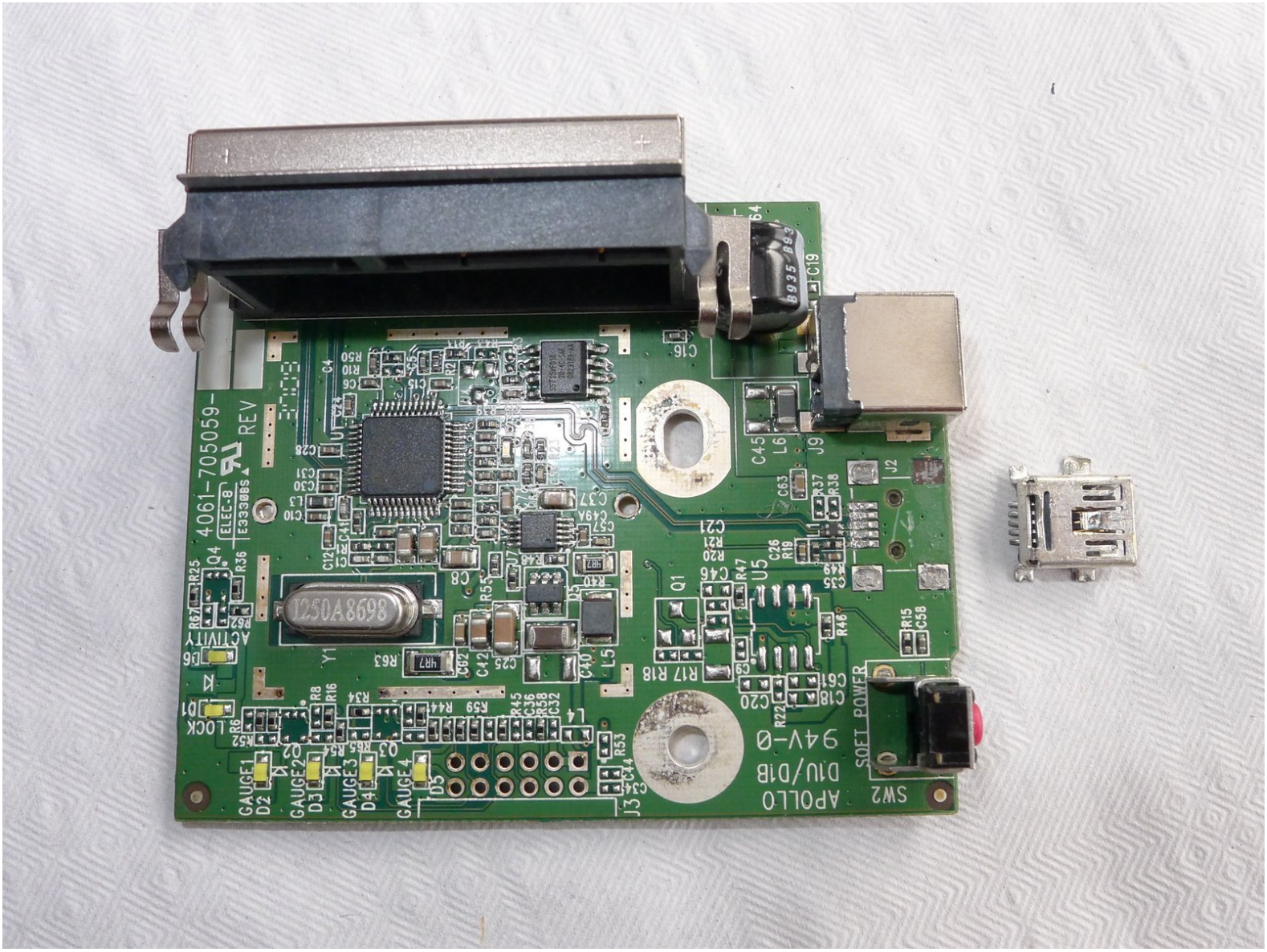
Temporary repairing Western Digital Essentials HD de-soldered USB connector

This is a temporary repair in order to backup your data in case of a de-soldered USB connector.

Written By: Gaetan



INTRODUCTION

This is a Temporary repair

De-soldered USB connector looks to be a recurrent issue with the Western Digital Essentials external hard drive. In case you are in this situation, and if you need to access/restore the data stored into your Western Digital Essentials HD, the first idea is to transfer the HD into another external case or directly connected to you mother board. In fact it does not work! This is all because of the Initio INIC-1607E SATA/USB bridge chip that looks to encrypt your data within the USB to SATA bridging. Also using the same logic board from another Western Digital Essentials HD does not guaranty that your data will be clear to read.

This guide will allow you to access and backup all your data in case you have a de-soldered USB connector. It is not a "state of the art" repair and **in any case you should consider this as a permanent repair**. However you can eventually re-use the hard drive into another USB/SATA case once your data are safe backed up. This is a difficult repair but it have worked for me.

This guide consist on:

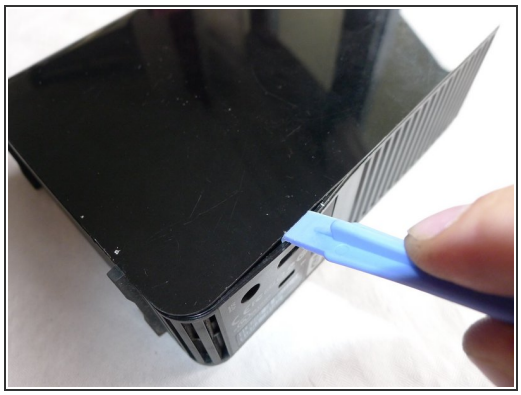
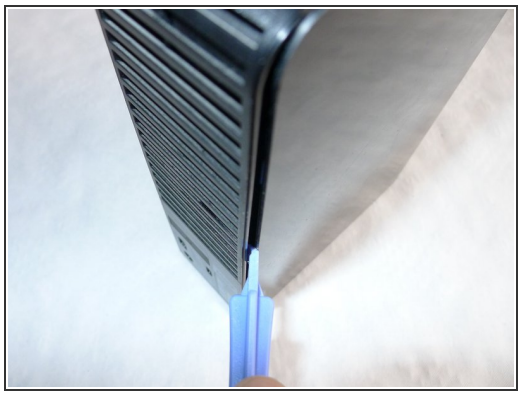
1. Disassembly of the HD
2. Temporary repair for the USB connector

TOOLS:

- iFixit Opening Tools (1)
- Phillips #1 Screwdriver (1)
- Magnifying Glass (1)
- Tweezers (1)
- Electrical Tape in 6 Assorted Colors (1)
- Binder Clip (1)

20mm

Step 1 — Case

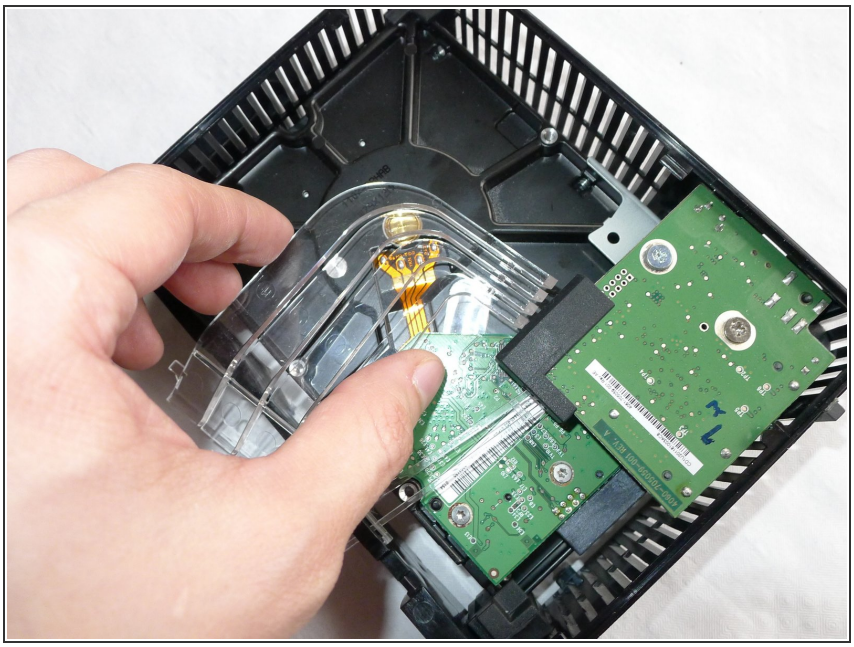




- Use a large plastic opening tool along the rear panel:
  - There are 4 clips to release.

Step 2

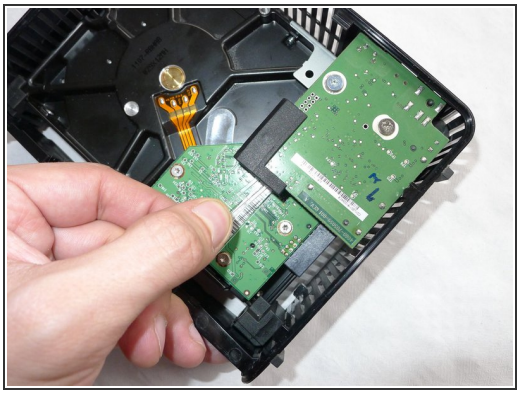

- Slide the cover along the plastic frame.

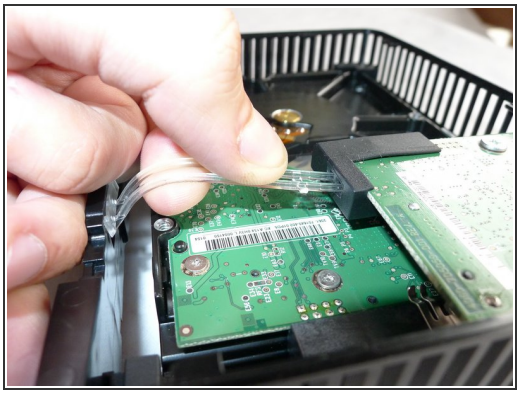
Step 3 — LED Light conducting plastic pieces



- Slide off the largest plastic pieces.

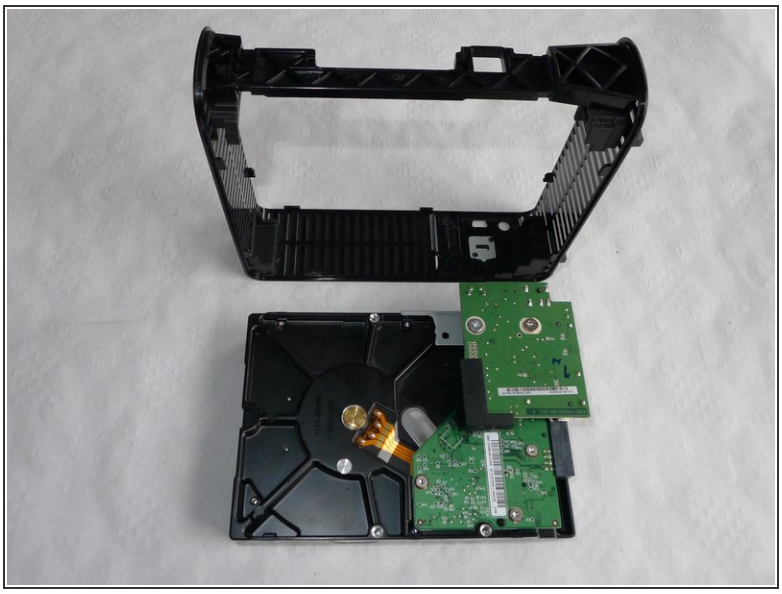
Step 4





- Bend the second small plastic piece to release it from the rubber piece.
- Now you can slide it out.

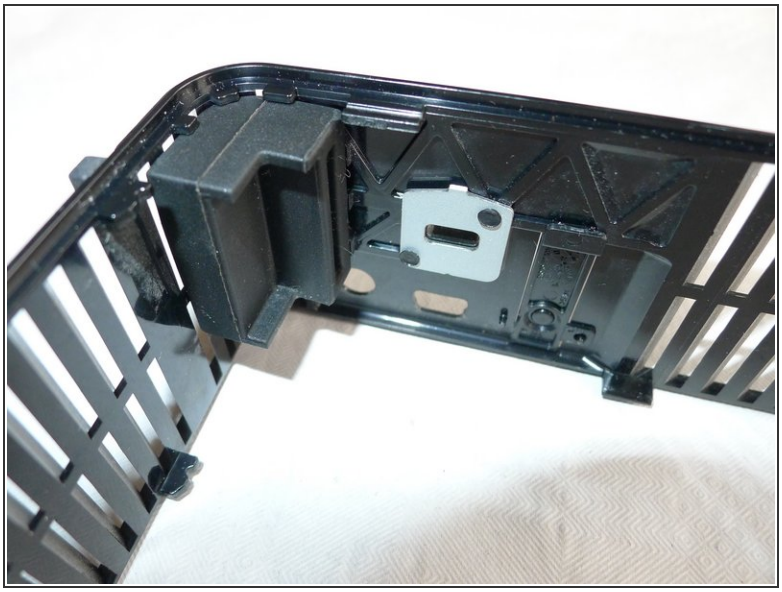
Step 5 — Disassembling Western Digital Essentials HD Hard Drive

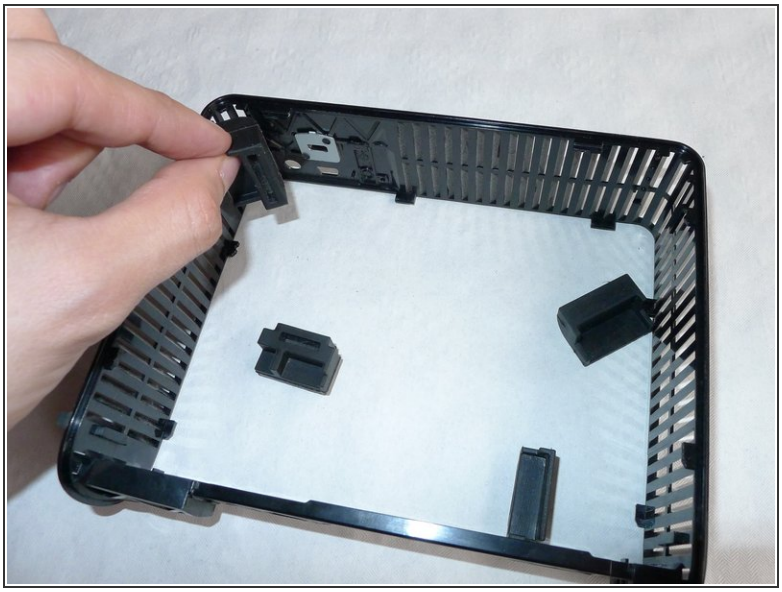


- Slide out the hard drive as shown in the picture

⚠ *Make sure to slide as shown or you may damage the USB bridge logic board.*

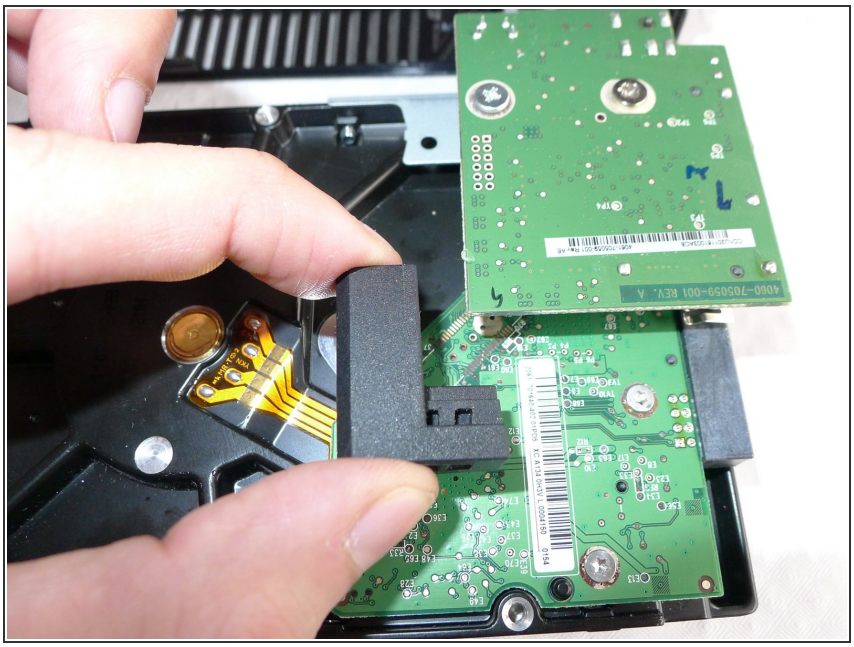
Step 6 — Disassembling Western Digital Essentials HD Anti-vibration rubber pieces





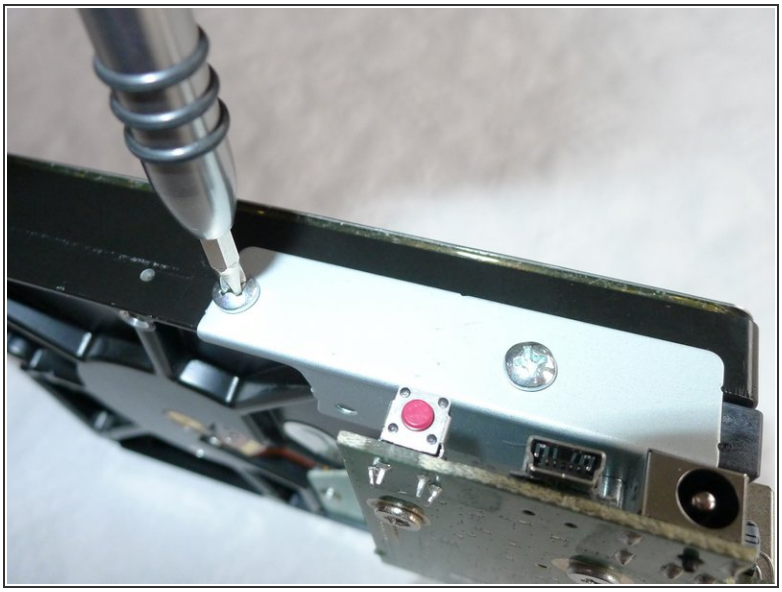
- Remove the 4 rubber piece from the plastic frame at each corner.

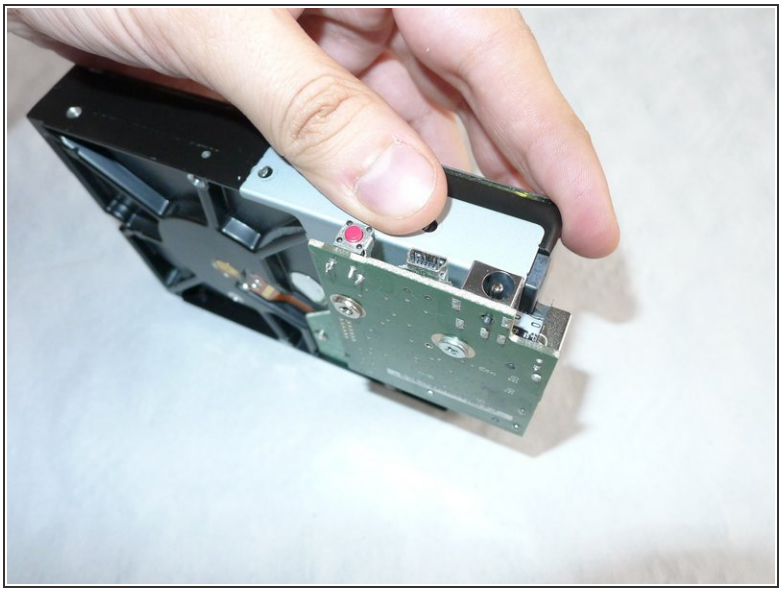
Step 7



- Remove the rubber piece from the SATA/USB bridge logic board.

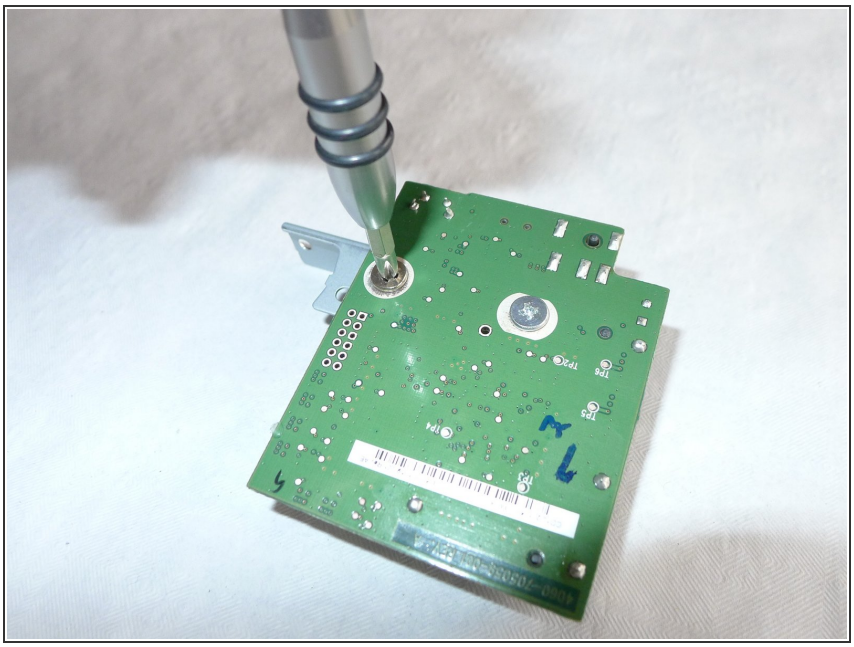
Step 8 — SATA/USB Bridge Motherboard





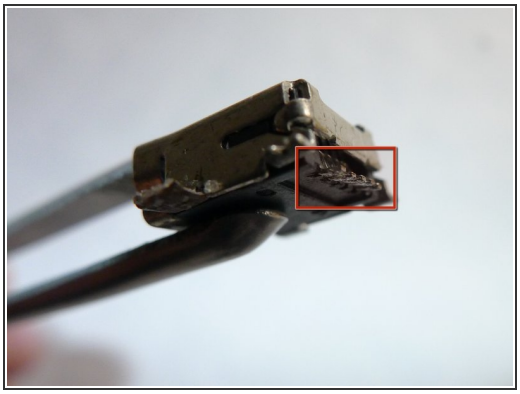
- Remove both screws holding the retaining plate and the hard drive.
- Slide the retaining plate in order to disconnect the SATA connector.

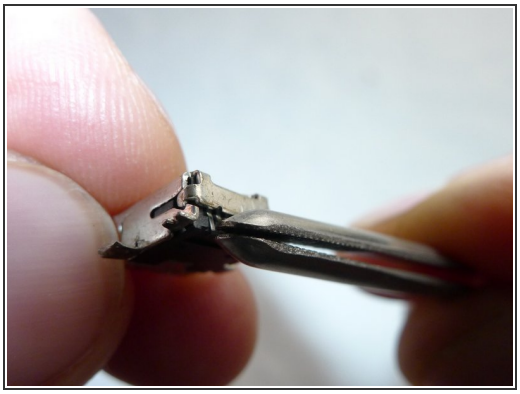
Step 9

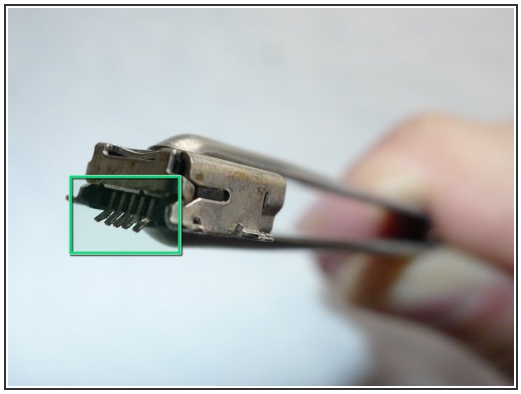


- Remove both screws holding the retaining plate with the logic board.

Step 10 — Temporary repairing Western Digital Essentials HD de-soldered USB connector



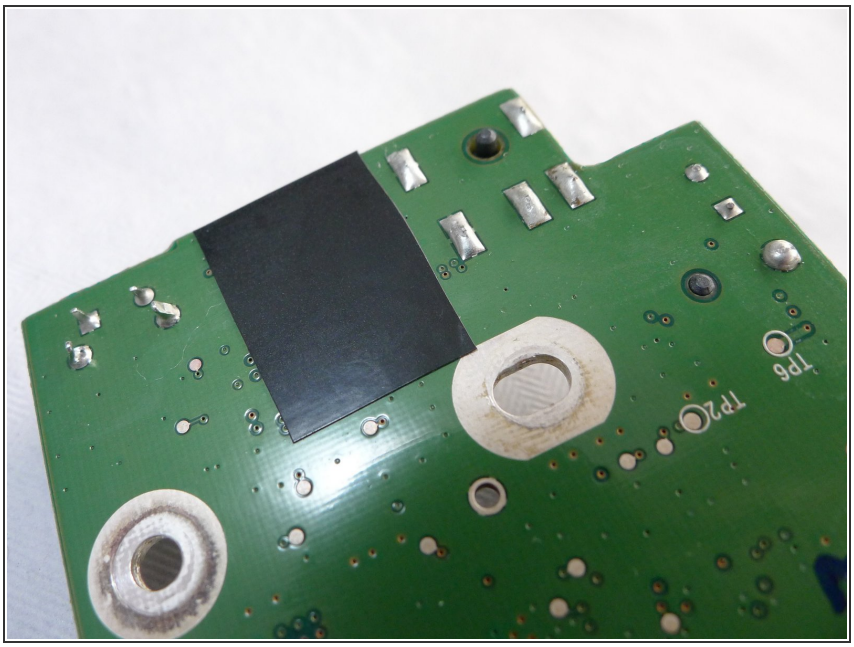




- Use a tweezer to slightly bent the logic board contacts on the USB connector. The purpose is to ensure a good contact when the USB connector will be applied against the logic board.
  - In the first picture, you can see the contacts in the original position.
  - In the third picture, you can see the contacts in the bent position.

⚠ Be careful, the contactors are fragile. Just slightly bent them.

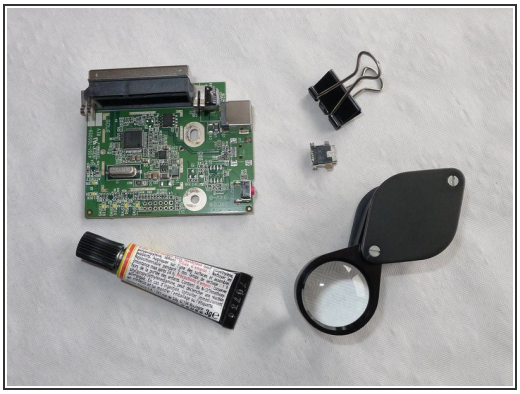
Step 11

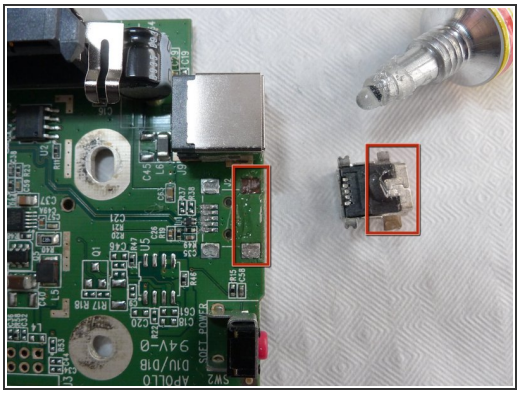


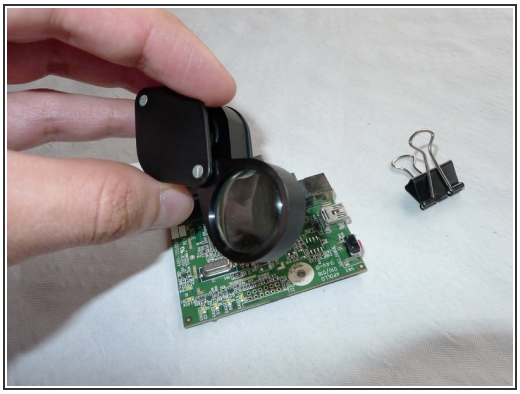
- Apply a piece of electrical tape on the back side of the logic board below the USB connector position.

This will prevent from any damage with the Foldback Paper Clip.

Step 12







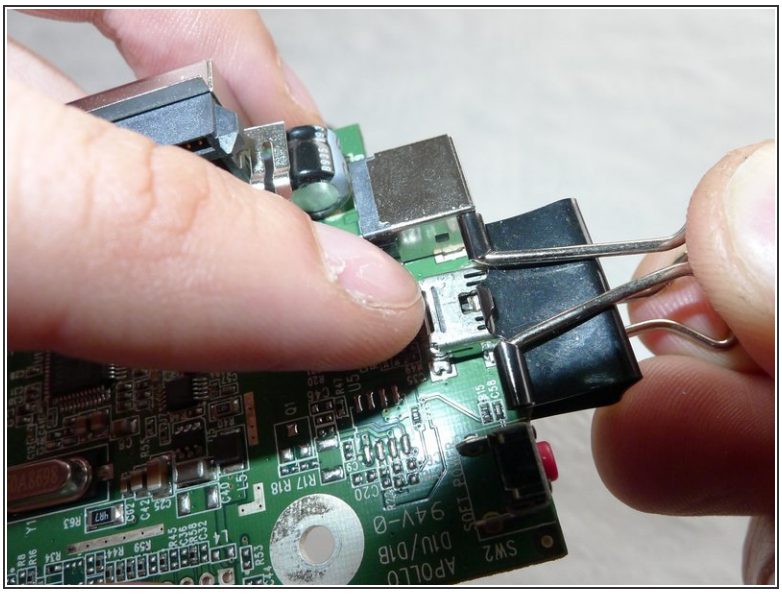
It is important to have the 2 following steps completed in a short time to guaranty a good quality gluing if you use an instant glue.

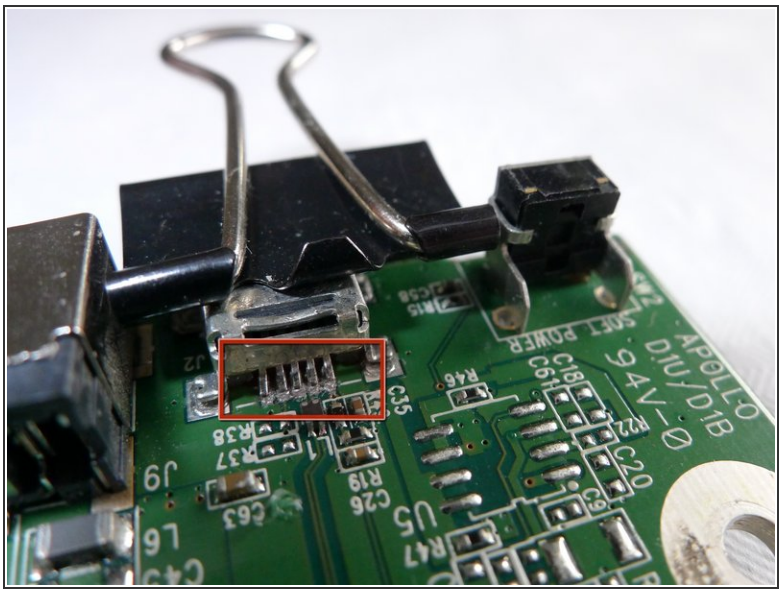
- Apply some glue on the logic board and below the USB connector.

Do not apply glue on the rear part on the logic board and on the USB connector. It is important to ensure a good electrical contact between the connector and the logic board.

- Place the USB connector at is original place. Use a magnifying glass to ensure all five contacts are well in place against the logic board contacts. You can use a tweezer to help.

Step 13



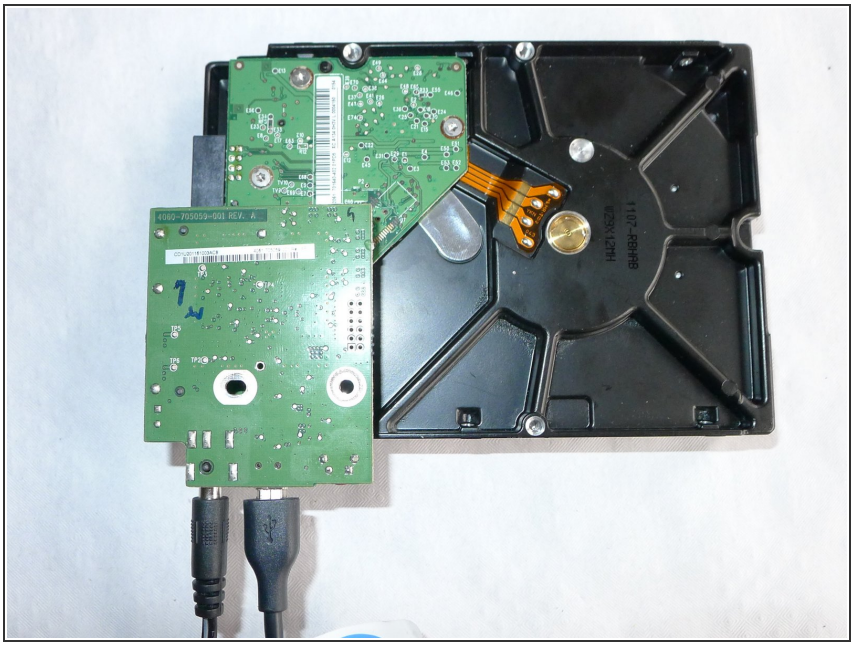


- Use a Foldback Paper Clip to press the USB connector against the logic board.

Once the paper clip is in place, ensure one more time that all contacts are well in place.

Ensure that the glue is all dry before to continue. If you use an instant glue you should wait for a few hours anyway or you can refer on the instruction provided with the glue.

Step 14



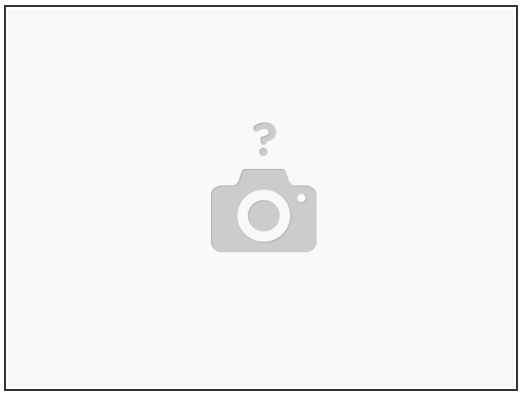
Be careful, this temporary repair is very fragile. Do not apply any tension on the USB connector or with the USB cable.

Before to continue, you should ensure one more time that the connectors are well in place to prevent from any short circuit. I recommend to:

- First, plug and apply the electrical power on the logic board only do not plug the hard drive or even the USB connector. Wait for a minute if everything goes well!
- You should use a hold computer if any available to you. Your computer should be protected from a short circuit here but we never know. Please don't use your brand new computer!

- When you are ready to go:
  - Plug the hard drive with the USB/SATA bridge throug the SATA connector.
  - Carefully plug the USB connector to the logic board and your computer.
  - Apply electrical power on the hard drive.

Step 15



If everything goes well your USB hard drive should be recognized by the computer and you should be able to backup your data.

Do not re-use this WD external case. The connector repair is too fragile and can break again at any time. You may lose your data one more time!

The hard drive inside the Western Digital Essentials HD is standard SATA. Once your data are backed up, you can re-use the hard drive as an internal HD directly or you can install it on a new empty USB enclosure as well. There is plenty available on the internet.

