

Psion Series 3a Hinge Repair

After a few weeks of careful use, I opened the 3a and to my complete horror, the left hinge had snapped off from the display section. I had no idea how this was done, but this kind of damage was very common back in the day and had to be returned back to Psion or a dealer for repair at a very costly sum. As neither of these options are available these days, I decided to attempt the repair. By this time I had an additional 3a from eBay, together with a user guide, programming manual, mains adapter, 3a money SSD and a 128K RAM SSD, all for just over £10. This one has faulty keys on the main board, so I decided to swap the working display/lid with the broken hinge one.

Follow steps 1-18 described in the previous disassembly guide

1. To remove the blue button bar ribbon cable, carefully push up the edges of the connector as shown by the arrows and then gently pull the ribbon cable out. (psion030.png)
2. The button bar is removed by pushing one side of the bar so that the small plastic hinge that is connected to the sides next to the battery housing pops out. Repeat on the other side. (psion031.png)
3. Push the metal springs off its mounting on the button bar and you should now be able to gently push the bar back through the gap between the two halves of the unit.(psion032.png)
4. Removed button bar. (psion033.png)
5. Remove the metal springs by pushing in the direction indicated by the arrow. You'll need to wobble it a bit for it to come free. (psion034.png)
6. Push both sides of the LCD ribbon cable connector and then gently pull the ribbon cable out. (psion035.png)
7. Ribbon cable removed. (psion036.png)
8. The next tricky part is removing the small metal pins from the hinge, but you may find that is no problem with one that has a broken hinge as it just falls apart at this stage. For ones that are still together, you need to try and make a gap between the pin head and the hinge by gently pushing a sharp piece of metal, or a fingernail, but be careful not to damage or scratch the pin head. (psion037.png)
9. Once it has been pulled out a small amount, use a pair of long nosed pliers to pull it out completely. I put a small piece of sellotape around the teeth of the pliers as not to scratch the pin while gripping it. (psion038.png)
10. Both halves separated. (psion039.png)
11. All the disassembled parts, not counting the LCD section. (psion040.png)

Psion Series 3a Hinge Repair Part 2

Re-assembly is fairly straightforward, but the button bar replacement can be tricky, so I've listed a few steps here.

Re-assembly

1. Re-attach the two halves together and push the pins home. If the metal spring requires re-attachment, make sure that it's inserted into the correct hole behind the bezel. (psion050.png)
2. Push the sides of the LCD ribbon connector out and carefully push the ribbon home. (psion051.png)
3. It's a good idea at this stage to check that the LCD panel is working correctly and the ribbon cable is connected properly by connecting the main board and the keyboard membrane together with the mains adapter. Pressing the Esc key should power up the device and the LCD should display the start-up screen, if not, either the display's faulty, or more likely, the LCD ribbon cable is not correctly connected and needs adjustment. (psion052.jpg)
4. Once the button bar is fed through the gap at the front of the two halves, locate the small plastic dimples on the sides of the bar and insert them into the holes next to the sides of the battery housing.
5. Another tricky part here. The bit of the metal spring as indicated by the arrow needs to go into the slot at the rear of the button bar as indicated by the other arrow. (psion053.png)
6. At the same time the round part of the spring needs to be fitted over the round part of the bar as indicated by the arrows. (psion054.png)
7. Then follow parts 18-1 in the disassembly instructions.