ELECTRIC POWER STEERING (EPS)

■ DESCRIPTION

The EPS ECU of new TOYOTA RAV4 has following functions:

Item	Function	New Model	Previous Model
Basic Control	Calculates the assist current from the steering torque value and the vehicle speed, and actuates the power steering motor.	○	○
Inertia Compensation Control	Ensures the starting movement of the power steering motor when the driver starts to turn the steering wheel.	○	○
Recovery Control	During the short interval between the time the driver fully turns the steering wheel and the wheels try to recover, this control assists the recovery force.	○	○
Damper Control	Regulates the amount of assist when the driver turns the steering wheel while driving at high speeds, thus damping the changes in the yaw rate of the vehicle body.	○	○
Battery Voltage Drop Suppression Control	If the battery voltage drops due to a worn battery, this control limits the amperage consumption of the EPS system, thus suppressing the battery voltage drop. This ensures the electric power required for operating the EPS system and prevents the steering assist from stopping.	○	—
System Overheat Protection Control	Estimates the power steering motor temperature based on the amperage and the current duration. If the temperature exceeds the standard, it limits the amperage to prevent the power steering motor from overheating.	○	○