



# Compaq Deskpro EN Teardown

Archaeology and curiosity collide in an epic teardown of this 16 year old desktop PC.

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## INTRODUCTION

This fine computing device was recently discovered in an undisclosed warehouse where it was being studied by Top... Men.

What could be lurking inside this heavy metal box? A Golden Idol... The Ark of the Covenant... Giant Ants?

These are all possibilities, but there's only one way to find out for sure.



### TOOLS:

- [T5 Torx Screwdriver](#) (1)
  - [8mm socket](#) (1)
  - [Anti-Static Wrist Strap](#) (1)
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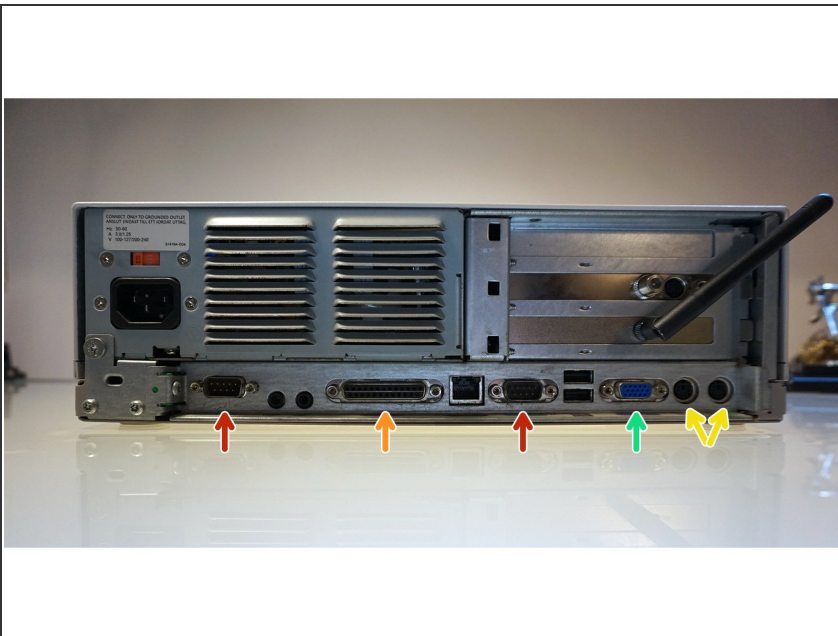
## Step 1 — Compaq Deskpro EN Teardown



- Behold, the power of beige!
- Tech Specs:
  - 933 MHz Pentium III Processor
  - 10 GB PATA Hard Disk
  - 512 MB of PC133 RAM
  - 16x DVD-ROM and 3.5" Floppy Drive
- Life Experience

**i** Compaq was bought by Hewlett-Packard in the early 2000s. Let's just say that the transition could have gone smoother.

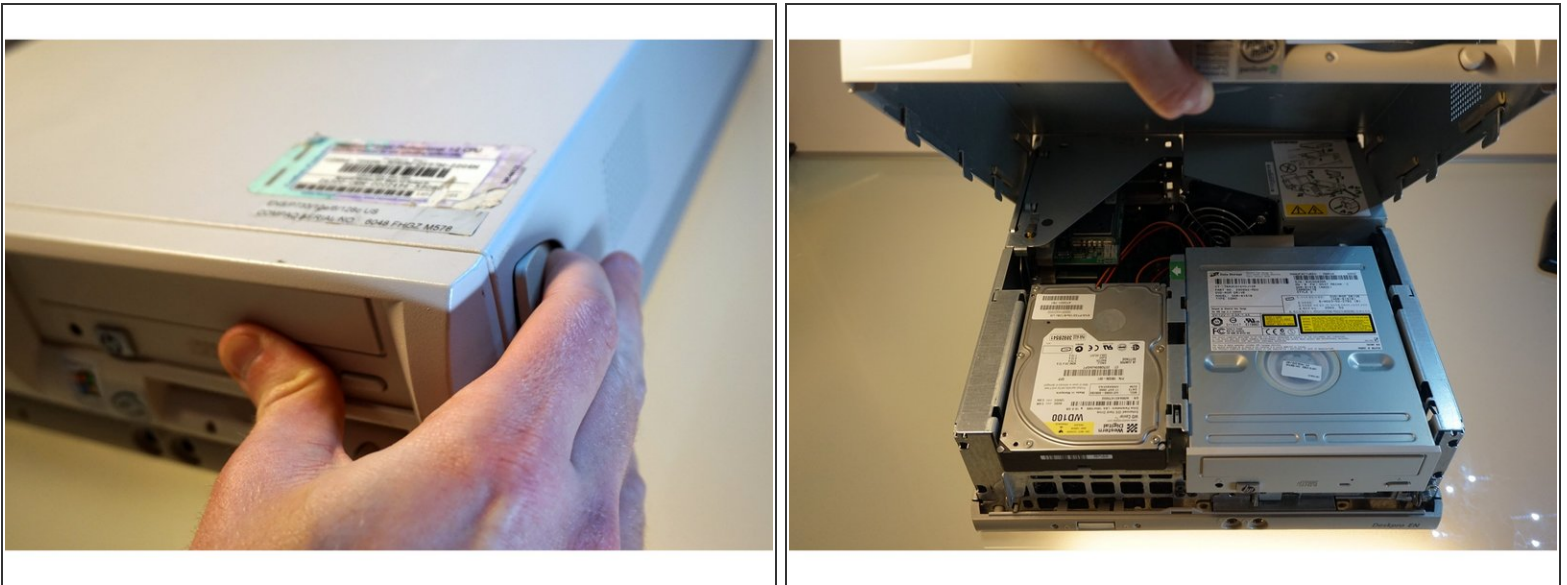
## Step 2



- Some of these ports [belong in a museum](#):
  - RS-232 Serial
  - DB-25 Parallel
  - PS/2
  - DE-15 VGA (*oh, wait...*)
- The antenna is a pretty big clue that this computer has been upgraded at some point.

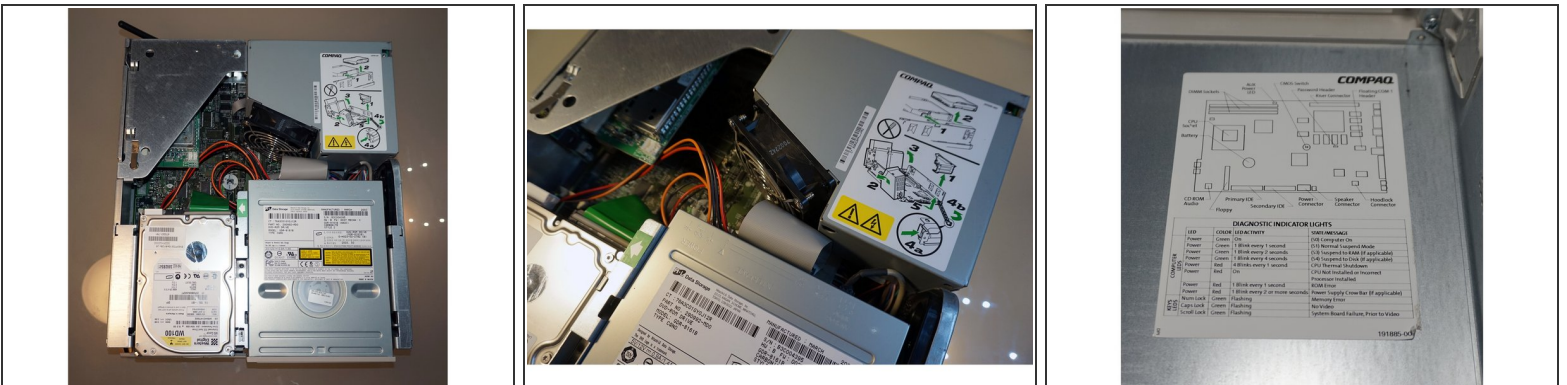


## Step 3



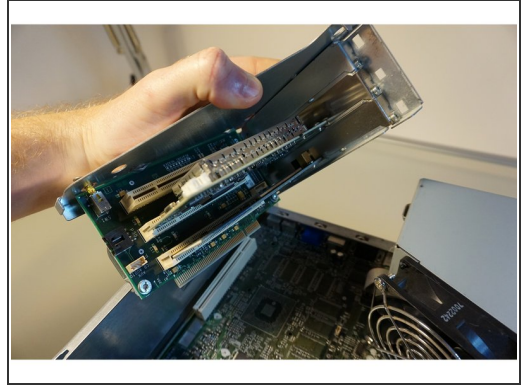
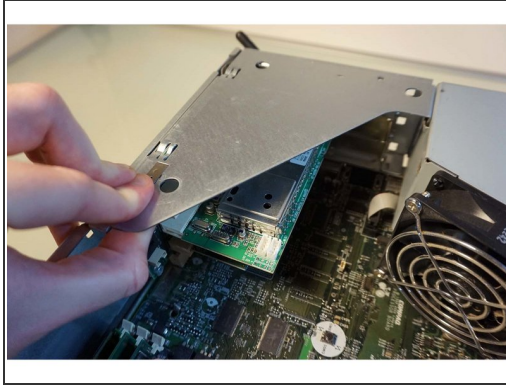
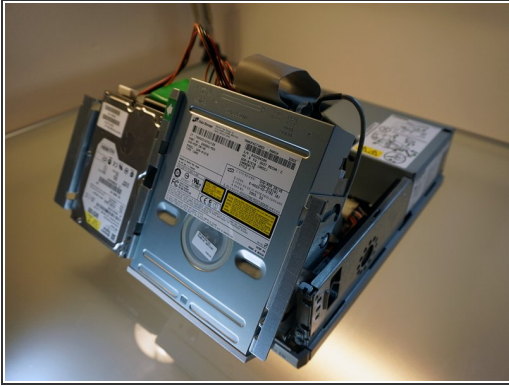
- We're going to remove the heavy steel casing by pressing in on the tabs located on the sides of the cover and then pulling the cover forward.
- There are a few hooks holding the cover in place, so some rocking is necessary to free it.

## Step 4



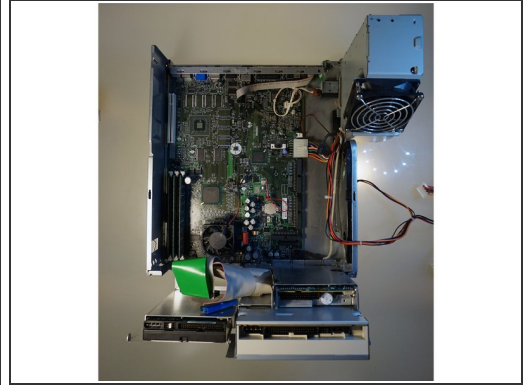
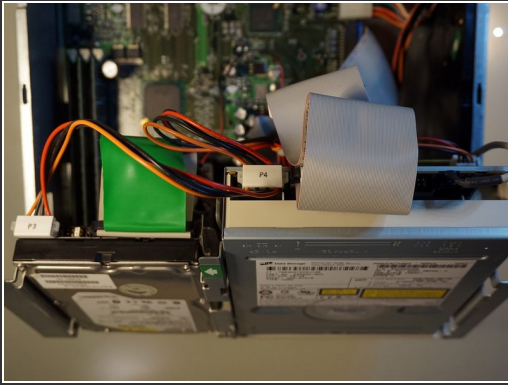
- With the cover removed, we are greeted by some ancient hieroglyphics. Green tabs and arrows identify how the rest of the major components can be removed.
- A diagram of the motherboard and common diagnostic codes can be found on the interior of the chassis cover.

## Step 5



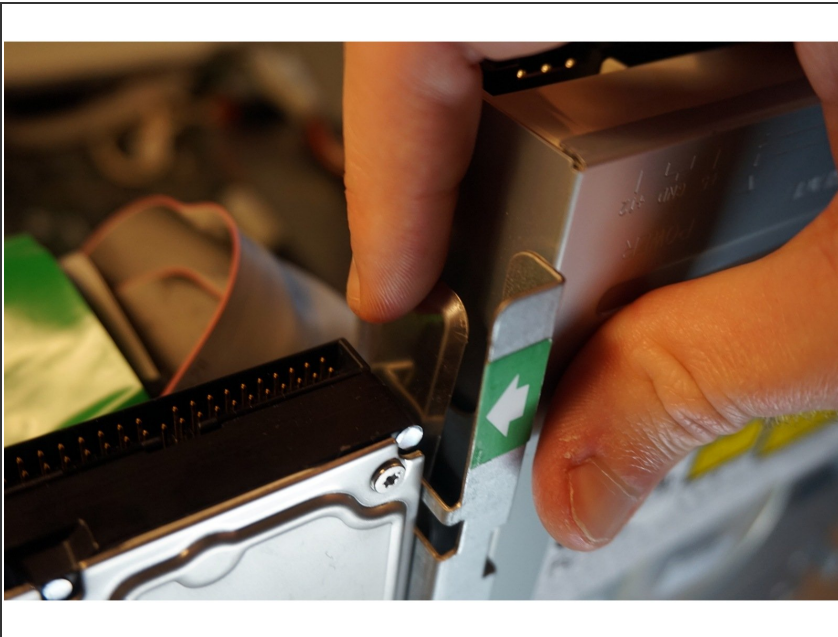
- The various drives are mounted on a single hinge that flips forward. Just pull up and it will click into place.
- The PCI riser is one of the few things missing a green label. The release button is the silver tab towards the front of the computer.
- ⚠ The card slot is fragile, so use an even amount of force and pull straight up to remove the riser board.
- 🔖 We'll set the riser board aside for now and get back to it at the end of this teardown.
- The power supply swivels up and away from the motherboard.

## Step 6



- Time to remove those pesky cables. We'll want to be careful since PATA ribbon cables have many pins that can be bent.
- Tape. Why'd it have to be tape?
- ⓘ We'll just leave that one cable taped to the drive hinge where it can't hurt anything.

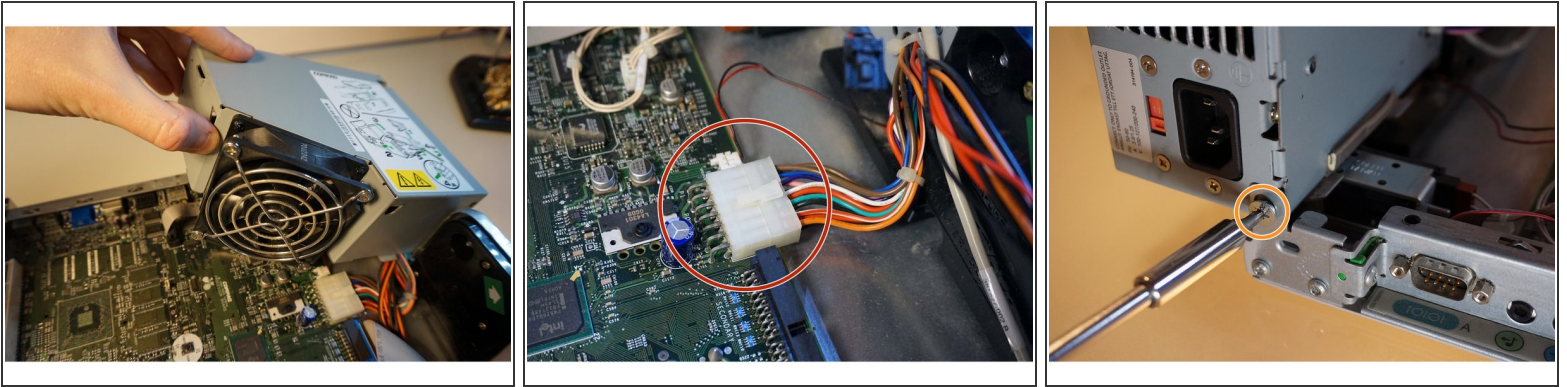
## Step 7



- Each drive has its own metal tab located in the center of the hinged bracket.
- Removing the various drives is just a matter of pressing the metal tab and sliding the drive out.
- ⚠ Keep a good grip on the hard drive as you press the release tab. Even a slight bump could destroy an older mechanical drive like the one shown.

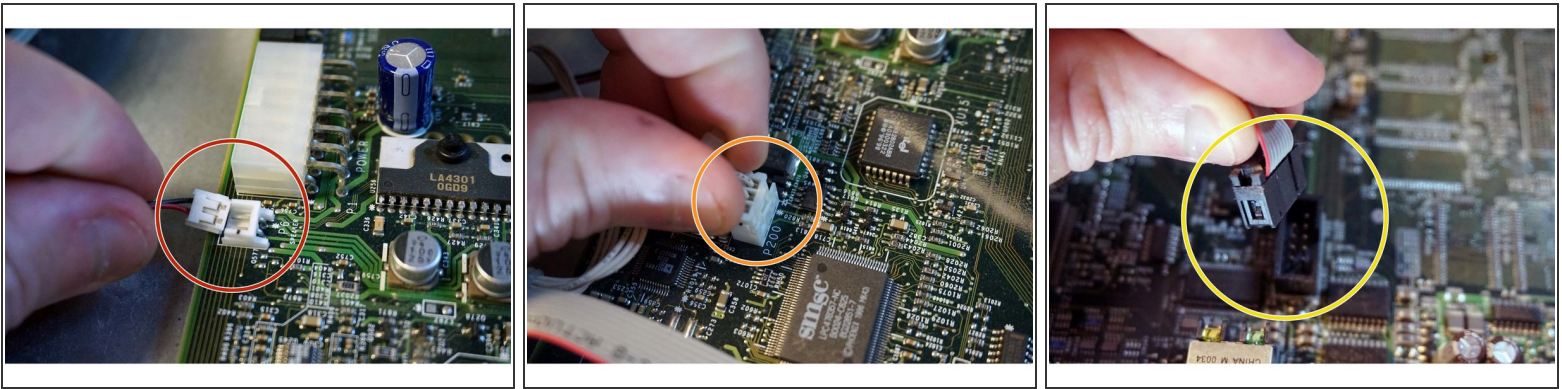


## Step 8



- The next step is to remove the power supply.
- Disconnect the 14 pin ATX connector from the motherboard. (Look for the festively colored cable.)
- A single T5 Torx screw holds the power supply to the chassis.
- ⓘ A standard flathead screwdriver can also be used to remove this screw.

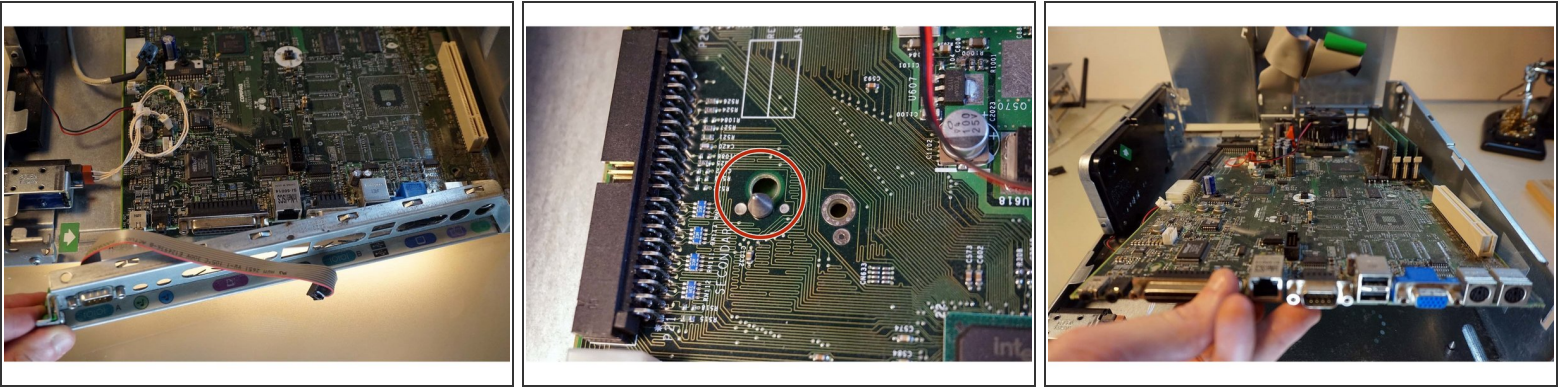
## Step 9



- A few more cables need to be disconnected before the motherboard can be removed.
- The speaker cable has a red and black wire.
- The solenoid cable has three white wires.
- ⓘ The solenoid is used to physically lock the chassis cover. It can be disabled in the BIOS settings.
- The serial cable is a small gray ribbon. The connector is marked as "Flying Serial" on the motherboard.

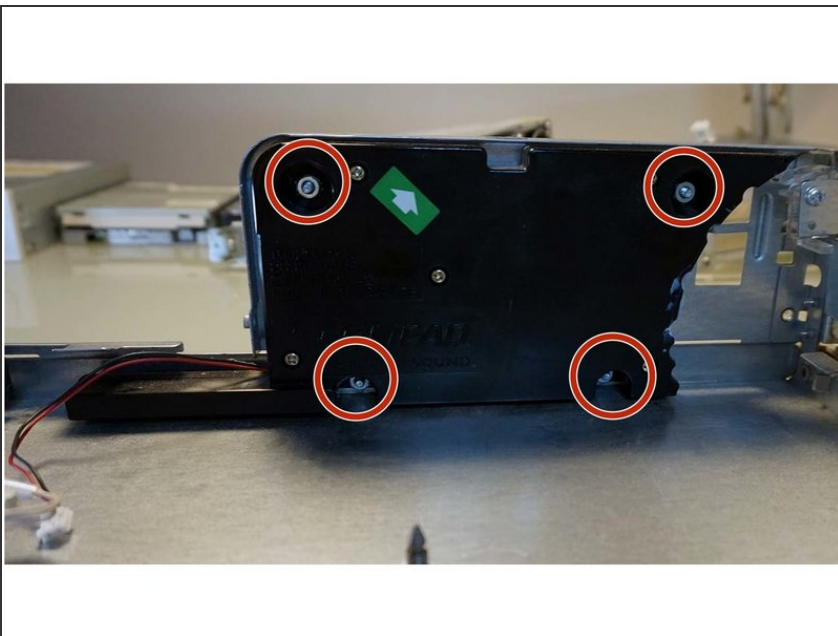


## Step 10



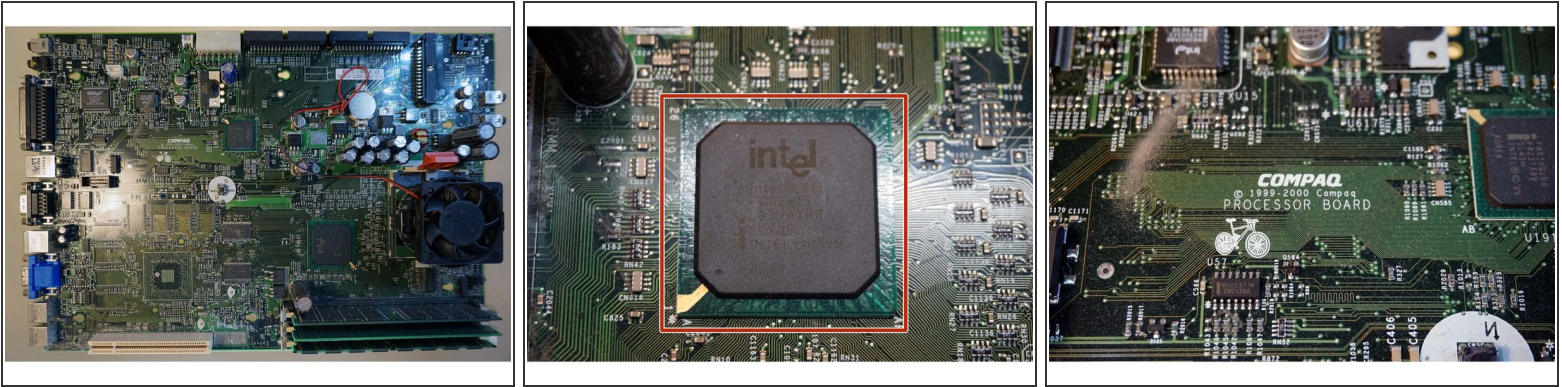
- It's finally time to remove the motherboard!
- We'll start by releasing the I/O port bracket on the back of the computer.
  - ⚠ This bracket is under pressure and will fly across the room if it isn't held down. (That may be why it's called a "*Flying Serial*".)
- Six support pegs are now the only thing holding the motherboard in place.
- Slide the board towards the back of the computer and lift up once the pegs are free.

## Step 11



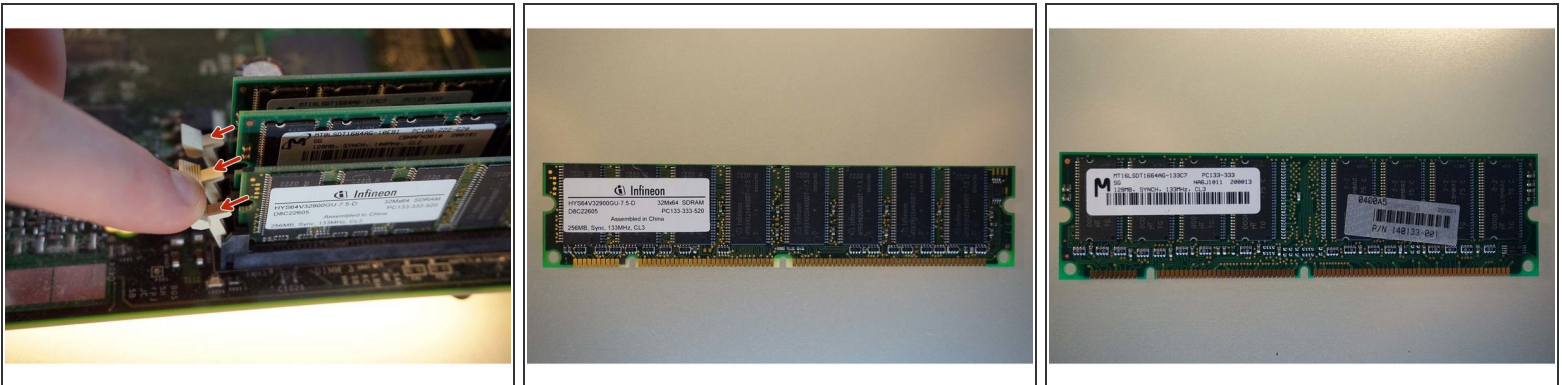
- Four 8 mm hex nuts are the only thing keeping this beast of a sound system attached to the chassis.

## Step 12



- Take a moment to admire the motherboard in all its glory!
- In lieu of a dedicated video card, the Intel 815 chipset utilizes an integrated graphics solution. Needless to say, gaming on this machine would be painful at best.
- ❗ The bicycle is a complete mystery. Some people have suggested that a tiny mouse would pedal it to drive the cooling fan. Others have said that it was placed there by Freemasons to locate buried treasure.

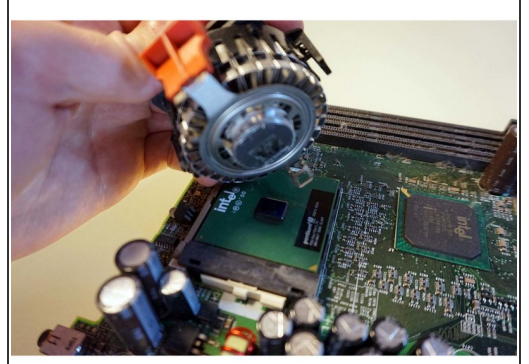
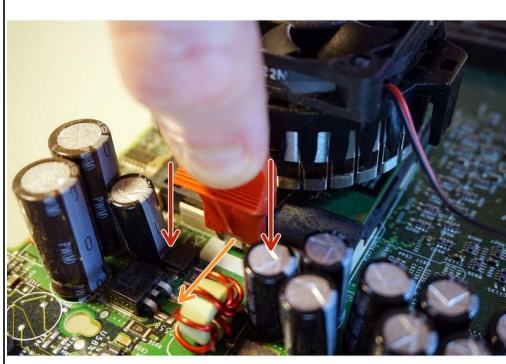
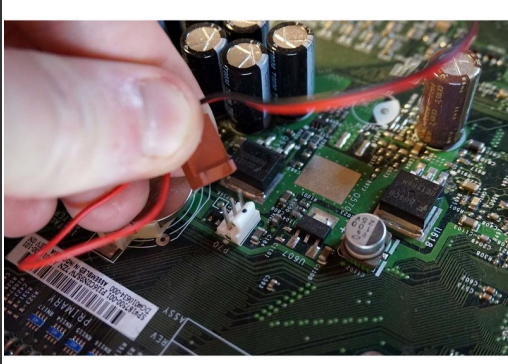
## Step 13



- The RAM can be removed by unlocking the white tabs on each end of the modules and pulling up.
- ❗ Here we find yet another sign of past upgrades. This Infineon 256 MB PC133 module does not match the other two sticks which are 128 MB modules manufactured by Micron.



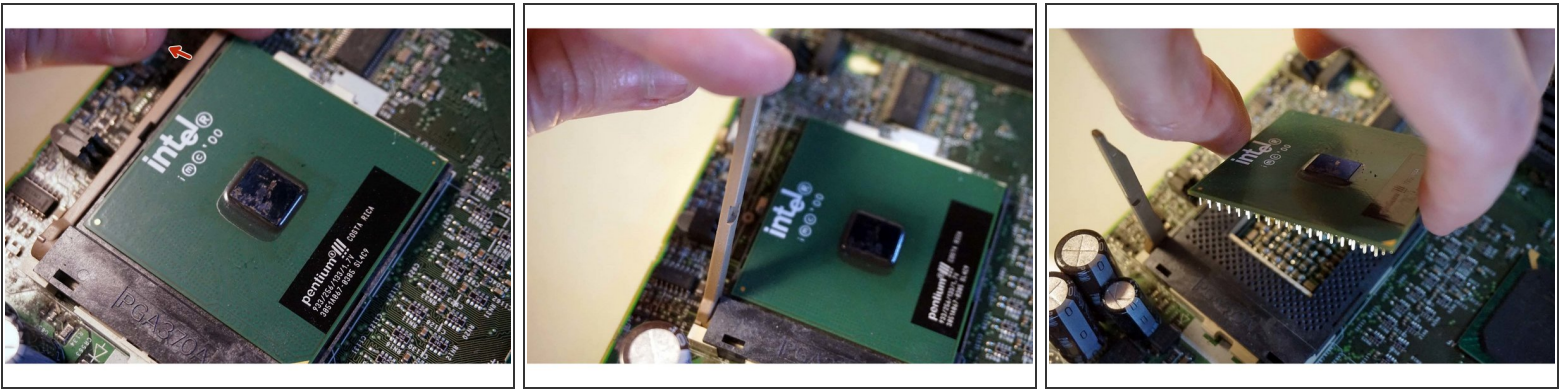
## Step 14



- The first step in removing the CPU cooler is to unplug the small three pin power cable.
  - The CPU cooler is attached to the socket with metal hooks. Removing it without damaging the CPU requires two distinct motions:
    - Gently push down on the red tab.
    - Squeeze the red tab towards the fan and then lift the cooler.
- ⚠ Using too much pressure can crack the processor and ruin your day.
- ⓘ We can now see the CPU die since this version of the Pentium III does not have an integrated heat spreader. This design is called a flip-chip pin grid array (FC-PGA).

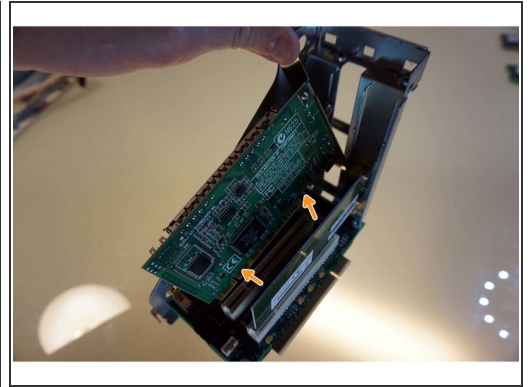
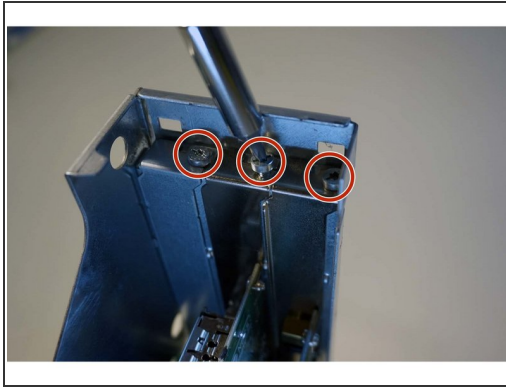
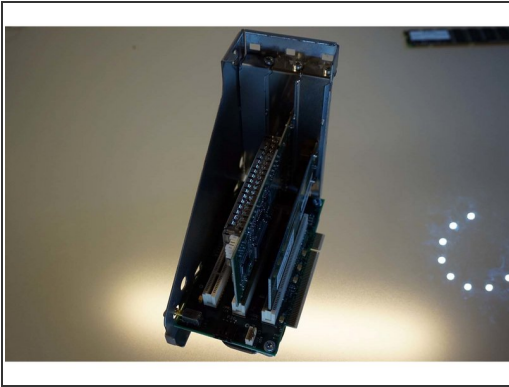


## Step 15



- Removing the CPU requires a steady hand and can be slightly intimidating.
  - A beige lever keeps the CPU locked in place. Pull it away from the processor and then up. The processor will move towards the group of capacitors when it is unlocked.
- ⚠ Now would be a good time to ground yourself if you haven't been wearing your nifty [anti-static wrist strap](#).
- The processor can be removed from the socket by gripping the edges and pulling straight up.
- ⚠ **DO NOT** force or twist the processor from the socket. Consider using a [spudger](#) to lift the edges if you can't get a good grip.
- ⓘ This is a socket 370 Pentium III "Coppermine" processor clocked at 933 MHz. The other markings indicate 256 KB of L2 cache and a bus speed of 133 MHz.

## Step 16



- It's time to return to the PCI riser now that we've run out of things to take apart on the motherboard.
- The riser has space for three additional PCI cards that are each secured with a single T5 Torx screw.
- A quick pull is all that is needed to remove each card.

## Step 17



- That's it. Now we just need to reassemble it before someone realizes it's not in the warehouse.
- Completely Unofficial Compaq Deskpro EN Repairability Score: **10 out of 10** (10 is easiest to repair)
  - It practically tells you how to disassemble it.
  - Most common repairs can be done with one tool.
  - Faces remain unmelted after removing the cover. (*Always a good thing.*)
  - Finding replacement parts may require entering a Temple of Doom/RadioShack.