

# Your Ultimate Source for OEM Repair Manuals

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## 2006 JEEP Cherokee/Liberty OEM Service and Repair Workshop Manual

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## NOTE

The vehicle has one Comfort Seat Module (CSM) on each seat, front left Comfort Seat Module Front Left (CSMFL), front right Comfort Seat Module Front Right (CSMFR), second row left Comfort Seat Module Rear Left (CSMRL), and second row right Comfort Seat Module Rear Right (CSMRR). All four CSMs are provided fused B(+) by a single fuse in the PDC and ground is provided by a single ground circuit for all four CSMs.

The HVAC module receives CAN bus messages via the ICS for front seat activation or RCCC for second row seat activation, with inputs from the heated/vented seat switches and in turn the HVAC module sends a LIN bus message to the applicable CSM to turn ON the heated/vented seat elements or motors for the seat being activated.

The heated seat element has an NTC thermistor that provides the CSM the feedback data for confirmation of the heated seat temperature. The CSM for that seat provides the feedback from the NTC thermistor to the HVAC module to make sure the temperature stays at the selected setting.

Comfort Steering Wheel Surface Module (CSWSM)

[Component Index](#)

The CSWSM is a microcontroller designed to use the LIN data bus messages from the HVAC module to activate the heated steering wheel element and return feedback from the NTC thermistor to the HVAC module. The HVAC module receives inputs from the heated steering wheel switch in the Integrated Center Stack (ICS) module and in turn, signals the CSWSM to operate the heated steering wheel element. The CSWSM is provided a feedback signal from the steering wheel heating element to make sure the steering wheel temperature stays at the proper temperature.

The CSWSM is located on the right side of the steering column between the two steering column mounting bosses, just forward of the power tilt motor, if equipped.

Power is supplied by the same fuse in the PDC that provides fused B(+) for the CSMs and ground is provided by the same ground circuit as the CSM ground.

Heated Steering Wheel

[Component Index](#)

The heated steering wheel system is designed to enhance the thermal comfort of the driver by heating the steering wheel, when desired. The steering wheel heating element is made of copper wire and is sandwiched between the leather and the substrate material of the steering wheel. A vehicle with a heated steering wheel can easily be identified by the heated steering wheel switch located in the ICS, at the center of the IP. When the heated steering wheel switch is pressed, the heated steering wheel switch illuminates on the ICS.

- 08 - Electrical / 8E - Electronic Control Modules / MODULE, Integrated Center Stack (ICSM) / Removal and Installation

Sample

## Ventilated Seats

### VENTILATED SEATS

#### NOTE

Vehicles equipped with the ventilated seat option utilize a low voltage cut-off feature. This feature turns off power to the ventilated seat system anytime vehicle voltage is below 11.7 volts or above 15.5 volts. Be certain to check the vehicle electrical system for proper voltage anytime the ventilated seat system appears inoperative.

#### NOTE

If a Diagnostic Trouble Code (DTC) can not be verified, it is a good indication that an INTERMITTENT fault condition may be present. To help find an intermittent problem, sit in the seat in question and move around within the seat while testing continuity. Also wiggle the ventilated seat wire harness and electrical connectors while testing continuity.

#### NOTE

For complete circuit diagrams, see Wiring Information. The wiring information includes wiring diagrams, details of wire harness routing and retention, connector pin-out information and location views for the various wire harness connectors, splices and grounds. For proper wire repair, [\(Refer to Non-DTC Diagnostics/Circuit Testing Procedures/Standard Procedure\)](#) and connector repair procedures, [\(Refer to Non-DTC Diagnostics/Circuit Testing Procedures/Removal\)](#) and [\(Refer to Non-DTC Diagnostics/Circuit Testing Procedures/Installation\)](#).

Before testing any individual components in the ventilated seat system, check the following:

- Check the ignition fuse in the Power Distribution Center (PDC). Repair as necessary.
- Using a scan tool, check for any Diagnostic Trouble Codes (DTCs) related to the Heating, Ventilation and Air Conditioning (HVAC) module and the radio or Display Screen Module (DSM). If any DTCs are found, repair as necessary (Refer to 28 - DTC-Based Diagnostics for more information).

- [23 - Body / Seats, Second Row / Warning](#)
- [23 - Body / Seats, Third Row / Warning](#)

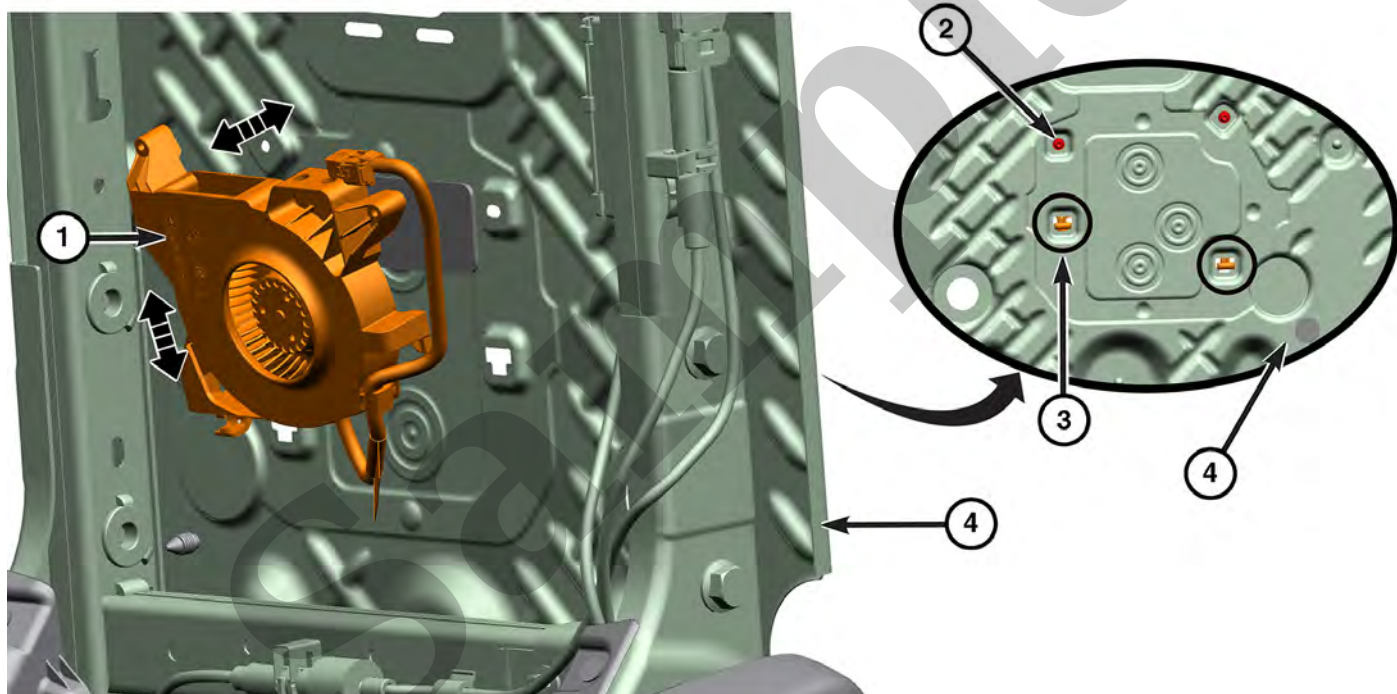
Sample

YOUR CURRENT VEHICLE

## Second Row Seat Back

### SECOND ROW SEAT BACK

#### REMOVAL



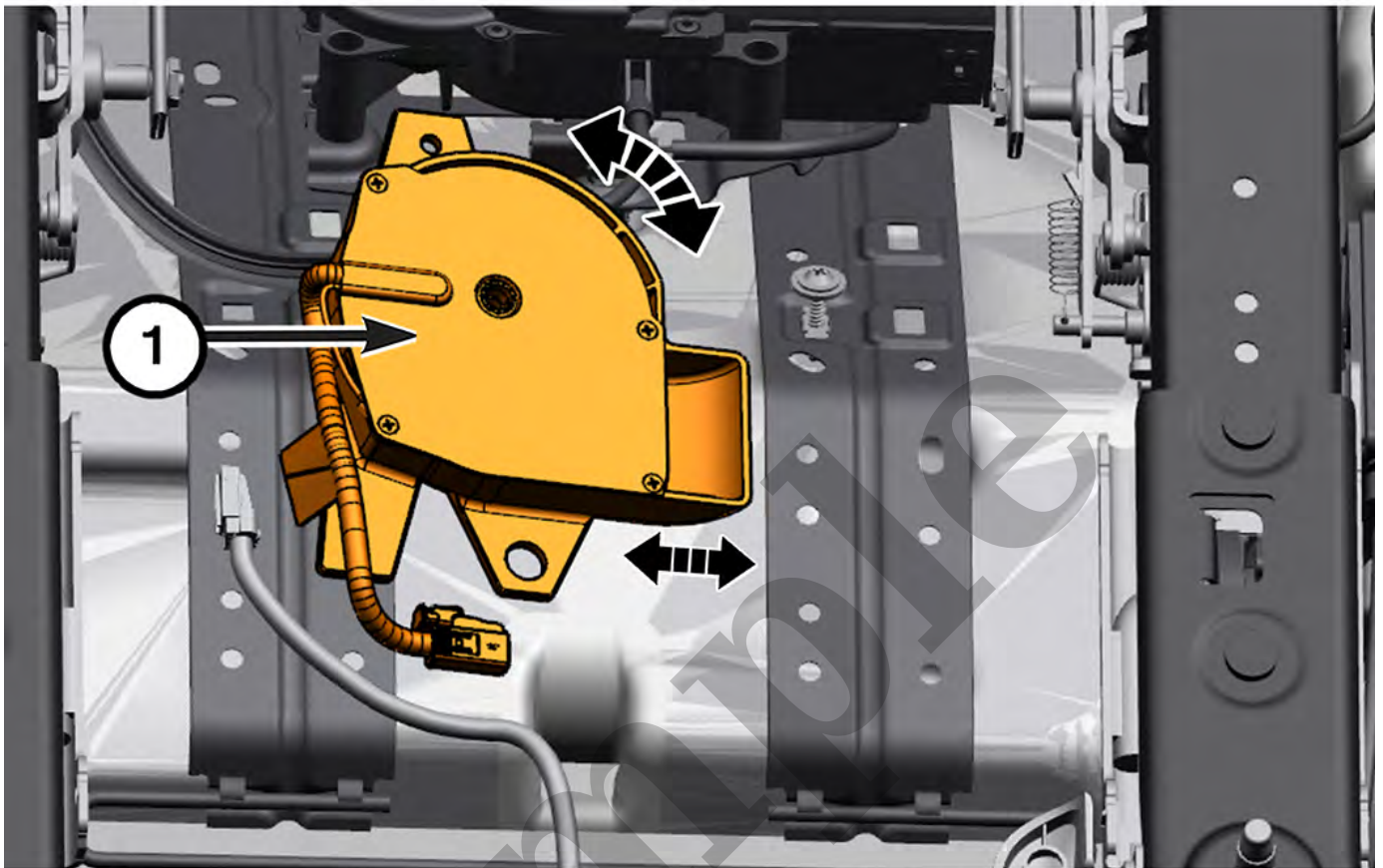
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1 - Vented Motor

2 - Fasteners

3 - Retaining Tabs

4 - Seat Back Frame



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1 - Seat Cushion Vent Motor

5. Rotate the vent motor and lower it down through the brackets on the seat frame. Remove the vent motor from the vehicle.

## INSTALLATION

Follow the removal procedure in reverse for general reassembly of the components on the vehicle.

### Refer To List:

List 1

- [23 - Body / Seats, Front / Warning](#)
- [23 - Body / Seats, Second Row / Warning](#)
- [23 - Body / Seats, Third Row / Warning](#)



YOUR CURRENT VEHICLE

## Front Row Seat Back

### FRONT ROW SEAT BACK

#### REMOVAL

1. Remove the seat back cover as necessary ([Refer to Body/Seats/COVER, Seat Back/Removal and Installation](#))([Refer To List 1](#)).



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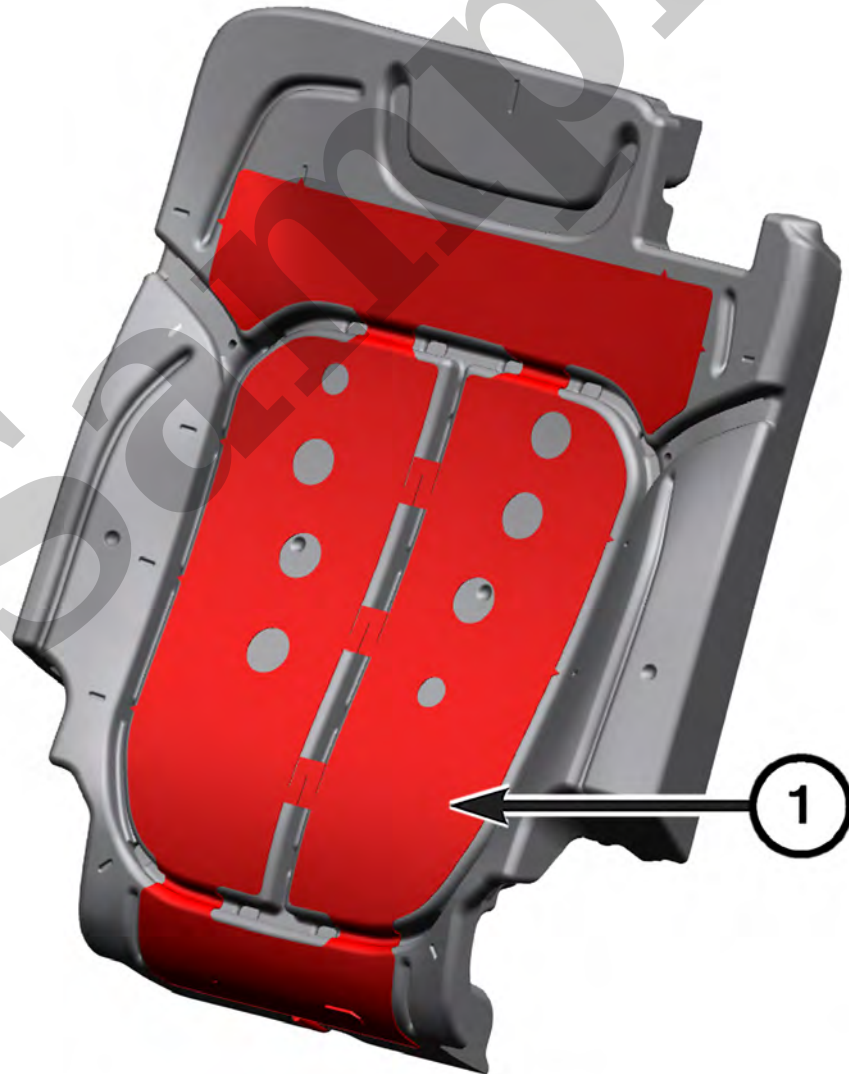
YOUR CURRENT VEHICLE

## Second Row Seat Back

### SECOND ROW SEAT BACK

#### REMOVAL

1. Remove the rear seat back cover as necessary ([Refer to 23 - Body/Seats/COVER, Seat Back/Removal and Installation](#))([Refer To List 1](#)).



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## Heated Steering Wheel Switch

### HEATED STEERING WHEEL SWITCH

The heated steering wheel switch is located in the Integrated Center Stack (ICS) Module. The ICS Module cannot be adjusted or repaired. If the switch or indicator lamp is inoperative or damaged, the entire ICS Module must be replaced ([Refer to Electrical/8E - Electronic Control Modules/MODULE, Integrated Center Stack/Removal and Installation](#))([Refer To List 1](#)). For models equipped with the Display Screen Module (DSM) ([Refer to Electrical/8E - Electronic Control Modules/MODULE, Display Screen/Removal and Installation](#)).

#### Refer To List:

##### List 1

- [08 - Electrical / 8E - Electronic Control Modules / CONTROLS, Rear Cabin Comfort \(RCCC\) / Removal and Installation](#)
- [08 - Electrical / 8E - Electronic Control Modules / MODULE, Integrated Center Stack \(ICSM\) / Removal and Installation](#)