

Static Bleeder for Any Antenna

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Many antennas don't have a means of bleeding off static build-up. This includes the popular Hustler BTV-series of verticals, dipoles without transformer-type baluns, and many other antennas. While this is typically not much of a problem, I am always concerned about possibly damaging my antenna analyzer when I first connect it to an antenna. How often have we heard that an analyzer has been blown by static on the antenna? To minimize the possibility of analyzer damage, most analyzer manuals caution you to momentarily ground the antenna feed before connecting the antenna analyzer to eliminate any possible static-related failure of the analyzer. So because I am always experimenting with antennas and I have expensive AIM4170C and AA-200 analyzers, I wanted to always make sure there would be no static-related problems to worry about when measuring my antennas. So my solution is to permanently connect a high voltage, high value resistor across the feedpoint of all my antennas.

For the resistor, I use the Ohmite Maxi-Mox™ MOX-1-123004F thick-film resistor which is perfect for this application. This resistor is rated at 10KV and 3-megohms, and costs \$5.30 in unit quantities. It is readily available from www.mouser.com, Mouser part number 588- MOX-1-123004F. Normally you'll just need a single resistor, but if you run high power to a highly reactive antenna (like a 43-foot vertical on 160 meters), you might want to put 2-3 of these resistors in series. Photo A shows a single resistor ready for installation on my 20/15/10 meter dipole. Photo B shows three resistors in series, covered with liquid electrical tape, mounted at the base of my 43-foot vertical. Spend a few dollars and stop worrying about damaging your antenna analyzer.

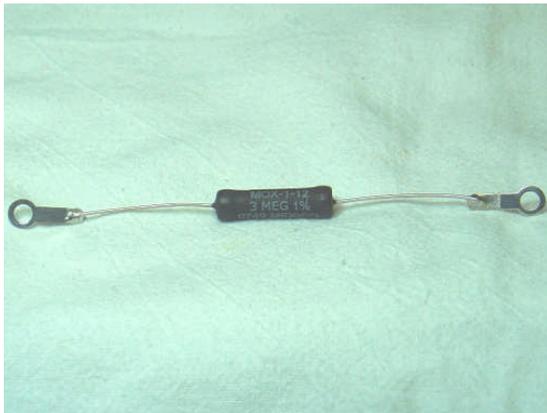


Photo A: 3MΩ ready for mounting on tri-band dipole



Photo B: 3x3MΩ in series on perf-board at base of author's 43-foot vertical