

## TECHNICAL NOTE

### SUGGESTED TIP CARE PROCEDURE

#### INTRODUCTION

With the introduction of lead free soldering applications, the melting temperature of solder has increased from 190C to 220C or more. The increase in solder melting temperature has caused important changes in the industry.

From a consumer perspective, lead-free products are now safer for the people who work with them and better for the environment (disposal of lead products into landfills).

However from a production standpoint, the higher melting temperature means soldering irons must deliver more thermal energy to the joints. This has caused the soldering temperature to increase and has increased the need for proper tip care even more.

Higher melting temperature means:

- 1) The need for higher thermal performance of soldering irons
- 2) Shorter tip life due to the increased temperature
- 2) Faster oxidation of tips due to the increased temperature

Meanwhile, soldering irons companies are increasing tip plating and power delivery in order to achieve the following:

- 1) Higher thermal performance for soldering applications (Applications required)
- 2) Longer tip life for tips (Cost of ownership concern)

#### TIP CARE KEY POINTS

- 1) When not using the soldering iron, always turn the power supply off.

Accessories such as the sleep workstand will help save tip life, but turning off the power supply will extend tip life even more.

- 2) Do not use a over-soaked sponge.

Over-soaked sponges will create thermal shock for the iron plating on a hot tip. (e.g. running cold water over hot glass will crack the glass).

- 3) Do not use pliers to change tips, always use a tip removal pad.

Pliers will deform, damage the tip

- 4) Make sure the solder tip is tinned with solder at all times

Solder will help protect the iron plating of the tip from oxidation. A properly tinned tip will experience minimal issues with oxidation, burnt tips that do not take solder.

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The solder tip needs to be cleaned and tinned whenever the soldering iron is not used. Easybraid Curie heat Technology soldering irons have very fast thermal response, as a result we suggest the following procedures:

##### Procedure No. 1: Tin the tip before putting it into storage

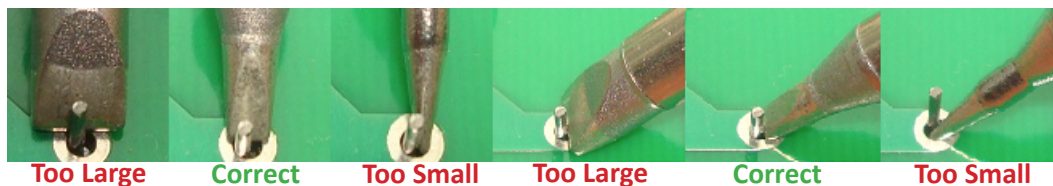
- 1) Turn off power supply
- 2) Clean tip with Brass curls
- 3) Tin tip with solder
- 4) Put the handpiece back into the workstand

##### NOTE:

It is recommended to turn the power supply off before cleaning the tip for storage. This will reduce the oxidation while you perform maintenance of the tip with brass curls.

##### Procedure No. 2: Always keep the tip tinned when in use

- 1) Select right size tip geometry for the joints being soldered, you want to select the largest tip that can solder the job properly.



- 2) Do not apply too much force on the tip during soldering
- 3) Use Brass Curls to clean the tip, this is better than a water soaked sponge
- 4) Use Brass Brush for tough oxidation build up, whenever Brass curls may have difficulty in removing the oxidation off the tip surface.
- 5) Use Tip tinner - Easybraid tips have more plating on the working end of the tip, the extra plating allows customers to use tip tinner (EB-TC-2) to restore tip life.

##### NOTE:

Corrosion: When iron plating is exposed to water and oxygen, it corrodes.

Oxidation: A chemical process that is caused by the interaction between oxygen and other elements which come from all kinds of fluxes, water, etc.

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The following are demonstration videos:

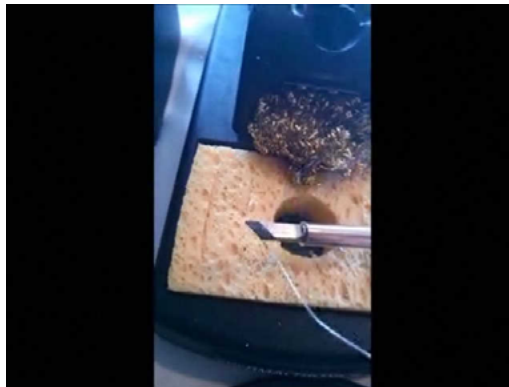
- 1) How to recover a heavily oxidized tip cartridge by using tip tinner

[click video below to play](#)



- 2) How to recover a oxidized tip cartridges by using Brass curls

[click video below to play](#)



- 3) Do not use an over-soaked sponge

[click video below to play](#)



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