

ELECTRIC POWER STEERING (EPS) OUTLINE

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- A column assist-type EPS has been adopted for all models.
- EPS provides smooth handling from low to high speeds as a result of the excellent steering feel provided by the electronic control and the vehicle-speed responsive control.
- EPS does not require a power steering oil pump and generates assist force only when the steering wheel is steered. As a result, engine load is lowered and fuel efficiency is improved.

Warning

- Always inspect the steering component carefully for any shock or impact which may have occurred during a collision or servicing operation. If a damaged part or a part suspected of being damaged is used, it could result in an unexpected accident due to the steering mechanism being inoperative. Always replace the damaged part or part suspected of being damaged.
- If the steering mechanism is turned from lock to lock continuously or the steering rack terminal limit is reached repeatedly, such high-load steering action increases the temperature of the steering column (to approx. 85 °C {185°F}), causing severe burns. Be careful when handling the steering column.
- Turn off the ignition switch when servicing the vehicle with the tires raised such as when the vehicle is lifted. Otherwise, the steering mechanism may actuate accidentally while servicing, resulting in serious injury. Set the steering wheel in the straight ahead position and remove the key to lock the steering wheel before performing the procedure. If the procedure needs to be performed with the ignition switch ON or the engine running, remove the main fuse (EPAS 60A) from the EPS system before servicing.
- Handling the air bag module improperly when working on the steering component parts can accidentally deploy the air bag, causing serious injury. Read the service warnings/cautions in the Workshop Manual before handling the air bag module.
- If the steering column is dropped, the EPS control module could be damaged internally causing the steering mechanism to become inoperative, which could result in an unexpected accident. Always replace the steering column if it has been subjected to an impact.

Caution

- If the steering column is stored in a humid place, the EPS system may not operate properly when installed to the vehicle. Store the steering column in a suitable place.
- If the steering shaft is installed after it has been rotated 360 degrees once accidentally while servicing, the absolute steering angle position is erased from the EPS control module and a steering angle sensor malfunction is detected. After servicing, always carry out the EPS steering angle configuration so that the EPS operates normally.
- Before performing the work on the steering wheel, set the steering wheel to the straight-ahead position while the ignition switch is in the ON position, then turn the ignition switch off. Without this procedure, a malfunction may occur in the EPS system after completing the work on the steering system.
- Be careful when handling the steering column because it weighs approximately 10 kg {22 lb} and it could fall off and be damaged while servicing.
- If the intermediate shaft is connected to the steering gear (pinion) before installing the steering column to the dashboard member, the weight of the steering column could cause damage to the intermediate shaft slider/bush/yoke. Always follow the procedure in the Workshop Manual.
- The universal joint could be damaged if subjected to an impact when the intermediate shaft (pinion) is disconnected. Perform the servicing carefully avoiding impact when disconnecting the intermediate shaft from the steering gear (pinion).
- Do not touch the EPS control module connector terminals, since static electricity could damage the electronic circuit.
- Do not release the lock of the tilt lever when handling the steering column unless it is securely installed to the dashboard member. If the tilt lever is unlocked with the steering column not securely installed, the steering column and other parts could be damaged.
- A new steering column is shipped in a pre-set condition. Maintain this condition until the steering column is completely installed to the dashboard member so as to avoid damage during transportation and installation.
- When removing/installing the steering column, keep the wiring harness away from the steering column installation area so as to prevent the steering column from being caught in the wiring harness and damaged.

Note

- When installing a replacement part, be careful not to rotate the steering shaft until the installation has been completed.
- In order to completely interrupt the EPS system power supply, do not disconnect the battery for 20 s or more after the ignition switch is turned off.
- Do not replace the steering column (EPS system) with that of another vehicle even if they are the same model.
- Before connecting the EPS control module connector, remove the fuse or disconnect the battery to interrupt the power supply completely.
- Verify that all the connectors are securely connected after finishing the work on the steering system.