

Future Solutions Now, Inc.

PO Box 5193, Vancouver, WA 98668 Tel: 360-944-7561

Cleaning Tips for Desktop Computers

For suggested cleaning intervals, refer to the table below:

Environment	User Characteristics	Cleaning Interval
Home	Adults, non-smokers, no pets in home	Six months
Home	Adults, non-smokers, pets in home	Four months
Home	Adults, smokers, no pets in home	Three months
Home	Adults, smokers, pets in home	Two months
Business	Clean office, non-smoking, single user	Five months
Business	Clean office, non-smoking, multiple users	Three months
Business	Factory or office that allows smoking	Two months
School or Home	Multiple teen and/or adult users	Three months
School or Home	Pre-teens or young children	Monthly or weekly

General cleaning tips:

1. If the interior of the computer case has a lot of accumulated dust, it is best to entirely disconnect all cables and take the tower unit outside for a thorough blow-out using canned compressed air.
2. Never spray or squirt any type of liquid onto any computer component. If a spray is needed, spray the liquid onto a cloth and then use that cloth to rub down the component.
3. Users can use a vacuum to suck up dirt, dust, or hair around their computer on the outside case and on their keyboards. However, **do not** use a vacuum for the inside of your computer as it can generate static electricity that can damage the internal components of your computer. If you need to use a vacuum to clean the inside of your computer, use a portable battery powered vacuum designed to do this job. Avoid any contact to electronic components on the motherboard.
4. Turn off the computer, monitor, printer, or other devices when cleaning the system.
5. Never get any component inside the computer or any other circuit board damp or wet.
6. Be cautious when using any type of cleaning solvents; some individuals may have allergic reactions to chemicals in cleaning solvents and some solvents can even damage the case. Try to always use water or a highly diluted solvent.
7. When cleaning, be careful not to accidentally adjust any knobs or controls. In addition, when cleaning the back of the computer, if anything is plugged in, do not disconnect any of the plugs.
8. When cleaning fans, especially the smaller fans within a portable computer or laptop it's suggested that you either hold the fan or place a toothpick in the fan blades to prevent spinning. Spraying compressed air into a fan or cleaning a fan with a vacuum may cause over-spinning and may result in damage to some fans.
9. Never eat or drink or smoke around the computer.

Cleaning tools:

1. A lint-free soft cloth is ideal and best in most cases. Paper towels are OK but inferior.
2. Water or rubbing alcohol (isopropyl alcohol)
3. Canned compressed air
4. Portable vacuum cleaner
5. Cotton tip swabs or foam tip swabs.

Case Exterior:

The case exterior can be cleaned with a lint-free cloth that has been slightly dampened with water. For stubborn stains, add a little household detergent to the cloth. It is recommended that you never use a solvent cleaner on plastics. Make sure all vents and air holes are hair and lint free by rubbing a cloth over the holes and vents. It is also helpful to take a vacuum around each of the air-inlet holes, air-outlet vents, and crevices on the computer case.

CD Drive or DVD Drive:

To clean the CD Drive or DVD Drive, purchase a CD/DVD Drive Cleaner Kit from your local computer retailer. Using a CD-ROM cleaner kit should sufficiently clean the CD-ROM laser from dust, dirt, and hair. Follow the instructions provided with the kit.

CD & DVD Disks:

Dirty CDs can cause read errors and/or cause CDs to not work at all. Cleaning CDs should be done with a CD cleaning kit but can also be done with a normal clean cotton cloth or shirt. When doing this with a clean cotton cloth or shirt, wipe in a radial direction across the tracks, starting from the middle of the CD and wiping towards the outer side of the CD. Never wipe with the tracks; doing so may put more scratches on the CD. It is recommended when cleaning a CD that water be used. However, if the substance on a CD cannot be removed using water, rubbing alcohol can also be used. In all cases, allow the CD to dry completely.

Floppy Disk Drive:

Dirty read/write heads on the floppy drive can cause errors during the reading and/or writing process. The best method of cleaning a floppy drive, and our recommended method, is to purchase a floppy drive cleaning kit at your local computer retail store and follow the instructions provided with the kit.

Keyboard:

Many people clean the keyboard by turning it upside down and shaking. A more effective method is to use canned compressed air. Compressed air is pressurized air contained in a can with a very long small nozzle. Simply aim the air between the keys and blow away all of the dust and debris that has accumulated there. A vacuum cleaner can also be used, but make sure the keyboard doesn't have loose "pop off" keys that could possibly be sucked up by the vacuum.

What about spills?

If the keyboard has anything spilled into it (i.e. pop, Pepsi, Coke, beer, wine, coffee, milk, etc.), generally this is a fatal event that requires the keyboard to be replaced. Most replacement keyboards are affordable and in the range of \$20 to \$50 depending on the features of the keyboard. Cleaning can sometimes work, but is rarely successful and is almost never worth the effort. If the spill is into a Laptop computer, it will always void the warranty and usually will destroy the computer. Please refer to General Cleaning Tip # 9.

What about disinfecting the keyboard and the mouse?

A computer that is used by multiple persons, such as students or different employees, may need to be disinfected to help prevent the spread of germs and cold & flu viruses. First turn off the computer. Then spray a disinfectant onto a cloth or dampen a cloth with alcohol and rub each of the keys on the keyboard and over the surface of the mouse and its buttons. As said in General Cleaning Tip # 2, never spray any liquid onto the keyboard or the mouse.

Glass CRT Monitor:

Dirt, dust, and fingerprints can cause the computer screen to be difficult to read. The glass monitor screen can be cleaned with ordinary household glass cleaner*.

Be sure to remove power from the monitor and spray the cleaner onto a lint free-cloth so the fluid doesn't leak into the electrical components inside the monitor. Vacuum off any dust that has settled on top of the monitor, and make sure no books or papers have been placed on the air vents. Obstructed monitor vents can cause the monitor to overheat or even catch on fire.

***Warning:** We suggest using a cloth dampened with water when cleaning monitor on a screen that is not made of glass or has any type of anti-glare protection on the screen. Using ordinary household glass cleaner on special screens, especially cleaners with ammonia can remove the anti-glare protection and/or other special surfaces.

LCD / Flat Panel Monitor:

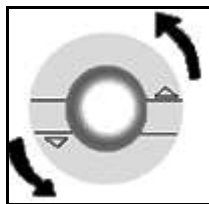
Unlike a glass CRT computer monitor, the LCD / flat-panel display is not made of glass, therefore requires special cleaning procedures.

When cleaning the LCD screen it is important to remember to not spray any liquids onto the LCD directly. Do not use a paper towel as it may cause the LCD to become scratched.

To clean the LCD screen we recommend that you use a soft dry cotton cloth. If a dry cloth does not completely clean the screen, you can apply rubbing alcohol to the cloth and wipe the screen with the damp cloth. Rubbing alcohol is actually used to clean the LCD before it leaves the factory.

Mechanical Ball & Roller Mouse:

An optical mouse is much less likely to pick up dirt or require frequent cleaning. A mechanical mouse (mouse with a ball) easily picks up dirt that can cause the mouse to be difficult to move as well as cause jerky pointer motions. To clean the mechanical mouse, first remove the bottom ball retainer. To do this, examine the bottom of the mouse to see which direction the mouse cover should be rotated. As you can see in the below illustration, the ball retainer cover must be moved counter clockwise. Place two fingers on the mouse cover and push the direction of the arrows.



Once the cover has rotated about a quarter-turn, invert the mouse into its normal position while covering the bottom of the mouse with one hand. The mouse ball and its retainer cover should fall out into your hand. If this does not occur, attempt to shake the mouse gently. Once the bottom cover and the ball are removed, you should be able to see two rollers located within the mouse. Use a damp cotton swab, your finger, and/or fingernail and clean in a horizontal direction of the rollers. Usually, there will be a small line of hair and or dirt in the middle of the roller. Remove this dirt and/or hair as much as possible. Once you have removed as much dirt and hair as possible, place the ball back within the mouse and place the retainer cover back on. If the mouse still appears to be having the same issue, repeat the above process. But if after several cleaning attempts the mouse is still having the same issues, the mouse may have other hardware problems and we recommend that it be replaced with an optical mouse.