

Hot Tips

Good info for the new ham, and old stuff to refresh your memory



Dust on your equipment

Not long ago, a local ham asked for help to figure out why her radio signal doesn't get good reports anymore. Turns out, her coax connector that plugs into her radio was coated in dust, so once we cleaned off both connectors, she was back in business. Seems that she and her husband had recently installed some cabinetry in the room where her coax laid disconnected, allowing the drywall mud dust to settle on everything in the small space.

Dust is a common nuisance that typically doesn't require constant attention, so its presence is often overlooked, sometimes leading to less-than-favorable effects on your equipment. We lead busy lives, and playing with our radio equipment is not likely something we do daily, so an undesirable layer of dust tends to make its home on our expensive gear as a result. Often, that dusty layer is only an eyesore, and gives your equipment a slightly vintage appearance, but that same dust can also damage your equipment.

So, where does all this dust come from? Our earthly air is normally dusty, unless we live in an expensively controlled environment, like a clean room. Dust contains soil, fine hairs, spores, clothing fibers, pollen, dead insect remnants, bacteria, and other undesirable contaminants. Some dust particles are visible, but much is so fine that only a microscope can detect its composition.

Probably the most common problem with collecting dust is its effects on radio displays. You can easily wipe the dust collected on your display, so that you can see your little screen once again, but that actually causes another problem. As you wipe the dust off a display, you might not realize just how abrasive the dust is, and indiscriminately scratch your display with each wipe, eventually rendering the soft plastic (or even glass!) face to become



increasingly unreadable. To more gently remove dust from a display, use a slightly damp cotton cloth. Not a tissue, not a paper towel, and certainly not your finger.

Dust can harm your radio equipment by collecting on air vent or fan openings, preventing proper ventilation, leading to premature equipment failure by overheating. Instead of wiping or dismantling your fan or vent openings, try vacuuming out the dust.

Finally, dust is typically non-conductive, and when deposited between contacts, can create partially open connections, like in the above example. However, dust can also contain metallic or partially conductive materials. When deposited across components, it can actually create a mild short, which can route too much electrical current into the wrong path, possibly resulting in component failure or even a fire.

So, does all this mean you need to keep your equipment perfectly dust-free? Of course not, but it might be wise to occasionally check for excessive dust on surfaces whose appearance or operation might be affected, then clean them appropriately. It might not hurt to keep your radio gear in a dust-free container or under a dust cover.