

How to troubleshoot and fix a Xbox 360 DVD drive

As many of you may already know, the DVD drive...

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If your drive tray looks like a BENQ or Phillips Lite-on then the only way to identify what drive you have without disassembling your 360 is to remove the 360 faceplate and look directly under the Xbox 360 logo on the drive tray cover, the colour of the wires determines what model DVD drive you have.

Red Wires = Toshiba-Samsung TS-H943A
Black plastic = Hitachi GDR-3120L
White Wires = BENQ VAD-6038
Yellow Wires = Phillips Lite-on DG-16D2S

INTRODUCTION

As many of you may already know, the DVD drive is matched or "locked" to the motherboard. Put simply, it is not intended to be a "pop-out/pop-in" repair.

This repair involves purchasing a new drive (after verifying which model you have), and repairing the components that have failed

In most cases that I've seen, its either the ejection assembly or the laser assembly - both which can be done in a fairly reasonable amount of time, and the laser replacement requires no soldering (removing entire slide assembly)

I will be posting images of a drive teardown (Philips), and parts identification

Component Level Diagnosis

Common Symptoms and failed parts identification:

SYMPTOM: Slow/No-load but drive is audible

CAUSE: Dirty/damaged laser assembly

RECOMMENDED REPAIRS: Run a DVD cleaning disc in the console; if this doesn't cure or improve the problem ,then replace the laser assembly

SYMPTOM: Fails to eject/slow eject

CAUSE: Dirty ejection mechanism; weak eject motor; streched ejection motor belt

REPAIR: Clean ejection mechanism with compressed air and lubricate with white lithium grease; replace motor and belt if no improvement

TOOLS:

[Spudger](#) (1)

[Xbox 360 Opening Tool](#) (1)

[TR10 Torx Security Screwdriver](#) (1)

[TR8 Torx Security Screwdriver](#) (1)

[Soldering Iron](#) (1)

Step 1 — Hard Drive



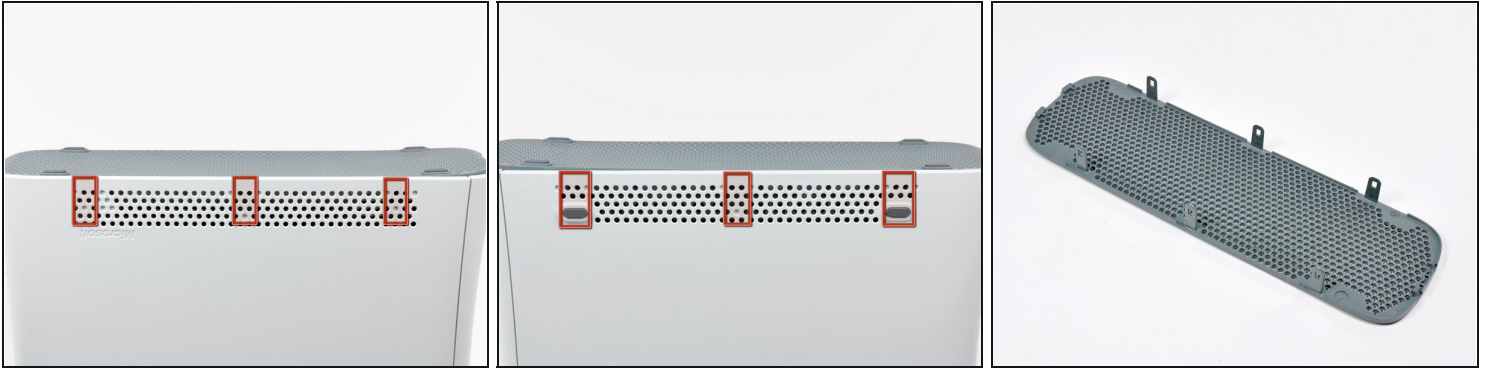
- Grasp the hard drive assembly and press the release button while lifting its front edge.
- Remove the hard drive assembly from the top vent.

Step 2 — Bottom Vent



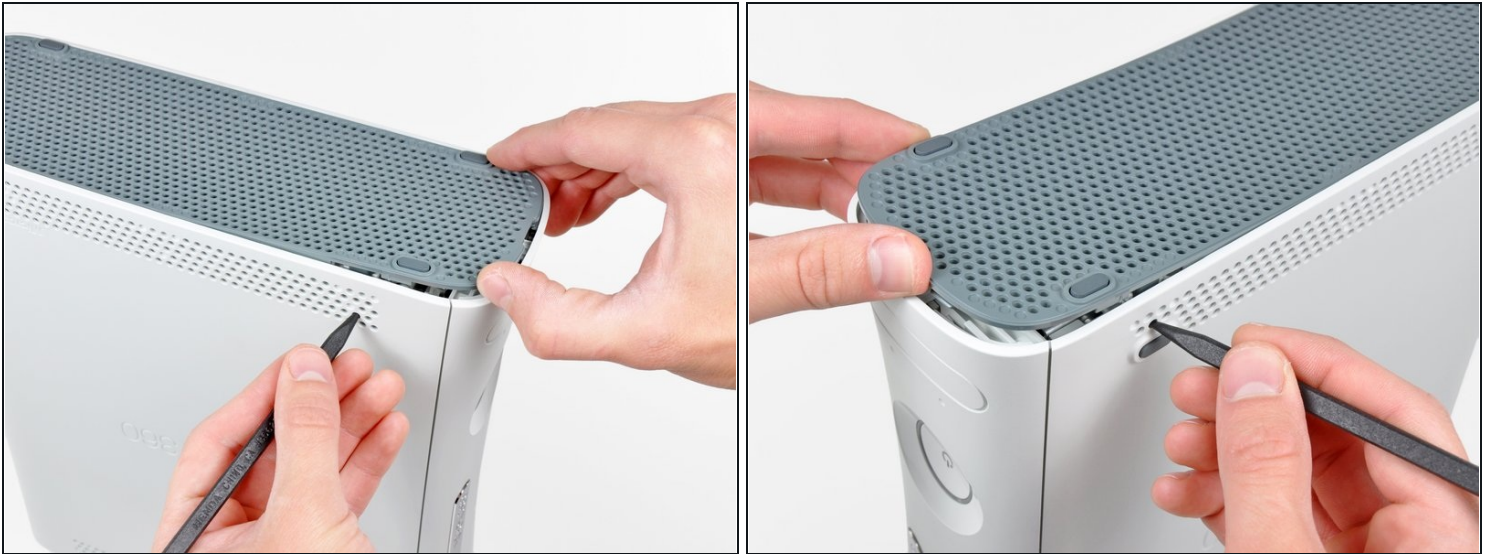
- ★ Stand the console vertically with the bottom edge facing up.
- i Throughout the following opening procedure, the finger of an [Xbox 360 opening tool](#) can be used in place of a spudger.
- Insert the flat end of a spudger or the edge of an Xbox 360 opening tool into the small gap at the front edge of the bottom vent.
- Pry the front edge of the bottom vent away from the faceplate.

Step 3



- ① In the next few steps, you will use the tip of a spudger or the finger of an Xbox 360 opening tool to release the clips along the left and right sides of the bottom vent. Their locations are highlighted in red.
- ① You will insert the tool into the holes molded into the white plastic side case pieces.

Step 4



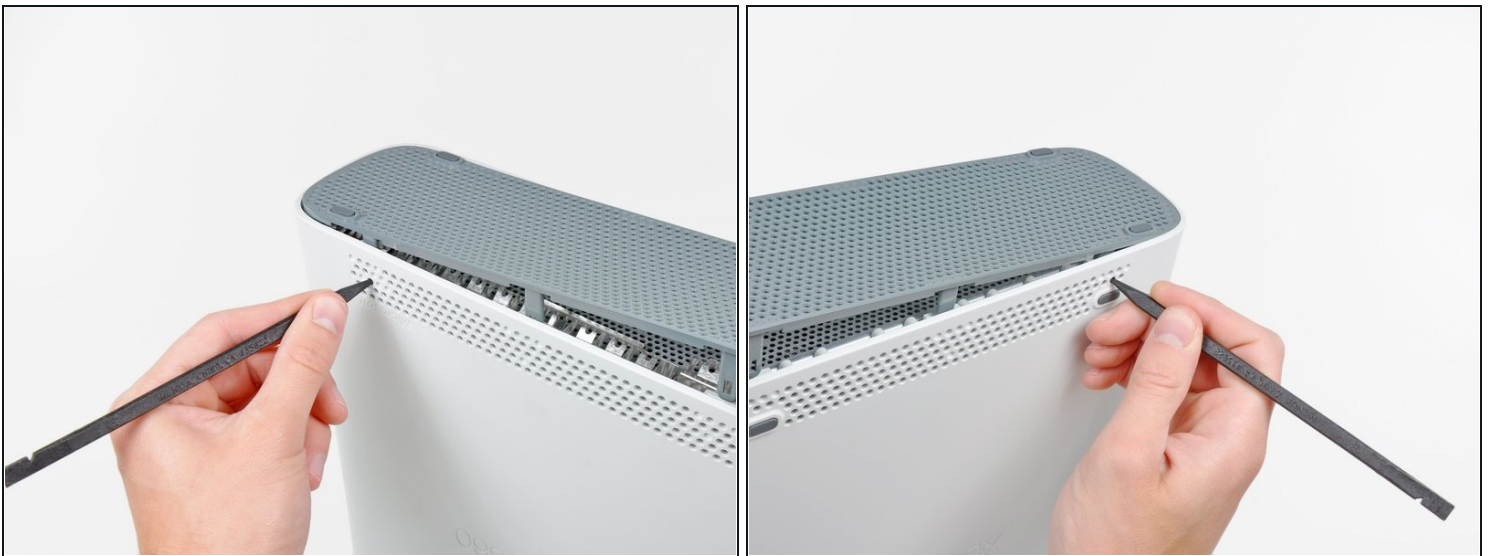
- To release the clips, work from the front edge of the bottom vent.
- While slightly lifting the front edge of the bottom vent, use the tip of a spudger to push the clips closest to the front of the bottom vent towards the inside of the console.

Step 5



- Repeat the same process to release the two center clips on the bottom vent.

Step 6



- Use the tip of your spudger to release the clips on the bottom vent nearest the back of the Xbox.

Step 7



- Remove the bottom vent from the 360.

Step 8 — Faceplate



- Insert the flat edge of a spudger between the faceplate and the outer casing near the power button.
- Run your spudger along the edge of the faceplate to release the clips securing it to the front of the console.
- ① You may also accomplish this task by using the edge of the Xbox 360 opening tool, but it may scratch the plastic case.
- ① Alternatively, you can use your hands to carefully pull the faceplate away from the Xbox.

Step 9



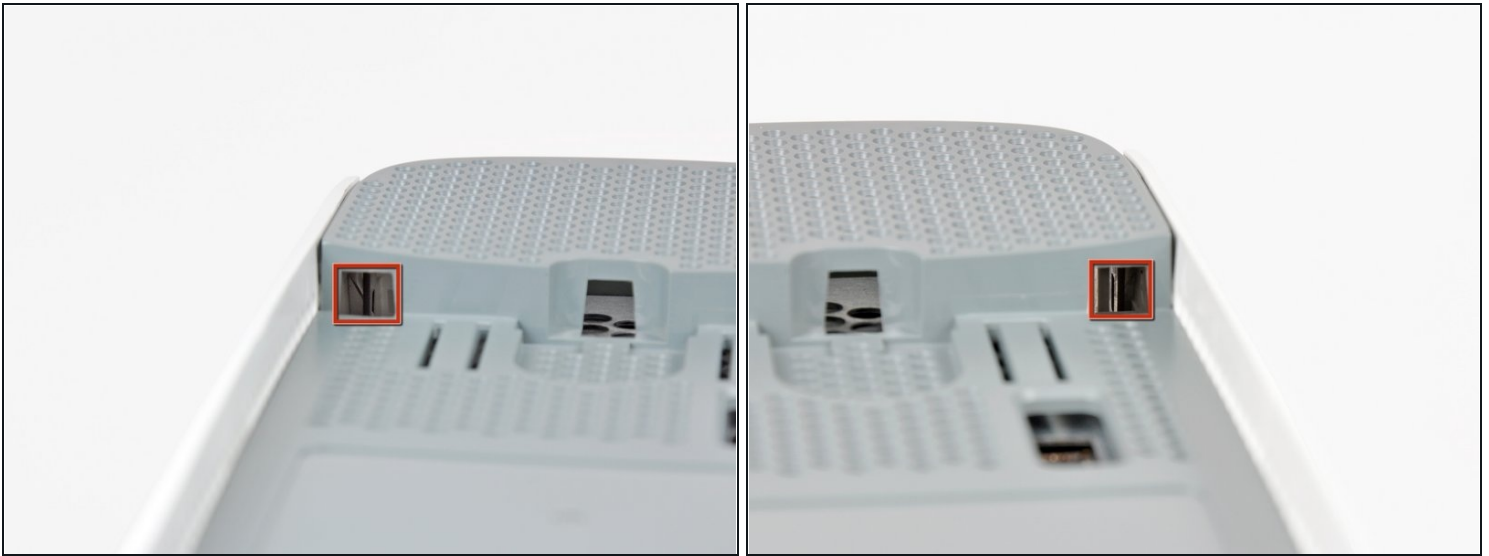
- Repeat the same motions as previously mentioned to release the left side of the faceplate.

Step 10



- Remove the faceplate from the front face of the console.

Step 11 — Top Vent



☑ Stand the console vertically with the top edge facing up.

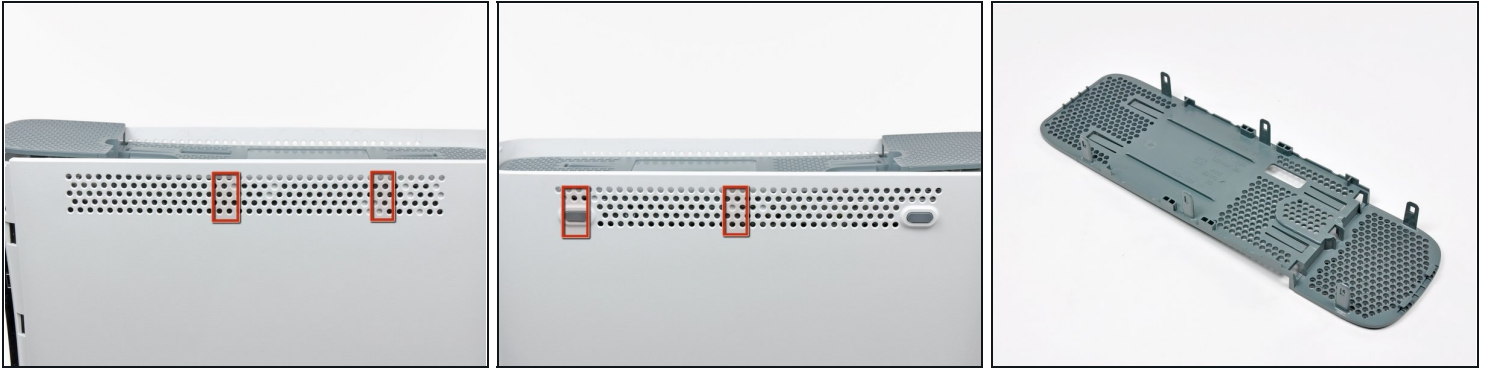
- The top vent is secured to the console via clips. The first two clips are located underneath the top vent closest to the faceplate, as shown in the pictures.

Step 12



- Insert the flat end of a spudger into the small gaps previously mentioned to release the clips.
- ① You may also use the long finger of an Xbox 360 opening tool to accomplish this task.

Step 13



- ⓘ In the next few steps, you will use the tip of a spudger or the finger of an Xbox 360 opening tool to release the clips along the left and right sides of the top vent. Their locations are highlighted in red.

Step 14



- To release the clips, work from the middle of the top vent.
- While slightly lifting the front edge of the top vent, use the tip of a spudger to push the clips closest to the center of the top vent towards the inside of the console.

Step 15



- Use the tip of your spudger to release the clip on the top vent nearest the back of the Xbox's upper case.

Step 16



- ⓘ The last clip is hidden underneath the rubber foot nearest the back of the console.
- Use the tip of your spudger to release the clip on the top vent nearest the back of the Xbox.
 - Remove the top vent from the 360.

Step 17 — Lower Case



- Stand the console vertically with the top edge facing down.
- Carefully peel the warranty sticker off the console.

Step 18



① The upper and lower cases are attached via several latches, located in the front and back of the console. These latches must be disengaged to separate the upper case from the console.

- Use the flat end of a spudger to release the following latches:
 - Above the front-facing USB ports.
 - Beneath the front-facing USB ports.
 - Above the Memory Unit slots.

Step 19



- Insert the flat end of a spudger and pry upwards to release the last remaining latch located above the eject button.

Step 20



- Slightly lift the front portion of the lower case to ensure that the latches in the front have been completely released.

Step 21



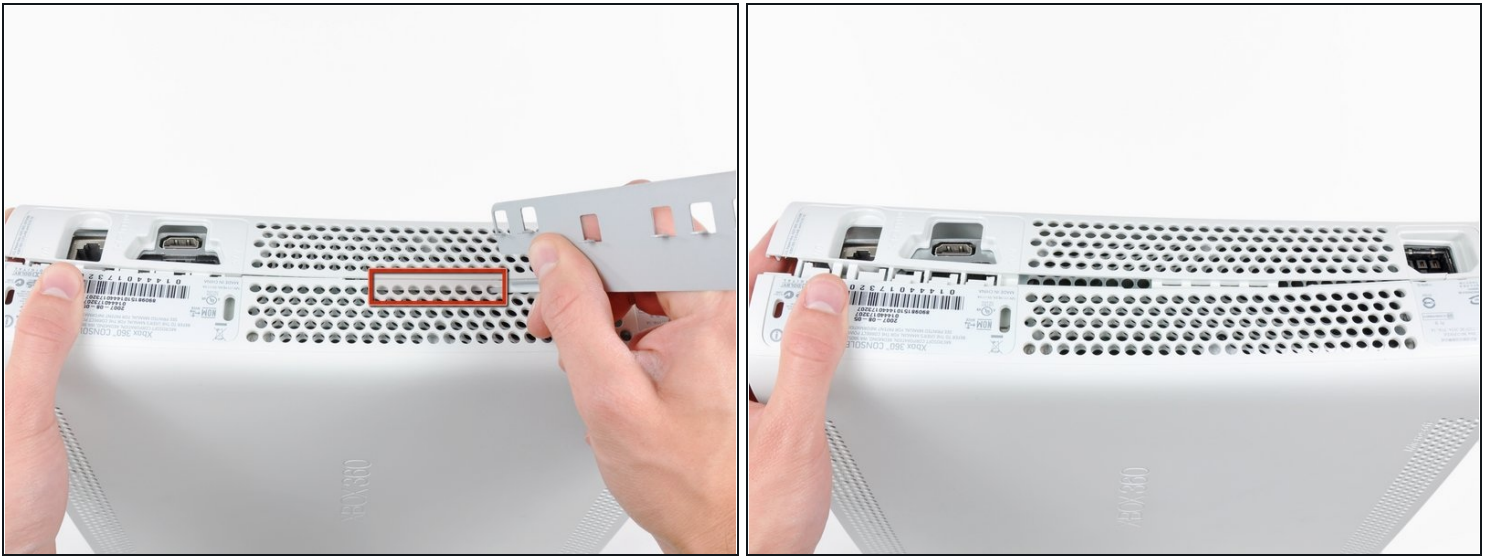
- ① The upper and lower cases are held together by seven release latches located on the back of the console. Their locations are highlighted in red.

Step 22



- Press the Xbox 360 opening tool down into the clips securing the lower case to the upper case near the I/O ports.
- While pressing down on the tool, push the lower and upper cases apart to separate the retaining clips.

Step 23



- While pushing the upper and lower cases apart, use the tip of a spudger or the finger of an Xbox 360 opening tool to push the long clip highlighted in red toward the center of the 360.
- The clip should release, leaving the clips near the power connector as the only thing holding the upper and lower cases together.

Step 24



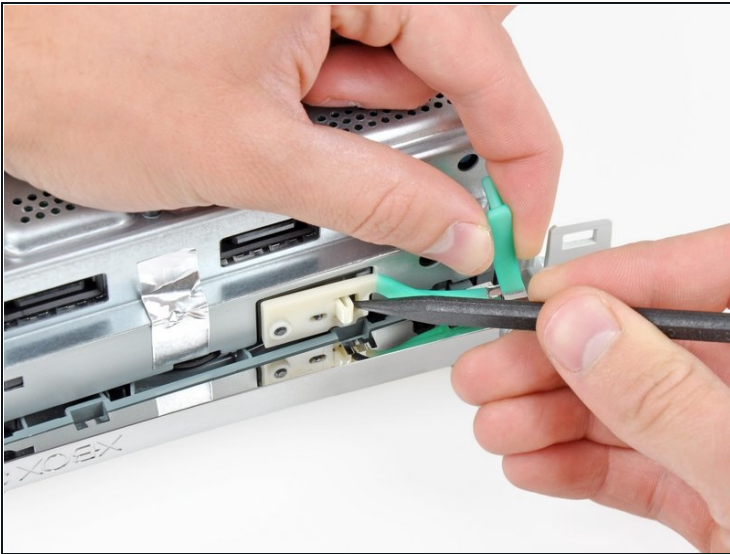
- Press the Xbox 360 opening tool down into the two remaining clips near the power connector.
- Push the upper and lower cases apart to fully release the retaining clips.

Step 25



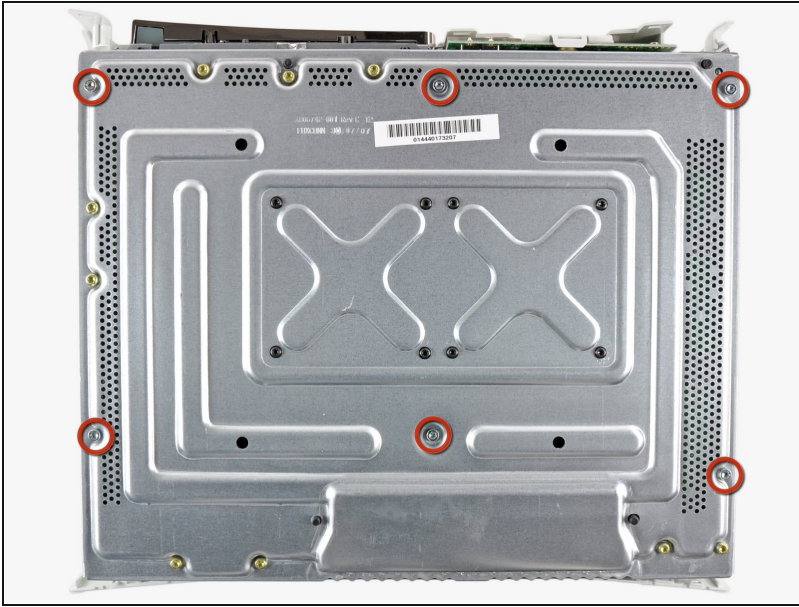
- ✦ Orient the console so that the front portion is facing downwards.
- Grasp the back portion of the lower case and lift it upwards to separate it from the console.
- ⚠ Be careful not to excessively bend the lower case near the power plug, as it can crack easily.

Step 26 — Eject Button



- Use the tip of a spudger to release the clip securing the eject button to the metal casing.
 - Insert the flat end of a spudger between the eject button and the optical drive.
 - Pry the eject button off its retaining posts and remove it from the 360.
- ⓘ This can also be accomplished using an Xbox 360 opening tool.

Step 27 — Upper Case



- Remove the six silver 64 mm T10 Torx screws securing the upper case to the metal casing.

Step 28



- ✦ Orient the console so that the upper case is facing upwards.
- Lift the upper case straight up and remove it from the console.

Step 29 — Optical Drive



- Peel the silver tape securing the optical drive to the metal casing.

Step 30



- Slightly lift the optical drive upwards to gain clearance to disconnect the SATA and power connectors located on the backside of the optical drive.

⚠ Don't try to completely remove the optical drive just yet. Two cables still connect it to the motherboard.

Step 31



- Grab the power connector by its cables and pull it straight out of its socket on the optical drive.
- Disconnect the SATA data connector from its socket on the optical drive by pulling it straight away.

Step 32



- Lift the optical drive assembly out of the metal casing.

Step 33 — Xbox 360 Optical Drive Replacement



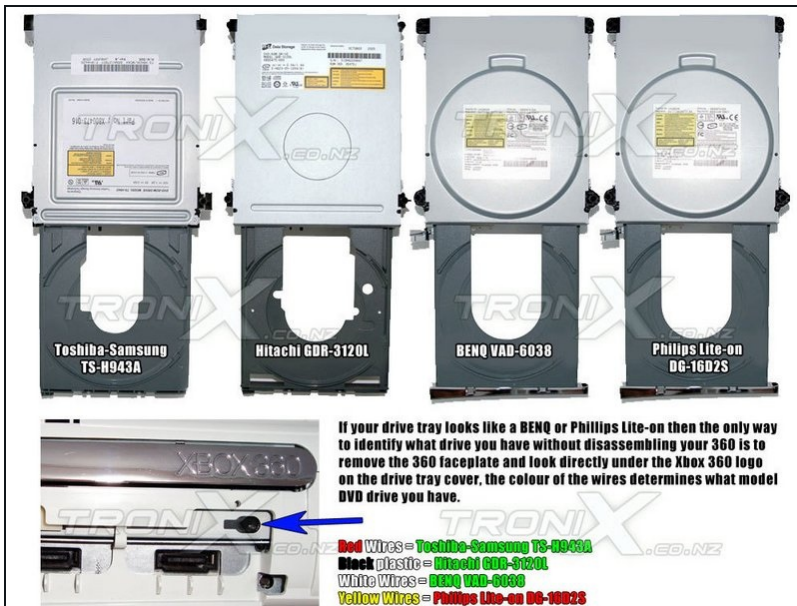
- While pressing the optical drive cover toward the top face of the optical drive, use the flat end of a spudger to release the two retaining clips on the underside of the cover.

Step 34



- Remove the optical drive cover.
- ① Optical drive remains.

Step 35 — How to troubleshoot and fix a Xbox 360 DVD drive



- One of the easiest ways to replace your DVD Drive is to swap out the circuit board from your faulty drive into a new drive. However, you need to make sure that you use exactly the same model of DVD Drive as the one you own. The key is kept on a chip on this board we are swapping, so as far as the Xbox is concerned nothing has changed.

Step 36



- This is a simple procedure for the Hitachi and Samsung/Toshiba Drives (you only need to disconnect two ribbon cables and then reattach them) in the BenQ drive you need to de-solder and resolder 9 wires too.

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