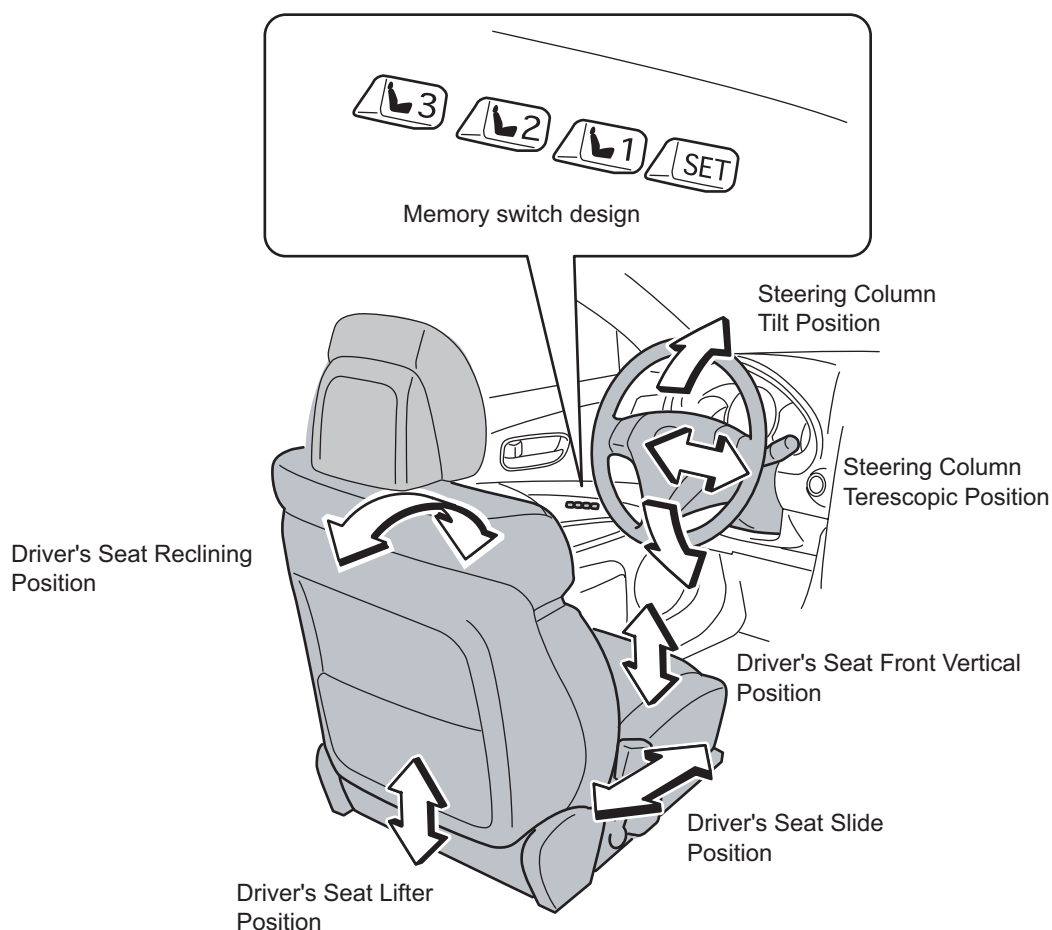
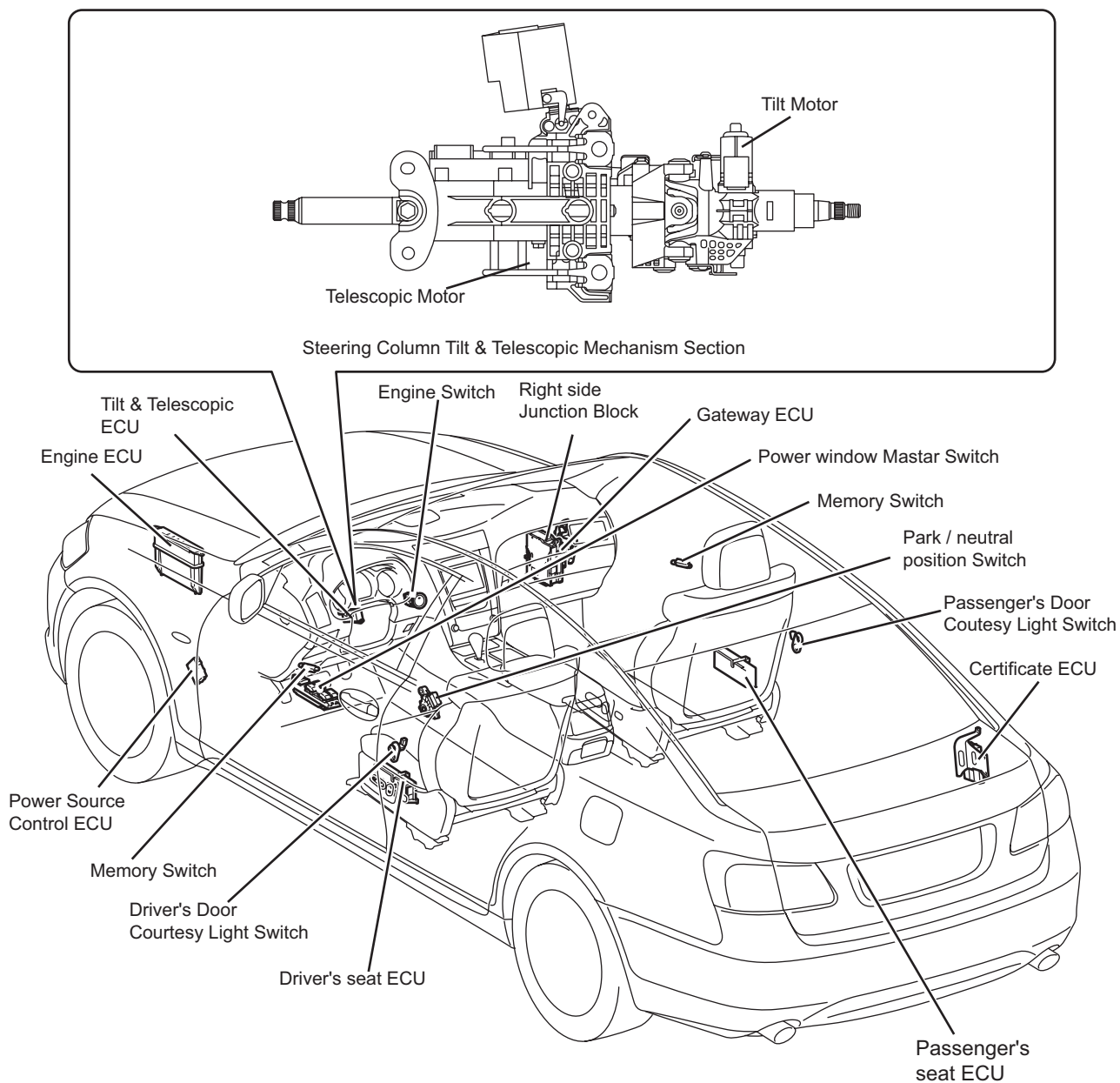


Memory System Function

- A computer-preset driving position system, in which the driving positions (including the steering position, the driver's seat position, and the front passenger's position) for up to three persons can be memorized and retrieved at the touch of a switch, is provided on all models.
- The system memorizes the adjustment positions of the steering column, the driver's seat, and the front passenger's seat. Therefore, even if these adjustment positions change during exit or reentry, they can be retrieved from memory at the touch of the memory switch. The system can memorize the adjustment positions for up to three persons.
- A memory switch, which is used for memorizing and retrieving the driving positions, is located on the front door upper trim of the driver's door and the front passenger door.
- A memory call function, which utilizes the key IDs of the smart key or wireless door key, is used to memorize and retrieve the optimal driving positions for the people possessing the master key and the sub key.
- A "power tilt & telescopic steering column" is used as the system for adjusting the steering position.
- A "computer power seat", which is equipped with a seat ECU that is integrated in the power seat switch, is used as the system for adjusting the driver's and front passenger's seat positions.



Micro Computer Preset Driving Position System Composition



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Main Components of the Computer-Preset Driving Position System

Component [Abbreviation]	Main Function
Driver's Seat Position Control Computer [Driver's Seat ECU]	• Receives various pieces of data from the power source control ECU and the engine ECU via the BEAN (Body Electronics Area Network) and the CAN (Controller Area Network), and determines the operating conditions for the computer-preset driving position system. • Receives the inputs of the current waveforms from the seat adjuster motors of the driver's seat, in order to detect the sliding, reclining, front vertical, and lifter positions of the driver's seat. • Receives the memory switch data from the power window master switch via the BEAN (Body Electronics Area Network) in order to memorize and retrieve the driver's seat position. • Sounds a built-in buzzer when a memory operation is completed or a retrieval operation is started.
Tilt & Telescopic ECU	• Receives the input of pulse signals from the tilt motor and the telescopic motor in order to detect the tilt and telescopic positions of the steering column. • Receives the input of a signal [memory or retrieval command] from the driver's seat ECU via the BEAN (Body Electronics Area Network) and memorizes or retrieves the steering position.
Neutral Start Switch	• Detects the shift position and outputs it to the engine ECU.
Engine ECU	• Receives the input of a signal from the neutral start switch and transmits the shift position data to the driver's seat ECU via the CAN (Controller Area Network) and the BEAN (Body Electronics Area Network).
Right side J/B ECU	• Receives the input of signals from the driver's door courtesy light switch, and transmits the data on whether there is a open or close data of the driver's door to the driver's seat ECU via the BEAN (Body Electronics Area Network). • Receives the input of the key ID signal and the door unlock signal, and transmits the key ID and the door lock or unlock signal to the driver's seat ECU via the BEAN (Body Electronics Area Network). • Detects the state of the power supply and transmits it to the driver's seat ECU via the BEAN (Body Electronics Area Network).
Driver's Door Courtesy Light Switch	• Detects whether the driver's door is open or closed and outputs it to the right side J/B ECU.
Memory Switch	• Outputs [SET], [1], [2], or [3] switch operating signal to the power window master switch.
power window Master Switch	• Receives the input of a signal from the memory switch, and transmits the switch operation data to the driver's seat ECU via the BEAN (Body Electronics Area Network).
Certificate ECU	• Transmits a smart memory call retrieval instruction signal to the driver's seat ECU via the BEAN (Body Electronics Area Network).
Power Source Control ECU	• Transmits the key code verification signal to the driver's seat ECU via the BEAN (Body Electronics Area Network).
Gateway ECU	• Relays the BEAN (Body Electronics Area Network) and the CAN (Controller Area Network).

Driving Position Memorize Function

- When the driver simultaneously presses*1 "SET" and [1] (or [2], or [3]) on the memory switch while the engine switch is ON and the shift position is "P"*2, the system memorizes the driving position at the time the switches are pressed (the sliding, reclining, front vertical, and lifter positions of the driver's seat; and the tilt and telescopic positions of the steering column).
- When the engine switch is ON and the shift position is in "P"*1, if memory switches "SET" and "1" (or "2" and "3") are pressed at the same time*2, the driving position at the moment the switch was pressed is memorized by the system (slide, reclining, front vertical and lifter position of the driver seat).

❖REFERENCE❖

- *1 : The memory operation will be invalidated if multiple buttons [1], [2], and [3] on the memory switch are pressed simultaneously. In this case, first release the switch, and then perform the operation again.
- *2 : The system will not memorize the driver's seat position while the driver is operating the driver's power seat switch (excluding the lumbar support switch). The memory operation will be invalidated during the retrieval operation of the driving position. In these cases, perform an operation after the power seat switch operation has ended or the retrieval operation has ended.

Driving Position playback Function

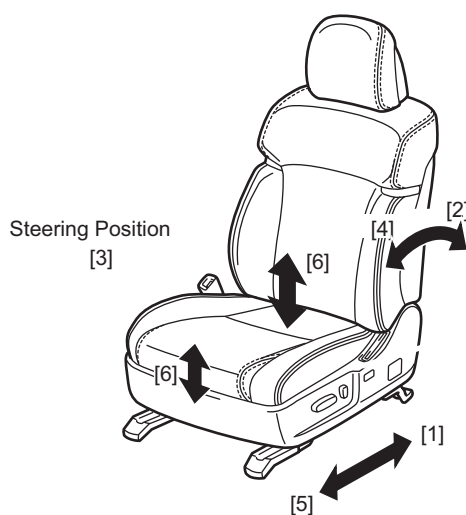
- When the driver presses [1] (or [2], or [3]) on the memory switch while the engine switch is ON and the shift position is "P", the system retrieves the driver's seat position and the steering position from memory in the following sequence.

Driving position playback operation preparation

No.	Playback operation part
[1]	Drives seat slide (rear)adjustment*1
[2]	Driver seat reclining(rear)adjustment*1
[3]	Steering position adjustment
[4]	Driver seat reclining(forward)adjustment*2
[5]	Driver seat slide (forward)adjustment*2
[6]	Driver seat front vertical / lifter adjustment

❖REFERENCE❖

- *1Only if the retrieval position of the driver's seat is backward of the position before the retrieval. (Retrieval sequence example - [1] Backward slide -> [2] Backward reclining -> [3] Steering position -> [6] Front vertical/lifter)
- *2Only if the retrieval position of the driver's seat is forward of the position before the retrieval. (Retrieval sequence example - [3] Steering position -> [4] Forward reclining -> [5] Forward sliding -> [6] Front vertical/lifter)



Driving Position Key Off Playback Function

- Even when the engine switch is not ON, the driver can press memory switch [1] (or [2], or [3]) within approximately 30 seconds from the time the driver's door has been opened. This will allow the driver's seat to retrieve the driving position in the same sequence as the normal driving position retrieval function. In this case, the system will not retrieve the steering position unless the driver presses the engine switch before the driver's seat position retrieval is completed.
- When the driver presses the engine switch ON during the key-OFF retrieval operation of the driver's seat position, the system will start retrieving the steering position at the time the retrieval operation of the reclining adjustment or sliding adjustment is completed. When the driver presses the engine switch ON during a front vertical or lifter retrieval operation, the system will simultaneously retrieve the steering position.

When Driving Position playback is Stopped

- If the driver moves the shift lever to a position other than "P" during a driving position retrieval operation, or if the driver presses any one of the memory switches [SET], [1], [2], or [3], the system will stop the driving position retrieval operation at that time.
- If the driver operates the driver's power seat switch (excluding the lumbar support switch) during a driving position retrieval operation, the system will stop the driver's seat position retrieval operation.

Memory Call Registration Function

- When the driver presses the key lock or unlock button while pressing memory switch [1] (or [2], or [3]) with the engine switch pressed OFF and the driver's door closed (driver's door courtesy light switch OFF), the system will assign the ID of the key, which is used for this operation, to the corresponding memory switch.

Memory Call Registration Cancel Function

- When the driver presses the key lock or unlock button while pressing memory switch [SET] with the engine switch pressed OFF and the driver's door closed (driver's door courtesy light switch OFF), the system will cancel the ID of the key, which is used for this operation, in the memory call registration.

Memory Call playback Function

- When the driver opens the driver's door by unlocking it with the door unlock function (or the unlock button of the key), the system will retrieve the driver's seat position, which corresponds to the memory switch [1] (or [2], or [3]) that is assigned to the respective key, in the same sequence as the normal driving position retrieval function. In this case, the system will not retrieve the steering position unless the driver presses the engine switch before the driver's seat position retrieval is completed.
- When the driver presses the engine switch ON during the memory call retrieval operation of the driver's seat position, the system will start retrieving the steering position at the time the retrieval operation of the reclining adjustment or sliding adjustment is completed. When the driver presses the engine switch ON during a front vertical or lifter retrieval operation, the system will simultaneously retrieve the steering position.

Table of Memory Call Functions

Function	Condition on Vehicle	User Operation or Vehicle Operation
Memory Call Registration	Engine switch OFF, driver's door closed	• Press the lock or unlock button on the key while pressing memory switch [1] (or [2], or [3]). • Buzzer sounds approximately 0.5 seconds (upon completion of registration).
Memory Call Registration Cancellation	Engine switch OFF, driver's door closed	• Press the lock or unlock button on the key while pressing memory switch [SET]. • Buzzer sounds twice at an approximate 0.1-second interval (upon completion of registration cancellation).
Memory Call Retrieval	Engine switch OFF, ACC OFF, key ID signal OFF, driver's door closed	• Use a key registered in the memory call function to unlock the door. • Opens the driver's door. • Press the engine switch ON.* • Buzzer sounds approximately 0.1 second (upon starting of retrieval).

❖REFERENCE❖

*When the driver presses the engine switch ON during the retrieval of the driver's seat position, the electronic key will start the retrieval of the steering position.