



DON'T DO THAT:

Alcohol, not a better way to clean:

By: Gary A. Minker

If you are in the Broadcast Engineering business as an employee or contracting member of the Gainfully Self Unemployed, you are probably over the age of majority and are not too crazy about folks shaking their finger at you bellowing, Don't Do That!!

Get over it. It is these well meaning folks that are either trying to save you from killing yourself, your apprentice, or the station cat, and in this well meaning insubordination, you ought to listen to what they have to say and not just write it off as their childish folly. Those older, and some younger, may have been to the goat roping that you missed and in this series of articles, I will be that thorn in your side and welcome your thoughts by Email or voice toward the same content.

Flash, beedeep beedeep beedeep, in case you have not noticed, it is not 1922 and the radio business is not new, nor is dirt. Dirt in it's pure form has been hanging around since before the dinosaurs and in the modern world of electronics today, dirt takes many forms. You have dust bunnies, red silt, black silt, sooty carbon and an entire Britannica of types of filth that can ruin your day. Dirt is not innocuous. Dirt IS insidious and for an inanimate object that relies on the wind or static coronal attraction to get around, it is the most problematic substance we have to deal with.

The problems (s) with dirt is how to control it, manage it, and remove it. I will mention a number of commonly available brand names here but I take no license to any of them and they are protected by their individual rights.

Enter the 1920 mentality:

I learned to do this in exactly this way and since it was good for Marconi, I guess it is good enough for me! There is bad news for you. The simple fact is that because it is not 1920 something,, there are a host of new chemicals that can help you have a better day and potentially avoid any bad days because of dirt.

Cleaning:

The host of cleaning trips and tricks run the gamut depending on your circumstance. Dirt in the generic form can range from finger mung to greasy substances to carbon related trash. These three categories pretty much cover this plight. If it is simple crud and mung, general cleaners like Windex or Simple Green are just the ticket. Grease and other slime can be taken care of with general cleaners but sometimes require a more aggressive solution, and after the use of any aggressive solution, a final cleaning with a more neutral cleaner like Windex is 'sometimes' appropriate.

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Carbon related silts, soot, and electrostatically attracted filth point to the use of what I generically call “Nasty Chemical”. This is where the typical Engineer type reverts back to his childhood teachings and whips out the alcohol by the gallon and soaks a rag with it and rubs his fingers raw. The amazing part is that even with 20/373 vision, corrected or not, the dirt is still where you first encountered it. Oddly enough if the alcohol had any effect on the target dirt, a smearing action may have been observed and mistaken for a cleaner surface but a quick check of the rag will confirm that most of the crud is right where you left it, and the rag while now a fire hazard is largely unsoiled.

Trainable:

Go ahead and name at least one thing that alcohol is a solvent for..... I’m waiting....ok, shellac, and only when it is still liquid. The trick is to learn a new trick. Use the right chemical for the right job. This is frighteningly similar to use the right tool for the right job, and this has worked well for craftsmen for centuries.

The Trick (Nasty Chemical):

We can all admit that anything with a Materials Safety Data Sheet (MSDS) is likely to be nasty. It can also be said that anything with the chemicals listed below is also likely to be nasty.

COMPONENT	CAS NUMBER	% by Wt.
Tetrachloroethylene (PERC)	127-18-4	55 – 99
Petroleum Distillates	8052-41-3 / 64742-47-8	1 – 30
Trichloroethylene	79-01-6	0 – 20
Carbon Dioxide	124-38-9	< 5

So let’s define nasty. This stuff is toxic, removes all moisture from your skin, is readily absorbed in to the skin, melts most plastics, smells very bad, is an inhalation hazard and

REMOVES GRIME, CARBON AND SOOT

from virtually any surface, and sucks the crud in to the rag or towel that you are using. Try that with alcohol. Instead of just pushing the dirt around like sand in a glass of water, this stuff really does the job. Some of us will remember a once common product called MEK. Methyl-Ethyl-Ketone was one of the nastiest cleaning chemicals ever produced and was all but removed from the market place. It has cleverly been replace with a product called Brake Cleaner. It is a generic product and can be found in every automotive supply shop, and is one of the daily use items much like lubricants and the air hose. It is available with and without chlorines for the copper contaminating purist.

Safety First:

Just like any dangerous tool, you must observe cautions when playing around with this stuff. Please remember, the fact that this is a Nasty Chemical is paramount to the accidental fact that it also removes and manages dirt. Beyond all things, this is a toxic chemical that is readily absorbed in to the skin while evaporating all of the moisture in your skin. It is an inhalation hazard and above all, it is flammable. Beyond the fact that is a fantastical cleaner, the can is under extreme pressure, you must not get it in to your eyes. On the good side, it is 100 percent volatile.

This means that it leaves no, none, zero residue behind that is detrimental to electrical or R.F. conductivity. Brake Cleaner will totally evaporate almost as fast as Freon from days gone by. This wonder chemical unlike our olde favorite alcohol does not leave behind droplets of water or take two years to evaporate after you put your line back together and create an explosive atmosphere inside where the first bullet joint arc will cause an eye opening boom.

Use Tips:

Just like hints from Heloise, do not (usually) spray any object directly so as to avoid splattering dirt, and allowing capillary action of the newly loosened dirt in to cracks and crevices where only a flow of more cleaner will ever hope to get it out. (this means you should only spray the rag) This cleaner is extremely aggressive on most plastics and use on plastics should be avoided. This stuff is the best thing since the Steam Jenny for getting slime and carbon soot off of cavity walls, Teflon insulators and porcelain surfaces. Keep in mind that it is easily absorbed in to ANY porous surface like cracked porcelain or any type of clamped or mated parts so capillary action can work against you when cleaning but,,, if you are looking for a carbon path, clean something with this stuff and turn on the high voltage. Be sure you have your ear muffs and flash clothing on because the bang will come up quickly.

Whether it is a cool new tool or a new chemical, use it safely and enjoy your cleaner world.

