



Hitachi GST Deskstar HDS721010CLA332 Hard Drive Controller Replacement

After replacing the board and replacing the BIOS IC from the original board, the drive was once more recognized. This allowed for the data recovery of some 1000 pictures as well as other documents.

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INTRODUCTION

Here is the failed hard drive from the HP 310-1037. When powered on, the computer did not recognize the drive in the BIOS and did not load the OS. The drive was never backed up and the owner really wanted her pictures of the drive. Since the drive did not experience any mechanical damage and, based on the history of these drives with their frequent PCB failure, decision was made to replace the PCB. Hopefully this would revive the drive long enough to remove the needed data.



TOOLS:

- [T8 Torx Screwdriver](#) (1)
- [Soldering Iron](#) (1)



PARTS:

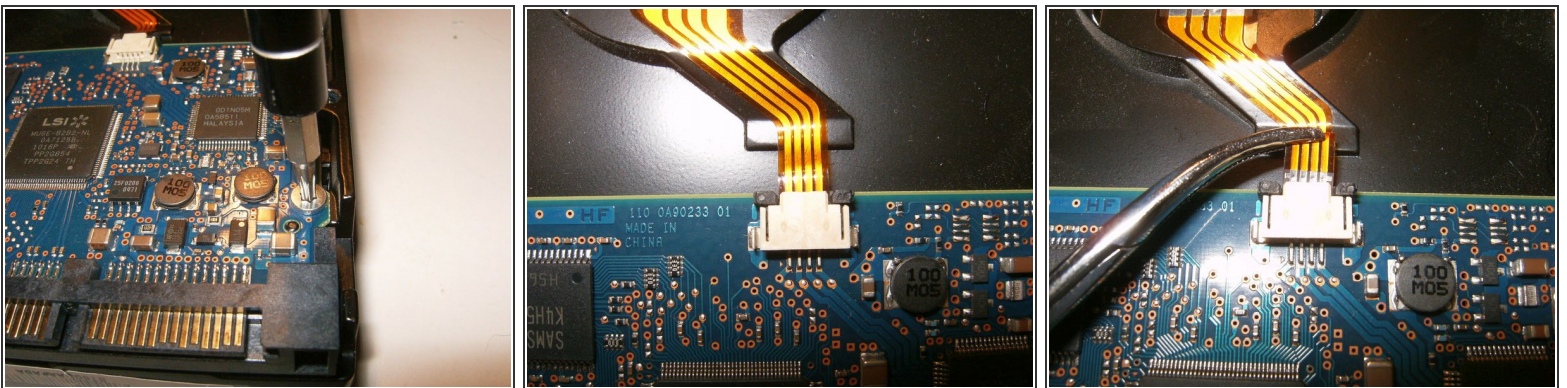
- [0A72947 0A90233 controller PCB](#) (1)

Step 1 — Controller



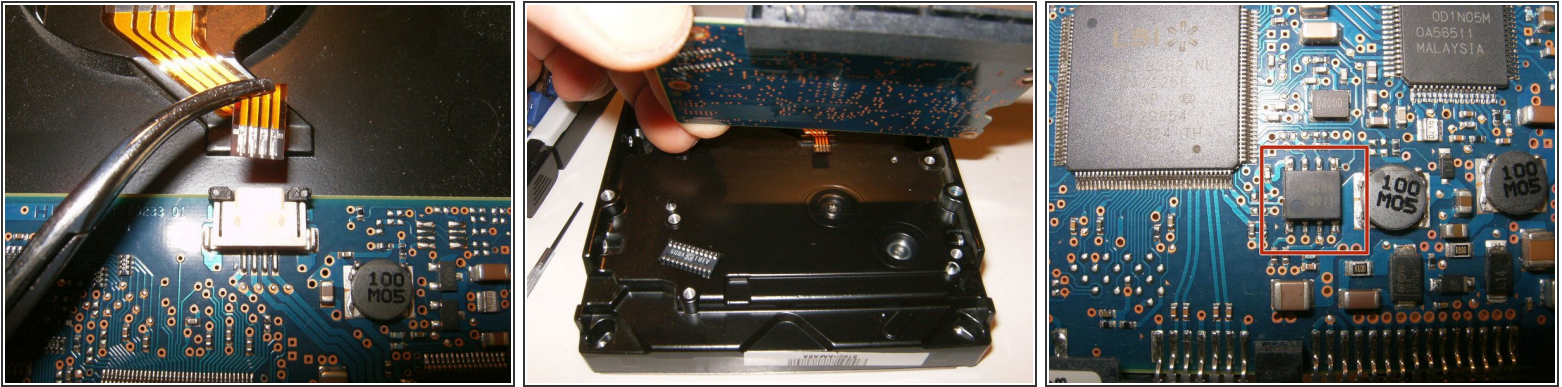
- Here is the failed Hitachi HDS721010CLA332. It does not get recognized by the computers BIOS and cannot get accessed by any other means. No clicking or other mechanical noises present
- Turn the drive over to get to the controller PCB
- Remove the four T8 screws from the PCB

Step 2



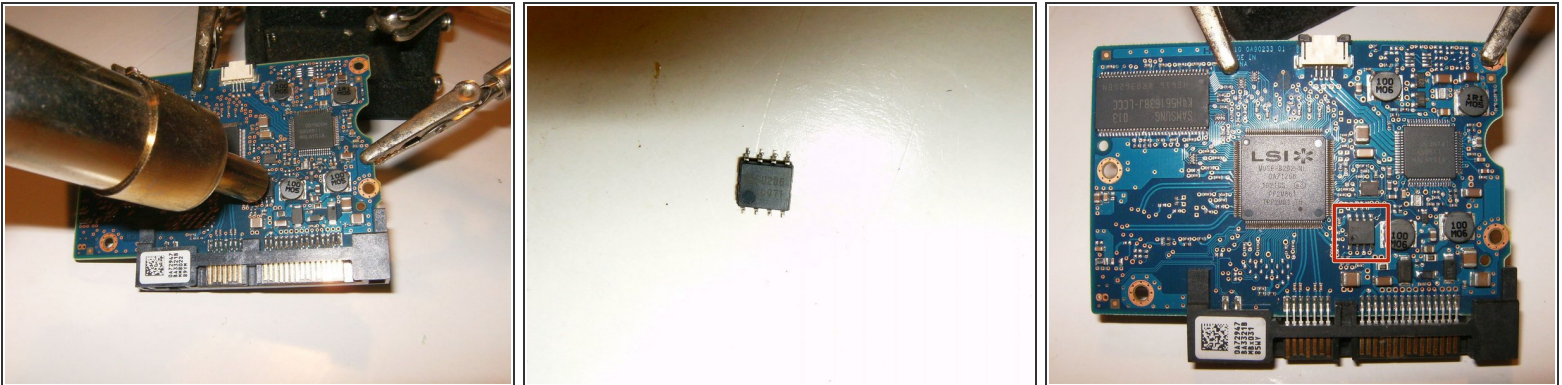
- Here is the T8 driver to remove the screws
- The drive flex cable is a simple compression fitting.
- Use a tool like hemostat or your fingers to remove the cable....

Step 3



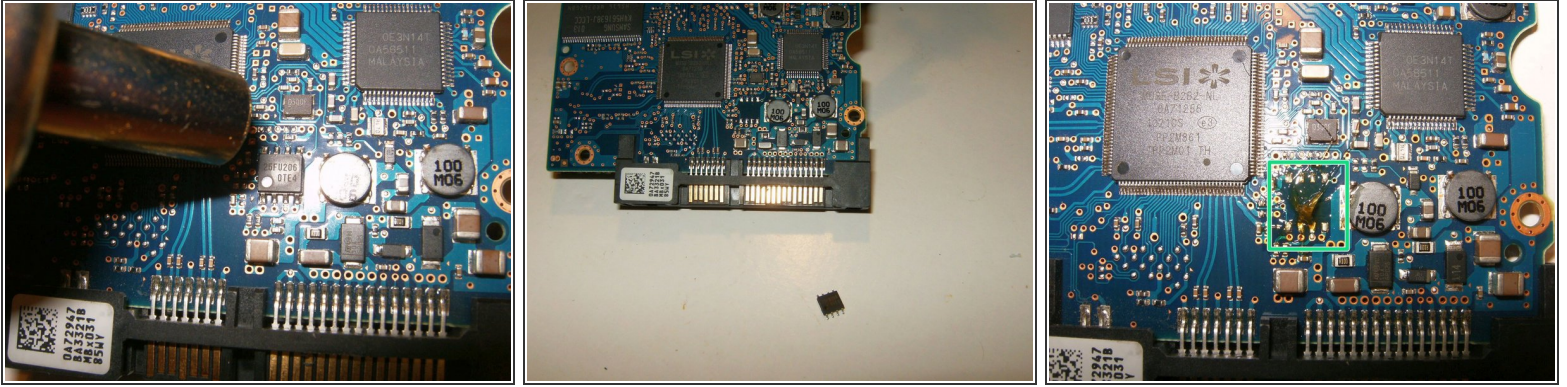
-by simply pulling it out to the back of the connector
- Remove the controller PCB from the drive.
- Locate the controller board BIOS IC. This BIOS contains the unique configuration data for this drive. Without changing it the files on the drive cannot be recovered.

Step 4



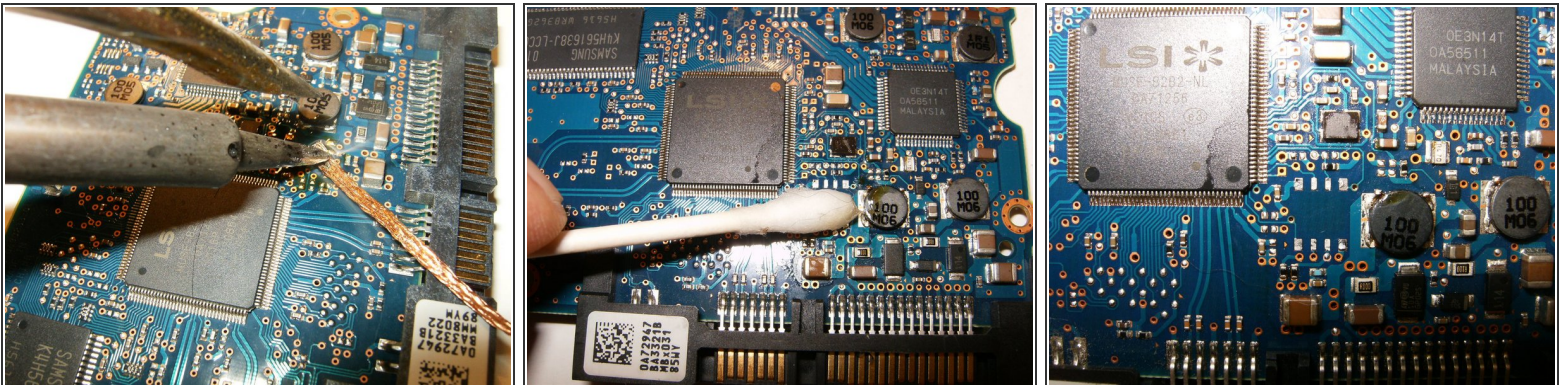
- Use a hot air rework station or a soldering iron to remove the BIOS IS
- Here is the removed BIOS IC. This is the one that will have to be transplanted to the new controller PCB. Ensure that this IC does not get mixed up. Keep it separate
- Here is the new controller PCB with the BIOS IC that needs to be replaced.

Step 5



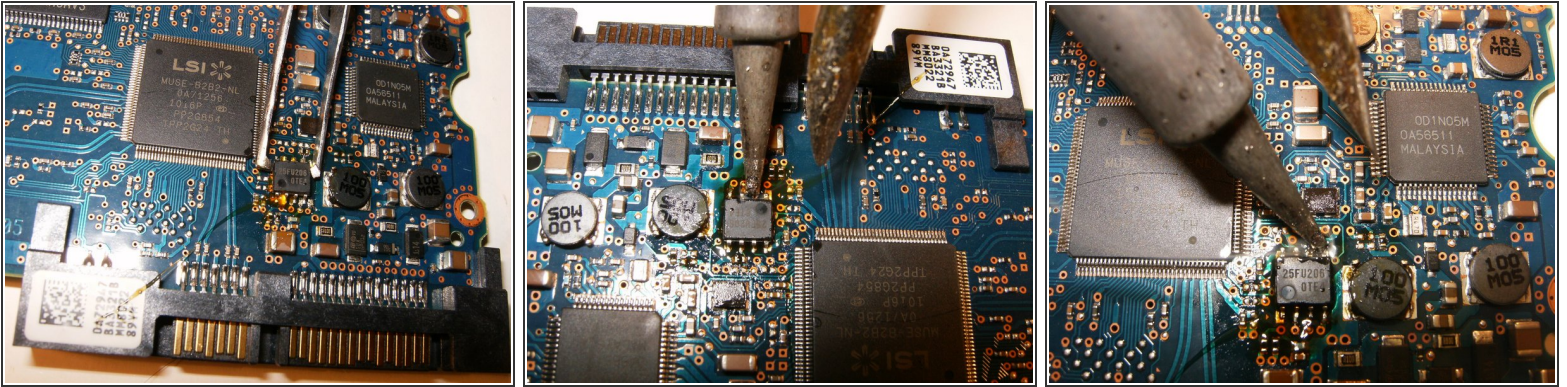
- Remove the BIOS IC from the new PCB by using a hot air rework station or a soldering iron.
- BIOS IC removed from the new controller PCB.
- Next clean the solder pads on the new PCB where the BIOS IC sat. Apply flux

Step 6



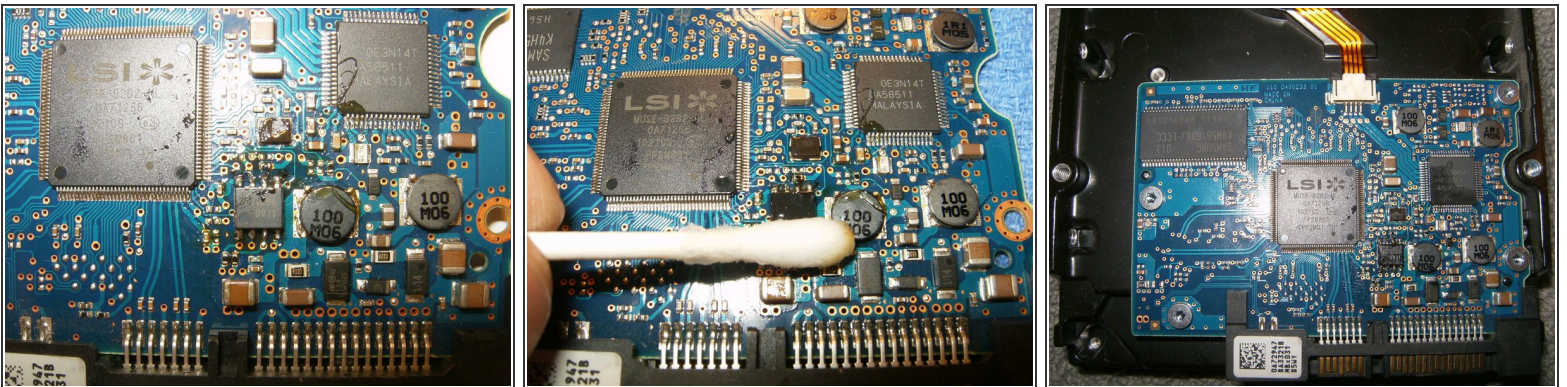
- Use a soldering iron and desoldering braid to clean the solder pads
- Clean the flux with some high grade isopropyl alcohol and a cotton swab
- Here are the cleaned solder pads.

Step 7



- Apply some flux to the solder pads and place the old BIOS IC onto the solder pads of the new controller PCB. Ensure the proper placement of the IC.
- Solder the BIOS IC into place
- Ensure that the soldering iron does not accidentally heat up the components next to the BIOS IC, particular the ones at the top end.

Step 8



- BIOS IC properly placed and soldered onto the new controller PCB
- Clean the flux with some high grade isopropyl alcohol and a cotton swab
- Last step is to reinstall the new controller PCB with the old drives BIOS IC which contains the unique data for this drive.

After replacing the board and replacing the BIOS IC from the original board, the drive was once more recogized. This allowed for the data recovery of some 1000 pictures as well as other documents.