

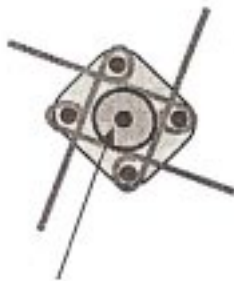
Quarter Wave Ground Planes

One of the simplest antennas you' can build is a quarterwave ground plane antenna. It is small in size and is inexpensive.

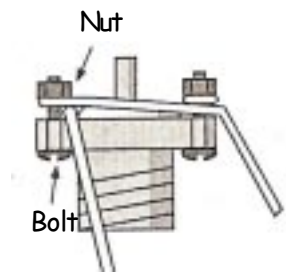
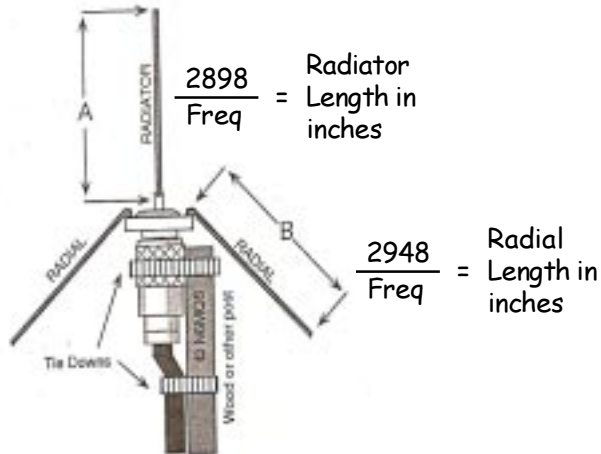
The only part you will need to buy is an S0-239 panel mount connector. You can use an old wire hanger for the radiator and radials.

You will need to use your soldering iron or gun to attach the Radiator to the center post of the S0-239. File any paint or coating from the radiator wire before soldering. Cut the radiator to the proper length before soldering it. If you can find a short copper tube to help secure the radiator to the S0-239, your antenna will stand up to high winds.

The radials may be soldered or attached with screws. Screws are the easier method if you take the time to overlap them as shown in the diagram. Cutting the radials may be done after the construction is complete.



Apply a small amount of sealant around the center pin to prevent water from entering the connector



Frequency Cutting Chart

Radiator		Radials
Freq		
28.1	99.93	104.93
28.2	99.57	104.55
28.3	99.22	104.18
28.4	98.87	103.82
28.5	98.53	103.45
28.6	98.18	103.09
28.7	97.84	102.73
28.8	97.50	102.38
28.9	97.16	102.02
29.0	96.83	101.67
29.1	96.49	101.32
29.2	86.16	100.97
29.3	95.84	100.63
29.4	95.51	100.29
29.5	95.19	99.95
29.6	94.86	99.61
29.7	94.55	99.27
29.8	94.23	98.94
29.9	93.91	98.61
50.0	56.16	58.97
50.5	55.60	58.38
51.0	55.06	57.81
51.5	54.52	57.25
52.0	54.00	56.70

Radiator		Radials
Freq		
52.5	53.49	56.16
53.0	52.98	55.63
53.5	52.49	55.11
54.0	52.00	54.60
144.0	19.50	20.48
144.5	19.43	20.40
145.0	19.37	20.33
145.5	19.30	20.26
146.0	19.23	20.19
146.5	19.17	20.13
147.0	10.10	20.06
147.5	19.04	19.99
148.0	18.97	19.92
220.0	12.76	13.40
220.5	12.73	13.37
221.0	12.71	13.34
221.5	12.68	13.31
222.0	12.65	13.28
222.5	12.62	13.25
223.0	12.59	13.22
223.5	12.56	13.19
224.0	12.54	13.16
423.0	6.64	6.97
424.0	6.62	6.95
425.0	6.61	6.94

Radiator		Radials
Freq		
426.0	6.59	6.92
427.0	6.58	6.90
428.0	6.56	6.89
429.0	6.55	6.67
430.0	6.53	6.86
431.0	6.62	6.84
432.0	6.50	6.83
433.0	6.48	6.81
434.0	6.47	6.79
435.0	6.46	6.78
436.0	6.44	6.76
437.0	6.43	6.75
438.0	6.41	6.73
439.0	6.40	6.72
440.0	6.38	6.70
441.0	6.37	6.69
442.0	6.35	6.67
443.0	6.34	6.66
444.0	6.32	6.64
445.0	6.31	6.63
446.0	6.30	6.61
447.0	6.28	6.60
448.0	6.27	6.58
449.0	6.25	6.57
450.0	6.24	6.55