

DX Engineering Radial Plate

If you have a ground-mounted vertical antenna, you can never have too many radials (at least within reason). Radials create the ground return that is essential to good vertical performance.

Bringing many wires together at a single point and ensuring a low-resistance connection to the ground side of your antenna isn't always as easy as it seems. The more radials you install, the more difficult the process can become. Thankfully, DX Engineering has provided the means to install radials and connect them to your antenna as painlessly as possible.

The Plate

The DX Engineering Radial Plate measures 12 inches square and about $\frac{1}{16}$ of an inch thick. It is made of laser-cut stainless steel and features 60 holes around the perimeter for radial connections, as well as a vertical bracket for securing the plate to the vertical antenna mast using the optional DXE-SAD-175A $1\frac{3}{4}$ inch saddle clamp and stainless U bolt. The Plate also includes a cutout for an optional SO-239 coax connector. This is a nice option for homebrew antenna designs. You could even install a threaded bulkhead connector in the cutout and use it as a kind of elegant coax "pass through."

The Plate comes with 20 $\frac{1}{4}$ -inch stainless-steel bolts, nuts and washers. You can order more from DX Engineering, but 20 are probably enough for most installations if you connect more than one radial per bolt.

Installation

I used the DX Engineering Radial Plate with my Fluidmotion SmallIR vertical antenna. Installation was straightforward—I removed the antenna from the base mast, slipped the Radial Plate over the mast, then reattached the antenna. With a little assistance from my wife, that operation required all of 30 seconds.

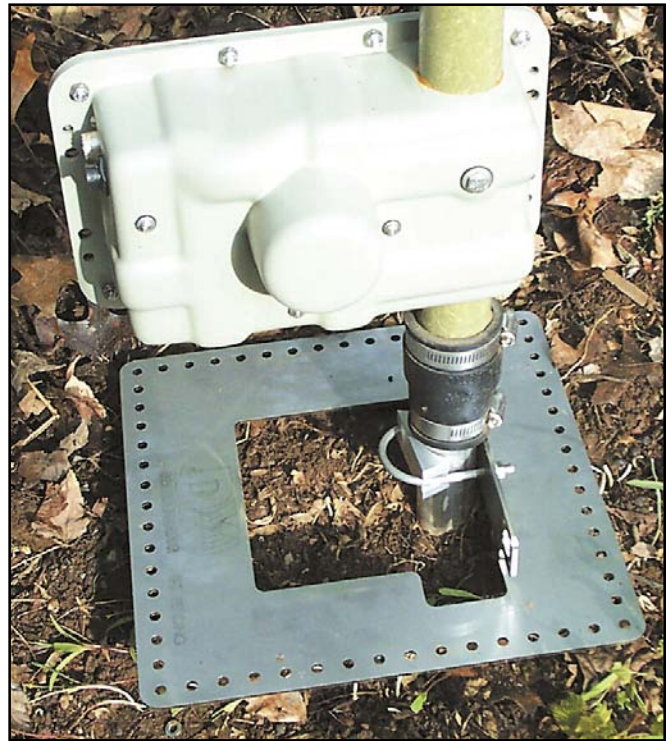
With the Radial Plate in place, I went wild with radial wires, laying them every which way across the new spring grass. I combined each set of two radials at the Plate and secured them with bolts and washers. Despite the use of locking washers, the bolts still had a tendency to turn when I tightened the nuts. I solved that annoyance by grabbing the bolt heads with ViceGrips during the tightening process.

The bolts are inserted from the underside of the Plate, so you definitely *do not* want to secure the Plate to a mast before you've finished the last radial. You need to be able to lift the Plate slightly to insert each bolt.

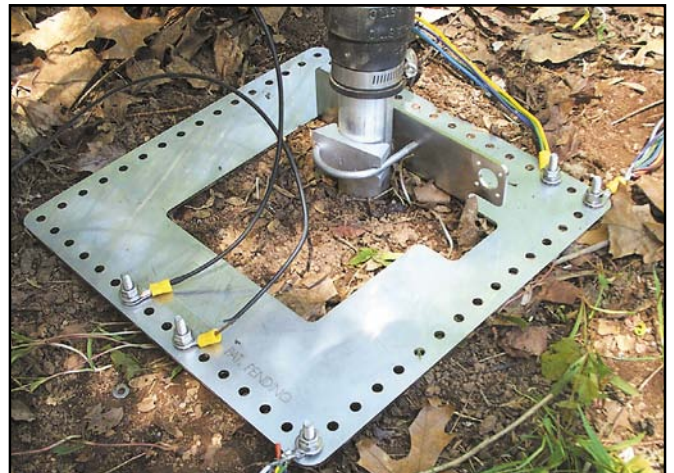
Thanks to Vise-Grips and an electric screwdriver, I was able to attach all of my 35 radial wires in less than 30 minutes by attaching several on individual bolts. There was only one more wire to attach—a short piece between one of the Plate bolts and the ground screw on my SmallIR antenna. With that accomplished, I slipped the U bolt over the base mast, threaded the nuts and tightened it onto the Plate. Done!

Conclusion

The DX Engineering Radial Plate substantially reduces the drudgery of installing a network of radials for your antenna system. The connections are both electrically and mechani-



The Plate in position at the base of the antenna, prior to attaching radials.



The finished installation.

cally secure. And, if you have spare holes remaining, it is easy to add more radials in the future.

Manufacturer: DX Engineering, PO Box 1491, Akron, OH 44309; tel (orders only, Monday-Friday 1200-2030 UTC) 800-777-0703; www.dxengineering.com. Radial Plate: \$49.95; $1\frac{3}{4}$ inch Saddle Clamp and Stainless U-bolt: \$5.83; SO-239 Chassis Mount Socket: \$4.90; Package of 20 additional nuts, bolts and washers: \$4.95.

QST