

How to Fix an Electrical Socket: A Step-by-Step Guide

A faulty electrical socket (also called a wall outlet or receptacle) can be caused by a tripped circuit breaker, a loose connection, a worn-out outlet, or damaged wiring. This guide explains how to identify common problems and determine the safest way to fix them.

Important safety warning: Electrical outlets can cause severe electric shock, burns, or fires. Always turn off the power before inspecting an outlet. If you are not trained to work on household wiring, hire a licensed electrician for repairs involving wiring or outlet replacement.

1. Identify the problem

Start by determining what the socket is doing.

Problem	Possible cause
Outlet has no power	Tripped breaker, GFCI outlet, or wiring fault
Plug falls out easily	Worn-out outlet contacts
Outlet feels warm or smells burnt	Loose connection, overload, or damaged outlet
Sparks, buzzing, or crackling	Electrical fault or damaged components
Outlet works intermittently	Loose connection or damaged wiring
Breaker trips repeatedly	Short circuit, overload, or ground fault

If you notice burning smells, black marks, melting, smoke, or crackling, stop using the outlet immediately. If it is safe to do so, switch off the circuit breaker. If there is smoke or fire, leave the area and call emergency services.

2. Check the circuit breaker first

If the outlet has stopped working, try these checks before considering a repair.

1. Unplug appliances connected to the affected outlet.
2. Locate your home's electrical panel.
3. Look for a breaker that is in the OFF position or appears to be between ON and OFF.
4. If there are no signs of burning, water damage, or other hazards, reset the breaker by moving it fully to OFF and then back to ON.
5. Check whether power has returned.

If the breaker trips again, leave it off and contact an electrician. Do not repeatedly reset a breaker that keeps tripping.

FirstEnergy+1

3. Check for a tripped GFCI outlet

A GFCI outlet has TEST and RESET buttons. These outlets are commonly found in bathrooms, kitchens, garages, basements, and outdoor areas.

1. Look for a tripped GFCI outlet nearby.
2. If the outlet is dry and undamaged, press the RESET button.
3. Check whether the original outlet works again.

A GFCI outlet can protect other outlets downstream on the same circuit. If it will not reset or trips again, stop and seek professional help.

4. Inspect the outlet from the outside

With the outlet not in use, look for visible signs of damage without removing the cover or inserting tools.

- Is the faceplate cracked or missing?
- Is the outlet loose in the wall?
- Are there brown or black marks?
- Does the outlet feel unusually warm?
- Does a plug fall out instead of fitting securely?

Do not use an outlet that is loose, damaged, hot, or discolored. Worn-out outlets should be replaced rather than temporarily repaired.

U.S. Fire Administration+1

5. Replacing a damaged electrical outlet

For qualified DIYers only

Replacing an outlet involves exposed electrical conductors. If you do not have electrical training and the correct testing equipment, have a licensed electrician do this work. The following is a general overview, not a substitute for hands-on training.

Tools and materials a qualified person may need:

- Correct replacement receptacle with the appropriate electrical rating
- Insulated screwdriver
- Proper voltage tester or multimeter
- Replacement wall plate
- Manufacturer-approved connectors and other required materials

General repair sequence:

1. Identify the correct circuit and switch off its breaker.

2. Verify with a suitable tester that power is absent at the outlet and all conductors that will be handled. Never rely on the breaker label alone.
3. Inspect the outlet box and wiring for damage, overheating, corrosion, or other unsafe conditions.
4. Replace the receptacle only if the wiring, grounding, box, and circuit are suitable and the person performing the work is qualified to do so.
5. Ensure all connections and mounting comply with the device manufacturer's instructions and applicable electrical codes.
6. Reinstall the faceplate and complete the appropriate electrical safety checks before restoring power.

Stop and call an electrician if wires are burned, insulation is brittle, grounding is absent or uncertain, the wiring configuration is unfamiliar, or the box is damaged. Do not guess which wire goes where.

6. Test the outlet after the repair

Once the repair has been completed and the outlet is safe to energize:

- Restore power only after all components are properly secured.
- Check for normal operation using an appropriate outlet tester or other suitable test equipment.
- Confirm that any required GFCI protection works correctly.
- Stop immediately if the breaker trips, the outlet sparks, or there is an unusual smell or sound.

Electrical testing should follow the device manufacturer's instructions and applicable safety requirements.

7. When to call a professional

Contact a licensed electrician if:

- The outlet is smoking, sparking, buzzing, or smells burnt.
- The breaker repeatedly trips.
- The outlet has intermittent power despite checking the breaker and GFCI.
- The wiring is damaged, old, or unfamiliar.
- You are unsure how to safely isolate or test the circuit.

For additional safety information, see the [U.S. Fire Administration's electrical safety guidance](#) and the [Consumer Product Safety Commission's Guide to Home Wiring Hazards](#).

Let's narrow down the problem

What exactly is wrong with your electrical socket? I can give you more specific troubleshooting advice based on the symptoms.

1. What is the socket doing?

It has no power

The plug falls out or the socket is loose

It sparks, buzzes, or smells burnt

It works sometimes but not always

It is cracked or physically broken

Something else

2. What type of outlet is it?

Regular wall outlet

Outlet with TEST and RESET buttons

Outdoor outlet

I'm not sure

3. Are there any signs of damage?

No visible damage

Heat or discoloration

Burning smell, smoke, or crackling

Water exposure