

Ten Tips to Increase the Life of Your Soldering Tips

Health and environmental benefits accompanied the introduction of lead-free solder, however so did some challenges. One of the biggest challenges--the melting point of lead-free solder, when compared to leaded solder is 30° higher and oxidization of the tip happens four to five times faster than when using leaded solder. Higher the heat, the more tip erosion.

Technicians have transitioned from leaded to lead-free solder and with time have learned the ins-and-outs of lead-free soldering including several useful benefits. Understanding the characteristics of lead-free solder and adopting some simple tip maintenance habits can help prevent iron tips from oxidizing and help tips last longer.

Tips

1. Keep the [temperature](#) as low as possible. Find out the tip temperature by [testing](#).
2. Turn off you soldering iron when possible.
3. Apply new solder, i.e., tin the tip at the end of each solder job.
4. Clean your solder tip with a wire-type cleaner such as [HAKKO's](#) solder tip cleaning wire sponge.
5. Remove any oxide with a paste or if needed with a tip polisher. If you use the tip polisher, be sure to reapply the [paste](#).
6. Choose the largest possible tip for the application. Larger tips provide better heat transfer.
7. Choose the right solder alloy and flux to reduce wear.
8. Use a soldering iron [heat controller](#) to automatically reduce temperature when not in use and extend tip life.
9. Clean your tip often, but not constantly.
10. Refrain from using excessive pressure when soldering.