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Toyota Camry Hybrid
Luxurious and super efficient
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The new Toyota Camry undergoes tech revolution

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NEW CARS

**Toyota
Camry
Hybrid**

The exteriors may not look dramatically different but the character of the car has been totally transformed. Ventilated front seats are a boon for India.



A dose of tech

Armed with a hybrid system, clever technologies and luxury, the new Camry

The Camry has been Toyota's bestselling car worldwide and has met with considerable success in India as well. I remember doing a first drive report of the Camry when it was first launched in India and calling it a plush sofa on wheels, excellent on comfort and with a great ride but not much else. It fitted in very well as did the

next generation Camry, which again I reviewed. That was a big leap forward in terms of features and technology, even though its rounded appearance and the sky blue launch colour gave it a very feminine feel. The car had an excellent ride and handled well and was all that one could have asked for in an affordable luxury car. The lat-

est generation Camry, when it was launched was quite a let down. While it had all the space and comfort, it just lacked that premium feel, whether it be the plastics or the wooden finish. The good thing though was that the car was now being made in India.

And all through these three generations of the Camry in

India, the one thing that has remained is a large petrol engine leading to poor fuel efficiency and the lack of a diesel option. All that is about to change though. When Toyota shifted the production of the present generation Camry Hybrid to Thailand, there was always a possibility that the car would be introduced in India as Thailand is the mother plant

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has taken a huge leap forward

for Toyota's Indian operations. Despite no clear guidelines on hybrid technology or government help or relaxation of taxation for hybrid cars, Toyota has decided to go ahead with launching the Camry Hybrid in India and we were in Bangalore to put the car through its paces at the company's test track as well as the roads

around Bidadi.

While one might have expected some minor changes in the car itself apart from the powertrain, the exterior changes are cosmetic with additional chrome at various places, most significantly around the fog lamps, a changed grille and hybrid and hybrid synergy drive badging, plus LED head-



The driving experience that the hybrid affords is quite unique. The car is much quieter and feels refined though it takes some getting used to.



The engine is a 2.5-litre unit, but as part of the Hybrid Synergy Drive has the capability of competing with the Nano engine for fuel efficiency. Above 20kmpl is possible. The start/stop switch is the power switch (inset) as the engine may not start but the car is ready to be driven



Like the front, the changes at the rear are minimal with LEDs used for brake lights in the combination tail-lamp

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NEW CARS



Leather and high quality wood have transformed the dash. The steering wheel also looks upmarket as does the centre console with the touchscreen display. The transformation of the interiors of the Camry is quite startling

Marvels of Toyota's Hybrid Synergy Drive

■ Toyota is the world leader in hybrid vehicles with one in possibly every segment that it is present in. Its Prius is the world's largest selling hybrid car and Toyota has sold over 5 million hybrid vehicles in the world. It is no wonder that a technologically advanced company like BMW inked agreements with Toyota for research and development for lithium-ion and lithium-air battery packs as well as other advanced alternative technologies.

Toyota uses a somewhat different system for its hybrid drives than many other companies, including Honda, which was the other company to sell hybrid cars in India. Toyota's system is a series-parallel system with a gasoline engine and a permanent magnet motor, which also doubles up as a generator as the two sources of power. The system can then draw power from either of the two sources in isolation or from a combination of the two as well.

The system itself intelligently switches between the two modes of power and also decides when it uses the motor for generating

electricity and recharging the battery pack. So when driving at constant low speeds or when starting, only the motor supplies power and the engine is switched off or not started at all. When extra power is required, like when going uphill or when accelerating hard, both the engine and the motor could be supplying power to the wheels while coming down a slope the engine may be shut off and the motor used as a generator.

We have limited amounts of fossil fuels avail-

able on earth and hybrid systems extend their life intelligently. With reserves fast depleting, there will soon come a time when all cars sold with internal combustion engines will feature hybrid drivetrains, whether plug in or otherwise. Toyota is well poised to tackle such a future and the Camry already shows how well the company has been able to tune its hybrid synergy drive when on normal driving it is well possible to get 20kmpl from the car. Combined with a fuel tank of 65 litre means that the Camry now competes with diesel engine cars for cruising range.



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Toyota Camry Hybrid



The Hybrid gets a blue optitron instrument cluster. A power meter replaces the tachometer which displays whether it is driving in Eco mode or power mode



Assist grips are a unique feature on a premium car. The front seat can be adjusted from the rear by knobs on its side



The touchscreen display has an energy monitor graphic which shows energy usage



Controls of the air-con are on the rear armrest. The compartment ahead of the front armrest has USB, AUX-in slots and power outlet

lamps and LED brake lights. The interiors though are completely transformed. This is what the Camry interiors should have been in the first place. Materials used are much better, plastics are soft touch and the wood and leather finish gives the cabin a premium feel. Even in terms of features there has been a major upgrade. Whether it be the reclining rear seats, the 3-zone climate control system or the grab handles at the rear of the front seats the transformation is substantial. List of features is impressive and make the Camry a serious threat to the premium car brands.

However, at the heart and soul of this transformation is the Hybrid Synergy Drive (read more about it in the accompanying box) which mates a 2.5-litre

4-cylinder 16-valve DOHC engine to a motor generator in a series-parallel. While the engine on its own has a max power output of 160bhp@5,700rpm and max torque of 213Nm@4,500rpm, the motor is a 105kW one with torque production of 270Nm. The hybrid drive though combines the two to have max power of 205PS. The motor which also doubles up as a generator stores electricity it produces in a 34 module 204 cells Nickel metal hydride battery pack. The braking system too is electronically controlled and features regenerative braking. The full system is neatly demonstrated on the touch-screen display which shows the charge in the battery pack and also the flow of energy, from the engine to the battery pack and wheels or from the battery pack to the



The rear seat armrest has controls and display for the rear air-con and buttons for reclining the rear seats as well as audio controls



In profile, the Camry Hybrid looks the same as the regular Camry except for the new 10-spoke alloy wheels

Toyota Camry Hybrid

Engine: 2.5-litre, 4-cyl, 16-valve DOHC

Max Power: 160bhp@5,700rpm

Max torque: 213Nm@4,500rpm

Gearbox: E-CVT

Price: Rs 30 lakh (est)

Motor: Permanent Magnet Synchronous

Details: 650V, 105kW, 270Nm

Hybrid output: 205bhp

Battery Pack: Nickel Metal Hydride

On sale September 2013

What we like

Luxury The word had gone missing from the normal Camry is back on the Hybrid

What we don't

Not Much There is very little not to like about this car

What surprised us

Fuel Efficiency The hybrid system works so well that a large car like this has better FE than small hatchbacks

Verdict

This is what the Camry should have been in the first place. Now not only does it offer peace to your conscience, it does it in five star style. Price though is yet to be decided and will determine the fortunes of this car.



Yogendra Pratap

★★★★★