Garmin Edge 520 USB connector repair

Open your Edge 520 so as to get inside to repair a corroded USB connector

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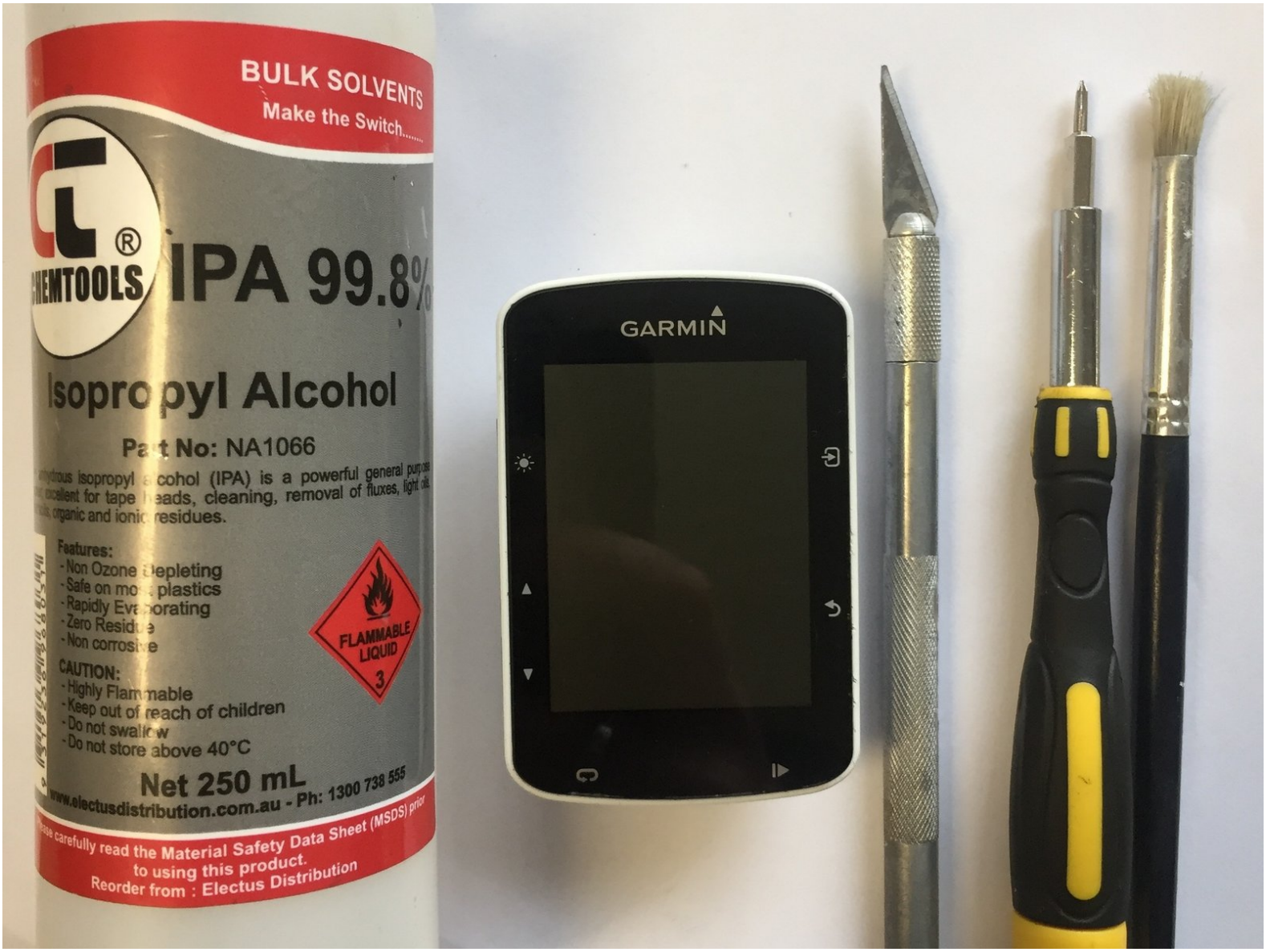


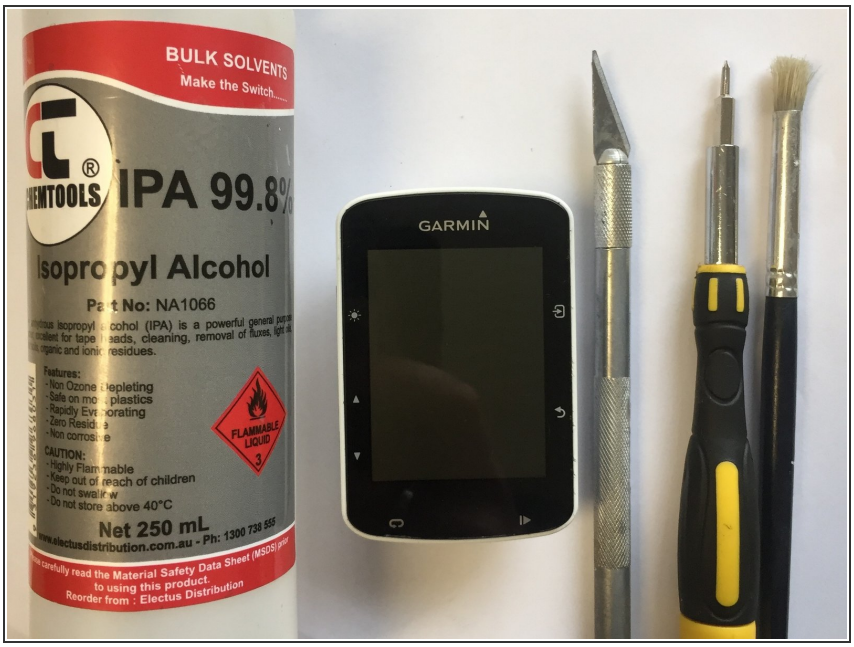
INTRODUCTION

I'll show you how to pop open a Garmin Edge 520 GPS unit so you can repair a corroded USB connector.

TOOLS:

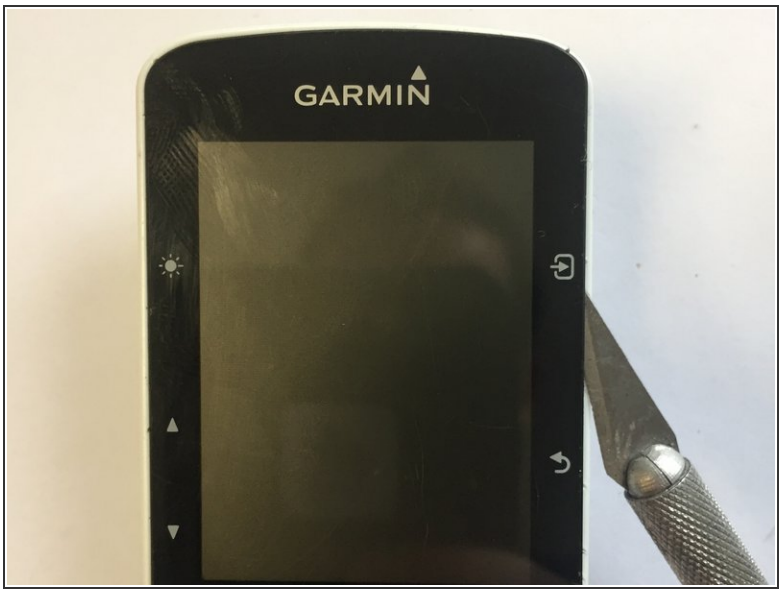
- Phillips #00 Screwdriver (1)
- Scalpel (1)
- 3M Double Sided Adhesive Tape (1)
- Isopropyl Alcohol (1)
- Park Tool GSC-1 GearClean Brush (1)

Step 1 — Getting Started



- Stuff you'll need includes:
- Isopropyl Alcohol (for cleaning corroded connector)
- Sharp implement (for prising screen off)
- Small Philips head screwdriver (for getting PCB out of case)
- Brush (for cleaning up corrosion)
- Double sided tape (to secure screen back onto case when you're done)

Step 2 — Removing screen

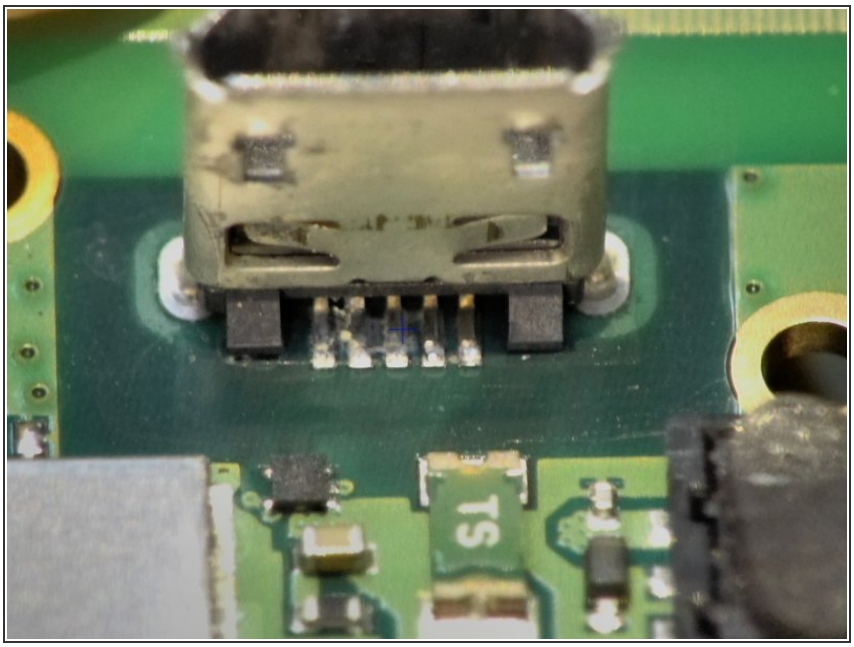


- Using the sharp implement, VERY carefully move around the edge of the glass screen and prise the screen up out of the case.
  - Start cutting vertically between the black screen and the thin white border—do NOT cut on the side between the rubber and the plastic.
- You'll probably need to go around the edge of the Garmin a few times before it comes totally free
- There is double sided adhesive holding the screen to the case, and you just need to break that seal to get the screen out
- Be VERY careful you don't push your sharp implement too far into the device, as there is a delicate connector near the bottom right hand corner that you could damage
- Once you have broken the seal all the way around the perimeter, the screen should just lift off

Step 3 — Removing PCB

- Using the Philips head screwdriver, carefully remove the four attachment screws that secure the PCB into the bottom of the case. This will allow you to lift the PCB free of the case and get access to the USB connector
- As you lift the PCB out, you will see where it attaches to the battery. No need to disconnect this (unless you are replacing the battery) as there is enough length in the battery wires to get access to the USB connector

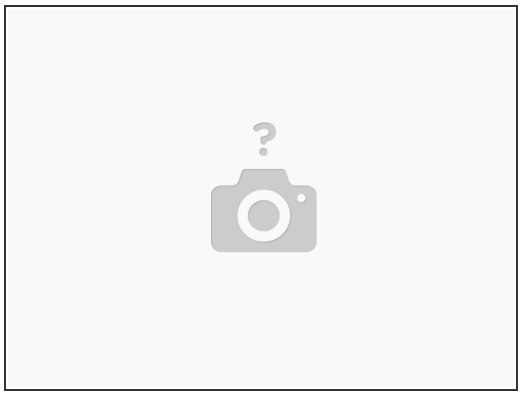
Step 4 — Cleaning USB connector pins



- Check the condition of the USB connector pins. As you can see here, mine were pretty badly corroded. A spray of IPA and then a light scrub with the brush cleaned it up almost as good as new!

  Note that if the connector is damaged and needs replacing, the connector is a Hirose Electric ZX80-B-5P.

Step 5 — Reassembly



- Check that the Garmin now is recognised by your PC and goes into Mass Storage mode. If so, you've fixed the problem!
- Clean off all the residual double sided tape from both the screen (very carefully, so you don't remove the black printing on the underside) and the case
- Apply some new double sided tape to the inside rim of the case (easier than trying to put in onto the screen I found) I cut some thin strips from some 3M stuff I had lying around that is used for sticking automotive boldy mouldings onto vehicles - doesn't absorb moisture and sticks well enough
- Press the screen back into place
- Check that everything is working again

To reassemble your device, follow these instructions in reverse order.