

# DB201 Cutting Chart

## Radial and Radiator Lengths For Field Tuning

30-50 MHz, 66-88 MHz, 100-150 MHz, 150-174 MHz, 406-420 MHz, 450-512 MHz.

### CUTTING INSTRUCTIONS

The DB201 Ground Plane Omni Antenna is typically precut and pretuned at the factory before shipment; however, uncut antennas, which can be field tuned, are available. The following charts list the lengths to which the radiating element and the ground radials should be cut to obtain a certain desired frequency when field tuning uncut DB201 antennas.

To determine the correct lengths, find the desired frequency in the "Frequency" columns. Then, follow across to the right to the "A" and "B" columns to find the lengths. The length of the radiating element is shown in column "A" (see Figure 1) and the length of the ground radials is shown in column "B" (see Figure 2). All measurements are in inches.

**Important:** When cutting the ground radials (Figure 2), cut the excess from the end that goes into the base plate. **Do not cut the excess from the tapered end.**

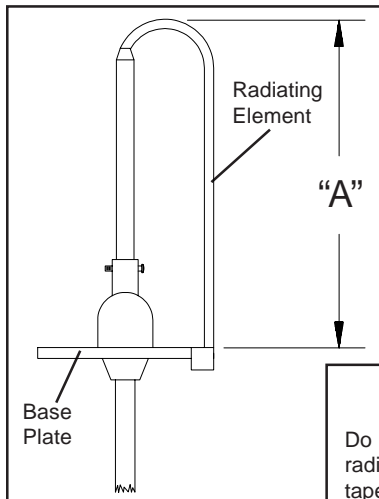


Figure 1 - Radiating Element Length (Shown in Column "A". All measurements are in inches.)

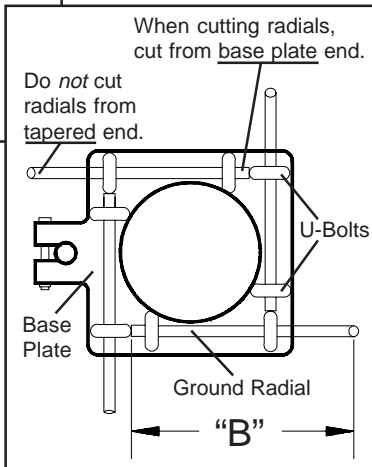


Figure 2 - Ground Element Lengths (Shown in Column "B". All measurements are in inches.)

**Warning!**

Installation of any antenna near power lines is *dangerous*. For your safety, follow proper installation procedures.

### 30-50 MHz

(All measurements are in inches.)

Freq.	A	B	Freq.	A	B
30.00	90	127	33.50		
.10			.60	80	113 3/4
.20	89 1/2	126	.70		
.30			.80	79 3/4	113
.40	88 3/4	125 1/2	.90		
.50			34.00	79 1/2	112 1/2
.60	88	124 3/4	.10		
.70			.20	78 3/4	111 3/4
.80	87 1/2	124	.30		
.90			.40	78 1/4	111
31.00	87	123	.50		
.10			.60	78	110 1/2
.20	86 1/4	122 1/4	.70		
.30			.80	77 1/2	110
.40	85 3/4	121 1/2	.90		
.50			35.00	77	109 1/2
.60	85	120 3/4	.10		
.70			.20	76 3/4	109
.80	84 1/2	120	.30		
.90			.40	76 1/4	108 1/2
32.00	84	119 1/4	.50		
.10			.60	75 1/2	107 3/4
.20	83 1/2	118 1/2	.70		
.30			.80	75	107 1/4
.40	83	118	.90		
.50			36.00	74 3/4	106 1/2
.60	82 1/2	117	.10		
.70			.20	74 1/4	106
.80	82	116 1/2	.30		
.90			.40	74	105 1/2
33.00	81 1/2	115 3/4	.50		
.10			.60	73 1/2	105
.20	81	115	.70		
.30			.80	73 1/4	104 1/2
.40	80 1/2	114 1/2	.90		

(Continued on page 2)



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30-50 MHz

(Continued from page 1)

Freq.	A	B	Freq.	A	B
37.00	72 3/4	103 3/4	41.10		
.10			.20	66 3/4	95 1/4
.20	72 1/4	103 1/4	.30		
.30			.40	66 1/2	94 3/4
.40	72	102 3/4	.50		
.50			.60	66 1/4	94 1/2
.60	71 1/2	102	.70		
.70			.80	65 3/4	93 3/4
.80	71	101 1/2	.90		
.90			42.00	65 1/2	93 1/2
38.00	70 3/4	101	.10		
.10			.20	65 1/4	93
.20	70 1/4	100 1/2	.30		
.30			.40	65	92 1/2
.40	70	100	.50		
.50			.60	64 1/2	92
.60	69 1/2	99 1/4	.70		
.70			.80	64 1/4	91 3/4
.80	69	98 3/4	.90		
.90			43.00	64	91 1/4
39.00	69 3/4	98 1/4	.10		
.10			.20	63 3/4	90 7/8
.20	68 1/4	98	.30		
.30			.40	63 1/2	90 1/2
.40	68	97 1/2	.50		
.50			.60	63 1/4	90
.60	67 3/4	97	.70		
.70			.80	63	89 3/4
.80	67 1/2	96 1/2	.90		
.90			44.00	62 1/2	89 1/2
40.00	67 1/4	96 1/2	.10		
.10			.20	62 1/4	89
.20	67 1/4	96 3/8	.30		
.30			.40	62	88 1/2
.40	67 1/8	96 1/4	.50		
.50			.60	61 3/4	88
.60	67 1/8	96	.70		
.70			.80	61 1/2	87 1/2
.80	67	95 3/4	.90		
.90			45.00	61 1/4	87 1/4
41.00	67	95 1/2	.10		

(Continued)

30-50 MHz

(Continued)

Freq.	A	B	Freq.	A	B
45.20	60 3/4	87	.70		
.30			.80	58 1/4	82 3/8
.40	60 1/2	86 3/4	.90		
.50			48.00	58	82
.60	60 1/4	86 1/2	.10		
.70			.20	57 7/8	81 3/4
.80	60	86	.30		
.90			.40	57 3/4	81 1/4
46.00	59 3/4	86 1/2	.50		
.10			.60	57 1/2	81
.20	59 5/8	86 1/4	.70		
.30			.80	57 1/8	80 3/4
.40	59 1/2	85 7/8	.90		
.50			49.00	57	80
.60	59 1/2	85 1/2	.10		
.70			.20	56 3/4	79 7/8
.80	58 1/4	85	.30		
.90			.40	56 1/2	79 1/2
47.00	59	83 3/4	.50		
.10			.60	56 1/4	79 1/4
.20	58 7/8	83 1/4	.70		
.30			.80	56	79
.40	58 3/4	83	.90		
.50			50.00	55 7/8	78 1/2
.60	58 1/2	82 3/4			

66-88 MHz

(All measurements are in inches.)

Freq.	A	B	Freq.	A	B
66.00	39 1/2	57 1/2	78.00	34 1/2	47 3/4
67.00	39	56 1/2	79.00	34	47
68.00	38 3/4	55 3/4	80.00	33 1/2	46 1/2
69.00	38 1/4	55	81.00	32 3/4	46
70.00	38	54 1/2	82.00	32 1/2	45 3/4
71.00	37 1/2	53 3/4	83.00	32 1/4	45 1/2
72.00	37 1/4	53	84.00	32	44 1/4
73.00	36 3/4	52 1/2	85.00	31 3/4	44
74.00	36 1/2	52	86.00	31 1/4	43 3/4
75.00	35 1/2	49 1/2	87.00	30 1/2	43 1/4
76.00	35	49	88.00	30 1/4	43
77.00	34 3/4	48 1/2			



120-150 MHz

(All measurements are in inches.)

Freq.	A	B	Freq.	A	B
100.00	26 7/8	39 9/16	126.00	21 7/16	30 1/4
101.00	26 5/8	39 3/16	127.00	21 1/4	30
102.00	26 5/16	38 13/16	128.00	21 1/16	29 3/4
103.00	26 1/16	38 7/16	129.00	20 15/16	29 1/2
104.00	25 13/16	38	130.00	20 3/4	29 5/16
105.00	25 9/16	37 11/16	131.00	20 5/8	29 1/16
106.00	25 5/16	37 5/16	132.00	20 7/16	28 7/8
107.00	25 1/8	36 15/16	133.00	20 5/16	28 5/8
108.00	24 7/8	36 5/8	134.00	20 1/8	28 7/16
109.00	24 5/8	36 5/16	135.00	20	28 3/16
110.00	24 7/16	35 15/16	136.00	19 7/8	28
111.00	24 3/16	35 5/8	137.00	19 11/16	27 13/16
112.00	24	35 5/16	138.00	19 9/16	27 5/8
113.00	23 3/4	35	139.00	19 7/16	27 7/16
114.00	23 9/16	34 11/16	140.00	19 5/16	27 3/16
115.00	23 3/8	34 3/8	141.00	19 1/8	27
116.00	23 1/8	34 1/8	142.00	19	26 5/8
117.00	22 15/16	33 13/16	143.00	18 7/8	26 13/16
118.00	22 3/4	33 1/2	144.00	18 5/8	27 9/16
119.00	22 5/8	33 1/4	145.00	18 1/2	27 3/8
120.00	22 1/2	31 3/4	146.00	18 3/8	27 1/4
121.00	22 5/16	31 1/2	147.00	18 1/4	27
122.00	22 1/8	31 1/4	148.00	18 1/8	26 7/8
123.00	21 15/16	31	149.00	18	26 5/8
124.00	21 3/4	30 3/4	150.00	17 7/8	26 1/2
125.00	21 9/16	30 1/2			

150-174 MHz

(All measurements are in inches.)

Freq.	A	B	Freq.	A	B
150.00	17 7/8	26 1/2	163.00	16 3/8	24 7/16
151.00	17 3/4	26 5/16	164.00	16 1/4	24 5/16
152.00	17 5/8	26 1/8	165.00	16 3/16	24 1/8
153.00	17 1/2	26	166.00	16 1/16	24
154.00	17 3/8	25 7/8	167.00	16	23 7/8
155.00	17 1/4	25 5/8	168.00	15 7/8	23 3/4
156.00	17 1/8	25 1/2	169.00	15 3/4	23 5/8
157.00	17	25 3/8	170.00	15 5/8	23 1/2
158.00	16 7/8	25 3/16	171.00	15 9/16	23 3/8
159.00	16 3/4	25	172.00	15 1/2	23 1/4
160.00	16 11/16	24 7/8	173.00	15 3/8	23 1/8
161.00	16 5/8	24 3/4	174.00	15 5/16	23
162.00	16 1/2	24 5/8			

406-420 and 450-512 MHz

(All measurements are in inches.)

Freq.	A	B	Freq.	A	B
406 to 420	7 1/4	9 3/8	490.00	5 3/4	8
450.00	6 3/8	8 5/8	500.00	5 5/8	7 7/8
460.00	6 1/8	8 1/2	510.00	5 1/2	7 3/4
470.00	6	8 3/8	512.00	5 1/2	7 5/8
480.00	5 7/8	8 1/4			

**Important:** When cutting the ground radials (Figure 2), cut the excess from the end that goes into the base plate.  
*Do not cut the excess from the tapered end.*



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