

Improved fuel efficiency as a result of the energy regeneration system

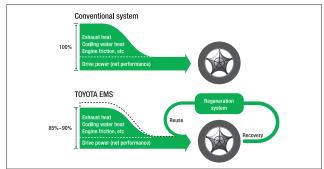
The new next generation sedan Prius concept car was exhibited in 1995 at the 31st Tokyo Motor Show



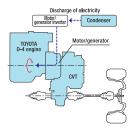
TOYOTA EMS (Energy Management System)

In addition to radically improving the efficiency of the engine and driving system, epoch making functions such as energy regeneration and stopping the engine while the vehicle is stationary were also employed in order to realize a high fuel efficiency of 30km/L (10-15 Japanese test cycle), approximately double that of other vehicles in the same class (at the time in 1995).

■Improved fuel efficiency as a result of the energy regeneration system

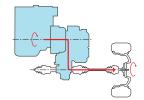


■Overview of Control System



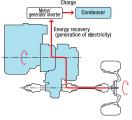
Engine start-up

The motor/generator is set into action by electrical energy stored in the capacitor which in turn starts the engine.



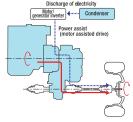
During steady motion

The ??CTV?? CVT??is manipulated to gain optimum fuel efficiency from the engine.



Deceleration

Braking energy is converted into electrical energy (generation of electricity) by the motor/generator, and stored in the condenser.



Acceleration

Engine output is augmented by electrical energy stored in the condenser.

1.5L TOYOTA D-4 Engine & CVT (belt-type continuously variable transmission)

In addition to further improving the new generation direct injection gasoline engine TOYOTA D-4 that was announced in 1993, a new design that optimizes the emissions volume was employed for the Prius. For the transmission, a high efficiency CVT was employed.

