

Xbox 360 Power Supply Teardown

Teardown and a look inside the XBox 360's power supply.

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Xenon/Zepher 2005	Opus/Falcon 2007	Jasper 2008
	Power Supply	
	360 Motherboard	
203w 12V / 16.5A	175w 12V / 14.2A	150w 12V / 12.1A

INTRODUCTION

Okay, so I have a couple of these power supplies and thought I might as well see what's in it and how difficult this will be. The one being torn down is a 175w PSU, identifiable simply by the label as well as by the plug.

To teardown the power supply was a lot easier than I previously have been lead to believe. There is no glue involved, no hidden screws and it is straight forward.

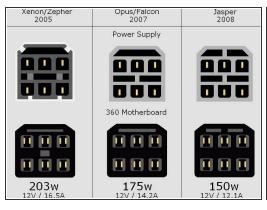
As with any power supply, make sure that it is unplugged before even thinking of working on it. It is absolutely imperative to discharge the large capacitors before working on this PSU. It has enough oomph to cause serious bodily harm!!!



TOOLS:

- Phillips #1 Screwdriver (1)
- Phillips #00 Screwdriver (1)
- Soldering Workstation (1)
- iFixit Opening Tools (1)

Step 1 — Xbox 360 Power Supply Teardown



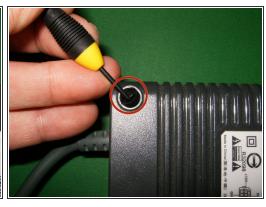




- Here is an image that shows the different plugs for the different power supplies
- The one to be tore down is Model # HP-AW175EF3. Input 100V-127V output 12V 14.2A, 5V 1A
- Remove all four rubber feet from the bottom of the PSU. Simply flip them out with a small screwdriver or similar instrument.







- Once the rubber feet are removed, there will be another plastic cap visible.
- Insert a small screwdriver or similar instrument
- and just flip it out.







- With the rubber feet and the plastic cap removed, the Phillips screws will now be visible.
- Remove all four of those
- All the Phillips screws are 3/4 inch long. Here are the feet, caps and screws that needed to be removed.







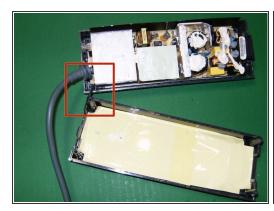
- Use a plastic opening tool, or similar instrument, to widen the gap between the top and bottom half of the PSU.
- Slide the opening tool along the gap will release the tabs that hold the two parts together.
- Do the same on the opposite side of the PSU

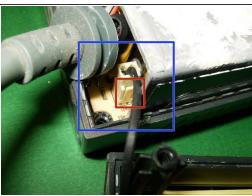






- Once the snaps are released by the opening tool,
- gently move the two parts apart. First at an angle,
- then finally pull them straight apart. There is no glue or any other material that holds the PSU together.
 - ⚠ Do not try to totally separate the two pieces. There is a fan wire that still needs to be disconnected.







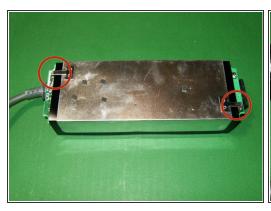
- Here are the two parts separated and the fan wire is visible.
- Remove the connector by
 - pulling the tab in a direction away from the connector and then pulling upwards.
- With the fan disconnected both pieces can now be separated.
 - The first obvious thing visible is the abundant use of thermal paste. It is found on top of every heatsink and large capacitor.



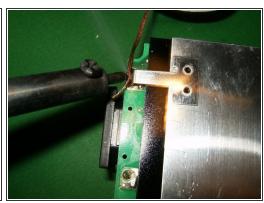




- Here is the circuit board still in the bottom case.
- Nothing holds it down, simply lift it out of the case.
- Circuit board and case separated
 - (i) A PDIP IC is found on this board; a Power Integrations TNY276P AC-DC converter



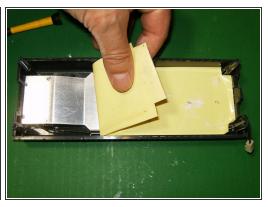




- There is large EMI metal shield soldered to the PCB, that needs to be removed.
- Use a soldering iron, flux and a desoldering wick to remove the left
- and right solder connection.







- Remove the shield.
- Here is the PSU circuit board without shield.
- On the inside of the top part of the case, is a plastic (may be Kapton) tape that need to be removed. Simply pulling on it will release it.







- Here is the reason for the abundant amount of thermal paste seen earlier. All the top ends of the heatsinks as well as the capacitors make contact to this larger heatsink. The previously removed plastic sheet is an electrical insulator
 - Remove the six Phillips screws.
- Remove the heatsink from the case. The six screws are identical in length. Underneath the heatsink is the fan







- Remove the four small Philips screws. They are 1/4 inch in length and all are identical.
- pull the metal top out,
- and then the fan. Dust and debris from usage are clearly visible.







Here is the top part of the PSU, minus the heatsink and the fan.

The disassembly was quick and easy. Interestingly enough there are PSU's with a T10 Security screw. The next two images are from a 150W PSU. Make sure you have the right tools for the job.

Step 13



- Parts that need to be checked if the PSU has failed, are
- the fuse
- and the thermistor.

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