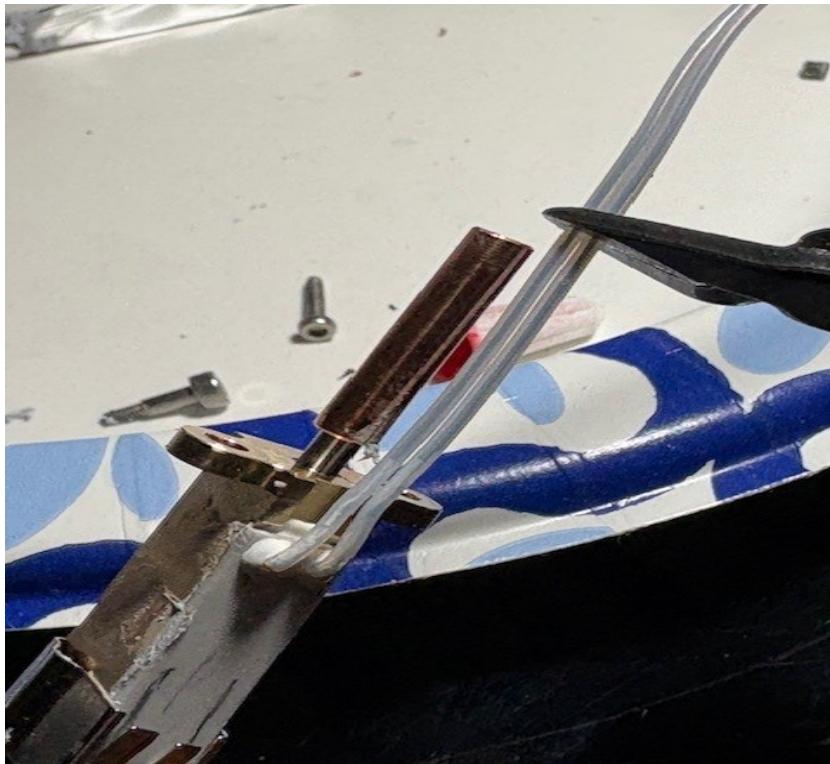


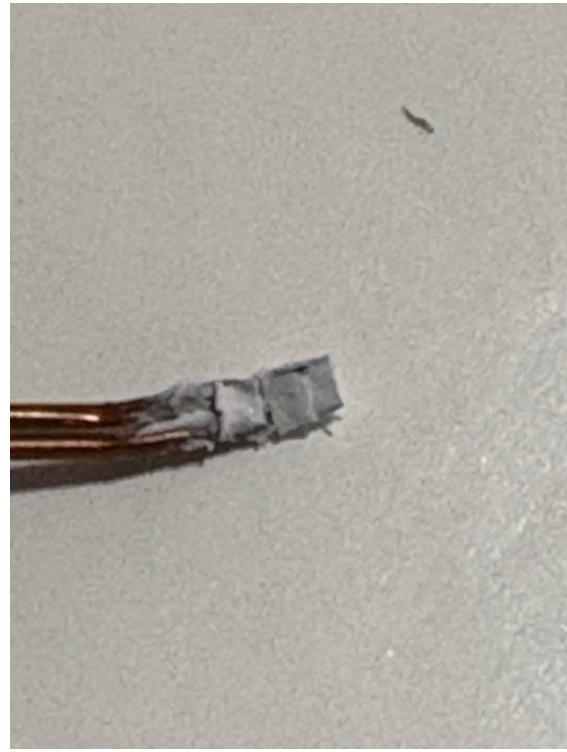
Installing Creality K2+ hot end in a Sovol SV08 max. By: Dave Harris
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1. Tear down the Sovol hot end. Cut the heating element wires at top of the copper heat break.



Perform this mod at your own risk.

Next remove the Thermistor.



Parts to keep from SV08 max hot end: Heat sink, Thermistor, Heater connector with wires, and heat sink to heat block insulators.

2. Disassembly the K2+ Unicorn hot end.

Remove the heat sock, thermistor and heat sink.

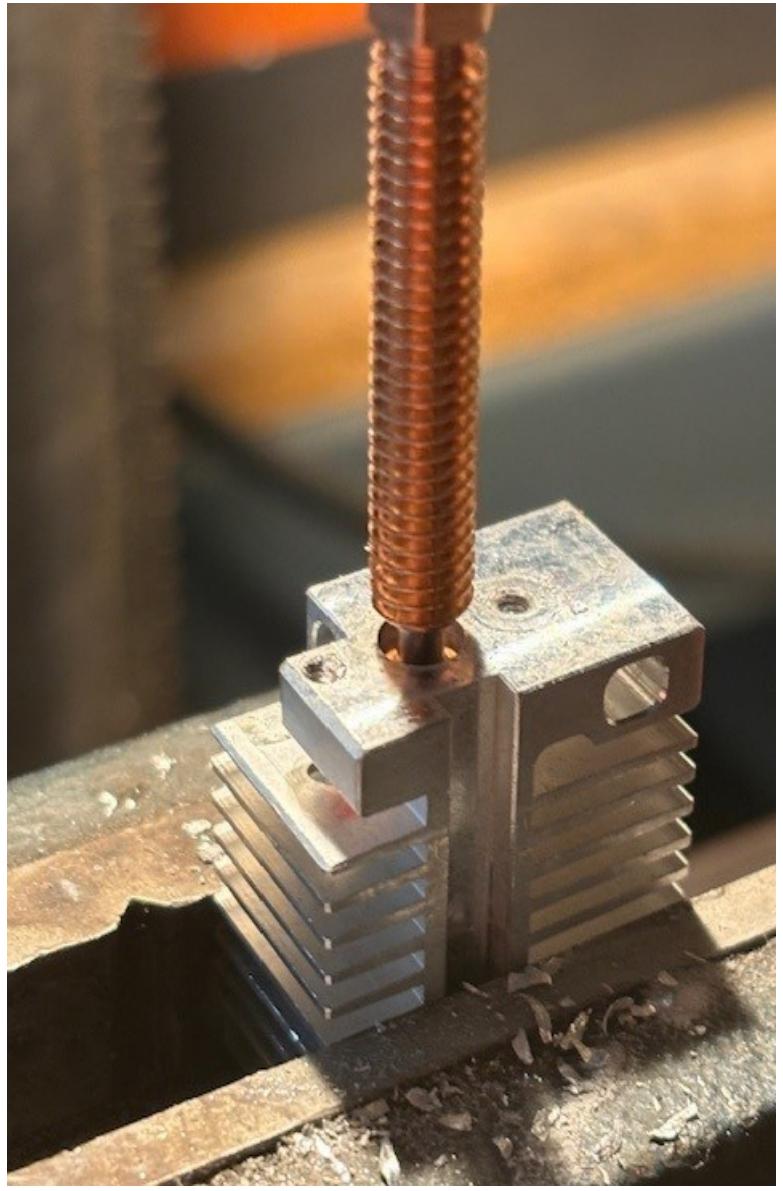
Keep all parts except heat sink and heat sink insulators.



It is necessary to gut the Creality thermistor and save the sleeve to be re-used. I drilled the old thermistor out of the tip. Be cautious when drilling the thermistor sleeve. Sketchy

Apply thermal paste and slip the Sovol thermistor deep into the K2+ thermistor sleeve. Crimp the sleeve tight enough to secure the thermistor in place not so tight the wiring is damaged.

3. drill out the heat sink, first will need to drill completely through the heat sink with a 3.1 mm drill bit, then will need to partially drill with a 4.1mm drill bit just deep enough to fully encompass the copper heat break.



Next, insert to the Creality hot end in to the Sovol heat sink, and rotate 45 degrees and mark the heat sink for drilling. Mark with fine tip pen or scribe.

Center punch before drilling. **I recommend using a drilling vise and X-Y slide for precision drilling.**

I drilled this with a 1/16" drill bit. I didn't have a tap that small so I filed the sides of the unused Sovol bolt and effectively turned it in to a tap. A bit of cutting oil or wd40 and it taps quite nicely.

Of the 2 bolts that hold the hot end in place, one of them will need to be sourced or shortened approximately 2mm shorter to clear the long hot end retaining bolt.

During assembly, use the insulators saved from the Sovol hot end to heat sink. The Creality spacers are too long and may cause bed crashing or z-offset errors.



When assembly is complete it is a good idea to test the Thermistor should read approximately 1K ohms. It is also a good idea to check the installed height of the newly assembled hybrid Sovol Unicorn hot end. See photos below. The installed height is 75mm.

Next - Perform hot end pid calibration.

Note: The Unicorn hot end is high flow efficient heating element. You will likely have to adjust flow and temperature.

After running a temperature tower I found I had to drop my temps about 10C

Because I am using an infinity flow s1 with my SV08 Max I had to install a short piece of bowden tube above the filament tube to guide the filament from the extruder without binding.

Enjoy printing: Dave

