How do I?

An occasional series

This week: Keeping the Magic Smoke In!

Anyone who works with electronic or electrical devices has probably heard someone say ñDonôt let the **MAGIC SMOKE** out!ò I have no clue how they package that smoke stuff, but generally speaking when someone lets it out, it is gone for good. Sometimes the smoky device does not survive the ordeal.

The amateur radio hobby has some circles that have established standardized configurations using Anderson Power Pole™ connectors to connect power supplies to DC powered transceivers and other DC powered accessories.

Groups that have adopted Powerpoles as part of their wiring standard will enjoy flexibility and ease of adding, changing, or deleting DC powered devices to and from their configurations.

West Mountain Radio http://www.westmountainradio.com/
MFJ Enterprises https://mfjenterprises.com/
Quicksilver Radio https://www.qsradio.com/
are some of the companies that market Powerpole-compatible products.

Powerpoles™ are widely used in the emergency communications community and many other groups use them as well. Several Cumberland Amateur Radio Club members use them in their own home stations and portable setups.

The common color code standard for DC wiring is that red is positive, black is negative. The Powerpole connectors are selected so that they match. The red wire gets a red Powerpole. The black wire gets a black Powerpole. Life is good (hopefully).

In the beginning it might be challenging to master the correct assembly of a Powerpole. Iôve been using a memory device to help when assembling Powerpoles. It isé RRTT which is the acronym for RED RIGHT, TONGUE TOP. The right-handedness refers to what you should see when looking into the connecting end of the Powerpole. This is the end where you will see the metal tongue. (The other end is where the wires are located.)

Hold the Red Powerpole housing in your right hand.
Orient the Red Powerpole so that the connecting end is facing you.
Orient the Red Powerpole so that the metal tongue is at the top of your view.

Hold the Black Powerpole housing in your left hand.
Orient the Black Powerpole so that the connecting end is facing you.
Orient the Black Powerpole so that the metal tongue is at the top of your view.

Locate the alignment parts on the side of each Powerpole.
You might call these a dovetail joint.
Slide the two pieces together until the two parts are aligned and secure.

This photo is oriented for the RRTT alignment I described. Other people may have learned an alignment that is rotated 180 degrees from my view. Learn either one. In the long run they end up with the parts properly aligned with the standard.

There is some additional assembly work involved in crimping connectors on the ends of your wires. Letôs save that work for some other time.

But how do you know your connectors are really wired properly? That is where the Test Buddy ™ comes in. The Test Buddy shown in the photograph at the top of this page came courtesy of a patron of the hobby (Thank you!) and is shown with its packaging. It is no bigger than your thumb.

The second photograph shows a Test Buddy being used for checking polarity in conjunction with a West Mountain Radio Rig Runner 4005 terminal block. The light is GREEN, so we are GOOD TO GO! Editorôs Note: Some people look at that photo and say ï ñThat isnôt Green.ò The photography process did not render the green color as nicely as it appears in person. Bear in mind that the only other color is Red. If the indicator light isnôt Red then it must be Green.

This Test Buddy has already made it into a GO BOX and I plan on acquiring additional Test Buddy devices so that each power supply that uses Powerpoles has a Test Buddy within easy reach and there is no chance of taking the CARC radio road show out without having one on hand.

Catch ýa on the air!