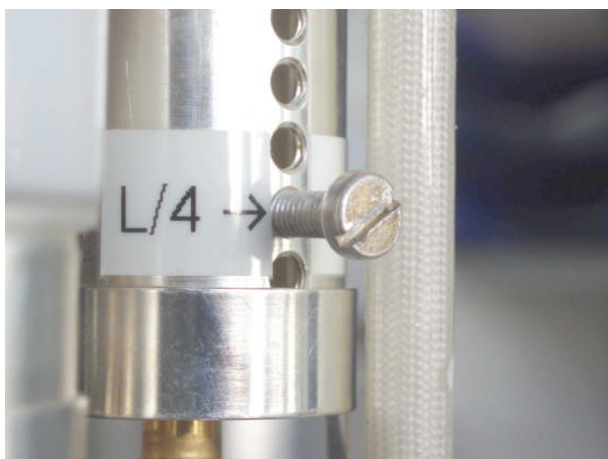


fig.1: $\lambda/2$ -mode → screw out (loosen)

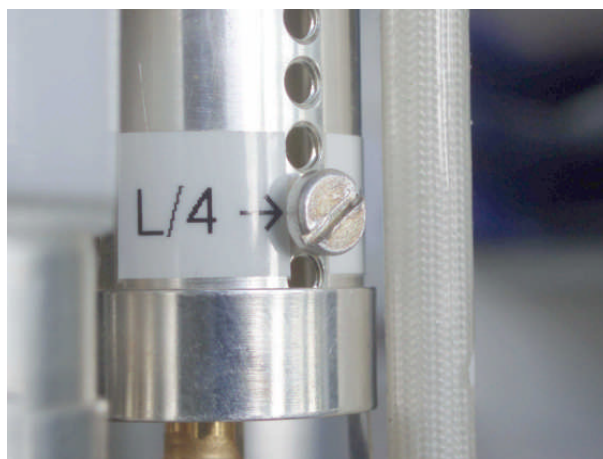


fig.2: $\lambda/4$ -mode → screw in

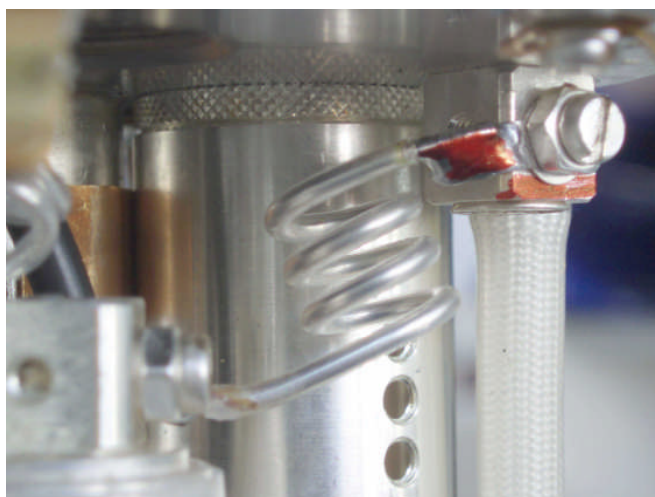


fig.3: range coil position (only for ^{31}P)