

# 11 common mistakes when building a PC and how to avoid them

There are many mistakes that first-time PC builders often make. Take a look at the 11 most common PC building mistakes beginners make and some tips to avoid them.

## 1. Buy incompatible parts

One of the most common PC building mistakes beginners make is choosing incompatible components. For example, they may have paired the wrong CPU or RAM with their motherboard.

For example, pairing an Intel Core i7-9700K CPU with an LGA 1150 motherboard will not work because the two are not compatible. Instead, you should choose a motherboard with socket LGA 1151 if you are using an Intel Core i7-9700K processor.

Furthermore, pairing DDR3 RAM with a motherboard that only supports DDR4 is also a beginner mistake that you can avoid if you use a site like PCPartPicker.com to choose your components or consult for advice. ?by a PC building expert before ordering those components.

Using a service like PCPartPicker is a great way to find compatible parts, but there's another consideration when it comes to matching PC hardware: Bottlenecks. A bottleneck refers to a component that limits processing power or graphics performance, and it typically occurs due to a difference in the maximum capabilities of the two components. Luckily, there are a number of online PC bottleneck calculators you can use to make sure you're buying the right compatible hardware.

## 2. Buy cheap and low quality power supplies



There is a difference between buying an affordable power supply and buying a cheap, poor quality power supply. However, if you're on a tight budget and the rest of your PC components aren't particularly "power hungry," you can spend a little less on your power supply.

One of the best ways to choose a power source is to roughly calculate how much power your components will consume. To do this, you can use a PSU calculator like OuterVision's or other online options.

Additionally, if you are using PCPartPicker to build your PC, they will give you a rough estimate of how much power your computer will consume and what power sources are suitable for all the components.

Another important thing is to check the +12v rating of the power supply. This is where your graphics card will use its power, which is the most power-hungry component in your PC. Again, OuterVision's CPU calculator will tell you this amperage rating.

Furthermore, before buying a new power supply, check to see if it is a high-quality PSU at HardwareSecrets. They test the most popular power supplies on the market and give you a rating based on thorough testing.

### **3. Do not build on a large, clean and safe surface**

The first thing to do before you start building your PC is to find a large, airy and safe space to work and assemble the PC. Any large table will do.

Although it is possible to build a computer in a smaller area, it is not the best option. There are a lot of cables, screws and parts that you need to store carefully and organize so they don't get lost when you need to install them.

Furthermore, avoid building on surfaces that are susceptible to static electricity, such as carpets. If you have a table, you don't need to worry about this step. Just make sure to put everything on the table - that's why you need a large table for this process.

However, if you do not have a large table around or are forced to build on a static conductive surface, you can use a specialized bracelet to avoid electric charge. The Rosewill anti-static wristband is an affordable option that will ensure you don't accidentally damage your components.

### **4. Forgot to install screws to secure the motherboard**

It sounds silly, but this happens from time to time. Forgetting to install screws to secure the motherboard can be disastrous for the PC building process. These barriers keep your motherboard from coming into contact with the case and prevent it from short-circuiting.

If you forget to install these screws and turn on your computer, this could permanently damage your components. That's the worst case scenario - but it happens, so don't forget to install the screws that secure your motherboard.

## **5. Forgot to install the motherboard I/O shield**

Another common beginner's PC building mistake is forgetting to install the motherboard I/O shield before installing the motherboard in place.

If you forget to install the I/O shield, you'll have to take everything apart, or at least remove the motherboard and GPU from place to install the I/O shield.

To avoid all this trouble, just make sure you install the I/O shield before screwing the motherboard into the case.

## **6. Install the wrong CPU**

Some people who are new to building PCs may make this mistake. Installing the CPU incorrectly can damage or even break its pins, depending on how much force you used when installing.

Luckily, it's easy to know which direction to install the CPU. All processors will have markings on the corners to let you know which parts go where on the motherboard. Once you find this mark, line it up with the mark on the motherboard's CPU socket and carefully insert the processor.

If you're still not sure how to install your CPU, the following video has instructions on what to look out for when installing an Intel or AMD CPU.

## **7. Unplug all cables**

This is another common mistake among first-time PC builders. If you don't have all the cables plugged in, your system won't turn on. To avoid this problem, make sure that whenever you install a component, you plug its cable into the motherboard.

If you think this will cause you trouble during your PC build, write down all the installed components on a piece of paper and finally plug in all their cables. If your system won't turn on, make sure everything is plugged in and in place.

## **8. Apply too much thermal paste**

Not being careful with applying thermal paste can cause trouble. Applying thermal paste is an art. If too much, it can seep out and cause damage. If it's too little, your computer will overheat.

Ideally, it is said that you should put a drop of thermal paste the size of a grain of rice in the center of the back of the CPU and when you install the heatsink, the thermal paste will spread out nice and even. Refer to: [How to reapply CPU thermal paste](#) for more details.

## 9. Install case fan incorrectly

Most PC builders have made this mistake. Installing the case fan incorrectly can cause your system to overheat.

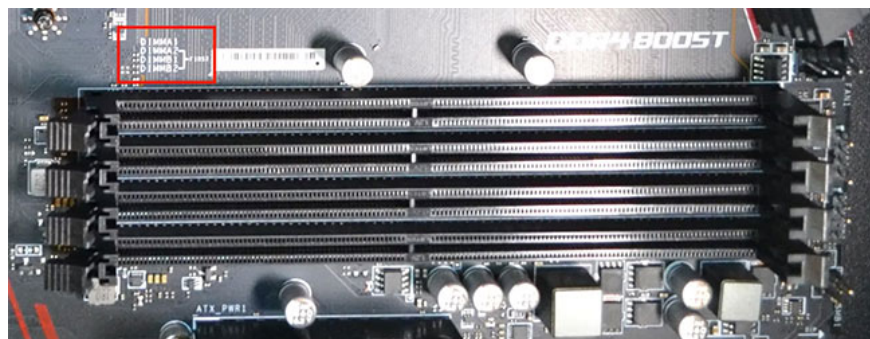
If your PC case comes with a pre-installed fan then things should not be a problem. At least until you want to install your own fan. When it comes to cooling your PC, you want your case fans to work together, drawing cool air from outside the case from one direction, then pushing it out in the opposite direction. Typically, if your PC case comes with fans, they will suck air from the front and push air out the back, although the reverse configuration is also possible.

If you want to add more case fans to your PC build, first learn how your fans work.

## 10. Improper RAM installation

The article talked about buying the right type of RAM for your motherboard (first point!), but you have to make sure you install the right type of RAM in your new motherboard. That means pushing the RAM into the correct slot, watching the RAM track (the track is different for each generation of RAM), and sometimes pressing a little harder than you'd expect.

Also, make sure you are installing the RAM in the correct channel. You won't have this problem on a motherboard with two RAM slots. However, on a motherboard with four slots and using two RAM modules, you must always leave some space between them. Your motherboard may even indicate which RAM modules to pair with.



Nothing bad will happen to RAM if you use them in parallel slots, but they will not work as expected.

## 11. Warranty retention

This isn't specifically related to PC building, but it will definitely help if something goes wrong. Make sure you keep all your PC hardware warranty documents in one place and register the hardware that requires it, as you may get an extra year of warranty if you do so.

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