

Aerial Trimming Chart

Use this chart as an aid in trimming the length of your aerial. It gives you an idea of the change in wire length needed to move antenna resonance a specific number of KHz.

- Dimensions are for each leg of a half-wave dipole
- For quarter-wave antennas (i.e. verticals) use the dimensions directly from this chart
- Full-wavelength antennas (loops) - multiply the chart dimensions by four (4) and change the overall length of the antenna by that amount.

Lengths are estimates. Many factors will affect their exact value.

To move	80/75 m	40 m	20 m	15 m	10 m
-400 KHz	+6' 8"	+1' 9"	+6.5"	+2.5"	+1.25'
-300 KHz	+5'	+1' 4"	+5"	+1.75"	+1"
-200 KHz	+3' 4"	+10"	+3.25"	+1.25"	+5/8"
-100 KHz	+1' 7"	+5"	+1.5"	+1/2"	+3/8"
00 KHz	0	0	0	0	0
+100 KHz	-1' 7"	-5"	-1.5"	-1/2"	-3/8"
+200 KHz	-3' 4"	-10"	-3.25"	-1.25"	-5/8"
+300 KHz	-5'	-1' 4"	-5"	-1.75"	-1"
+400 KHz	-6' 8"	-1' 9"	-6.5"	-2.5"	-1.25'
+500 KHz	-8' 4"	-2'	-8"	-3"	-1.5"

Example

You have measured the SWR of your 40 meter dipole at various frequencies across the band. You have determined that the SWR is lowest at 7.00 MHz. You actually want the lowest SWR to occur up in the sideband portion of the band, so you need to move resonance up in frequency about 200 KHz.

According to the chart, to move +200 KHz on 40 meters, you will have to shorten each leg of the dipole 10" (-10"). The overall length of the antenna is shortened a total of 20 inches.

Lengthening or shortening the antenna is done at the end insulators. To shorten the antenna, unwind the antenna wire as it wraps around itself at the end insulator. Move the insulator several inches toward the center of the antenna. Rewrap the antenna wire to secure the end insulator. Do not cut the wire. Wrap it back around the antenna wire. You may need to increase the antenna later.