X-Chip Trouble Shoot Guide Checklist

Version 1.0

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X-Chip With USB Connector And X-Control in General

Most issues to do with the X-Chip not working correctly in an XBOX have to do with CONTACT ISSUES. The best way to determine if you have a defective X-Chip is to FIRST try to WRITE to chip. After a successful write with X-Control software you then attempt a READ Settings. If your settings are there then the X-Chip is working correctly and responding to the X-Control software. Below I have instructions how to do this step by step. This method works 99% of the time. The 2 possible issues that could be bad on the X-Chip not working in the Xbox would be the female header (the little back header on the X-Chip that connects to the solder-less adapter or pin header) that would be defective or some electronic component (part) on the X-Chip itself. If it's an electronic component you have the X-Chip read and write perfectly with the X-Control software however when you write the "special BIOS" to the X-Chip and try to go into the system setting of the BIOS the Xbox locks up. If this happens then you should have the X-Chip exchanged for another one. In our tests and with the high quality control of the X-Chips we have found this very rare to have a bad female header installed in the X-Chip to begin with including bad components on the X-Chip itself however nothing is 100% so the possibility is there.

So in conclusion if you can WRITE and READ to the X-Chip we will assume that X-Chip is not defective and use should READ the rest of the trouble shoot section of this guide.

Please READ the X-Chip master install guide for installing the X-Chip in the XBOX. You don't need to read the entire guide, only read the sections that apply to your installation method.

Make sure you have completely checked over these points and everything is installed as it should be.

- You have installed the latest X-Control Installation Software Pack onto your PC.
- You have installed the drivers correctly.
- You have a standard USB cable and that the X-Control client is detecting the X-Chip (the RED X next to X-Control turns GREEN)
- When you connect the X-Chip to your USB port the light on the X-Chip turns RED until you start the X-Control client which then it turns OFF. (This is NORMAL and the X-Chip is responding correctly to the X-Control client)
- If all of the above happens then your drivers are installed correctly and the X-Chip is correctly responding to the X-Control software. You should now be able to write to chip.

The procedure below IS covered in the X-Chip user guide but we have simplified the process below in 5 easy steps.

Step 1
Connect the X-Chip to your PC; the light on the X-Chip will turn RED.

Step 2
Start up the X-Control software. Wait until the RED X on the upper left corner of the X-Control software turns GREEN and the red light on the X-Chip will be OFF at this point.

Step 3
Now click on “File” then “Load Raw” on the X-Control software a box will now pop up asking you for the “file name” of the bin file. Now select the “proper BIOS/OS” for your X-Chip make sure it is a version that is compatible to your XBOX version. Now double click or click once on this bin file and select open. Note the setting of the BIOS will display on the X-Control software as to where it will be flashed in the selected banks of the X-Chip. You do not have to make any changes to this however if you want to give the X-Chip the ability to disable itself upon boot-up then read Step 3A. If you don’t want to have the X-Chip disabled then continue on to Step 4.

Step 3a (optional)
If you want to have the X-Chip disable itself upon boot-up look at bottom right hand section of the X-Control software. The blue bubble will say “Xbox BIOS”. Now right click on this blue bubble and you will have seven options. Click on Eject and a grey box will appear next to the blue bubble with the Eject written in it (grey box). It will also put a check mark next to the Eject option indicating that you have selected this option. Now continue on to step 4.

Step 4
No click on “X-Chip” then “Write Changes” A progress will be showing on the blue bar next to the X-Control software. It will say “Writing %” when it reaches 100 % the writing (flashing) is complete.

Step 5
Now to verify the flash was done successfully. Close the X-Control software. Once closed start it up again. Wait until the RED X turns GREEN and the red light on the X-chip will be OFF at this point. Now simply click on “X-Chip” then “Read Settings”. The X-Control software will quickly scan the X-Chip and report it settings. If it’s the same settings that you programmed before then the X-Chip is working correctly and responding correctly to the X-control software.

Installation Checklist In Order to Run Unsigned code

Below are all the necessary steps to be done in order to have the Xbox to use unsigned code.

1. Install the X-Chip Installation Package (latest version) found at the Easybuy2000.com web site.
2. READ the PDF manual first before you connect the X-Chip to your computer's USB port.
3. Complete the installation of the drivers as explained in the user guide.
4. Start up the X-Control client, the red X (located on the upper left corner of the client software) should now turn to green and the red led on the X-Chip will turn off.
5. Flash the X-Chip with the Secret Bios/OS (latest version) with the X-Control client. If you want to give the ability to the X-Chip to turn itself off upon boot up make sure that you assign the Xbox Bios to a button of the Xbox. For most users EXCEPT version 1.0 use the Eject button. If your Xbox is version 1.0 use the Y button. All users except 1.0 use the eject button upon boot and users of 1.0 start the Xbox while holding down the Y button.
6. Verify flash was written successfully with the X-Control client.
7. Install the X-Chip either by the solder-less adapter or pin header.
8. Verify the X-Chip is working correctly and booting up the secret Bios/OS.
9. If you are swapping your hard drive with a hard drive BIGGER that 137 gigs enable LBA 48 support in the advanced settings of the secret bios. Change this setting and enable drive F and G. The G partition is required in the BIOS/OS to be enabled BEFORE you install the dashboard. If you want to use the extra space on your hard disk beyond 137 gigs. When this is done you can now use the dashboard and it will detect that the G partition is enabled and format the new hard disk accordingly.
10. At this point you should install your dashboard. You can manually install the dashboard then FTP to your Xbox and manually install via FTP the rest of the applications/utilities. The second option (easier option) is to use an AUTO INSTALLER that does this task automatically. All you need to do is choose the CORRECT option on the menu system of the auto installer.
11. You are now able to use unsigned code with your Xbox. Unsigned code could be anything from back up games to third party utilities like the Xbox Media Center.

NOTE: The Cromwell BIOS that is pre-flashed with the X-Chip does NOT ALLOW you to RUN ANY UNSIGNED CODE. You also need Adobe Acrobat reader in order to READ PDF files

Solder-Less Adapter Issues

Here is where we have most issues with the X-Chip. Many users complain about FRAGING which means that the EJECT led on the XBOX flashes RED and GREEN upon boot-up of the XBOX.

Make sure you have checked all of these points to correct any issues with the solder-less adapter install.

- You have the X-Chip flashed with a bios compatible WITH your Xbox and have verified that it was flashed correctly
- You have inserted all the rivets into the correct LPC holes for your version. Please read the X-chip Master Install Guide for more details.
- Make sure that the adapter is FLUSH with the Xbox motherboard shown in the solder-less adapter section of the X-Chip Master Install Guide.
- Note for version 1.0 Xbox the adapter will not be 100% flush due to the extra stress being put on the pogo pins however the adapter should not move at all.
- Make sure the gold wire is in the proper D0 hole for your Xbox version and that it's angled at a slight angle and making proper contact with the outer ring of the D0 hole of the Xbox motherboard as shown in the solder-less adapter guide.
- The gold wire should be about 1 to 2 mm inside the Xbox motherboard D0 hole.
- If all is done correctly and still the Xbox FRAGS then take a nickel (5 cent coin) and make SURE that the power connector is removed from the Xbox. Now put the nickel between the 2 rows of the solder-less adapter and gently rock back and forth. What you want to do is move the pins slightly apart this solved the issue of the X-chip rocking back and forth as shown in the solder-less adapter. Be VERY CAREFULL when doing so as not much effort is needed to move the pins slightly apart and if you apply TOO much pressure you can BREAK the pins of the solder-less adapter. What you want to achieve is a slight V of the pins where the outer tips will be slightly wider than then base.
- Make sure that the X-Chip is fully inserted onto the solder less adapter and very little rocking of the chip should happen.
- If all has been done and the Xbox still FRAGS then remove the solder-less adapter and inspect the sharp pogo-pins of the adapter to MAKE sure NONE of them are stuck if any pins are stuck you have a bad adapter and you can try to fix by removing it and replacing it with a good pin or just RMA the adapter back for a new one

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Almost ALL of the issues of the solder less adapter can be fixed. Make sure that all points above are checked over above.

Pin Header Troubleshooting

Most of the issues with the pin header installs have to do with improper solder jobs and improper soldering techniques. Also there is the contact issue with the female header of the X-Chip and the pin header itself however this can be corrected by the nickel trick of widening the tips of the pin header as described in the solder less adapter section and below.

Make sure you have checked all of these points and correct/fix anything that is wrong.

- Make sure all points are soldered properly.
- You can test by doing a continuity test on every point
- All points should covered lightly in solder and should be shinny silver looking (remember less solder is more)
- If you points are dull grey looking and blotchy looking or have small sand grains in them then your solder point is NOT soldering correctly and must be redone again. You must remove all OLD solder BEFORE new solder is placed.
- Verify that the 30 gauge wire for the D0 point is soldered to correct spot on Xbox and is soldered correctly to the DO point on the X-Chip.
- Verify that 22 or 24 gauge wire is used for the 5 volt wire for XBOX version 1.6 ONLY.
- Verify that the 5 volt wire is soldered correctly to BOTH the X-Chip and the right leg of the transistor as shown in the install guide. (version 1.6 only)
- Make sure that the X-Chip is not rocking back and forth too much with the pin header. If all is done and still the Xbox FRAGS then take a nickel (5 cent coin) and make SURE that the power connector is removed from the Xbox. Now put the nickel between the 2 rows of the pin header and gently rock back and forth. What you want to do is move the pins slightly apart this solves the issue of the X-chip rocking back and forth. What you want to achieve is a slight V of the pins where the outer tips will be slightly wider than then base. The 5 cent trick can be used for BOTH the solder-less adapter and pin header.
- Make sure that the X-Chip is fully inserted onto the pin header and very little rocking of the chip should happen.

Most of the issues with pin header installs have to do with either the soldering job NOT done correctly or wires not soldered where they are suppose to be soldered. The other is contact issues with the pin header and the female header of the X-Chip itself which can be resolved with the nickel trick

After disassembling your XBOX and installing your X-Chip there are a number of things that can prevent your console from operating correctly. You may experience trouble when booting the console and you would be presented with either a flashing EJECT LED or a Service Code on screen.

The following is a description of these errors and solutions that may assist you to fix the problem.

Flashing LED Error Codes

Flashing RED & GREEN (FRAG):
X-Chip NOT flashed correctly or NOT flashed with the “Proper BIOS” This can be a CONTACT ISSUE (which is most of the time a FRAG happens) or a bad installation (rivets not inserted correctly or an improper soldering job). It could also be the solder-less adapter NOT seated properly in the LPC port. If you did a pin header install it could be one of your solder points was not soldered right (do continuity test to verify solder job) The final contact area to look at would be the connection between the female header of the X-Chip and the solder-less adapter or pin header. If excessive rocking of X-Chip occurs you can fix this issue by doing the nickel trick by spreading the pins apart slightly.

NOTE: FRAG indicates that your D0 wire IS installed correctly, so no need to verify your D0 wire because it IS making proper contact.

Make sure you check that the X-Chip is installed correctly and that its RED LED is ON. If your X-Chip RED LED is not ON then this means that either LPC #2 or LPC # 6 is NOT making contact with the X-Chip. The RED LED on the X-Chip simply means that 5 volt POWER is going to the X-Chip nothing more. You can fix FRAG issues by

- Verify ALL CONTACT ISSUES if using solder-less adapter
- Re-solder the LPC points if using pin header (verify every point with OHM meter)

SOLID GREEN / NO EJECT / NO AUDIO / NO VIDEO
Probably a bad solder point or overheated console.

- Check all your solder points again
- It could also be a heat problem, make sure your fan is connected to the motherboard and working and don't put you’re XBOX near ANY heat sources. You can also try to open the top of the XBOX to see if it fixes the issue and if it does it confirms that it IS a HEAT ISSUE.

SOLID GREEN / NO AUDIO / NO VIDEO
This is probably a problem with your audio/video settings. Try to boot your XBOX with a standard A/V cable (that shipped with your Xbox) instead of a HD (high definition) cable.

ORANGE / GREEN FLASHING
No AUDIO/VIDEO (A/V) cable installed. This may be caused by solder splash on the motherboard or a damaged trace line on the XBOX motherboard.

ORANGE FLASHING
This may also be down to a solder splash on the board or a damaged trace line on the XBOX motherboard. It also may be due overheating.

SOLID RED
System overheated hardware failure!

XBOX Service Error Codes

5 - Kernel - HDD not locked
(Retail Bios require the HDD to be locked)

6 - Kernel - Cannot unlock HDD

7 - Kernel - HDD timeout

8 - Kernel - No HDD found

9 - Kernel - HDD parameters (PIO/DMA/or size {debug}, certain size minimum is required for debug)

10 - Kernel - DVD timeout

11 - Kernel - No DVD Found
12 - Kernel - DVD parameters (PIO/DMA)

13 - Kernel - Dashboard launch fail (due to missing/bad key, or anything else that would prevent it from running) and the dashboard didn't specify why it failed.

14 - Dashboard - Error loading dashboard (dashboard generic error)

16 - Dashboard - Other files to do with dashboard / dashboard settings (specific dashboard error)

20 - Kernel - The dashboard was attempted to load and failed; It was a cold boot, and the dashboard didn't specify why it failed, but it (for some reason) needed to be noted that the DVD passed the challenge/response authentication

Credit goes to Superfr0 for his interpretation of these service codes and his awesome contribution to the XBOX scene.