

# Third Generation Toyota Prius is World's Best-Selling Hybrid

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## 2010 - 2011 Toyota Prius 044

- 50 MPG Combined Fuel Economy Rating
- Midsize Room and Five-Door Versatility
  - Wide Range of Features and Options
  - Over 800,000 Sold in U.S. Since 2000

TORRANCE, Calif. — The Toyota Prius continues to lead the market for hybrid automobiles that it started over a decade ago. With its 50-MPG fuel economy rating, Prius is the most fuel-efficient passenger car available in the U.S. today. Prius offers its stellar fuel economy in a versatile five-passenger package that is recognized as a midsize car by the EPA. Toyota has sold 880 thousand Prius models in the U.S. since 2000.

The third-generation Prius was all-new for the 2010 model year, with even better mileage ratings, enhanced performance, and more innovative design features than the esteemed second-generation version. The 2011 Prius carries over with such innovative features as a moonroof with solar panels, four driving modes, Advanced Guidance Parking System and steering wheel touch controls that display on the instrument panel.

### **Eco-Icon**

The Toyota Prius – now synonymous with “hybrid” – entered the market in 1997 as the world’s first mass-produced hybrid. The company’s exclusive Hybrid Synergy Drive System was introduced in 2004 on the second-generation Prius. The Prius helped boost public awareness for the automobile’s role in the environment, specifically putting a focus on improving fuel efficiency and reducing carbon emissions.

The current Prius extends its record of continuous improvement in fuel economy. The first-generation Prius was estimated at 41 EPA combined MPG, and the second-generation model achieved a 46 MPG EPA combined rating. Using a combination of technologies, Toyota increased fuel efficiency for the new Prius to an EPA estimated 51 MPG in city driving, 48 MPG highway and a combined 50 MPG. Mileage is especially improved in cold-start conditions and at higher speeds.

### **Hybrid Synergy Drive**

The 2011 Prius is built using processes that reduce emissions in every stage of the vehicle lifecycle, from production and driving, through to eventual disposal and dismantling years down the road.

In the Prius, a 1.8-liter Atkinson-cycle, four-cylinder engine produces 98 horsepower at 5,200 rpm. Together with its electric motor, the hybrid system generates a combined 134 net horsepower, an improvement of 24 horsepower over the previous generation. Due the unique way that Toyota’s Hybrid Synergy Drive combines the power of the gasoline engine and electric motor, the driver experiences a feeling of torque in the Prius that makes it feel even more powerful than the output numbers suggest.

Use of an electric water pump and a new exhaust gas recirculation (EGR) system also contributes to the engine’s efficiency. The 1.8-liter Prius engine is the first Toyota powerplant that requires no accessory drive belts, helping enhance powertrain efficiency and also potentially reducing maintenance costs.

Prius has been an uncompromised “full” hybrid since its introduction. This means it can run on the gasoline engine alone, battery alone, or a combination of both. The Hybrid Synergy Drive was completely re-engineered for the third-generation Prius, with lighter, more efficient components.

The 2011 Prius offers four driving modes (“Normal,” “Power,” “Eco” and “EV”). The EV Mode allows driving on battery power alone at low speeds for about a mile, if conditions permit. Power Mode increases sensitivity to throttle input for a sportier feel; Eco Mode helps drivers achieve the best mileage. A multi-information display panel that monitors fuel and energy consumption is standard. It provides feedback on the Prius’ efficiency using three different displays to help the driver adopt economical driving habits.

The 2011 Prius is certified as a Super Ultra Low Emission Vehicle (SULEV) and an Advanced Technology Partial Zero Emissions Vehicle (AT-PZEV) in California, as well as those states applying California emission standards.

The AT-PZEV certification requires the SULEV exhaust standard linked with the ability to meet a zero-fuel-evaporative standard, a 150,000-mile durability demonstration, extended emissions system warranty, and technology deemed by the California Air Resources Board (CARB) to advance future fuel cell vehicles. In the rest of the country, Prius is certified as Tier 2, Bin 3.

### **Trend-Setting Design**

The Prius’ design, by itself, came to represent “hybrid” in the eyes of many. The third-generation Prius preserved that brand recognition while expanding the role of efficient aerodynamics in overall fuel economy. The 106.3-inch wheelbase is the same as the previous generation, while overall length is increased by just a half-inch to preserve the car’s efficient packaging. The corners of the new-generation Prius are sharp and sporty. Strong side character lines, rising from front to rear, define the smooth, geometric shape. Viewed from the rear, wider rear treads provide a solid, firmly rooted stance.

The third-generation Prius received more hours of wind tunnel testing than any other Toyota in history, resulting in one of the cleanest aerodynamic profiles of any mass-produced vehicle in the world. By focusing on the shape of the body, underfloor, wheelhouse liner and wheel face design, the designers reduced the coefficient of drag (Cd) value to 0.25, compared to 0.26 for the previous model.

Even with the increased focus on aerodynamic performance, the design is instantly recognizable as a Prius. The current model differs from the previous version, however. For example, overall height is the same for the two, but the new-generation model moved the roof peak four inches to the rear to enhance rear seat headroom.

### **Advanced Equipment for a New Era**

An available sliding glass moonroof is packaged with solar panels, located over the rear seating area, that power a new ventilation system. The solar powered ventilation system helps reduce the interior air temperature when parked directly in the sun. Cool-down time is shorter when the driver returns to the vehicle, thus reducing the use of air conditioning.

The 2011 Prius also offers a remote air conditioning system. It is the first system in the world to function on battery-power alone, and it allows remote operation so the driver can cool the interior temperature for comfort before getting into the car.

LEDs (light emitting diodes), optional in low beam headlamps and standard in tail and stop lamps, help reduce the vehicle’s power consumption. Air conditioning, a major energy drain, has been re-engineered to increase efficiency and cool-down performance. In addition, an exhaust heat recirculation system reduces heat waste by warming engine coolant during cold startup, for improved performance. It also heats up the passenger cabin more efficiently.

### **Enhanced Dynamic Performance**

The third-generation Prius is built on a new platform that enables improved handling control and quieter

operation. The suspension employs front struts and a rear beam design, like the previous model, but handling response was made sharper and the ride made smoother by improving the stabilizer layout and geometry and re-tuning the bushing characteristics. Four-wheel disc brakes are standard.

Weight was saved through use of aluminum for the hood, rear hatch, front stabilizer bar and brake calipers and by using super high-tensile strength steel in the inner rocker panel, center pillar and roof reinforcement.

### **Functional Interior Is Bigger on the Inside**

The cargo area of the new Prius was made slightly larger by using a new layout for the battery cooling unit. A space-saving contoured front-seat design maximizes rear seat legroom. Better-performing sound insulation, working with improved vibration damping reduces road noise.

Viewed from the cockpit, the center cluster smoothly flows from the instrument panel to the console. Handy storage space has been added under the shift lever by taking advantage of the shift-by-wire system. Simple, fin-type air vents and judicious use of silver accents add a finished, technical feel.

The available Touch Tracer Display features touch sensors on the steering wheel switches that are designed to reduce driver eye movement for better concentration on the road. When the driver touches the audio or trip switch located on the steering wheel, a duplicate image is displayed on the instrument panel, directly in front of the driver. Touch Tracer is the first display system in the world to allow steering wheel controls to display in the instrument panel.

In pursuit of new technologies for sustainable mobility, Toyota uses plant-derived, carbon-neutral plastics in the third-generation Prius. Known as “ecological plastic,” the new material is used in the seat cushion foam, cowl side trim, inner and outer scuff plates, and deck trim cover. Ecological plastic emits less CO<sub>2</sub> during the production process than conventional plastic; it also helps reduce petroleum use.

### **Safety Enhancements**

The new Prius was designed to comply with class-top level collision safety performance in each global sales region, and to accommodate increasingly strict safety requirements in the future. In addition to a driver and front passenger Advanced Airbag System, front and rear side curtain airbags, driver and passenger front seat-mounted side airbags and driver’s knee airbag are standard equipment.

Active headrests are used in both front seats to help reduce the possibility of whiplash injury in a rear collision. An Anti-lock Brake System (ABS), Electronic Brake Distribution (EBD), Brake Assist (BA), Traction Control (TRAC) and enhanced Vehicle Stability Control (VSC) make up Toyota’s standard Star Safety System™.

A Dynamic Radar Cruise Control system, using advanced millimeter wave radar, is an available option. The system also enables the available Lane Keep Assist, which can help the driver stay within the lane, and the Pre-Collision System, which retracts the front seatbelts and applies the brakes in certain conditions when a crash is unavoidable.

Third-generation Advanced Guidance Parking System features simplified settings to help guide the car into parking spaces. A backup camera, which provides a view of rear obstacles when reverse is engaged, is available with an optional voice-activated navigation system. Safety Connect, Toyota’s first safety and security service, includes automatic collision notification, stolen vehicle locator, emergency assistance button (SOS) and roadside assistance (1-year trial subscription included).

## **Simple Model Strategy**

Prius is offered in one model grade with five different standard equipment packages designated One, Two, Three, Four and Five. Each adds varying levels of exterior and interior features. Then, on top of those, option packages include:

- A Navigation Package available on Prius models Three, Four, and Five, includes a Voice-activated touch-screen DVD navigation system with integrated backup camera, JBL® AM/FM 4-disc CD changer with MP3/WMA playback capability, eight speakers, XM Radio with NavTraffic (includes 90-day trial subscription), auxiliary audio jack, USB port with iPod® connectivity, and hands-free phone capability and music streaming via Bluetooth® wireless technology. Prius Four and Five also include Safety Connect.
- A Solar Roof Package, available in Prius Three and Four, includes all contents in the Navigation Package, a power tilt/slide moonroof with a solar powered ventilation system and a remote air conditioning system.
- An Advanced Technology Package, available in Prius model Five, includes all contents in the Navigation Package; Dynamic Radar Cruise Control; a Pre-Collision System; Lane Keep Assist, and Advanced Guidance Parking System.

## **Warranty**

Toyota's 36-month/36,000 mile basic new-vehicle warranty applies to all components other than normal wear and maintenance items. Additional 60-month warranties cover the powertrain for 60,000 miles and against corrosion with no mileage limitation. The hybrid-related components, including the HV battery, battery control module, hybrid control module and inverter with converter, are covered for eight years/100,000 miles. In applicable states (including Calif., Mass., N.Y, N.J., Vt., Conn., Maine, N.M., and R.I.) hybrid-related component coverage is 15 years/150,000 miles with the exception of the hybrid battery, which is warranted for 10 years/150,000 miles.

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