

I just have a perspective about this topic that not every ham has. Most hams' perspectives are limited to their own experience and perhaps a small circle of other hams they know. When they come upon, or hear of a solution that works, it's considered a done deal. My perspective comes from when I worked in the 2-way radio business for a number of years. When you install thousands of radios and antennas, you quickly learn what works, what lasts, and what doesn't. Even subtle differences in how or where something is routed, mounted or connected can affect reliability and performance. Because there isn't much money in the install business, you can't afford to have units come back due to installation related issues. I have seen the cause and effect of just about every mobile radio problem possible. Mag mounts scratch paint. They put 'smiles' in the panel from tilting them to get them off. Metal filings (from brakes?) get stuck to the magnet during travel, compounding the scratching problem, then when water from rain or dew wicks under the magnet, the filings rust and stain the paint. The coax rubs on the paint from wind turbulence, scratching it into a haze. The door/window seal becomes distorted where the coax enters the vehicle causing wind noise, and during rain the water will run down the coax into the vehicle. The coax becomes pinched at this point and eventually fails. Mag mounts are great for *temporary* operation, say a rental car or to put an extra antenna on during a trip or whatever. I keep a couple in my go-kit for ARES deployments, they're handy to have. But I would never have one on a car on a permanent or semi-permanent basis.

Trunk lip mounts are a little better, but I still don't like them. The setscrews pierce the paint inviting corrosion unless you take pains to minimize that. Depending on the edge it's fastened to and the size of the antenna, there is a potential for the mount to stress the metal and crease it. There is still the coax and trunk/door seal crush/deform/leak issues. A minor nit is at the edge of a door/trunk lid it's usually not the best place to put an antenna performance-wise.

Many people shudder at the thought of a 3/4" hole in the roof or trunk of their vehicles. Probably because it's the 2nd most expensive item they've ever purchased in their lives and think of the hole as irreparable damage, rather than the enhancement it really is. The largest damage you incur to any vehicle is driving it off the dealer's lot, which amounts to thousands in depreciation. At trade-in/sale time, there isn't a dealer in the country that will deduct for an antenna hole. People drill holes in their cars for all sorts of things, from cell phone and satellite radio antennas to accessory lights, mirrors and trim/ground effect kits. A permanently mounted antenna works best, won't rust and won't cause peripheral damage. About the only time I wouldn't advocate it is on antique or collector cars, but that's not what most of us drive. So why not make your daily driver a good place to operate your radio from too. All of these temporary mounts are false economy because they're not as long-lived and cost more than permanent mounts. When I put an NMO mount on a car, it's there and working until the last day I own the car. I just leave the mount behind and buy new ones for the next car. It's not often in life the cheapest solution is the best, but this is one of them. There are tools and techniques that make this task simple, and if you don't feel like acquiring them it's worth the \$50 or whatever to have a professional install shop do it for you. I've seen enough buggered up vehicles caused by temporary mounts to have come to these conclusions. Just trying to pass this info on to the next generation of hams to save them learning this the hard way.

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