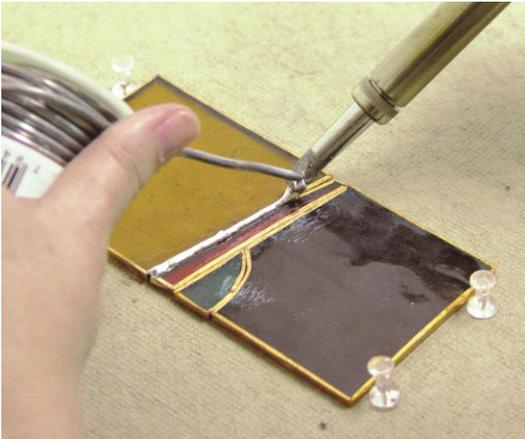


HELP! My Soldering Iron Isn't Getting Hot!

Not to worry, we are here to help. You might be surprised to know your soldering iron may not be the culprit...



believe it or not, the thief stealing all of your soldering iron's heat may not be the iron's heating element at all but the tip!

The number one reason soldering iron tips fail is oxidation! Oxidation occurs when metal is over-exposed to heat and oxygen, creating a layer of build-up or rust. This layer blocks the heat transferring from the element to the tip and eventually to the solder.

So how do you prevent or manage oxidation?

If your tip has minimal build-up or you are starting with a new tip, use the following suggestions to restore the tip and prevent future oxidation.

- Always clean the soldering iron tip after soldering. It doesn't matter if you are done for the week, day or just taking a two minute break, wipe the tip across a damp sponge and return it to its stand. Use caution, excess wiping will cause the metal tip to fatigue from the repeated contracting and expanding of the metal.
- To maintain a clean, shiny tip, when you are finished soldering, flood the entire tip with solder to coat and protect.
- If you have a rheostat, turn it down to the lowest setting or idle to avoid over-heating.
- If you do not use your soldering iron on a regular basis, consider storing it (when cool) in an airtight container to protect it from humidity and corrosion.



An oxidized tip can appear red or black like the tip in the middle and right. The tip on the left is clean.

If your tip has become oxidized and isn't coming clean by using a dampened sponge, a tinning block or brass brush may be needed.

- A "tinning block" (sal-ammoniac) is used by placing a small amount of flux on the block and rubbing the tip of your hot iron on the surface. Once the tip has been cleaned, re-tin it by flooding it with solder to protect it from further oxidation.
- In lieu of a sal-ammoniac block, you can use a soft brass bristle brush to clean your tip. Wipe the tip with a damp sponge to remove debris (see above). If your tip is very dirty, you may need to repeat this several times. Once the tip has been cleaned, re-tin it by flooding it with solder to protect it from further oxidation.

How is corrosion caused and how do I prevent it?

Corrosion occurs due to the wearing-down of the metal in the tip. This happens due to metal fatigue, trying to clean your tip by dipping it into flux (which is highly corrosive) or trying to clean your tip with abrasive materials such as sandpaper will all cause corrosion. Unfortunately, if your tip is corroded the only solution is to replace it with a new one.