Operating instructions for the probe PH MASDVT850W6 BL3.2 X/Y/H LLC (H13900/0001)

The probe is delivered in λ/4 and triple resonance mode

1. Changing X/Y frequency combination in triple resonance mode

The following ***exchangeable insert*** is included:

X/Y-combination	*X* *f/MHz*	*Y* *f/MHz*
^{13}C/^{15}N	**213.7**	**86.0**

Double resonance mode:
To operate in ***double resonance mode*** (^{1}H- and X-channel only) remove the exchangeable insert in the following way:

1. Unscrew (but don't remove) 4 screws at the flange of the ***shielding tube*** and remove the tube.
2. Unscrew the two fixing screws (see Fig. 1) and remove the insert, consisting of a capacitor and a solenoid coil.
   Attention: Do not touch the coil!
3. In case of operating the X/Y-combination ***^{13}C/^{15}N*** install the insert in the opposite way. It is necessary to operate in this X/Y-combination in **λ/4-mode**. Slide on the shielding tube and lock it.
4. First tune and match ^{1}H, then X and at last Y-channel. Repeat this procedure for fine tuning.
   Moreover the input of the third channel (Y) not used has to be terminated by a 50 Ohm impedance (standard accessory).

2. Changing between λ/2- and λ/4-mode in doppel resonance mode

λ/2 mode	*X-range* *f/MHz*
high-range	**143 - 273**

λ/4 mode	*X-range* *f/MHz*
low-range	**55 - 215**

1. In case of operating in λ/2-mode, frequency range see list, it is necessary to remove the ***short circuit screw*** (at the λ/2-tube of the ^{1}H-channel, see fig. 2, below). In the other case in λ/4-mode, frequency range see list, use the marker at the λ/2-tube and ***carefully*** turn in the screw equally and continously until one has contact with the inner conductor of the λ/2-line. Do not turn this screw too far in order to avoid bending or damage of the inner conductor. Slide on the shielding tube and lock it.
2. First tune and match ^{1}H, and then X and Y. Repeat this procedure for fine tuning.

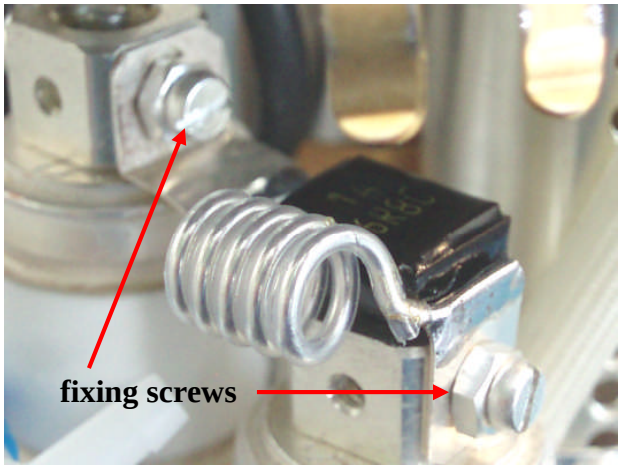

Fig. 1

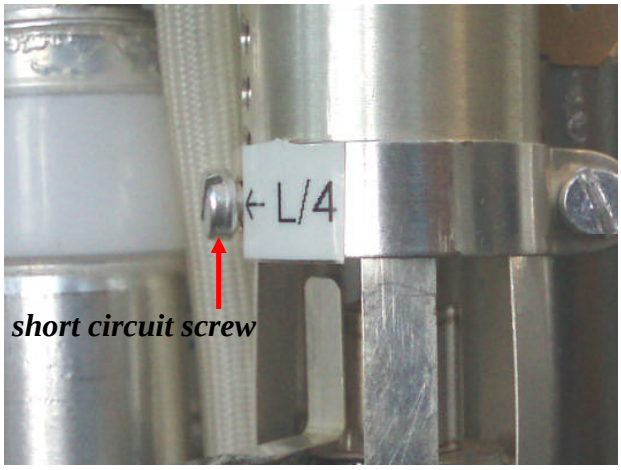

Fig. 2