

# Hybrids in the Real World

*If you think driving a hybrid will be an experience akin to piloting Luke Skywalker's landspeeder hovercraft, I have the regrettable task of informing you that it's in no way so exotic.*

By Mike Hanley | cars.com

Aside from a few interesting characteristics, hybrids drive like conventional vehicles. And unless you're driving one of the more distinctively styled hybrids, like Honda's Insight or Toyota's Prius, there's a very real possibility that other motorists and pedestrians will mistake your hybrid for its gas-only counterpart.

continuously variable transmissions are common in them. With a CVT, a vehicle can accelerate while maintaining steady engine rpm, which might take some getting used to for some drivers. Some characteristics can annoy, like the Toyota Highlander Hybrid and Honda Civic Hybrid's non-linear brakes. For many drivers, it's a given that easing down on the brake pedal results in a smooth stop. With these hybrids, the driver has to be especially conscious



**SATURN VUE GREEN LINE**

## Driving Characteristics

One of the first things you'll likely notice when operating a hybrid is that its gas engine automatically shuts off when you come to a stop and starts again once you're under way (or, in some hybrids, after you've gotten under way on electric power alone). There's also a good chance that if you listen closely, you might be able to hear hybrid-system whirring sounds reminiscent of George Jetson's spaceship.

Though not exclusive to hybrids,

of how much pressure he or she is applying to the brake pedal in order to avoid jerking passengers around.

## Temperature Extremes and Fuel Economy

Temperature extremes can affect how hybrids operate, and thus their gas mileage. Honda engines' auto-stop feature is less likely to engage when the climate control system is on, says Honda spokesman Chris Martin, which hurts fuel economy.

Being subjected to extremely cold weather for an extended time peri-



**LEXUS LS600H**

## Running the climate control system can hurt the fuel economy of both hybrid and conventional Honda Civics.

od can reduce the energy-storage capability of a hybrid's high-voltage battery pack, says Stephen Hunter, Ford control systems engineer for hybrid vehicles. This makes it less efficient at storing energy during regenerative braking.

It's important to note that the fuel economy of conventionally powered vehicles is similarly affected by high and low temperatures, according to General Motors' Steve Tarnowsky, assistant chief engineer for hybrid powertrains. Tarnowsky says running the air conditioner on hot days hurts fuel economy for hybrids and non-hybrids alike.

Regardless of what the weather is like, the driver still plays a big role in the efficiency equation. University of Toyota Product Education Administrator David Lee says aggressive acceleration can hurt fuel economy more than using the air conditioner or heater.

## Snow Performance

If you live in a part of the country where it snows, you'll be happy to know that hybrids won't require any special precautions above what you'd take when operating a conventional vehicle. Just as in conventional vehicles, snow tires and electronic aids like traction control and a stability system in hybrids improve handling in snow.

## Towing Issues

As of publication, the Ford Escape Hybrid, Mercury Mariner Hybrid and Saturn Vue Green Line can be towed

with all four wheels on the ground. For Honda, Lexus and Toyota hybrids, towing on a flatbed trailer or with the drive wheels off the ground is recommended.

If you're going to use your hybrid for towing, be sure to see what it can safely pull, as maximum towing capacities can vary between conventional and hybrid versions of the same model.

## A Sensible Family Road Trip Vehicle?

We know hybrids are environmentally friendly, but are they family friendly? If you're planning on using a hybrid for road trips and will need to fill it up with luggage, take the time to compare the trunk or cargo area with its gas-only counterpart. The Accord Hybrid's trunk, for instance, is a couple cubic feet smaller than the regular Accord's, and it loses the regular Accord sedan's fold-flat rear seat. Meanwhile, the Highlander Hybrid's 39.7-cubic-foot cargo area is the same as the regular Highlander's.

Carrying capacities also need to be kept in mind. Both the Honda Accord Hybrid and Civic Hybrid can carry 850 pounds of passenger and cargo weight, which is the same as the gas-only Accord and Civic. Some hybrids, however, see modest capacity drops — the Highlander Hybrid loses a couple hundred pounds compared to the highest-rated conventional Highlander. Lexus' GS 450h hybrid sport sedan, meanwhile, gains a couple pounds of carrying capacity over its gas-only siblings.

There's more to family road trip vacations than stuffing the trunk with suitcases filled with more clothes than you'll possibly be able to wear. It's also about trying to enjoy the ride between destinations. To this end, hybrids can have plenty of creature comforts like leather seats, navigation systems, high-end stereos and DVD entertainment systems — one way to keep the kids preoccupied during those now potentially longer intervals between refueling. ■



**TOYOTA PRIUS**

Trunk space can vary between hybrid models and their gas-only counterparts.