

Dismantling a Desktop Computer

Health & Safety



Wear personal protective equipment¹



Do not test equipment prior to dismantling²



Wash hands after work and before every break



Keep your workplace clean



Step 1

Remove all screws and take off the case



Step 2

Clip and remove all cables



Step 3

Remove all drives, the mainboard and the power supply unit



Step 4

Remove large aluminium parts from the mainboard³



Step 5

Unscrew the printed wiring board from the hard disk drive



Step 6

Open the hard disc drive.⁴ For most hard disk drives, special Torx-screwdrivers are necessary. Most commonly, Torx-size 9 is required



Step 7

Use a screwdriver to remove the magnet-units against their magnetic force



Step 8

Remove the copper coil and sort the dismantled hard disk drive into (a) aluminium, (b) printed wiring board, (c) magnets with steel-shoes (d) copper and (e) screws⁵



Step 9

Dismantle the CD/DVD-drive and sort the materials into printed wiring boards, steel and plastic



Step 10

Dismantle the power supply unit



Step 11

Remove large aluminium and steel/copper parts from the printed circuit board of the power supply⁶



Output

Sort all dismantling outputs into (a) plastics, (b) ferrous metals, (c) printed wiring board, (d) aluminium, (e) cables, (f) mixed materials, (g) rare earth magnets⁷

Further information: www.resourcefever.org

¹ Overall, safety boots, work gloves, dust masks, protective goggles
² Plugging-in and testing can charge capacitors, which can result in electric shocks during dismantling operations
³ Some recyclers also remove the processor and RAMs to be sold as separate fraction.
⁴ Steps 6-11 can also be outsourced to specialised companies.
⁵ The case and platters are both aluminium and do not require further dismantling. While some lids are aluminium, others are made from stainless steel.
⁶ Transformers, heat-sinks and large aluminium capacitors.
⁷ Further processing required for plastics and ferrous metals (size- and volume-reduction), mixed-metals (further processing to separate the various materials), cables (remove and separate insulation) and magnets (demagnetisation and separation of steel parts).