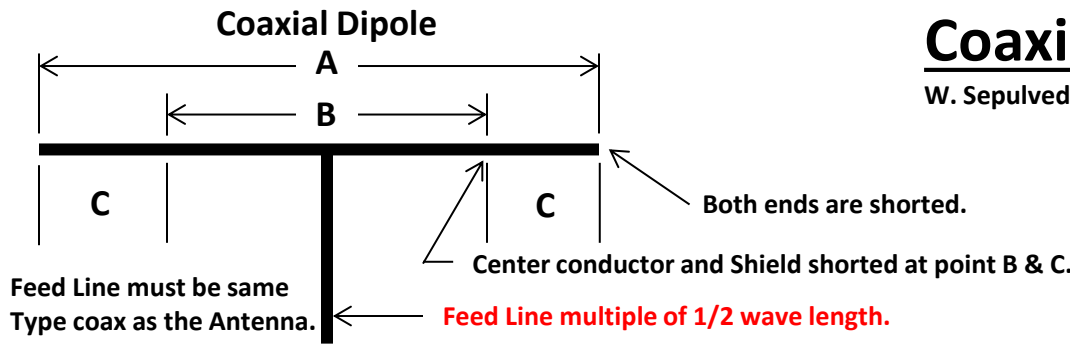


Coaxial Antenna Configuration

W. Sepulveda, K5LN

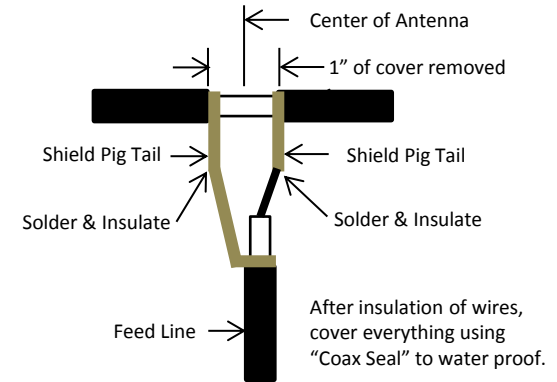
Reprint of 11/07/1994 Presentation



Band Configuration using Beldon RG58/U Coax	Formula: (includes VF for RG58/U)		
Band = <u>160</u> <u>80</u> <u>40</u> <u>30</u> <u>20</u> <u>17</u> <u>15</u> <u>12</u> <u>10</u>	468	234	A-B
A in Ft = 260 133 66 46 33 25 22 18 16	A = -----	B = -----	C = -----
B in Ft = 130 66 33 23 16 12 11 8.5 8	F(MHz)	F(MHz)	2
C in Ft = 65 33.5 16.5 11.5 8.5 6.5 5.5 4.75 4			

Assembly instructions:

- 1 – Cut a piece of Coax to dimension “A” for the desired band.
- 2 – At the center of Length “A”, being careful not to cut the braid, cut the outer cover to the braid, and remove a 1/2 inch of the cover on each side of the center cut.
- 3 – Being careful not to cut the center insulator, cut the braid at the center, and unravel to form 2 pig tails. See Sketch.
- 4 – Strip 3/4” on one end of the Feed Line. Connect the shield from the Feed Line to one pig tail at the center of the antenna. Connect the center conductor from the feed line to the other pig tail on the center of the antenna. Make sure there is a good mechanical connections before soldering because this is high stress point! Solder both connections & insulate using electrical tape and “Coax Seal” for water protection.
- 5 – Cut one side of the antenna at point “B” & “C”.
- 6 – From each side of the cut , remove 1/2 inch of outer cover material. Fold the braids back and remove 1/4 inch of insulation from the center conductor.
- 7 – Form a small hook on each center conductor and connect the center conductors together. Solder with a good mechanical connection.
- 8 – Fold the Braids over the center conductors and solder both braids to the center conductors.
- 9 – Cut a 2 inch piece of shrink tubing and shrink over the connection. After shrinking the tubing, use some “Coax Seal” to water seal the ends of the tubing.
- 10 – Repeat steps 5 through 9 for the other side of the antenna.
- 11 – Remove about 1/4 inch of cover material from each ends of the antenna. Fold back the braid and remove an 1/4 inch of center conductor insulation. Short the center and braid together and solder.
- 12 – If using the suggested **End Insulator**, seal the end of the coax after it is installed to the insulator.
- 13 – install a connector to the other end of the feed line and you are ready to install the antenna.
- 14 – To move antenna up in Frequency, remove in inch increments from each end & short ends again.



Center Connection of Feed Line



“B” & “C” Connection of Antenna

End Insulator Plexiglas 1/8”T X 3/4”W x 3”L

