Copper Cactus Dual Band Antenna - 2m/70cm

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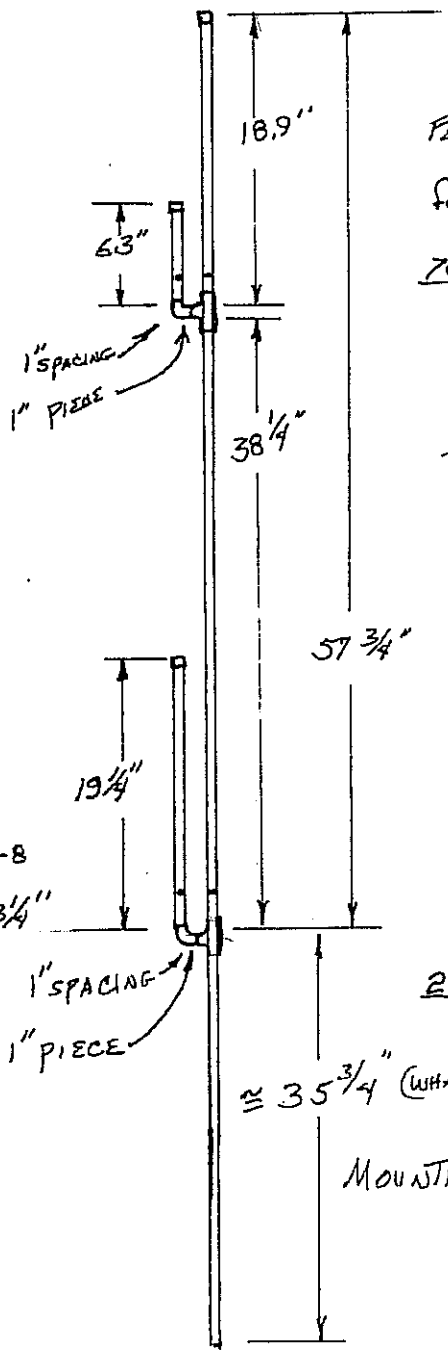

λ/2

Foam Mini-8 = 32 3/8" @ 146 MHz

" " = 10 5/8" @ 446 MHz

λ/2 RG58A/U @ 146 = 26 5/8"

λ/2 RG58A/U @ 446 = 8 3/4"

Feedline pigtail-446 = 105" of Mini-8

Feed Line pigtail-146 = 26 3/8 or 53 1/4"

Feedline Tap points adjusted for lowest VSWR

70cm Tap - ≅ 2"

Tubing Lengths - 18 3/8", 6 3/8"

38 1/4", 19 1/4"

2 ea - 1"

Left-over tubing for mount leg

2 ea 1/2" copper Tees

2 ea 1/2" copper ELs

3 ea 1/2" copper Caps

1 ea 1/2" x 10' Type M tubing

2m Tap - ≅ 2 3/8"

Notes:

1. The 70 cm J-Pole should be on opposite side from 2 meter J-Pole. The drawing is for ease of making calculations/cuts of copper pole.
2. The coax, note lengths at bottom, is connected at "dots" shown at the bottom of the J part, where dots are. Connect center conductor to the long side of the J; braid to short side.

UHF λ/4 = $\frac{468}{F\text{MHz}} \div 2 \times 12$ (for inches) $\frac{12.6"}{2} = 6.3"$ λ 3/4 = 18.9"

VHF λ/4 = $\frac{468}{F\text{MHz}} \times 12 \div 2 =$ " = 19.23" λ 3/4 = 57.75"