

Cleaning the tips of the Probes with Contact Cleaning Mats

With the increasing automation of PC-Board manufacturing the washing of PC-Boards before In-Circuit and Functional Test is normally done without. This economic advantage leads, however, to problems in regard to the contacting reliability. The Test Probe must penetrate the flux resin rests and oxide layers to achieve a good electrical contact. With increasing usage more and more rest contaminants stick to the tips of the Probes. After a while, these contaminants can lead to contacting problems.

The cleaning of probe tips is a simple possibility to extend the period of usage of the Probes. However, even regular cleaning cannot extend the life cycle of the Probes endless. INGUN recommends cleaning the tips of the Probes using Contact Cleaning Mats and Cleaning Brushes (see page 2).

Cleaning the tips of the Probes with Contact Cleaning Mats

Instead of the PC-Board a Cleaning Mat is placed on the Test Fixture. The Cleaning Mat is cut to the approx. size of the PC-Board. When the Fixture is activated, then the tips of the Probes are pressed into the Cleaning Mat. The special composition of the Cleaning Mat leads to the cleaning of the tips of the probes. Depending on the grade of contamination, then either the red or the blue side of the Cleaning Mat is used. The blue side is for light and medium levels of contamination and the red side for medium and badly contaminated Probe tips.

Usage:

It is recommended that badly contaminated Test Probes be cleaned daily before commencing production. For lighter cases of contamination it is perhaps sufficient to apply this method weekly.

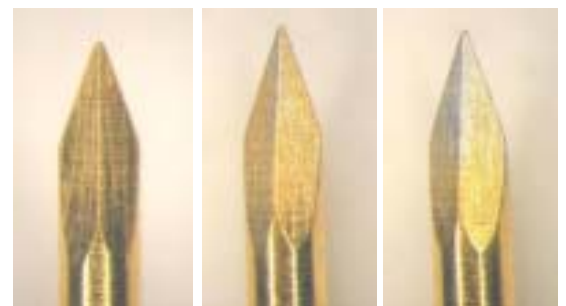
Application Area:

This cleaning method is recommend especially for those tip-styles with self-cleaning characteristics, i.e. tip-styles 01 (30° tip angle), 09 /flexi-needle), 15 (15° tip angle), 31 (needle), 77, 91, 97 and 98 (all dagger variants), 93 (tri-needle). Only these tip-styles offer the possibility that the contamination is pushed away from the tips. Contact Cleaning Mats are usable on all INGUN Test Fixtures (except those customized with pressure frames) and are available in various sizes. Sizes and unit prices are available on request.



Cleaning Mat

Probe tips after various cleaning stages using a Cleaning Mat (blue side):



after cleaning 2 x

after 6 x

after 12 x

Product Information

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Cleaning the Tips of the Probes with Cleaning Brushes

Lightly contaminated probe tips as well those tip-styles, which don't allow the usage of a Cleaning Mat, can be cleaned with common soft synthetic or fibreglass brushes.

This cleaning method, however, demands greatest care when applied. High side-loading forces can lead to irreparable deformation and damage of the probes. The contamination particles set free must be vacuumed off after cleaning, because otherwise these can also lead to contacting problems.



Please note:

Also high-quality materials suffer with wear when put under mechanical use. Even the cleaning of Test Probes leaves traces of wear on the probe tips (see pictures on page 1).

After a while it can lead to, e.g. scuffing of the plating materials or to rounding off of the probe tips.

As soon as a Test Probe is strongly mechanically worn, then even the most efficient cleaning methods won't help any more. Then the only true help is to replace the Probe!

Example: Fibreglass brushes from company
RS Components GmbH
 Hessenring 13b
 D-64546 Mörfelden-Walldorf
 Tel. +49 (0) 6105 / 401-0
 www.rsonline.de
 Order Nr. 514-868