Weller WSD51 Repair

1 Overview

I purchased a Weller WSD51 from Newark, and after about 8-9 months, it started displaying a temperature from 888-902 on its screen. It would not heat up. I contacted Newark whom said to contact weller. I contacted Weller via phone on the Apex tools webpage (I tried the web contact form on the weller site but never received a response)[1] The secretary was kind and sent me a UPS shipping label since the device was under warranty. I shipped the iron, with all original items, and a receipt from Newark in the box, and waited for the response.

2 Work Log

Before shipping, I read online (Guido, creator of Arduino ENC28J60 TCP/IP library and gnulinux user) that an 888 flashing error was solvable by adding another capacitor to the inside of the board. I tried this without success. In retrospect, his error was different than mine. I didn't have flashing, and my temperature changed between 888 and 902. I also checked the resistance on the iron and didn't get the values I expected, but didn't pursue further. It's under warranty they should fix it.

[1]EDIT: Eventually I did receive a response, but it was faster to call in.

Figure 1: The board is a large power transistor with a Pic to control it. Here I added a capacitor per some online guides, but no dice. It turned out to be a failed iron.

3 Conclusion

Weller has replaced and repaired the iron. I'm out of Warranty as of Dec. so I will avoid twirling the Iron like I used to when changing tips (spinning it to unscrew). I'm not sure if this is the cause, but just to be safe.

The temperature sensor on the end of irons is just a wire, and susceptible to breaking if not handled carefully. You can see it when changing tips.

They did end up getting back to me per my email, though took a few weeks. Contact by phone was faster. By the time they emailed me, they were able to confirm it was being sent to me via post.

It's a new iron, but I haven't checked to see if they replaced the base model. The small tip on the iron seems to move more than before (slight movement when pressing onto components, which I don't recall from before), I wonder if these were reject models. Anyhow, I've recently learned how to do SMD soldering with a toaster, so I don't see much of a need for the small tip, as it were. A new tip may also fix this.

Overall, pleased but if the iron breaks again...

One other note, When you are changing tips, you can see that there is a wire at the end of the iron. This wire is likely to be fragile when hot, so changing tips should not be done until the iron has cooled a reasonable amount. If you accidentally hit the wire enough, you could likely bend or break it...