Electric Vehicle Technician interview questions

careertips.com.au: common questions and what they're really testing

What to expect

Interviews for electric vehicle technician roles usually combine a conversation about your safety habits with a practical assessment of your diagnostic and high voltage handling skills. Employers want to see that you can work methodically around dangerous systems and explain your thinking clearly.

- **Technical safety:** Questions about high voltage isolation, PPE, lockout tagout and safe work procedures. Interviewers listen for a repeatable sequence and verification steps.
- **Diagnostic scenario:** A description of a fault or warning light, asking how you would trace the cause. They want to see data-driven reasoning, not parts swapping.
- **Behavioural:** A 'tell me about a time' question about a past repair, a safety near miss or a difficult diagnosis. STAR answers work well here.
- **Process and software:** Questions about using diagnostic scan tools, manufacturer software and service bulletins. They check your digital literacy and methodical approach.
- **Customer-facing:** A question about explaining a high voltage repair to a worried customer. They assess plain language, empathy and trust building.

A typical process starts with a phone screen about your qualifications and high voltage training. If that goes well, you attend a face-to-face interview with a workshop supervisor and sometimes a practical test using a diagnostic scan tool on a vehicle or a simulated high voltage system. Some employers include a short written safety quiz before the practical.

1. Walk me through your process for safely isolating a high voltage battery pack before you begin repairs.

Why they ask

This is the core safety competency for the role. Employers need to hear that you follow a repeatable sequence and never skip verification steps.

How to structure your answer

Use a step-by-step walkthrough. Start with preparation, then isolation, then verification, then your final check before work begins.

Example answer

“First I review the manufacturer's procedure for that specific model and check for any service campaigns or recalls. I put on the correct PPE, including class 0 gloves and a face shield, and I make sure the vehicle is parked in a designated high voltage bay with warning barriers. I disconnect the service plug or main fuse according to the manual, then I lock and tag the isolation point so no one can reconnect it. I wait the recommended time for capacitors to discharge, then I use a CAT III multimeter to verify zero voltage on the high voltage bus. I test the tester on a known live source before and after to confirm it works. Only after that do I start repairs. If anything reads above zero, I stop and investigate before going further.”

2. Tell me about a time you diagnosed an intermittent fault in an electric drivetrain that others had missed.

Why they ask

Intermittent faults test your persistence and your ability to interpret data from diagnostic software. Interviewers want to see a logical approach, not guesswork.

How to structure your answer

Use STAR: situation, task, action, result. Focus on the diagnostic steps you took and how you confirmed the fix.

Example answer

“A customer brought in a hybrid that had been to two other workshops with a random loss of power. The fault never appeared on a short test drive. I spent time reading freeze frame data from the battery management system and noticed a single cell voltage drop when the vehicle was under load at a specific temperature. I set up a data logger and reproduced the fault on a longer road test with the customer's permission. That confirmed a failing cell module. I replaced the module, reset the battery management system, and road tested again. The customer drove the car for six months with no repeat fault, and they came back to us for their next service.”

3. A customer brings in a hybrid vehicle with a warning light and says they need it back the same day. You suspect a battery management system issue. How do you handle it?

Why they ask

This scenario tests your judgement under pressure, your customer communication and your commitment to safety over speed.

How to structure your answer

Walk through triage, then communication, then a clear decision. Show that you can say no to unsafe shortcuts while keeping the customer informed.

Example answer

“First I check the warning light with a scan tool to see if it is a high voltage isolation fault or something less urgent. If it points to the battery management system, I explain to the customer that I cannot let the vehicle leave until I have verified the high voltage system is safe. I give them a realistic timeframe: I will run diagnostics now, and if I find a faulty module, I will need to order parts. I offer a courtesy update by phone before the end of the day. If the fault turns out to be minor and not high voltage, I can often fix it same day. If it is high voltage, safety comes first, and I would rather delay the car than risk a fire or electric shock.”

4. How do you stay current with software updates and new diagnostic tools from different manufacturers?

Why they ask

Electric vehicle technology changes quickly. Employers want technicians who learn proactively rather than waiting for training to be arranged.

How to structure your answer

Describe your habits and give examples. Mention manufacturer portals, online forums, and hands-on practice.

Example answer

“I subscribe to manufacturer technical portals for the brands I work on, and I check them weekly for service bulletins and software updates. I also completed a high voltage safety refresher through my RTO last year. When we get a new model in the workshop, I read the training material before I touch the vehicle, and I practice using the diagnostic software on a known-good vehicle first. I keep a log of any new procedure I learn so I can refer back to it. I also talk to other technicians in a local EV network, and we share tips about scan tool functions and battery testing methods.”

5. Describe a time you had to explain a complex high voltage repair to a customer who was worried about safety.

Why they ask

Client-facing questions check whether you can build trust without jargon. Employers want customers to feel confident, not frightened.

How to structure your answer

Use a story structure: the customer's concern, how you listened, what you explained, and the outcome.

Example answer

“A customer with a battery electric vehicle was worried because another workshop told her the battery was dangerous and needed replacing. I listened to her concerns first, then I showed her the diagnostic report on a screen and explained in plain language that the issue was a faulty charging port sensor, not the battery itself. I used an analogy about a faulty power point rather than a faulty appliance. I also walked her through the safety steps we take, like isolation and testing. She agreed to the repair, and when she picked up the car, she said she finally understood what was happening. She left a positive review and referred her sister to us.”

6. What steps do you take to test a charging system after a repair?

Why they ask

Charging systems are a common source of faults, and a structured test shows you can confirm a repair is complete.

How to structure your answer

Give a sequential walkthrough: visual check, then electrical tests, then functional test, then documentation.

Example answer

“First I do a visual inspection of the charging port, cables and connectors for damage or corrosion. Then I check the vehicle's onboard charger for fault codes and measure the pilot signal and control pilot voltage with a multimeter. I test the insulation resistance on the high voltage side of the charger. After that I connect the vehicle to a known-good AC charger and a DC fast charger if the vehicle supports it, and I monitor the charging session through the diagnostic software to confirm the current and voltage are within specification. I also check that the charging port locks and unlocks correctly. Finally I record the test results and road test the vehicle to make sure the charging system works under normal driving conditions.”