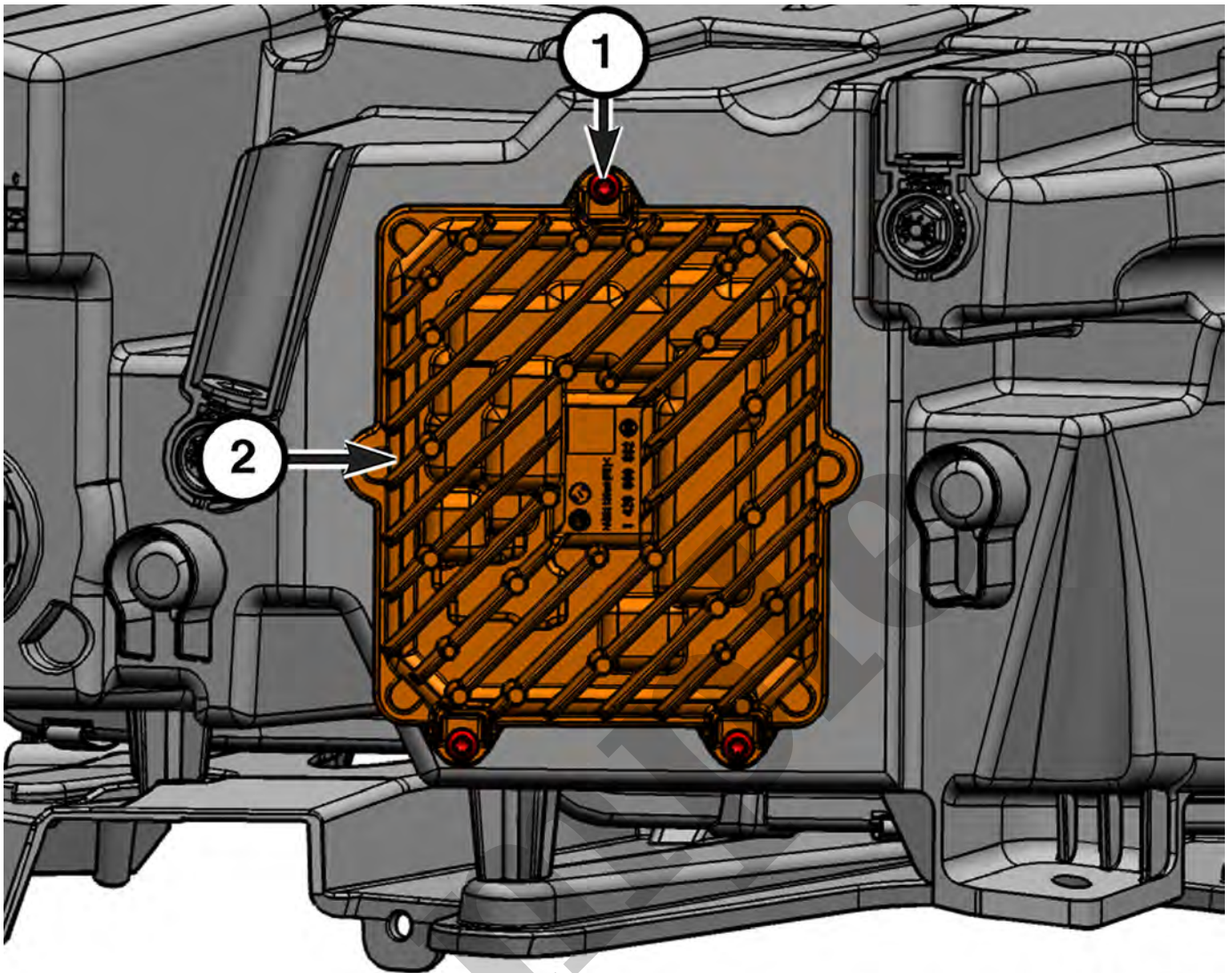


# Your Ultimate Source for OEM Repair Manuals

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 Grand Cherokee OEM Service and Repair Workshop Manual

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0817167408

1 - Fasteners

2 - Smart Lighting Module (SLM)

2. Remove the fasteners securing the Smart Lighting Module (SLM) to the front lamp unit.

## NOTE

Do not replace the SCCM for any Steering Angle Sensor (SAS) fault or issue since the SCCM does not contain the SAS. For SAS description and operation [\(Refer to Steering/Description and Operation\)](#).

The SCCM is secured to the steering column by an integral band clamp on the bottom of the instrument panel side of the SCCM. The SCCM has a centering attachment screw located on the top of the instrument panel side of the SCCM to be certain the SCCM is centered properly on the steering column.

There are also unique lugs cast into the outer circumference of the steering wheel hub that must be engaged into slots within the inner circumference of the clockspring rotor hub to unlock and drive the clockspring. The steering wheel must be tightened to specification to ensure proper clockspring function.

## NOTE

Verify the paint mark on the 24 mm nut is visible prior to installing and torquing to specification.

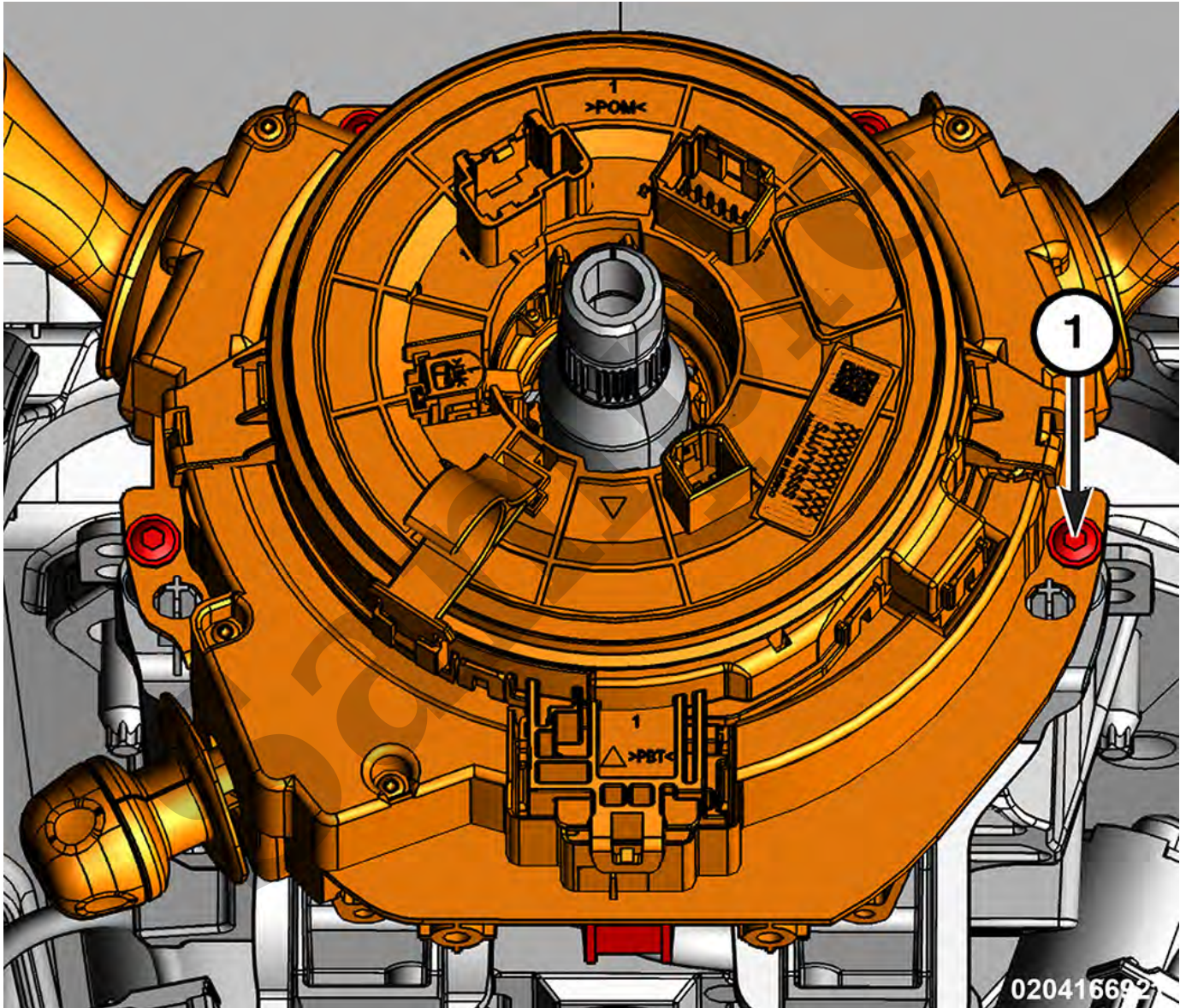
The SCCM includes three integral connector receptacles that face toward the Driver AirBag (DAB) (front side) and are connected to the steering wheel electrical components through three take outs and connectors of the steering wheel wire harness. The 6-terminal receptacle at the 11 o'clock position contains the circuits for the DAB. The 12-terminal receptacle at the 1 o'clock position contains the circuits for a Local Interface Network (LIN) data bus to the Body Control Module (BCM) for the Electronic Vehicle Information Center (EVIC) switch data transmission, another LIN data bus for transmission of cruise control and Hands On Detection data, the horn signal, B(+) feed and ground for the LIN module (internal to the SCCM), steering wheel heater Negative Temperature Coefficient (NTC) feedback, and shifter paddle feedback (if equipped). The 2-terminal receptacle at the 5 o'clock position contains the heated steering wheel B(+) feed and return circuits to the Comfort Steering Wheel Surface Module (CSWSM) (if equipped). Both radio control switches are hardwired to the EVIC switch on the left steering wheel spoke, which then uses the LIN data bus to communicate with the BCM. The surface of the rotor hub facing the steering wheel (front side) also has a 6-terminal single connector for the Driver AirBag (DAB) with a Connector Position Assurance (CPA) lock. The pigtail connector contains the circuits for DAB function.

The SCCM also includes two integral connector receptacles that face toward the instrument panel (back side) and are connected to the vehicle electrical system through two take outs and connectors of the instrument panel wire harness. The 14-terminal receptacle at the 6 o'clock position contains the circuits for heated steering wheel (if equipped) from the CSWSM and the Driver AirBag (DAB) from the Occupant Restraint Controller (ORC) module. The 16-terminal receptacle at the 9 o'clock position contains the circuits for the EVIC LIN data bus and the cruise and Hands On Detection LIN data bus to the BCM, the horn signal to the BCM, steering wheel heater Negative Temperature Coefficient (NTC) signal and return, shifter paddle signal and return (if equipped), fused B(+), ground and the Controller Area Network – Chassis (CAN-C) data bus.



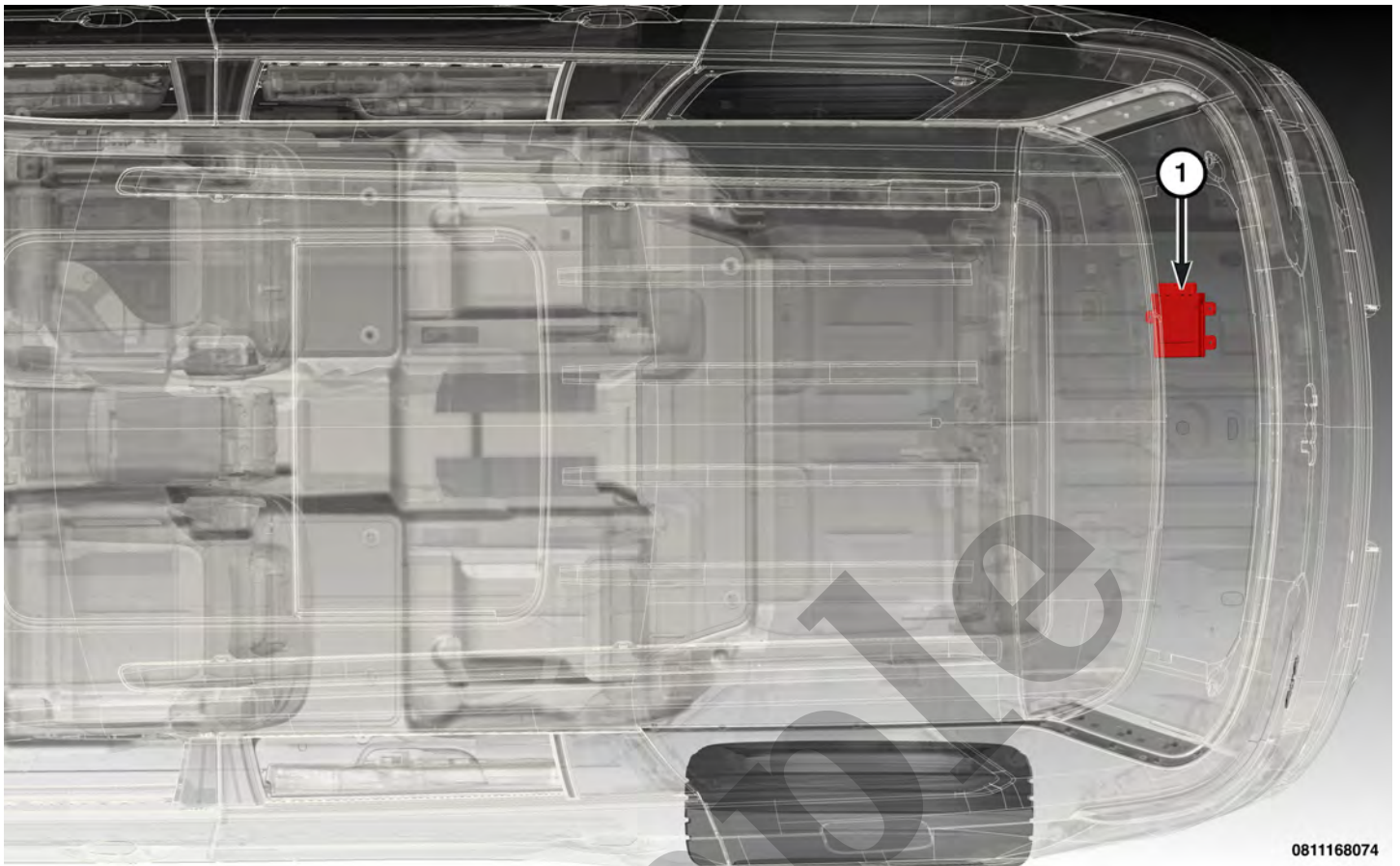
**the clockspring lock while the SCCM is removed from the steering column as this may result in the loss of clockspring centering.** If clockspring centering is not maintained, the SCCM must be replaced with a new unit before the steering wheel is installed.

3. Remove the steering wheel ([Refer to Steering/Column/WHEEL, Steering/Removal and Installation](#)).
4. Remove the steering column shroud ([Refer to Steering/Column/SHROUD, Steering Column/Removal and Installation](#)).



1 - SCCM Bracket Screws

5. Remove the SCCM bracket screws and position the bracket away from the SCCM.



1 - TTM

### Long Wheelbase Models

The TTM (1) on the 3-row seating model is located beneath the load floor and bin, as equipped, on the passenger rear of the vehicle.

### OPERATION



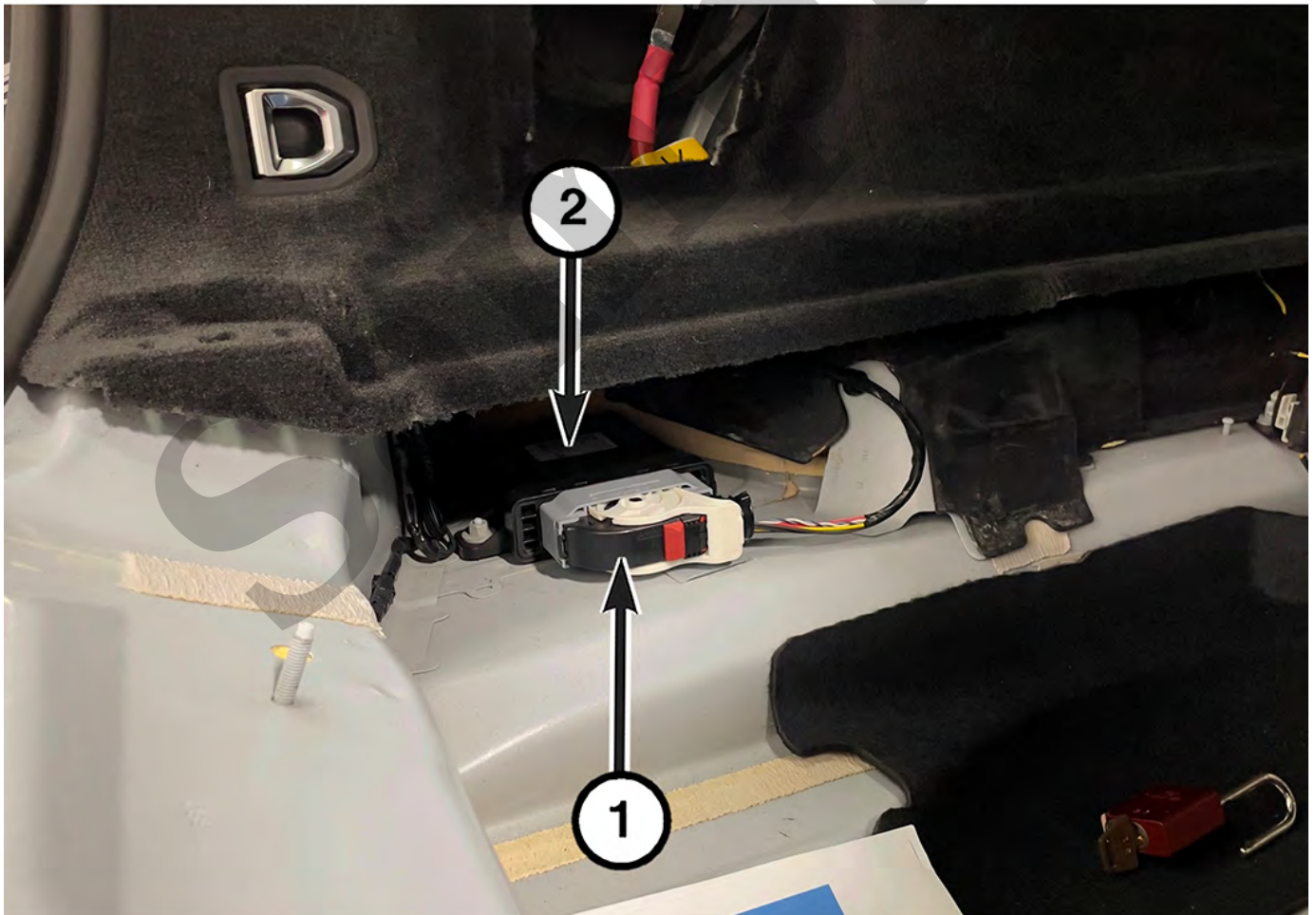
YOUR CURRENT VEHICLE

## Trailer Tow Module - PHEV Models

### TRAILER TOW MODULE - PHEV MODELS

#### REMOVAL

1. Remove the cargo load floor (Refer to Body/Interior/LOAD FLOOR, Cargo/Removal and Installation).

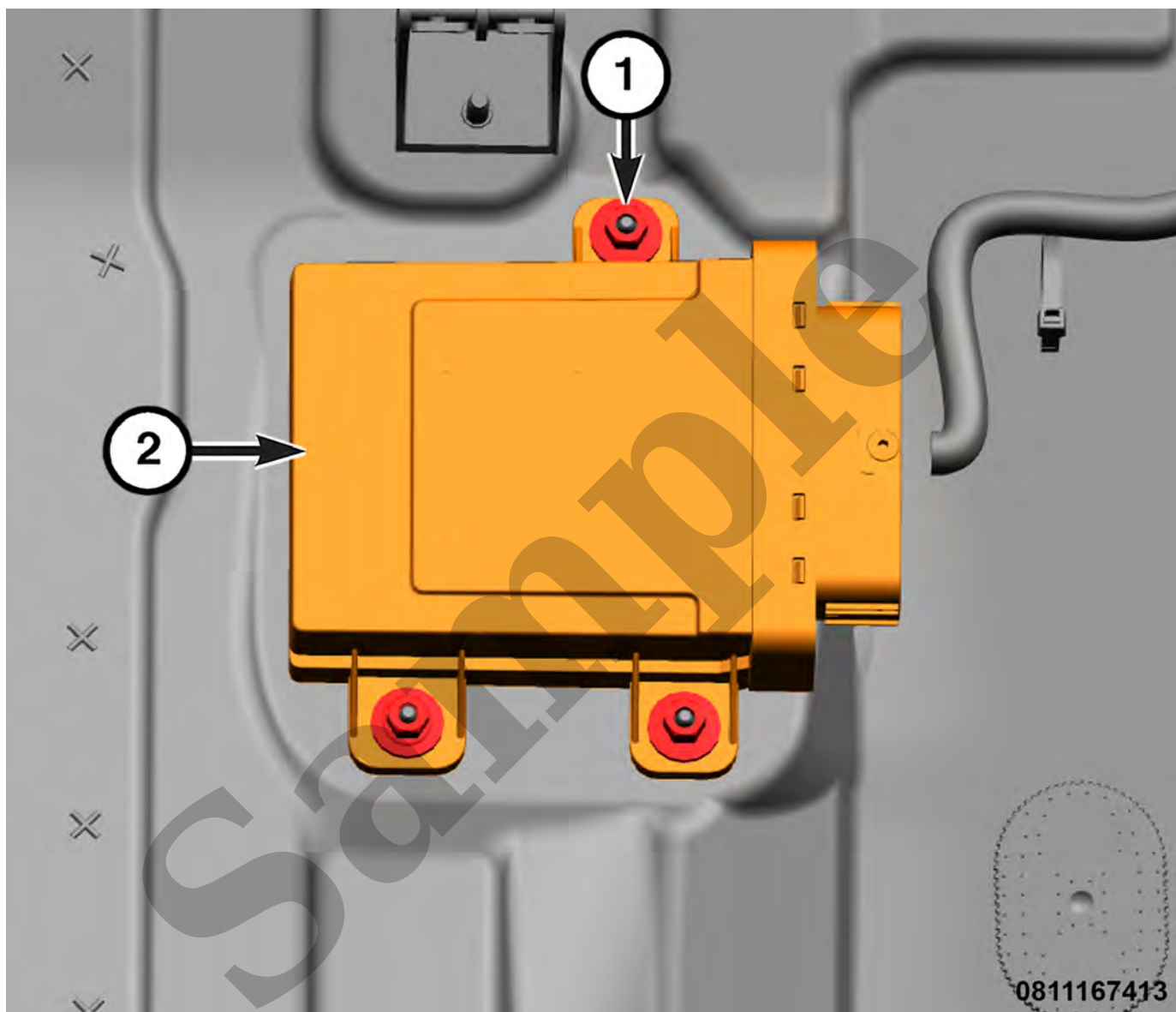


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1 - Wire Harness Connector
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2 - Trailer Tow Module (TTM)
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2. Disconnect the TTM wire harness connector.



1 - TTM Nuts
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2 - TTM
---------

3. Remove the TTM nuts and remove the TTM.

## INSTALLATION

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

Sample



If the TCMA is replaced, it **must** be programmed and a drive learn needs to be performed before returning the vehicle to the customer.

Sample

learning occurs.			normal vehicle launch.	normal vehicle launch.	normal vehicle launch.
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8. Perform the Standard Clutch Filling Adaptation Procedure.

### Standard Clutch Filling Adaptation Procedure

Perform the following procedure when a Transmission internal component, Torque Converter, TCM or TCMA, or Transmission has been replaced, or when the adaptation values have been reset. This procedure should also be performed if it is suspected that the vehicle has not been driven in a manner that encourages clutch adaptation learning in highway or city driving conditions.

#### NOTE

Perform this procedure on a smooth road surface. The TCM or TCMA will abort the adaptation process if it senses rough road conditions. The road should be clear of traffic due to the start, stop, and slow vehicle speeds required during the procedure.

#### NOTE

The TCM learns the Standard Clutch Filling Adaptation values when the applicable clutch is not applied.

1. With the Scan Tool, erase DTCs.
2. Setup the scan tool to display the Transmission Oil Temperature, Torque, Turbine (Input) Speed Sensor rpm, and Clutch 'X' - Fast Filling Counter for each clutch.
3. Drive the vehicle until the Transmission Oil Temperature is above 50°C (122°F).

#### NOTE

Adaptation learning will be aborted if the Transmission Oil Temperature is above 100°C (212°F).

4. Stop the vehicle.
5. Drive the vehicle using the paddle shifters or Gear +/- buttons on steering wheel in order to hold the transmission in the desired gear.

#### NOTE

First and second gears do not require a Standard Clutch Filling Adaptation procedure.