

EQUIPMENT

THS-II (Toyota Hybrid System-II)

- The new RX400h is powered by a THS-II (Toyota Hybrid System-II), which has been developed under a “Hybrid Synergy Drive” concept to pursue better environmental performance and to realize “fun to drive” feeling. Under this concept, the THS-II has achieved significant advances in control systems, which aim for synergy between the power of the motor and the power of the engine. By greatly boosting the power supply voltage, this system has achieved a high level of balance between environmental performance and power.
- This hybrid system consists of a high power output 3MZ-FE engine and a high speed, high power output MG2, which cooperate optimally through a hybrid transaxle that excels in transmission performance. Furthermore, this system uses a high-output HV battery with a nominal voltage of DC 288V which is supplied to MG1, MG2 and MGR by a variable-voltage system. The variable-voltage system has a boost converter which boosts the operating voltage of the system to a maximum voltage of DC 650V, and an inverter which converts it into an alternating current. Through these elements, the dynamic performance of a class above has been realized, in addition to realizing a high level of regenerative capability. Together with the highly efficient cooperative control of the engine and the motor, a dramatic fuel economy performance has been realized.
- The new RX400h uses the electric type 4WD system, which uses an electric motor to drive the rear wheels. This system drives the MGR (Motor Generator Rear) electric motor that is built into the rear transaxle to suit various driving conditions, thus realizing an optimal drive torque distribution between front and rear wheels.

► Main Components ◀

