

INSTALLING A POWER SUPPLY

Installing a power supply is not a hard job. However, a new geek can be intimidated the first time they open a case and see the mass of wires and ominous-looking components. If you follow these simple steps, you can replace your power supply unit (PSU) in no time and with little effort. It is also important to note before we get started that a computer PSU stores power even when unplugged and you should never open the case of the PSU itself.

Step 1



You will need to gather the tools you need for this task. Namely, you need a Phillips screw driver to remove the screws holding your side panels, and old PSU (assuming you are upgrading an existing PSU). You may also need a set of wire cutters, a knife, or scissors to remove wire ties that may be securing the cabling from your PSU to the chassis or case of your computer.

Step 2

After you get your tools together, you will start by turning your computer off and unplugging the power cable from both the wall and the back of the power supply. Then, remove the side panels from your computer.



Step 3



Once your computer is powered down and the side panels are removed, you will want to carefully start removing the power connectors from the motherboard, hard drives, and the optical drives. Sometimes, Molex connectors can be stubborn to remove, so take your time and you will limit the risk of damaging your system. Depending on how old your system is, you may have either a 24-pin or 20-pin main power connector to the motherboard, as well as a 4-pin P4 power connector to the motherboard. Some boards also require Molex connectors to be connected to the motherboard for use. In this step, simply disconnect every power dangle coming from your PSU to a component of your system.

Step 4

Once you have all the power connectors disconnected, you are ready to use your screwdriver and remove the four screws that are securing your PSU to the case itself. Beware in this step. Depending on the design of your case, once you remove the screws holding the PSU to the case, they could fall into your computer case and cause damage to you or worse, damage your beloved computer. Be sure to keep a hand on the PSU as you remove the screws.



Step 5



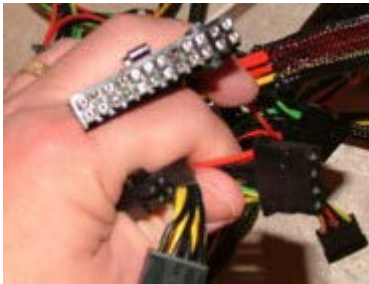
Once the screws are removed, you are ready to remove the PSU from your case. Take care as you do this step in case you overlooked a cable that still may be plugged in. The cables from the PSU also tend to get tangled up on things inside the computer. You don't want to cause any damage to your other components by hastily removing the old PSU from your PC case. If you find that any of the cables are secured to the PC case with wire ties, use your wire cutters or knife to remove them.

Step 6

Once you have the old PSU out of your case, you are ready to bolt your new PSU into your PC case. You can reuse the same screws that held your old PSU in place, though most new PSUs include new screws as well. Be sure that you align the new PSU in the case so you can fasten all four screws snugly.



Step 7



Once you have your new PSU secured to the case of your PC, you are ready to reconnect the power dongles to your hard drives, optical drives, and to your motherboard. Many newer PSUs have a 24-pin main board power connector. If you are replacing the PSU on a system that uses a 20-pin motherboard connector, it can get a bit confusing at this point. Every quality PSU I have seen allows four of the pins on the 24-pin main power connector to be removed to be compatible with an older 20-pin motherboard. If your PSU does not have the ability to have four of the pins from the 24-pin main power connector removed, and your board requires 20-pin main power, you will either need to get a different PSU or a different motherboard to continue. Many newer PSUs also use an 8-pin power connector in addition to the 24-pin main power connector to supply the motherboard. Every PSU I have used offers an adapter to change the 8-pin main board power dongle to a 4-pin P4 power dongle. Be sure to use this if your board requires a 4-pin P4 connector and your PSU has the newer 8-pin connector built on. If you don't plug in the additional 8-pin or 4-pin power connectors, your system will likely not boot up.

Step 8

Once you have all of your drives reconnected, as well as the power to your motherboard reconnected, you are ready to plug your computer back in and power it up. If it powers up and boots to Windows, and all of your optical drives work, you have successfully replaced your PSU. If it won't power up, first check that you have the power rocker switch, commonly found on the back of your PSU on the rear of the case, turned to the ON position. If that switch is ON, but you still can't power your system up, check that you've connected all required power connectors to your motherboard. If your system powers up, but you get an error message that



no operating system is found (or similar message), check that you remembered to connect the power to your hard disk drives. If you check all of these things and your system still won't boot up, it is time to call in a superior geek to get you up and running.

Step 9



If everything powers up, your PC boots to Windows and your optical drives work, you are ready to put the side panels back on your system and you are done.

Source : <http://www.geeks.com/techtips/2006/techtips-20apr06.htm>