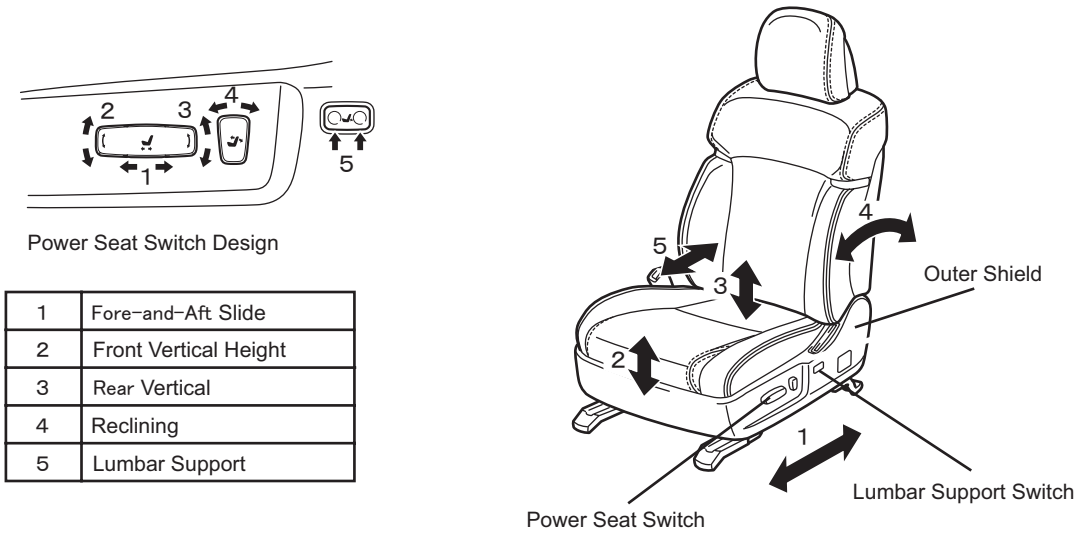


Front Power Seat

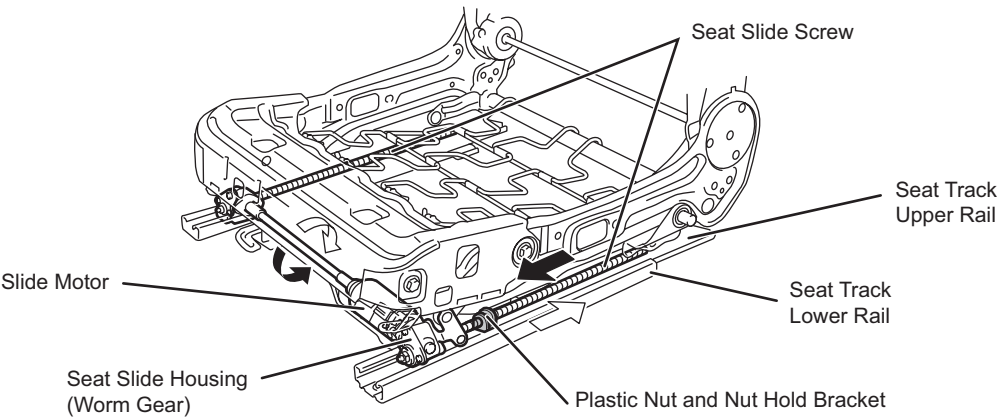
- The driver's and front passenger's seats use a power-adjustable sliding, reclining, front vertical, lifter, and lumbar support mechanism to facilitate the adjustment of their positions.



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Power Slide Mechanism

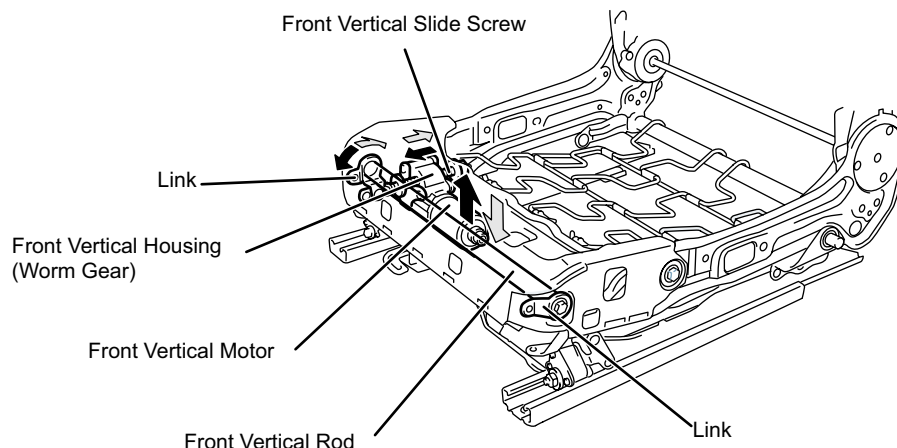
- When the user operates a power seat switch to perform a sliding adjustment, the sliding motor will rotate. This rotational movement will transfer to the seat sliding screw via the worm gear in the seat sliding housing.
- The seat sliding screw is meshed to the plastic nut. Because the plastic nut is mounted to the lower seat track rail via the nut hold bracket, the transmitted rotational movement causes the seat sliding screw to move forward or backward in relation to the lower seat track rail. This causes the upper seat track rail, to which the seat sliding screw is mounted, to slide. The sliding of the seat can be adjusted approximately 260mm forward or backward.



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Front Vertical Mechanism

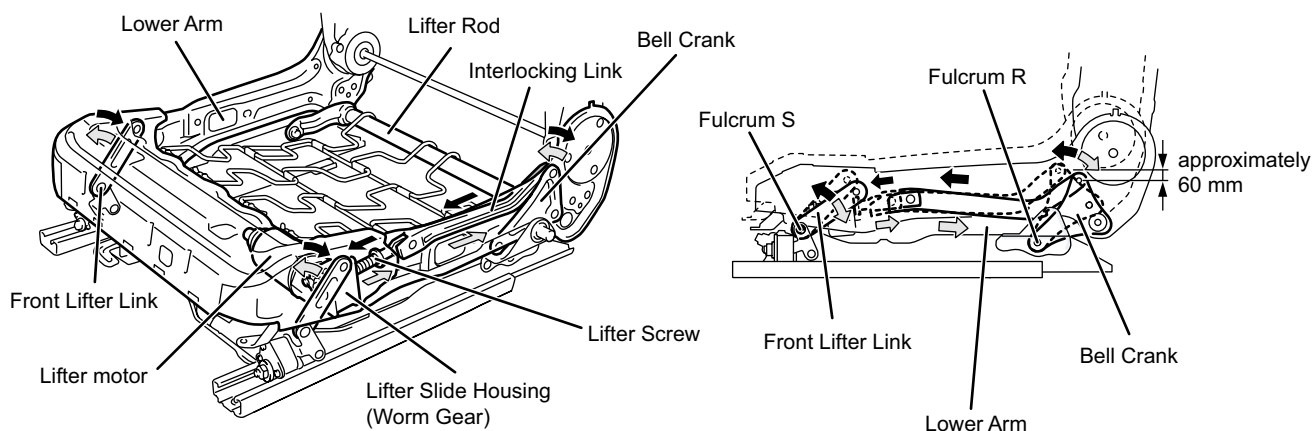
- When the user operates a power seat switch to perform a front vertical operation, the front vertical motor will rotate. This rotational movement will cause the vertical screw to move forward or backward, via the worm gear in the front vertical housing.
- A linkage is mounted to the end of the vertical screw. The forward or backward movement of the vertical screw causes the linkage to rotate and move the front end of the seat cushion up or down. In addition, the linkage transmits the movement to the inner linkage via the front vertical rod.
- The front vertical function adjusts the seat 5° up or down.



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Power Lifter Mechanism

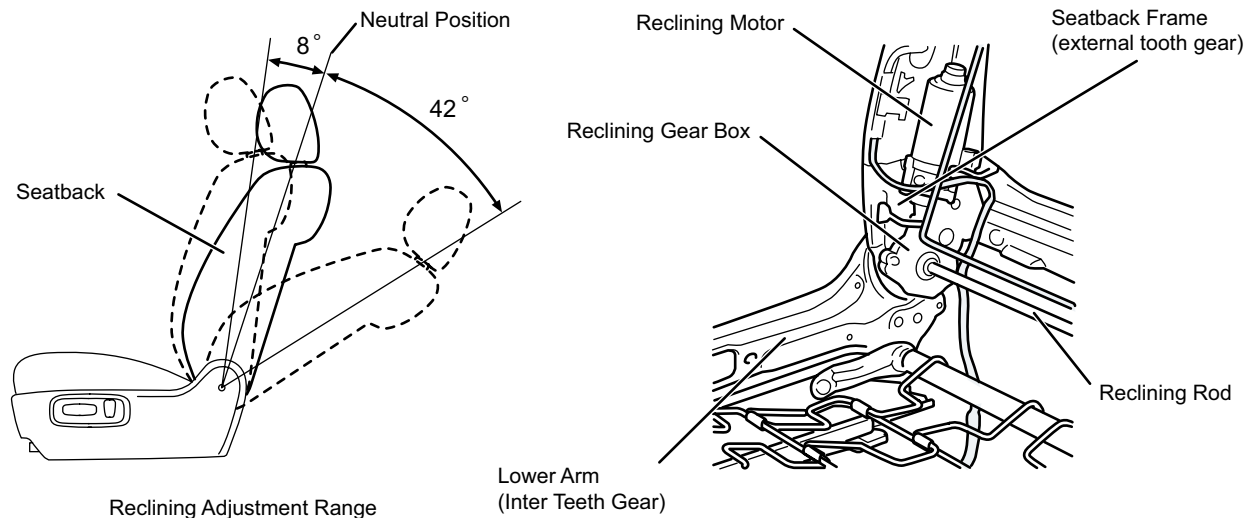
- When the user operates a power seat switch to perform a lifter adjustment, the lifter motor will rotate. This rotational movement causes the lifter screw to move forward or backward via the worm gear in the lifter housing.
- A connecting linkage is mounted to the end of the lifter screw. The connecting linkage transmits the forward or backward movement of the lifter screw to the bell crank.
- The bell crank transmits the movement of the lifter screw to the outer side via the lifter rod. At the same time, the bell crank rotates around fulcrum R as the center and lifts the rear end of the lower arm. Along with this movement, the front return linkage rotates around fulcrum S as the center and lifts the front end of the lower arm, thus lifting up the entire seat.
- The lifter adjusts the seat approximately 60mm up or down.



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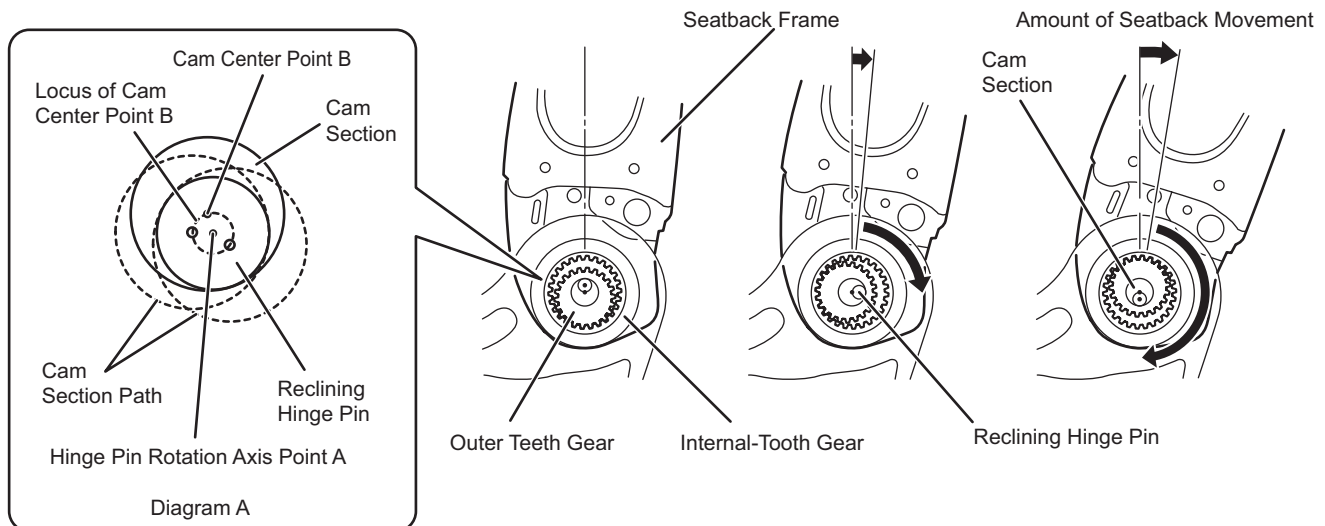
Power reclining Mechanism

- The reclining mechanism consists of the following parts: an external tooth gear provided in the seatback frame, an internal tooth gear provided in the lower arm, a reclining hinge pin that restricts the engagement of the external tooth and internal tooth gears, a reclining motor that rotates the reclining hinge pin, and a reclining rod that transmits the movement of the reclining gearbox and seatback to the inner side.
- The reclining angle of the seat can be adjusted 8° forward from the neutral position, and 42° rearward.



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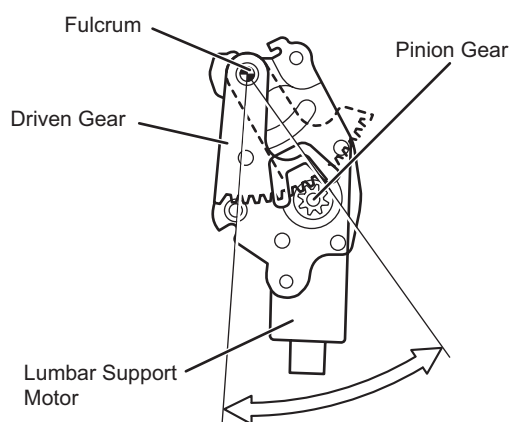
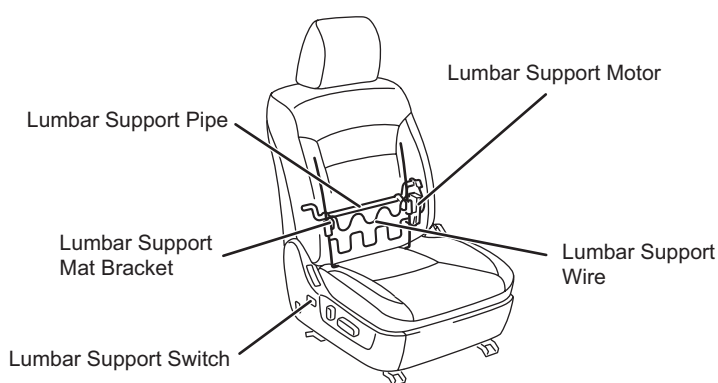
- When the user operates a power seat switch to perform a reclining adjustment, the reclining motor will rotate. This rotational movement transfers to the reclining hinge pin via the reclining gearbox.
- The reclining hinge pin has a cam, whose center point B is offset from point A of the rotational axis of the hinge pin. The cam rotates as it draws a loop locus (see Fig. A) along with the rotational movement of the hinge pin.
- The reclining hinge pin cam, which is mounted in the seat cushion, has an external-tooth gear that meshes with the internal-tooth gear that is mounted in the seatback frame. Compared to the external-tooth gear on the cam, the internal-tooth gear has one additional tooth. Therefore, each time the external-tooth gear completes one turn as it draws a loop locus (see Fig. A), the position at which the external-tooth gear and the internal-tooth gear mesh changes, causing the seatback frame to move gradually.



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Power Lumbar Support

- By operating the lumbar support switch that is mounted on the seat cushion shield on the outer side of the seat, the user can adjust the lumbar support wire, which is built into the seatback, steplessly forward or backward.
- Both ends of the lumbar support pipe are mounted to the seatback frame. The lumbar support wire pushes out via the lumbar support mat bracket to adjust the amount of lumbar support. Together with the lumbar support wire, the lumbar support mat bracket pushes the seatback spring out in order to provide a uniform support force without the feeling of something sticking out.
- When the user operates the lumbar support switch, causing the lumbar support motor to rotate, the pinion gear rotates the lumbar support pipe via the driven gear, thus moving the lumbar support mat bracket forward or backward.



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