

RADIOWAVZ SATURN, FAN DIPOLE, SETUP & INSTALATION



THIS ANTENNA MAY BE INSTALED AS A HORIZONTAL DIPOLE,INVERTED “V”, OR A SLOPING DIPOE. ELEMENTS MAY BE ADJUSTED FOR OPTIMUM RESINENCE FOR EACH BAND.

SAFETY NOTICE:

**Never install this antenna close to or directly under power lines.
Never touch the radiating elements during operation, as severe radiation burns may occur.**

GENERAL INSTALLATION:

Antennas should be positioned where it will be used during adjustments, environment has an effect on the operational characteristics of the antenna, such as trees, structures, pipes,wires, and metal fences.

Try to place the transmission line at a right angle away from the antenna.

Height effects the the resonant frequency of the antenna considerably. An example would be a dipole designed for 18MHz lowered from 45ft. to 25ft. Could vary in resonance by as much as 500KHz

INSTRUCTIONS:

1. Expand each element segment. (Be careful to unfurl the antenna by pulling out the end insulator.)
2. Install the antenna where it will be easily accessible.
3. Set up the antenna with pulleys to facilitate access to radiator elements for adjustments.
4. Pull into operating position, with trans mission line attached.
5. Use a antenna analyzer or set the transmitter on low power. Find the minimum SWR for each element.
6. If the tuning on the individual elements are with in the transmitters SWR parameters. The Antenna is ready for service.
7. If the operational characteristic of any element pair exceed the transmitter SWR specifications, Then the element group can be shortened or lengthened to meet the performance characteristics of the transmitter. Elements may be SHORTENED to RAISE the fundamental frequency of the pair, LENGTHENED to LOWER the fundamental frequency for the pair.

8. Make adjustments one element pair at a time. Starting from the shortest pair to the longest. (After each adjustment check operational characteristics on the other pairs)
9. Verify that the transmission line length dose not create a conflict.
10. Most tuners are able to provide the transmitter with a suitable load without making any element adjustments.
11. In the event an excessive imbalance occurs then the elements may be adjusted into balance by following the Imbalance procedure.

VALUABLE INFORMATION: PARALLEL-WIRE TRANS. LINE LENGTHS TO AVOID

<u>LENGTH FT.</u>	<u>BAND EFFECTED</u>	<u>LENGTH FT.</u>	<u>BAND EFFECTED</u>
7'8"	10M	86'4"	10M
10'6"	15M	93'11"	40M
15'9"	20M	95'5"	15M
23'6"	10M	102'0"	10M
31'6"	40M-15M	110'7"	20M
39'3"	10M	115'6"	15M
47'5"	20M	117'9"	10M
52'6"	15M	121'0"	160M-15M
55'0"	10M	133'0"	10M
59'8"	80M	136'6"	15M
70'8"	10M	142'2"	20M
73'6"	15M	156'6"	40M
79'0"	20M		

RadioWavz CAP MARS SAR
HAM Gov.

607 Blue Cove Terrace
Lake Saint Louis, MO
63367
(636)265-0448
Fax (866) 201-0593
Sales@radiowavz.com

