SAFETY COMES FIRST

A quick job still needs the right procedure.

THE SCOPE

Conventional 12V lead-acid starting and auxiliary batteries: flooded, EFB and AGM. This is a general guide, not your vehicle service manual.

PROTECT YOURSELF

Wear safety glasses, battery-appropriate acid-resistant gloves and protective clothing. Remove rings, watches and loose metal jewelry. Lead-acid batteries can release explosive hydrogen gas. Work in a ventilated area, away from smoking, flames and sparks.

STOP FOR DAMAGE

Do not charge, jump-start or work on a leaking, cracked, swollen, frozen or unusually hot battery. Keep clear of strong odors, hissing or smoke and seek professional help.

12V CAN STILL HURT

A metal tool can carry enough short-circuit current to burn skin, melt metal or start a fire. Keep tools off the case and never bridge both posts.

CHECK THE VEHICLE

Multiple batteries, positive-ground classics, 24V/48V systems and lithium replacements need different instructions. Hybrid/EV traction batteries and orange high-voltage cables are out of scope. Even their 12V batteries need the model-specific isolation procedure.

ACID EXPOSURE

Flush affected skin or eyes immediately with clean running water. Eye exposure needs urgent medical attention. Follow the battery safety data sheet.

DO YOU REALLY NEED A NEW BATTERY?

Before buying, separate a discharged battery from a worn-out one.

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1 / LOOK

From a safe position, inspect the case and cables. Damage, leaking acid or unusual heat? Stop and get help. Loose or corroded connections? They may be the problem.

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2 / TEST

An intact but discharged battery may need the correct charger, then a proper test. A rested voltage reading alone cannot prove starting ability.

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3 / CHOOSE

Passes after charging: investigate why it went flat. Fails a suitable battery test: replace with the approved specification. Healthy battery but no start: diagnose cables, starter or other systems.

QUICK CHECK

A successful jump-start is a clue, not proof that the battery is healthy or that the fault is fixed.

BEFORE YOU TOUCH ANYTHING

Pause here. Complete every applicable item.

- ☐ Park safely on firm level ground; apply parking brake and select Park or the prescribed gear.
- ☐ Switch ignition and accessories off. Keep the key/fob away as the vehicle instructions require.
- ☐ Let the vehicle shut down for the manufacturer's specified waiting period.
- ☐ Read the owner/service procedure. Confirm negative ground, battery count and access requirements.
- ☐ Confirm the correct replacement and inspect it for damage.
- ☐ Check radio/security codes, access locks and post-replacement resets before losing power.
- ☐ Wear protective equipment and remove jewelry. Plan a safe upright lifting route.
- ☐ Disconnect external power sources according to their instructions.
- ☐ Have vent-hose instructions, fastener torques and any registration plan ready.

STOP HERE

Do not use a memory saver, jump pack or OBD power source during this beginner procedure. It can keep circuits energized and defeat isolation.