

Making Right Connections is Key

Soldered electrical connections are state of the art in the electronics industry, and wire nuts secure twisted connections in every home in America, but for good reason neither are recommended by the American Boat and Yacht Council (ABYC).

Heat caused by high resistance in poorly soldered wire splices, can raise the temperature high enough to completely unsolder a connection, and the rusting steel threads in a wire nut can also cause terminal failure. These are just two of the reasons why a more rugged mechanical means of connection is the mainstay of marine wiring, and why top-quality crimp terminal ends and splices best fit that bill.

Ring-type ends are preferred due to their more positive hold, and when it comes to the crème-de-la-crème of crimp fittings, tinned copper terminals that are softer around the eye, tougher in the shank, and are covered by an adhesive-filled shrink tube top the list.

A well-made crimp starts with the selec-

tion of the right size terminal for a given wire gauge, and color coding makes the selection quick and easy {yellow (10-12) blue (14-16) red (18-22)}. Not all terminal fittings are the same, and not every job may need the high-end waterproof ring terminals mentioned above, but none of the wiring onboard a boat should use bargain-priced flimsy automotive facsimiles.

Before squeezing the crimper, make sure the stripped wire is clean and bright (or tinned), and inserted far enough into the terminal so a slight bit of conductor sticks out the end of the metal portion of the crimp.

On insulated terminals, use an elliptical pattern crimping tool (Ancor's crimper earned kudos in our 2003 test). Make sure it's sized properly for the wire and terminal you're crimping. Better quality tools tend to make more efficient junctions between the wire and metal fitting.

Tug vigorously on the finished product to test the junction. In a good connection, the wire should fail before the crimp.



Used properly, a good-quality ratchet-style crimper offers consistent crimps that resist corrosion.

