BATTERY SUPPORT FOR KEY PROGRAMMING

The five-minute habit that keeps you from bricking a module. Do it on every programming job, even the quick ones.

WHY IT MATTERS

Programming keeps the ignition on for minutes at a time while modules wake up, fans run and lights stay on. The battery drops the whole time.

If voltage sags mid-job, a module can shut down while it's being written. That can mean corrupted data, a car that won't start and a module that costs thousands to replace.

> **A CHARGER ISN'T A POWER SUPPLY**
>
> A battery charger changes its output to refill the battery. A programming power supply holds the voltage you set and gives the car whatever current it needs to stay there.

WHAT TO LOOK FOR

- **Supply or programming mode** that holds a fixed voltage.
- **Adjustable voltage** so you can match the maker's spec.
- **Enough amps.** Small 4 A units are maintainers. For European cars and long sessions, use a high-amp unit.
- We use a **Topdon** programming power supply on every job.

EVERY JOB, IN THIS ORDER

1 TEST THE BATTERY FIRST

A weak battery drags voltage down even with support connected. If it fails the test, charge or replace it before you program.

2 HOOK UP POWER BEFORE OBD

Clamp the power supply on and switch it on before you plug your programmer into the OBD port.

3 SUPPLY MODE, ABOUT 13.5 V

Use the SUPPLY or programming mode, not a charge mode. Around 13.5 V suits most jobs. Check the maker's spec on European cars.

4 SHUT OFF THE LOADS

Headlights, heater fan, radio and seat heaters off. Close the doors. Never run the engine instead of using a power supply.

5 WATCH THE VOLTAGE

Keep an eye on the reading on your programmer. Never pull the clamps or the battery cable while a module is being written.

6 FINISH, THEN DISCONNECT

Complete the procedure, turn the ignition off and let the car settle. Then switch off and remove the power supply.

NO OUTLET NEAR THE CAR?

Run it from a pure sine inverter in the van, a portable power station big enough for the supply, or a heavy extension cord. A jump pack is built for cranking, not for holding steady voltage for twenty minutes.

LEARN THE FULL PROCESS

Northkey Academy key programming course: real jobs filmed start to finish in a working shop.

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