

Printer



Equipment Description

A printer receives data from a computer for print output. The printer connection to the computer is usually made by using a printer cable (or USB cable), but can also be made via an Ethernet® connection, or wireless technology such as Bluetooth or WiFi. There are two types of printers commonly found in homes: The inkjet printer and the laser printer. The inkjet printer uses extremely small droplets of ink that are positioned precisely to create desired images and text. The laser printer uses an electrostatic image created by a laser onto a drum assembly to print positively charged toner (fine black powder) onto the output media. Paper (or other acceptable material) is passed through the printer where the ink or toner is dispensed to its surface from replaceable cartridges.

Loss Scenario

Most problems with inkjet and laser printers involve either communications problems or problems with print quality. Communication issues can result from a compatibility problem, an outdated printer driver, a poor connection or the computer's components. Print quality issues are usually a result of an expended print cartridge or clogged printer heads. In a laser printer, the drum is one of the key components used to ensure high quality printing. Frequent paper jams or splotchy printing, may indicate that drum repair or replacement is necessary.

Size and Carbon Footprint

Typical inkjet printers use 18-50 watts (W) during operation, and about 5 W in standby mode. Laser printers use 350-400 W during operation, but only 15-20 W in standby mode. If a home laser printer is used 20 minutes a day and left in standby mode the rest of the time, the annual energy consumption would be about 53 kilowatt-hours (kWh), resulting in roughly 82 pounds of carbon dioxide (CO₂) production. Using an Energy Star-rated printer with a built-in standby mode will reduce energy use to one watt or less when not in use. Unplug the printer when not in use for long periods of time. This will reduce energy consumption costs altogether and save the printer from potentially dangerous power surges.

Maintenance Tips

- Clean the outside of the printer once a week. Use a lint-free cloth dampened with water or rubbing alcohol (nothing stronger) to wipe away dust, dirt, animal hair, and other contaminants. Do not use compressed air to clean out the printer. Doing so may force dust and debris into the printer.
- If an inkjet printer is used infrequently, the print head will become clogged and not print clearly. Run the inkjet printer utility program to clean out dried ink, and then print a test page to confirm it's cleaned.

Loss Prevention Tips

- Printers are particularly sensitive to power line disturbances. Always plug it into a surge-protected outlet or power strip to minimize potential failure from electrical power surges.
- When replacing printer cartridges, make sure the inks are compatible and are from a reputable supplier. On certain models, a leaking ink cartridge can damage components causing expensive repairs.