

5. Probe tuning table

Always operate the probe with the following external filters.

1. ^1H channel: 1H pass 1200.13 MHz. Part number: W1348174
2. X channel: 0-31P / 0-485.7 MHz pass. Part number: W134925

Table 3: Probe Tuning Table

X nucleus	Type-A insert	Type-A insert	Type-B insert	Type-B insert
	Left	Right	Left	Right
^{27}Al	100	7R5-0	5R6	-
^{13}C	100	7R5-0	100	-
^{79}Br	100	7R5-0	100	-
^{151}Eu	100	7R5-0	100	-
^{55}Mn	100	7R5-0	100	-
^{93}Nb	100	7R5-0	180	-
^{209}Po	100	7R5-0	180	-
^{45}Sc	100	7R5-0	180	-
^{159}Tb	100	7R5-0	220	-
^{231}Pa	100	7R5-0	220	-
^{69}Ga	100	7R5-0	220	-
^{121}Sb	100	7R5-0	220	-
^{59}Co	100	7R5-0	220	-
^{187}Re	100	7R5-0	390	-
^{185}Re	100	7R5-0	390	-
^{99}Tc	100	7R5-0	390	-
^{113}Cd	100	7R5-0	390	-
^{115}In	100	150	SC	-
^{113}In	100	150	SC	-
^{195}Pt	100	150	SC	-
^{111}Cd	100	150	SC	-
^{165}Ho	100	150	SC	-
^{207}Pb	100	150	SC	-
^{127}I	120	150	SC	-
^{29}Si	120	150	SC	-
^{77}Se	120	150	SC	3R3
^{199}Hg	120	150	SC	5R6
^{171}Yb	120	150	SC	5R6
^{75}As	SC1	SC2	SC	-
^{209}Bi	SC1	SC2	SC	-
^2H	SC1	SC2	SC	-
^6Li	SC1	SC2	SC	2R0
^{139}La	SC1	SC2	SC	2R0
^9Be	SC1	SC2	SC	3R3
^{17}O	SC1	SC2	SC	3R3
^{138}La	SC1	SC2	SC	3R3
^{133}Cs	SC1	SC2	SC	4R7
^{123}Sb	SC1	SC2	SC	4R7
^{181}Ta	SC1	SC2	SC	100

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Table 3: Probe Tuning Table (Continued)

X nucleus	Type-A insert	Type-A insert	Type-B insert	Type-B insert
	Left	Right	Left	Right
¹⁷⁵ Lu	SC1	SC2	SC	100
¹³⁷ Ba	SC1	SC2	SC	100
¹⁵³ Eu	SC1	SC2	SC	100
¹⁰ B	SC1	SC2	SC	180
¹⁵ N	SC1	SC2	SC	220
⁵⁰ V	SC1	SC2	SC	220
¹³⁵ Ba	SC1	SC2	SC	220
³⁵ Cl	SC1	SC2	SC	220
⁸⁵ Rb	SC1	SC2	SC	220
⁹¹ Zr	SC1	SC2	SC	220
⁶¹ Ni	SC1	SC2	SC	390
¹⁶⁹ Tm	SC1	SC2	SC	390
¹³¹ Xe	SC1	SC2	SC-120	240
³⁷ Cl	SC1	SC2	SC-120	240
¹⁷⁶ Lu	SC1	SC2	SC-120	240
²¹ Ne	SC1	SC2	SC-120	300
¹⁸⁹ Os	SC1	SC2	SC-120	300
³³ S	SC1	SC2	SC-120	300
¹⁴ N	SC1	SC2	SC-120	430

- = No Insert
SC = Short Circuit

In some situations, impedance mismatch between filters and cables can lead to a spurious resonance appearing close to the ¹H resonance. This issue can be resolved by extending the length of the cable connecting the X channel of the probe to the preamplifier, using the connectors that are provided with the probe.

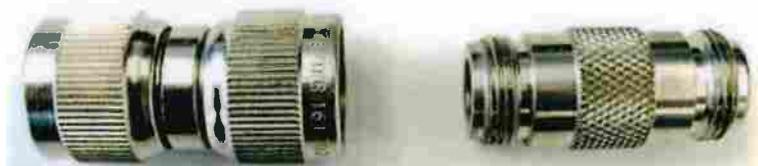


Figure 14



If you observe tuning or matching issues, make sure that the inserts are clean. Only use isopropanol to clean the surface of the inserts.