

Calibration Statement for Erska Soldering Stations

Calibration of Soldering Stations (adjustment of tip temperature)

Why the tip temperature of a soldering station should be controlled and eventually calibrated from time to time?

Soldering station, soldering iron and heating element together with soldering tip are a technical system. They are subject to normal reactions, changing the temperature measurement characteristics of the system.

These reactions and changes are basically caused by the aging and lead to non-reversible chemical, thermal and mechanical processes.

All technical systems are subject to these correlations which raises the necessity to verify and - if required - to justify and to adjust the system with measurement equipment which is referenced to natural constants. Erska soldering stations are calibrated before leaving the factory, but the technical system is underlying the above mentioned effects, too.

The instrument used to adjust the tip temperature at the soldering station should be calibrated by a certified institution and documented by a certificate. For Erska soldering stations such certificate is not needed.

How often has the tip temperature of a soldering station to be adjusted?

The frequency of calibration (adjustment) is depending on the requirements of the user. The higher the demands on accuracy of the station, the more often the correctness of the technical system should be checked and adjusted.

For applications with extremely temperature sensitive components it could be necessary to check daily if the temperature measurement is still accurate. For soldering of less critical components it is sufficient to check the system when one of the parts of the system is changed (i.e. changing of soldering tip or heating element). Some applications may not need any calibration as the temperature tolerance window is wide enough. In the most ISO certified companies a monthly or yearly frequency of calibration is documented.

Advantages of i-CON soldering stations

i-CON soldering stations can be locked with a password. Very often unauthorized and unwanted changes of the settings are responsible for inaccurate measurement results or "changing temperatures".

By using the possibility of setting an energy level ("low", "medium" or "high") the i-CON soldering station can stay within an acceptable temperature window. The use of energy level "low" guarantees nearly zero-overshoot. The powerful and direct heating system of i-CON guarantees a very quick and accurate heat recovery reducing the danger of cold solder joints.

Benefits from calibration

Compared to other soldering stations the Erska i-CON stations can be adjusted. It is not a must but if required the calibration process will improve the soldering quality significantly.

Erska GmbH, July 2017

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