

Occupant Classification System (OCS) Sensor - Vehicles With: Multi-Contour Seats

Removal

 **WARNING:** The following procedure prescribes critical repair steps required for correct restraint system operation during a crash. Follow all notes and steps carefully. Failure to follow step instructions may result in incorrect operation of the restraint system and increases the risk of serious personal injury or death in a crash.

NOTICE: To prevent system failure, carry out the OCS reset when a front passenger seat cushion is disassembled, a new trim cover is installed or an OCS service kit is installed. Use a scan tool to carry out the OCS reset command.

NOTICE: The cushion heater mat and multi-contour seat cushion adjuster on a front outboard passenger seat are not serviced separately. If a new cushion heater mat or a multi-contour seat cushion adjuster is needed on the front passenger seat, install an OCS service kit equipped with a heater mat or a multi-contour seat cushion adjuster . Failure to follow this instruction may result in incorrect operation of the OCS.

NOTE: OCS components (seat cushion foam pad, bladder with OCSM) are calibrated to each other and are serviced as an assembly. The OCS components are not to be installed separately. If a new OCS, OCS component or seat cushion foam pad are needed, a new OCS service kit (seat cushion foam pad, bladder with OCSM) must be installed as an assembly.

NOTE: Removal steps in this procedure may contain installation details.

All seats

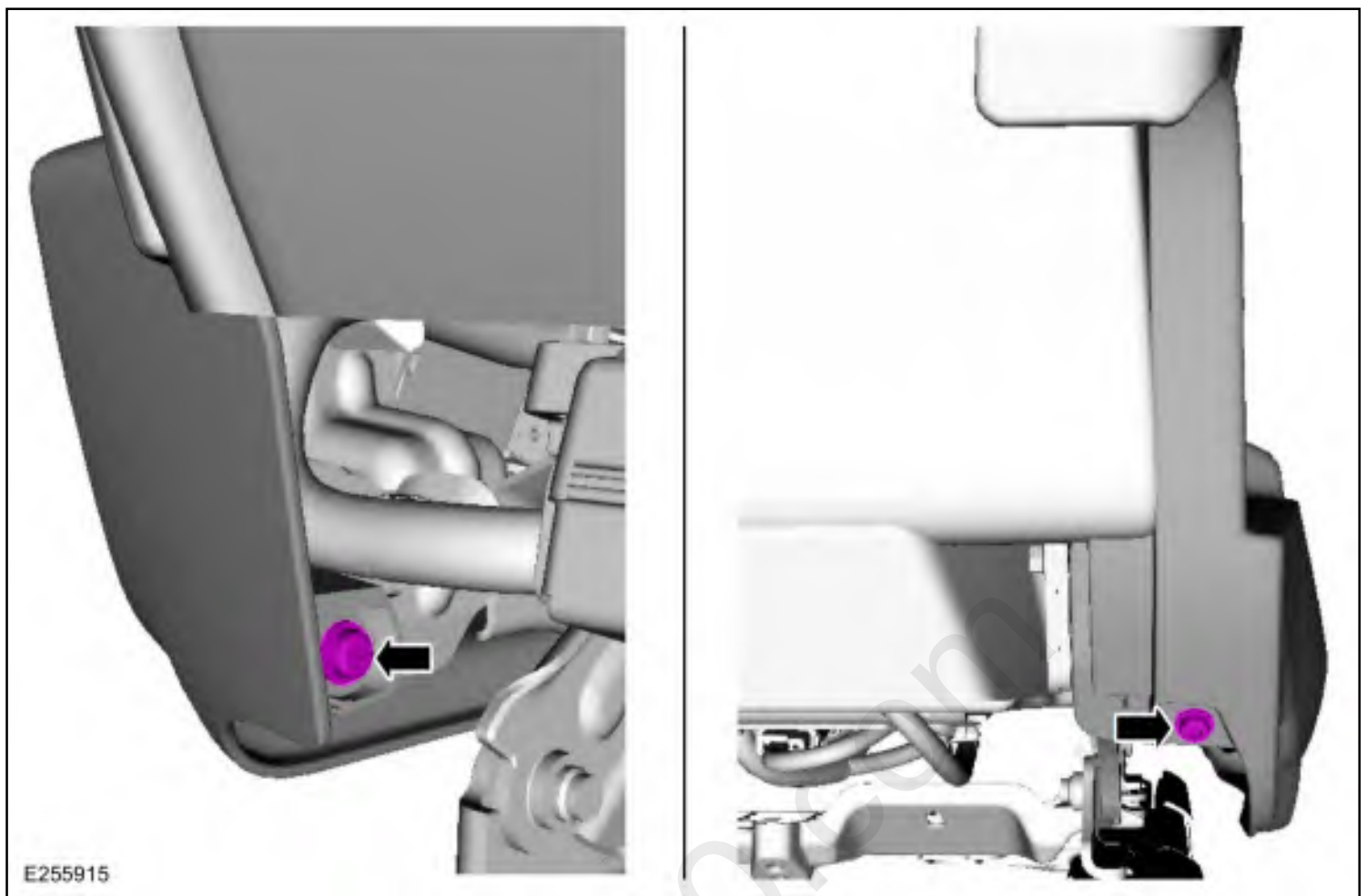
1.  **WARNING:** Before beginning any service procedure in this manual, refer to health and safety warnings in section 100-00 General Information. Failure to follow this instruction may result in serious personal injury.

Refer to: [Pyrotechnic Device Health and Safety Precautions](#) (100-00 General Information, Description and Operation).

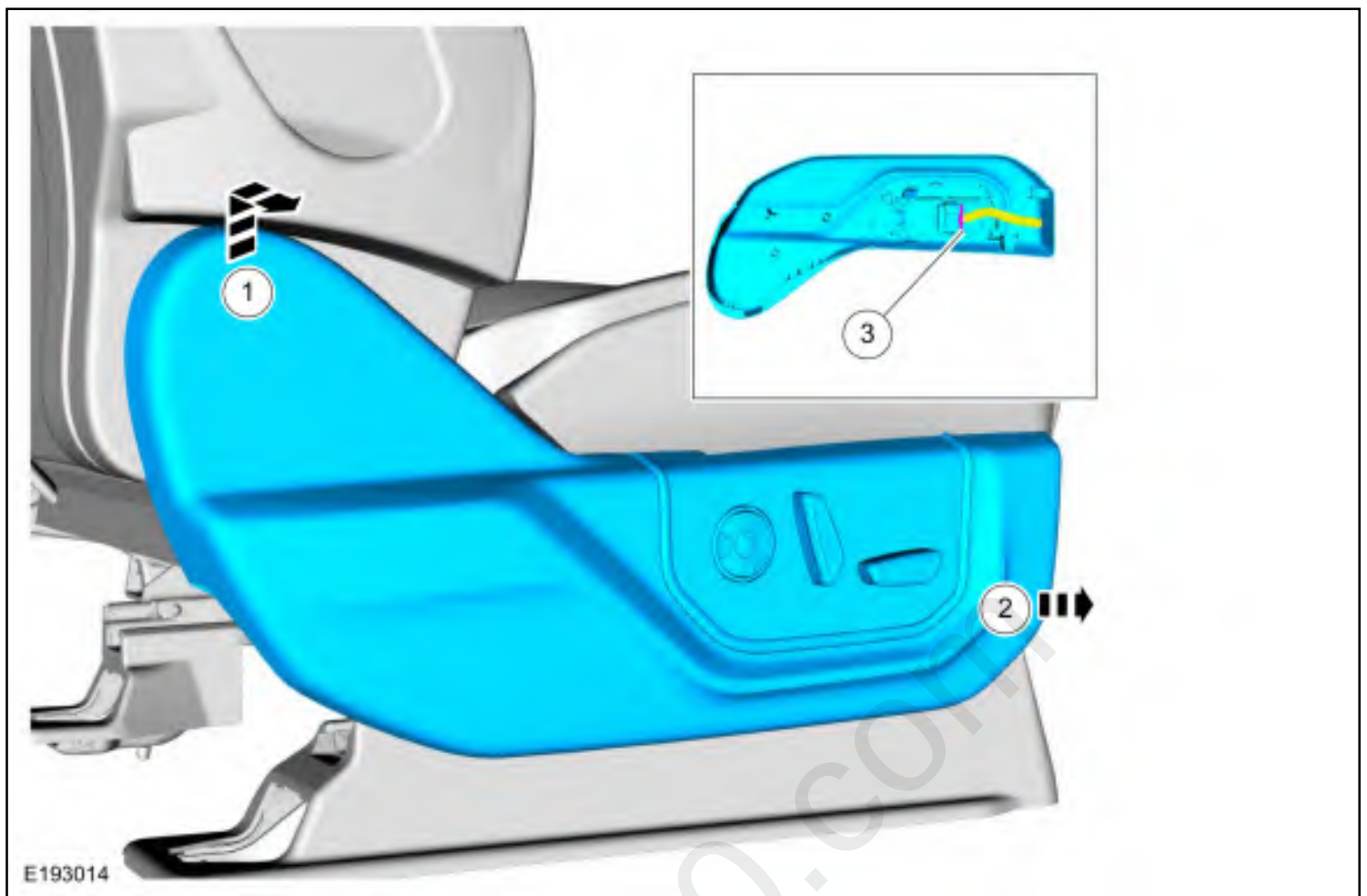
2. Raise the seat to its highest point of travel and remove the front passenger seat.
Refer to: [Front Seat](#) (501-10A Front Seats, Removal and Installation).



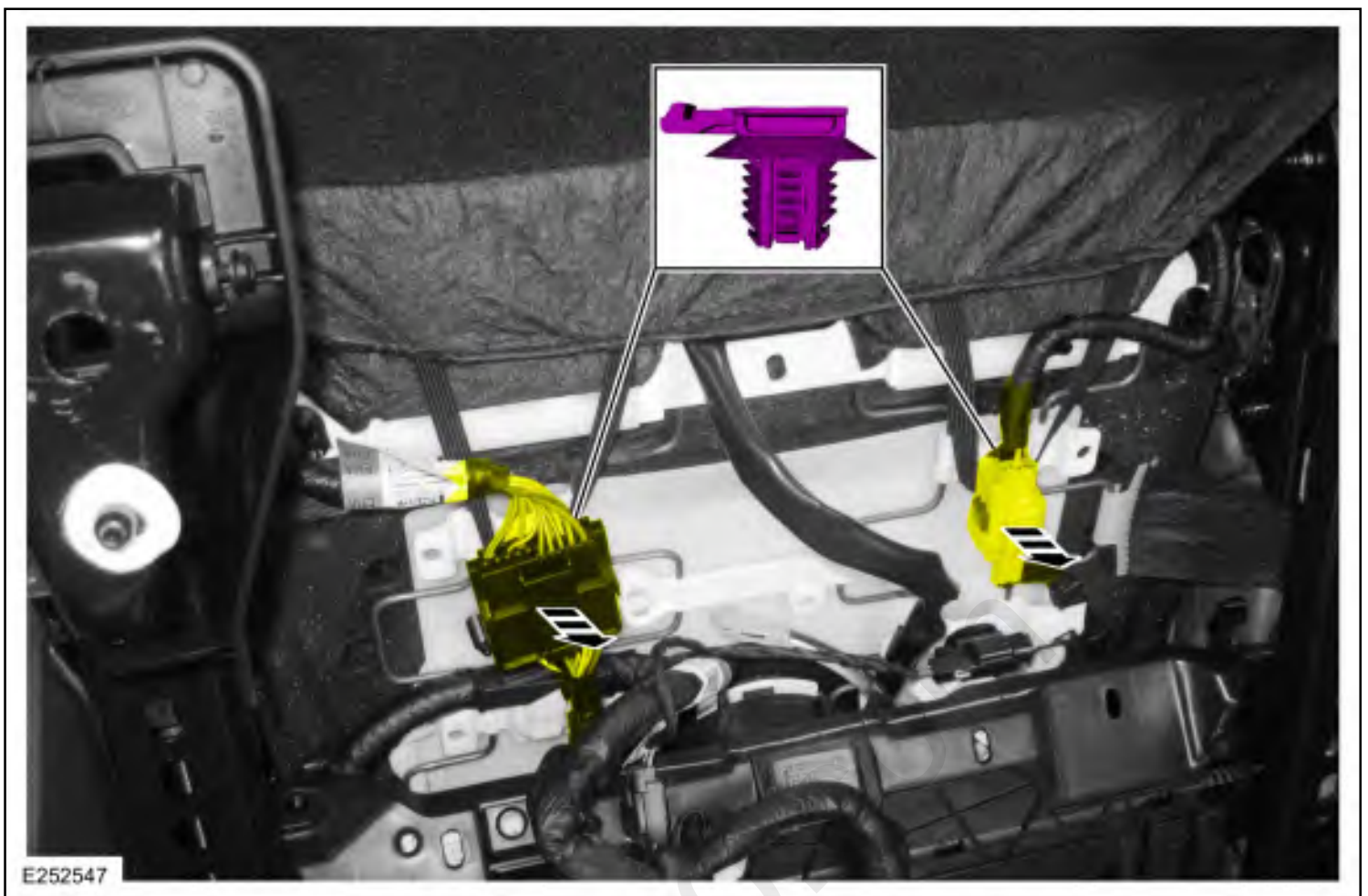
3. Remove the side shield screws.



1. Lift up on the rear of the side shield and pull outward.
2. Push the side shield forward.
3. Disconnect the electrical connector and remove the side shield.



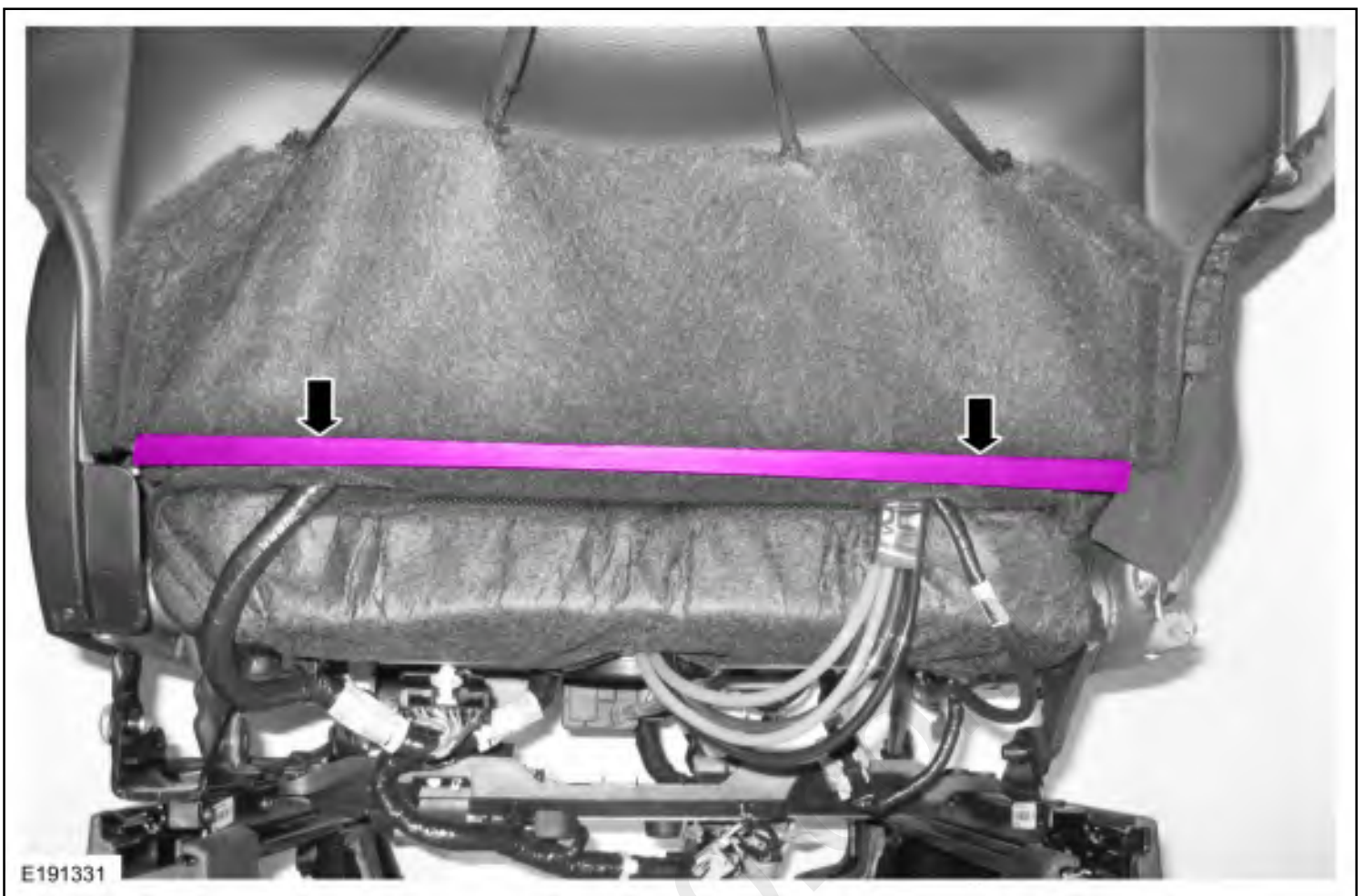
5. Detach the electrical connector retainers and position the wire harnesses aside.



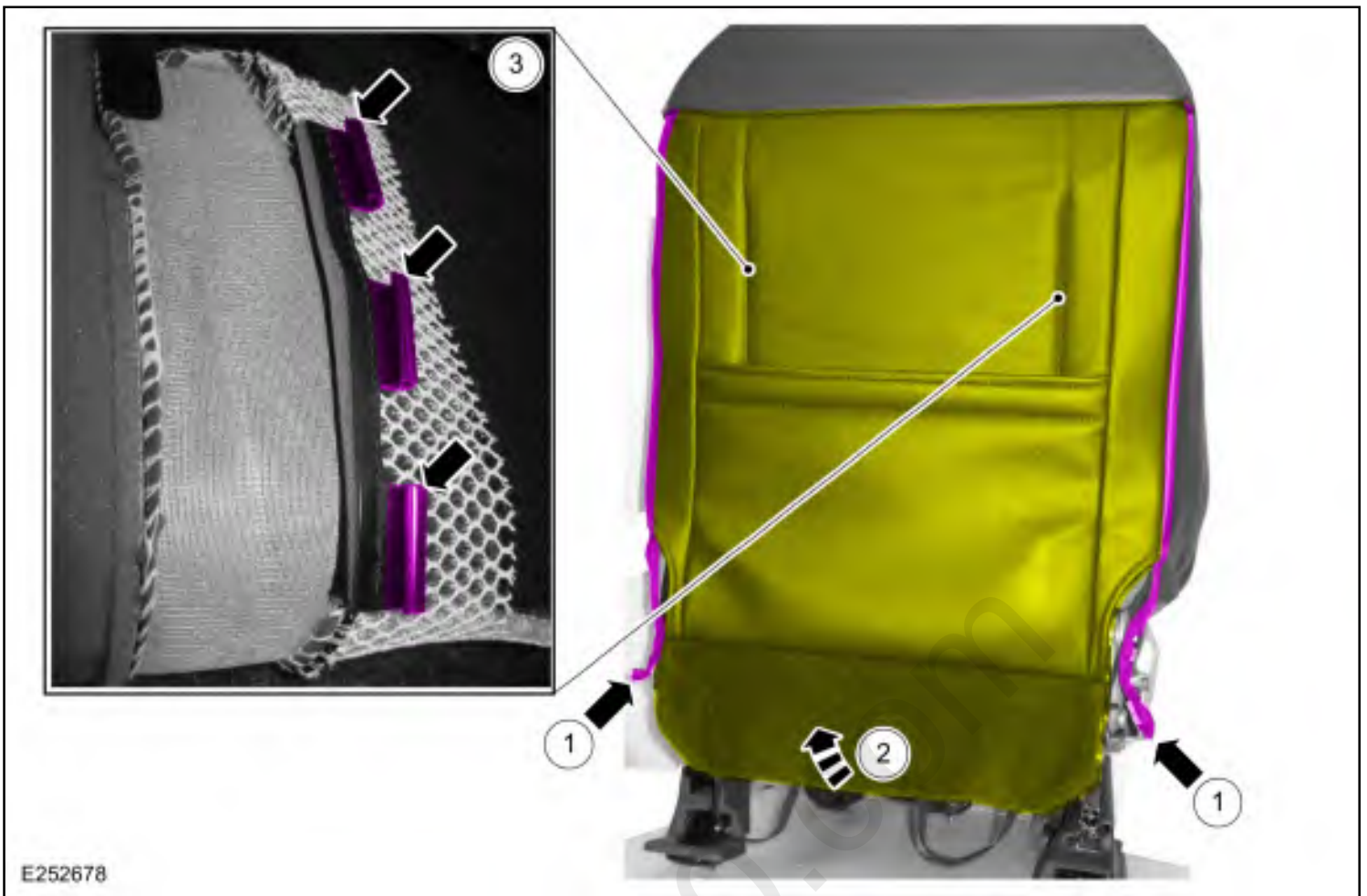
6. Detach the backrest cover straps and position the backrest cover aside.



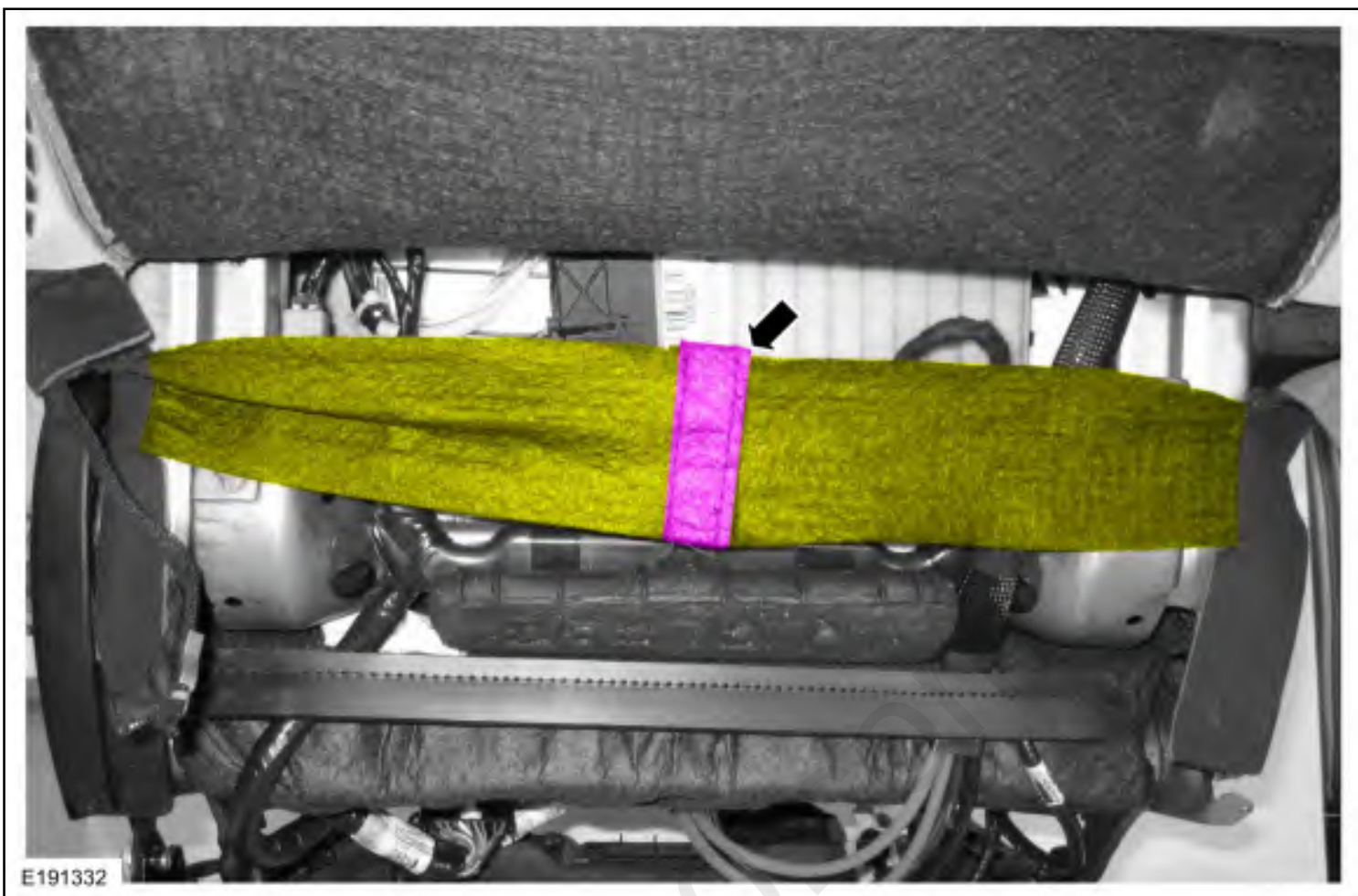
7. Detach the backrest cover lower J-clips.



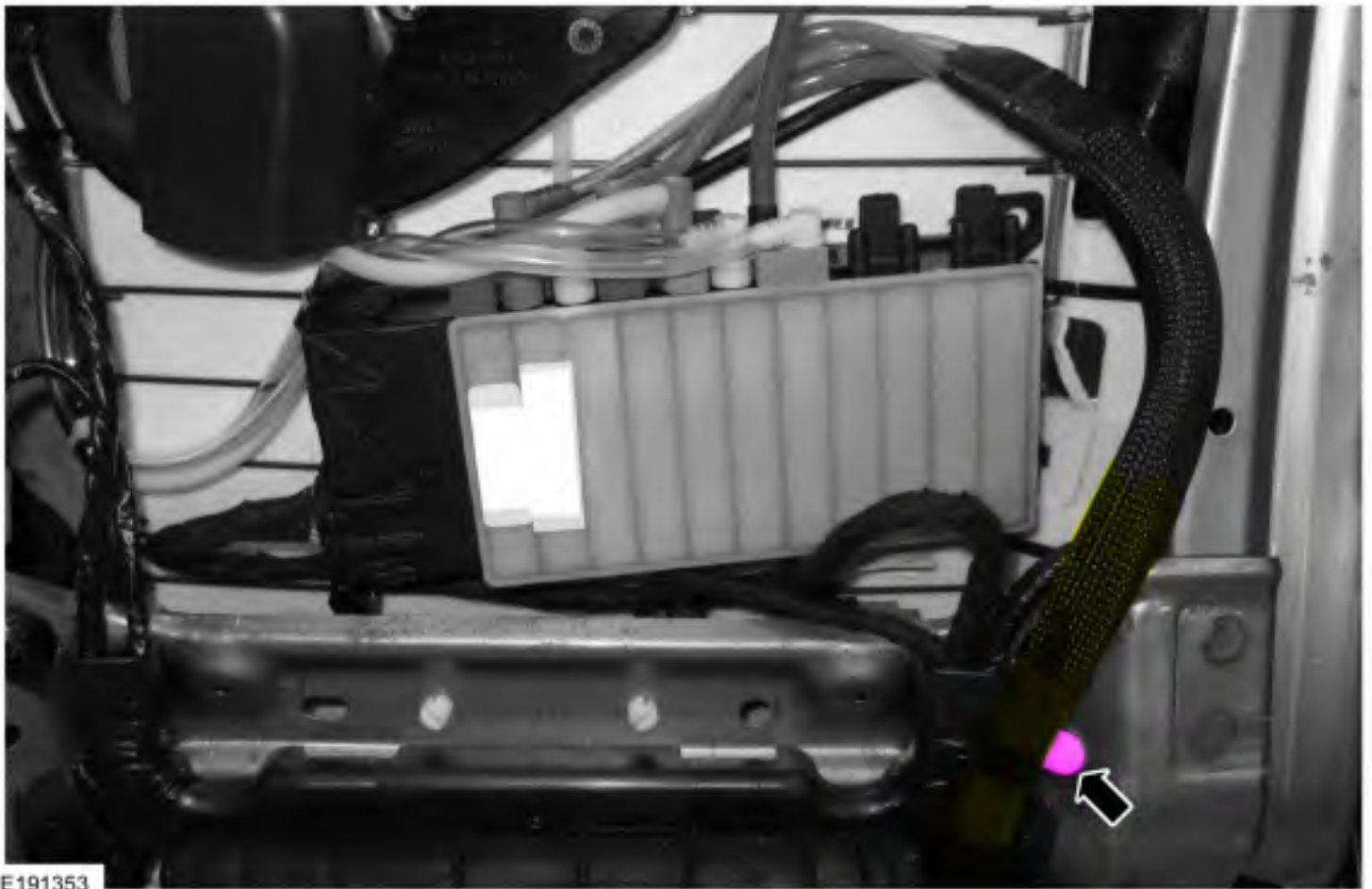
1. Unzip the backrest cover zipper on each side.
2. Position the backrest cover up.
3. Detach the J-clips from the lumbar wire.



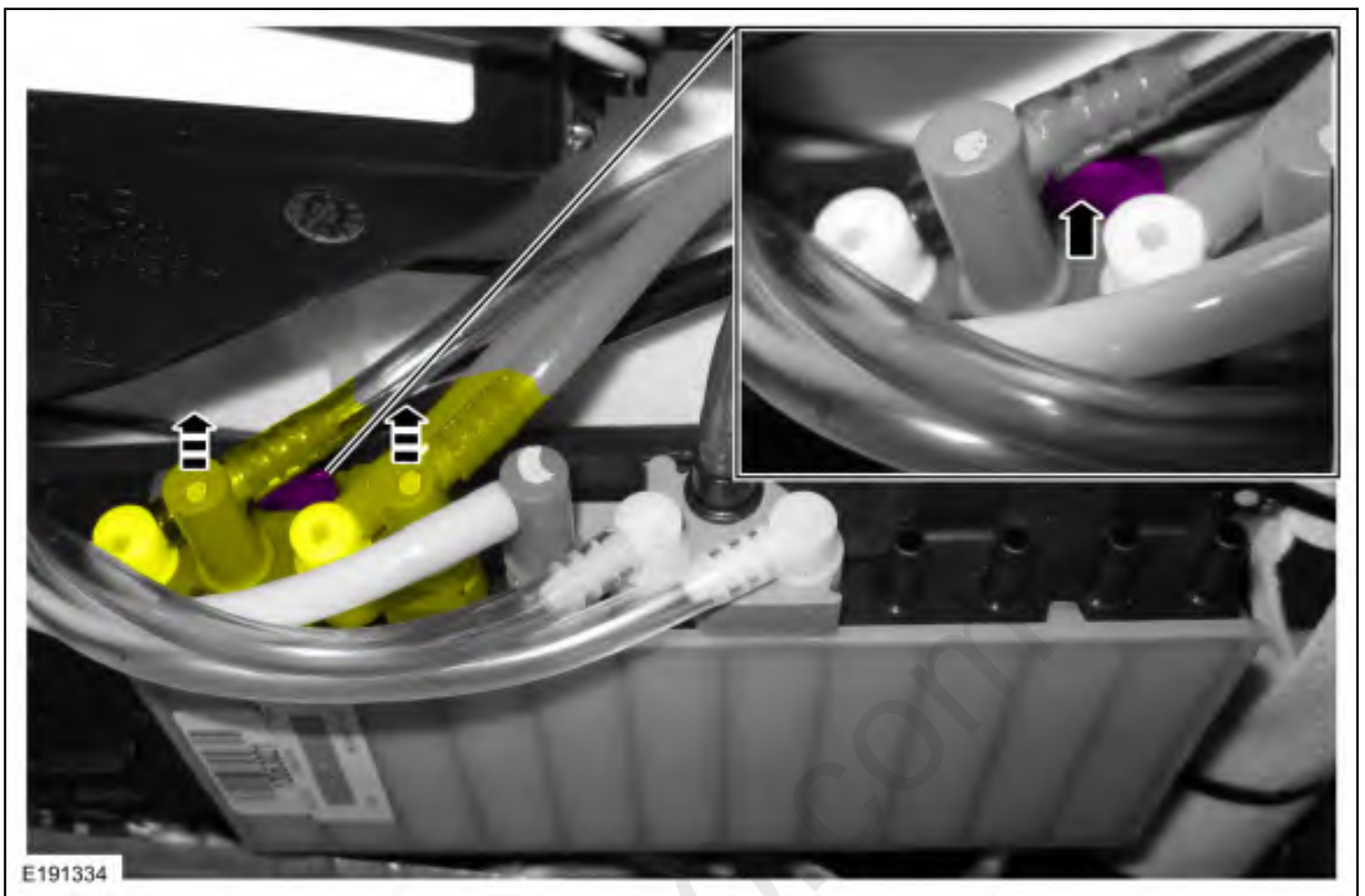
9. Detach the hook-and-loop retainer and position the backrest cover strap aside.



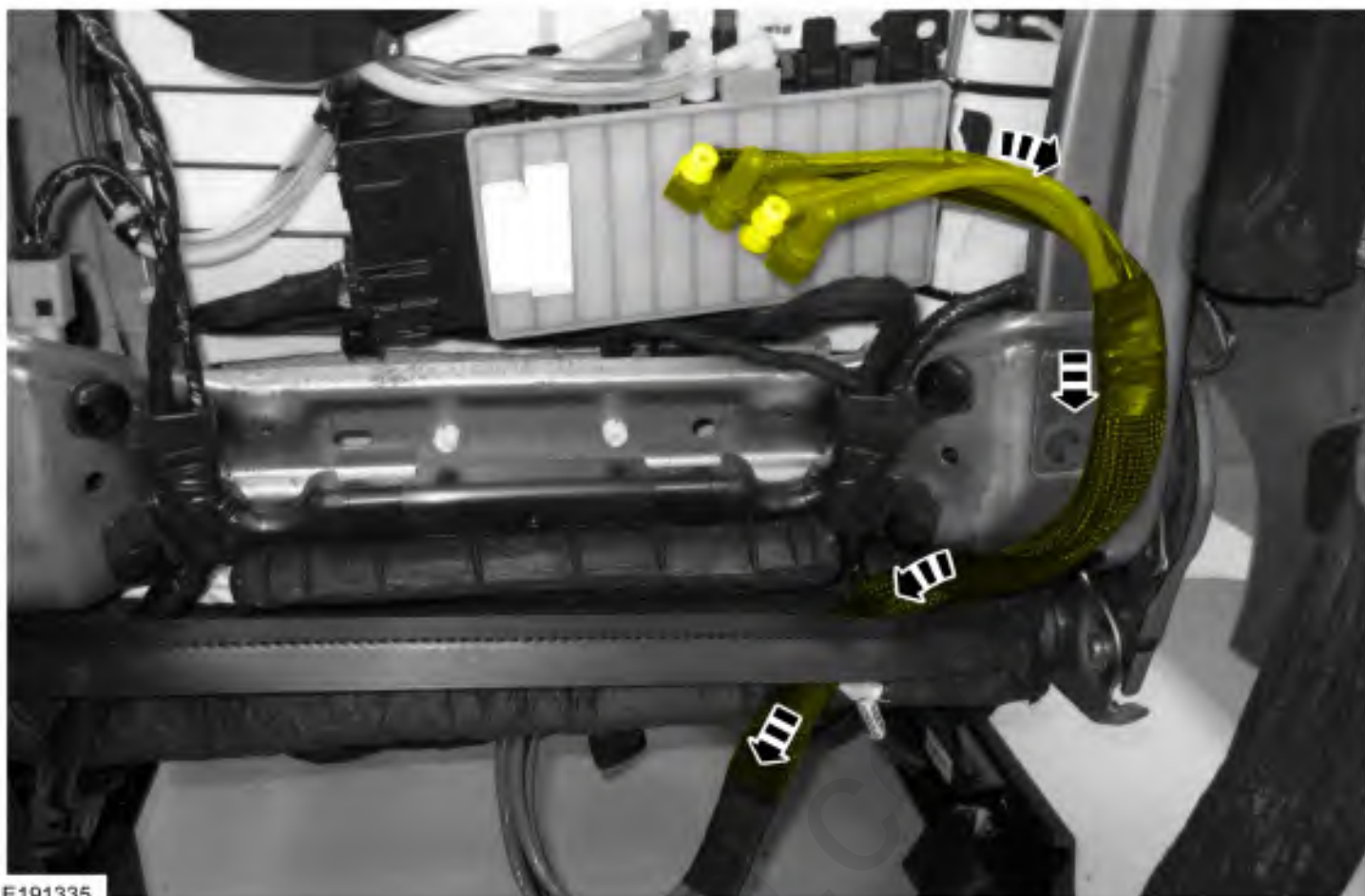
10. Detach the multi-contour seat cushion adjuster hose retainer.



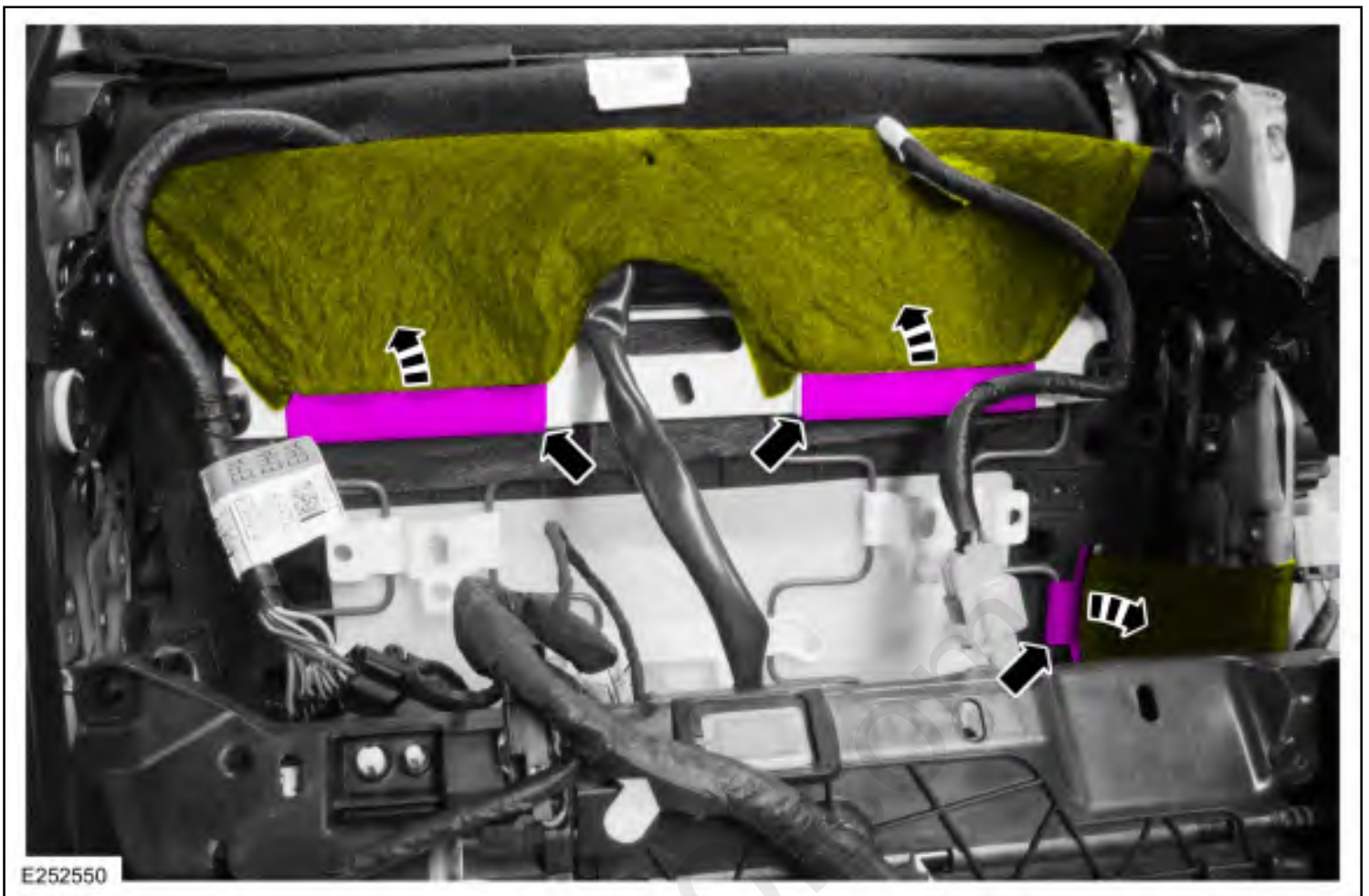
11. Release the locking tab and disconnect the hose coupling assembly from the SCM_H.



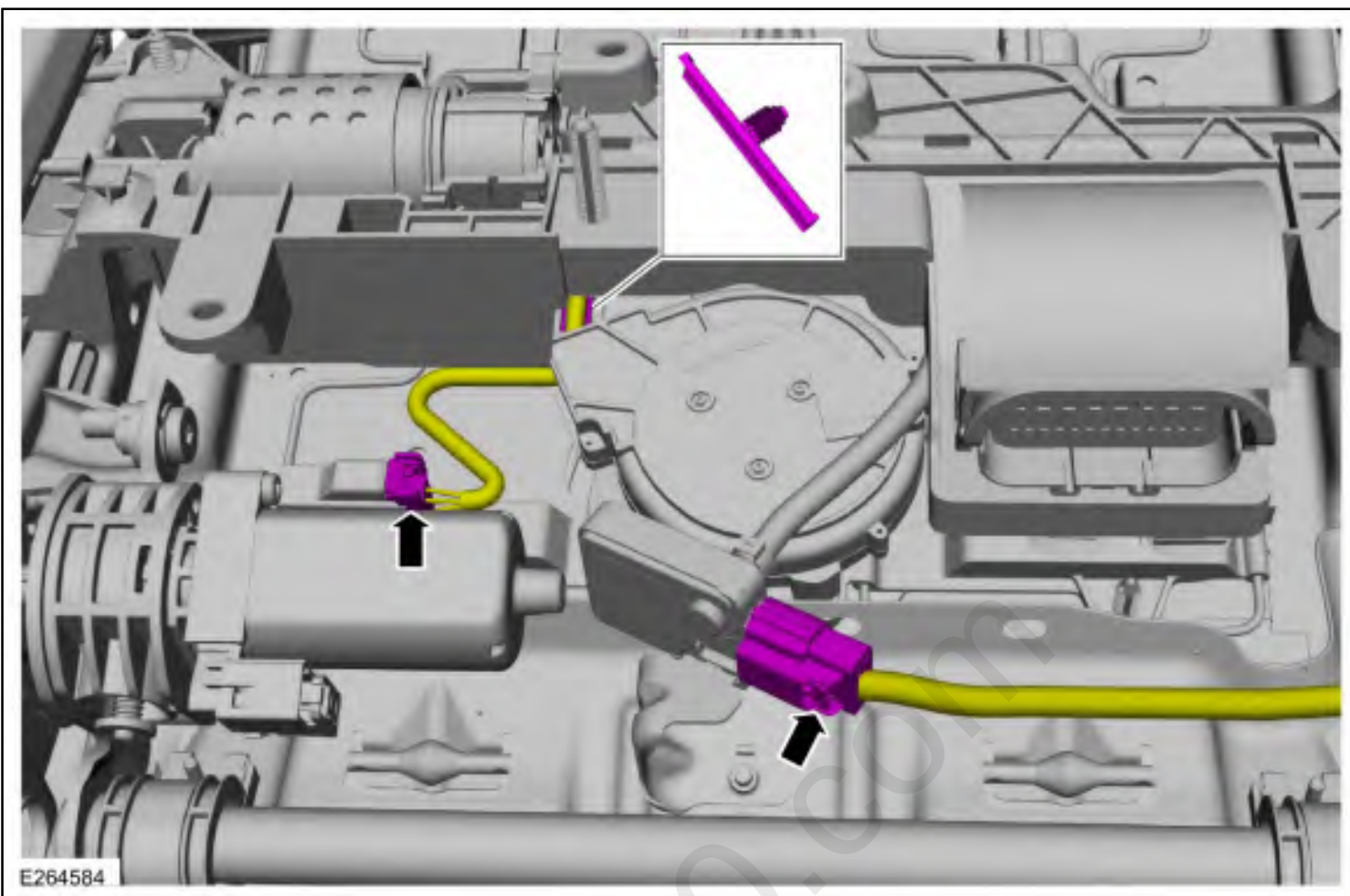
12. Feed the multi-contour seat cushion adjuster hose assembly out through the backrest cover opening.



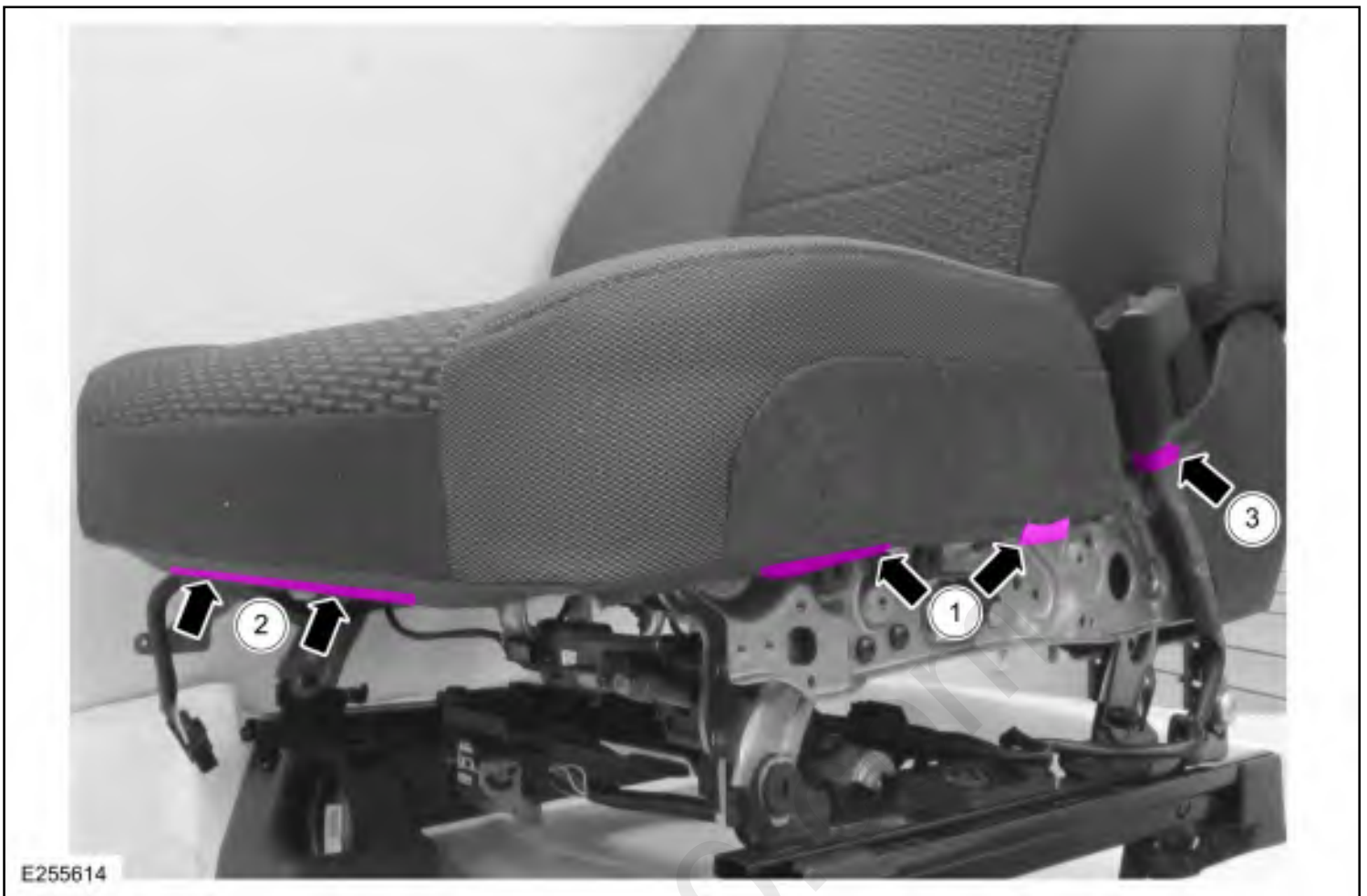
13. Detach the cushion cover J-clips and position the cushion cover aside.



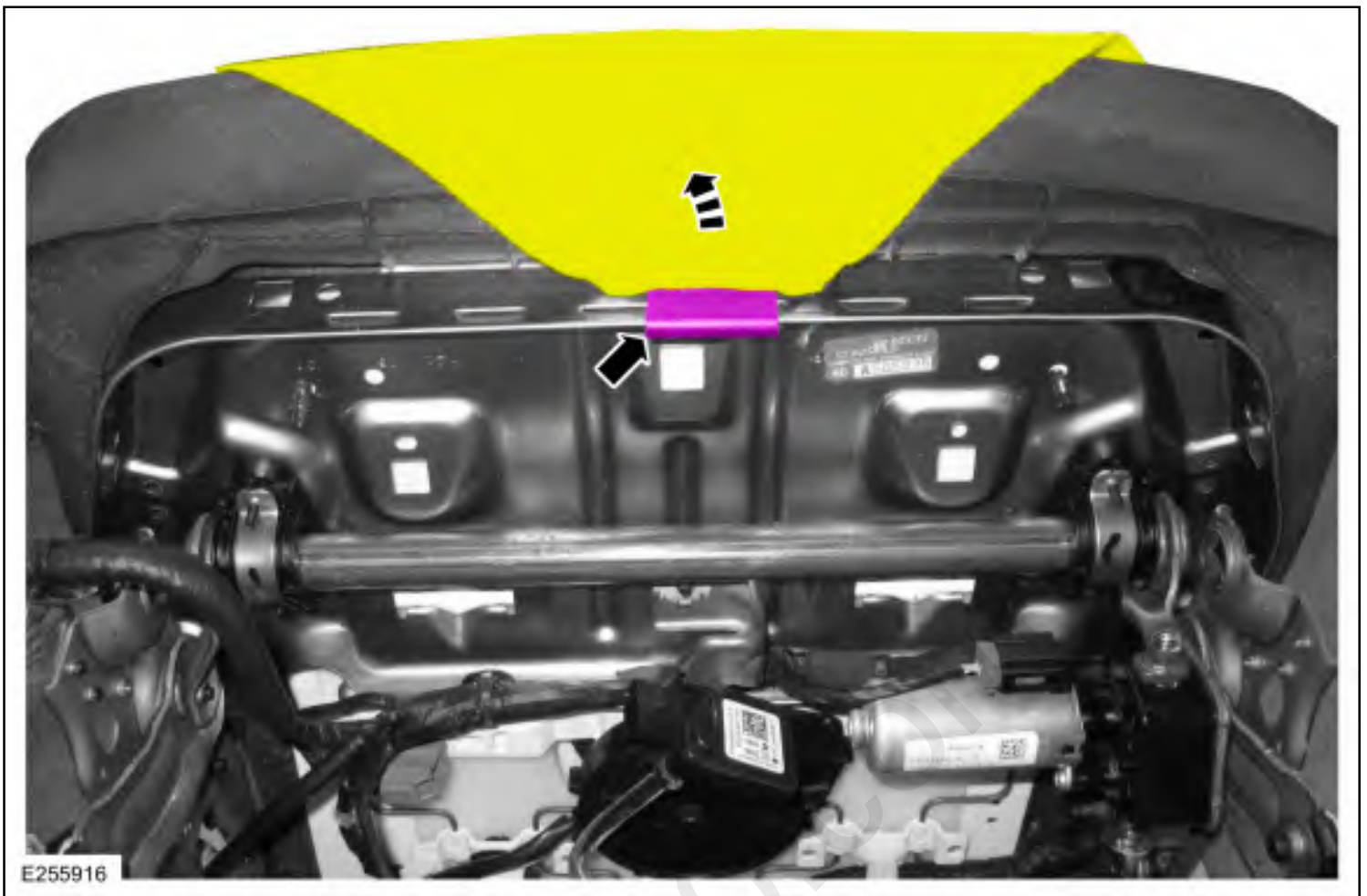
- Disconnect the OCS sensor electrical connector.
- Disconnect the heater mat electrical connector and detach the wiring harness retainer.



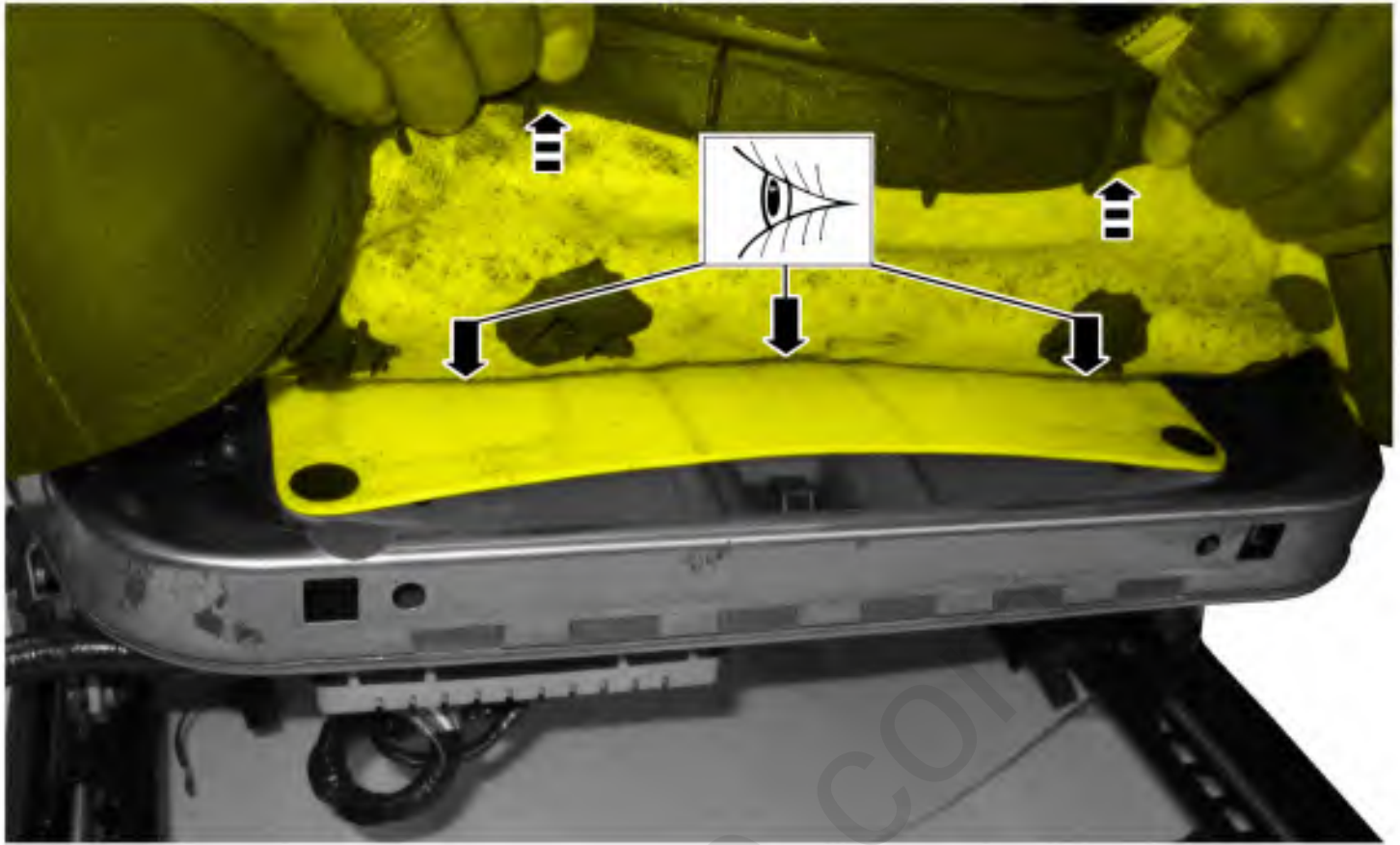
1. On both sides, detach the cushion cover J-clips.
2. Detach the cushion cover J-clip.
3. Remove the strap from around the seatbelt buckle.



16. Detach the cushion heater mat J-clip and position the mat upward.



17. Lift the cushion foam pad. If the cushion foam pad, multi-contour seat cushion adjuster and the OCS are adhered together, then the OCS is a service kit. If nothing is adhered together, then the OCS is OE (original equipment).



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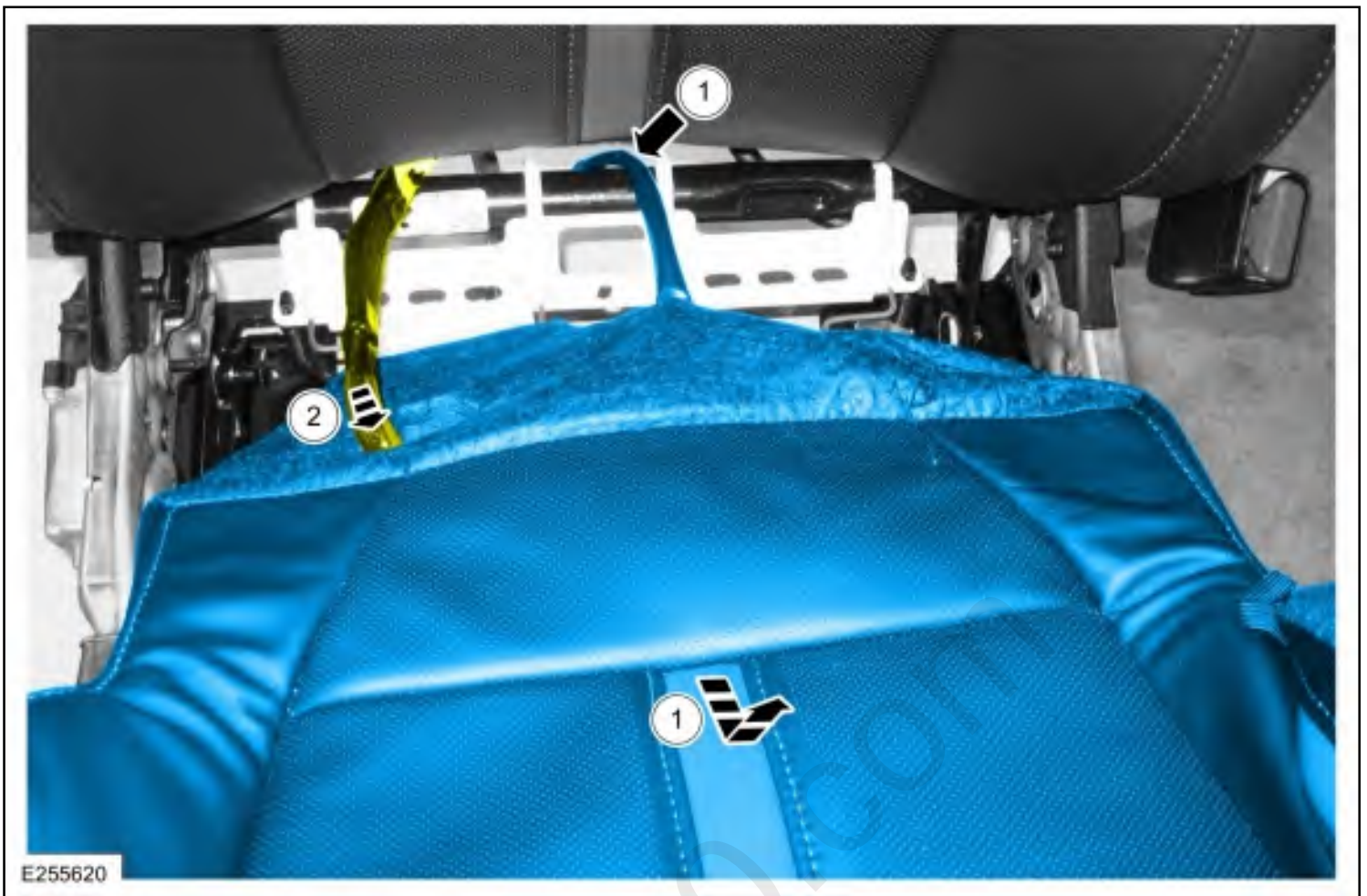


Seats with an OE (original equipment) OCS (occupant classification system)

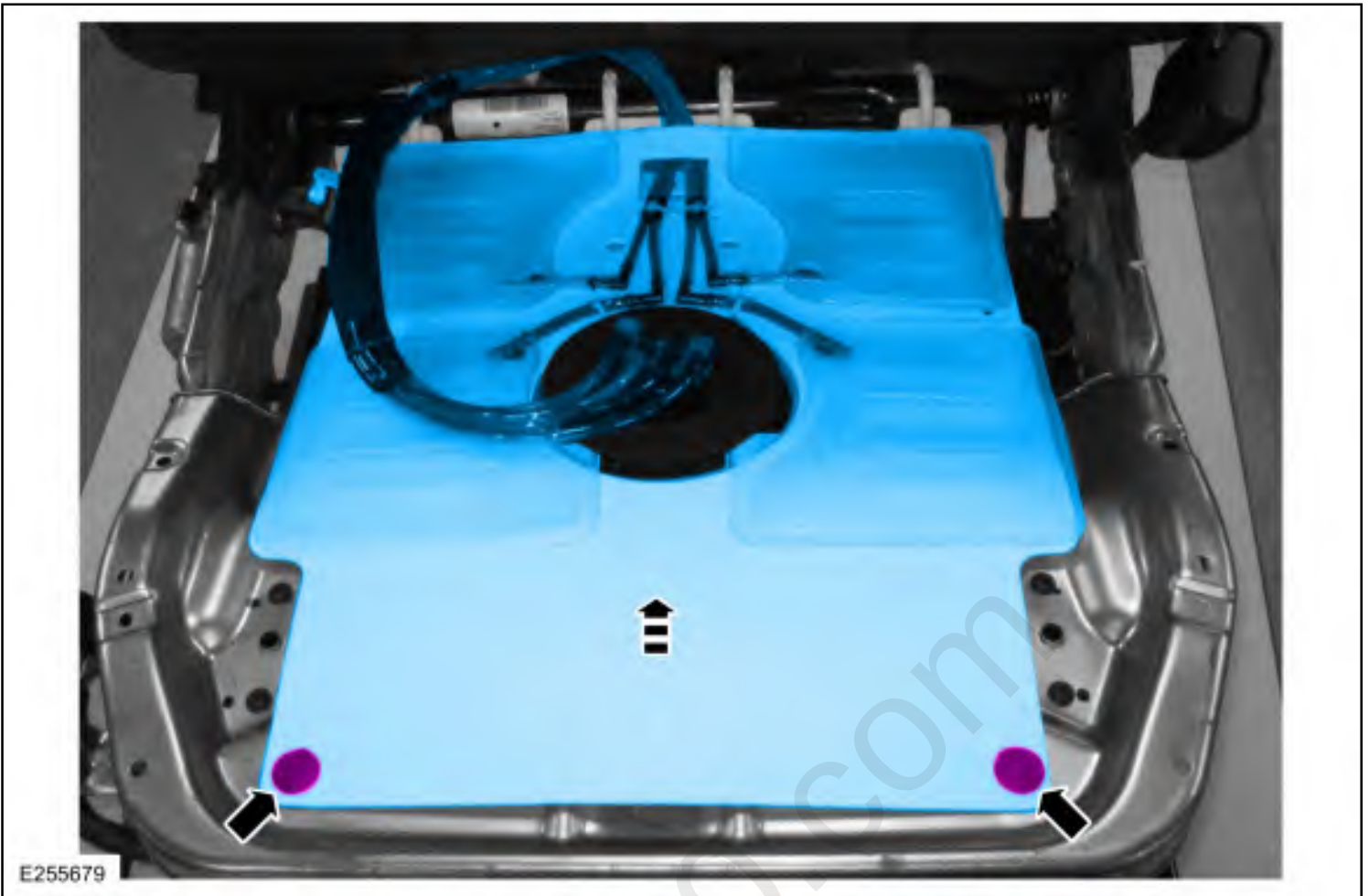
18.

Remove the cushion foam and cover as an assembly.

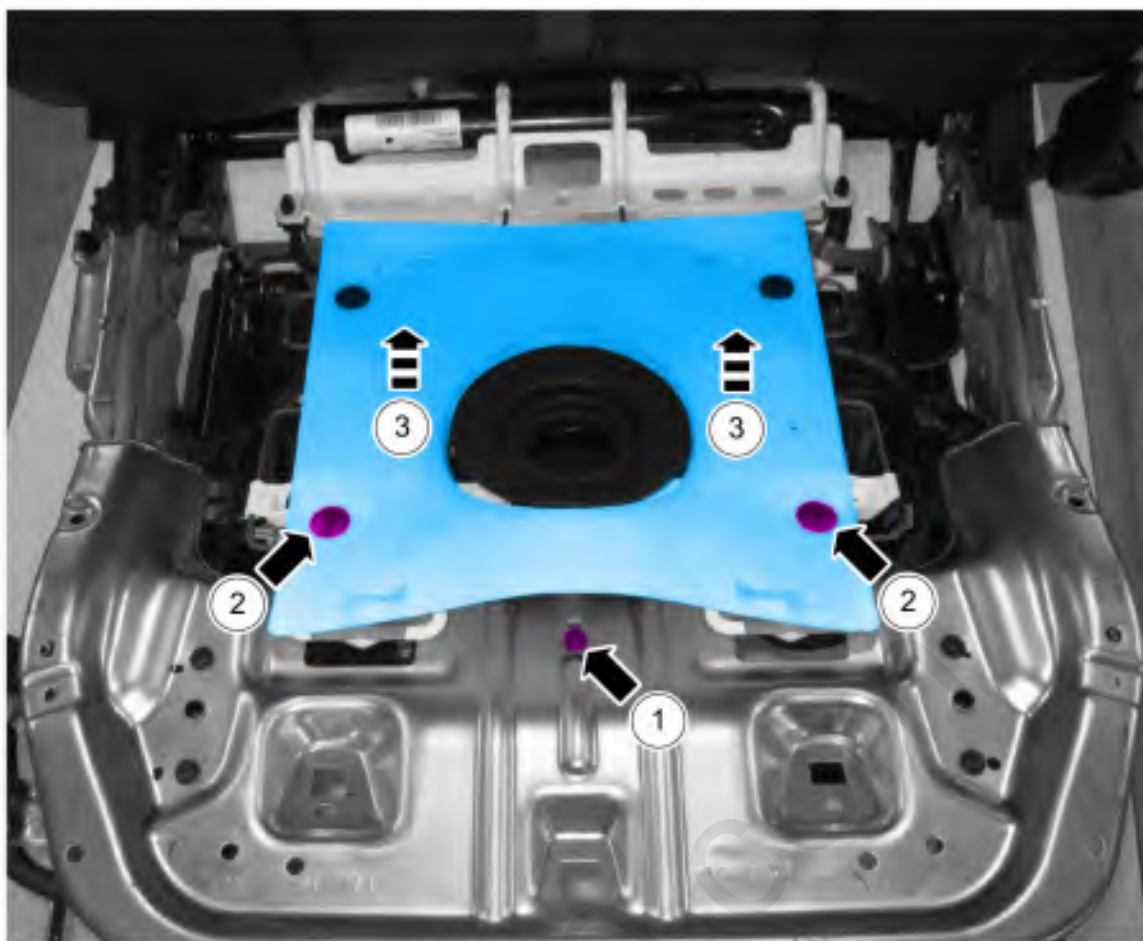
1. Pull the cushion cover, foam and heater mat wiring harness pigtail out from between the seat track and backrest.
2. Route the multi-contour seat cushion adjuster hose assembly through the cushion cover opening.



19. Remove the pin-type retainers and the multi-contour seat cushion adjuster .



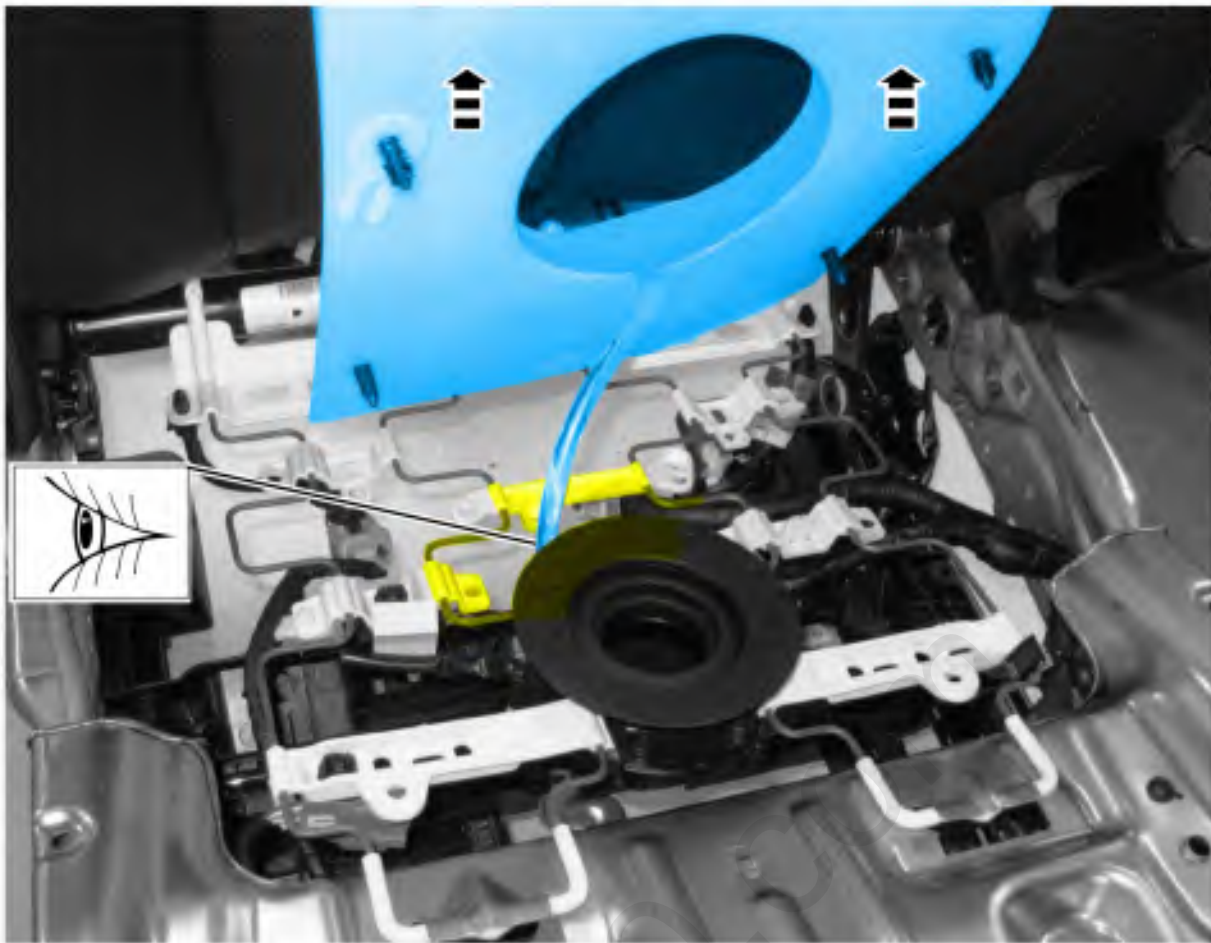
1. Remove the OCS sensor bracket screw.
Torque: 44 lb.in (5 Nm)
2. Remove the OCS pin-type retainers.
3. Lift the OCS up off the seat track and start removal.



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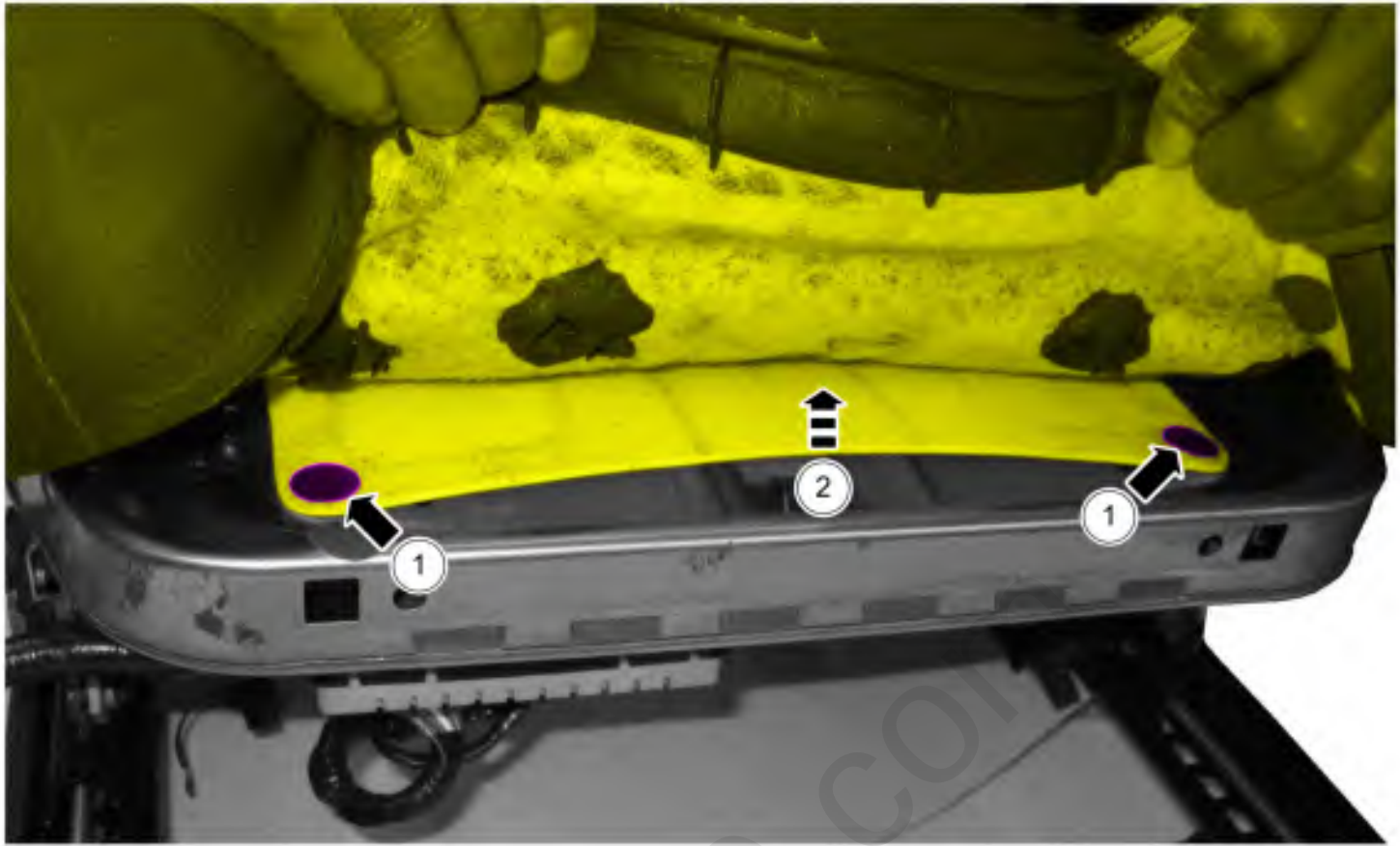
21. **NOTE:** Note the location of the OCS hose as it passes through the seat cushion support for proper installation.

Route out the OCS hose, sensor and sensor bracket from between the seat cushion support wires and remove the OCS.



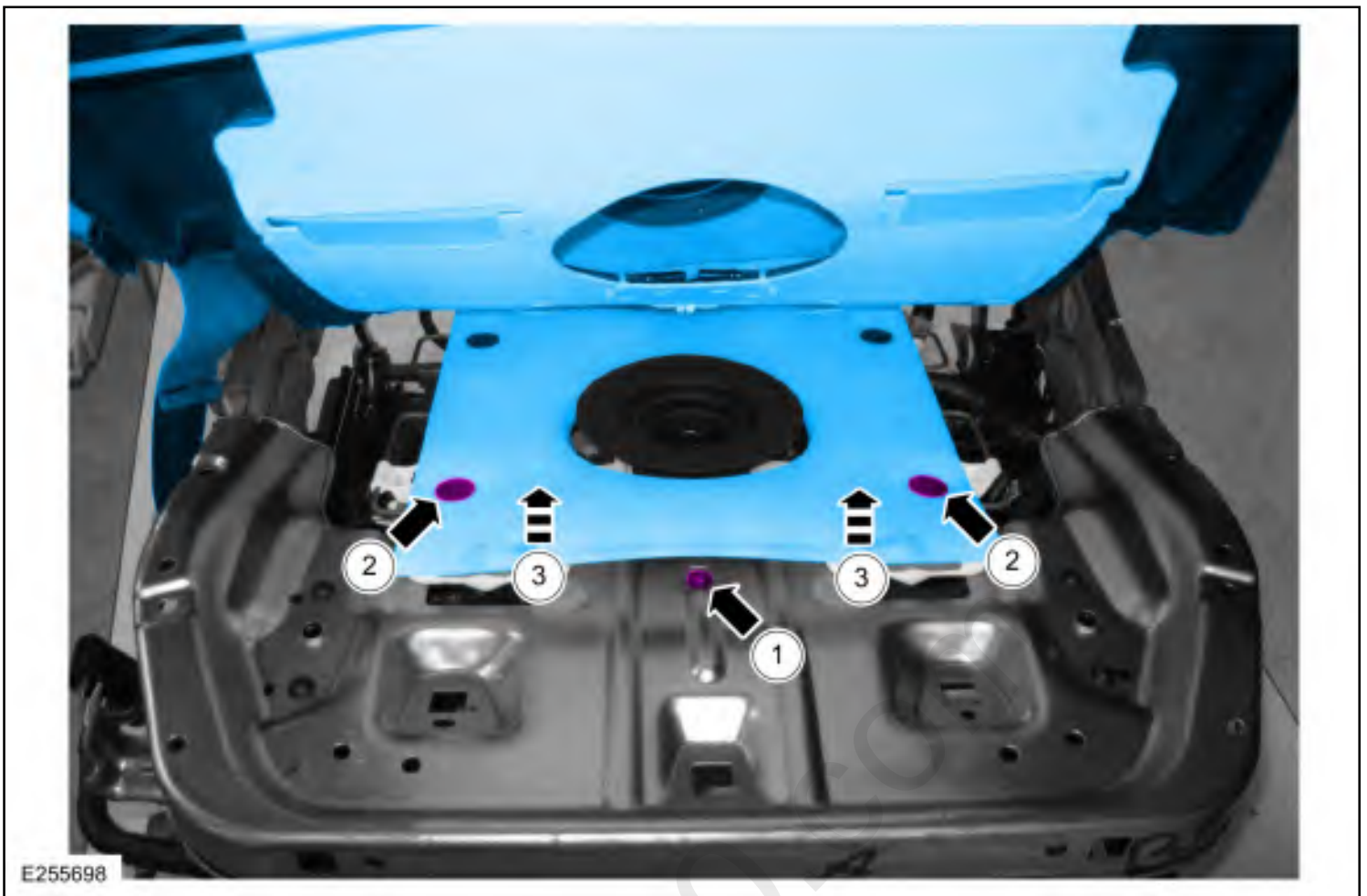
Seats with a service kit OCS (occupant classification system)

1. Remove the multi-contour seat cushion adjuster pin-type retainers.
2. Lift the front of the multi-contour seat cushion adjuster assembly to access the OCS pin-type retainers.



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1. Remove the OCS sensor bracket screw.
Torque: 44 lb.in (5 Nm)
2. Remove the OCS pin-type retainers.
3. Lift the OCS up off the seat cushion and start removal.

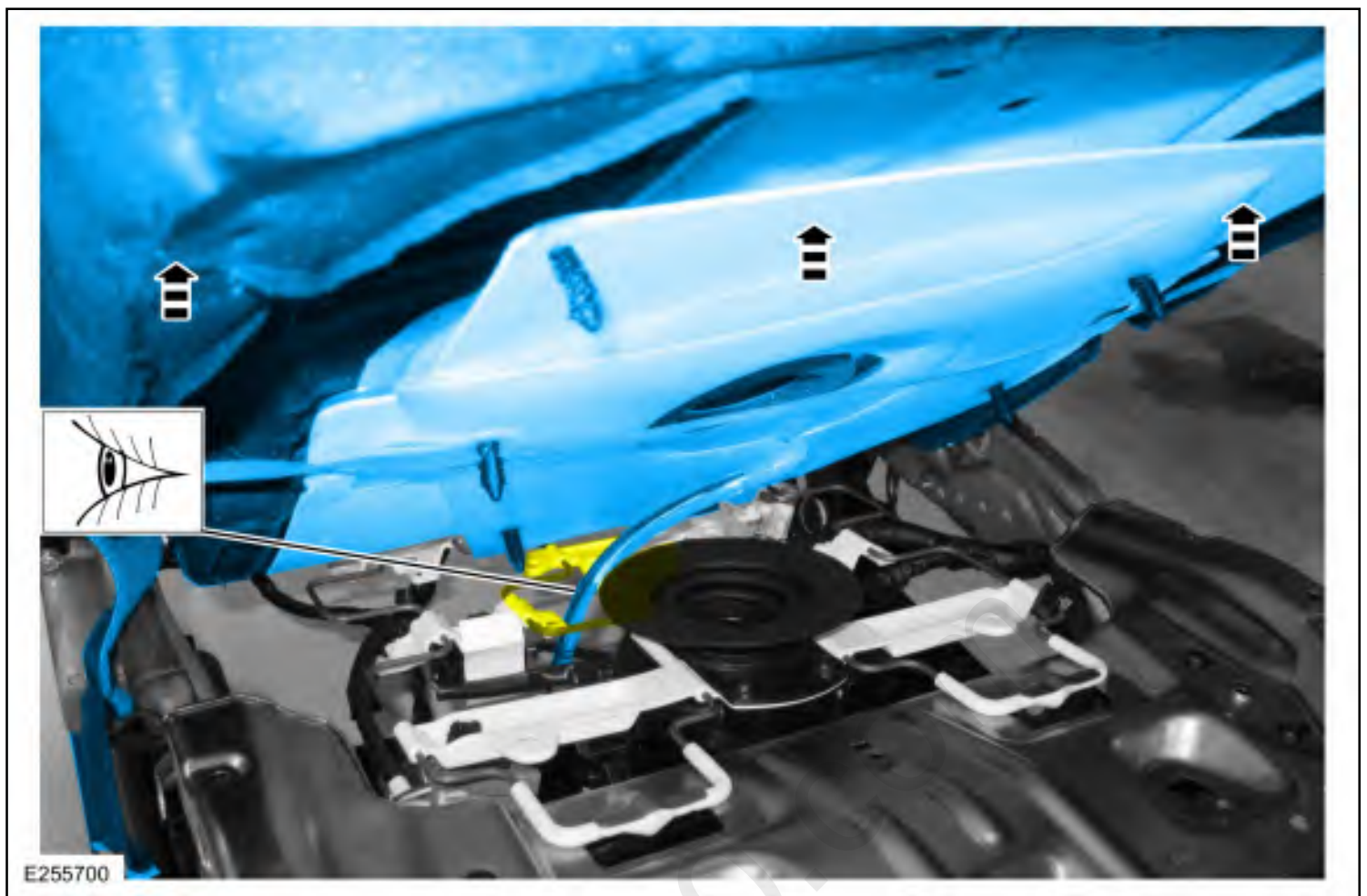


24. Route out the multi-contour seat cushion adjuster hose assembly and cushion heater mat wiring pigtail from between the seat cushion and backrest.



25. **NOTE:** Note the location of the OCS hose as it passes through the seat cushion support for proper installation.

Route the OCS hose, sensor and sensor bracket from between the seat cushion support wires and remove the OCS.

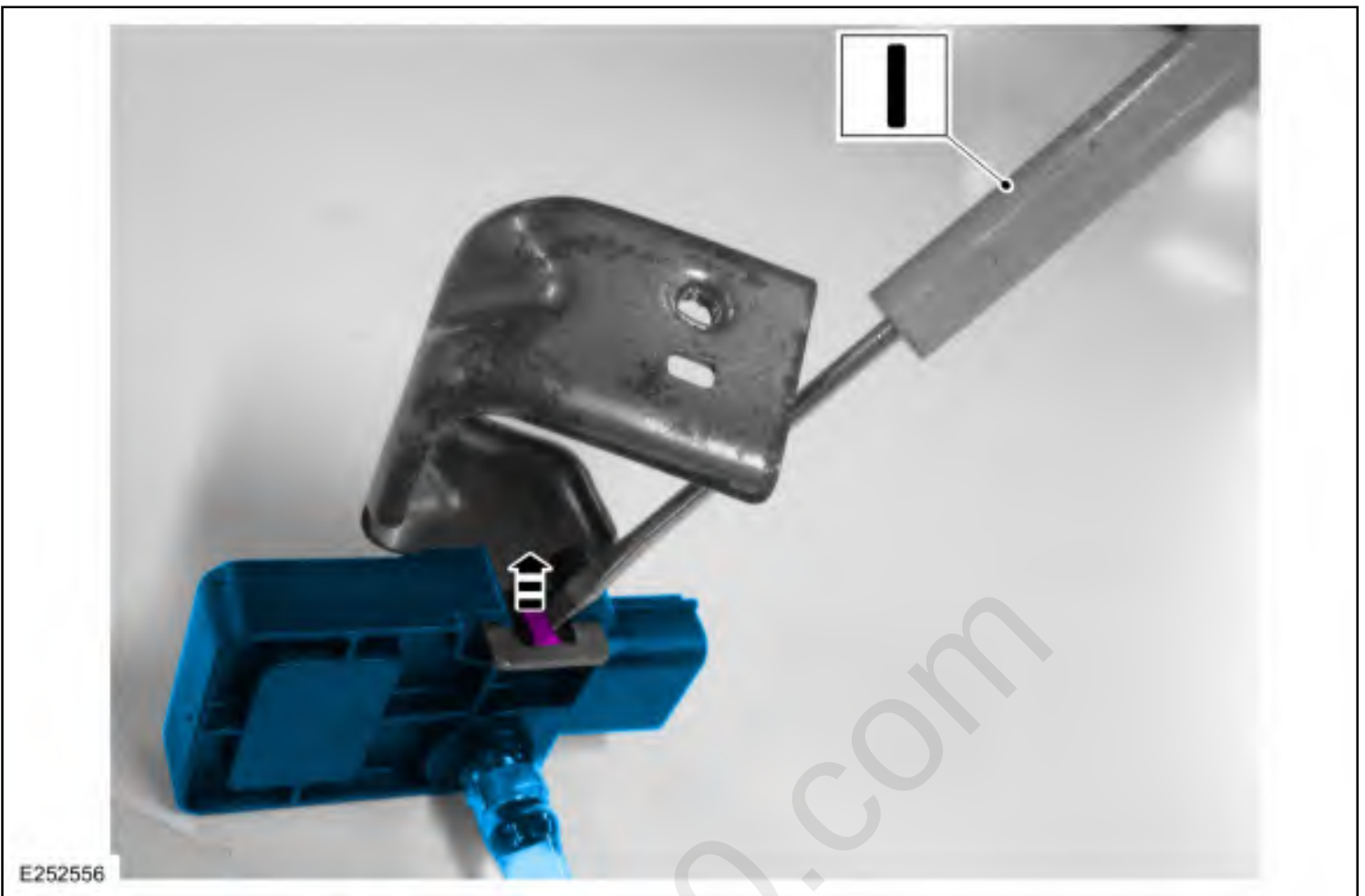


All seats

26. **NOTE:** *This step is only necessary when installing a new OCS.*

NOTE: *Follow the unique instructions or graphic for this step in the installation.*

Bend the tab up and slide the OCS sensor off the bracket.



27. **NOTE:** *This step is only necessary when installing a new OCS.*

Position the rear portion of the seat cushion cover from the foam.

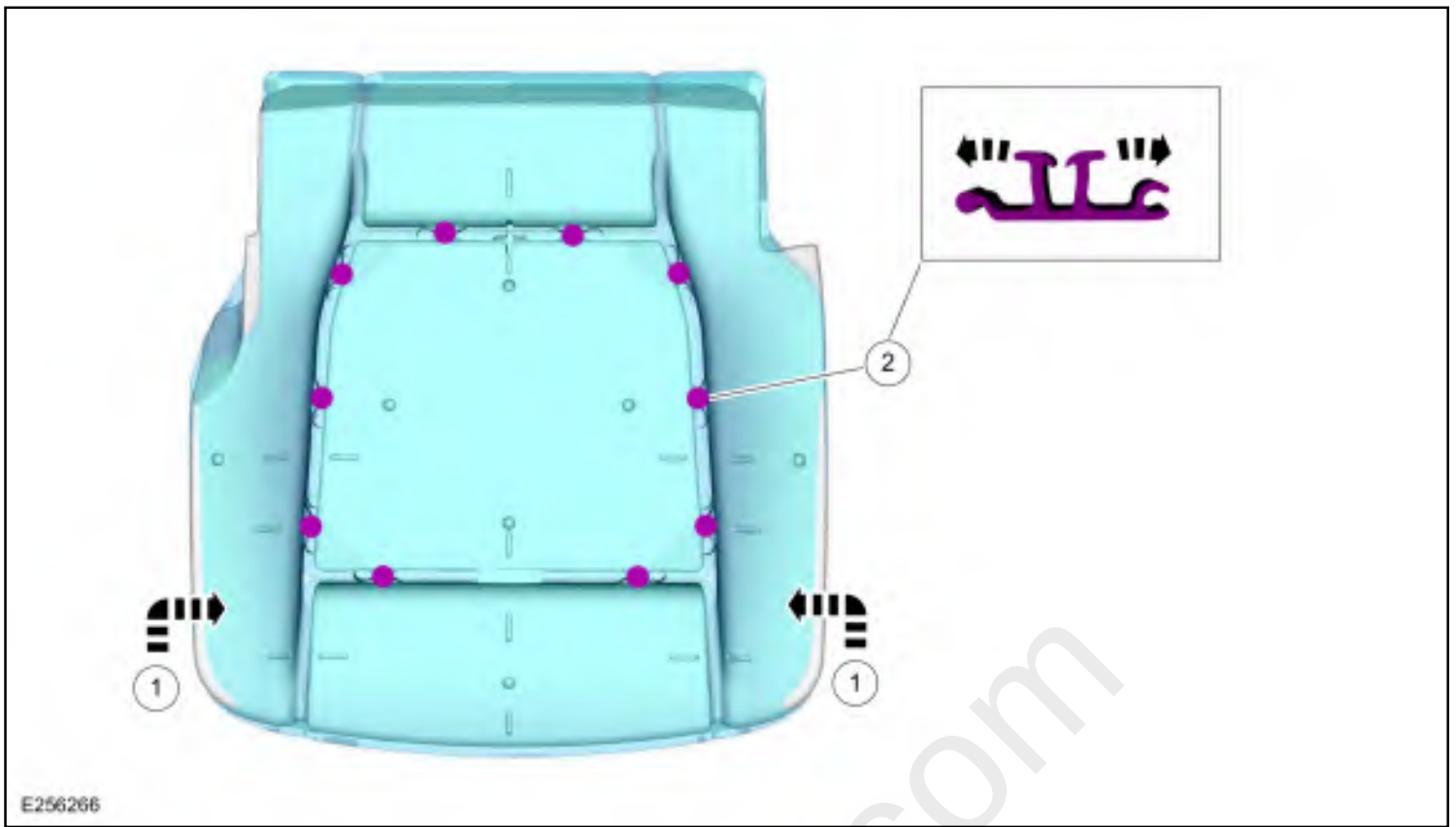


28. **NOTICE:** Use care when separating the seat cushion from the hook-and-arrow or the hook may be torn from the seat cushion foam pad.

NOTE: *This step is only necessary when installing a new OCS.*

Remove the seat cushion cover.

1. Invert the seat cushion cover.
2. Release the hook-and-arrows.



Installation

1. **NOTICE:** Inspect the OCS bladder, seat cushion pan and support assembly for any foreign objects before installing the OCS to the seat cushion pan. Remove any foreign objects. Failure to follow these instructions may result in incorrect operation of the OCS and may cause system failure.

NOTICE: Do not trap the pressure sensor hose incorrectly over the seat's suspension or spring. Route the hose so that it lays in a natural bend, and is not twisted due to being forced into an unnatural position. Failure to follow these instructions may result in component damage and/or system failure.

To install, reverse the removal procedure.

2. Bend the OCS sensor bracket tab back.



3. Install the front passenger seat. Do not prove out the SRS at this time.
Refer to: [Front Seat](#) (501-10A Front Seats, Removal and Installation).

4.  **WARNING:** Occupant Classification System (OCS) parts are calibrated as an assembly and must only be replaced in the configuration they are sold. Never separate parts of an assembly. Failure to follow this instruction may result in incorrect operation of the OCS and increases the risk of serious personal injury or death in a crash.

 **WARNING:** Make sure the front passenger seat repair is complete, the seat and all attached components (head restraint, seat side shield, etc.) are correctly assembled, and the seat is correctly installed to the vehicle before using System Reset to rezero the seat weight. Failure to follow these instructions may result in incorrect operation of the occupant classification system (OCS) and increases the risk of serious personal injury or death in a crash.

NOTICE: To prevent system failure, take the following precautions before carrying out the OCS reset.

- Make sure the voltage to the OCSM is greater than 8 volts and less than 18 volts.
- Make sure the OCS is not below 6° C (42.8° F) or above 36° C (96.7° F) when initiating

the OCS reset process. If the vehicle has been exposed to extreme cold or hot temperatures, the vehicle must be exposed and kept at a temperature between 6° C (42.8° F) to 36° C (96.7° F) for a minimum of 30 minutes.

- **Make sure nothing is present on the passenger seat before and during the OCS reset process.**
- **Prior to carrying out the OCS reset, make sure a minimum of 8 seconds has elapsed after cycling the ignition switch on.**

Using a diagnostic scan tool, carry out the OCS reset. Cycle the ignition switch after the OCS reset.

5. If the first system reset attempt was successful, proceed to prove out the SRS.
6. If the first system reset attempt was not successful, carry out a thorough visual inspection of the OCS connector and wiring for damage, pressure sensor hose for kinks and or damage, and seat-related wiring harness and body wiring harness terminals and connectors for damage. Repair any concerns found and proceed to the next step.
7. Carry out a second OCS reset. Cycle the ignition switch after the OCS reset. If the second attempt is unsuccessful, install a new OCS service kit.
8. Prove out the SRS. Verify all airbags are installed and connected and the ignition is OFF. Wait 10 seconds then turn the ignition ON and monitor the airbag warning indicator. The airbag warning indicator illuminates continuously for approximately 6 seconds and turns off. Continue to monitor the airbag warning indicator for approximately 30 seconds, as this is the time required for the RCM to complete testing of the SRS.
 - If a SRS fault is present, the airbag warning indicator either fails to light, remains lit continuously or flashes. The flashing may not occur until approximately 30 seconds after the ignition has been turned from OFF to ON. If this occurs, diagnose and repair any SRS faults before proceeding with other repairs.
 - If, after the ignition has been turned on for 30 seconds, the airbag warning indicator remains unlit with no chime or SRS message displayed in the message center, no SRS fault is present.
 - If the airbag warning indicator is inoperative and a SRS fault exists, a chime sounds in a pattern of 5 sets of 5 beeps or a message displays in the message center. If this occurs, diagnose and repair the airbag warning indicator and any SRS faults before proceeding with other repairs.
10. Using a scan tool, clear all Continuous Memory Diagnostic Trouble Codes (CMDTCs) from all modules.