Computer assembly and disassembly essay sample

Technology, Computer



Describe the procedure for computer assembly and disassembly 1)

Procedure for computer assembly

i. Prepare the case. Lay the case out on the flat surface. Have all the screws that came with the case nearby. Unscrew the case access door from the computer if it is screwed in place. You may also have to push a button or lever to open the door. ii. Assemble the motherboard and some pieces on it first. You can push the RAM modules straight down into their slots until they pop into place. Put the CPU in the processor box. You will need to lift a thin metal bar and match the back of the CPU with the pins on the board and then close the bar. Put the heat sink and fan on top of the CPU area. There should be four holes where the corners of the heat sink will connect on the motherboard. You may need to screw the fan on top of the heat sink. iii. Put the motherboard in the case.

Match the back of the board where the card slots and connectors are so that they stick out of the back of the case. Screw the motherboard into the corresponding screw holes on the case. There should be about six places where the holes on the motherboard will line up with these screw holes. iv. Put the power supply inside the case and match it to the square opening on the back of the case where the fan end of the power supply will stick out. Screw four screws through the case and into the power supply. Connect the power from the power supply to the motherboard. Some motherboards have two or more power connections that the power supply requires. These power connections are different from the rest. Consult the motherboard manual to find which connections to use. v. Install all of the drives next. These can include hard drives and optical drives. Slide each drive into a bay at the front

of the computer. Screws go through the side of the bay in predrilled holes into matching holes in the drive. Screw four screws into each side of the drives.

Connect a power cable from the power supply into each drive. Also plug a data cable into each drive and then into the marked drive connection on the motherboard. vi. Slide each card into the card slots at the back of the motherboard. This can include sound, video and any other card you have. The cards slide into the matching card slot on the motherboard; then you screw them into the case to hold them in place. vii. Match the small wires coming from the computer case to the motherboard. Depending on the case, you may have anywhere from three to a dozen or more. There will be at least power, reset and hard drive cables. These cables slide into pins on the motherboard. Consult the motherboard manual for the exact location. These need to be connected so you can power your computer on and off. Other cables might include some on the front of the case for USB connections or sound inputs. viii. Close the case and screw the door back into place. The computer is now assembled and ready to test.

- 2) Procedure for computer disassembly
- Prepare all your tools which include Long Philip Screw Driver and Soft Wide Bristle Brush
- 2. Before opening the system case, be sure to turn off the system unit. Turn off and unplug the AVR from the wall socket as well. After that, unplug all the

cables connecting to the back of the system unit. After clearing all the connected cables, put the system unit on an empty working table.

- 3. Touch the unpainted part of your system unit with your bare hands to remove the ESD of your body. This is an important part before opening your system case. You might destroy your RAM, Chipsets and other components of your motherboard.
- 4. Remove the screws of the side cover opposite to the side where the ports are. By most system cases, if you are facing the back of the system unit the right side cover is to be removed. Return the screws back to the screw holes to avoid losing them.
- 5. Once the side cover is removed, turn your system side down where the opened side of the system unit should be facing upward where you can comfortably look down on the inside of your system case. 6. The previous step prepares our readiness remove the components inside of the computer. The first thing is to remove the power supply. To be able to remove the power supply, remove first the molex connectors (the white plastic connector at the tip of the wires of the power supply) or the motherboard power connector, drive power connectors, the floppy drive power connector, the SATA power connectors and the four pin 12-volt motherboard connector. With all power connectors are removed from the motherboard and drives, the power supply is now okay to be removed as well. Always have the removed components placed in a remote and safe place away from where you are performing computer disassembly.

- 7. With the power supply removed, the data cable should be removed next. This includes IDE, SATA, and floppy drive cables. Secure the removed data cables.
- 8. Next to remove are the RAM, Video Card and other card peripheral components. Again have them secured in a safe place and put the screws back. Clean the connector edges of the card peripherals by rubbing the gold colored edge moderately with a rubber eraser then brushing off the shredding. Do not attempt to clean the edge by blowing or brushing it off with your fingers since the body is acidic and might only cause the edges to tarnish faster.
- 9. Remove all drives. This will include the hard drive, cd/dvd drives, and the floppy drive.
- 10. The next thing to do is to remove the front panel connectors. This will include the USB, Front Panel (FP) and Audio header. If you are not sure of which connector is being match to, write down or document the connections and orientation of the connectors before removing them from the headers. Remember that not all motherboards have the same header configuration so be careful and watchful while documenting.
- 11. After removing the header connectors, we are now ready to remove the motherboard. To remove the motherboard, locate first all the screws and lightly unscrew all screws alternately. With this technique, we are reducing the risk of warping or bending our motherboard. Upon lightly loosening all screws, remove all screws then. Remove the motherboard by carefully and

lightly pulling it away from the I/O shield. After freeing the motherboard ports from the I/O shield holes, lift up the motherboard and put it on the safe place.

12. Clean the system unit chassis with your brush, also clean your motherboard and the rest of the peripherals being removed.