

Wolf River Coil SB 1000 Platinum - 213" Whip Antenna Tuning Guide

W0DHz - Dale Henninger

Velocity Factor 0.93 Using the velocity factor of copper - not stainless steel
 This is just used for an estimation of length - not critical

Quarter Wave Lengths (213" whip required to get 1/4 wave on 12m-20m without loading)

	Low End Band	High End Band	Target Resonance	Wave Length (m)	1/4 Wave Length (cm)	1/4 Wave Length (in)
40m	7.000	7.300	7.150	41.9	Whip Fully Extended + 16 Clicks on Coil	
20m	14.000	14.350	14.225	21.1	490.0	192.9
17m	18.068	18.168	18.120	16.5	384.7	151.4
15m	21.025	21.450	21.200	14.1	328.8	129.4
12m	24.890	24.990	24.940	12.0	279.5	110.0
10m	28.000	29.700	29.000	10.3	240.4	94.6
6m	50.000	54.000	52.000	5.765	134.0	52.8

The Wolf River Coils SB-1000 coil adds about 45-50 cm to the length of the antenna due to the collar wire, coil wire at the top, and the hardware. You should subtract this from the 1/4 Wave lengths above if you are using the coil. If you are not using the coil and attaching the whip directly to the stand, you should use the lengths above.

Start by tuning 20m first. Once you have that point marked, you can find the amount to shorten the antenna by calculating the difference between the point you are at and the next band you are trying to tune. Continue tuning/markings for all of the bands.

Wolf River Coil SB1000 Platinum - 213" Whip Antenna

Velocity Factor 0.93

Quarter Wave Lengths

	Low End Band	High End Band	Target Resonance	Wave Length (m)	1/4 Wave Length (cm)	1/4 Wave Length (in)
20m	14.000	14.350	14.300	21.0	487.8	192.0
17m	18.068	18.168	18.120	16.6	384.9	151.5
15m	21.025	21.450	21.200	14.2	329.0	129.5
12m	24.890	24.990	24.940	12.0	279.7	110.1
10m	28.000	29.700	29.000	10.3	240.5	94.7
6m	50.000	54.000	52.000	5.8	134.1	52.8

One-Half Wave Lengths

	Low End Band	High End Band	Target Resonance	Wave Length (m)	1/2Wave Length (cm)	1/2 Wave Length (in)
10m	28.000	29.700	29.000	10.3	481.0	189.4
6m	50.000	54.000	52.000	5.8	268.3	105.6

5/8 Wave Lengths

	Low End Band	High End Band	Target Resonance	Wave Length (m)	1/2Wave Length (cm)	1/2 Wave Length (in)
6m	50.000	54.000	52.000	5.8	335.3	132.0