

# Your Ultimate Source for OEM Repair Manuals

FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

## 2004 Jeep LIBERTY Service Manual

[Go to manual page](#)

- **Clutch A - Filling Time:** This data label displays the clutch filling time value that is learned during the TCM Adaptation procedure. The TCM adaptation software will increase or decrease the Clutch Filling Time to improve shift performance. The clutch Filling Time value will change over the life of the transmission based first on initial transmission build variation and then due to normal clutch wear.

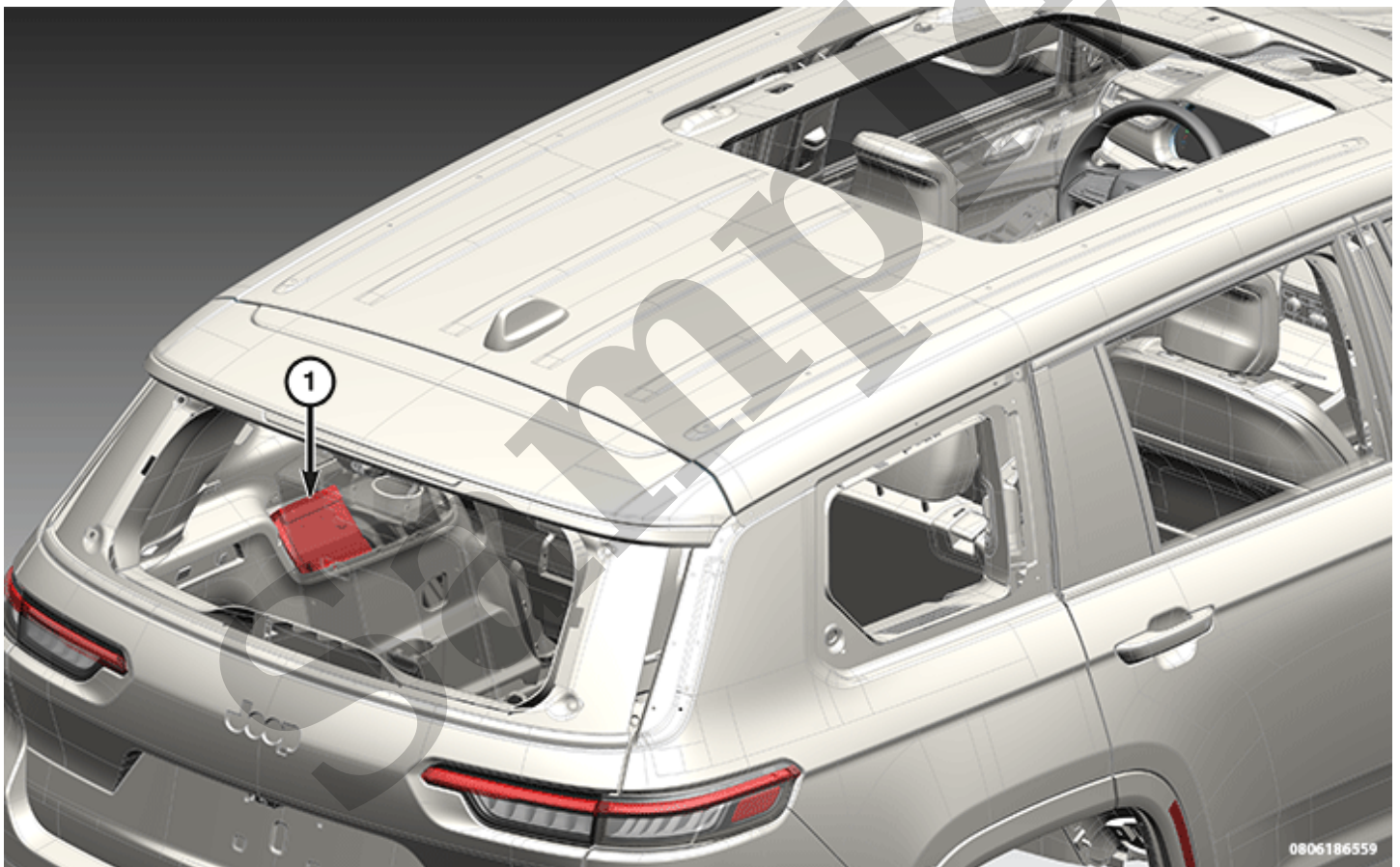
Sample

YOUR CURRENT VEHICLE

## Video Routing Module

### VIDEO ROUTING MODULE

#### DESCRIPTION



1 - VRM

The video entertainment system consists of:

- Video Routing Module (VRM) located behind the left quarter trim panel on long wheelbase option
- Video Routing Module (VRM) located under the second row seat on short wheelbase option
- Two media system monitors located on the seat backs of the front seats

DESCRIPTION	SPECIFICATION	COMMENT
Occupant Restraint Controller to Body Nut	8 N·m (71 In. Lbs.)	–
Park Guide Bracket to Case Bolt	13 N·m (10 Ft. Lbs.)	–
Power Inverter Module (PIM) Retaining Bolts	6 N·m (53 In. Lbs.)	–
Powertrain Control Module (PCM) to Bracket Bolt	8 N·m (71 In. Lbs.)	–
PCM to Bracket Nut	8 N·m (71 In. Lbs.)	–
PCM Bracket to Body Bolt	6 N·m (53 In. Lbs.)	–
PCM Ground Wire	7 N·m (62 In. Lbs.)	–
PCM Ground Wire Nut	20 N·m (15 Ft. Lbs.)	–
Power Inverter Module to CCB Bolt	6 N·m (53 In. Lbs.)	–
Security Gateway Module (SGW) to Instrument Panel Bolt	5 N·m (44 In. Lbs.)	–
Video Routing Module (SGW) to Body Nuts	8 N·m (71 In. Lbs.)	–

DESCRIPTION	SPECIFICATION	COMMENT
Power Inverter Module to CCB Bolt	<b>6 N·m (53 In. Lbs.)</b>	–
Security Gateway Module (SGW) to Instrument Panel Bolt	<b>5 N·m (44 In. Lbs.)</b>	–
Video Routing Module (SGW) to Body Nuts	<b>8 N·m (71 In. Lbs.)</b>	–

**Refer To List:**

List 1

- [23 - Body / Seats, Front / SEAT, Front / Removal and Installation](#)
- [23 - Body / Seats, Second Row / SEAT, Second Row / Removal and Installation](#)
- [23 - Body / Seats, Third Row / SEAT, Third Row / Removal and Installation](#)

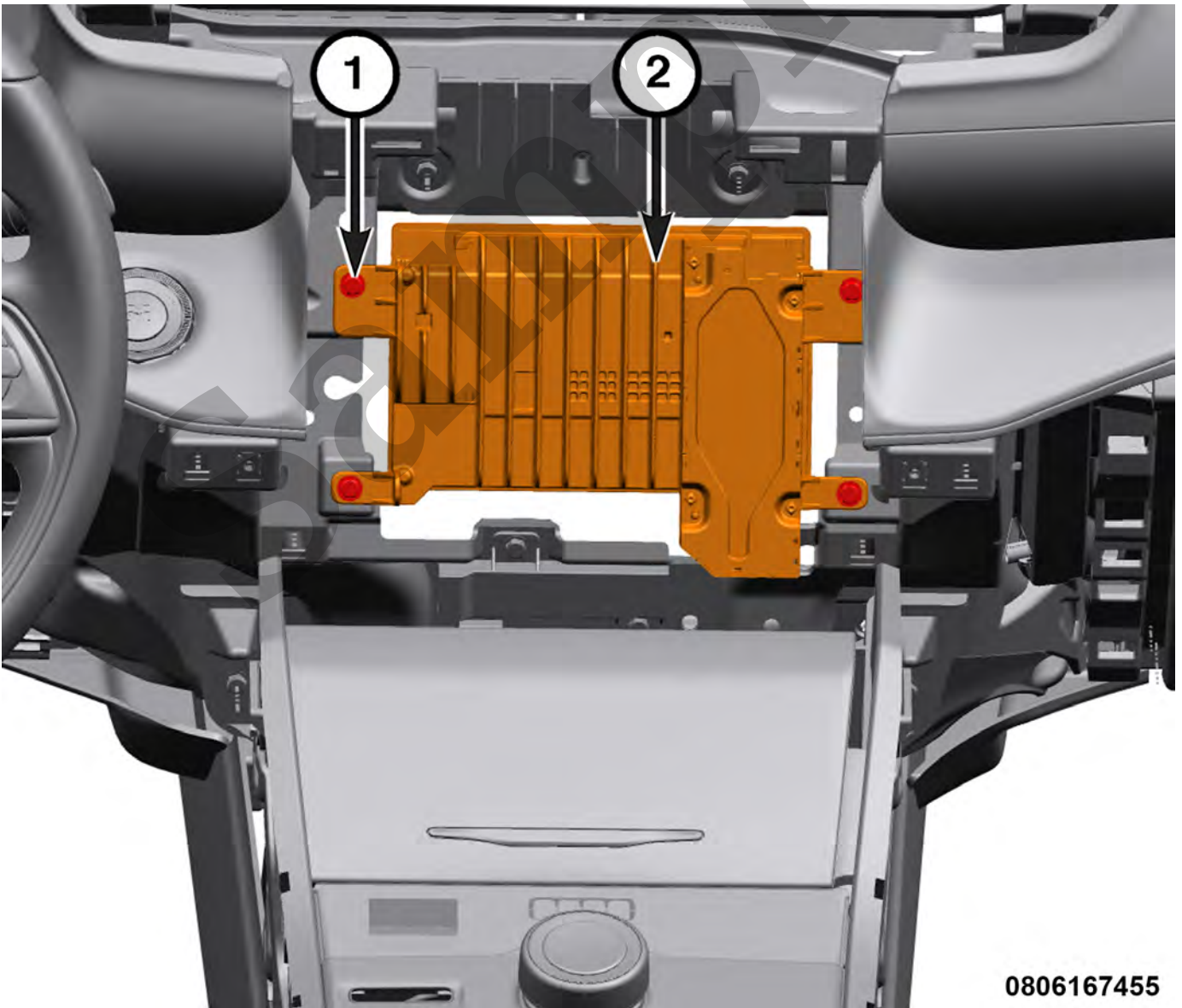
YOUR CURRENT VEHICLE

## Radio

### RADIO

#### REMOVAL

1. Remove the instrument panel center bezel (Refer to Body/Instrument Panel/BEZEL, Instrument Panel, Center/Removal and Installation)(Refer To List 1).



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DESCRIPTION	SPECIFICATION	COMMENT
Powertrain Control Module (PCM) to Bracket Bolt	8 N·m (71 In. Lbs.)	–
PCM to Bracket Nut	8 N·m (71 In. Lbs.)	–
PCM Bracket to Body Bolt	6 N·m (53 In. Lbs.)	–
PCM Ground Wire	7 N·m (62 In. Lbs.)	–
PCM Ground Wire Nut	20 N·m (15 Ft. Lbs.)	–
Power Inverter Module to CCB Bolt	6 N·m (53 In. Lbs.)	–
Security Gateway Module (SGW) to Instrument Panel Bolt	5 N·m (44 In. Lbs.)	–
Video Routing Module (SGW) to Body Nuts	8 N·m (71 In. Lbs.)	–

## Auxiliary Battery - ESS

### AUXILIARY BATTERY - ESS

#### REMOVAL

##### WARNING

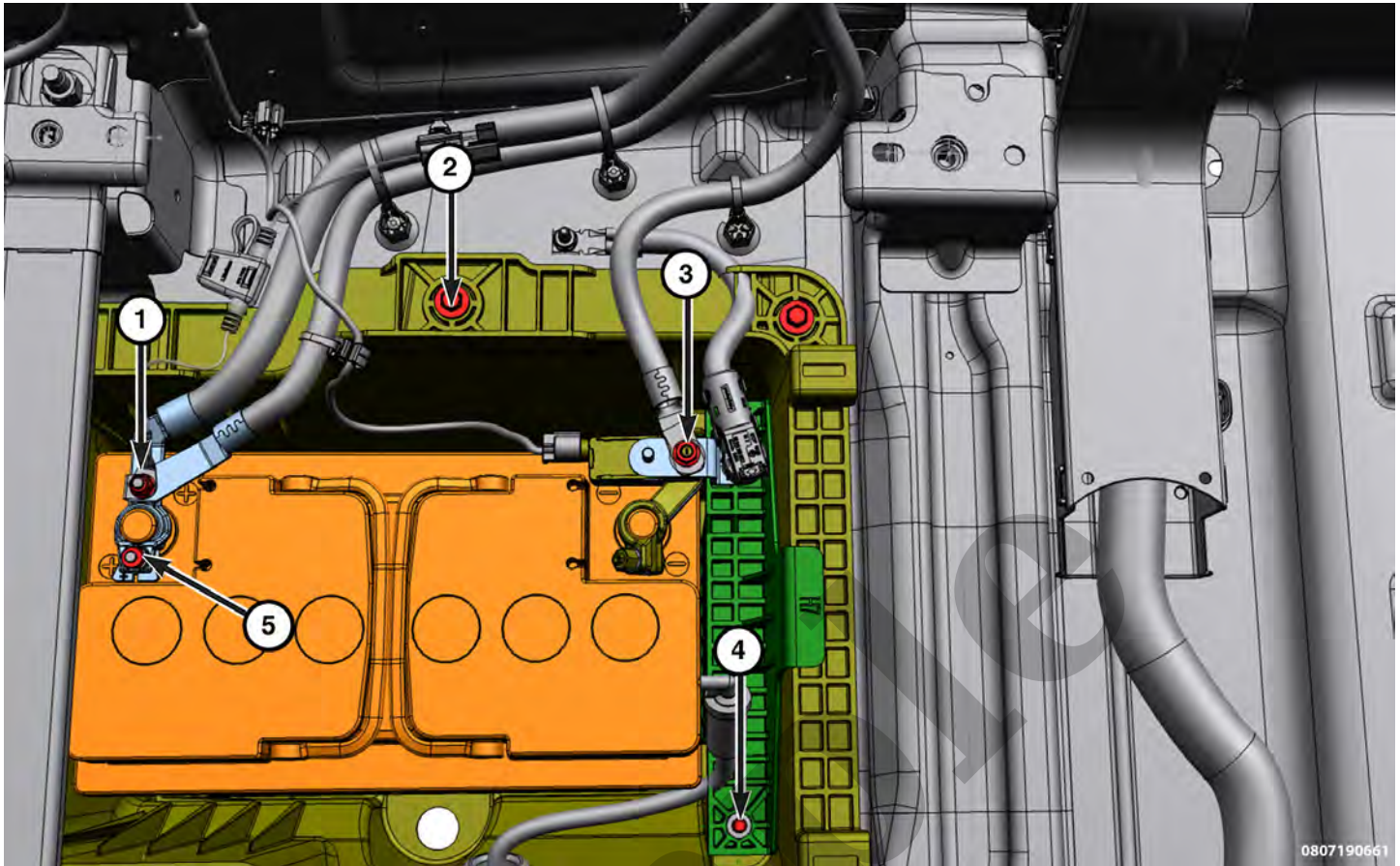
To protect the hands from battery acid, a suitable pair of heavy duty rubber gloves should be worn when removing or servicing a battery. Safety glasses also should be worn.

##### WARNING

Remove metallic jewelry to avoid injury by accidental arcing of battery current.

1. Disconnect and isolate both negative battery cable(s) from the main battery ([Refer to Electrical/Battery System/Standard Procedure](#)).
2. Remove the fasteners that secure the front passenger seat and tip it forward to gain access to the auxiliary battery.
3. Remove the right side second row floor distribution duct ([Refer to Heating and Air Conditioning/Distribution/DUCT, Floor Distribution/Rear/Removal and Installation](#)) .
4. Remove the auxiliary battery floor cover from below the seat.





CALLOUT	DESCRIPTION	SPECIFICATION	COMMENT
1	Battery Positive Cable End Nut	<b>7 N·m (63 In. Lbs.)</b>	—
2	Battery Tray Bolts	<b>10 N·m (89 In. Lbs.)</b>	—
3	Battery Negative Cable to the IBS	<b>11 N·m (8 Ft. Lbs.)</b>	—
4	Battery Hold Down Bolt	<b>5 N·m (44 In. Lbs.)</b>	—
5	Battery Positive Clamp to Positive Post	<b>7 N·m (63 In. Lbs.)</b>	—
—	Intelligent Battery Sensor (IBS) Sensor to Negative Post	<b>6 N·m (53 In. Lbs.)</b>	—

### AUXILIARY BATTERY

## Auxiliary Battery

### AUXILIARY BATTERY

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#### REMOVAL

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