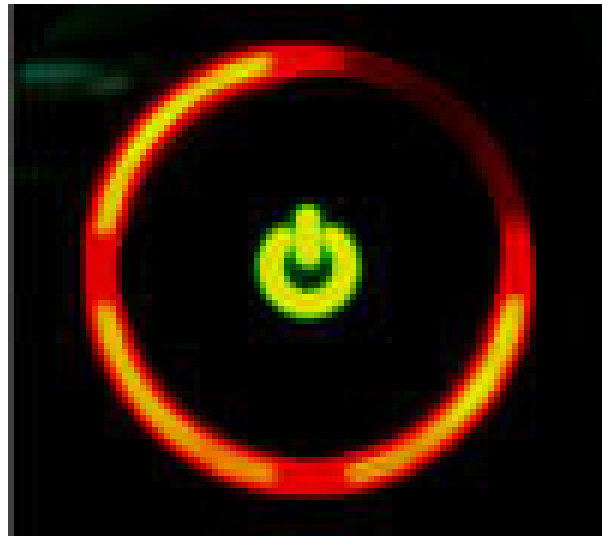


FREE!
STEP BY STEP
X-CLAMP FIX



INSTRUCTIONS

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1. INTRODUCTION

- a) If you are reading this, then you have experienced the Xbox 360 Red Ring of Death (RROD). These instructions will show you how to perform the “X-clamp” fix which, in most cases, repairs the Xbox 360 RROD.
- b) **NOTE:** If you are getting the three red lights and **YOU HAVE NOT OPENED YOUR CONSOLE**, then by all means **call Microsoft first at 1-800-4MY-XBOX** for customer support ([CLICK HERE](#)). Microsoft has extended the warranty of ANY console experiencing the 3 red lights failure for a full three years from the manufacture or purchase date.
- c) If **YOU HAVE OPENED YOUR CONSOLE**, then this fix is your best option. Just follow these instructions for the best results.

2. OPENING THE CASE

	<p>a) First, remove the faceplate. The easiest way to remove the face is to use the finger hole at the bottom of the console and simply pull forward. (In this photo the Xbox is upside down) Give her a good tug and pop! CLICK ON ANY PICTURE TO ENLARGE.</p>
	<p>b) Starting with the gray bottom vent plate, you will see six tabs that hold it into place. All tabs are accessible from the sides through the vent holes. Gently pull up on the plate and simultaneously release the clips by pushing in with a small screwdriver or other tool that fits through the hole.</p>
	<p>c) Begin at the front of the case and work your way back alternating sides so each pair of tabs are released. Keep gentle pressure to pull it up and away as you go</p>
	<p>d) The top plate is a little more difficult. Three out of the six tabs are not in plain view. One of the rear tabs can be accessed by removing the foot that covers the vent hole. If you release the two in the back and two in the middle, you can work the front two out by wiggling the plate.</p>
	<p>e) With the top and bottom vent covers removed, lay the console upside down. This makes the process much easier because the chassis is screwed to the top. With the feet pointed up you can see 7 small holes. Inside the holes are clips that will need to be released.</p>



f) You will need a very small tool to insert into the small holes. I use a [1.4mm miniature flat screwdriver](#). When releasing the clips, I find it helpful to spread the case with my thumb and forefinger, and then start with the two holes by the power cord.



g) Press in with the [screwdriver](#), you should hear crisp clicks as the clips release and the case should pop open a bit.

h) Continue to spread the case apart and push in the clips across the console. With every clip, it will spread a little further apart. Continue until the case is free. Spread the back apart a couple inches it should be able to rest open while you turn the console to work on the front.



i) Begin with the front clip nearest the [DVD drive](#), use your fingernail to apply a little pressure and start spreading the lid apart. It should pop right open. Continue on with the rest of the tabs until the cover releases.



j) Lift the lid and you'll discover a steel chassis. The photo indicates which screws to remove. Remove the six screws with a [Torx 10](#) driver.



k) Turn it back right side up but before removing the other half of the case, remove the eject button with your fingernail.



l) You should now have a spread of parts that looks something like this. [FOR VIDEO OF 2a THRU 2I CLICK HERE.](#)

3. X-CLAMP FIX

For most consoles, only the GPU x-clamp needs to be replaced, but some also require the CPU clamp to be replaced as well. For these instructions, we will be doing both clamps at the same time. I HIGHLY recommend you do both right away since even if yours does not require the CPU clamp replacement. It will only take a couple extra minutes to complete

We have supplied you with hardware for exactly what is needed. All of the washers are the same size, so there is no confusion on where to put which size washer.

X-Clamp Hardware Kit:
8 M5 10mm Cheese Head Screws
16 #10 Nylon Washers – 1/16 inch thick
1 pack of thermal paste

You will need the following tools:
T10 Torx driver
T8 Torx driver
Phillips screwdriver
Pliers or Crescent wrench



- a) Remove the [DVD drive](#) by loosening the tape in the front of the console, lift the [DVD drive](#) and detach the two cables from the motherboard at the rear. **CLICK ON ANY PICTURE TO ENLARGE.**



- b) Remove the [fan](#) shroud using a [small slotted screw driver](#) to push the tab holding it in place and lift up and out.



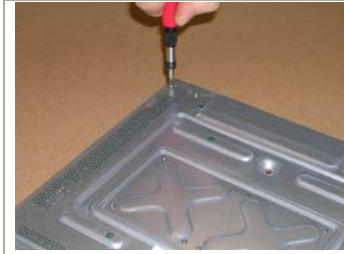
- c) Next, unplug the [fan](#). Then lift up on the steel flap holding the [fan](#) in place while pulling it toward you.



- d) Remove the power button/wireless controller board using your T8 [Torx](#) driver. There are three screws; one is behind the plastic LED lens cover.



e) Remove all 8 heat sink screws ([T8](#)) holding the processors to the chassis.



f) Remove the remaining motherboard screws using your T10 [Torx](#) driver.



g) At this point the motherboard will lift out. Use GPU heat sink to lift the board up and out.



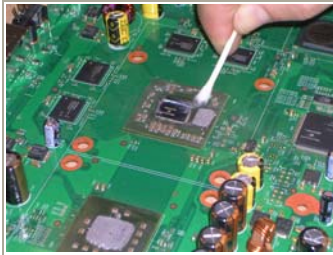
h) With the motherboard removed, the X-Clamp is accessible. This is the most difficult part and should be done delicately or you may end up damaging the board. Begin by wedging a [small flathead screwdriver](#) between the clamp and the stud. Then gently rock the screw driver back and forth and the clamp will eventually work its way up and off of the stud. The third will become very easy to remove and then it will just pop right off.



i) With the clamp(s) removed the heat sinks just lift off. [FOR VIDEO OF STEPS 3a THRU 3i CLICK HERE.](#)



j) Once the heat sinks are removed, use your [wrench](#) or [pliers](#) to remove the studs.



k) Now you will need to clean and prepare the processors themselves. Start by removing as much of the old thermal paste as you can with a tooth pick. Then, use alcohol and a Q-tip. This may take a little effort. In extreme cases, you can use Goo-gone. If you use Goo-gone, make sure to clean as much off as possible. The processor dies should be clean and shiny. Clean the paste residue off of the heat-sinks also. [FOR VIDEO OF STEPS 3j THRU 3k CLICK HERE.](#)



l) Take [4 screws and 4 washers](#) and place them through the board from the bottom with the [washer](#) between the board and the screw head. I suggest doing one heat-sink at a time. You can use scotch tape to keep them in place as you turn the board over. Place a [washer](#) over each [screw](#) to act as a spacer between the board and the heat-sink.



m) Apply a thin coat of [thermal compound](#) to the die. Refer to the photo for the amount of paste to use. All you need is a skim coat similar to the thickness of plastic wrap.



n) Place your heat-sinks onto the [screws](#) and hold it in place with one hand while carefully putting a couple of turns on each [screw](#) to keep the washers from falling off. I place the unit on the edge of a table and from below poke my screwdriver through the tape and turn the screw in a few threads. Do not tighten any of them completely yet.



o) Once all the [screws](#) are attached, peel the tape off of the [screws](#) and prepare to tighten them down. Turn each [screw](#) gently until you feel a little resistance. Do this to every [screw](#) before actually tightening them down. Now similar to the technique used in mounting your wheels on your car or bolting down a head on your motor; begin to tighten each [screw](#) slowly in a kitty corner fashion making sure to evenly distribute the pressure across the processors die. Tightening down one side and then the other can result in a cracked processor die. With your large screwdriver put the final turns on each [screw](#). You really can't make them too tight unless you actually strip out the heat-sink. [FOR VIDEO OF STEPS 3l THRU 3o CLICK HERE](#)



p) Place the board back in the chassis. Reconnect your power button assembly/wireless board. Plug your fan in but do not reinstall it. Connect your [DVD drive](#) so you will not get banned from Live for powering up your box without the drive connected. Now with your Xbox basically re-assembled except for the [fan](#) shroud, plug your [power](#) and video cords in and proceed.



q) Now for the most important part and most likely the point where the majority of people who were unsuccessful completing this fix failed. This step requires you to overheat your GPU. Many tutorials tell you to unplug your [fan](#) and turn it on until it overheats. There is one major flaw with this approach. The thermostat for the overheating protection of the 360 is contained within the CPU. The problem is that the CPU overheats without any [airflow](#) before the GPU is able to get sufficiently hot.



r) In order to cool the CPU but not the GPU it is again important to have your [fan](#) shroud removed. Now take your fan and lay it on top of your [DVD drive](#) with one of the fans over the top of the CPU. This will keep the CPU cool to prevent it from overheating while the GPU will get extremely hot. Don't burn your fingers.



s) Power on your 360. Some boxes may just work at this point because the pressure alone was enough to make the GPU's connection good. I still like to overheat even those just to make sure I don't have to deal with it again. So now you should be getting the three red lights like you were expecting. You want to overheat the unit for at least 10 to 15 minutes. The key is in the lights; as long as it is flashing the 3 red lights (1,3,4) then your are in good shape and the overheating process is working. You do not want the unit to actually overheat giving you TWO flashing red lights (1,3) at which point the 360 cuts off power to both the CPU and GPU preventing them from actually getting hot. This could be the difference between someone who succeeds and someone who fails.



t) Now that you have overheated the GPU, power down your Xbox 360 and let it cool down completely (ten to fifteen minutes should be sufficient). Replace your fan shroud; you should now be fully assembled except for the case itself. At this point you should cross your fingers and power your box back on. If all went well, you should now have a working 360! Congrats!

u) If it did not work for you, try tightening the screws even more and reheating.



v) Happy Gaming for those who were successful!
For any questions, please feel free to contact us at xbox360fix@insight.rr.com . [FOR VIDEO OF STEPS 3p THRU 3v CLICK HERE.](#)

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