



What 13,000 EV Batteries Taught Us

Degradation, testing, and the data reshaping the used-EV market.

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The biggest fear about EVs is the one the data disproves.

#1

Battery degradation, the objection we hear most from buyers and dealers.

<1%

In-warranty failure rate across **13,000+ EVs** we've tested.

The fear is real. The data is reassuring.

Batteries degrade slower and more predictably than people think.

- **Degradation is non-linear.** Fast in the first year or two, then flat at roughly 1–2% a year.
- **The warranty floor is a floor, not a forecast.** Makers guarantee 70% at 8 years / 100k–150k miles. Real cars beat it.

Tesla Model S 75D · 7 to 9 years, 100k+ miles	82–88%	Above warranty floor
Tesla Model Y Long Range · 4 to 5 years, 100k+ miles	79–85%	Typical heavy use
Tesla Model 3 Standard Range (LFP) · high mileage	88–95%+	Chemistry advantage
VW ID.4 Pro · 50k to 80k miles	81–91%	Consistent fleet-wide

The extremes prove the point. The look-alikes prove why you test.

2022 Tesla Model Y

305,221

miles

74%

state of health

200+ miles of range, 43% fast-charged.

The battery still doesn't need replacing.

Tesla Model 3 Standard Range (LFP)

189,000

miles

92%

state of health

Fast-charged 96% of the time.

Chemistry, not mileage.

Same car, same mileage, very different battery

2020 Model 3 Long Range

84%

105,945 miles · fast-charged 17% of the time

2019 Model 3 Long Range

73%

104,249 miles · fast-charged 79% of the time

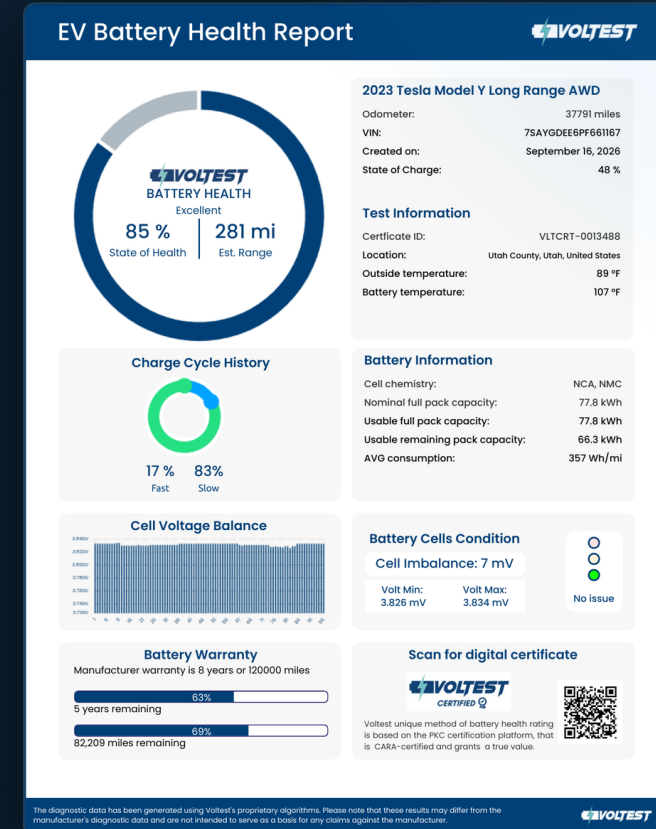
40+ miles of real range apart. You can't read a battery from the odometer, you measure it.

A full battery diagnosis in under two minutes.

- Plugs into the **OBD port** every technician already uses. No rig, no teardown.
- Reads **95%+ of EVs** on the road, across brands.
- **No overnight charging, no lot downtime.** Sellable the moment the scan ends.

The native Tesla test needs **17 hours** plugged in, charge under 20%, a wall connector, no pending updates.

Voltest: any technician, any EV, minutes.



Every scan produces a shareable report.

One scan. Every number that decides what the car is worth.

State of Health

Remaining capacity vs new.

Real-world range

Real range today, not the EPA sticker.

Cell voltage balance

Catches a failing cell.

Charging history

Fast vs slow charging over its life.

AC & DC charge times

At home and on the road.

Residual warranty

Coverage remaining.

Everything a buyer would phone in for, answered on one page.

Dealers were the beginning, not the boundary.

Auctions

Wholesale and online remarketing

Battery health published in the lane, so bidders stop guessing on the one component the condition report never covered.

How they use it: bidder confidence, accurate lane pricing, fewer arbitration disputes.

Service & inspection networks

Auto service chains and workshops

mycar Tyre & Auto, a major Australian service network, offers Voltest testing as a pre-purchase inspection across its EV-ready sites (275+ stores).

How they use it: a new billable service, and a reason EV owners return.

Who pays for battery data, and why.



Auctions & remarketing

Show battery health in listings and resolve disputes. One dealer returned a Mach-E within 6 days after it tested at 81% vs 87–91% expected.



Vehicle history & valuation

History reports and pricing guides want battery health so used-EV values reflect the actual pack, not just year and miles.



Warranty providers

Battery health sets eligibility and pricing for extended battery warranties (e.g. SOH above 80%).



Insurers & lenders

Model-level degradation curves help price long-term battery risk, even for cars never tested.



Fleets & leasing

Plan replacements, set residual values, and check lease returns at end of term.



Second life & recycling

SOH helps decide reuse vs recycling; about 60–80% SOH is often cited for second-life storage.

A measurable battery is what makes the used-EV market work.



243,000–330,000 EVs come off lease in 2026 at \$25k–\$35k. When each carries a battery number people trust, the market prices correctly and adoption stops waiting on fear.

**You can't manage what
you can't measure.
Now the battery is measurable.**

Know everything about your EV.

getvoltest.com