

Appraiser Blog

Are Electric Vehicle Repairs Really More Expensive?



By Tony Rached

Are Electric Vehicle Repairs Really More Expensive?

Monday, October 02, 2023



Electric vehicles (EVs) have been making waves in the automotive industry, touted for their environmental benefits, lower operational costs, and cutting-edge technology.

However, one aspect that often goes under the radar is the cost of repairing collision damage to EVs compared to traditional internal combustion engine vehicles (Non-EVs).

In this blog post, we'll delve into the details of collision costs for EVs and explore why repairing these high-tech vehicles might indeed be more expensive and time-consuming than their conventional counterparts.

Appraiser Blog

Collision Repair Costs Over the Years

Let's start by examining the average total repair costs for both EVs and Non-EVs over the years. The data below illustrates a significant trend:

Year	EVs Average Repair Cost	Non-EVs Average Repair Cost
2018	\$5,194	\$3,070
2019	\$5,433	\$3,234
2020	\$5,979	\$3,422
2021	\$6,320	\$3,766
2022	\$6,587	\$4,215

As we can see, repairing collision damage on EVs consistently costs more than their Non-EV counterparts. This trend indicates that EVs pose unique challenges when it comes to collision repairs.

Average Number of Parts Replaced

Another crucial aspect to consider is the number of parts that need replacement during collision repairs. This data sheds light on the complexity of the repair process:

Year	EVs Average Parts Replaced	Non-EVs Average Parts Replaced
2018	28	13
2019	31	13
2020	36	13

Appraiser Blog

2021	38	14
2022	31	16

The data shows that EVs require a significantly higher number of parts to be replaced during collision repairs, suggesting that the intricate electric components and systems in these vehicles can be more susceptible to damage in accidents.

Why Are EV Collision Repairs Costlier?

Now, let's explore the reasons behind the higher collision repair costs for EVs:

1. **Advanced Technology and Complexity:** While EVs are perceived as high-tech vehicles, they are, in fact, less complex in many ways than traditional internal combustion engine vehicles. However, their advanced electric components and systems can be expensive to repair or replace.
2. **Fewer Moving Parts:** EVs have fewer moving parts compared to Non-EVs, but this can work both ways. While there are fewer parts that can fail due to wear and tear, when they do require repair or replacement, the cost can be higher.
3. **Specialized Repairs:** Repairing EVs often requires specialized training and equipment, which can drive up repair costs. Technicians need to be well-versed in electric vehicle technology to ensure safe and efficient repairs.

Conclusion

In conclusion, while owning an EV offers numerous advantages, including lower operational costs and environmental benefits, it's essential to be aware of the potential higher costs associated with collision repairs.

The data clearly indicates that repairing collision damage on EVs is consistently more expensive than on Non-EVs, primarily due to the intricate electric components and specialized repair requirements.

As EV adoption continues to grow, understanding these collision costs becomes crucial for informed decision-making when choosing between electric and conventional vehicles.