

Fall, 2002
"Product Review" by Gordon West

A COMMON POWER CONNECTION

Seasoned emergency communicators know the importance of a common 12-volt power connection. When time is of the essence, no ham operator appreciates the added pressure of rewiring a 12-volt DC plug in the middle of the night in a darkened evacuation sleeping hall.

"When it came time to switch Red Cross radio operators at the evacuation shelter, I was delighted to see the 12-volt DC Anderson PowerPole connector just waiting for the next operator," comments American Red Cross, Orange County California, communicator Julian Frost, N3JF.

We also heard the same report from ARES and RACES operators working communication rooms during the Colorado fires. Each operator would bring their own rig, and the Anderson PowerPole connector would give them a quick DC source.

The Anderson PowerPole connector incorporates highly conductive, silver-plated, copper contacts allowing minimal contact resistances at high currents. These self-wiping contacts make and break each time there is a PowerPole change-out. The contact dents keep connectors mated in high-vibration applications, and provide quick-break, snap-action on disconnecting.

A durable, high-impact-resistant, polycarbonate housing with UL94V-2 flammability ratings are available in many colors for circuit traceability and coding. For amateur radio emergency communication room applications, the common red and black housings denote positive and negative.

The actual silver-plated contacts may be soldered or crimped to wires. Both methods require a little practice to insure a proper fit for both the wires as well as the contacts that must go "snap" when they enter the polycarbonate plastic housing. Too much solder, or an improper crimp, and you won't be able to slide the contact in and hear it go "click." But get it right, and they slip in with ease and won't work themselves out accidentally.

"As our shelter became more full, so did our radio requirements. Everybody wanted a little bit of my 12 volts, and I easily solved this sharing problem with my brand new RIGrunner DC power panel," adds Frost.

The RIGrunner is manufactured by West Mountain Radio, best known for their RIGblaster products and programs. The RIGrunner comes in various sizes including 40 amps with 5 outlets, 40 amps at 8 outlets, or 40 amps at 12 outlets.

"Each outlet has its own ATC/ATO automotive-style fuse with light-emitting diode open-fuse indicators," comments Del Schier, K1UHF, product designer at West Mountain Radio.

"These fuses are color-coded in values from 1 to 40 amps, and are available at any automobile store, supermarket, or even drugstores," adds Schier, pointing out that emergency communicators are sometimes miles away from their local radio store.

Here in Orange County (California), all emergency communicators have been officially notified that the Anderson PowerPole connector should be the only type of DC plug employed for quick transceiver exchanges. Orange County RACES indicates this request is following the State of California OES recommendation.

"Any ham coming in to relieve one of our emergency radio operators can be quickly identified as a well-trained communicator by whether or not their own rig has the Anderson PowerPole connection," comments Ben Hatheway, N6FM, in Santa Cruz, California.

"Any ham coming in with just bare wires or another type of connector will quickly find his equipment incompatible with how we have set up our voltage distribution panels," adds Hatheway, pointing out the flexibility of the RIRunner intelligent DC power panel. Another great feature in each West Mountain Radio RIRunner panel is the precision light-emitting diode voltage checks, and a high-pitched audio alert of under-safe or over-voltage. When the audio alert sounds, all younger hams will immediately hear the high-pitched squeak. Older operators, like myself, or those operating with headphones, will need to keep an eye on the light-emitting diodes because we may miss the high-pitched squeak entirely. A slightly lower pitched alert would be appreciated by those of us over 60!

The light-emitting diodes are driven by a 1 percent precision comparator set to carefully chosen voltage points. This makes it much more obvious if your radio is happy than trying to read a small, little, low-resolution, meter needle. Anything below 11.5 volts, or over 15.0 volts, triggers the warning LEDs and high-pitched squeaker.

The RIRunner is available with optional READY MADE cables and adaptors, so if you are worried about crimping your own actual PowerPole connection, West Mountain Radio has everything all wired up and "plug and play."

West Mountain Radio also sells the Anderson PowerPole connectors as well as the tool for making a perfect crimp.

Three models of RIRunner are available:

Model #4012, 40 amps, 12 outlets, \$99.95

Model #4008, 40 amps, 8 outlets, \$79.95

Model #4005, 40 amps, 5 outlets, no voltage monitor, \$79.95

I have personally tested the RIRunner products, and not only do they give me a solid DC power connection, but they let me know that any radio operator coming in to relieve me with the same PowerPole connection will meet the criteria of a well-trained amateur radio emergency communicator. We can always tell by the TOOLS they are using.