

Build is Better than Buy!

Radiated by "E1 Cheapo", N4ERM

THE GREAT (AND CHEAP) WINDOW.

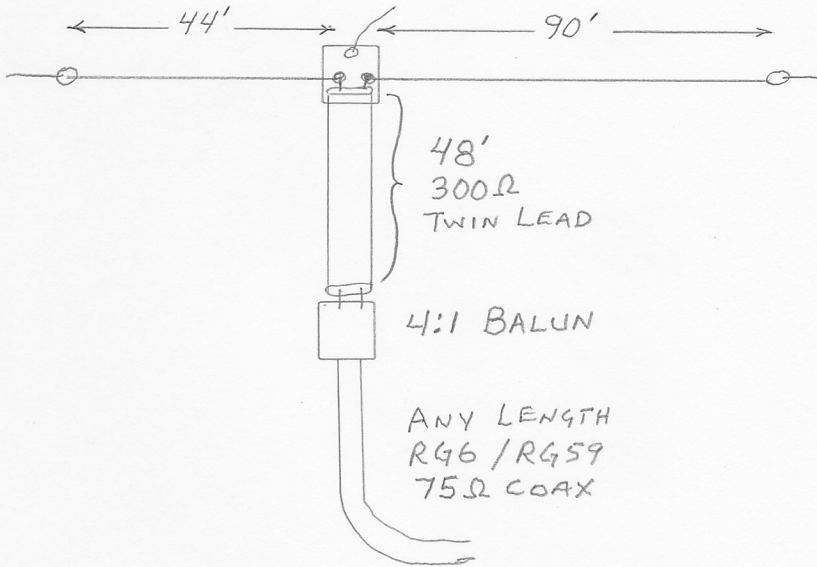
I thought that I had already written an article on the Window, but I couldn't find it in my past articles. So here it is... Perhaps for the second time!

Loren Windom, W8GZ, is credited with the doing the research into this type of off-center fed doublet and so this antenna bears his name. This particular version of the Window was written up by Robert Grove, WA4PYQ, in the Sep '80 issue of 73 Magazine. I first built the antenna in 1982 and have used the same antenna in Fayetteville, Kansas and Germany. The same antenna is currently my only antenna. In other words, this antenna has been up and down more trees than most squirrels!

I found some very special wire to build the horizontal 44 and 90 foot elements out of. Bill Kelchner, KU4W, tells me that the wire (which looks like ordinary zip cord) is actually old telephone drop cord. At any rate, if you can find some, get it. It is rubber-coated, copper-clad steel and it is tough as nails. I kept the two wires together and cut one wire a foot shorter than the other. In essence, I have a 45 and 44 foot leg, and a 91 and 90 foot leg. I thought it might help. Maybe it did. I can't tell.

I made the 4:1 balun myself (of course!) from an Amidon kit and housed it inside two PVC pipe end caps. You might want to build the balun, or buy one of the W2AU types. For the 300Ω twin lead, you can get some ladder line at the next hamfest or use some heavy duty TV twin lead like I did. I used RG-59/U but you might want to consider RG-6/U if you're going to use any power.

Here's what the antenna looks like along with some claimed and my actual SWR data. I still run tube finals in my rig and I never run more than 50% power so SWRs below 3:1 don't bother me. Those of you with solid-state rigs might want to use a tuner with the antenna.



Freq in MHz	Grove claimed SWR	N4ERM actual SWR
3.5	1.3	1.3
3.6	1.4	1.1
3.7	1.3	1.1
3.8	1.3	1.3
3.9	1.4	1.4
4.0	1.3	1.5
7.0	1.5	2.3
7.1	1.3	2.8
7.2	1.1	1.7
7.3	1.1	1.4
14.0	2.7	1.1
14.25	2.5	1.1
14.35	2.0	1.1
21.0	3.5	3.4
21.25	1.8	3.0
21.45	1.2	2.8
28.0	3.0	1.7
28.5	1.8	2.0
29.0	2.5	3.0
29.5	1.9	2.8

So there you have it. You might want to experiment with different types of wire and different lengths. Try 93 feet for the long end and 46 feet for the short and see what happens when you prune. As I've already mentioned, I cheated by having two lengths on each side. **ENJOY!**