



Dell E193FPc Motherboard Replacement

Use this guide to replace the motherboard if...

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INTRODUCTION

Use this guide to replace the motherboard if there is no simpler solution.

TOOLS:

- [Tweezers](#) (1)
 - [Phillips #2 Screwdriver](#) (1)
 - [iFixit Opening Tool](#) (1)
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Step 1 — Stand



- Lay the monitor screen-down so the back screws are exposed.
- Remove the four 11.9 mm Phillips #2 screws securing the stand to the back of the monitor.

Step 2



- Gently lift and pull away the stand at a slight angle away from the monitor.

Step 3 — Display Bezel



- Locate the two holes on the bottom of the monitor.
- Insert a plastic opening tool or spudger into the holes and gently pry the plastic apart along the groove.
- ⓘ This task is much easier if two people pry simultaneously at each hole.
- Continue prying along the entire edge of the monitor.

Step 4



- When finished prying, the plastic will partially fall away from the rest of the monitor.

⚠ Do not try to fully remove the front frame yet. The frame is still attached to the buttons.

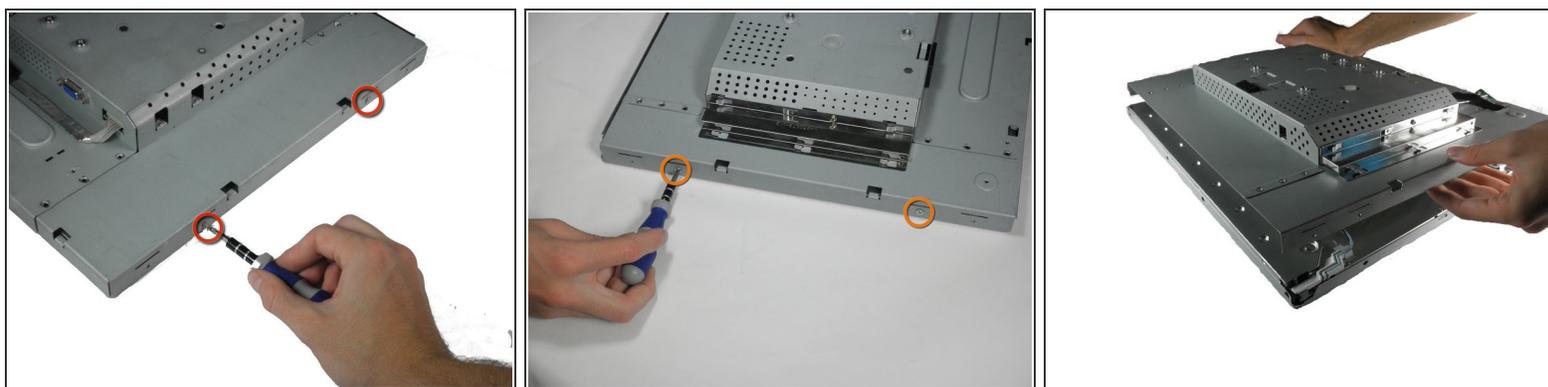
- While holding the frames together, carefully flip the monitor over so it faces screen down.
- Gently lift and remove the rear case from the monitor.

Step 5



- Locate the green interface button board.
- Remove the three 9.71 mm Phillips #2 screws holding the interface button board to the display bezel.
- Lift the monitor interior away from the front cover.

Step 6 — Inverter Board



- With the monitor facing down, remove the two 5.81 mm Phillips #2 screws on the right side of the metal casing.
- With the monitor still facing down, remove the two 5.81 mm Phillips #2 screws on the left side of the casing.

⚠ Do not attempt to pull apart the casing. There are still wires holding the front and back together.

Step 7



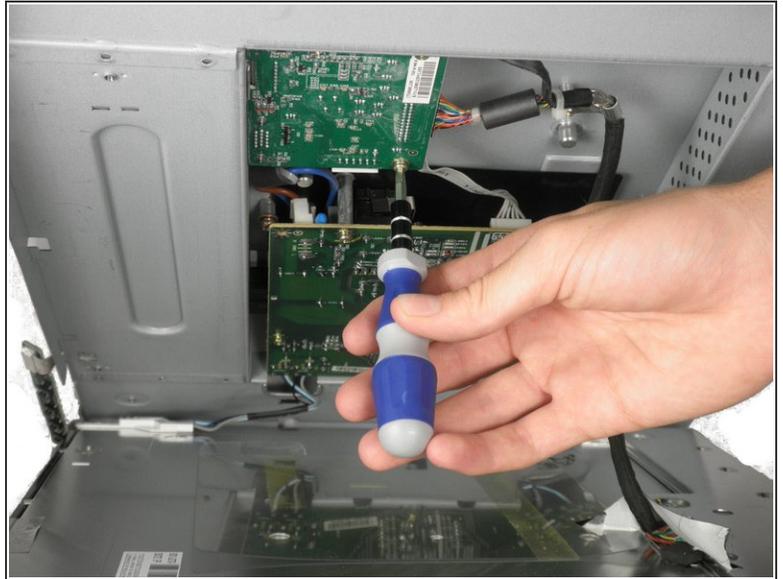
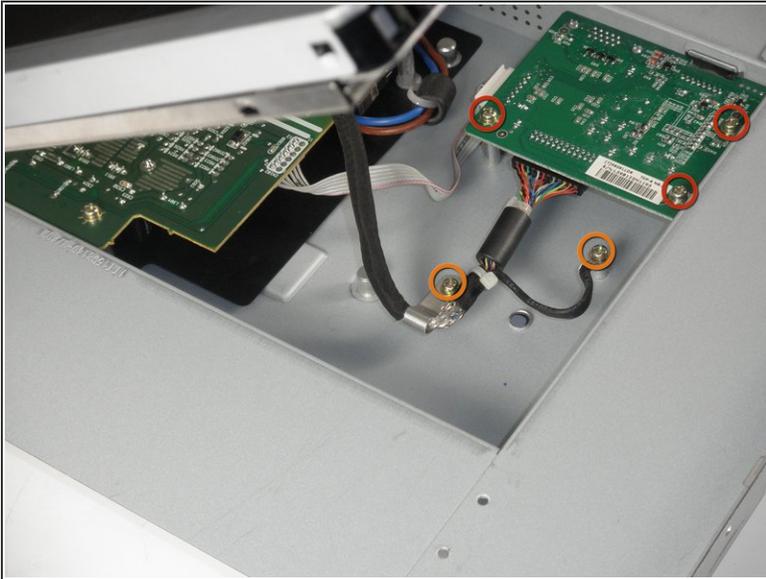
- Using a 5 mm nut driver, unscrew the VGA port's mounting screws from the metal casing.

Step 8



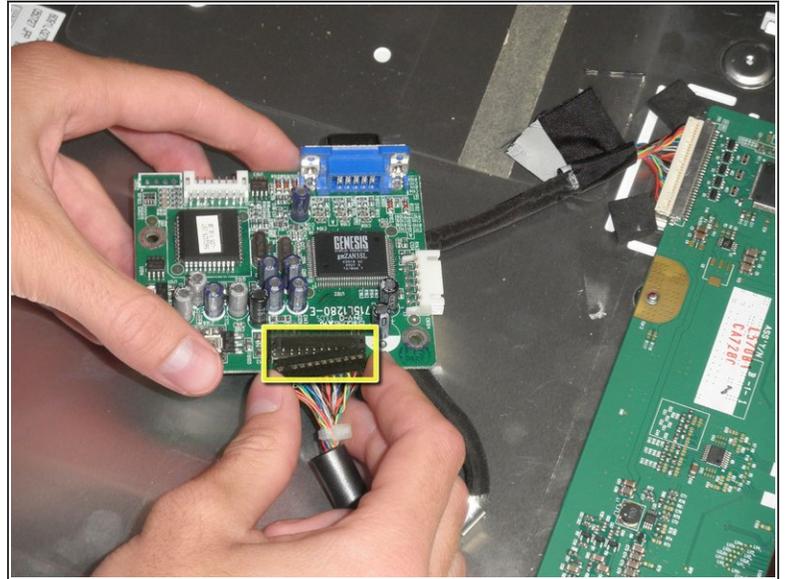
- With the monitor facing down, gently lift the back case away from the rest of the monitor to expose the inverter board and motherboard.
- ☑ Recall that the casing is still held together by several wires. Do not attempt to fully remove the back casing.

Step 9



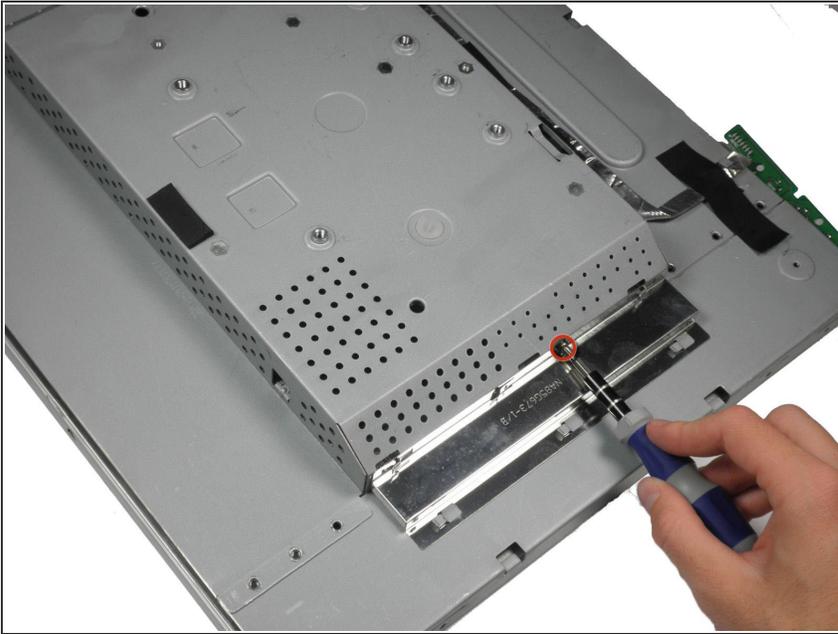
- The inverter board is the smaller board in the corner.
- Remove the three 7.69 mm Phillips #2 screws from the inverter board.
- Remove the two 7.69 mm Phillips #2 grounding screws from the wire with the black connector.
- ⓘ Gently pull the inverter board away from the case. Note that the board is still connected to several components by wires.

Step 10



- There is a wire connecting the motherboard to the inverter board. Squeeze both sides of the connector and pull to remove it from the socket.
- There is another wire connecting the button board to the inverter board. Remove the second white wire connector.
- A third wire connects the inverter board to the screen circuit board. Remove the black wire connector.
- The inverter board can now be fully removed.

Step 11 — Motherboard



- With the monitor facing down, remove the 5.84 mm Phillips #2 screw from the metal sheet.

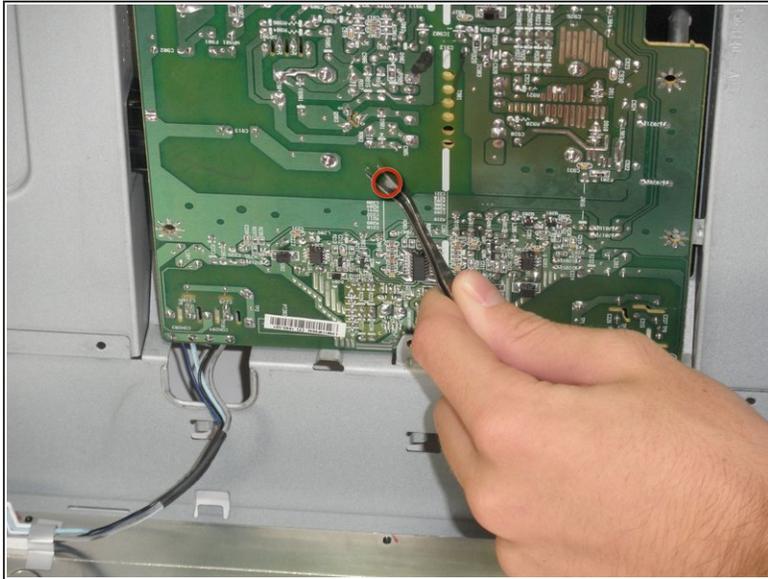
⚠ You can now open the device up. Be careful, there are still wires attached to the motherboard.

Step 12



- With the monitor facing down, lift the back cover up and lay it face up, exposing the motherboard.
- Remove the five 7.7 mm Phillips #2 screws from the motherboard.

Step 13

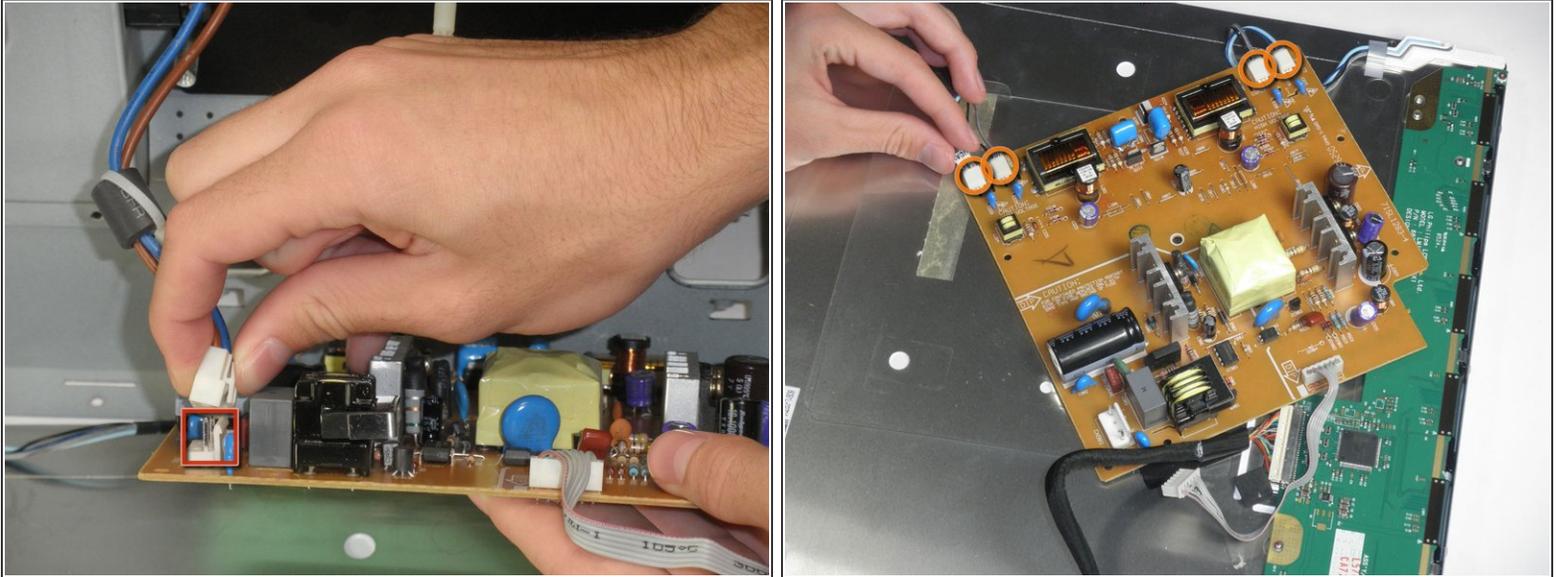


- Squeeze the plastic prong in the middle of the motherboard with a metal tweezer, while gently prying the other side with the plastic prying tool.

⚠ Be careful when using the metal tweezers. Make sure you do not make contact with any part that contains metal, for it may still have a charge. Discharge all capacitors.

ⓘ This is easiest when the monitor is positioned such that motherboard is beneath the metal casing.

Step 14



- Remove the connector to the power outlet from the motherboard.
- Remove the 4 connectors to the metal casing from the motherboard.
- The motherboard can now be fully removed from the casing.

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