



Homeowner AC Troubleshooting Guide

This is a basic AC troubleshooting guide for homeowners, designed to help identify and resolve the most common cooling issues, or equip you with key information before calling a professional. Follow these steps to assess your air conditioner and potentially fix minor problems safely and cheaply.

Safety Precautions

- Never do something you are uncomfortable with!
- Always turn off power to the unit before performing any checks or repairs to avoid electrical shock.
- Stop and call for service if you smell burning, see smoke, find damaged wiring, hear loud electrical buzzing or grinding, see water near electrical parts, or a breaker trips more than once. Do not attempt repairs.

Step-by-Step Troubleshooting

1. Check Thermostat Settings

- ☐ Ensure the thermostat is on and set to “Cool” mode.
- ☐ Set the temperature at least five degrees below room temperature.
- ☐ Set the fan to “Auto.”
- ☐ Replace batteries if your thermostat uses them.
- ☐ Wait up to five minutes for the system’s built-in restart delay.
- ☐ Confirm that no schedule or program is overriding your setting.

2. Inspect the Air Filter

- ☐ Remove the filter and check for heavy dust, pet hair, or smoke residue.
- ☐ Replace the filter if very little light passes through it.
- ☐ Install the filter with the airflow arrow pointing toward the furnace or air handler.
- ☐ Use the filter size and type recommended for your system.

3. Check Vents and Return Grilles

- ☐ Make sure supply registers are open and not blocked by furniture, rugs, curtains, or boxes.
- ☐ Make sure larger return-air grilles are clear and uncovered.
- ☐ Note any rooms with weak or uneven airflow.

4. Inspect the Power Supply

- ☐ Make sure the furnace or air-handler power switch, often near the unit, is on.
- ☐ Check the electrical panel for a tripped breaker labeled AC, condenser, furnace, or air handler.
- ☐ Reset a tripped breaker only once.
- ☐ If the breaker trips again or power cannot be restored, leave the system off and call a professional.



5. Inspect the Outdoor Unit

- ☐ Remove loose leaves, grass clippings, weeds, cottonwood debris, and stored items from around the unit.
- ☐ Make sure the unit is not operating with a cover on top.
- ☐ With the thermostat calling for cooling, listen for the outdoor unit and check whether the top fan is turning.
- ☐ Do not reach inside the outdoor unit or remove access panels.

6. Look for Ice or Frost

- ☐ Check the insulated copper line and visible indoor components for ice or frost.
- ☐ If ice is present, turn cooling off.
- ☐ You may set the thermostat fan to "On" to help the system thaw.
- ☐ Do not chip, scrape, or break ice from the equipment.
- ☐ Call for service if the ice returns after thawing.

7. Check for Water Leaks

- ☐ Look for water near the furnace, air handler, drain line, drain pan, or ceiling cassette.
- ☐ Turn the system off if water is near electrical parts or damaging the home.
- ☐ Call for service if the source of the leak is not clear or the leak continues.

8. Test the Cooling

- ☐ After completing the checks, operate the system for 10 to 15 minutes.
- ☐ Confirm that air from a nearby supply vent feels noticeably cooler than the room.
- ☐ Note whether the system runs continuously without cooling.
- ☐ Note whether the system starts and stops every few minutes.

9. Note Unusual Sounds or Smells

- ☐ Listen for new buzzing, grinding, squealing, clicking, or rattling sounds.
- ☐ Watch for burning, hot-electrical, melting-plastic, or musty odors.
- ☐ Turn the system off immediately if you smell burning or see smoke.

10. Record What You Observed

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|---|---|
| ☐ Indoor blower running: | ☐ Yes ☐ No ☐ Unsure |
| ☐ Outdoor unit running: | ☐ Yes ☐ No ☐ Unsure |
| ☐ Outdoor fan turning: | ☐ Yes ☐ No ☐ Unsure |
| ☐ Air from vents feels cool: | ☐ Yes ☐ No ☐ Some rooms only |
| ☐ Ice or frost present: | ☐ Yes ☐ No |
| ☐ Water leak present: | ☐ Yes ☐ No |
| ☐ Breaker tripped: | ☐ Yes, once ☐ Yes, more than once ☐ No |



When to Call a Professional

- If you feel uncomfortable handling it yourself.
- A breaker trips more than once or power cannot be restored.
- The outdoor unit does not start.
- Ice returns after the system thaws.
- Water is leaking from indoor equipment.
- Airflow stays weak with a clean filter and open vents.
- The system blows warm air or does not lower the indoor temperature.
- The system cycles every few minutes.
- You hear grinding or loud electrical buzzing.
- You smell burning, see smoke, or find damaged wiring.
- The thermostat calls for cooling, but nothing operates.

Final Tips

- Changing filters regularly, keeping vents clear, and monitoring thermostat settings can prevent many issues before they start.
- If you ever feel unsure or unsafe, do not hesitate to call a licensed HVAC technician.