Keep Your Cool: Key Steps for AC Maintenance and Repair

When the summer heat arrives, a reliable air conditioner becomes one of the most important appliances in a home or business. Keeping it running smoothly requires more than just flipping a switch. Regular attention to the system helps prevent sudden breakdowns and keeps energy use in check. Understanding what goes into maintaining and repairing these units can save time, money, and discomfort.

Air conditioning systems work by moving heat from inside a building to the outside. They use refrigerant, a compressor, and a series of coils to transfer thermal energy. Over time, parts wear down, filters clog, and refrigerant levels can drop. Regular checks address these issues before they turn into larger problems.

What Regular Upkeep Involves

Basic maintenance tasks are straightforward but important. Cleaning or replacing air filters is one of the simplest and most effective steps. Dirty filters restrict airflow, forcing the system to work harder and use more electricity. Most manufacturers recommend checking filters monthly during peak usage seasons.

Another key task is inspecting the outdoor condenser coil. Leaves, grass clippings, and dirt can accumulate on the coil, reducing its ability to release heat. Gently rinsing the coil with a garden hose, when the unit is off, can restore proper operation. For central systems, checking the condensate drain line is also wise. A clogged drain can cause water damage and increase humidity indoors.

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Refrigerant levels should be checked by a trained professional. Low refrigerant often indicates a leak, which not only reduces cooling power but can also damage the compressor. Adding refrigerant without fixing the leak is a temporary fix that will lead to repeated service calls.

Signs That Something Is Wrong

Knowing the early warning signs of trouble can help a homeowner or facility manager act before a minor issue becomes a major expense. Unusual noises, such as grinding, squealing, or rattling, often point to a failing motor or loose components. Warm air blowing from the vents, even when the thermostat is set low, suggests a problem with the compressor or refrigerant charge.

Ice forming on the indoor evaporator coils is another red flag. This usually means restricted airflow or low refrigerant. In either case, running the system in that state can damage the compressor. Strange odors, especially a musty smell, indicate mold or mildew growth inside the unit or ductwork. Addressing moisture and cleaning the system can improve indoor air quality.

Rising energy bills without a corresponding change in usage may also signal that the air conditioner is struggling. An inefficient system runs longer and cycles more often, consuming more power. Catching inefficiency early can prevent a full breakdown during a heatwave.

When to Call for Professional Help

Some tasks are best left to experienced technicians. Working with refrigerant requires certification because these chemicals are regulated and can be hazardous if mishandled. Electrical components, such as capacitors and contactors, carry high voltage and pose a shock risk if not handled correctly. A professional can also diagnose complex issues like a failing compressor or a faulty control board.

One of the most important reasons to schedule regular professional checkups is to maintain the manufacturer's warranty. Many warranties require proof of annual maintenance. Skipping this can void coverage, leaving the owner responsible for the full cost of a replacement.

When selecting a service provider, look for licensed and insured companies with positive reviews. Ask about their experience with your particular brand or type of system. A good technician will explain what they found, show you the problem, and give you options before proceeding with repairs.

Extending the Life of Your System

Beyond basic maintenance and prompt repairs, a few habits can help an air conditioner last longer. Setting the thermostat to a reasonable temperature, around 78 degrees Fahrenheit when at home, reduces strain on the system. Using ceiling fans to circulate air allows the thermostat to be set higher without sacrificing comfort.

Keeping blinds or curtains closed during the hottest part of the day reduces the cooling load. Planting shade trees or installing awnings near the outdoor unit can also help by keeping the condenser cooler. Regular cleaning of the area around the outdoor unit prevents debris from being pulled into the fan.

For businesses, scheduling professional air conditioning service in the spring, before the peak cooling season, is a smart move. This allows time for any needed repairs without the rush of

an emergency. For homeowners, combining an AC checkup with a furnace tune-up in the fall can simplify annual maintenance routines.

Understanding Different System Types

Central air conditioning systems, common in larger homes and commercial buildings, use ductwork to distribute cooled air. They require attention to duct sealing and insulation to avoid energy loss. Split systems, with an indoor unit and an outdoor compressor, are common in smaller spaces and apartments. Mini-split ductless systems offer flexibility for additions or rooms without existing ductwork.

Each type has its own maintenance needs. For example, central systems often have a condensate pump that needs periodic inspection. Mini-splits have indoor units that can be wiped down and have filters that slide out easily. Knowing which type you have helps you understand what to check and when to call for help.

Seasonal Preparation

Before the cooling season starts, inspecting the system can prevent surprises. Check the thermostat batteries, test the system by running it for a few minutes, and listen for odd sounds. Clear any debris from around the outdoor unit. If the system has not been serviced in over a year, scheduling a professional inspection is a good idea.

At the end of the season, cleaning or replacing the filter and covering the outdoor unit can protect it from winter weather. For window units, removing the unit or covering it tightly can prevent drafts and heat loss.

American Energy Supply, Co. is located at 1704 Chichester Ave, Linwood, PA 19061, and can be reached at (610) 494-4874 for questions about heating and cooling needs.