

Cleaning Probes

Customers often ask about Smiths procedures for cleaning probes. Debris and Flux are the main culprits. Smiths' offers several "self-cleaning" probe tip styles whose geometry allows fluxes to be pushed out of the way to let the probe tip do the job, but often these features are not enough.

Cleaning probes is a bit trickier than it might seem:

- When cleaning in a solvent tank or ultrasonic cleaner, the debris or fluxes that have accumulated on the probe tip will thin and probably wash down into the probe potentially causing some contact resistance spikes. We do NOT recommend immersion cleaning for this reason.
- Further, some of our springs are music wire (spring types are noted on our website at each probe page). Even though they are plated or silver-coated, any worn spot can rust from contact with alcohol. Worn spots are likely with used probes, and solvents or alcohol are not advised.
- Lastly, getting the probe fully dry is very difficult, even with a heated dryer. Particularly between and inside the spring coils, the liquid (now mixed with diluted flux or debris) has no place to go. This is particularly bad for music wire springs, but also will lead to high contact resistance.

We recommend a stiff, non-metallic brush to clean the tips, but that should be done away from the test fixture with the probe tip facing down to brush the debris away from the open barrel. If flux is the culprit, cleaning the intricate probe tip geometries is a difficult task, but can be done with simple tip geometries like a full radius or simple point. Alcohol or solvents will NOT damage well-plated surfaces. However, if the debris is dust-like and free of fluxes, using a brush can be relatively effective.

Cleaning probes to extend life often boils down to cost effectiveness and weighing test sensitivity against the cost of probe replacement or the effort of cleaning probes.

Contact us thru www.smithsinterconnect.com for questions and help.

All of our catalogued Board Test Products are available at:

www.mouser.com

www.alliedelc.com

www.cortektestsolutions.com

Regards,

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