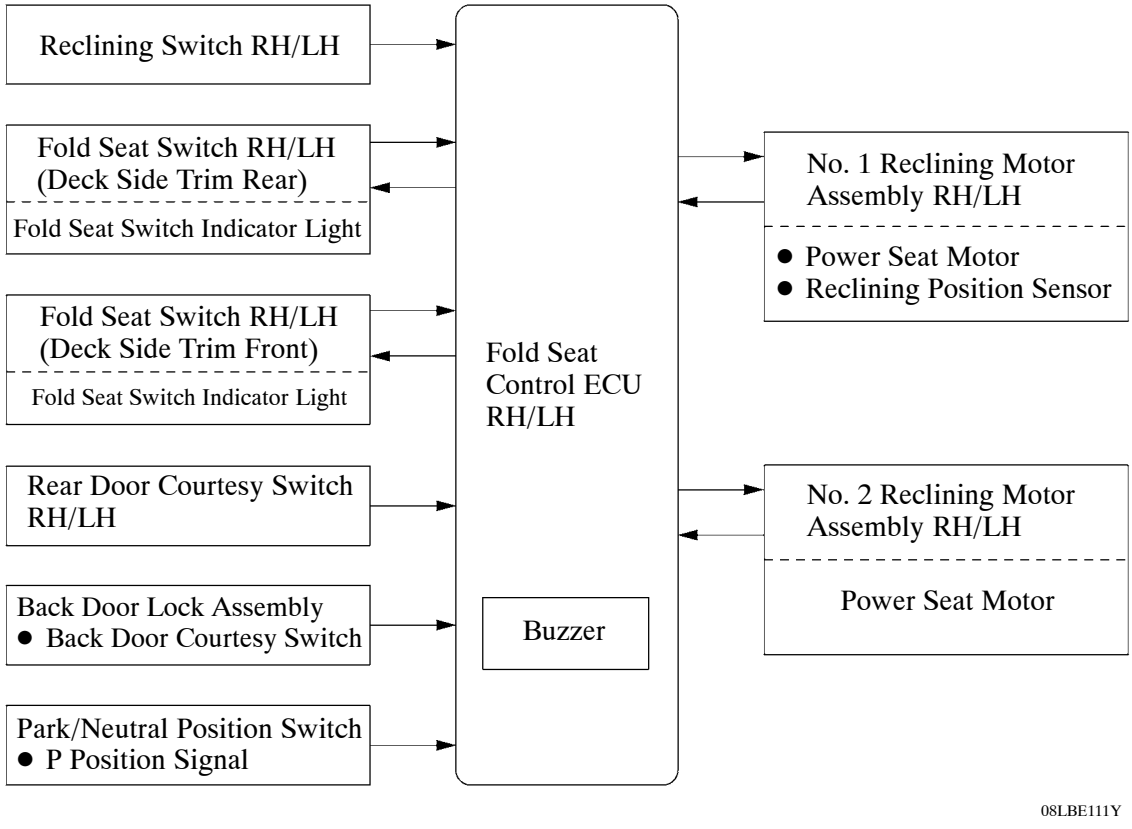
■ REAR NO. 2 SEAT

1. General

The power seat system for the rear No. 2 seat is equipped with a reclining function and a tilt up/down function, which are controlled by the fold seat control ECU.

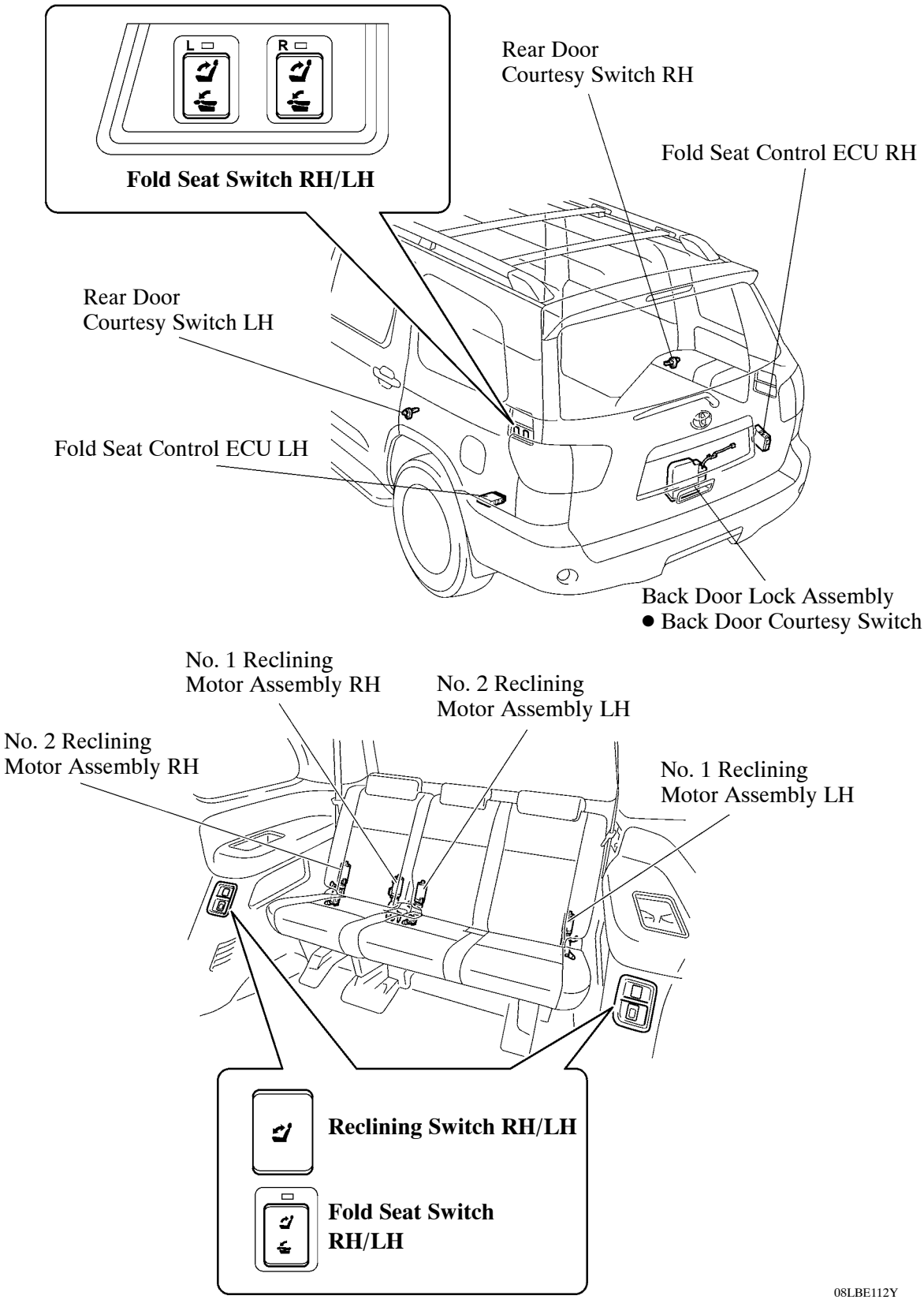
- The reclining function can adjust the reclining angle of the seatback.
- The tilt up/down function can tilt the rear No. 2 seat up or down with an electric motor.

▶ System Diagram ◀



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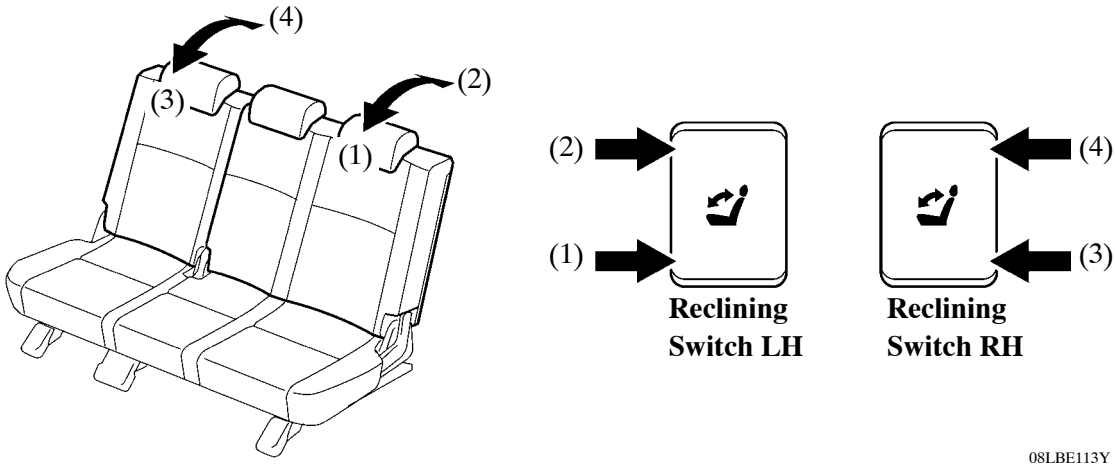
2. Layout of Main Components



3. Reclining Function

General

The reclining function has an adjustable range of 28 degrees.



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4. Tilt Up/Down Function

General

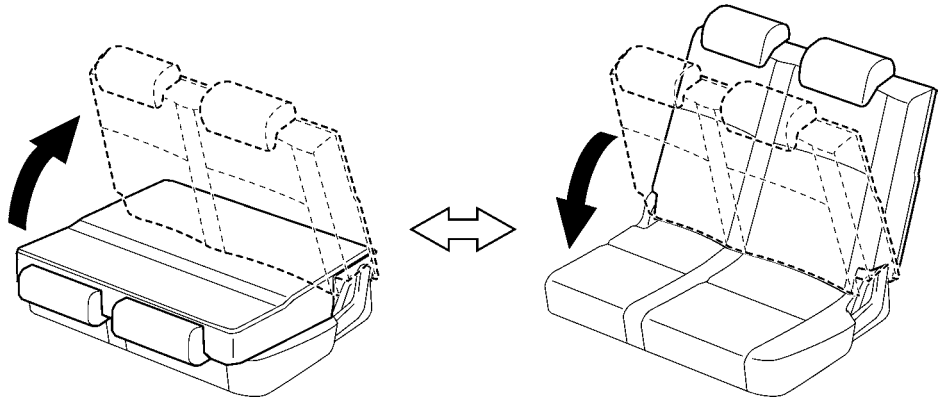
- The tilt up/down function can tilt the rear No. 2 seat up or down by pressing and holding the fold seat switch.
- The tilt up/down function is controlled by the fold seat control ECU.
- The tilt up/down function can be used when the following conditions are met.

  1) The ignition switch is OFF

  2) The ignition switch is ON and the shift lever is in the P position

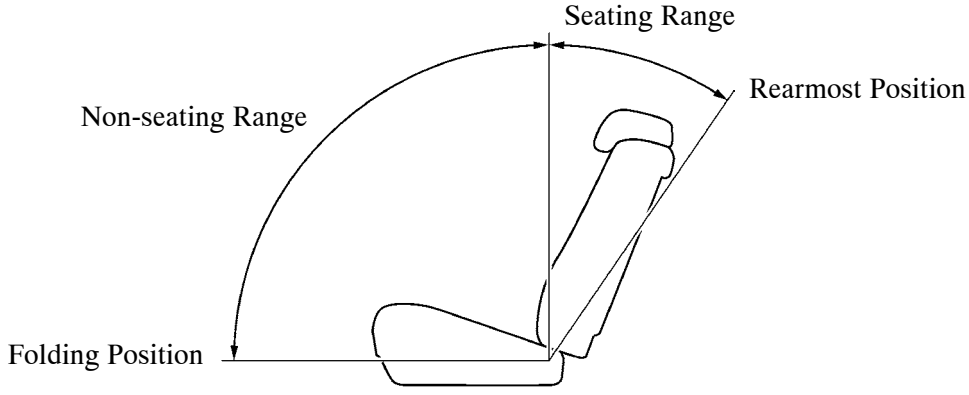
  3) The door, which corresponds to the folding seat switch that is being operated, is open

  – Fold Seat Switch RH (Deck Side Trim Front) → Rear Door RH
  – Fold Seat Switch LH (Deck Side Trim Front) → Rear Door LH
  – Fold Seat Switch RH/LH (Deck Side Trim Rear) → Back Door
- When the tilt up/down function is operated, the seat can come in contact with the rear No. 1 seat. Therefore, operate this function after down the headrests.



Tilt Up Function **Tilt Down Function**

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Operation Range

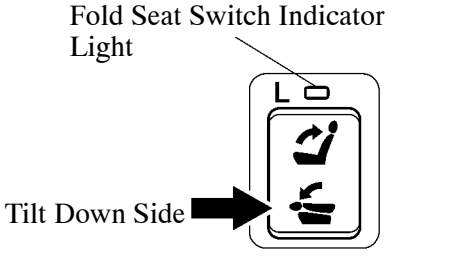
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Operation

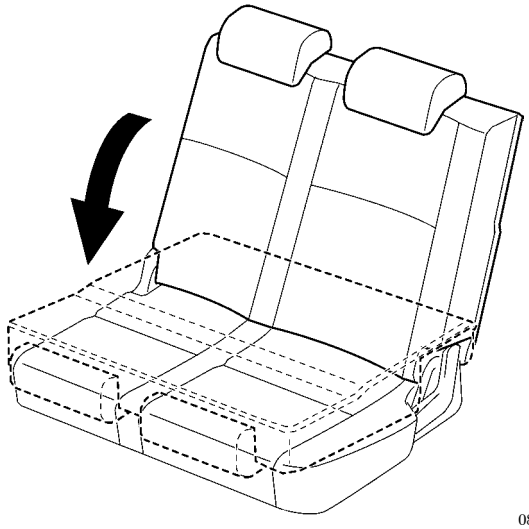
1) Tilt Down Operation

The tilt down operation is carried out as follows. The described operation is for the rear No. 2 seat LH. The operation for the rear No. 2 seat RH is the same as the LH.

1) Under either of the following conditions, the user presses and holds the tilt down side of the fold seat switch LH when the rear door LH or the back door is open:
   – The ignition switch is OFF
   – The ignition switch is ON and the shift lever is in the P position
2) The buzzer sounds twice, the No. 1 and No. 2 reclining motors actuate, and the seat operates until it is in the folding position. However, if the rear No. 2 seat is in the seating range, the operation can be ended at any position. At this time, the buzzer sounds twice.
3) If the reclining position sensor determines that the seat is in the folding position, the buzzer sounds twice and the tilt down operation ends.
4) If the fold seat switch LH is turned OFF during a tilt down operation and the rear No. 2 seat is in a non-seating range, the operation stops, the fold seat switch indicator light illuminates, and the buzzer sounds for approximately 10 seconds.



Fold Seat Switch LH

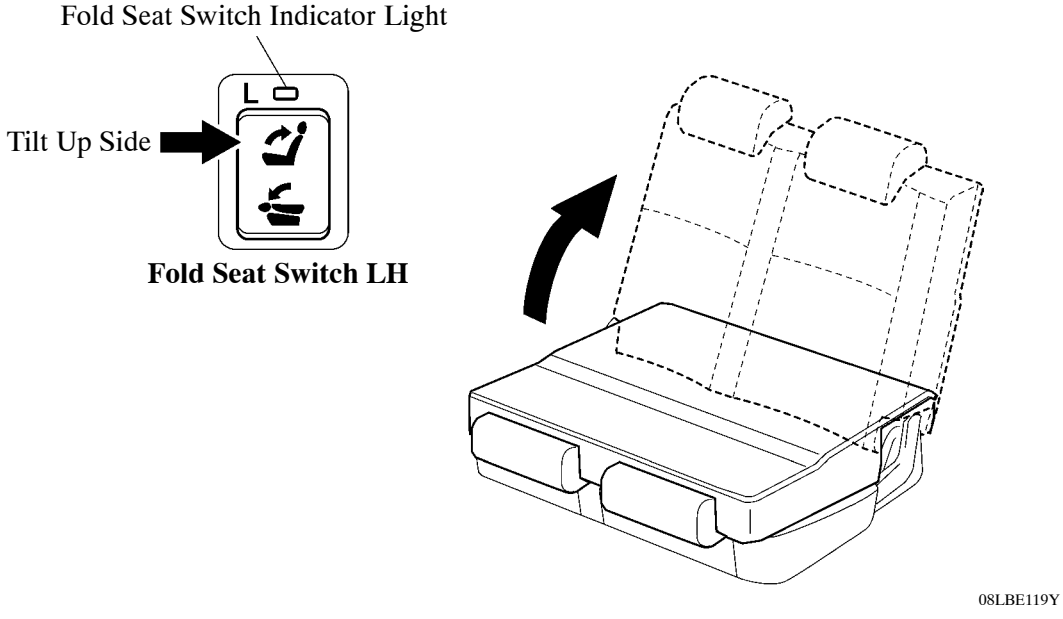


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2) Tilt Up Operation

The tilt up operation is carried out as follows. The described operation is for the rear No. 2 seat LH. The operation for the rear No. 2 seat RH is the same as the LH.

1) Under either of the following conditions, the user presses and holds the tilt up side of the fold seat switch LH when the rear door LH or the back door is open:
   – The ignition switch is OFF
   – The ignition switch is ON and the shift lever is in the P position
2) The buzzer sounds twice, the No. 1 and No. 2 reclining motors actuate, and the seat operates until it is in the rearmost position. However, if the rear No. 2 seat is in the seating range, the operation can be ended at any position. At this time, the buzzer sounds twice.
3) If the reclining position sensor determines that the seat is in the rearmost position, the buzzer sounds twice and the tilt up operation ends.
4) If the fold seat switch LH is turned OFF during a tilt up operation and the rear No. 2 seat is in a non-seating range, the operation stops, the fold seat switch indicator light illuminates, and the buzzer sounds for approximately 10 seconds.



Jam Protection Function

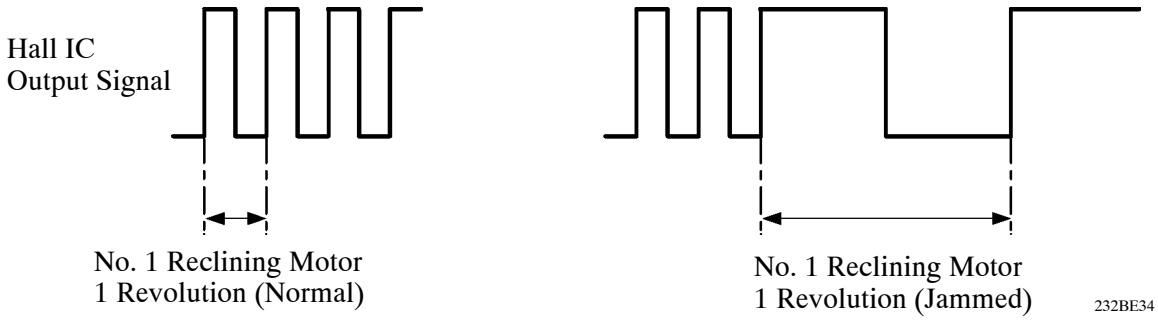
1) General

- The jam protection function is controlled by the fold seat control ECU.
- In the tilt down operation, the seatback operates after jam detection as follows: When the jam protection function operates, the seat back reverses approximately 50 degrees.
- In the tilt up operation, the seatback operates after jam detection as follows: When the jam protection function operates, the seat back reverses approximately 10 degrees.

2) Jammed Seat Detection Mechanism

- The jammed seat detection mechanism uses the Hall IC on the No. 1 reclining motor assembly.
- The following two factors are used to determine that jamming has occurred.
  1) The Hall IC converts the changes in the magnetic flux that occur through the rotation of the worm gear into block wave signals and outputs them to the fold seat control ECU.
  2) The fold seat control ECU calculates the speed threshold value of the No. 1 reclining motor in accordance with the seat reclining position at the time the No. 1 reclining motor is started. The fold seat control ECU determines that jamming has occurred if the threshold value is exceeded, and reverses the seatback.

▶ Determination by Hall IC ◀



Warning

If the fold seat control ECU detects a malfunction in the tilt up/down function, the buzzer sounds for 10 seconds, the fold seat switch indicator light illuminates or flashes. Refer to the table below for details.

Malfunction	Buzzer	Fold Seat Switch Indicator Light	
		Illuminate	Flash
While the tilt up/down function is operating and the rear No. 2 seat is in a non-seating range, the fold seat switch is turned OFF.	○	○	—
While the tilt up/down function is operating and the rear No. 2 seat is in a non-seating range, the ignition switch is ON and the shift lever is moved to a position other than P.	○	○	—
While the tilt up/down function is operating and the rear No. 2 seat is in a non-seating range, the reclining motor has stopped due to an overcurrent or pulse malfunction.	○	—	○
While the tilt up/down function is operating and the rear No. 2 seat is in a non-seating range, the courtesy light switch that corresponds to the respective fold seat switch has turned ON.	○	—	—
While the tilt up/down function is operating and the rear No. 2 seat is in a non-seating range, the seat has not reached the folding position or rearmost position even after 30 seconds have elapsed after the start of the operation.	○	—	○