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.

2003 JEEP Wrangler OEM Service and Repair Workshop Manual

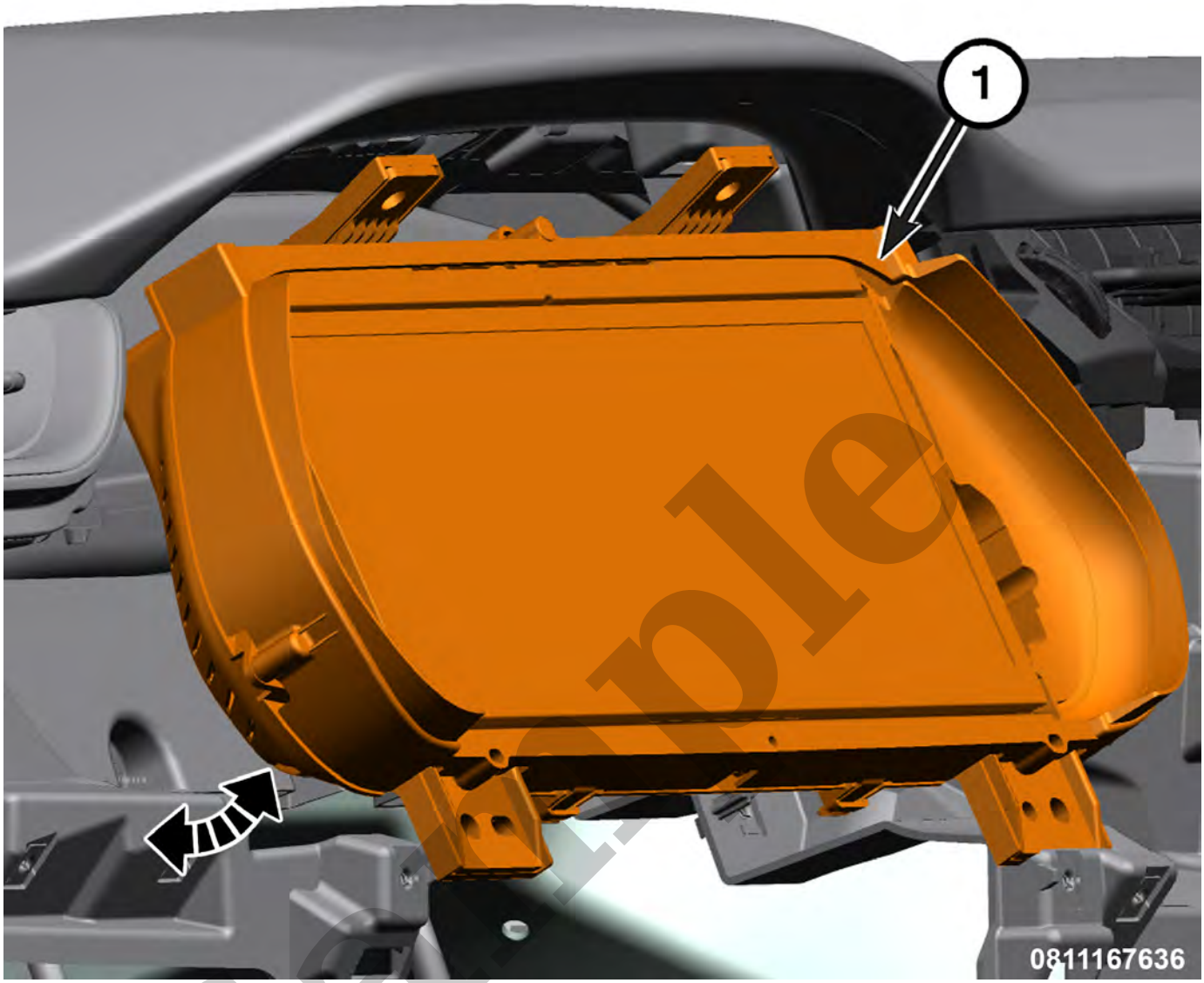
Go to manual page

Sample

© FactoryManuals.

- Initiate the Actuator Calibration function using a scan tool (Refer to DTC-Based Diagnostics/HVAC - Standard Procedure).

Sample



1 - Instrument Panel Cluster (IPC)

5. Pull the bottom of the IPC rearward far enough to access the back of the IPC.

Sample

to DTC-Based Diagnostics/HVAC - Standard Procedure).

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

Sample

Fastener tabs integral to the housing of the KIN, latch in a grooved lip on the inner side of the instrument panel to secure it.

The KIN:

- Is used on vehicles featuring the "Keyless Go" system
- Is a slave module to the Radio Frequency Hub (RFH)
- Is primarily an Input/Output (I/O) device (A START/STOP button and ignition position indication)
- Contains a Low Frequency (LF) coil and other electronics to authenticate a key fob, in the event of default or a low key fob battery

The KIN processes:

- Press START/STOP button once = Transition to ACCESSORY (ACC)
- Press START/STOP button again = Transition to RUN
- Press START/STOP button again = Transition to OFF
- Press START/STOP button once with the brake applied = Transition to START

The KIN contains four Light Emitting Diodes (LEDs) indicators:

- OFF
- ACC
- ON or RUN
- ENGINE START/STOP (center button backlight)

OPERATION

The KIN replaces the conventional key and ignition switch with a momentary button press and a wireless electronic key fob. When the operator presses the Engine Start/Stop button, the key fob is interrogated. If the key fob is recognized as belonging to the vehicle and in the vehicle interior, the system allows the ignition state of the vehicle to be changed by the vehicle operator between the LOCK, ACC, RUN, and START ignition states. This causes changes in the ignition status signals on the vehicle's Controller Area Network-Chassis (CAN-C) data bus networks and hard wired outputs controlled by the Body Control Module (BCM). As far as the vehicle's ignition system is concerned, keyless Engine Start/Stop button control is indiscernible from legacy conventional control that uses a rotational switch and key. The K-line and the Engine Start/Stop button hard wire signals are used in tandem to determine the Engine Start/Stop button states.

KIN Function:

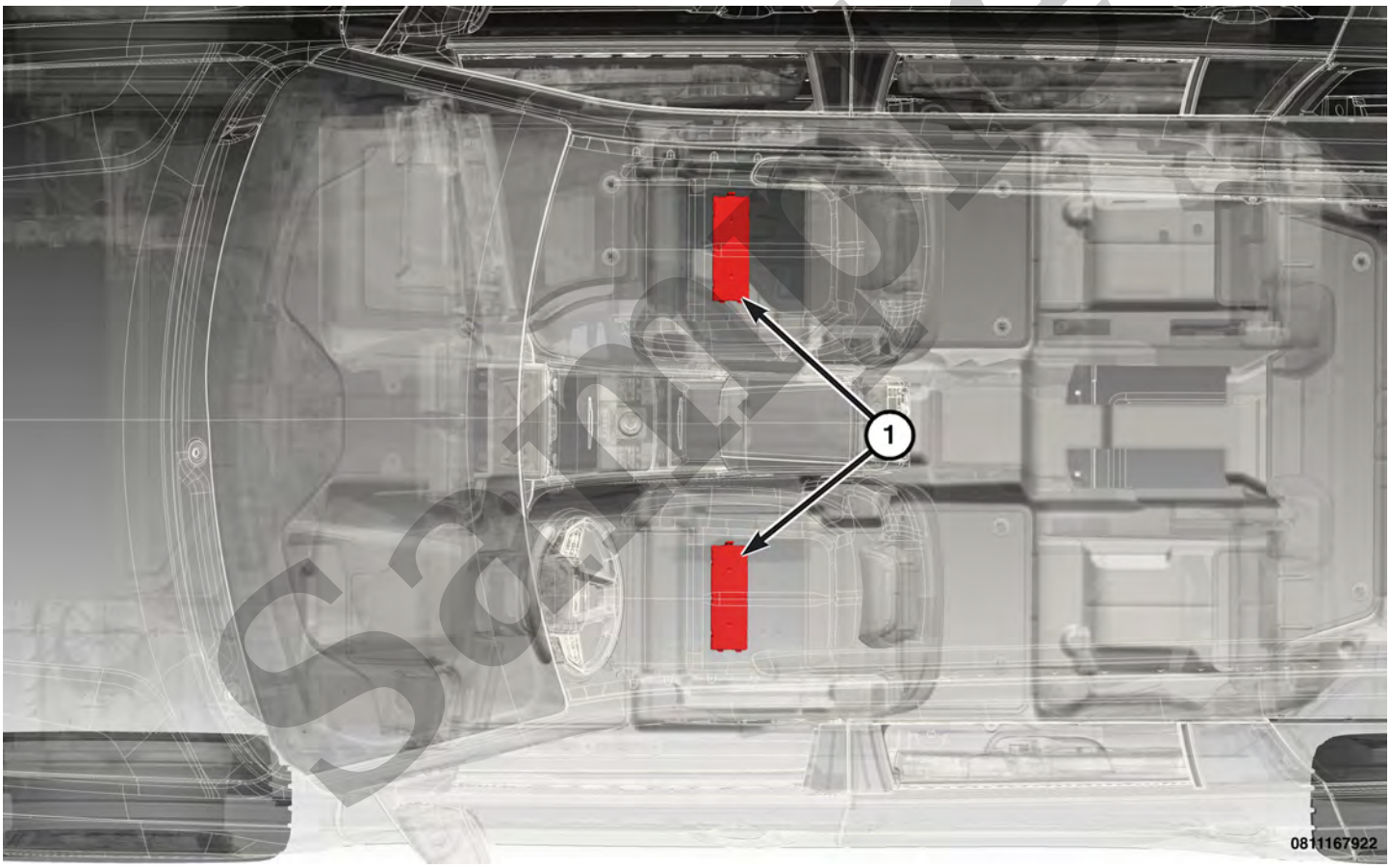
- When the Engine Start/Stop button on the KIN is pressed, the RFH is signalled with "request to start".
- The RFH then uses the LF antennas to communicate with the key fob and confirms that the key fob is located inside the vehicle.
- Once located, the key fob's response is evaluated by the RFH to determine if the key fob is valid for the vehicle. This process completes 'FOB authentication'.

Sample

Memory Seat Module

MEMORY SEAT MODULE

DESCRIPTION



1 - MSM

The Memory Seat Module (MSM), is located under the driver and passenger front seat. The MSM is able to store and recall all side power seat positions (fore/aft, up/down, lumbar, seat bolsters, cushion extender, seatback tilt and recline), and the driver side MSM can also recall pedal, and power adjustable column (if equipped). The memory seat module is also able to recall mirror positions and radio station presets on

Memory Seat Module

MEMORY SEAT MODULE

REMOVAL

WARNING

Disable the airbag system before attempting any component diagnosis or service of the front seats, when equipped with front seat air bags. Disconnect and isolate the negative battery (ground) cable, then wait two minutes for the airbag system capacitor to discharge before performing further diagnosis or service. This is the only sure way to disable the airbag system. Failure to follow these instructions may result in accidental airbag deployment and possible serious or fatal injury.

NOTE

Anytime the Memory Seat Module (MSM) is replaced, the MSM must be cleared of all learned parameters using a scan tool and the Power Seat System Verification test must be performed. The ECU needs to be calibrated (Refer to DTC-Based Diagnostics/MODULE, Memory Seat (MSM)/Standard Procedure)(Refer To List 1).

1. Position the driver front seat to the fully up position, allowing for as much room under the seat as possible.

Sample

the OCM housing. The remainder of the sensor and the sensor circuitry are concealed and protected within the molded black plastic OCM housing.

- **Occupant Classification Module** – The OCM is located beneath the front of the passenger front seat cushion. Concealed within a hollow in the center of the molded black plastic OCM housing is the electronic circuitry of the module. The module housing is sealed to enclose and protect the internal electronic circuitry. A connector receptacle integral to the OCM housing contains terminals that connect the sensor to the vehicle electrical system through a dedicated take out and connector of the passenger front seat wire harness. A hose nipple formation is integral to the OCM housing.

  A slot integral to the top of the OCM housing snaps over a blade on a stamped metal bracket bolted to the outboard upper seat track.

- **Pressure Hose** – Beneath the seat cushion a length of clear poly hose serves as the OCS pressure hose. The hose is securely clamped at one end to a hose nipple fitting that extends downward from the seat bladder, and at the opposite end to the hose nipple formation of the electronic pressure sensor integral to the outside of the OCM housing. The pressure sensor circuitry is internal and integral to the OCM. The pressure hose is filled with the same silicone fluid that fills the seat bladder.

- **Seat Cushion Foam** – The passenger front seat cushion foam is an integral part of the factory-calibrated OCS.

- **Seat Bladder** – The seat bladder is sandwiched between the seat cushion springs and the seat cushion foam. A heavy plastic bladder topper is installed between the lower surface of the bladder and the seat cushion pan and springs. The bladder and toppers are secured near the forward end of the seat cushion pan by two plastic push-in fasteners.

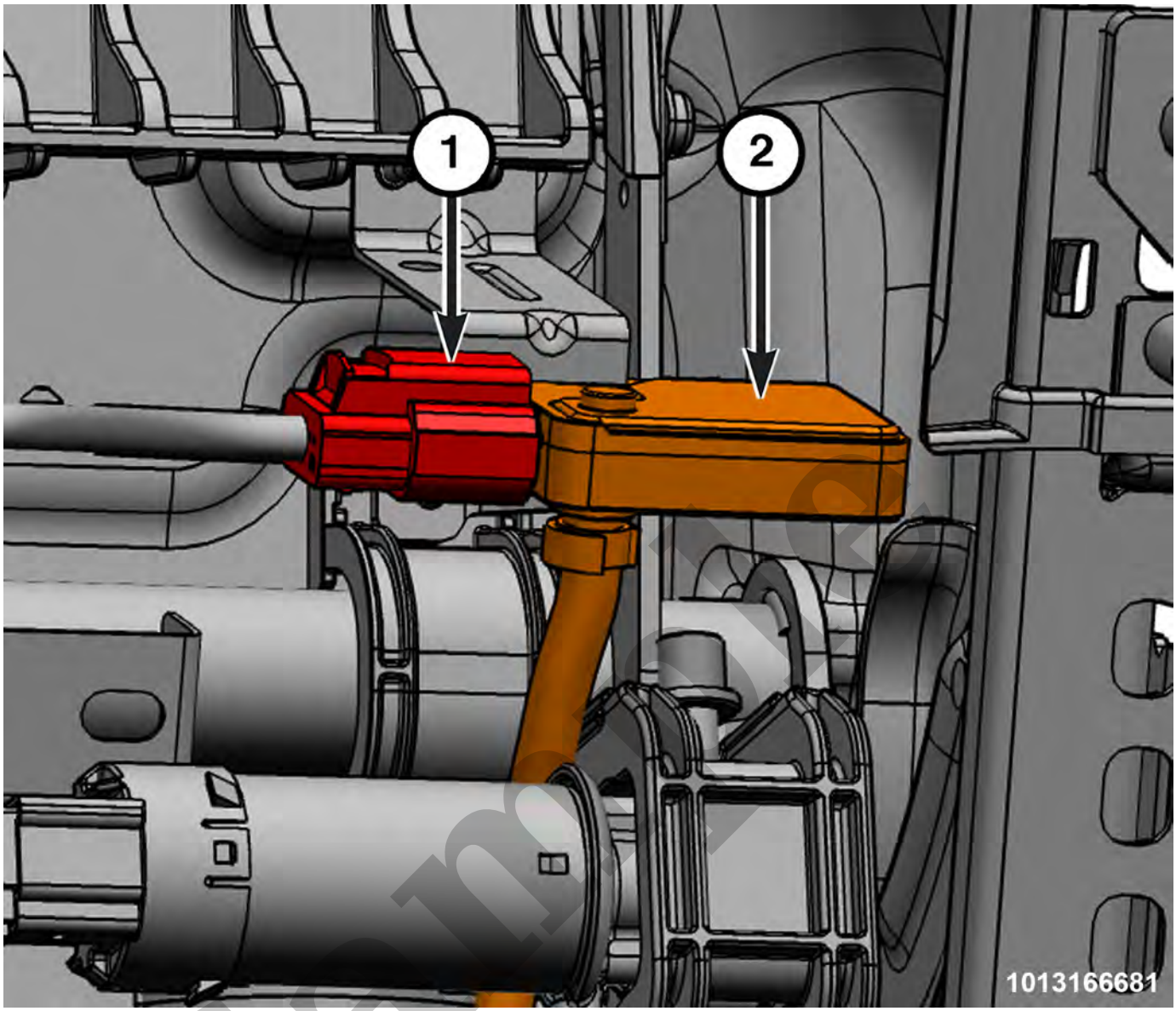
  The bladder consists of two sheets of an elastomeric material and a molded plastic hose nipple fitting. The two sheets of elastomeric material are sealed together around their perimeter and joined at numerous specific intervals within their field. The hose nipple fitting is sealed to a small round hole in the lower surface of the bladder and is pointed downward where it passes through a clearance hole in the bladder topper and extends to just below the seat cushion springs. The bladder is filled with a silicone fluid to become a pliable, quilted, resistive mat and is connected to a pressure hose that connects it to the electronic pressure sensor within the OCM unit.

- **Heat Mat** – If equipped with heated seats, the heat mat is sandwiched between the seat trim and the seat cushion foam and adhered to the foam. This component will be included in the service kits for heated seats and vented seats.

- **Vent Bag** – If equipped with vented seats, the vent bag is sandwiched between the seat foam and the Occupant Classification Module and adhered to the foam. This component will be included in the service kit for vented seats.

All of the components that make up the OCS, including the heat mat and vent bag, are a factory-calibrated and assembled unit. If the vehicle is equipped with either the heated seat, vented seat or both, these components must be replaced with the rest of the OCS components as they are calibrated together as one unit at the factory. **The OCS components cannot be adjusted or repaired and, if damaged or ineffective, they MUST ALL BE REPLACED AS A CALIBRATED UNIT.**

Sample



1 - Wire Harness Connector
2 - Occupant Classification Module (OCM)

3. Disconnect the seat wire harness connector from the OCM beneath the outboard front corner of the seat cushion pan.

4. Using a small flat-bladed screwdriver or a small pick tool, carefully pry the latch tab integral to the OCM electrical receptacle to release it from the blade of the mounting bracket beneath the outboard front corner of the seat cushion.

NOTE

If equipped with heated seats, vented seats or both, remove the heat mat and vent bag with the seat

Sample

Power Liftgate Module

POWER LIFTGATE MODULE

DESCRIPTION

1 - PLGM

The Power LiftGate Module (PLGM) has the responsibility of authorizing the power liftgate operation requests. The PLGM is located in the right rear cargo area behind the right lower quarter trim panel, secured to the lower D-pillar. The PLGM incorporates the chime buzzer.

OPERATION