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2018 Chrysler Pacifica

Description & Operation

DESCRIPTION AND OPERATION

DESCRIPTION

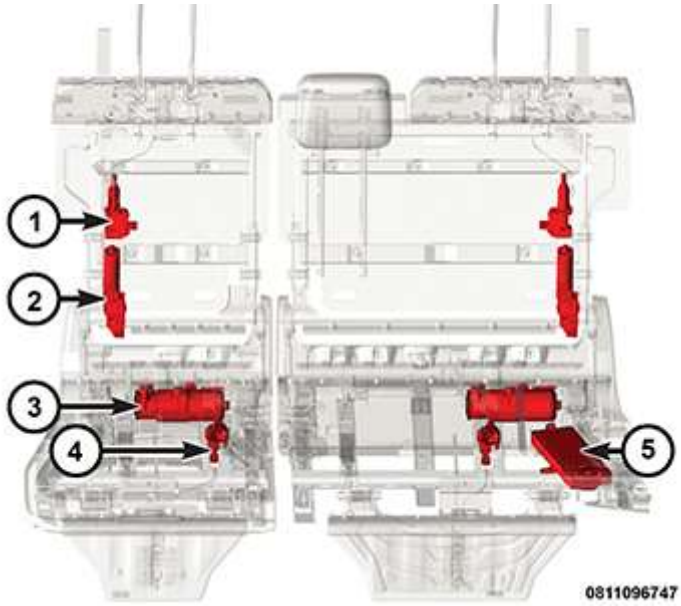
A power folding third row seat is available on some models. The seat configuration is that of a 60/40 split bench seat.

The power folding seat offers convenient one-touch operation. Pressing a button on the D-pillar switch once moves the power folding seat into the desired position, allowing the operator the freedom to walk away. The left and right seats can be folded individually or together as desired.

The power folding third row seat adjusts to the following positions using the switches in left-side D-pillar:

- Open seats to normal position
- Stow seats in floor
- Fold seatbacks flat
- Tilt seats for tailgate mode

Both seat backs can be adjusted individually for occupant comfort. This is accomplished with a field effect type recliner switch that is located in each outboard seat cushion cover.



The major components of the power folding third row seat are:

- The seat leg latch release actuator and cable assembly (4)
- The seat headrest actuator and cable assembly (1)
- The seat frame assembly
- The stow motor assembly (3)
- The seat leg latch motor (2)
- The seat reclining switches
- The fold and stow switch
- The seat leg assemblies that include the latches and cable mounting hardware
- The power folding third row seat control module (5)

OPERATION

The third row folding seat system receives battery voltage from a fuse in the Power Distribution Center (PDC). Power is supplied to the system in any key position except START. If the Folding Seat Module (FSM) detects that the key is in the START position, it will stop seat motor operation. The FSM will hold the seat in its current position until the engine crank event has completed and then continue the requested movement to completion.

The FSM uses inputs from the recliner switches, D-pillar seat switch which includes the seat selector and seat mode switches, the Controller Area Network (CAN) data bus, hall sensors located in each seat motor and seat leg latch switches to determine the proper control of the third row seat motors.

The FSM receives analog inputs from the seat selector switch. The seat selector switch is an integral part of the D-pillar seat switch. The FSM uses the seat selector switch analog input to decode which seat(s) it is to control (i.e. Left, Right or Both simultaneously). The FSM uses the seat selector switch input combined with the seat mode switch inputs (Normal, Stow, Fold, and Tailgate) to determine which seating mode is being requested for each seat. The seat mode switch is also an integral part of the D-pillar seat switch.

The FSM is capable of adjusting the seat(s) to the requested position when it receives the proper momentary signal from the seat mode switch input. The possible seat modes are:

- Seated – the third row seat backrest is up and the seat bench is in a position to allow an occupant to sit facing forward in the vehicle. All seat leg latches are fully latched.
- Stow – the third row seat backrest is folded down and the seat assembly (right, left or both seats) is fully stowed into the floor of the vehicle.
- Fold – the third row seat backrest is folded down onto the seat bench. All seat leg latches are fully latched.
- Tailgate – the third row seat backrest is fully reclined (i.e. At rear recliner hard stop). The seat bench is raised perpendicular to the floor and the seat backrest is positioned to allow an occupant to sit on it facing rearward in the vehicle.

The FSM also receives analog inputs from the right and left seat recliner switches. The FSM uses these switch inputs to determine the required control of the right seat back and left seat back motor outputs. The FSM is capable of moving the seat back recliner in both the forward or rearward direction when it detects a recliner switch (right and/or left seat) being activated. The module can operate the recliner motors independently or simultaneously in both directions. Seat recliner operation via the recliner switches is inactive when the seat is not in the seated position. Rearward travel of the seat back recliner is limited by a mechanical stop. The FSM limits the forward recliner travel to the soft stop location learned in the routine, (Refer to Electrical/Power Seats/Standard Procedure)(Refer To List 1).

The power folding system includes four motors total, two motors in each side of the seat. A motor disengages the leg latches and motor stows and unstows the seat, and a second motor reclines and folds the seat back flat. The stow and recline motors contain a hall sensor that provides inputs to the FSM for seat position and motor speed.

The system also includes obstacle detection for safe operation. When the system detects an obstacle the motors will stop and reverse the motion for a brief period. If the FSM detects an obstruction preventing it to back off by the required distance, the FSM shall abort all seat movement. The obstacle detection feature is not required during seat recliner adjustments that are activated by the right or left recliner switches. The obstacle detection feature is deactivated when the seat is (approximately 100 mm) before reaching the fully latched position to ensure best possible latching. Obstacle detection is also inactive during motor movements that result from diagnostic scan tool active commands.

Refer To List:

List 1

- 08 - Electrical / 8N - Power Systems / Power Seats, Front / Standard Procedure
- 08 - Electrical / 8N - Power Systems / Power Seats, Third Row / Standard Procedure