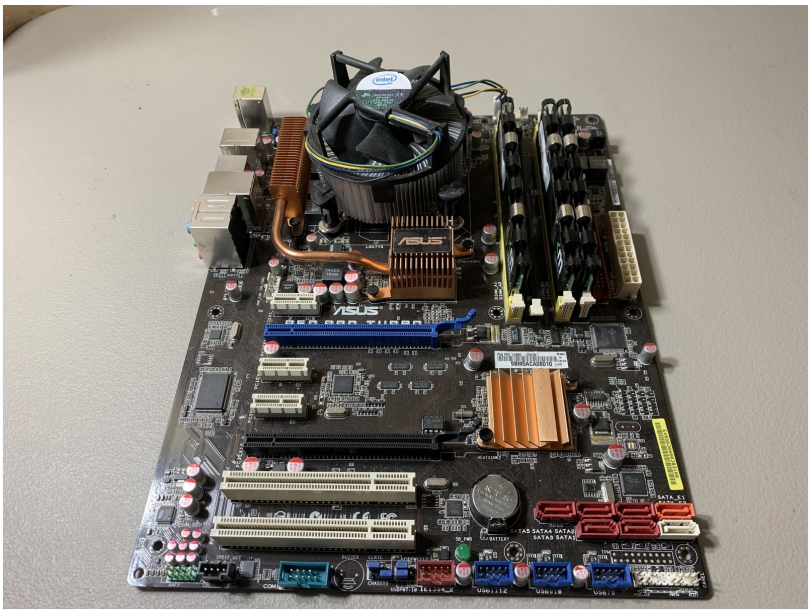
How to Fix Bent CPU Socket Pins

This guide shows how to straighten a bent CPU...

Written By: Nam



INTRODUCTION

This guide shows how to straighten a bent CPU socket pin on a motherboard. Although the repair is demonstrated on an Intel CPU socket, the same general method can be applied to other CPU sockets with exposed pins. Because the pins are extremely small and fragile, this repair requires patience and a very steady hand.

Bent CPU socket pins can prevent the motherboard from properly detecting the CPU and may also cause memory-related issues, such as dual-channel RAM not functioning correctly.

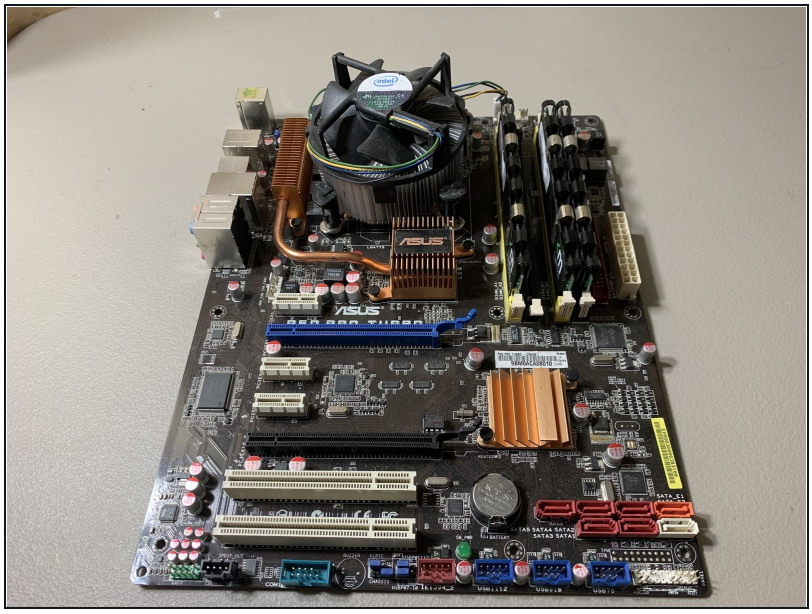
To complete this repair, you will need a needle or another fine-point tool small enough to manipulate the pins safely. A clean workspace and steady hands are strongly recommended. In this guide, a math compass tip is used in place of a needle.

This guide assumes the motherboard has already been removed from the device.

TOOLS:

Hand Sewing Needle (1)

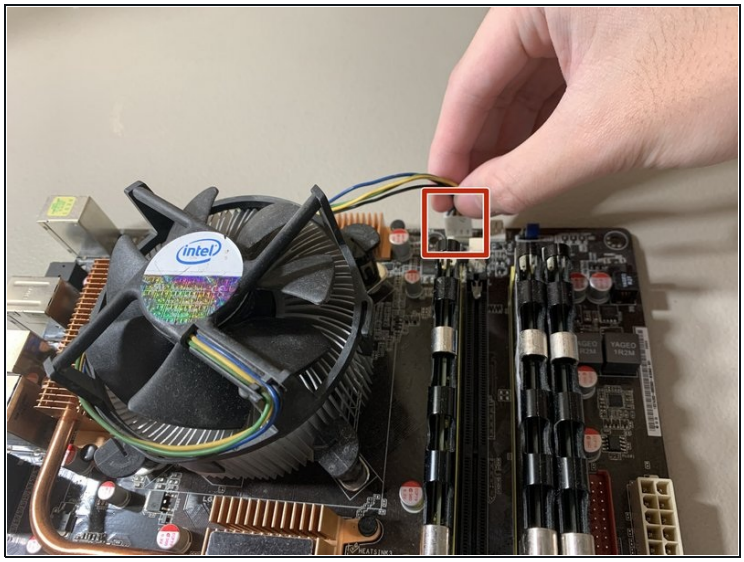
Step 1 — How to Fix Bent CPU Socket Pins

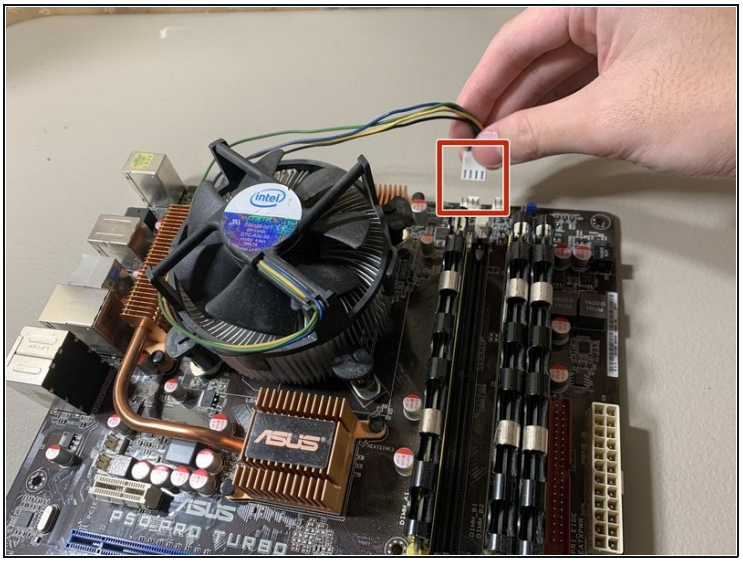


ⓘ Make sure you safely removed your motherboard from your computer.

- Place your motherboard on a table, or on any grounded surface that you are comfortable to work on.

Step 2

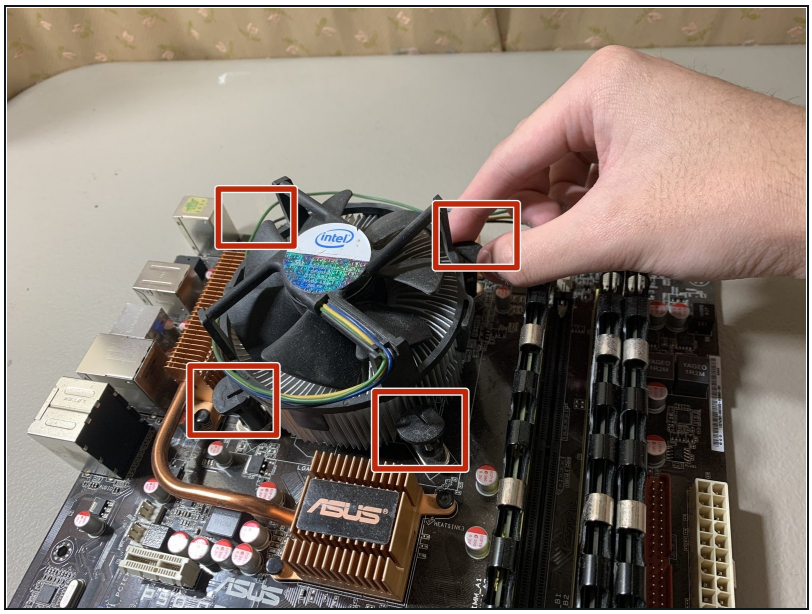




- Unplug the **CPU power cable** connected to the motherboard.

⚠ Don't pull the CPU Power cable by the wires to avoid damaging them and the CPU power pins.

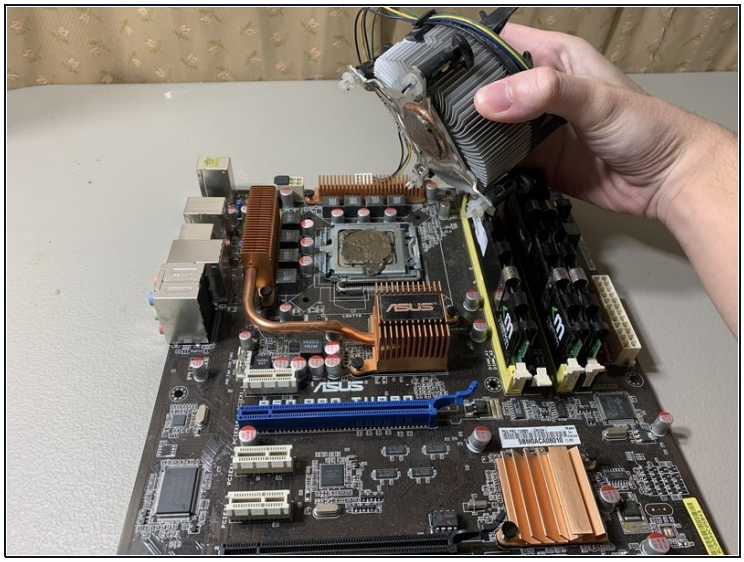
Step 3



- Now, if you have an Intel Cooling Fan, turn the four pins on the CPU cooler counterclockwise.
- Then pull all four pins to remove the CPU cooler off the motherboard.

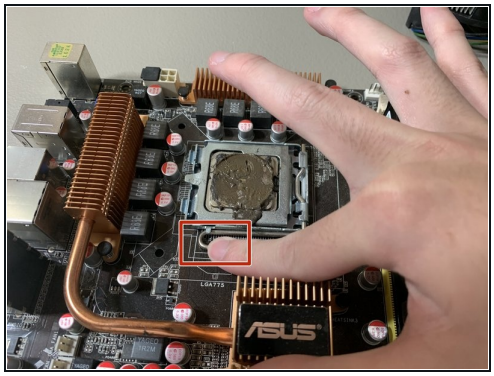
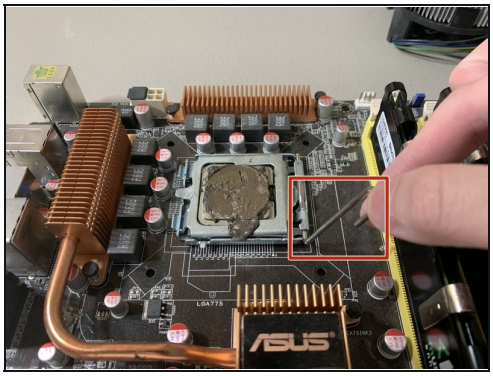
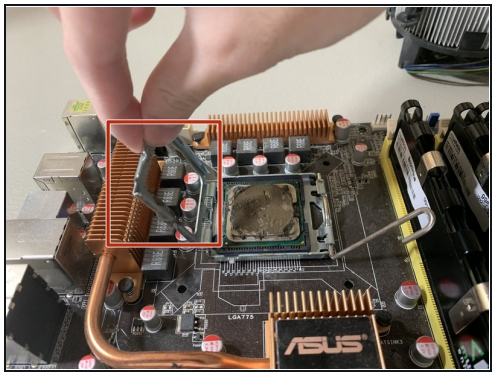
ⓘ If you have a different cooler, or an aftermarket cooler, read your manual for your other cooler to see how to properly remove the cooler.

Step 4




- Now remove the CPU cooler off your motherboard, and place the cooler aside.

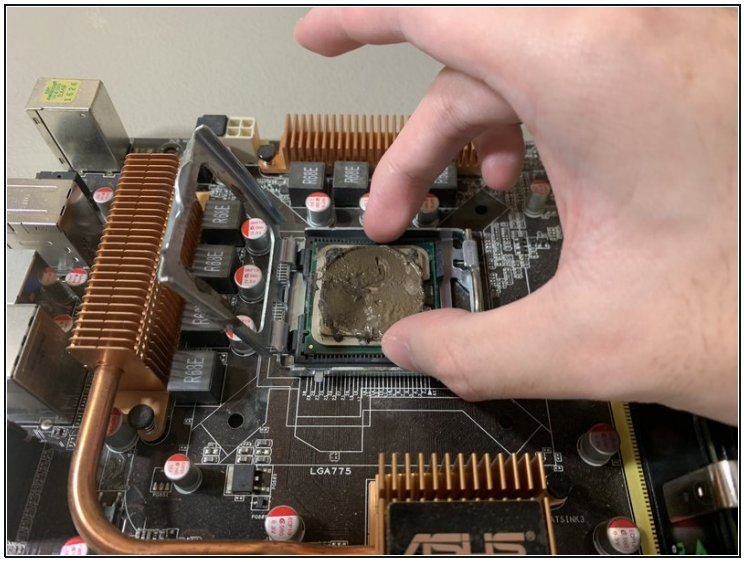
Step 5

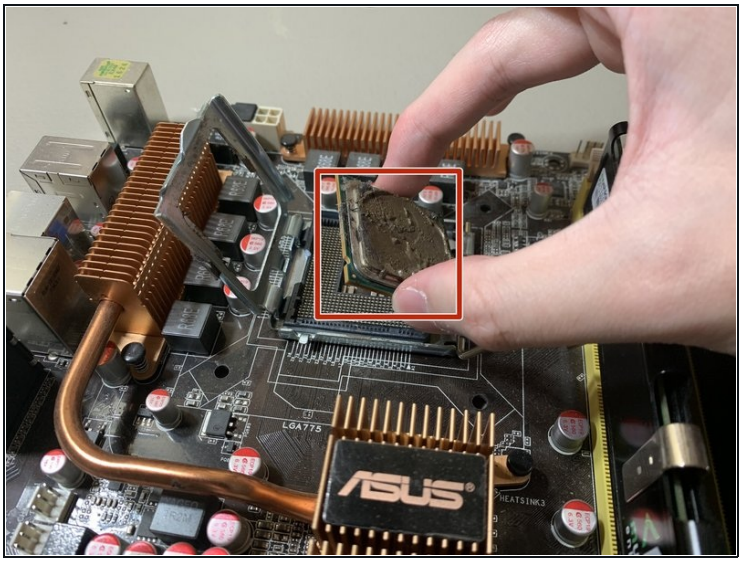




- Lift the metal clamp in order to remove the CPU itself. To do this particular step, there is a metal tab which you can push with a little force to carefully raise the metal clamp away after loosening the metal tab.

ⓘ Do not be afraid to use a bit of force when moving the metal tab.

Step 6

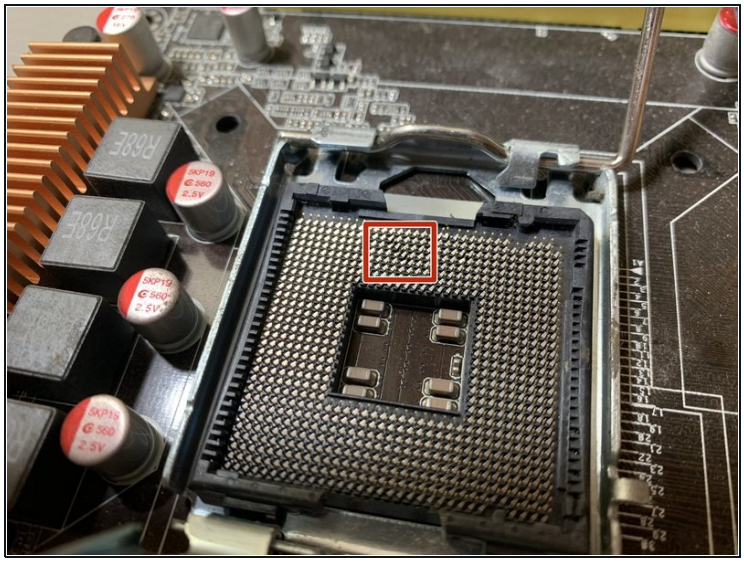


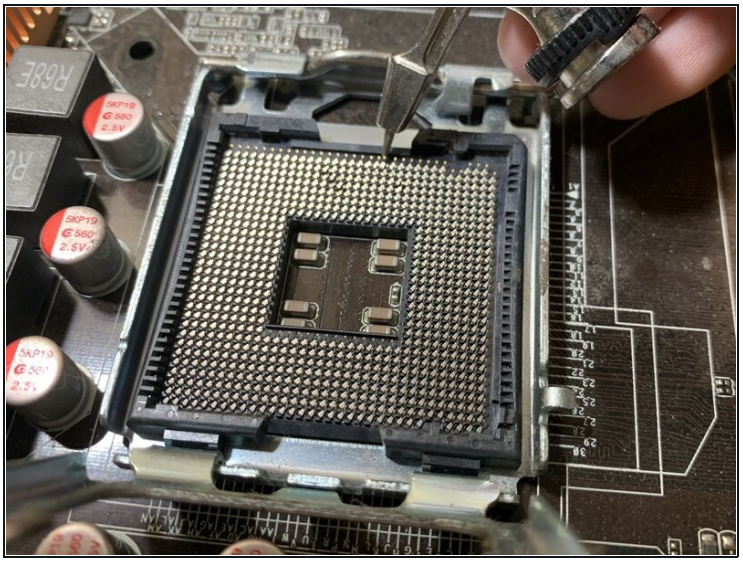


- With your thumb and middle finger, remove the CPU off the motherboard.

ⓘ (Optional) You can clean your CPU with rubbing alcohol. In this guide, you don't have to.

Step 7



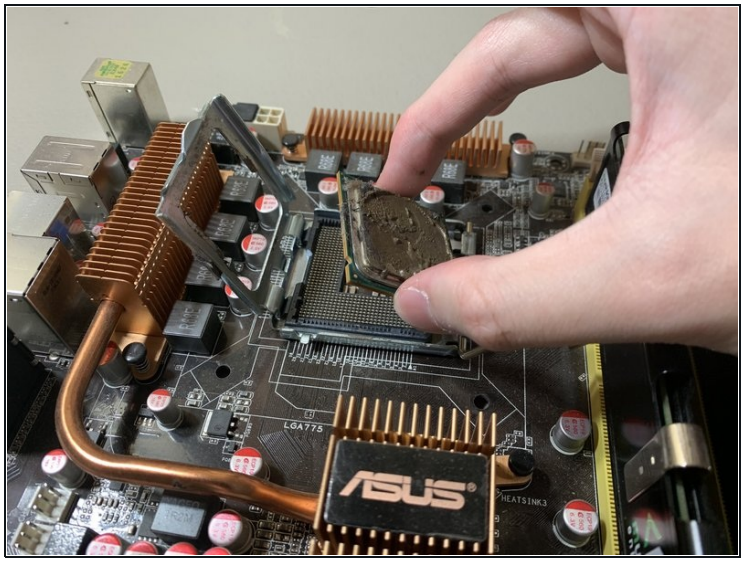


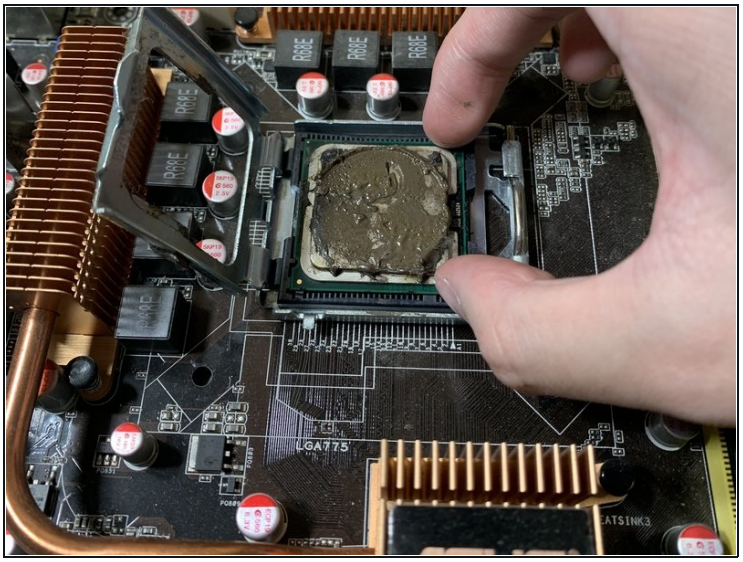
ⓘ As you can see, there are a few bent pins in the CPU socket. It it a bit hard to see the pins since they are very tiny. So, you'll need a needle or any tool to fix the pins in the right directions.

- Use a needle and gently bend the CPU pins in the right direction where the other CPU pins are facing.

⚠ Carefully move the pins direction where they are meant to face, because the pins are very fragile.

Step 8

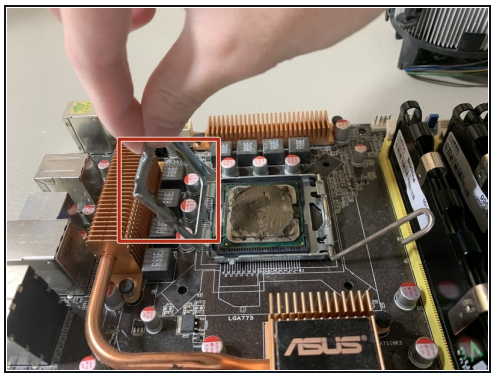


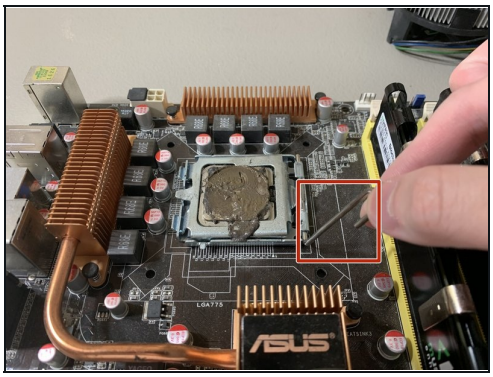


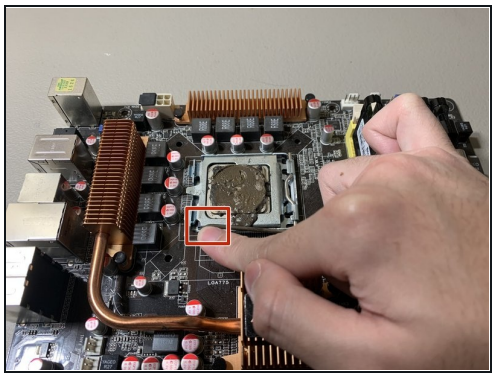
- After fixing the pins, gently place your CPU with your thumb and middle finger into the socket.

⚠ When reinstalling your CPU back onto the motherboard, try not touch the bottom of the CPU.

Step 9

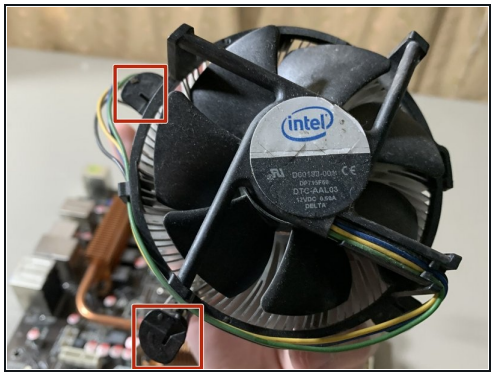
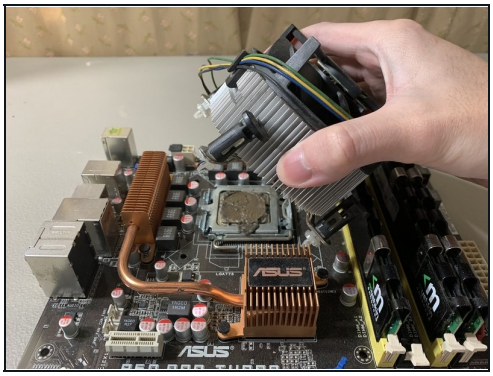
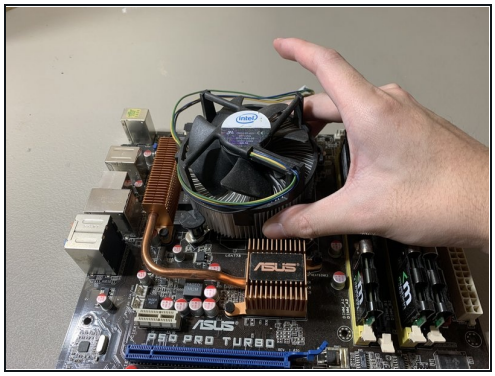






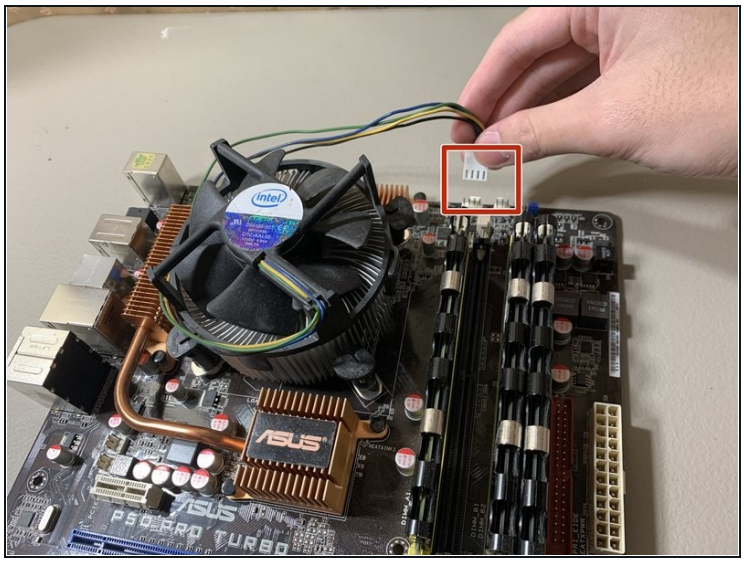
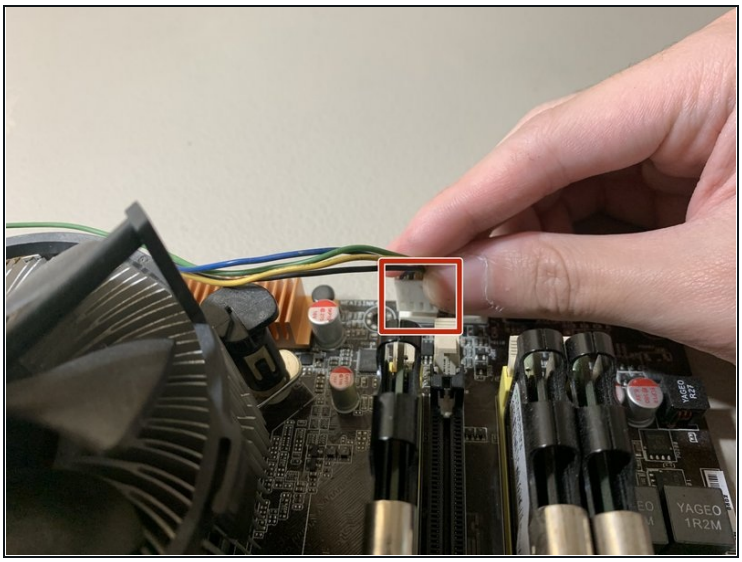
- Lock the CPU tray so that the CPU does not fall out of place. You will need a bit of force to push the lock.

Step 10

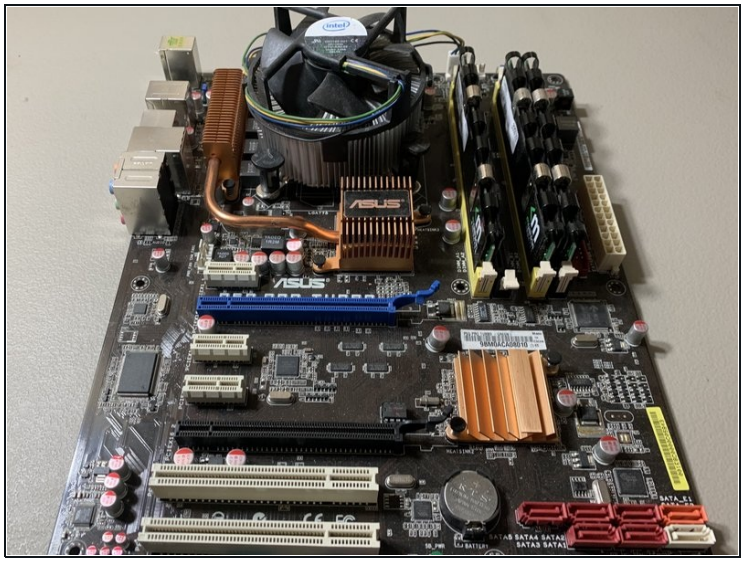
- Reinstall the CPU cooler and replace the four pins turning them clockwise to secure it to the motherboard.

Step 11

- Plug CPU power cable back into the motherboard.

Step 12



- And now you have completed this fix!
- Now all you need to do is to place the motherboard back into your computer, and test to see if you can boot into the BIOS screen.
- The guide only shows how to fix the CPU pin sockets. Putting the motherboard back into your computer will take more time.

Overall, this is the only way to fix of having the CPU undetectable from the motherboard, and enabling dual-channel memory. Some people have to RMA (Return Merchandise Authorization) or return their motherboard to their manufacturer, and receiving with a replacement. RMA's may take time to receive their replacements, depending of the manufacturer.