

Building a Home Made Radial Plate for a Vertical Antenna

By Mark Hayden, N7YLA

I recently purchased a 5 band trap vertical HF antenna at a swap meet and I was anxious to get it ready for Field Day. Not knowing much about the antenna, I learned from reviews on E-Ham that using these antennas for DX requires a lot of ground radials. Checking out the manufacturer's website (Dx-Engineering) proper installation required a special radial plate to attach the many ground wires. I placed the items I needed in the website shopping cart and went to check out. I was shocked that the radial plate costs \$65 and add to that a clamp and a bulkhead connector I had run up **\$85.06 with shipping! No way!** I only paid **\$50** for the whole antenna at the swap meet!

Below: Dx-Engineering radial plate (dimensions 12" x 12" stainless steel)



Cost:

\$65.00

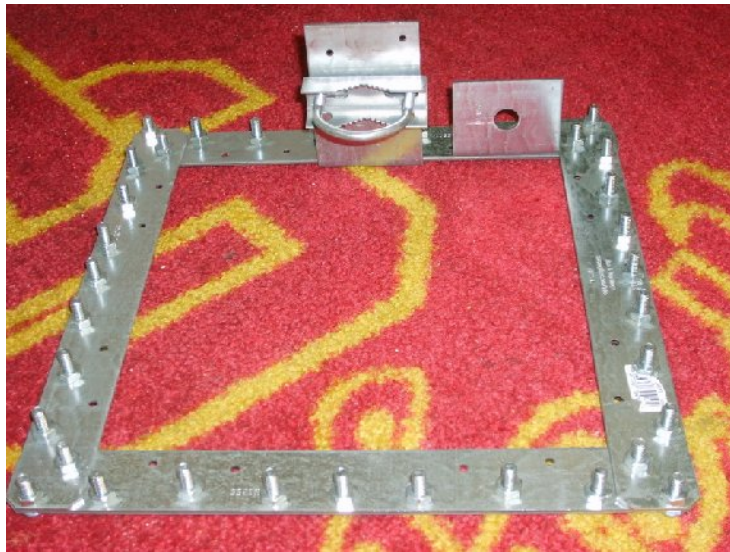
I thought that there **must** be a less expensive way to build a radial plate, so I began an Internet search. The projects I found required the use of metal working equipment which was beyond my ability. Then I thought maybe the hardware store would have some materials I could use that were more or less ready made. Turns out that the lumber department saved the day! They sell heavy duty repair strapping that comes with pre-drilled holes in various lengths. Also they sell many sizes of angle straps with pre-drilled holes too, and one heavy duty type had what looked like a hole big enough for a bulkhead coax connector! Perfect!

So what did all this cost from the hardware store? Well, four 12 inch heavy repair straps, and two 2 inch by 4 inch angles plus a box of ¼ inch by ¾ inch long bolts and nuts cost just **\$20.57!**

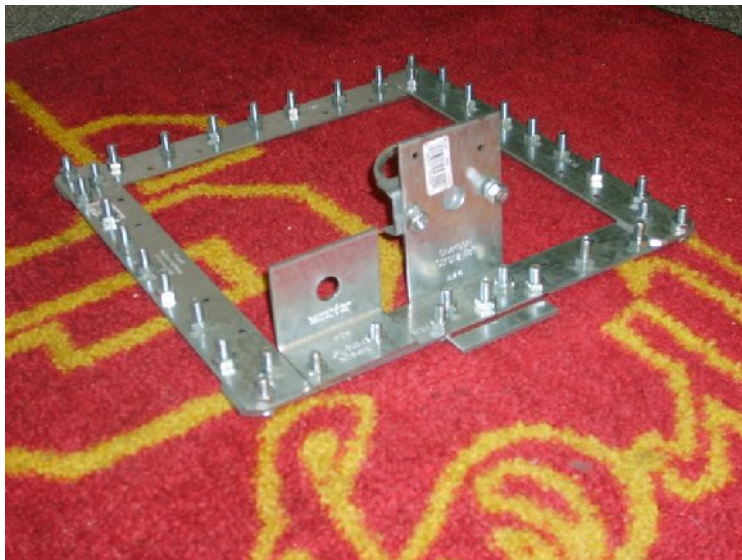
The predrilled holes had to be drilled out to $\frac{1}{4}$ inch, but other than the antenna mast bracket holes (see rear view) , no other holes were needed! I did cut the bulkhead connector bracket to fit but left the antenna bracket as is.

Below: Home Made Radial Plate (12" x 12" galvanized 3/32 inch thick steel)

Capacity is 32 radials



Notice hole for bulkhead connector was already there!



Cost:

\$20.00