

Road Beat: Chevrolet Volt, shockingly good

By Larry Weitzman

Recently the Road Beat had a chance to drive a new second generation Chevy Volt. It was my first time and let me say it is impressive.

This second generation gets a new refined and quite attractive body, sleek and stylish. It is a compact car riding on a 106-inch wheel base with a length of 180 inches. Width is 71 inches which is wide (and stable) for a compact car.

Here is where it gets interesting. In drives of 50 miles or less, it can run pure electric, no gas required and it has plenty of snap. After 50 miles, the Volts new higher capacity L-I battery pack (18.4 kWh) gets help from the new 1.5L 101 hp gas engine which is no longer used strictly as a generator to provide electricity to the battery which provides power now to two electric motors, but instead is connected directly to the front wheels through a series of sun, planetary and ring gears. Because the electric motors also use the same gear sets via a series of three clutch packs, the engine can add power to the larger (117 hp) electric motor while the smaller electric motor (64 hp) acts as a generator charging the L-I battery at the same time. In pure electric, the system, either the bigger of the two electric motors operate or if more power is demanded, both electric motors can power the Volt.



The Volt practically makes a gas station obsolete. Photo
Larry Weitzman

In any event, the Volt is a peppy car with claims of 0-30 mph of 2.6 seconds (that's very quick) and a 0-60 mph time of 8.4 seconds. Hopefully, I will be able to fully test a Volt and get actual data to confirm or even beat those times. Ditto for fuel economy which over a short drive using both the electric motor and gas engine in aggressive driving averaged 66.7 mpg. Some mopeds don't get that kind of fuel economy.

The passenger cabin volume is 90 cubic feet, about average for a compact car, but the trunk is small at 10.6 cubic feet. But it is very nicely appointed with top quality materials. Over the last decade, General Motors has made a concerted and successful effort to upgrade the interior quality of all their new models that started with the Holden, Pontiac Grand Prix in 2004. And Volt has a comfortable, stylish quality interior.

Driving the Volt was a fun experience. Throttle response as promised by Chevy was very responsive and instantaneous. It

was also linear and easy to modulate, just like a rheostat controlling an electric motor like when you played with your electric train. Wait a second, this is an electric motor controlled by a "rheostat." But there is more and that is the incredibly smooth integration of the gas engine which can be brought on line if you select that driving mode. It is so smooth and quiet you simply can't tell during its operation. But in "normal" driving you will never ask for it and simply drive electric for the 50 miles or so that the battery can power the vehicle. And driving pure electric is kind of fun.

But there is more to this than simply going on the gas engine "range extender." Because of the design of the system and that the electric motors can simultaneously act as generators, when you need extra power the battery always seems to be there, so there is no drop in performance. In this respect, Volt acts like a regular hybrid, the battery/electric motor and engine work together when requested by the throttle/rheostat.

Volt gives you some serious fuel economy without have to worry about pushing after a pure electric car runs out of electrons or you need a charging station and a long lunch/dinner or motel room. It's never a problem because you have the light weight range extender gas engine which on its own returns an EPA 42 mpg. In my short drive, however, using the Volt like a hybrid and asking for the gas engine during some pedal to the metal runs, the Volt averaged that 66.7 mpg. If you were to drive the Volt pure electric and only drove 50 miles a day, you might never use the gas engine. But it's not a pure EV, however, so there is no range anxiety issue or looking for a charging station, just drive it like a regular automobile. You have total utility and an almost electric car to boot. Your electric company will always be with you with an endless, invisible extension cord. Volt may be the future.

Pricing for the new Volt starts at about \$35 large with a long standard equipment list. Add some options and/or fancier trim

and you might pay \$5-10K more. But if all cars were like the Volt, the price would be much higher, perhaps by \$10,000-\$15,000 more to return a proper corporate ROI (return on investment). I don't know the future, but here is the right now deal. At \$35K, the Volt is not much more expensive, if at all, than other conventional hybrids. Chevy has produced over 100,000 Volts and reliability has been excellent. If you want incredible fuel economy coupled with good performance (actually better than most hybrids) and your average daily use is under 100 miles, this is your ride. And then there is the possibility of charging stations at your destination before your trip home. Gas stations will become a thing of the past and that you pass.

Larry Weitzman has been into cars since he was 5 years old. At 8 he could recite from memory the hp of every car made in the U.S. He has put in thousands of laps on racetracks all over the Western United States.