

The Radio Hotel Wire – Simply Wire

by Rick Hiller W5RH

When it comes to stringing a wire antenna, there are a few factors that you need to consider. Length of the antenna, how it is hung/supported, how and where it is fed and how much power you are going to put thru it.

Wire comes in all different flavors (see the picture).....solid, stranded, insulated, uninsulated (bare), enameled, various colors and types of insulations and size, or gauge, as they say in the electrical world. There is no “typical” for comparison. Each has a benefit and must be described on its’ own.

As a teenager Ham we used the bare, stranded, copper “antenna” wire – 7 strands. See #8. This was really springy when trying to lay it out and once you got it up it would kink and over a short period of time it would oxidize and get noisy. Now they have “relaxed” versions of this wire, which is so much better for handling.



Remember that DC resistance increases as wire gauge number gets larger (diameter gets smaller). RF resistance also increases or decreases like the DC Resistance. The “area” of the wire’s outer surface is where RF flows (skin effect) and the more “area” the less resistance.

For handling, I was really impressed with K5HM’s Alpha Delta DX-EE antenna “wire”. It was #12 insulated, solid (see #3) . A well built antenna. The wire remained stiff and was easy to deploy.

DX Engineering and The Wireman are two good places to get wire. ABR, our local coax manufacturer also has antenna wire. Your local DIY store has wire too. For example, I have used 14-1 solid house wiring (see #2) and stripped out

the 2 insulated conductors (black and white) and the uninsulated ground wire – solid copper. Not a bad haul 3 wires for the price they want. Slice the insulation right down the middle and then pull it apart.

I have some heavy, bronze antenna wire in my garage (see #1). You could run a long wire on a battleship with it. Other wires shown in the picture above: 4- #12 Aluminum; 5-#12 Enameled/Magnet wire; 6 and 7- #10 Stranded with plastic coating (non-UV); 9- #22 “Stealth” Antenna wire(15 strands of #36); 10- #16 lamp cord. My personal recommendation is to run insulated wire of the appropriate gauge. This keeps the copper nice and clean and if it is stranded, avoids noise generated between dirty adjacent wires.

If you’d like to read more on wire, go to the BVARC newsletter, November 2016 and read **The Radio Hotel** column “The Skinny on Wire”. <http://www.bvarc.org/newsletter/201611.pdf> on page 8. Also, read two Rudy Severns (N6LF) articles about wire: Google “Antenna Foil Conductors” and “HF Wire Conductors”. 73, Rick W5RH

Next Time: A Little April Fool’s Antenna Lore