

The Volt Vette Project

Chapter 12

What Difference Does A Differential Make?

You know that big bump, in the middle of the rear axle? That's the differential. It makes the connection between the driveshaft and the wheels. The differential is also a gearbox. The gear ratio in this Corvette is 3 to 1, that means that every time the driveshaft turns 3 times, the wheels turn once.



Lee tells me the electric motor would be happier with a stronger differential with a 5 to 1 gear ratio. This would reduce the chance of the motor overheating and would increase the range of the car by as much as 10%. The work team thinks this is a great idea. But, it would not be cheap, and it would slow down the project.



I really want to get the volt vette on the road by April of this year. If the road tests show a need for a different differential, a gear change could be made at that time.

Next:

The Demon in the Dash.