

KG4URL's

Crappietenna



6M - 80M Portable Vertical Antenna



Well, this is it. The complete and tested “Crappietenna”

1. 31' Fiberglass Crappie Fishing Pole (from Jackite)
2. 32' of 12ga stranded wire for the radiator.
3. 4- 8' 12ga wires for the grounds.
4. 1- 4'x1 1/4" aluminum pole.
5. 4 stakes.
6. 4:1 Voltage Balun B14VA (form Radiowavz) not a current Balun
7. 3- #4 EMT pipe clamps (Home Depot)
8. 3- #2 EMT pipe clamps (Home Depot)
9. 2- 1/4-20 stainless wing nuts
10. A tripod of your choice. (mine is from a man working road sign)
11. 100' of coax.



Ok, this is it all starts. The pole is a fiberglass pole used to fly this company's kite. In reality, this pole is nothing more than the longest crappie fishing pole made. I have seen and bought the smaller version at the flea market, but there were only 21". So if you're resourceful enough, one can find one of these poles. The company that makes this pole is WWW.Jackite.com they sell it for just under \$60.00 plus shipping. I was lucky to find an E-Bay seller that sells the exact same pole that ships direct for Jackite for \$48.00 + shipping. So in short, the pole from E-Bay cost me \$63.00 shipped. The pole comes in 3 colors, black, green & bright orange.



Ok, first thing first. If you take the bottom cap off, the pole can be disassembled. In doing so, you can get to the very most top section. What I did was striped the 32'-12ga wire about 6" or so to save space. I mixed up some 2 part epoxy and dipped the bare wire into it. Then inserting it into the top most section. With the remaining epoxy, I carefully filled the rest of the tube. Take care not to get any epoxy on the outside of the tube. Let it dry completely. If you did this correctly the wire should be right at the top metal cap. On the bottom cap I drilled a hole in the rubber part of the cap. This is the rubber plug with the plastic screw on retainer. Not the top rubber plug. Now you can put the top most section back into the pole assembly. What I have done is put a small key ring on the metal cap. This does two things, first it keep the top most section from disappearing into the rest of them, second thing is it give you something to pull on when deploying the antenna.



Here is a picture of the wire going inside of that bottom rubber cap. The #4 EMT clamps fit the crappie pole and the #2 clamps fit the support pole and the 4:1 Balun. You might notice the metal tab holding the bottom cap. That keeps the bottom cap from blowing out when you let the sections down. Sometimes the section will drop by themselves if you're not careful. The clamps came with galvanized bolts. I substituted most of them with stainless hardware. On the #2 clamps I use the galvanized carriage bolts that came with them and replaced the nuts with 1/4 - 20 stainless wing nuts.

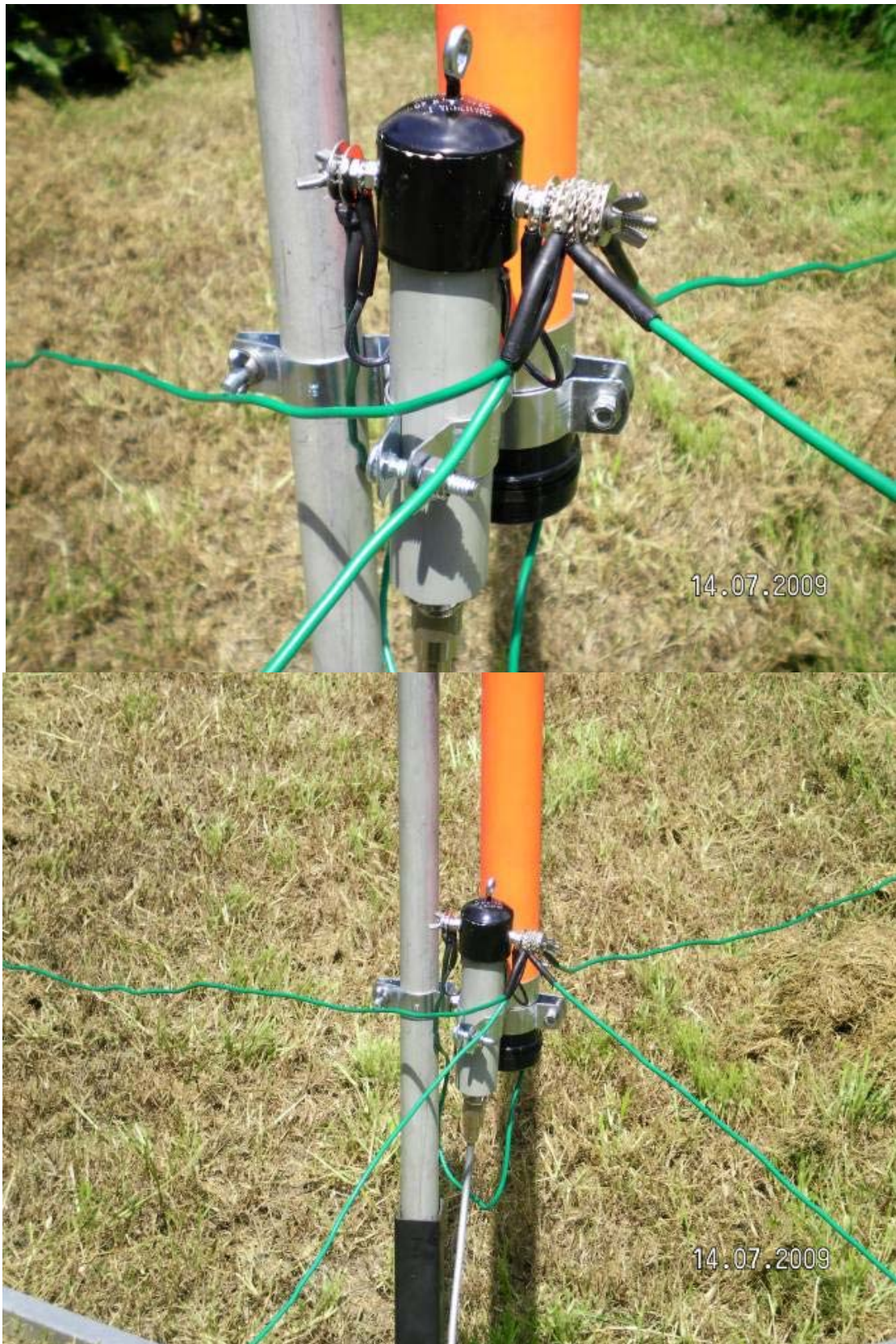






Ok, now for the good part. When I first made this antenna, it didn't work 100%. It was spotty on some of the bands. So I added a 4:1 Voltage Balun to the antenna. Wow is all I can say. Now the antennas SWR's are flat from 6 meter all the way to 80 meter. I not just saying close, but 1:1 – 1.2:1 close on all those bands. Well any ways, the balun I chose is from RadioWavz B14VA 4:1 Voltage Air Core Balun (\$25.00 at AES) just like any other dipole antenna, one side goes to the radiator and the other goes to your ground radials. How you hook it up is up to you. I use one #4 clamp on the pole attached to the #2 clamp attached to the Balun. The eye bolts that came inserted in the balun, do nothing but hold the antenna wire. The connecting wires stick out front its sides. It didn't seem to matter which wire was what.







Well here it is, mounted in its quad-pod. You can all most see the grounds. I really need to make them a different color. The antenna sets up in about 5 minutes with only one person. You can put guy wires on it if you need to. So far I haven't needed to. Total cost of this project \$94.00 that's pole, clamps and balun. The rest I all ready had. Eagle one sells it for \$107.00 shipped (no tri pod or balun) it's just so darn hard to find a 31 foot telescoping lightweight fishing pole. Eagle ones web site is www.w8afx.com



I also tried this configuration. My truck didn't seem to hurt the quad-pod any and sure kept the rig down. At this point it's all up to you.





This is my portable rig I used for testing and the creation of this antenna. The radio is an Icom IC-706MKIIG with a piggyback LDG Z100 Auto Tuner interfaced into the 706. I don't know how many watts the antenna will hold, but I run 100 watts with this rig with no problems. Unfortunately this tuner is discontinued, but LDG already has made a replacement LDG IT-100. Below is a chart that I tested the antennas SWR's

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Band	Freq / SWR'S	Freq / SWR'S	Freq / SWR'S
6m	50.100/1.1:1	52.000/1.1:1	54.000/1.1:1
10m	28.300/1.1:1	29.000/1.2:1	29.700/1.2:1
12m	24.930/1.1:1	24.960/1.1:	24.990/1.1:1
15m	21.200/1.1:1	21.325/1.2:1	21.450/1.1:1
17m	18.110/1.1:1	18.139/1.2:1	18.168/1.1:1
20m	14.150/1.2:1	14.250/1.2:1	14.350/1.1:1
40m	7.125/1.2:1	7.212/1.2:1	7.300/1.1:1
80m	3.600/1.1:1	3.800/1.1:1	4.000/1.1:1
160m	1.800/2.0:1	1.900/1.7:1	2.000/3.1:1

31' Crappie fiberglass fishing pole

32' 12ga wire

4-8' 12ga grounds

4:1 voltage balun