



Commercial • Industrial • Residential • Solar
Service • Construction • Troubleshooting • Repair

The Two Methods of Aluminum Wiring Repair

AMP COPALUM

Vs.

CO/ALR Switches and Receptacles with Ideal #65 Twister (Purple) Wire Nuts

AMP COPALUM

Pros:

1. Considered a permanent repair by the Consumer Products Safety Commission, Insurance Underwriters, and Fire Marshals.
2. Terminations to devices and fixtures are copper to copper.
3. Utilizes standard switches, receptacles, and wire nuts. No need to maintain stocks of high priced CO/ALR devices.
4. GFCI receptacles, dimmer switches and regular wire nuts can be used directly on the completed Copalum splice. No concerns of maintenance personal, tradesmen or tenants installing dimmers, light fixtures or replacement receptacles that re-create an unsafe situation.
5. Very low incident of failure. Failures are limited to broken wires due to poor installation, as opposed to overheating and burning.
6. All personnel factory trained and certified in proper installation of the system. This is an AMP requirement.
7. Lower overall lifetime cost, due to use of standard materials for replacement and no additional maintenance requirements.

Cons:

1. Limited number of certified contractors for complete bidding.
2. Higher material cost for original installation.
3. Higher skilled labor requirements for original installation

CO/ALR Devices and Ideal #65 Twister (Purple) Wire Nuts

Pros:

1. Less expensive due to lower cost materials, faster installation, and ability to use unskilled labor.
2. Available to any electrician and the wire nuts are even at big box hardware retailers.

CO/ALR Devices and Ideal #65 Twister (Purple) Wire Nuts

Cons:

1. Considered a temporary repair method by the Consumer Products Safety Commission and many Insurance Underwriters.
2. The purple wire nut has an unacceptable failure rate, even when installed under laboratory conditions.
3. Poorly trained, low cost labor can easily take shortcuts during installation, leading to high failure rate. When this occurs, this method of repair actually creates an increased risk of fire over leaving the aluminum un-corrected.
4. CO/ALR device manufactures recommend annually removing switches and receptacles from the wall and testing the terminals for tightness. Failure to perform this maintenance violates manufacturer's instructions reducing manufacturer's liability while increasing owner's liability and risk of fire.
5. GFCI receptacles and dimmer switches are not available in CO/ALR. Use of these requires multiple pigtails.
6. Inventories of high priced CO/ALR switches, receptacles and wire nuts must be maintained. These cost 3 to 4 times more than standard devices. Many hardware stores and big box retailers do not carry CO/ALR.
7. Management must remain vigilant to prevent maintenance personal and tradesmen from using standard devices and wire nuts. Failure to do so will re-create the same level of risk in a short time.
8. If tenants install their own dimmers or light fixtures, they are likely to join aluminum to copper using non rated methods, re-creating the original risk.
9. Lifetime costs are significantly higher due to replacement cost of devices and maintenance requirements.