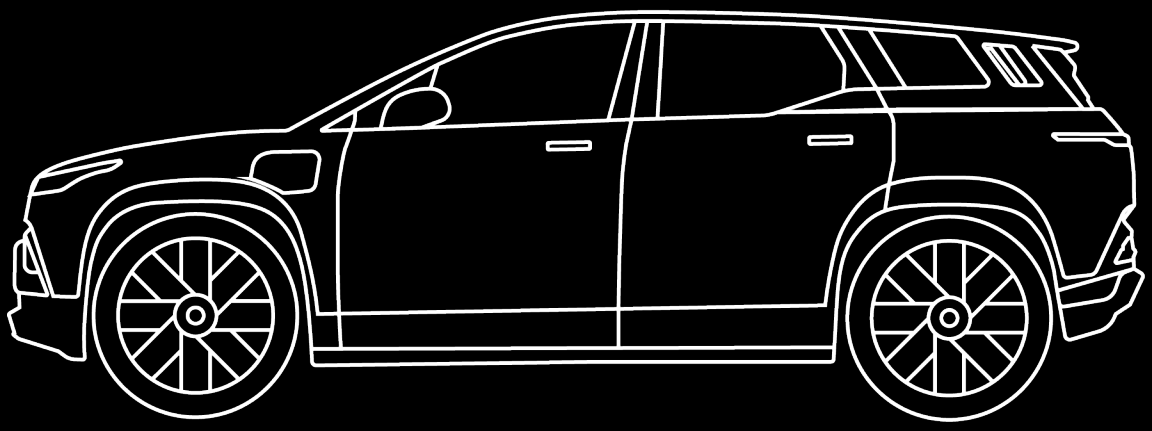
FISKER

OCEAN



# 2023 Service Manual

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Version 1.0 (04/2022)

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## Oil Level Check & Top Up - EDU - Front

### Check and Top Up

1. Remove front underbody cover. Refer to Underbody Cover - Front.
2. Ensure vehicle is positioned horizontally on the lift.




3. Remove and discard oil filler plug.
4. Check oil level reaches lower edge of oil filler hole.
5. If oil level is low, top up with FUCHS Blu EV EG EDF 7727 until oil level reaches lower edge of filler hole.
6. Install new oil filler plug. **Torque 21 Nm**.
7. Wipe clean any spillages.
8. Install front underbody cover.

## Oil Level Check & Top Up - EDU - Rear

### Check and Top Up

1. Remove rear underbody cover. Refer to Underbody Cover - Rear.
2. Ensure vehicle is positioned horizontally on the lift.
3. Start vehicle on the lift to a speed of 40 mph (60 km/h) for approximately 1 minute so that the oil is distributed evenly in both lubrication chambers.

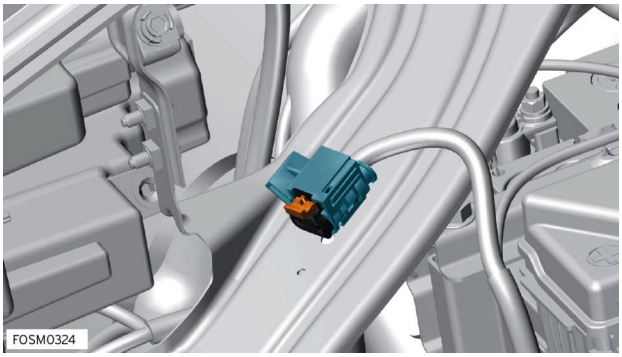



4. Remove oil filler plug.
5. Top up withFUCHS Blu EV EG EDF 7727 until oil level reaches lower edge of filler hole.
6. Install old oil filler plug.
7. Start vehicle on the lift to a speed of 40 mph (60 km/h) for approximately 1 minute.
8. Remove and discard oil filler plug.
9. Check oil level reaches lower edge of oil filler hole.
10. If oil level is low, top up with FUCHS Blu EV EG EDF 7727 until oil level reaches lower edge of filler hole.
11. Install new oil filler plug. **Torque 21 Nm**.
12. Wipe clean any spillages.
13. Install rear underbody cover.

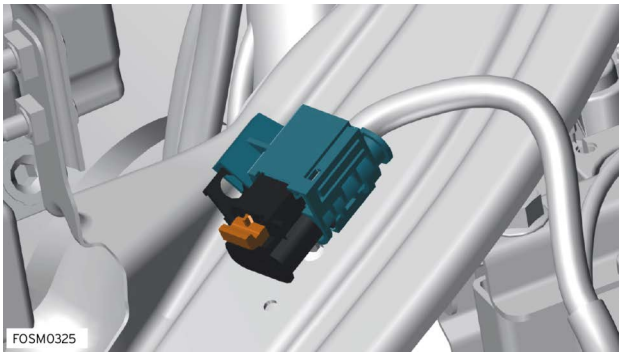
## Deactivate/Activate - High Voltage Battery System

### Deactivate

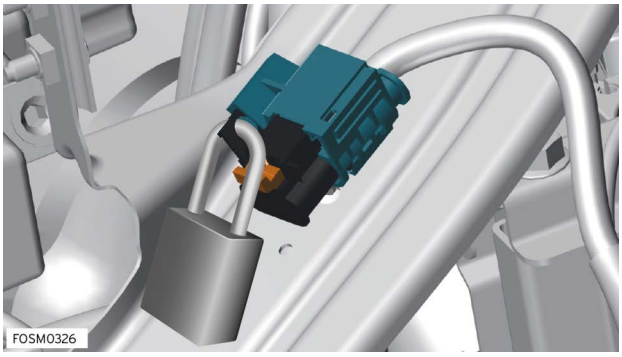
1. Open hood. Refer to Open Hood.




2. Press red tab on high voltage deactivate switch.




3. Pull out red tab and fully extend black connector from high voltage deactivate switch.

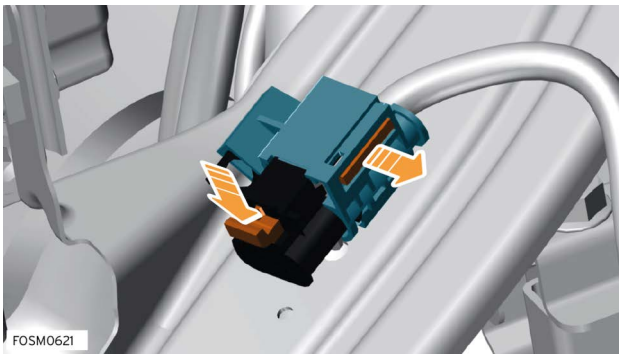



4. Secure a suitable padlock through the hole on black connector of high voltage deactivate switch.
5. Verify the absence of high voltage.

**WARNING: High-voltage cables and components may remain energized for up to 5 minutes after isolating.**

### Activate

1. Release padlock from black connector of high voltage deactivate switch.




2. Using a suitable tool, release clip on right side of high voltage deactivate switch while also pressing down red tab.
3. Push in red tab to fully secure black connector into high voltage deactivate switch.
4. Secure hood.

## High Voltage Battery Pack

### Removal

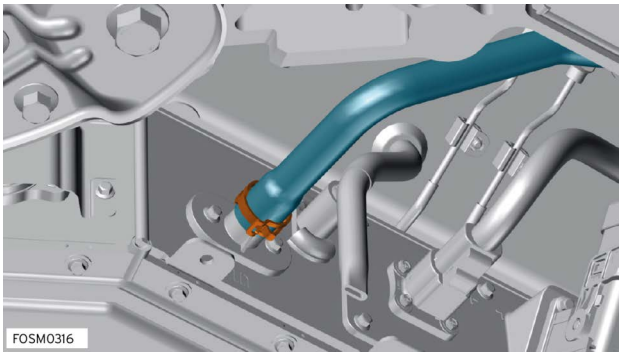
1. Deactivate the high voltage system. Refer to Deactivate/Activate - High Voltage Battery System.

**WARNING: High-voltage cables and components may remain energized for up to 5 minutes after isolating.**

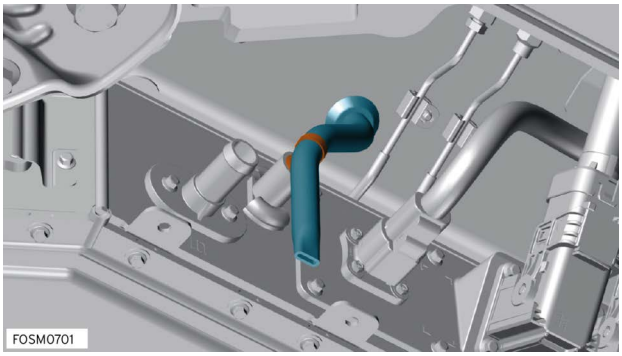
2. Raise and support vehicle on a 2 post lift. Refer to Raise and Support Vehicle - 2 Post Lift.
3. Remove LH front fender liner. Refer to Fender Liner - Front - LH.
4. Remove RH front fender liner.

   *NOTE: Procedure is the same as for left side component.*
5. Drain coolant. Refer to Coolant Drain & Refill - Energy Storage.

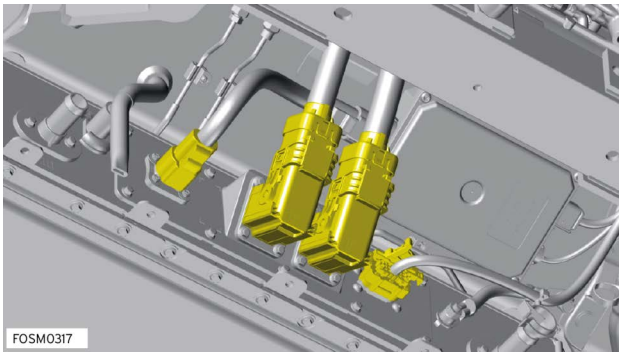
**WARNING: Risk of scalding. Allow coolant to cool completely before proceeding.**



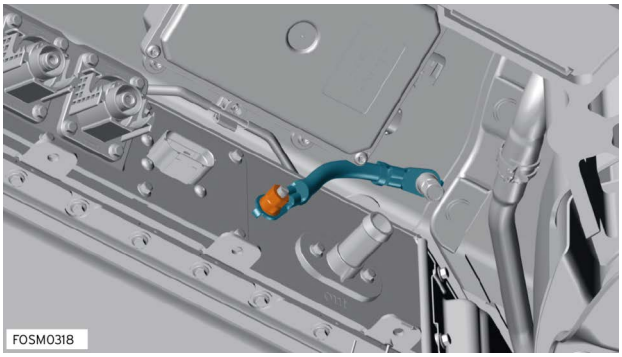

6. Release hose clamp securing coolant hose to high voltage battery pack.
7. Disconnect coolant hose from high voltage battery pack.



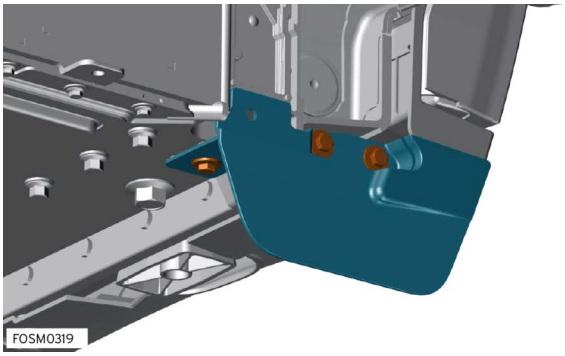

8. Release clip securing drain hose to high voltage battery pack.




9. Disconnect harness connectors (x4) from high voltage battery pack.



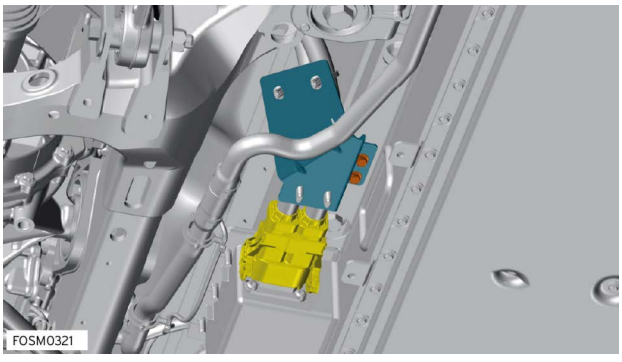

10. Remove nut securing ground cable to high voltage battery pack. **Torque 9 Nm.**
11. Release ground cable from high voltage battery pack.
12. Remove LH rear fender liner. Refer to Fender Liner - Rear - LH.
13. Remove RH rear fender liner.
14. Remove rear underbody cover. Refer to Underbody Cover - Rear.



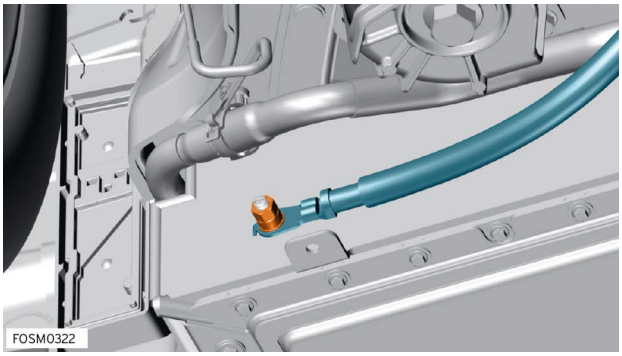

15. Remove M6x16 bolts (x3) securing LH rear air flap to high voltage battery pack and chassis. **Torque 3.5 Nm.**
16. Remove LH rear air flap.



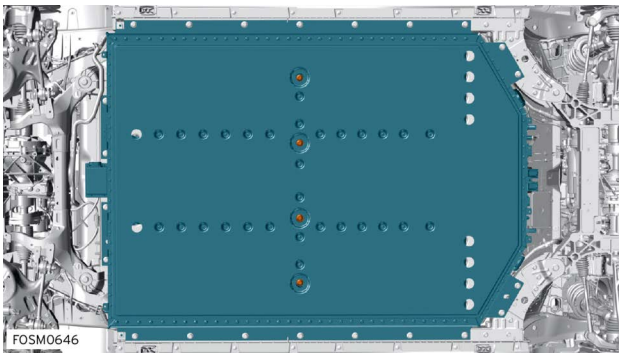

17. Remove M6x16 bolts (x3) securing RH rear air dam to high voltage battery pack and chassis. **Torque 3.5 Nm.**
18. Remove RH rear air dam.




19. Remove M6x16 bolts (x2) securing bracket to high voltage battery pack. **Torque 9 Nm.**
20. Disconnect harness connector from high voltage battery pack.

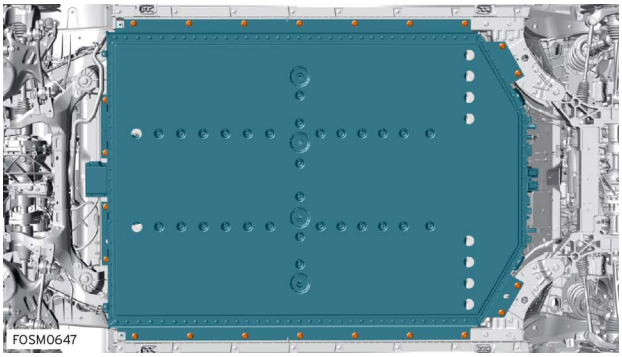



21. Remove nut securing ground cable to high voltage battery pack. **Torque 9 Nm.**
22. Disconnect ground cable from high voltage battery pack.




23. Remove M12x140 bolts (x4) securing high voltage battery pack to chassis.
24. Support high voltage battery pack using battery table.

**WARNING: Make sure the battery table is centrally located and is supporting the weight of the high voltage battery pack. The high voltage battery pack is very heavy and could cause serious injury if not correctly supported.**




25. Remove M12x50 bolts (x22) securing high voltage battery pack to chassis.

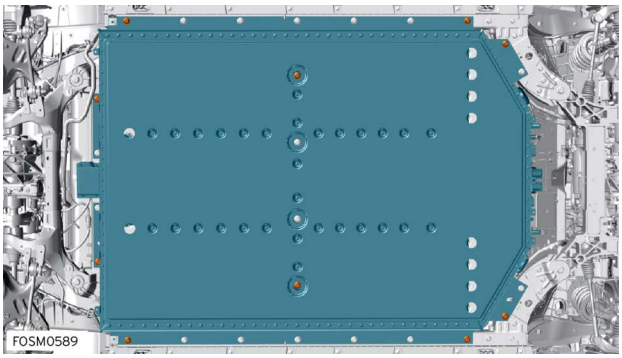



26. Lower battery table and remove high voltage battery pack.

### Installation

1. Installation is the reverse of removal procedure except for the following:
2. Raise battery table and align high voltage battery pack to fixing locations.

**CAUTION: Do not force high voltage battery pack into position as damage may occur.**




3. Pre-tighten bolts (x10) securing high voltage battery pack to chassis in a diagonal sequence.**Torque 10 +/-2 Nm.**
4. Lower battery table.
5. Pre-tighten bolts (x16) securing high voltage battery pack to chassis in a diagonal sequence. **Torque 10 +/-2 Nm.**
6. Tighten bolts (x26) securing high voltage battery pack to chassis in a diagonal sequence. **Torque 85 +/-6 Nm.**

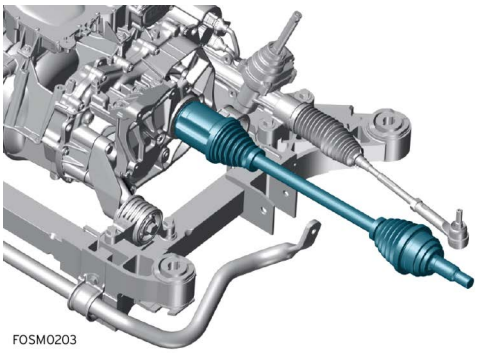
## Electric Drive Unit (EDU) - Front

### Removal

1. Deactivate high voltage battery system. Refer to Deactivate/Activate - High Voltage Battery System.

**WARNING: High-voltage cables and components may remain energized for up to 5 minutes after isolating.**

2. Drain coolant. Refer to Coolant Drain & Refill - Powertrain.
3. Remove front subframe assembly. Refer to Subframe Assembly - Front.


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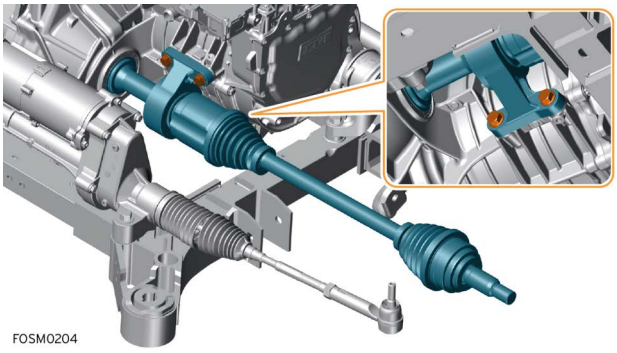
4. Release LH halfshaft from electric drive unit.

**CAUTION: Take care not to damage the electric drive unit oil seal to prevent leaks.**

*NOTE: Use a suitable container to collect any oil spillage.*

5. Remove LH halfshaft and discard snap ring.

**CAUTION: Install cap to electric drive unit to prevent further oil escaping.**


FOSM0204

6. Remove M10x40 bolts (x4) securing RH halfshaft to electric drive unit. **Torque 60 Nm.**
7. Release RH halfshaft from electric drive unit.

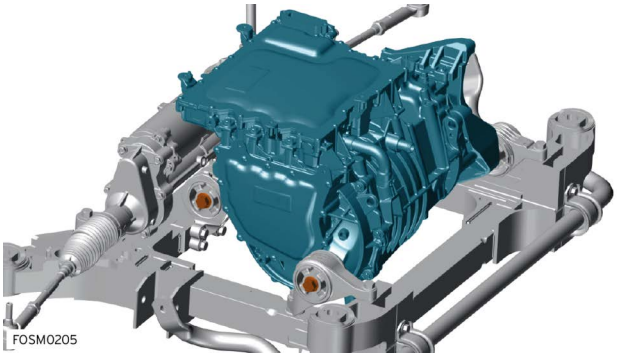
**CAUTION: Take care not to damage the electric drive unit oil seal to prevent leaks.**

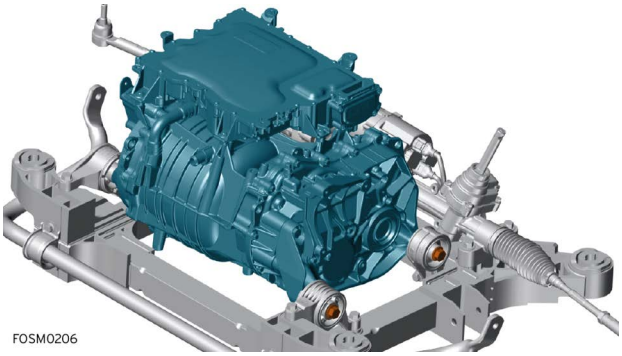
*NOTE: Use a suitable container to collect any oil spillage.*

8. Remove RH halfshaft.

**CAUTION: Install cap to electric drive unit to prevent further oil escaping.**

9. Install suitable lifting equipment to electric drive unit.

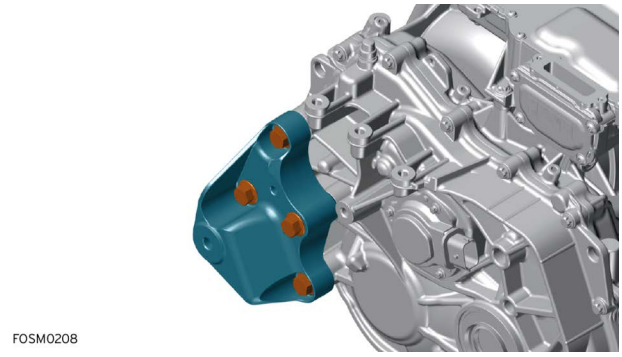

FOSM0205


FOSM0206

10. Remove M14x90 bolts (x4) securing electric drive unit to front subframe. **Torque 150 Nm.**
11. Using suitable lifting equipment slowly lift and remove electric drive unit.


FOSM0207

12. Remove M10x35 Torx bolts (x5) securing AC compressor bracket to electric drive unit. **Torque 62 Nm.**
13. Remove AC compressor bracket.


FOSM0208

14. Remove M12x45 bolts (x4) securing mounting bracket to electric drive unit. **Torque 100 Nm.**
15. Remove mounting bracket.

**Installation**

1. Installation is the reverse of removal procedure except for the following:
2. Renew discarded snap ring.
3. Apply lithium based grease (Divinol Fett LC2 EP 200 or equivalent) to inboard LH halfshaft splines before installation.

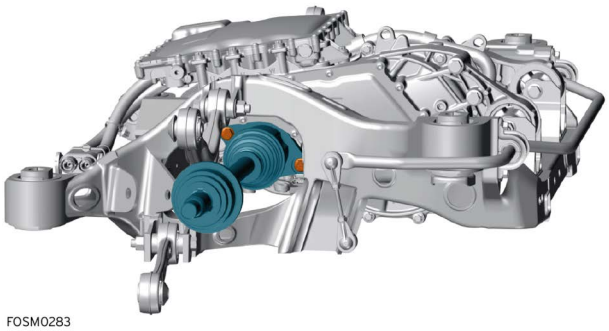
   *NOTE: Applying grease will keep snap ring in place and aide installation of halfshaft to electric drive unit.*
4. Check and top up oil if necessary. Refer to Oil Level Check & Top Up - EDU - Front.

## Electric Drive Unit (EDU) - Rear

### Removal

1. Drain coolant. Refer to Coolant Drain & Refill - Powertrain.
2. Remove rear subframe assembly. Refer to Subframe Assembly - Rear.

**WARNING: High-voltage cables and components may remain energized for up to 5 minutes after isolating.**



FOSM0283

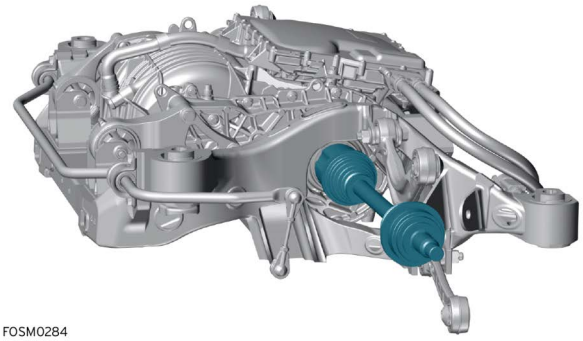
3. Remove M10x45 bolts (x2) securing LH halfshaft to electric drive unit. **Torque 60 Nm.**
4. Release LH halfshaft from electric drive unit.

**CAUTION: Take care not to damage the electric drive unit oil seal to prevent leaks.**

*NOTE: Use a suitable container to collect any oil spillage.*

5. Remove LH halfshaft.

**CAUTION: Install cap to electric drive unit to prevent further oil escaping.**



FOSM0284

6. Release RH halfshaft from electric drive unit.

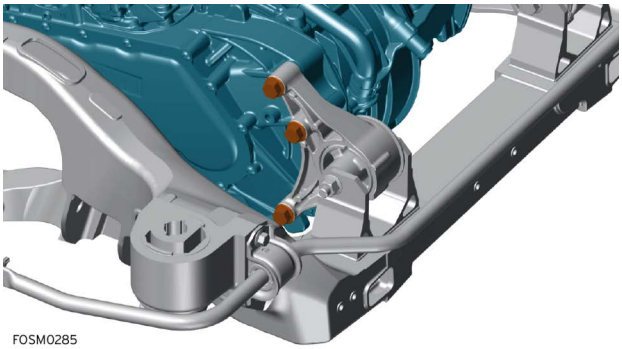
**CAUTION: Take care not to damage the electric drive unit oil seal to prevent leaks.**

*NOTE: Use a suitable container to collect any oil spillage.*

7. Remove RH halfshaftand discard snap ring.

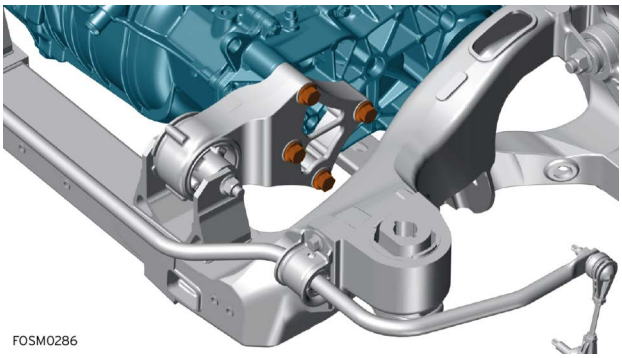
**CAUTION: Install cap to electric drive unit to prevent further oil escaping.**

8. Install suitable lifting equipment to electric drive unit.



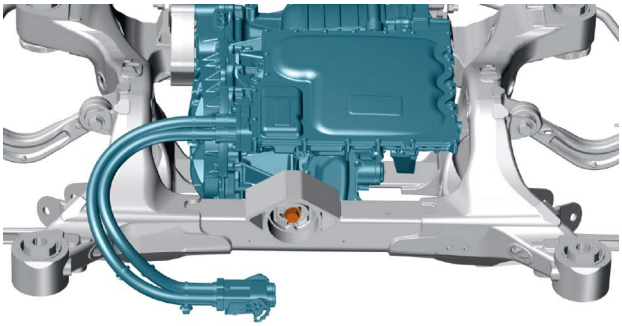
FOSM0285

9. Remove M12x60 bolts (x3) securing electric drive unit to rear LH mounting bracket.**Torque 100 Nm.**



FOSM0286

10. Remove M12x70 bolts (x4) securing electric drive unti to rear RH mounting bracket.



FOSM0287

11. Remove and discard M14x90 bolt securing electric drive unit to rear subframe. **Torque 150 Nm +45 degrees.**

**WARNING: These fasteners have been torqued to a specification where the threads may have been damaged or stretched. Always discard and replace with new on installation.**

12. Using suitable lifting equipment slowly lift and remove electric drive unit.

### Installation

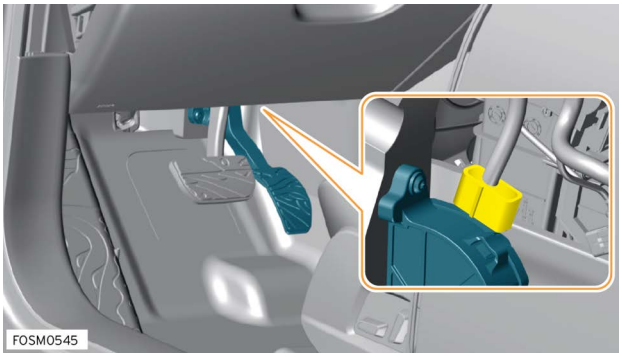
1. Installation is the reverse of the removal procedure except for the following:
2. Replace all discarded bolts.
3. Renew discarded snap ring.
4. Apply lithium based grease (Divinol Fett LC2 EP 200 or equivalent) to inboard RH halfshaft splines before installation.

   *NOTE: Applying grease will keep snap ring in place and aide installation of halfshaft to electric drive unit.*
5. Check and top up oil if necessary. Refer to Oil Level Check & Top Up - EDU - Rear.

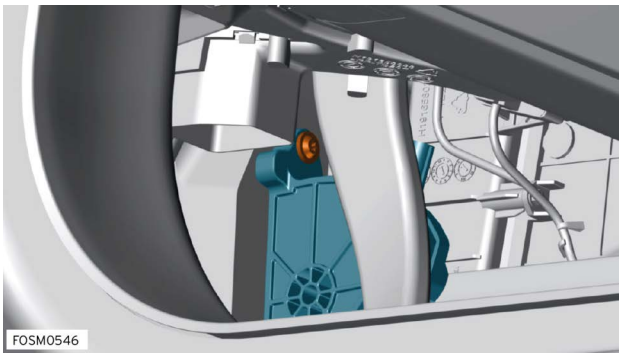
## Accelerator Pedal Assembly

### Removal

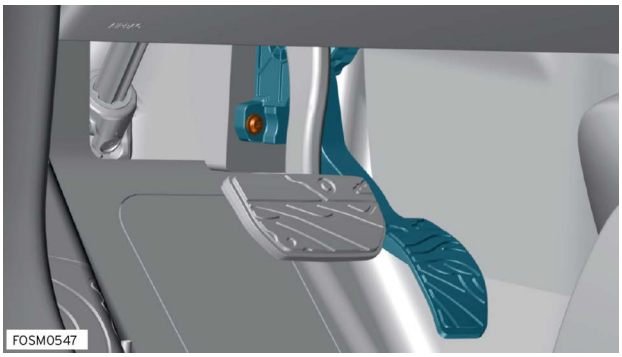
1. Remove driver`s hush panel. Refer to Hush Panel - Driver.




2. Disconnect harness connector from accelerator pedal.




3. Remove screw securing accelerator pedal to brake pedal assembly. **Torque 7 Nm.**




4. Remove screw securing accelerator pedal to brake pedal assembly. **Torque 7 Nm.**
5. Remove accelerator pedal.

### Installation

1. Installation is the reverse of removal procedure.

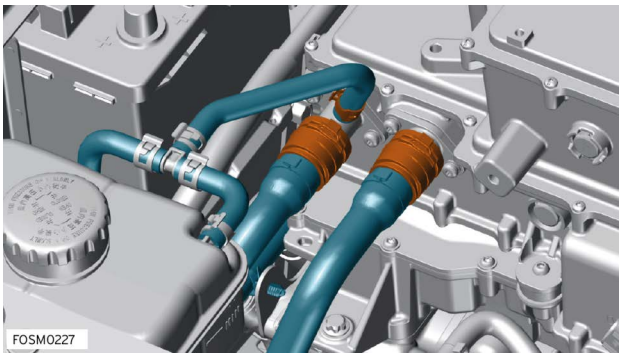
## Power Distribution Unit

### Removal

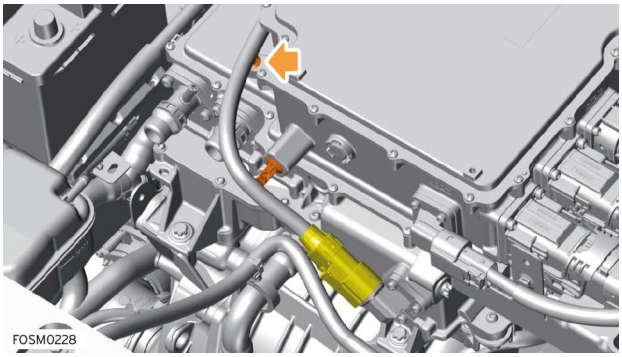
1. Deactivate the high voltage system. Refer to Deactivate/Activate - High Voltage Battery System.

**WARNING: High-voltage cables and components may remain energized for up to 5 minutes after isolating.**

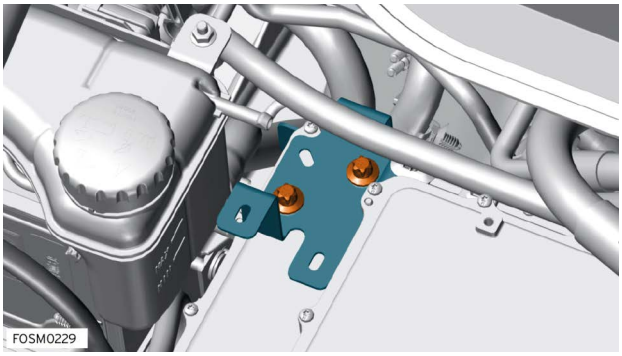
2. Remove vehicle control unit. Refer to Vehicle Control Unit (VCU).
3. Drain coolant. Refer to Coolant Drain & Refill - Powertrain.



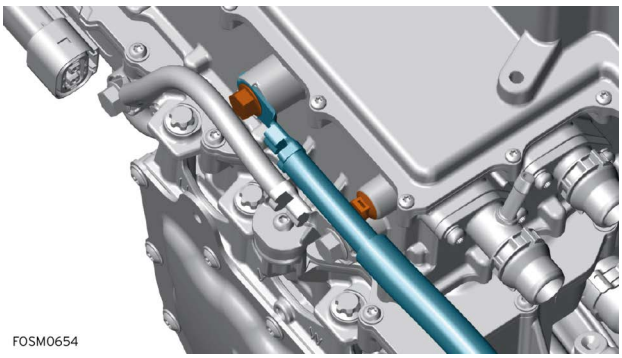

4. Release clips (x3) securing coolant hoses to power distribution unit (PDU).
5. Disconnect coolant hoses (x3) from PDU.




6. Release clips (x2) securing high voltage harness to PDU.
7. Disconnect harness connector from PDU.



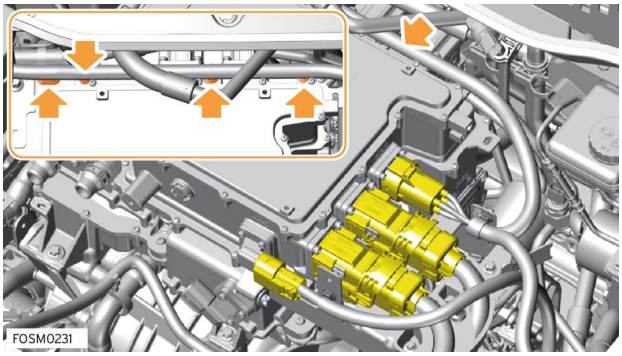

8. Remove M8x12 Torx bolts (x2) securing mounting bracket to PDU. **Torque 9 Nm.**
9. Remove mounting bracket.



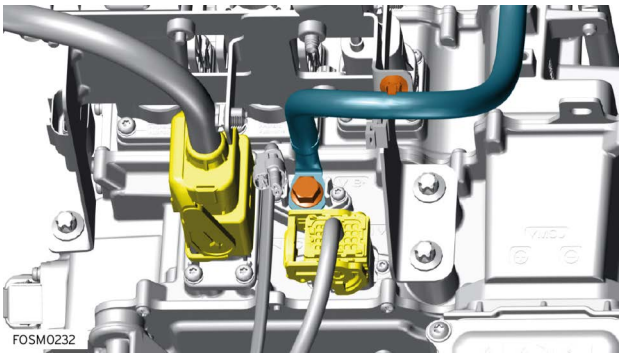

10. Release clip securing ground cable to PDU.
11. Remove M8x20 bolt securing ground cable to PDU. **Torque 21 Nm**.



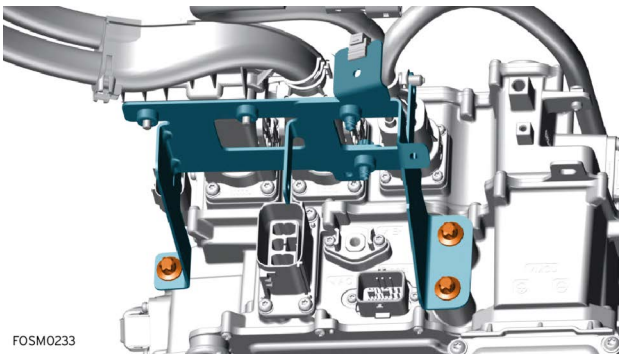

12. Remove M8x16 bolt securing ground cable to PDU. **Torque 21 Nm.**



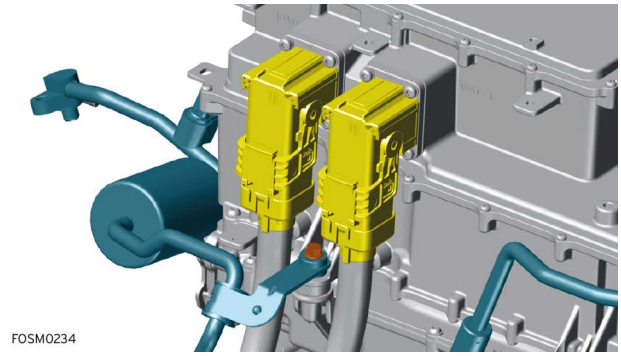

13. Release clips (x4) securing high voltage harness to PDU.
14. Disconnect high voltage harness connectors (x4) from PDU.



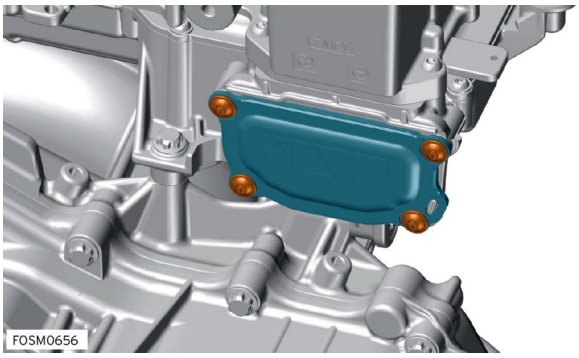

15. Release clip securing engine harness to PDU.
16. Disconnect harness connectors (x2) from PDU.
17. Remove bolt securing ground cable to PDU.**Torque 21 Nm.**



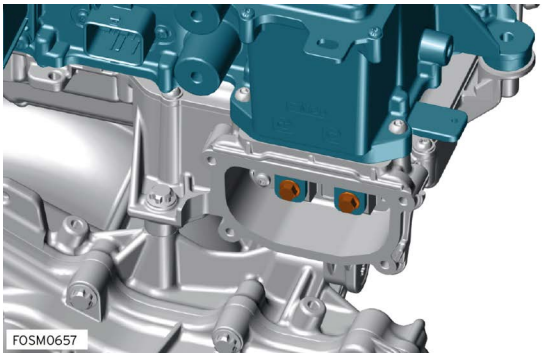

18. Remove M8x16 Torx bolts (x3) securing mounting bracket to PDU.**Torque 9 Nm.**
19. Remove mounting bracket.



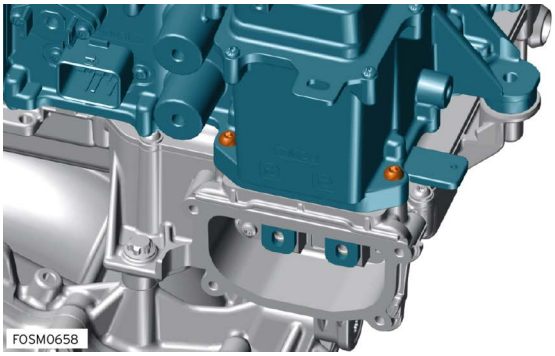

20. Remove M6x40 bolt securing AC pipe to PDU. **Torque 9 Nm.**
21. Disconnect harness connectors (x2) from PDU.



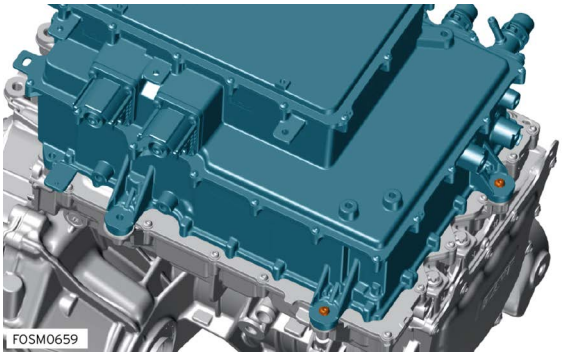

22. Remove M6x16 Torx screws (x4) securing service lid to PDU. **Torque 7.8 Nm.**
23. Remove service lid.



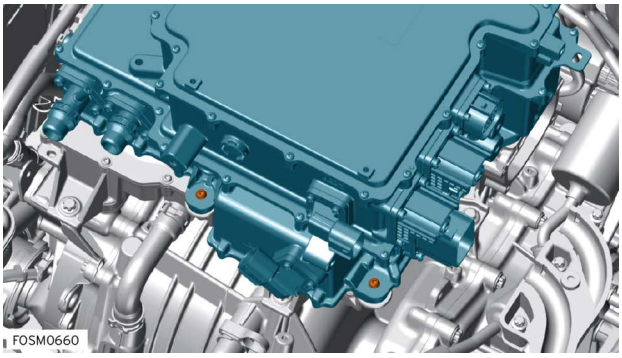

24. Remove M5x12 bolts (x2) securing PDU terminals to electric drive unit. **Torque 5 Nm.**




25. Remove M6x25 Torx bolts (x2) securing PDU to electric drive unit. **Torque 9 Nm.**




26. Remove M6x25 Torx bolts (x2) securing PDU to electric drive unit. **Torque 9 Nm.**




27. Remove M6x25 Torx bolts (x2) securing PDU to electric drive unit. **Torque 9 Nm.**
28. Using assistance remove PDU.

**WARNING: The PDU weighs approximately 19 kg and could cause serious injury if not lifted correctly.**

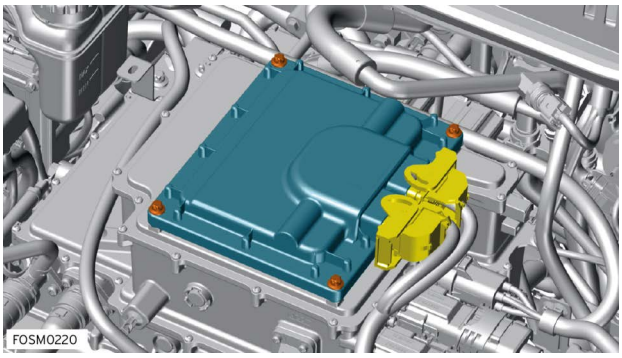
### Installation

1. Installation is the reverse of the removal procedure.
2. After installation perform the programming/calibration procedure and delete DTC's using the Fisker Aftersales Service Tool

## Vehicle Control Unit (VCU)

### Removal

1. Disconnect 12V battery. Refer to Battery Disconnect - 12V.




2. Disconnect harness connectors (x2) from Vehicle Control Unit (VCU).
3. Remove M6x30 Torx bolts (x4) securing VCU to power distribution unit. **Torque 4 Nm.**
4. Remove VCU.

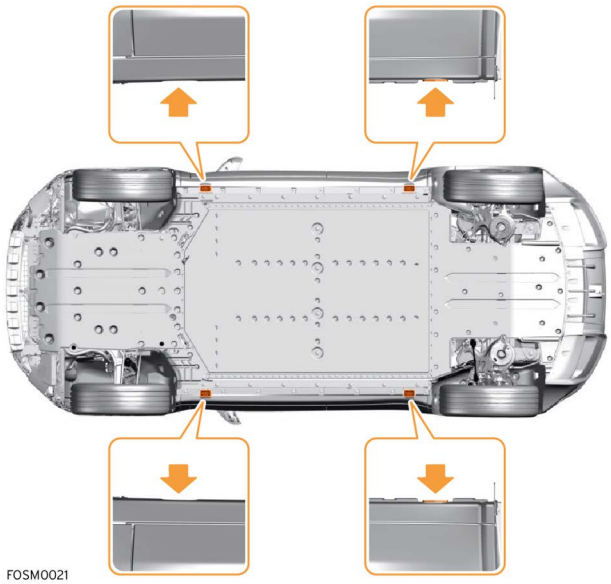
### Installation

1. Installation is the reverse of the removal procedure except for the following:
2. After installation perform the programming/calibration procedure and delete DTC's using the Fisker Aftersales Service Tool.

## Raise and Support Vehicle - 2 Post Lift

### Lifting and Supporting the Vehicle

1. Position the vehicle evenly between the uprights of the 2 post lift.




2. Position the arms under the lifting points (shown in illustration) on both sides of the vehicle.

**CAUTION: The lifting arms must be positioned to lift the vehicle using the vehicle frame only. You may need to change the pads on the lift arms to ensure that you can raise the vehicle securely on the vehicle frame. Do not use any of the suspension arms/links to raise the vehicle.**

**CAUTION: These are the only approved lifting points for lifting the vehicle on a 2 post lift. Positioning the lift arms too far under the vehicle may cause damage to the high voltage battery pack. Positioning the lift arms too far forward or rearward may cause the vehicle to become unstable on the lift when components are removed.**

3. Raise vehicle until the wheels are just clear of the ground and then check the position of the lift arms and the stability of the vehicle on the lift. If necessary lower lift and reposition the lift arms.

**WARNING: Never work on an incorrectly supported vehicle. Always check the stability of the vehicle on the lift equipment and if necessary position additional support equipment when removing large/heavy components.**

4. Raise vehicle to required height.

   *NOTE: Raise the vehicle to a height where you can easily work on and support the component being removed. Raising the vehicle to make it easier to access fasteners may mean you have to readjust the vehicle height as you are trying to remove the component, or find you cannot support the component weight while overhead.*

## Raise and Support Vehicle - Mobile Service Jack/Jackstand Lifting

### Lifting and Supporting the Vehicle

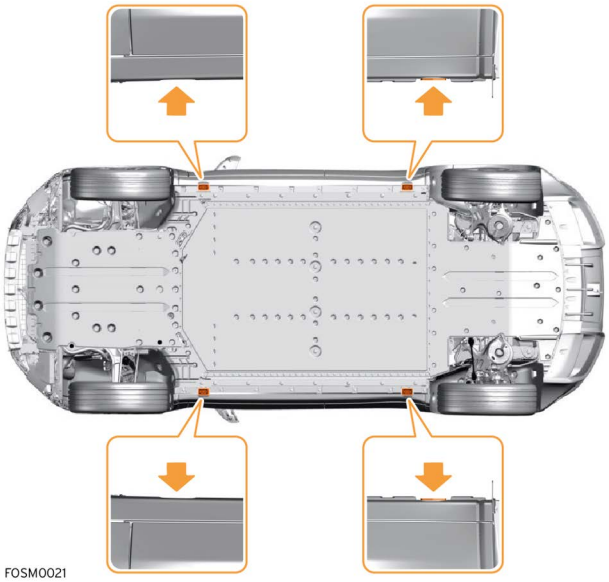
1. Position vehicle on a flat, horizontal surface.
2. Using a suitable jack, raise vehicle until the wheels are just clear of the ground and then check the position of the jack and the stability of the vehicle on the jack. If necessary lower lift and reposition the jack.

**WARNING: Never work on an incorrectly supported vehicle. Always check the stability of the vehicle on the lift equipment and if necessary position additional support equipment when removing large/ heavy components.**

**CAUTION: Do not use any of the suspension arms/links to raise the vehicle.**

3. Raise vehicle to required height.

   *NOTE: Raise the vehicle high enough on opposite side of vehicle that needs to be serviced.*




4. Once vehicle is lifted high enough, a jack stand can be placed under the lifting points (shown in illustration) to safely support the vehicle on the side the service is being performed on.

**CAUTION: These are the only approved lifting points for lifting the vehicle. Positioning the jackstands too far under the vehicle may cause damage to the high voltage battery pack. Positioning the jackstands too far forward or rearward may cause the vehicle to become unstable when components are removed.**

## Wheel Alignment - Adjust

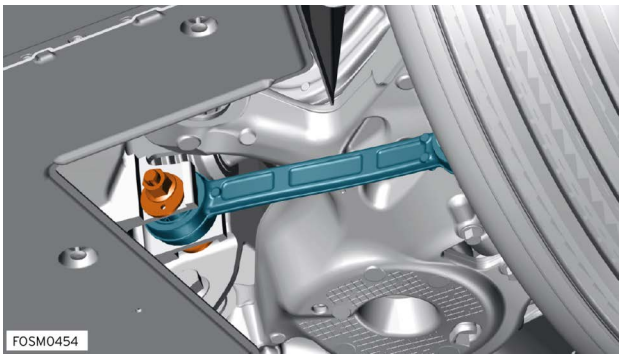
### Check

1. Check all tires and tire sizes are the same.
2. Ensure tire pressures are correct and vehicle is at kerbside weight.
3. Roll vehicle backwards and forwards to relieve stresses in steering and suspension.
4. Ensure that equipment is properly calibrated.
5. Check front and rear wheel alignments are within tolerance.

   *NOTE: Refer to procedure for each individual suspension component replaced to know if an alignment is needed.*

### Rear Toe Adjustment

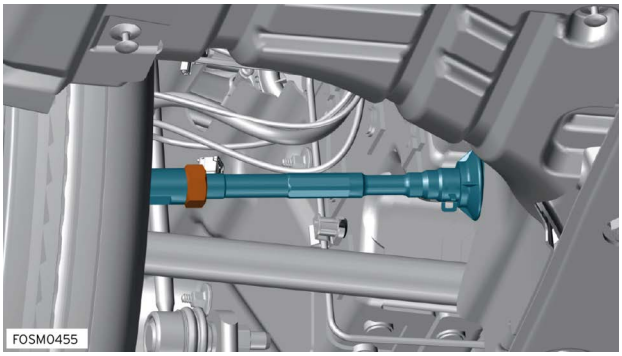
1. Mark position of tie link assemblies on rear subframe for reference.
2. Ensure steering wheel is centered with the front wheels in the straight ahead position.




3. Loosen M14 nut and M14x90 bolt securing toe link assemblies to rear subframe.
4. Adjust toe link assemblies to obtain correct alignment.
5. Recheck rear wheel alignment.
6. Tighten M14 nut and M14x90 bolt securing toe link assemblies to rear subframe. **Torque 170 Nm.**

### Front Toe Adjustment

1. Mark position of outer tie rods on inner tie rods for reference.




2. Loosen outer tie rod locknuts.
3. Rotate tie rods to obtain correct alignment.

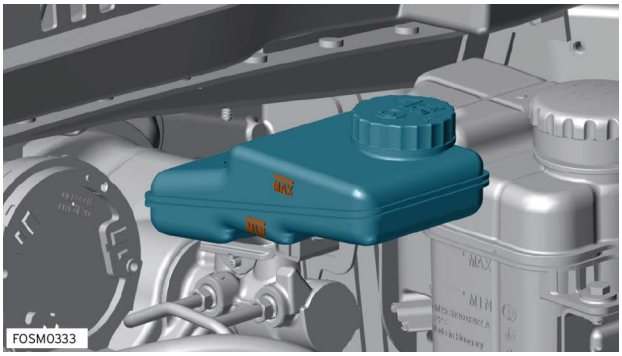
**CAUTION: Both tie rods should be rotated an equal amount.**

4. Recheck front wheel alignment.
5. Tighten tie rod locknuts. **Torque 85 Nm.**
6. Perform a road test to ensure steering wheel is straight and vehicle is tracking straight.

## Brake System - Bleed

### Check

1. Open hood. Refer to Open Hood.

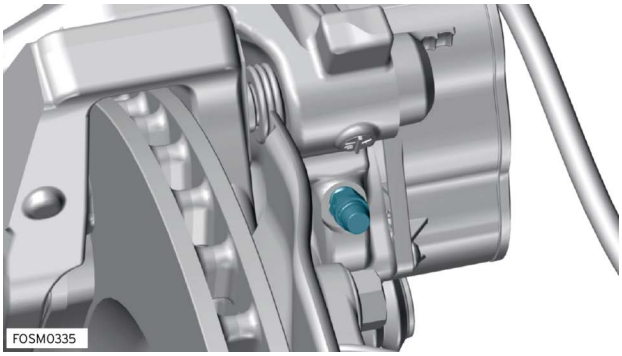



2. Visually check the brake fluid level in the reservoir. The level should be between the **MIN** and **Max** marks.
3. If the brake fluid level is low, or closer to the **MIN** mark than the **MAX** mark, top up with the recommended brake fluid.
4. Raise and support vehicle. Refer to Raise and Support Vehicle - 2 Post Lift.
5. Remove wheels (x4).
6. Ensure brake system is mechanically complete.
7. Ensure all hydraulic connections are secure.

### Routine Bleeding




1. Remove brake fluid reservoir cap.
2. Connect bleeding unit to brake fluid reservoir.
3. Turn ON bleeding unit and set pressure to 2 bar admission pressure.




4. Remove rubber cap from bleed screw on RH rear caliper.
5. Connect clear plastic hose to nipple of bleed screw.
6. Place other end of hose into a disposable bottle.

   *NOTE: Dispose used brake fluid appropriately.*
7. Loosen bleed screw until bubble-free brake fluid emerges.
8. Tighten bleed screw. **Torque 10 Nm.**
9. Disconnect clear plastic hose to nipple from bleed screw.
10. Clean nipple on bleeder screw.
11. Install rubber cap to bleed screw.
12. Repeat steps **4** through **11** for LH rear caliper, RH front caliper and LH front caliper.
13. Check pedal travel.
14. If necessary, repeat steps **4** through **13**.
15. If required, top up brake fluid reservoir to the **MAX** level indicator with the recommended brake fluid.

### Secondary Circuit Bleeding

1. Connect tester to onboard diagnostic socket and turn ON ignition.

   *NOTE: Secondary circuit bleeding is only to be carried out if a definite diagnosis can be made of soft brake pedal or excessive pedal travel after the routine bleeding has been performed.*

2. Follow reader onscreen instructions to start communication setup and perform system check. The ABS ESP lamp comes ON.
3. Follow reader onscreen instructions to bleed LH front caliper and LH rear caliper.

   *NOTE: While the secondary circuit bleeding is in progress, the brake pedal must be pressed in pulses to increase the pressure.*

   *NOTE: Before completion of the secondary circuit bleeding, bubble-free brake fluid must emerge. If necessary, the secondary circuit bleeding must be repeated.*
4. When the secondary circuit bleeding procedure is successfully completed the ASB ESP lamp goes OFF.

   *NOTE: If a fault is detected during secondary circuit bleeding, the reader displays an error message and terminates the procedure. The ABS ESP lamp remains ON.*
5. Turn OFF ignition and disconnect tester from onboard diagnostic socket.

**Closure**

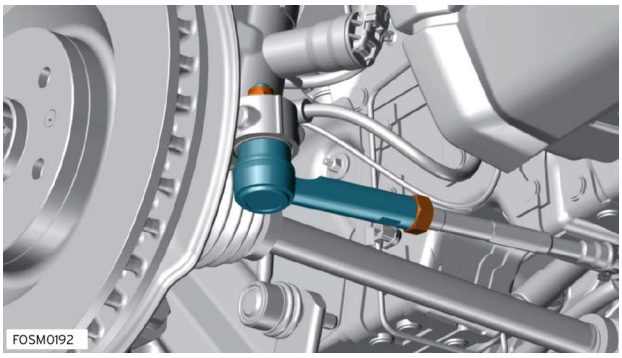
1. Turn OFF bleeding unit and disconnect from brake fluid reservoir.
2. Install brake fluid reservoir cap.
3. Secure hood.
4. Install wheels.

**WARNING: After any work is performed on the braking system's hydraulically operated components, the risk of an accident is increased due to an impaired braking effect. Press the brake pedal several times to build up pressure in the brake system after finishing work and before starting the vehicle. Perform a short road test to ensure correct functionality.**

## Tie Rod - Outer - LH

### Removal

1. Remove front wheel. Refer to Wheel - Front - LH.




2. Loosen locknut securing outer tie rod on inner tie rod. **Torque 85 Nm.**

**CAUTION: To prevent tie rod damage always restrain tie rod with a wrench when loosening or tightening locknuts.**

3. Remove M12 nut securing outer tie rod to knuckle. **Torque 110 Nm.**

**CAUTION: Use an Allen key to restrain the shaft of the ball joint and prevent damage to the rubber boot.**

4. Using a suitable tool, release outer tie rod from knuckle.
5. Noting the number of turns required, unscrew outer tie rod from inner tie rod.

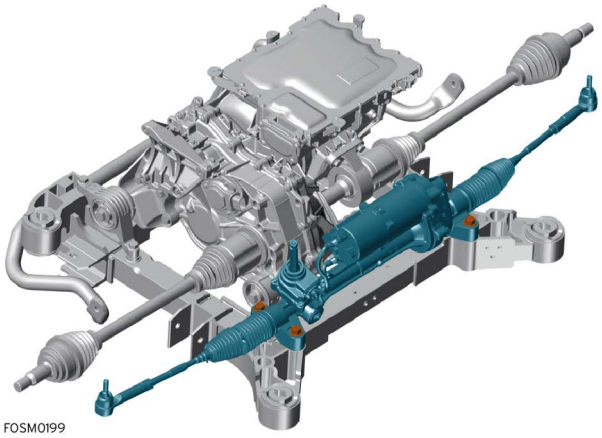
### Installation

1. Installation is the reverse of removal procedure except for the following:
2. Install outer tie rod using same number of turns as noted during removal.
3. Check and adjust wheel alignment. Refer to Wheel Alignment - Adjust.

## Steering Gear - Electric

### Removal

1. Remove front subframe assembly. Refer to Subframe Assembly - Front.




2. Remove and discard M14x70 bolts (x3) securing steering gear to front subframe assembly. **Torque 90 Nm +45 degrees.**

**WARNING: These fasteners have been torqued to a specification where the threads may have been damaged or stretched. Always discard and replace with new on installation.**

3. Remove steering gear.

***Do not carry out further disassembly if component is removed for access only.***




4. Remove seal from steering gear.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Ensure seal is correctly located between steering gear and vehicle.*

2. Clean component mating faces, prior to installation.

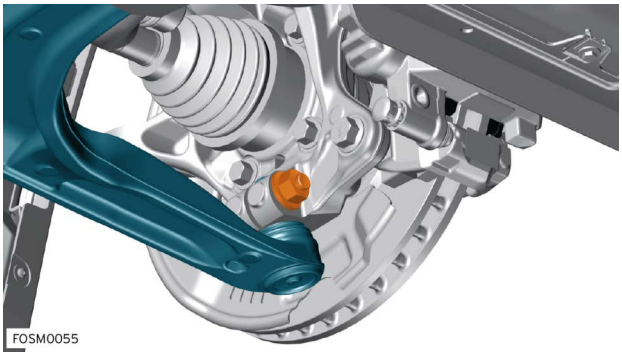
**WARNING: Only use cleaning agents and solvents in a well ventilated area.**

3. Replace all discarded bolts.
4. After installation perform the programming/calibration procedure and delete DTC's using the Fisker Aftersales Service Tool.

## Lower Control Arm Assembly - Front - LH

### Removal

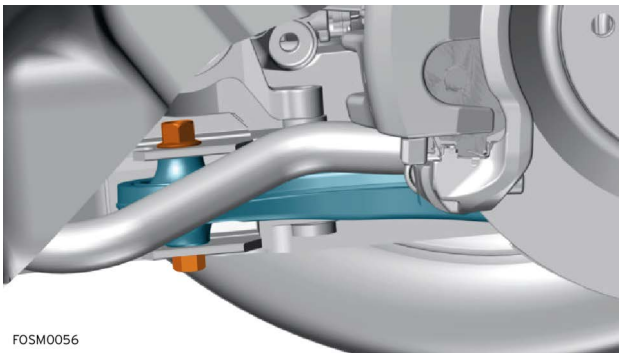
1. Remove front wheel. Refer to Wheel - Front - LH.
2. Remove front underbody cover. Refer to Underbody Cover - Front.



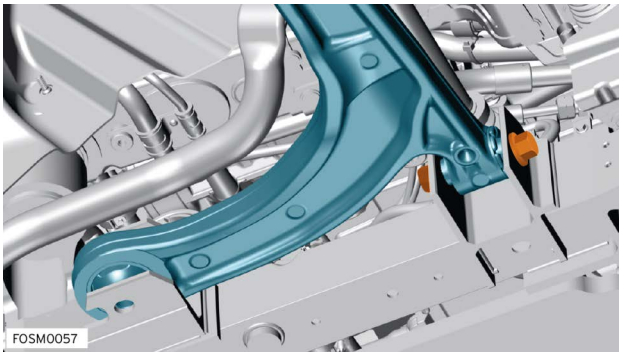

3. Remove and discard M12x70 bolt and M12 nut securing lower control arm ball joint to knuckle. **Torque 70 Nm +90 degrees.**

**WARNING: These fasteners have been torqued to a specification where the threads may have been damaged or stretched. Always discard and replace with new on installation.**

4. Using a suitable tool, release lower control arm ball joint from knuckle.




5. Remove M14x95 bolt and M14 nut securing lower control arm ball joint to front subframe. **Torque 170 Nm.**




6. Remove M14x95 bolt and M14 nut securing lower control arm ball joint to front subframe. **Torque 170 Nm.**
7. Remove lower control arm.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

**CAUTION: Only tighten suspension nuts and bolts when the suspension is in the ride height position.**

2. Renew all discarded fasteners.
3. Clean component mating faces, prior to installation.

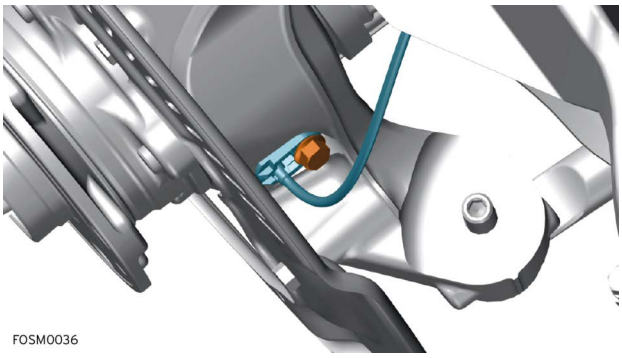
**WARNING: Only use cleaning agents and solvents in a well ventilated area.**

4. Check and adjust wheel alignment. Refer to Wheel Alignment - Adjust.

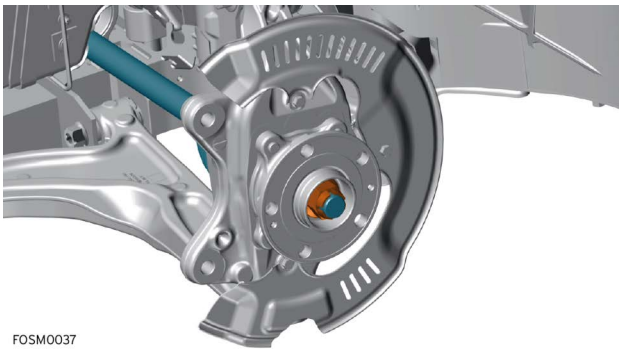
## Hub Bearing Assembly - Front - LH

### Removal

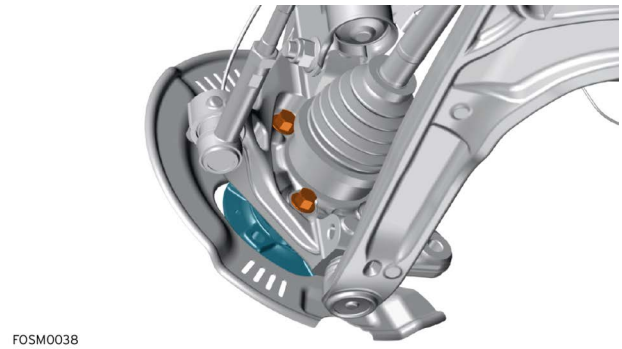
1. Remove front brake rotor. Refer to Brake Rotor - Front - LH.


FOSM0036

2. Remove M6x16 bolt securing wheel speed sensor to knuckle. **Torque 9 Nm.**
3. Remove wheel speed sensor from knuckle.


FOSM0037

4. Remove M24 nut securing drive shaft to hub bearing assembly. **Torque 230 Nm.**


FOSM0038


FOSM0039

5. Remove and discard M12x50 bolts (x4) securing hub bearing assembly to knuckle. **Torque 60 Nm +90 degrees.**

**WARNING: These fasteners have been torqued to a specification where the threads may have been damaged or stretched. Always discard and replace with new on installation.**


FOSM0040

6. Remove hub bearing assembly from knuckle.

### Installation

1. Installation is the reverse of the removal procedure except the following:

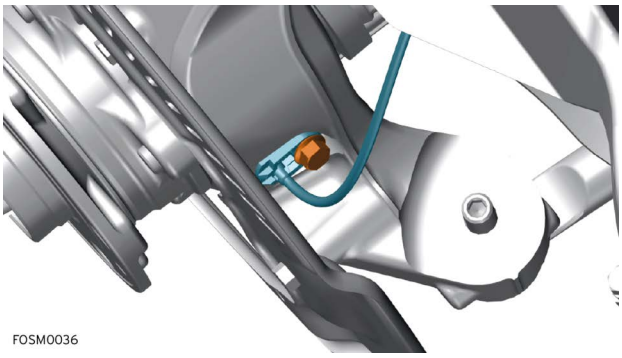
**CAUTION: When installing wheel speed sensor to knuckle, do not apply force greater than 10 kN to avoid damaging the wheel speed sensor.**

2. Renew all discarded fasteners.

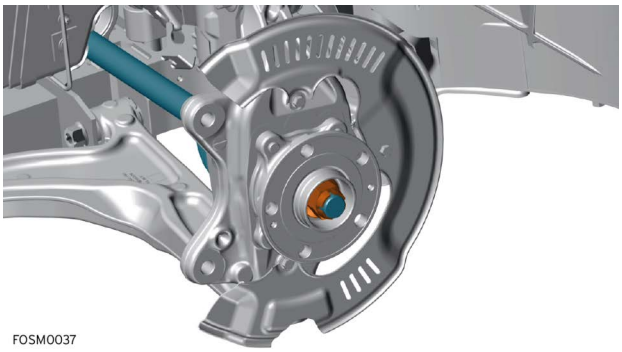
## Knuckle Assembly - Front - LH

### Removal

1. Remove front brake rotor. Refer to Brake Rotor - Front - LH.




2. Remove M6x16 bolt securing wheel speed sensor to knuckle. **Torque 9 Nm.**
3. Remove wheel speed sensor from knuckle.



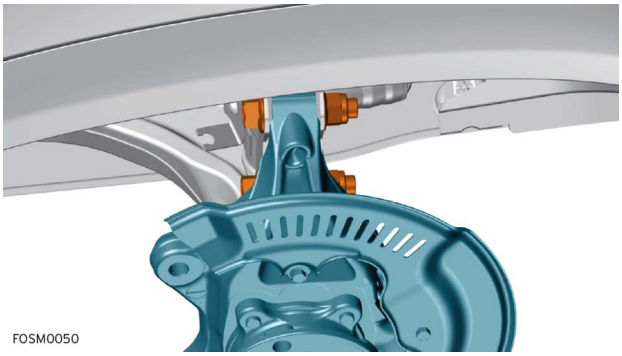

4. Remove M24 nut securing drive shaft to hub bearing assembly. **Torque 230 Nm.**




5. Remove M12 nut securing outer tie rod ball joint to knuckle.**Torque 110 Nm.**

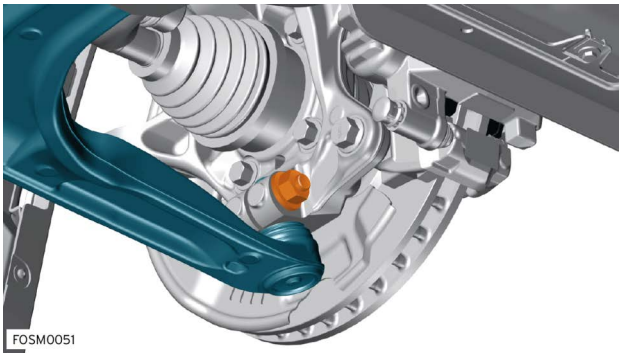
**CAUTION: Use an Allen key to restrain the shaft of the ball joint and prevent damage to the rubber boot.**

6. Using a suitable tool, release outer tie rod from knuckle.




7. Remove and discard M16 nuts (x2) M16x75 bolts (x2) securing spring assembly to knuckle. **Torque 210 Nm +45 degrees.**

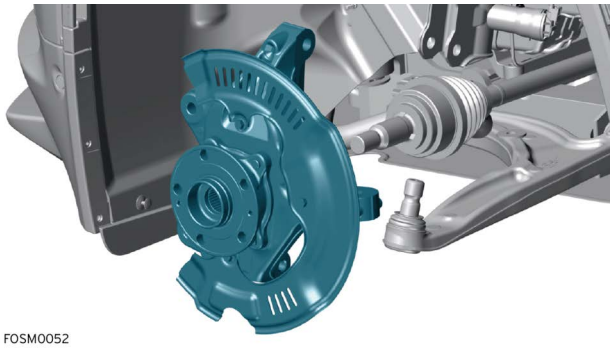
**WARNING: These fasteners have been torqued to a specification where the threads may have been damaged or stretched. Always discard and replace with new on installation.**




8. Remove and discard M12x70 bolt and M12 nut securing lower control arm ball joint to knuckle. **Torque 70 Nm +90 degrees.**

**WARNING: These fasteners have been torqued to a specification where the threads may have been damaged or stretched. Always discard and replace with new on installation.**

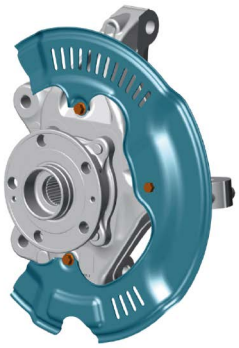
9. Using a suitable tool, release lower control arm ball joint from knuckle.



FOSM0052

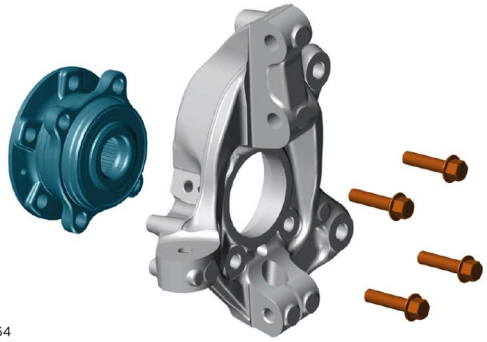
10. Remove knuckle.

***Do not carry out further disassembly if component is removed for access only.***



FOSM0053

11. Remove M6x10 bolts (x3) securing dust shield to knuckle. **Torque 10 Nm.**
12. Remove dust shield.



FOSM0054

13. Remove and discard M12x50 bolts (x4) securing hub bearing assembly to knuckle. **Torque 60 Nm +90 degrees.**

**WARNING: These fasteners have been torqued to a specification where the threads may have been damaged or stretched. Always discard and replace with new on installation.**

14. Remove hub bearing assembly from knuckle.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

**CAUTION: Only tighten suspension nuts and bolts when the suspension is in the ride height position.**

2. Renew all discarded fasteners.
3. Clean component mating faces, prior to installation.

**WARNING: Only use cleaning agents and solvents in a well ventilated area.**

4. Check and adjust wheel alignment. Refer to Wheel Alignment - Adjust.

## Shock Absorber - Front - LH

### Removal

1. Remove front spring assembly. Refer to Spring Assembly - Front - LH.
2. Assemble spring compressor and secure in a bench mounted vice.

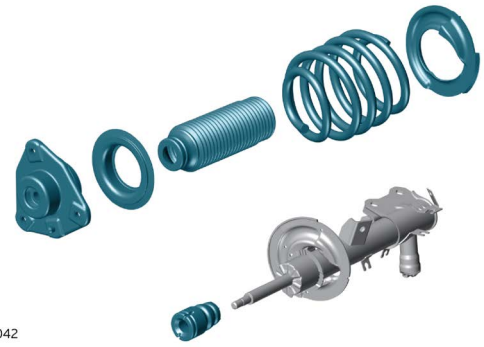
**WARNING: To avoid serious injury, use appropriate equipment to carry out this operation.**

3. Locate spring assembly on spring compressor. Tighten lead screw on spring compressor to compress spring enough to remove pressure on upper mounting plate.



FOSM0041

4. Remove dust cap from spring assembly.
5. Remove nut securing shock absorber to upper mount. **Torque 70 Nm.**
6. Release spring tension using spring compressor. Remove strut and spring assembly from compressor.



FOSM0042

7. Remove upper mount, upper spring isolator and dust shield from shock absorber.
8. Remove coil spring andlower spring isolator from shock absorber.
9. Remove jounce bumper from shock absorber.

### Installation

1. Installation is the reverse of the removal procedure except for the following:
2. Clean mating faces of all components, prior to installation.

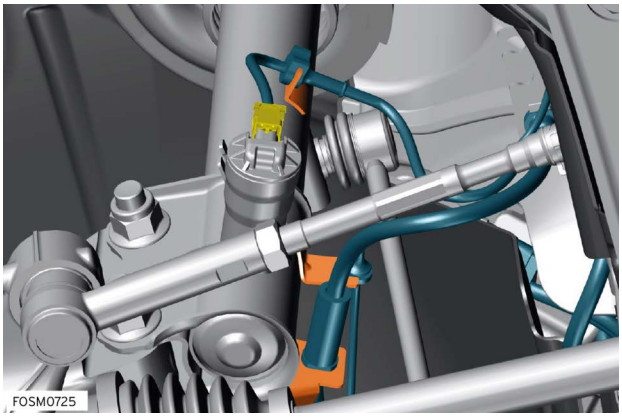
**WARNING: Only use cleaning agents and solvents in a well ventilated area.**

3. Ensure coil spring is correctly located in grooves on upper and lower mounts before releasing spring compressor.

## Spring Assembly - Front - LH

### Removal

1. Remove front fender. Refer to Fender - LH.
2. Remove LH wiper arm. Refer to Wiper Arm - LH.



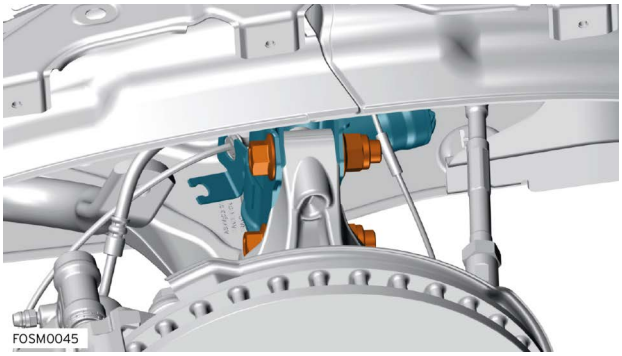

3. Release harnesses (x2) and front brake hose from spring assembly.
4. Release brake pipe from spring assembly.
5. Disconnect harness connector from spring assembly.




6. Remove M12 nut securing drop link to spring assembly. **Torque 70 Nm.**

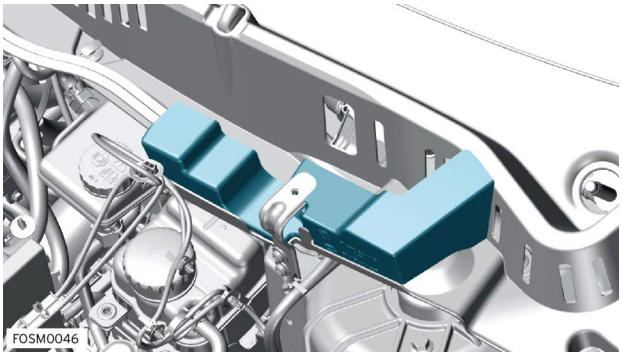
**CAUTION: Use a Torx driver to restrain the shaft of the ball joint and prevent damage to the rubber boot.**

7. Release LH drop link from spring assembly.




8. Remove and discard M16x75 bolts (x2) and M16 nuts (x2) securing spring assembly to knuckle. **Torque 210 Nm +45 degrees.**

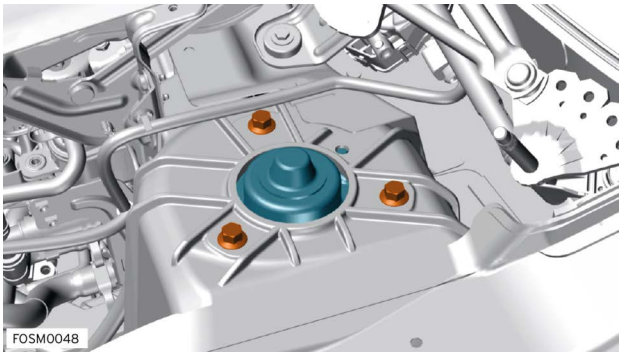
**WARNING: These fasteners have been torqued to a specification where the threads may have been stretched or damaged. Always discard and replace with new on installation.**




9. Remove LH insulator from cowl assembly.




10. Remove push pins (x2) securing cowl assembly to front wheel house.
11. Carefully lift cowl assembly to gain access to the spring assembly upper mounting bolts.




12. Remove M10x25 bolts (x3) securing spring assembly to front wheel house. **Torque 44 Nm.**
13. Remove spring assembly

### Installation

1. Installation is the reverse of the removal procedure except for the following:
2. Clean component mating faces, prior to installation.

**WARNING: Only use cleaning agents and solvents in a well ventilated area.**

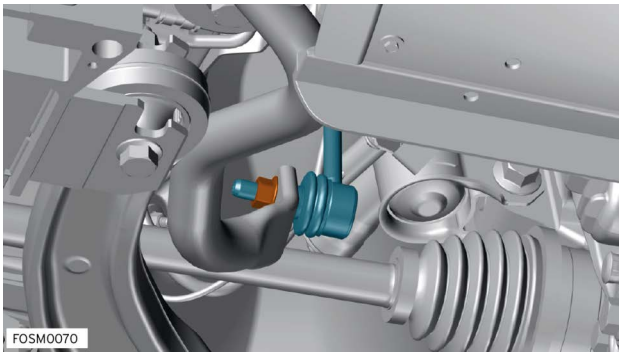
3. Renew all discarded bolts.

## Stabilizer Bar Assembly - Front

### Removal

1. Remove front LH wheel. Refer to Wheel - Front - LH.
2. Remove front RH wheel.

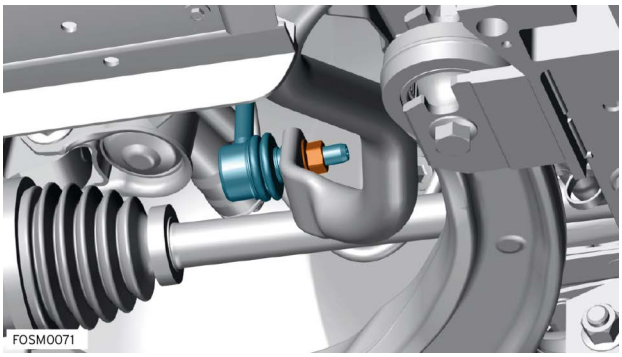
   *NOTE: Procedure is the same as for left side component.*
3. Remove front underbody cover. Refer to Underbody Cover - Front.




4. Remove M12 nut securing LH drop link to stabilizer bar. **Torque 70 Nm.**

**CAUTION: Use a Torx driver to restrain the shaft of the ball joint and prevent damage to the rubber boot.**

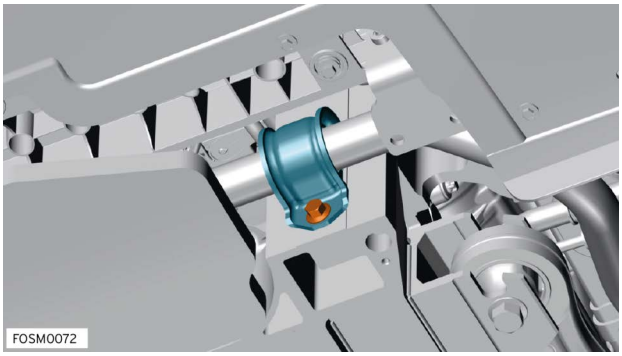
5. Release LH drop link from stabilizer bar.



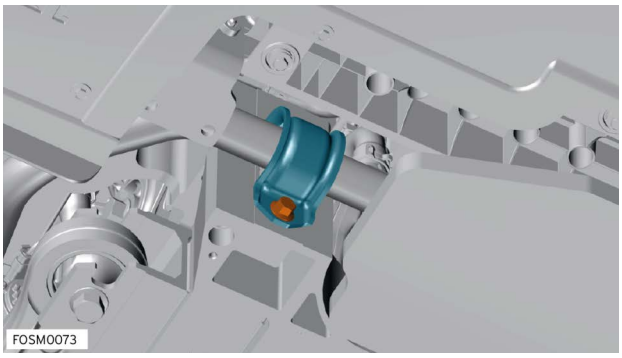

6. Remove M12 nut securing RH drop link to stabilizer bar. **Torque 70 Nm.**

**CAUTION: Use a Torx driver to restrain the shaft of the ball joint and prevent damage to the rubber boot.**

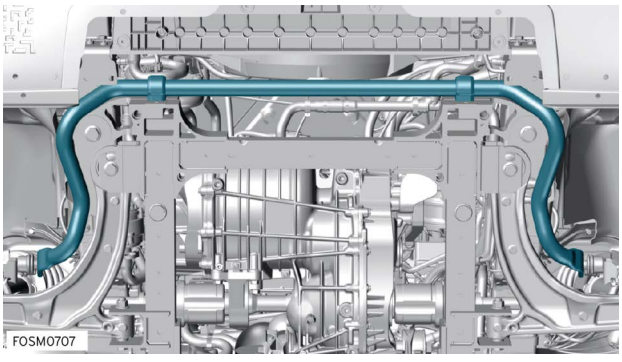
7. Release RH drop link from stabilizer bar.




8. Remove M10x30 bolts (x2) securing LH stabilizer bushing clamp to front subframe. **Torque 62 Nm.**
9. Remove LH stabilizer bushing clamp.




10. Remove M10x30 bolts (x2) securing RH stabilizer bushing clamp to front subframe. **Torque 62 Nm.**
11. Remove RH stabilizer bushing clamp.




12. Maneuver and remove stabilizer bar from vehicle.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

**CAUTION: Only tighten suspension nuts and bolts when the suspension is in the ride height position.**

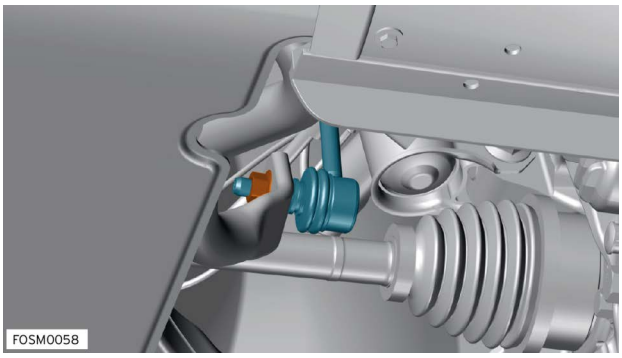
2. Clean component mating faces, prior to installation.

**WARNING: Only use cleaning agents and solvents in a well ventilated area.**

## Drop Link - Front - LH

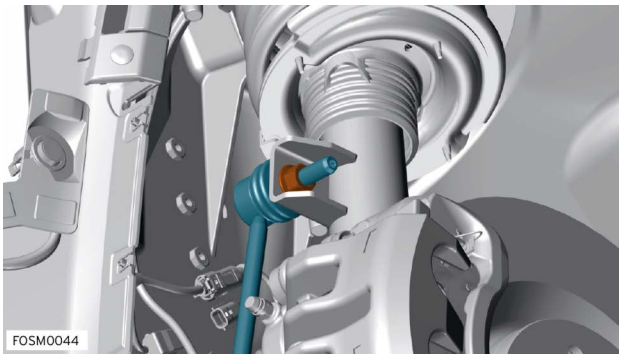
### Removal

1. Remove front wheel. Refer to Wheel - Front - LH.




2. Remove M12 nut securing drop link to stabilizer bar. **Torque 70 Nm.**

**CAUTION: Use a Torx driver to restrain the shaft of the ball joint and prevent damage to the rubber boot.**




3. Remove M12 nut securing drop link to spring assembly.**Torque 70 Nm.**

**CAUTION: Use a Torx driver to restrain the shaft of the ball joint and prevent damage to the rubber boot.**

4. Remove drop link.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

**CAUTION: Only tighten suspension nuts and bolts when the suspension is in the ride height position.**

## H Arm Assembly - Lower - Rear - LH

### Removal

1. Remove rear underbody cover. Refer to Underbody Cover - Rear.
2. Remove rear spring assembly. Refer to Spring Assembly - Rear - LH.
3. Remove toe link assembly. Refer to Toe Link Assembly - Rear - LH.



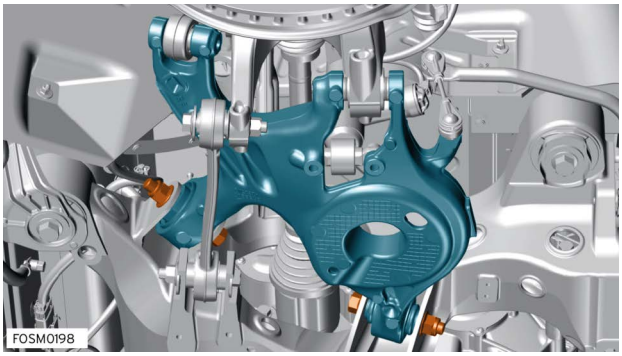

4. Remove and discard M14x85 bolt securing H arm rod to lower H arm. **Torque 90 Nm +120 degrees.**

**WARNING: These fasteners have been torqued to a specification where the threads may have been damaged or stretched. Always discard and replace with new on installation.**




5. Remove and discard M16x125 bolt and M16 nut securing lower H arm ball joint to knuckle. **Torque 135 Nm +180 degrees.**

**WARNING: These fasteners have been torqued to a specification where the threads may have been damaged or stretched. Always discard and replace with new on installation.**




6. Remove and discard M16x110 bolts (x2) and M16 nuts (x2) securing lower H arm to rear subframe. **Torque 210 Nm +45 degrees.**

**WARNING: These fasteners have been torqued to a specification where the threads may have been damaged or stretched. Always discard and replace with new on installation.**

7. Remove lower H arm.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

**CAUTION: Only tighten suspension nuts and bolts when the suspension is in the ride height position.**

2. Clean component mating faces, prior to installation.

**WARNING: Only use cleaning agents and solvents in a well ventilated area.**

3. Renew all discarded fasteners.
4. Check and adjust wheel alignment. Refer to Wheel Alignment - Adjust.

## Hub Bearing Assembly - Rear - LH

### Removal

1. Remove rear brake rotor. Refer to Brake Rotor - Rear - LH.

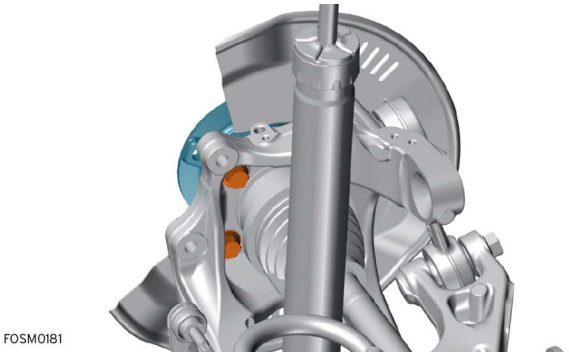


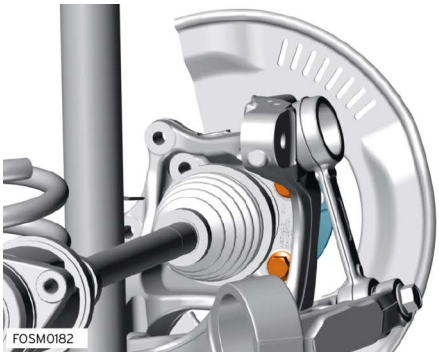

2. Remove M6x16 bolt securing wheel speed sensor to knuckle. **Torque 9 Nm.**
3. Remove wheel speed sensor from knuckle.




4. Remove M24 nut securing drive shaft to hub bearing assembly. **Torque 230 Nm.**

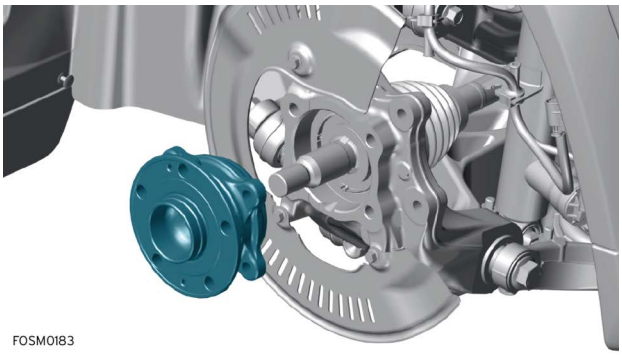
   *NOTE: Only applicable to AWD vehicles.*




5. Remove M12x50 bolts (x4) securing hub bearing assembly to knuckle. **Torque 60 Nm + 90 degrees.**

**WARNING: These fasteners have been torqued to a specification where the threads may have been damaged or stretched. Always discard and replace with new on installation.**




6. Remove hub bearing assembly from knuckle.

### Installation

1. Installation is the reverse of the removal procedure except the following:

**CAUTION: When installing wheel speed sensor to knuckle, do not apply force greater than 10 kN to avoid damaging the wheel speed sensor.**

2. Renew all discarded fasteners.

## Knuckle Assembly - Rear - LH

### Removal

1. Remove rear brake rotor. Refer to Brake Rotor - Rear - LH.

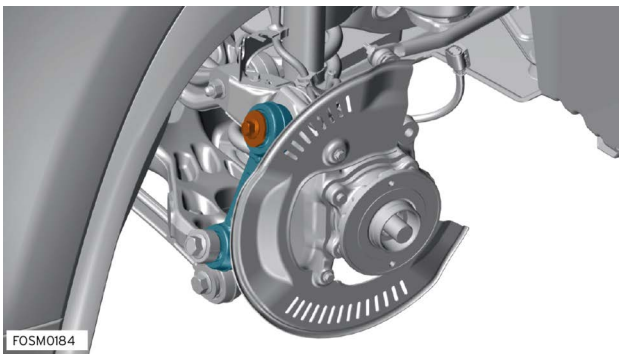



2. Remove M6x16 bolt securing wheel speed sensor to knuckle. **Torque 9 Nm.**
3. Remove wheel speed sensor from knuckle.



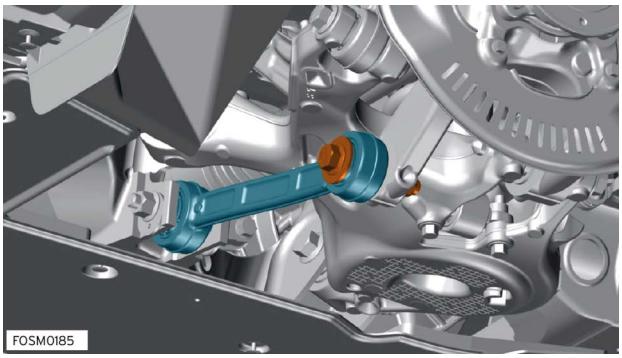

4. Remove M24 nut securing drive shaft to hub bearing assembly. **Torque 230 Nm.**

   *NOTE: Only applicable to AWD vehicles.*

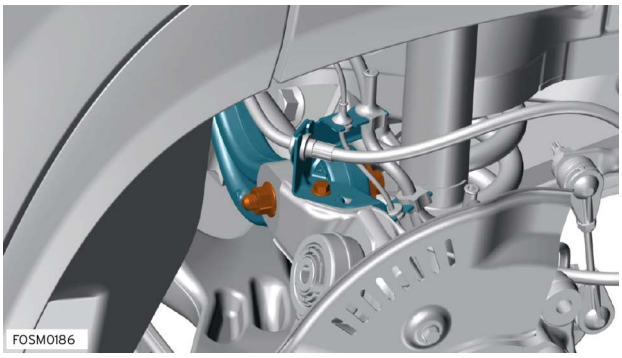



5. Remove and discard M12x85 bolt securing H arm rod to knuckle. **Torque 45 Nm +120 degrees.**

**WARNING: These fasteners have been torqued to a specification where the threads may have been damaged or stretched. Always discard and replace with new on installation.**




6. Remove M14 nut and M14x90 bolt securing toe link assembly to knuckle. **Torque 170 Nm.**

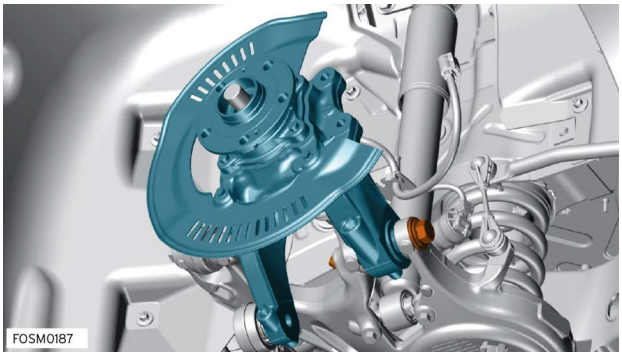



7. Remove and discard M12 nut and M12x95 bolt securing upper transversal arm to knuckle. **Torque 45 Nm +120 degrees.**

**WARNING: These fasteners have been torqued to a specification where the threads may have been damaged or stretched. Always discard and replace with new on installation.**

8. Remove bolt securing bracket to knuckle. **Torque 9 Nm.**

   *NOTE: Take care not to damage to harnesses attached to the bracket.*

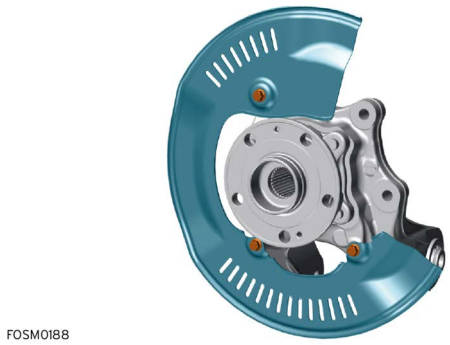



9. Remove and discard M16x125 bolt securing lower H arm ball joint to knuckle. **Torque 135 Nm +180 degrees.**

**WARNING: These fasteners have been torqued to a specification where the threads may have been damaged or stretched. Always discard and replace with new on installation.**

10. Remove knuckle.

***Do not carry out further disassembly if component is removed for access only.***




11. Remove M6x10 bolts (x3) securing dust shield to knuckle. **Torque 10 Nm.**
12. Remove dust shield.




13. Remove and discard M12x50 bolts (x4) securing hub bearing assembly to knuckle. **Torque 60 Nm +90 degrees.**

**WARNING: These fasteners have been torqued to a specification where the threads may have been damaged or stretched. Always discard and replace with new on installation.**

14. Remove hub bearing assembly from knuckle.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

**CAUTION: Only tighten suspension nuts and bolts when the suspension is in the ride height position.**

2. Renew all discarded fasteners.
3. Clean component mating faces, prior to installation.

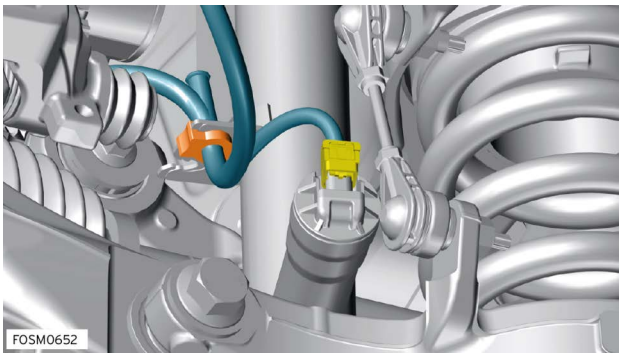
**WARNING: Only use cleaning agents and solvents in a well ventilated area.**

4. Check and adjust wheel alignment. Refer to Wheel Alignment - Adjust.

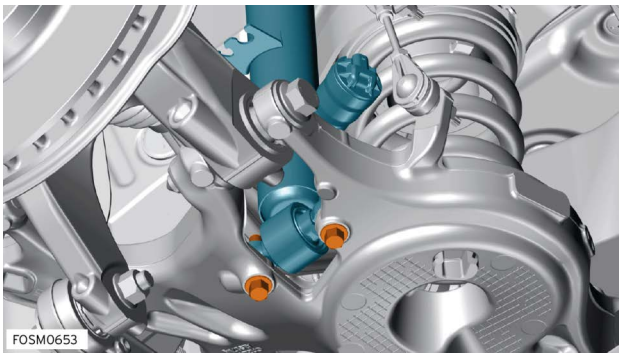
## Shock Absorber - Rear - LH

### Removal

1. Remove rear wheel. Refer to Wheel - Rear - LH.

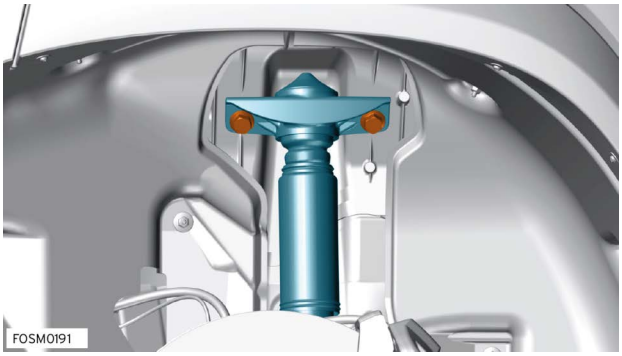



2. Disconnect harness connector from shock absorber.
3. Release harness from bracket on shock absorber.




4. Remove and discard M10x50 bolts (x2) securing shock absorber to lower H arm. **Torque 25 Nm +60 degrees.**

**WARNING: These fasteners have been torqued to a specification where the threads may have been damaged or stretched. Always discard and replace with new on installation.**




5. Remove M12x40 bolts (x2) securing shock absorber to body. **Torque 140 Nm.**
6. Remove shock absorber.

### Installation

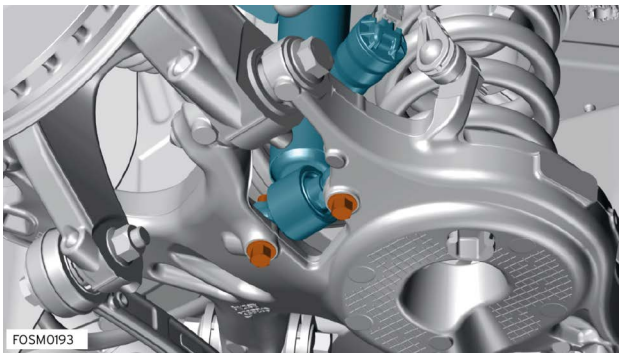
1. Installation is the reverse of the removal procedure except for the following:
2. Renew all discarded fasteners.
3. Clean component mating faces, prior to installation.

**WARNING: Only use cleaning agents and solvents in a well ventilated area.**

## Spring Assembly - Rear - LH

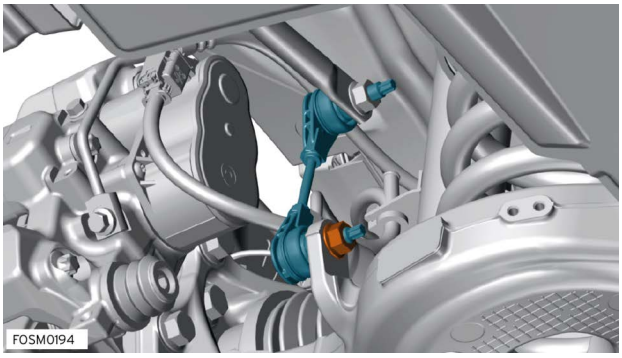
### Removal

1. Remove rear wheel. Refer to Wheel - Rear - LH.




2. Remove and discard M10x50 bolts (x2) securing shock absorber to lower H arm. **Torque 25 Nm +60 degrees.**

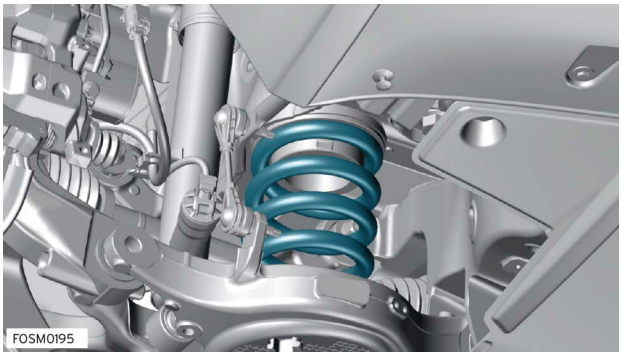
**WARNING: These fasteners have been torqued to a specification where the threads may have been stretched or damaged. Always discard and replace with new on installation.**




3. Remove M10 nut securing drop link to lower H arm. **Torque 56 Nm.**

**CAUTION: Use a Torx driver to restrain the shaft of the ball joint and prevent damage to the rubber boot.**

4. Release drop link from lower H arm.




5. Install spring compressor to spring.
6. Compress spring assembly until coils are close but not touching.
7. Pull lower H arm down to release spring.
8. Remove rear spring.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

**CAUTION: Only tighten suspension nuts and bolts when the suspension is in the ride height position.**

2. Clean mating faces of all components, prior to installation.

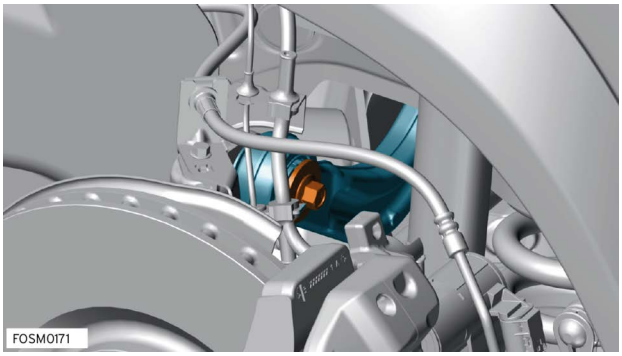
**WARNING: Only use cleaning agents and solvents in a well ventilated area.**

3. Ensure spring is correctly located in grooves on upper and lower mounts before releasing spring compressor.
4. Renew all discarded bolts.

## Transversal Arm Assembly - Upper - Rear - LH

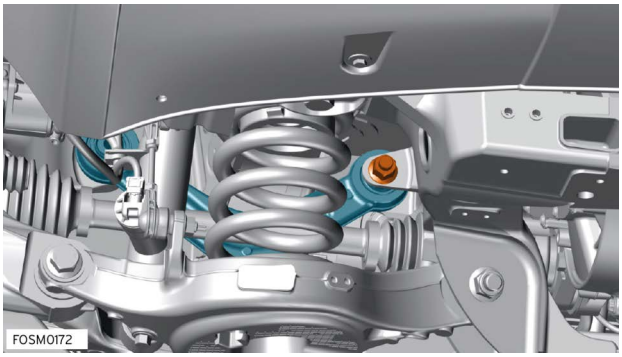
### Removal

1. Remove rear wheel. Refer to Wheel - Rear - LH.
2. Remove rear underbody cover. Refer to Underbody Cover - Rear.




3. Remove and discard M12 nut and M12x95 bolt securing upper transversal arm to knuckle. **Torque 45 Nm +120 degrees.**

**WARNING: These fasteners have been torqued to a specification where the threads may have been damaged or stretched. Always discard and replace with new on installation.**




4. Remove M14 nut and M14x75 bolt securing upper transversal arm to rear subframe. **Torque 170 Nm.**
5. Remove upper transversal arm.

### Installation.

1. Installation is the reverse of the removal procedure except for the following:

**CAUTION: Only tighten suspension nuts and bolts when the suspension is in the ride height position.**

2. Renew all discarded fasteners.
3. Clean component mating faces, prior to installation.

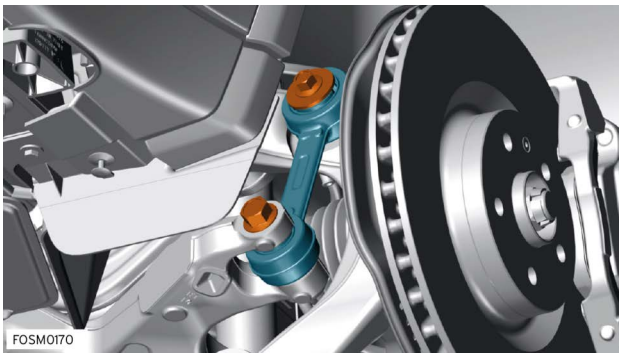
**WARNING: Only use cleaning agents and solvents in a well ventilated area.**

4. Check wheel alignment. Refer to Wheel Alignment - Adjust.

## H Arm Rod - Rear - LH

### Removal

1. Remove rear wheel. Refer to Wheel - Rear - LH.




2. Remove and discard M14x85 bolt securing H arm rod to lower control arm. **Torque 90 Nm +120 degrees.**

**WARNING: These fasteners have been torqued to a specification where the threads may have been damaged or stretched. Always discard and replace with new on installation.**

3. Remove and discard M12x85 bolt securing H arm rod to knuckle.**Torque 45 Nm +120 degrees.**

**WARNING: These fasteners have been torqued to a specification where the threads may have been damaged or stretched. Always discard and replace with new on installation.**

4. Remove H arm rod.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

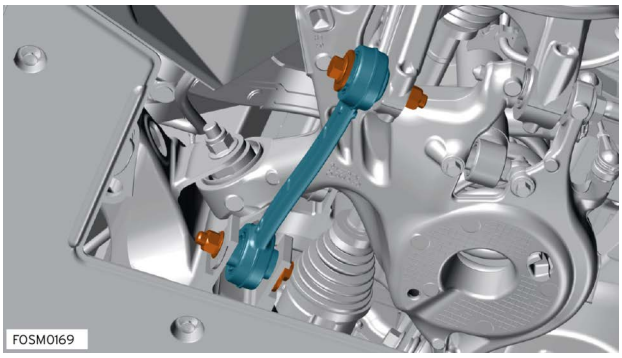
**CAUTION: Only tighten suspension nuts and bolts when the suspension is in the ride height position.**

2. Renew all discarded fasteners.
3. Check wheel alignment. Refer to Wheel Alignment - Adjust.

## Toe Link Assembly - Rear - LH

### Removal

1. Remove rear wheel. Refer to Wheel - Rear - LH.




2. Remove M14 nut and M14x90 bolt securing toe link assembly to knuckle. **Torque 170 Nm.**
3. Remove M14 nut, washers (x2) andM14x90 bolt securing toe link assembly to rear subframe. **Torque 170 Nm.**
4. Remove toe link assembly.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

**CAUTION: Only tighten suspension nuts and bolts when the suspension is in the ride height position.**

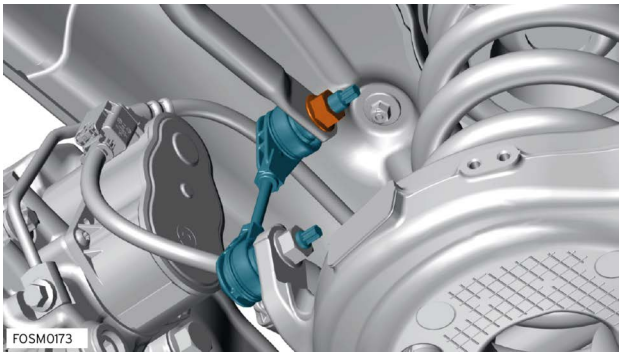
2. Check wheel alignment. Refer to Wheel Alignment - Adjust.

## Stabilizer Bar Assembly - Rear

### Removal

1. Remove rear LH wheel. Refer to Wheel - Rear - LH.
2. Remove rear RH wheel.

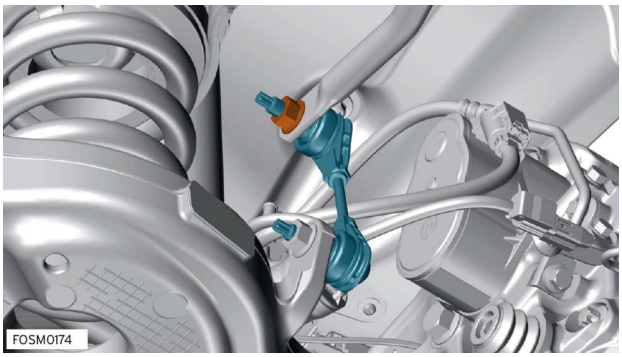
   *NOTE: Procedure is the same as for left side component.*
3. Remove rear underbody cover. Refer to Underbody Cover - Rear.




4. Remove M10 nut securing LH drop link to stabilizer bar. **Torque 56 Nm.**

**CAUTION: Use a Torx driver to restrain the shaft of the ball joint and prevent damage to the rubber boot.**

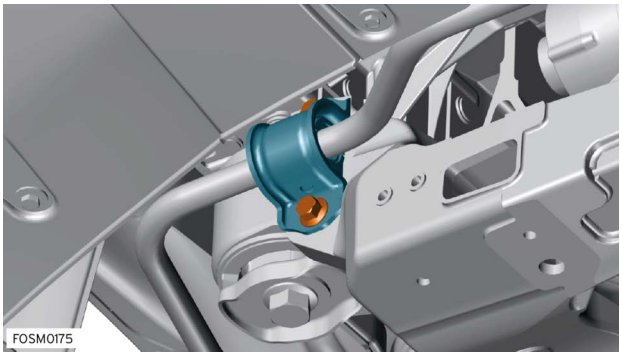
5. Release LH drop link from stabilizer bar.



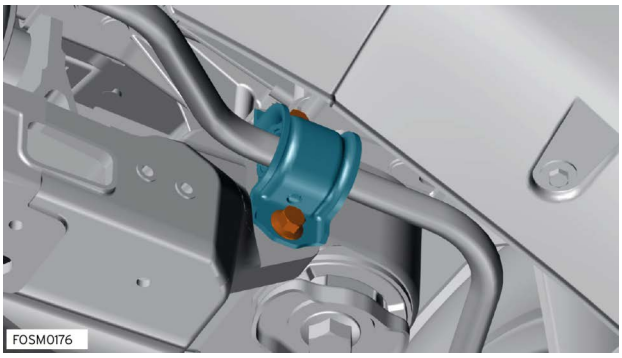

6. Remove M10 nut securing RH drop link to stabilizer bar. **Torque 56 Nm.**

**CAUTION: Use a Torx driver to restrain the shaft of the ball joint and prevent damage to the rubber boot.**

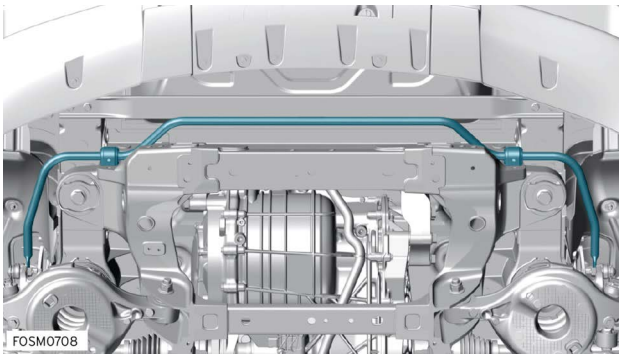
7. Release RH drop link from stabilizer bar.




8. Remove M10x30 bolts (x2) securing LH stabilizer bushing clamp to rear subframe. **Torque 62 Nm.**
9. Remove LH stabilizer bushing clamp.




10. Remove M10x30 bolts (x2) securing RH stabilizer bushing clamp to rear subframe. **Torque 62 Nm.**
11. Remove RH stabilizer bushing clamp.




12. Maneuver and remove stabilizer bar from vehicle.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

**CAUTION: Only tighten suspension nuts and bolts when the suspension is in the ride height position.**

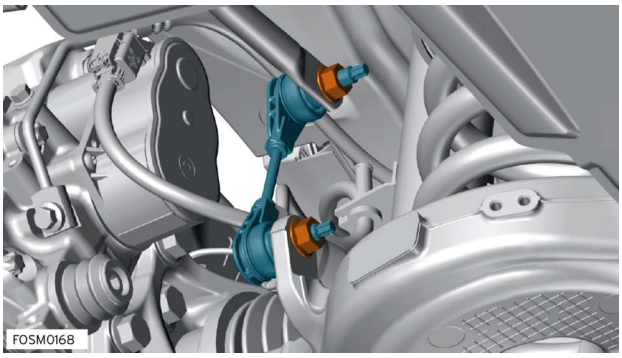
2. Clean component mating faces, prior to installation.

**WARNING: Only use cleaning agents and solvents in a well ventilated area.**

## Drop Link - Rear - LH

### Removal

1. Remove rear wheel. Refer to Wheel - Rear - LH.




2. Remove M10 nut securing drop link to lower H arm. **Torque 56 Nm.**

**CAUTION: Use a Torx driver to restrain the shaft of the ball joint and prevent damage to the rubber boot.**

3. Remove M10 nut securing drop link to stabilizer bar. **Torque 56 Nm.**

**CAUTION: Use a Torx driver to restrain the shaft of the ball joint and prevent damage to the rubber boot.**

4. Remove drop link.

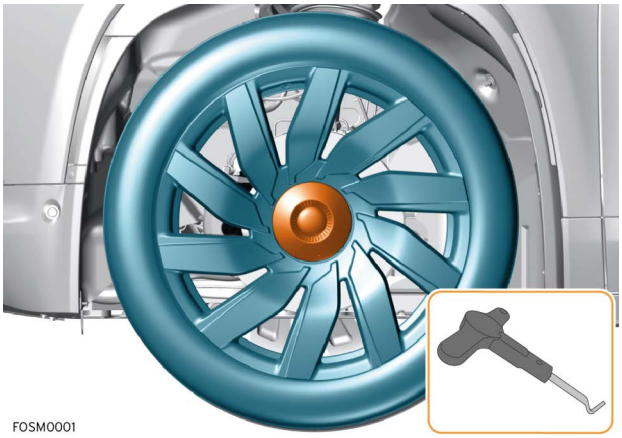
### Installation

1. Installation is the reverse of the removal procedure except for the following:

**CAUTION: Only tighten suspension nuts and bolts when the suspension is in the ride height position.**

## Wheel - Front - LH

### Removal




1. Remove wheel center cap using recommended tool or non marring tool.




2. Loosen wheel bolts (x5) with vehicle on the ground.
3. Raise and support vehicle. Refer to Raise and Support Vehicle - 2 Post Lift.
4. Remove wheel bolts (x5).
5. Remove wheel.

### Installation

1. Installation is a reverse of the removal procedure except for the following:
2. With the vehicle on the ground, tighten wheel bolts in a diagonal sequence. One piece wheel bolt **Torque 180 Nm**. Two piece wheel bolt**Torque 140 Nm.**

## Wheel - Rear - LH

### Removal




1. Remove wheel center cap using recommended tool or non marring tool.




2. Loosen wheel bolts (x5) with vehicle on the ground.
3. Raise and support vehicle. Refer to Raise and Support Vehicle - 2 Post Lift.
4. Remove wheel bolts (x5).
5. Remove wheel.

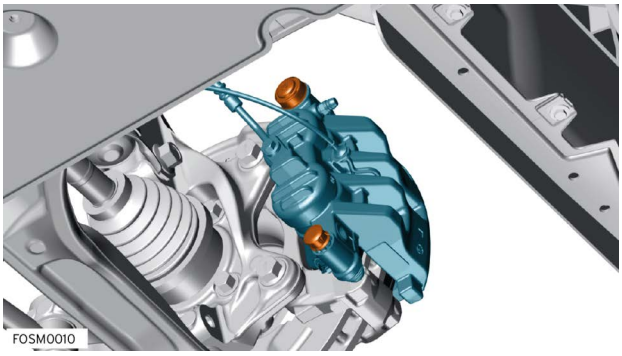
### Installation

1. Installation is a reverse of the removal procedure except for the following:
2. With the vehicle on the ground, tighten wheel bolts in a diagonal sequence. One piece wheel bolt **Torque 180 Nm**. Two piece wheel bolt **Torque 140 Nm**.

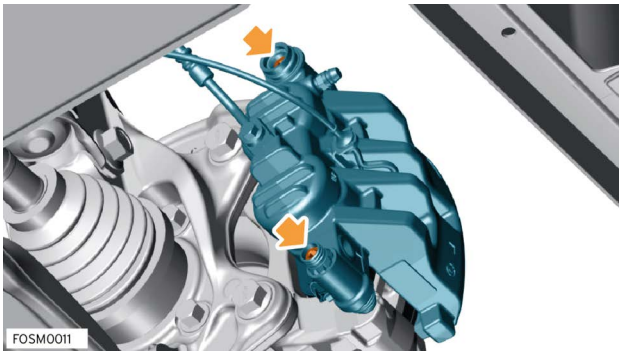
## Brake Pads - Front - LH

### Removal

1. Remove front wheel. Refer to Wheel - Front - LH.
2. Remove cap from brake fluid reservoir and position an absorbent cloth to absorb any excess fluid loss.

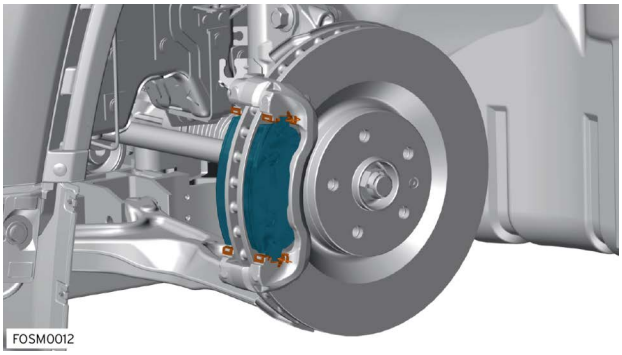



3. Remove dust caps (x2) from brake caliper.




4. Remove Allen bolts (x2) securing brake caliper to mounting bracket. **Torque 34 Nm.**
5. Remove brake caliper from mounting bracket and tie aside.

**CAUTION: Do not allow the brake caliper to hang by the brake hose as this can damage the hose or unions. Tie aside to support the caliper without straining the brake hose.**




6. Remove brake pads from anti-rattle clips on mounting bracket.

   *NOTE: For LH brake pads disconnect brake pad wear sensor harness connector and release harness from brackets (x3).*

   *NOTE: Very carefully remove anti-rattle clips if not being renewed.*

### Installation

1. Installation is the reverse of the removal procedure except for the following:
2. Retract the pistons into the brake caliper.
3. Thoroughly clean the inside of the brake caliper, mounting bracket and anti-rattle clips to remove any build-up of brake dust.
4. Apply a small amount of anti-squeal grease on the contact faces of the brake pads, caliper and anti-rattle clip to ensure smooth operation.
5. After installation is complete, use brake cleaner to remove any grease/finger prints from the surface of the brake rotor.
6. Check and adjust brake fluid level.

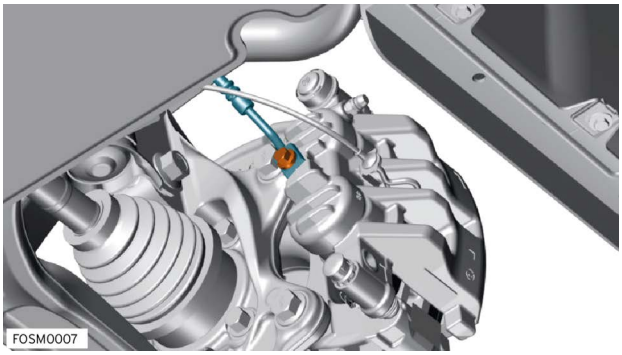
**WARNING: After any work is performed on the braking system's hydraulically operated components, the risk of an accident is increased due to an impaired braking effect. Press the brake pedal several times to build up pressure in the brake system after finishing work and before starting the vehicle.**

**Caution: Avoid heavy braking during the breaking in period of the new brake pads.**

## Brake Caliper - Front - LH

### Removal

1. Remove front wheel. Refer to Wheel - Front - LH.
2. Release electronic parking brake.




3. Remove banjo bolt securing brake hose to caliper and discard sealing washers (x2). **Torque 40 Nm.**

**WARNING: Always install new sealing washers during installation.**

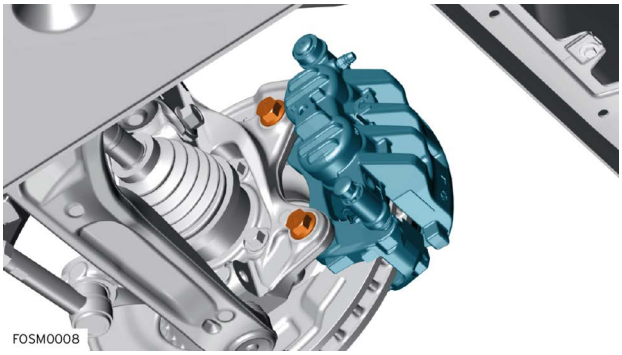
**CAUTION: Ensure banjo bolt is clean and free from grease, lubricant, dirt, or any other substance.**

*NOTE: Place suitable absorbent material around the affected area to absorb any possible fluid spillage.*

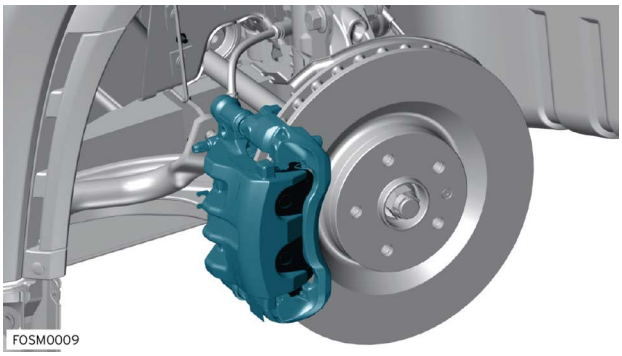
4. Plug hose connection to prevent excess fluid loss and the ingress of moisture or dirt.

**CAUTION: Do not clamp the brake hose as it will be damaged and require replacing.**

5. Disconnect harness connector from brake pad wear indicator on caliper.




6. Remove M14x45 bolts (x2) securing brake caliper to knuckle. **Torque 160 Nm.**




7. Remove brake caliper.

### Installation

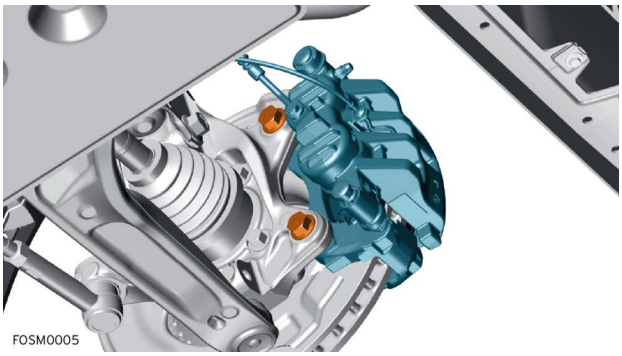
1. Installation is the reverse of the removal procedure except for the following:
2. Clean mating faces of brake caliper and knuckle to ensure there is no dirt/grit between the components.
3. Bleed brake system. Refer to Brake System - Bleed.

**WARNING: After any work is performed on the braking system's hydraulically operated components, the risk of an accident is increased due to an impaired braking effect. Press the brake pedal several times to build up pressure in the brake system after finishing work and before starting the vehicle.**

## Brake Rotor - Front - LH

### Removal

1. Remove front wheel. Refer to Wheel - Front - LH.




2. Remove M14x45 bolts (x2) securing brake caliper mounting bracket to knuckle. **Torque 160 Nm.**
3. Remove brake caliper from rotor and tie aside.

**CAUTION: Do not allow the brake caliper to hang by the brake hose as this can damage the hose or unions. Tie aside to support the caliper without straining the brake hose.**




4. Remove M6x12 screw securing brake rotor to wheel hub bearing.**Torque 8 Nm.**
5. Remove brake rotor from wheel hub bearing.

### Installation

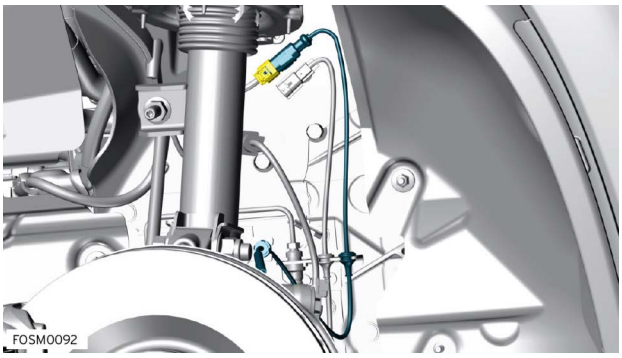
1. Installation is the reverse of the removal procedure except for the following:
2. Clean mating faces of brake rotor and wheel hub bearing to ensure there is no dirt/grit between the components.
3. After installation is complete, use brake cleaner to remove any grease/finger prints from the surface of the brake rotor.

**WARNING: After any work is performed on the braking system's hydraulically operated components, the risk of an accident is increased due to an impaired braking effect. Press the brake pedal several times to build up pressure in the brake system after finishing work and before starting the vehicle.**

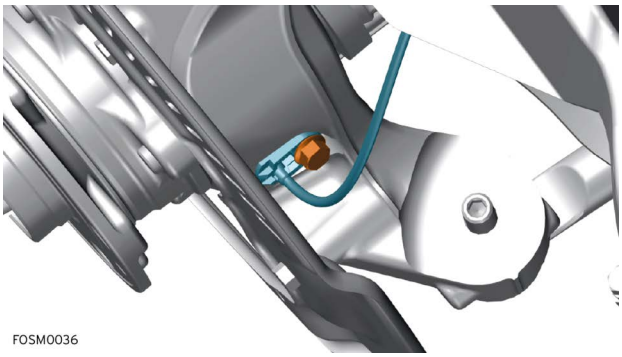
## Wheel Speed Sensor - Front - LH

### Removal

1. Remove front wheel. Refer to Wheel - Front - LH.




2. Disconnect harness connector from wheel speed sensor.
3. Release wheel speed harness from brackets (x2).




4. Remove M6x16 bolt securing wheel speed sensor to knuckle. **Torque 9 Nm.**
5. Remove wheel speed sensor from knuckle.

### Installation

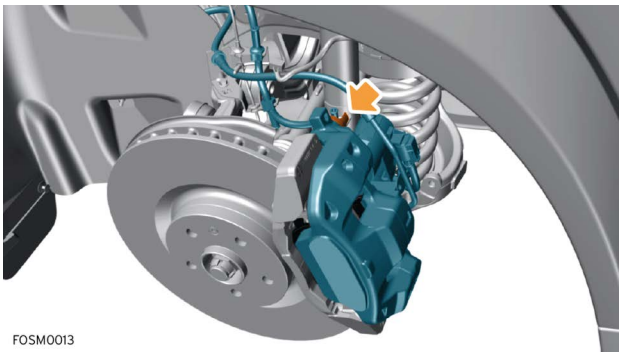
1. Installation is the reverse of the removal procedure.

**CAUTION: When installing wheel speed sensor to knuckle, do not apply force greater than 10 kN to avoid damaging the wheel speed sensor.**

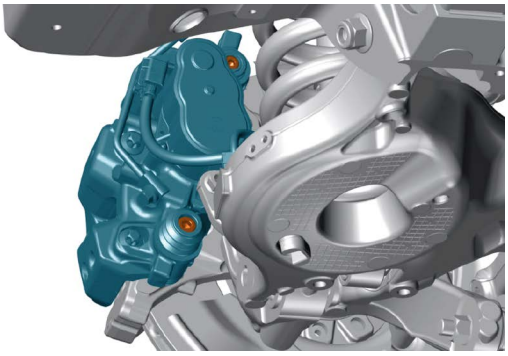
## Brake Pads - Rear - LH

### Removal

1. Remove rear wheel. Refer to Wheel - Rear - LH.
2. Release electronic parking brake.
3. Remove cap from brake fluid reservoir and position an absorbent cloth to absorb any excess fluid loss.

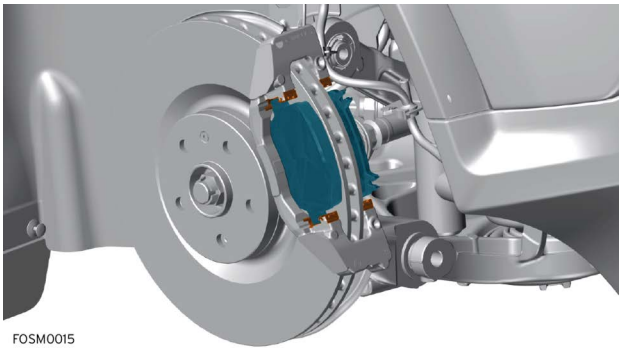

FOSM0013

4. Remove dust cap from brake caliper.


FOSM0014

5. Remove upper Allen bolt securing brake caliper to mounting bracket. **Torque 34 Nm.**
6. Remove lower Allen bolt securing brake caliper to mounting bracket. **Torque 71 Nm.**
7. Remove brake caliper from rotor and tie aside.

**CAUTION: Do not allow the brake caliper to hang by the brake hose as this can damage the hose or unions. Tie aside to support the caliper without straining the brake hose.**


FOSM0015

8. Remove brake pads from anti-rattle clips on mounting bracket.

   *NOTE: For RH brake pads disconnect brake pad wear sensor harness connector and release harness from bracket.*

   *NOTE: Very carefully remove anti-rattle clips if not being renewed.*

### Installation

1. Installation is the reverse of the removal procedure except for the following:
2. Retract the pistons into the brake caliper.
3. Thoroughly clean the inside of the brake caliper, mounting bracket and anti-rattle clips to remove any build-up of brake dust.
4. Apply a small amount of anti-squeal grease on the contact faces of the brake pads, caliper and anti-rattle clip to ensure smooth operation.
5. After installation is complete, use brake cleaner to remove any grease/finger prints from the surface of the brake rotor.
6. Check and adjust brake fluid level.

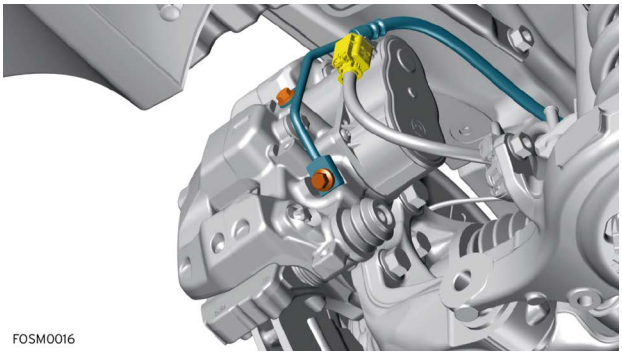
**WARNING: After any work is performed on the braking system's hydraulically operated components, the risk of an accident is increased due to an impaired braking effect. Press the brake pedal several times to build up pressure in the brake system after finishing work and before starting the vehicle.**

**Caution: Avoid heavy braking during the breaking in period of the new brake pads.**

## Brake Caliper - Rear - LH

### Removal

1. Remove rear wheel. Refer to Wheel - Rear - LH.
2. Release electronic parking brake.




3. Remove bolt securing brake hose to brake caliper. **Torque 10 Nm.**
4. Remove banjo bolt securing brake hose to caliper and discard sealing washers (x2).**Torque 40 Nm.**

**WARNING: Always install new sealing washers during installation.**

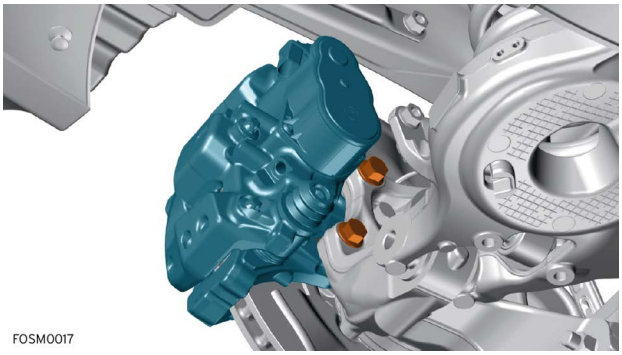
**CAUTION: Ensure banjo bolt is clean and free from grease, lubricant, dirt, or any other substance.**

*NOTE: Place suitable absorbent material around the affected area to absorb any possible fluid spillage.*

5. Plug hose connection to prevent excess fluid loss and the ingress of moisture or dirt.

**CAUTION: Do not clamp the brake hose as it will be damaged and require replacing.**

6. Disconnect harness connector from parking brake actuator on caliper.




7. Remove and discard M12x50 bolts (x2) securing brake caliper to knuckle. **Torque 60 Nm +45 degrees.**

**WARNING: These fasteners have been torqued to a specification where the threads may have been damaged or stretched. Always discard and replace with new on installation.**




8. Remove brake caliper.

### Installation

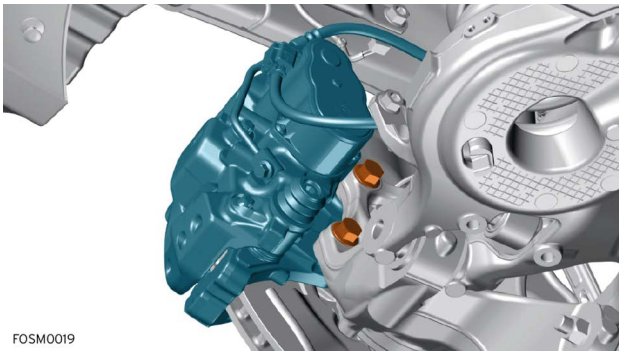
1. Installation is the reverse of the removal procedure except for the following:
2. Renew all discarded fasteners.
3. Clean mating faces of brake caliper and knuckle to ensure there is no dirt/grit between the components.
4. Bleed brake system. Refer to Brake System - Bleed.

**WARNING: After any work is performed on the braking system's hydraulically operated components, the risk of an accident is increased due to an impaired braking effect. Press the brake pedal several times to build up pressure in the brake system after finishing work and before starting the vehicle.**

## Brake Rotor - Rear - LH

### Removal

1. Remove rear wheel. Refer to Wheel - Rear - LH.
2. Release electronic parking brake.




3. Remove and discard M12x50 bolts (x2) securing brake caliper mounting bracket to knuckle. **Torque 60 Nm +45 degrees.**

**WARNING: These fasteners have been torqued to a specification where the threads may have been damaged or stretched. Always discard and replace with new on installation.**

4. Remove brake caliper from rotor and tie aside.

**CAUTION: Do not allow the brake caliper to hang by the brake hose as this can damage the hose, unions or electronic parking brake harness. Tie aside to support the caliper without straining the brake hose.**




5. Remove M6x12 screw securing brake rotor to wheel hub bearing.**Torque 8 Nm.**
6. Remove brake rotor from wheel hub bearing.

### Installation

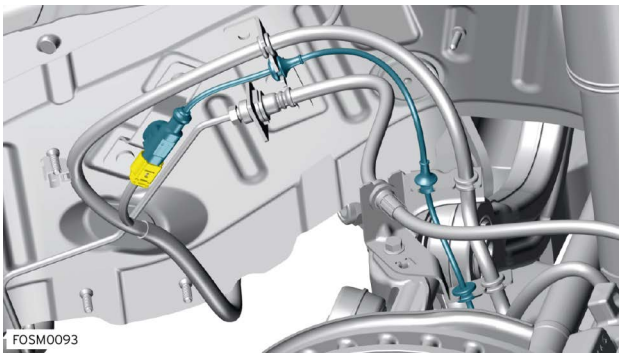
1. Installation is the reverse of the removal procedure except for the following:
2. Renew all discarded fasteners.
3. Clean mating faces of brake rotor and wheel hub bearing to ensure there is no dirt/grit between the components.
4. After installation is complete, use brake cleaner to remove any grease/finger prints from the surface of the brake rotor.

**WARNING: After any work is performed on the braking system's hydraulically operated components, the risk of an accident is increased due to an impaired braking effect. Press the brake pedal several times to build up pressure in the brake system after finishing work and before starting the vehicle.**

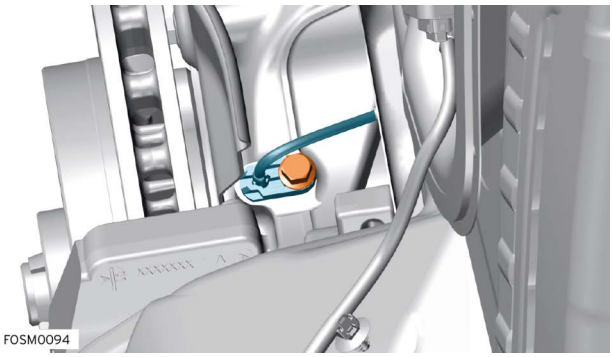
## Wheel Speed Sensor - Rear - LH

### Removal

1. Remove rear fender liner. Refer to Fender Liner - Rear - LH.




2. Disconnect harness connector from wheel speed sensor.
3. Release wheel speed harness from brackets (x3).




4. Remove M6x16 bolt securing wheel speed sensor to knuckle. **Torque 9 Nm.**
5. Remove wheel speed sensor from knuckle.

### Installation

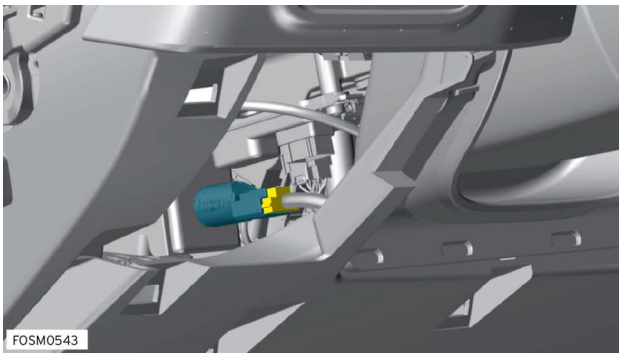
1. Installation is the reverse of the removal procedure.

**CAUTION: When installing wheel speed sensor to knuckle, do not apply force greater than 10 kN to avoid damaging the wheel speed sensor.**

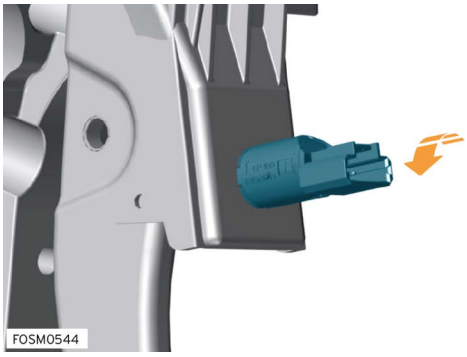
## Brake Switch

### Removal

1. Remove lower driver`s trim panel. Refer to Trim - Lower - Driver.




2. Disconnect harness connector from brake lamp switch.




3. Rotate brake lamp switch 90 degrees counterclockwise to release it from brake pedal.
4. Remove brake lamp switch.

### Installation

1. Installation is the reverse of removal procedure.

   *NOTE: Ensure an audible click is heard when connecting harness connector to brake switch. If brake switch is not properly connected vehicle will not start.*

## Subframe Assembly - Front

### Removal

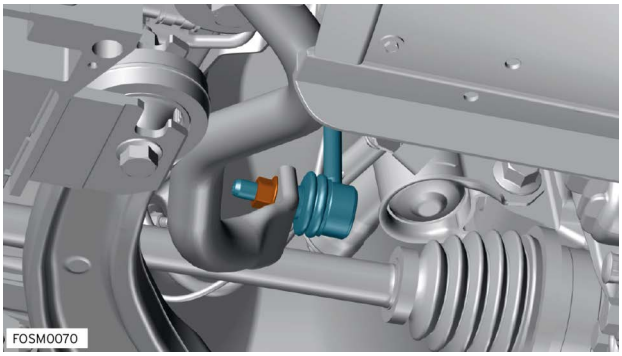
1. Remove power distribution unit. Refer to Power Distribution Unit.

**WARNING: High-voltage cables and components may remain energized for up to 5 minutes after isolating.**

2. Remove LH knuckle. Refer to Knuckle Assembly - Front - LH.
3. Remove LH lower control arm. Refer to Lower Control Arm Assembly - Front - LH.
4. Remove RH knuckle.

   *NOTE: Procedure is the same as for left side component.*
5. Remove RH lower control arm.

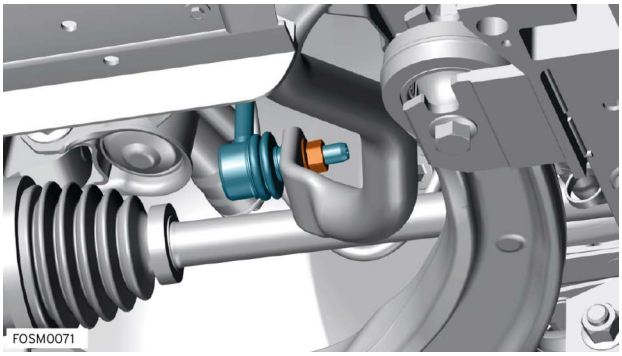
   *NOTE: Procedure is the same as for left side component.*




6. Remove M12 nut securing LH drop link to stabilizer bar. **Torque 70 Nm.**

**CAUTION: Use a Torx driver to restrain the shaft of the ball joint and prevent damage to the rubber boot.**

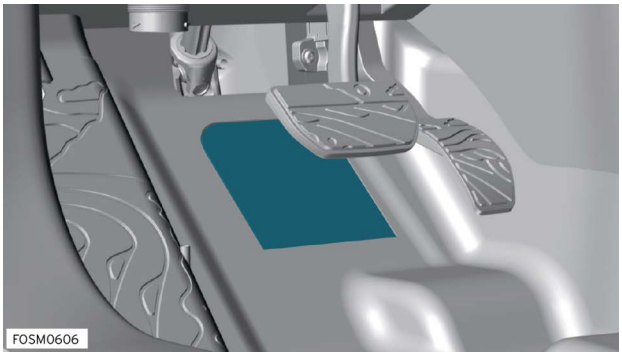
7. Release LH drop link from stabilizer bar.



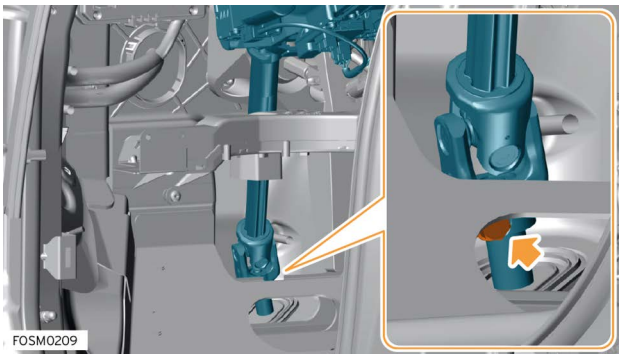

8. Remove M12 nut securing RH drop link to stabilizer bar. **Torque 70 Nm.**

**CAUTION: Use a Torx driver to restrain the shaft of the ball joint and prevent damage to the rubber boot.**

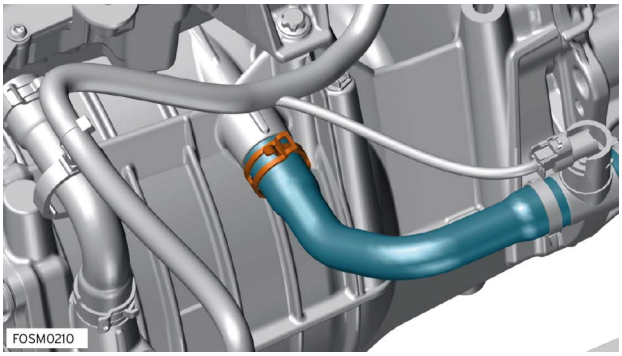
9. Release RH drop link from stabilizer bar.
10. Open drivers door.
11. Slide drivers seat backwards.




12. Open access flap in floor carpet.



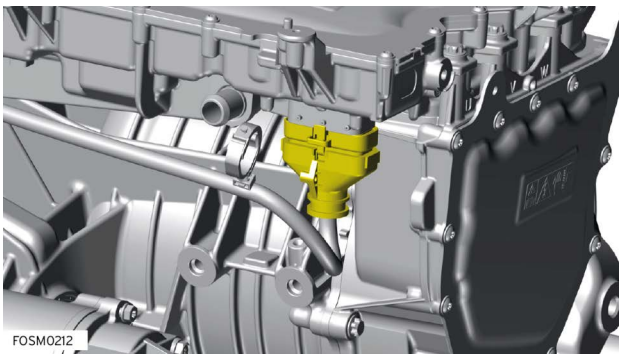

13. Remove M8x30 bolt securing steering column to steering gear. **Torque 36 Nm.**



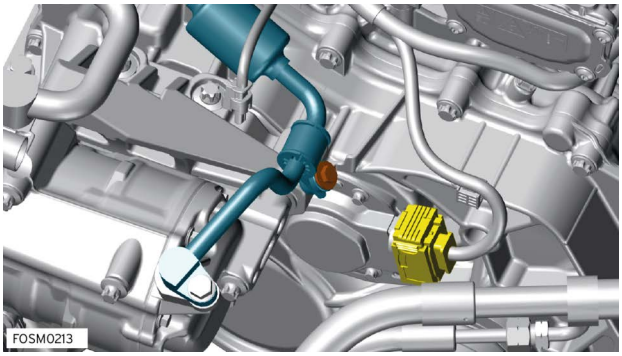

14. Release hose clamp securing coolant hose to electric drive unit.
15. Disconnect coolant hose from electric drive unit.



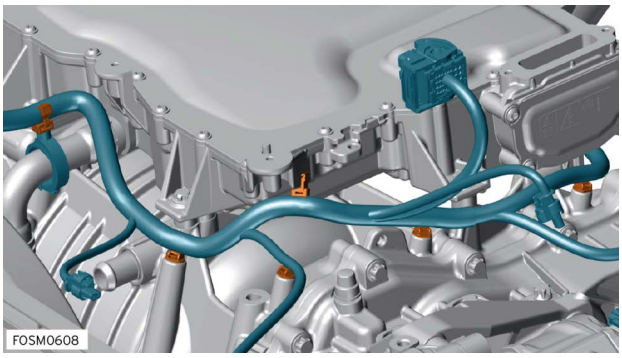

16. Release clips (x2) securing coolant hose to electric drive unit.
17. Release hose clamp securing coolant hose to electric drive unit.
18. Disconnect coolant hose from electric drive unit.



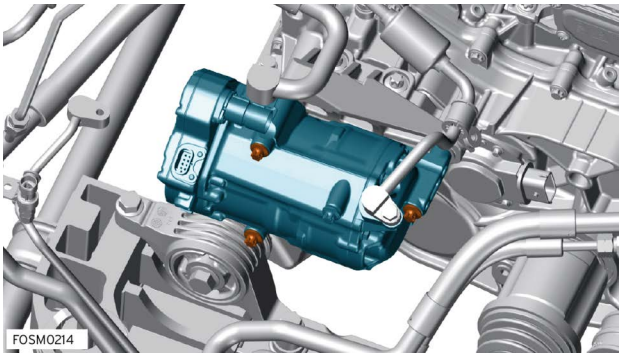

19. Disconnect harness connector from electric drive unit.




20. Remove M6x25 bolt securing AC pipe to mounting bracket. **Torque 9 Nm.**
21. Disconnect harness connector from electric drive unit.

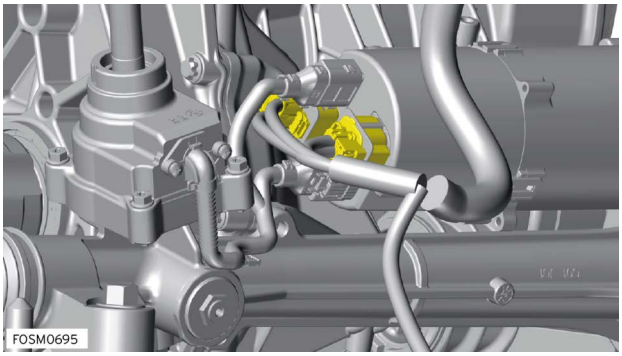



22. Release clips (x6) securing front harness to electric drive unit.



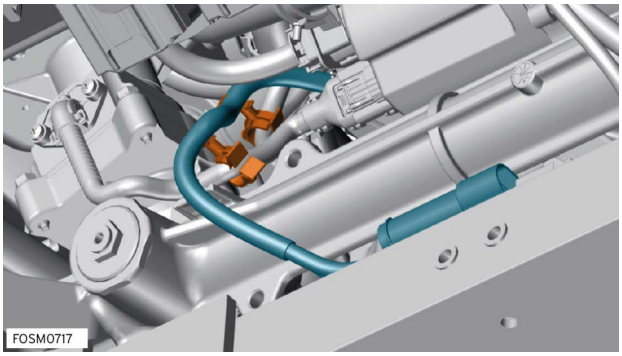

23. Remove M8x90 Torx bolts (x3) securing AC compressor to mounting bracket. **Torque 62 Nm.**
24. Remove AC compressor from mounting bracket and tie aside.

**CAUTION: Do not allow the AC compressor to hang by the AC pipes as this can damage the pipe or unions. Tie aside to support the AC compressor without straining the AC pipes.**

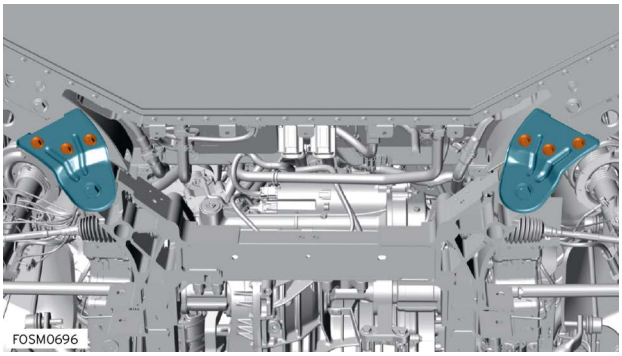



25. Disconnect engine harness connectors (x2) from steering gear.

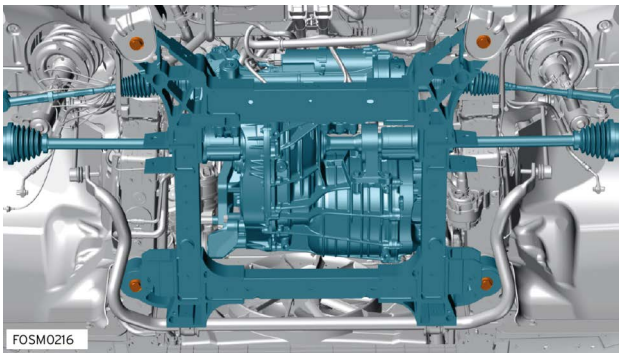
    *NOTE: Do not disconnect upper harness connector with green label or lower harness connector with pink label from steering gear. If harness connectors are disconnected ensure harness is secured to clip on steering gear so that harness connectors can only be connected to their correct connections.*




26. Release clips (x2) securing steering gear harness to steering gear.
27. Release steering gear harness and engine harness from front subframe assembly.
28. Install suitable lifting table under front subframe assembly.
29. Lower vehicle until front subframe assembly is supported on lifting table.

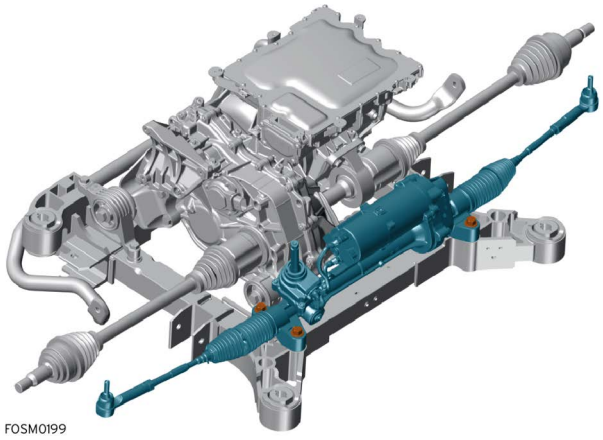



30. Remove M12x25 bolts (x6) securing support brackets (x2) to body. **Torque 75 Nm.**




31. Remove M16x130 bolts (x4) securing front subframe assembly to chassis. **Torque 268 Nm.**
32. Raise vehicle until clear of front subframe assembly.
33. Remove front subframe assembly.

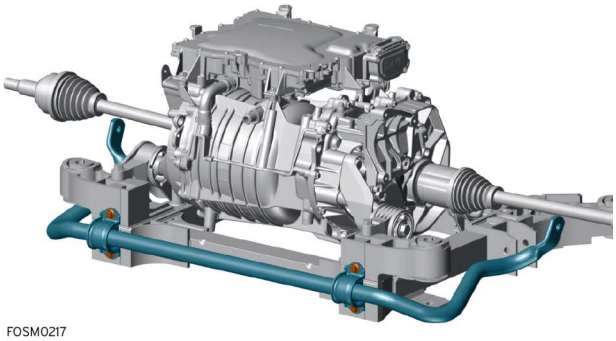
***Do not carry out further disassembly if component is removed for access only.***



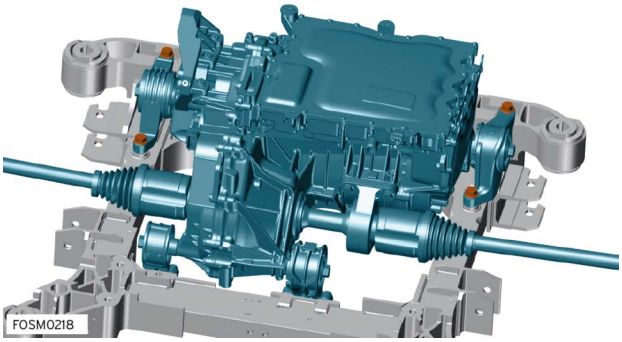

34. Remove and discard M14x70 bolts (x3) securing steering gear to front subframe assembly. **Torque 90 Nm +45 degrees.**

**WARNING: These fasteners have been torqued to a specification where the threads may have been damaged or stretched. Always discard and replace with new on installation.**

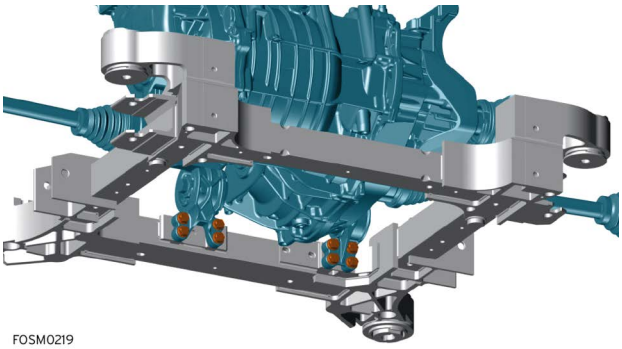
35. Remove steering gear.




36. Remove M10x30 bolts (x2) securing LH stabilizer bushing clamp to front subframe. **Torque 62 Nm.**
37. Remove M10x30 bolts (x2) securing RH stabilizer bushing clamp to front subframe. **Torque 62 Nm.**
38. Remove stabilizer bar.
39. Install suitable lifting equipment to electric drive unit.




40. Remove M12x45 bolts (x4) securing front mounts (x2) to front subframe. **Torque 100 Nm.**




41. Remove M12x45 bolts (x8) securing rear mounts (x2) to front subframe. **Torque 60 Nm.**
42. Using suitable lifting equipment slowly lift and remove electric drive unit.

### Installation

1. Installation is the reverse of the removal procedure except for the following:
2. Renew all discarded fasteners.
3. Clean component mating faces, prior to installation.

**WARNING: Only use cleaning agents and solvents in a well ventilated area.**

## Subframe Assembly - Rear

### Removal

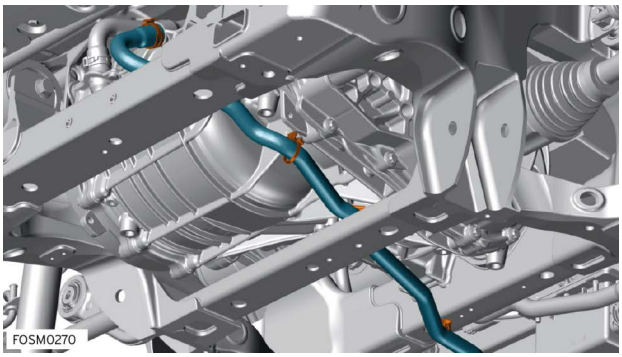
1. Disconnect high voltage battery system. Refer to Deactivate/Activate - High Voltage Battery System.

**WARNING: High-voltage cables and components may remain energized for up to 5 minutes after isolating.**

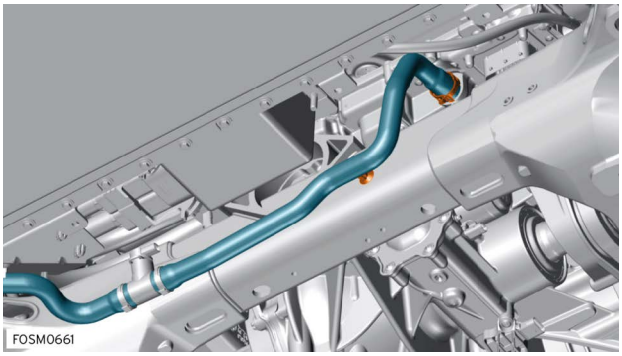
2. Drain coolant. Refer to Coolant Drain & Refill - Powertrain.
3. Remove rear underbody cover. Refer to Underbody Cover - Rear.
4. Remove LH knuckle. Refer to Knuckle Assembly - Rear - LH.
5. Remove LH lower H arm. Refer to H Arm Assembly - Lower - Rear - LH.
6. Remove RH knuckle.

   *NOTE: Procedure is the same as for left side component.*
7. Remove RH lower H arm.

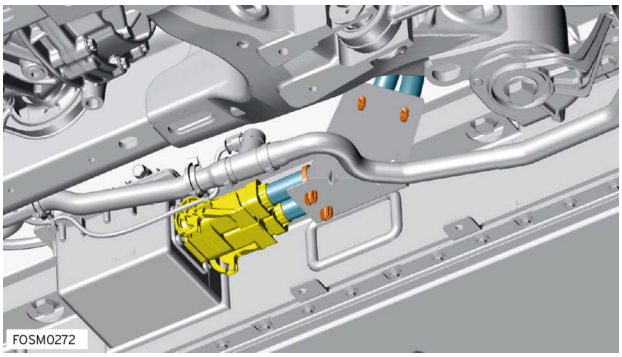
   *NOTE: Procedure is the same as for left side component.*



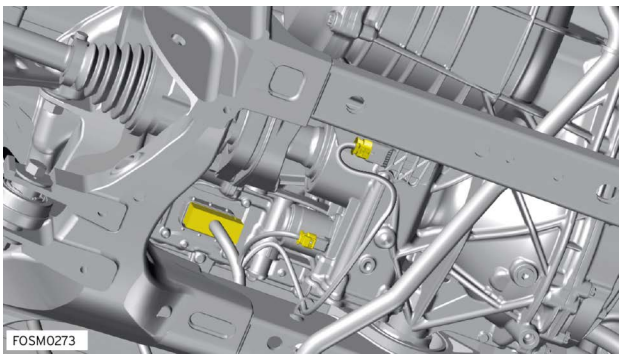

8. Release hose clamp securing coolant hose to rear of electric drive unit.
9. Disconnect coolant hose from rear of electric drive unit.
10. Release clips (x3) securing coolant hose to rear subframe.



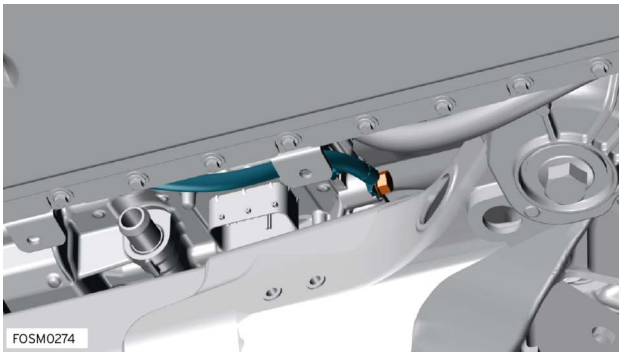

11. Release hose clamp securing coolant hose to front of electric drive unit.
12. Disconnect coolant hose from front of electric drive unit.
13. Release clip securing coolant hose to rear subframe.



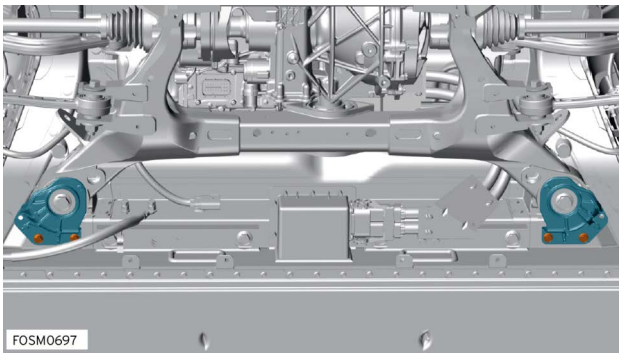

14. Release clips (x4) securing harness to bracket.
15. Disconnect harness connector from high voltage battery pack.



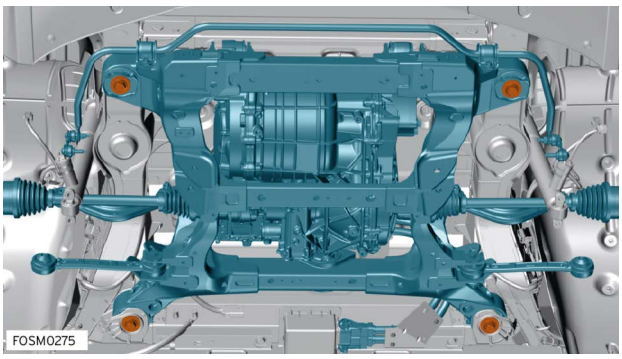

16. Disconnect harness connectors (x3) from electric drive unit.




17. Remove M8x16 bolt securing ground cable to electric drive unit. **Torque 21 Nm.**
18. Install suitable lifting table under rear subframe assembly.
19. Lower vehicle until rear subframe assembly is supported on lifting table.

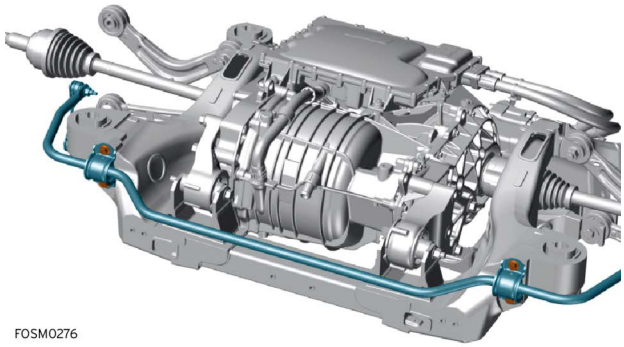



20. Remove M8x30 bolts (x4) securing support brackets (x2) to body. **Torque 30 Nm.**

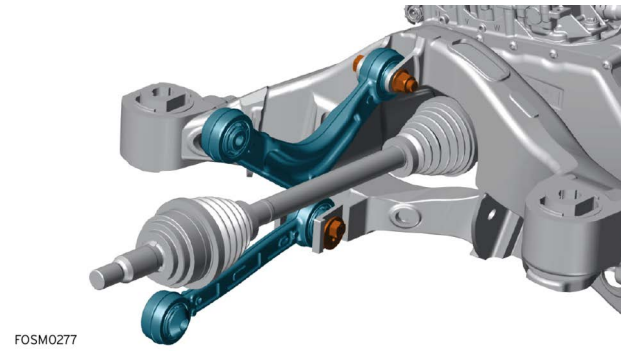



21. Remove M16x150 bolts (x4) securing front subframe assembly to body. **Torque 268 Nm.**
22. Raise vehicle until clear of rear subframe assembly.
23. Remove rear subframe assembly.

***Do not carry out further disassembly if component is removed for access only.***




24. Remove M10x30 bolts (x2) securing LH stabilizer bushing clamp to rear subframe. **Torque 62 Nm.**
25. Remove LH stabilizer bushing clamp.
26. Remove M10x30 bolts (x2) securing RH stabilizer bushing clamp to rear subframe. **Torque 62 Nm.**
27. Remove RH stabilizer bushing clamp.
28. Remove rear stabilizer bar.



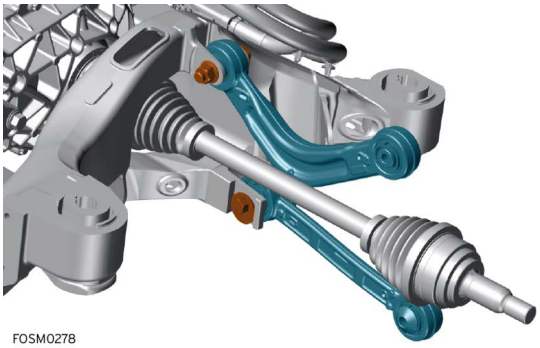

29. Remove M14 nut and M14x75 bolt securing LH upper transversal arm to rear subframe. **Torque 170 Nm.**

**CAUTION: Only tighten suspension nuts and bolts when the suspension is in the ride height position.**

30. Remove LH upper transversal arm.
31. Remove M14 nut, washers (x2) and M14x90 bolt securing LH toe link assembly to rear subframe. **Torque 170 Nm.**

**CAUTION: Only tighten suspension nuts and bolts when the suspension is in the ride height position.**

32. Remove LH toe link assembly.



FOSM0278

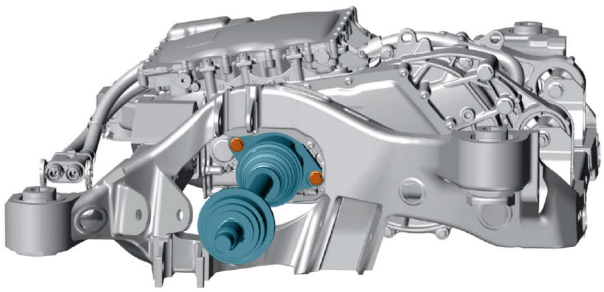
33. Remove M14 nut and M14x75 bolt securing RH upper transversal arm to rear subframe. **Torque 170 Nm.**

**CAUTION: Only tighten suspension nuts and bolts when the suspension is in the ride height position.**

34. Remove RH upper transversal arm.
35. Remove M14 nut, washers (x2) and M14x90 bolt securing LH toe link assembly to rear subframe. **Torque 170 Nm.**

**CAUTION: Only tighten suspension nuts and bolts when the suspension is in the ride height position.**

36. Remove RH toe link assembly.



FOSM0279

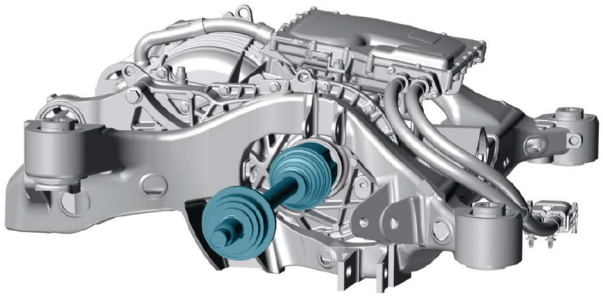
37. Remove M10x45 bolts (x2) securing LH halfshaft to electric drive unit. **Torque 60 Nm.**
38. Release LH halfshaft from electric drive unit.

**CAUTION: Take care not to damage the electric drive unit oil seal to prevent leaks.**

*NOTE: Use a suitable container to collect any oil spillage.*

39. Remove LH halfshaft.

**CAUTION: Install cap to electric drive unit to prevent further oil escaping.**



FOSM0280

40. Release RH halfshaft from electric drive unit.

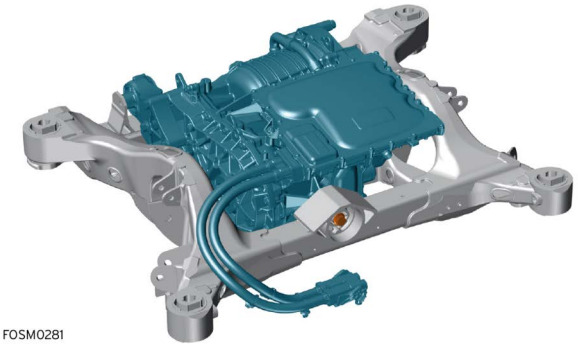
**CAUTION: Take care not to damage the electric drive unit oil seal to prevent leaks.**

*NOTE: Use a suitable container to collect any oil spillage.*

41. Remove RH halfshaft and discard snap ring.

**CAUTION: Install cap to electric drive unit to prevent further oil escaping.**

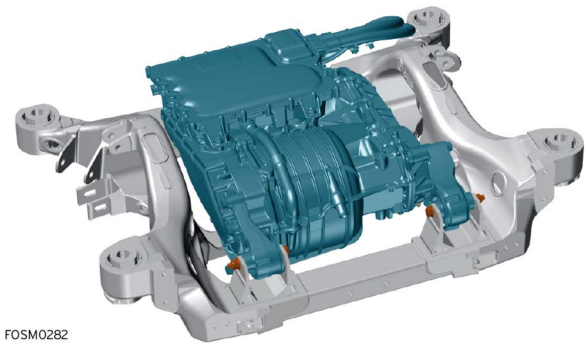
42. Install suitable lifting equipment to electric drive unit.



FOSM0281

43. Remove and discard M14x90 bolt securing electric drive unit to rear subframe. **Torque 150 Nm +45 degrees.**

**WARNING: These fasteners have been torqued to a specification where the threads may have been damaged or stretched. Always discard and replace with new on installation.**




44. Remove M12 nuts (x2) and M12x90 bolts (x2) securing electric drive unit to rear subframe. **Torque 100 Nm.**
45. Using suitable lifting equipment slowly lift and remove electric drive unit.

**Installation**

1. Installation is the reverse of the removal procedure except for the following:
2. Clean component mating faces, prior to installation.

**WARNING: Only use cleaning agents and solvents in a well ventilated area.**

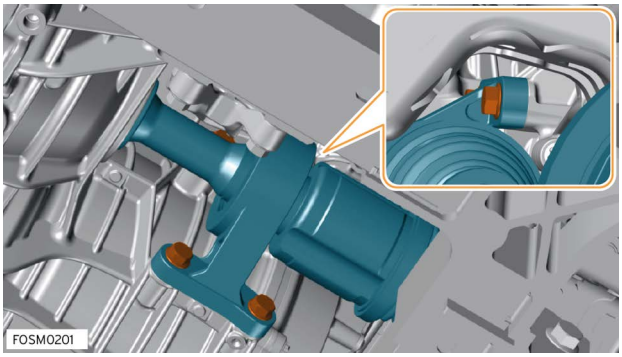
3. Renew all discarded fasteners.
4. Renew discarded snap ring on RH halfshaft.
5. Apply lithium based grease (Divinol Fett LC2 EP 200 or equivalent) to inboard splines of RH halfshaft before installation.

   *NOTE: Applying grease will keep snap ring in place and aide installation of halfshaft to electric drive unit.*
6. Check and top up oil if necessary. Refer to Oil Level Check & Top Up - EDU - Rear.
7. Refill coolant.

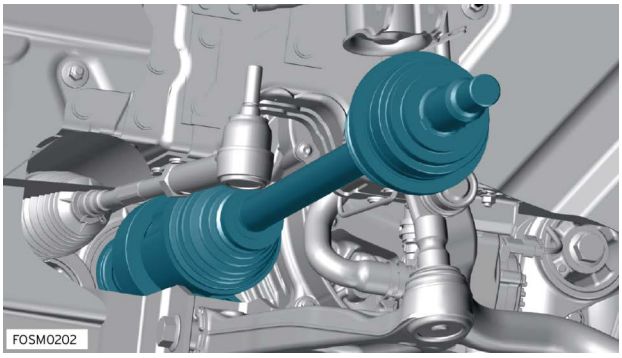
## Halfshaft - Front - RH

### Removal

1. Remove front RH knuckle. Refer to Knuckle Assembly - Front - LH.
2. Remove front underbody cover. Refer to Underbody Cover - Front.




3. Remove M10x40 bolts (x4) securing halfshaft to electric drive unit. **Torque 60 Nm.**




4. Release halfshaft from electric drive unit.

**CAUTION: Take care not to damage the electric drive unit oil seal to prevent leaks.**

*NOTE: Use a suitable container to collect any oil spillage.*

5. Maneuver and remove halfshaft.

**CAUTION: Install cap to electric drive unit to prevent further oil escaping.**

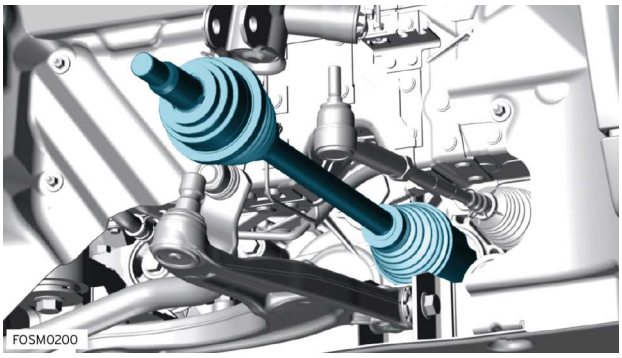
### Installation

1. Installation is the reverse of removal procedure except for the following:
2. Check and top up oil if necessary. Refer to Oil Level Check & Top Up - EDU - Front.

## Halfshaft - Front - LH

### Removal

1. Remove front LH knuckle. Refer to Knuckle Assembly - Front - LH.




2. Release halfshaft from electric drive unit.

**CAUTION: Take care not to damage the electric drive unit oil seal to prevent leaks.**

*NOTE: Use a suitable container to collect any oil spillage.*

3. Remove halfshaft and discard snap ring.

**CAUTION: Install cap to electric drive unit to prevent further oil escaping.**

### Installation

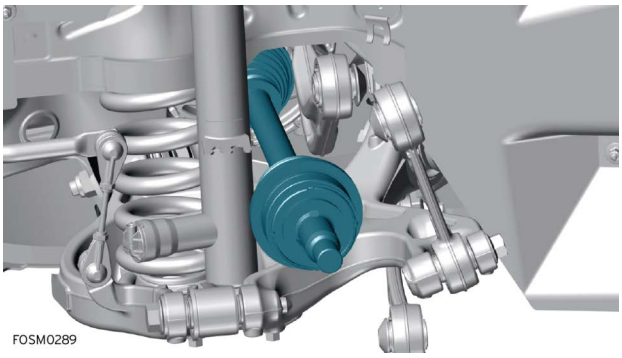
1. Installation is the reverse of removal procedure except for the following:
2. Renew discarded snap ring.
3. Apply lithium based grease (Divinol Fett LC2 EP 200 or equivalent) to inboard halfshaft splines before installation.

   *NOTE: Applying grease will keep snap ring in place and aide installation of halfshaft to electric drive unit.*
4. Check and top up oil if necessary. Refer to Oil Level Check & Top Up - EDU - Front.

## Halfshaft - Rear - RH

### Removal

1. Remove rear RH knuckle. Refer to Knuckle Assembly - Rear - LH.




2. Release halfshaft from electric drive unit.

**CAUTION: Take care not to damage the electric drive unit oil seal to prevent leaks.**

*NOTE: Use a suitable container to collect any oil spillage.*

3. Remove halfshaft and discard snap ring.

**CAUTION: Install cap to electric drive unit to prevent further oil escaping.**

### Installation

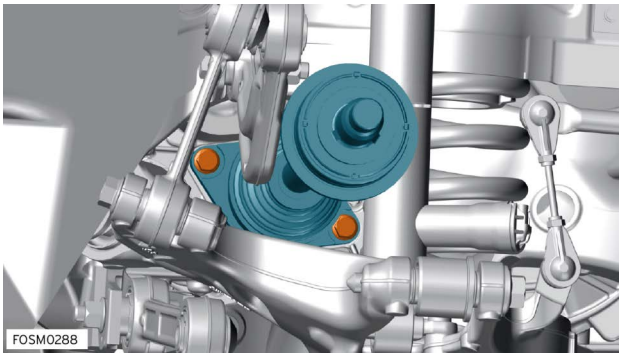
1. Installation is the reverse of removal procedure except for the following:
2. Renew discarded snap ring.
3. Apply lithium based grease (Divinol Fett LC2 EP 200 or equivalent) to inboard halfshaft splines before installation.

   *NOTE: Applying grease will keep snap ring in place and aide installation of halfshaft to electric drive unit.*
4. Check and top up oil if necessary. Refer to Oil Level Check & Top Up - EDU - Rear.

## Halfshaft - Rear - LH

### Removal

1. Remove rear LH knuckle. Refer to Knuckle Assembly - Rear - LH.
2. Remove rear underbody cover. Refer to Underbody Cover - Rear.




3. Remove M10x45 bolts (x2) securing halfshaft to electric drive unit. **Torque 60 Nm.**
4. Release halfshaft from electric drive unit.

**CAUTION: Take care not to damage the electric drive unit oil seal to prevent leaks.**

*NOTE: Use a suitable container to collect any oil spillage.*

5. Maneuver and remove halfshaft.

**CAUTION: Install cap to electric drive unit to prevent further oil escaping.**

### Installation

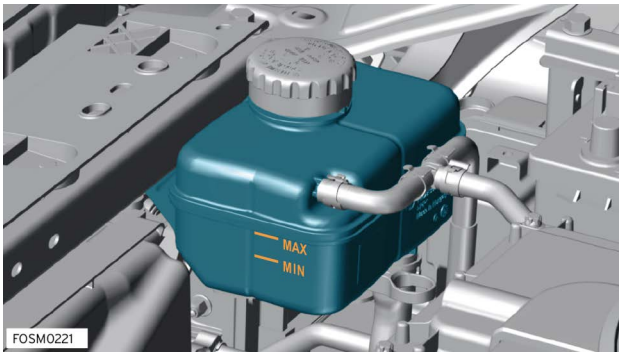
1. Installation is the reverse of removal procedure except for the following:
2. Check and top up oil if necessary. Refer to Oil Level Check & Top Up - EDU - Rear.

## Coolant Level Check & Top Up - Powertrain

### Check

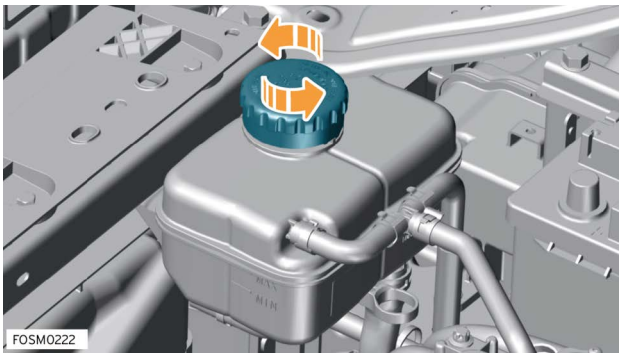
1. Open hood. Refer to Open Hood.

**WARNING: Allow cooling system to cool completely before proceeding.**




2. Visually check the coolant level in the surge tank. The level should be between the **MIN** and **MAX** marks.
3. If the coolant level is low, or closer to the **MIN** mark than the **MAX** mark, additional coolant should be added.

### Top up



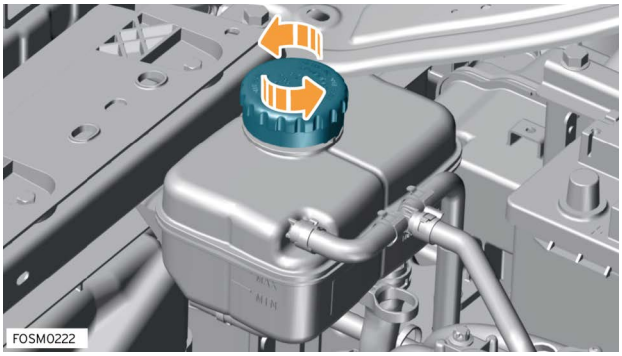

1. Remove surge tank cap.
2. Fill surge tank to the **MAX** level indicator with the recommended coolant.
3. Operate the water pump using the Fisker Aftersales Service Tool. Allow the pump to run for 5 minutes, this will circulate the coolant fully around the system to bleed out any air in the system.
4. If required, top upsurge tank to the **MAX** level indicator with the recommended coolant.
5. Install surge tank cap.
6. Wipe clean any spillages.
7. Secure hood.

## Coolant Drain & Refill - Powertrain

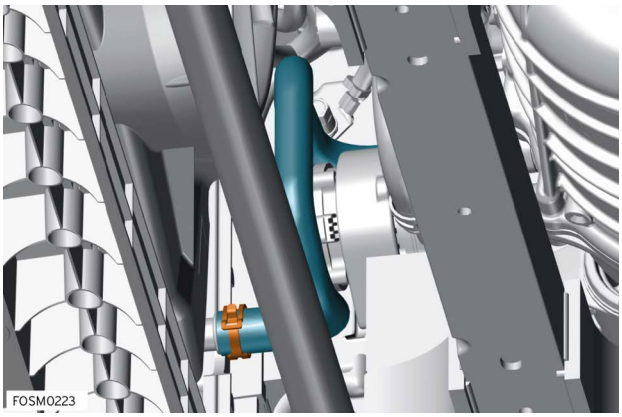
### Drain

1. Open hood. Refer to Open Hood.

**WARNING: Allow cooling system to cool completely before proceeding.**




2. Remove surge tank cap.
3. Remove front underbody cover. Refer to Underbody Cover - Front.




4. Release hose clamp securing coolant hose to radiator.
5. Disconnect coolant hose from radiator and allow coolant to drain completely.

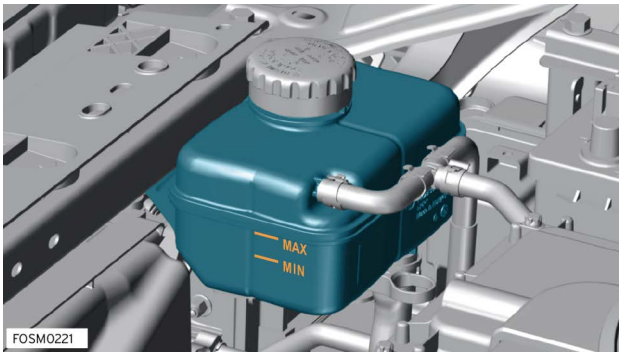
**WARNING: Coolant is a toxic substance and can be lethal if ingested.**

*NOTE: Drain coolant into a suitable container and dispose of appropriately.*

*NOTE: Be prepared to catch any excess fluid.*

### Refill

1. Connect hose to radiator and secure hose clamp.



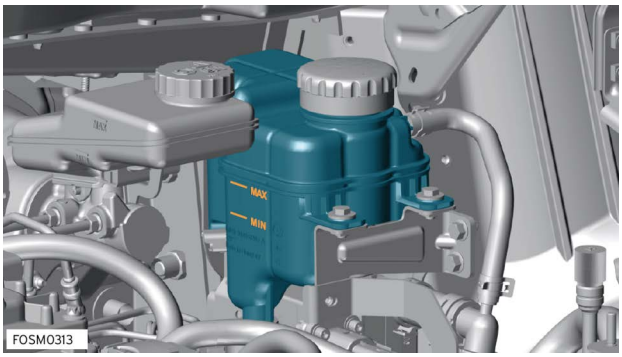

2. Fill surge tank to the **MAX** level indicator with the recommended coolant.
3. Operate the water pump using the Fisker Aftersales Service Tool. Allow the pump to run for 5 minutes, this will circulate the coolant fully around the system to bleed out any air in the system.
4. If required, top up surge tank to the **MAX** level indicator with the recommended coolant.
5. Install surge tank cap.
6. Wipe clean any spillages.
7. Secure hood.
8. Install front underbody cover.

## Coolant Level Check & Top Up - Energy Storage

### Check

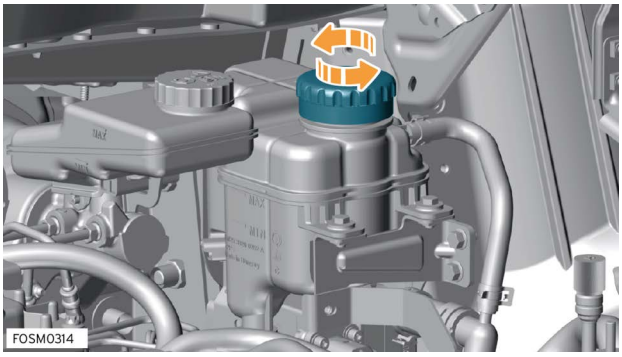
1. Open hood. Refer to Open Hood.

**WARNING: Allow cooling system to cool completely before proceeding.**




2. Visually check the coolant level in surge tank. The level should be between the **MIN** and **MAX** marks.
3. If the coolant level is low, or closer to the **MIN** mark than the **MAX** mark, additional coolant should be added.

### Top up



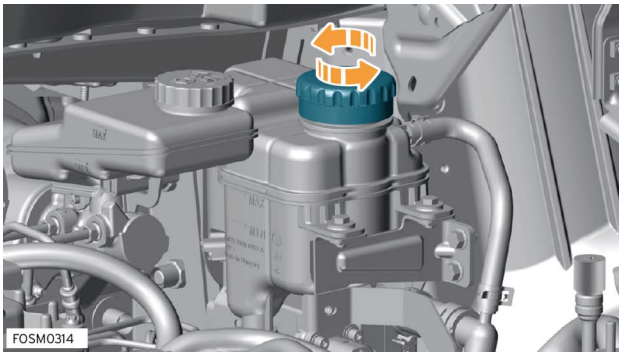

1. Remove surge tank cap.
2. Fill surge tank to the **MAX** level indicator with the recommended coolant.
3. Operate the water pump using the Fisker Aftersales Service Tool. Allow the pump to run for 5 minutes, this will circulate the coolant fully around the system to bleed out any air in the system.
4. If required, top up surge tank to the **MAX** level indicator with the recommended coolant.
5. Install surge tank cap.
6. Wipe clean any spillages.
7. Secure hood.

## Coolant Drain & Refill - Energy Storage

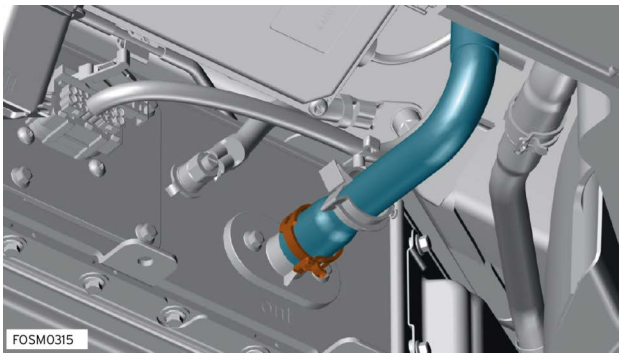
### Drain

1. Open hood. Refer to Open Hood.

**WARNING: Allow cooling system to cool completely before proceeding.**




2. Remove surge tank cap.
3. Remove front underbody cover. Refer to Underbody Cover - Front.



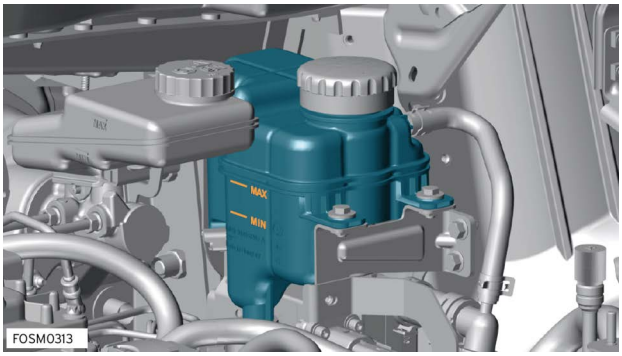

4. Release hose clamp securing coolant hose to high voltage battery pack.
5. Disconnect coolant hose from high voltage battery pack and allow coolant to drain completely.

**WARNING: Coolant is a toxic substance and can be lethal if ingested.**

*NOTE: Drain coolant into a suitable container and dispose of appropriately.*

### Refill

1. Connect hose to high voltage battery pack and secure hose clamp.



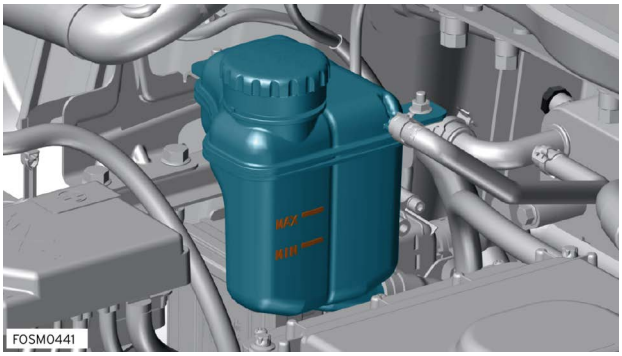

2. Fill surge tank to the **MAX** level indicator with the recommended coolant.
3. Operate the water pump using the Fisker Aftersales Service Tool. Allow the pump to run for 5 minutes, this will circulate the coolant fully around the system to bleed out any air in the system.
4. If required, top up surge tank to the **MAX** level indicator with the recommended coolant.
5. Install surge tank cap.
6. Wipe clean any spillages.
7. Secure hood.
8. Install front underbody cover.

## Coolant Level Check & Top Up - Heater

### Check

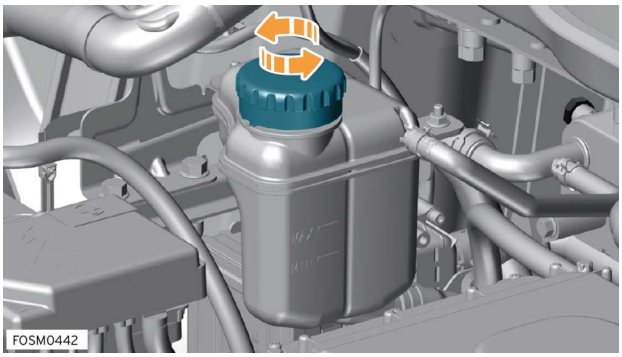
1. Open hood. Refer to Open Hood.

**WARNING: Allow cooling system to cool completely before proceeding.**




2. Visually check the coolant level in the surge tank. The level should be between the **MIN** and **MAX** marks.
3. If the coolant level is low, or closer to the **MIN** mark than the **MAX** mark, additional coolant should be added.

### Top Up



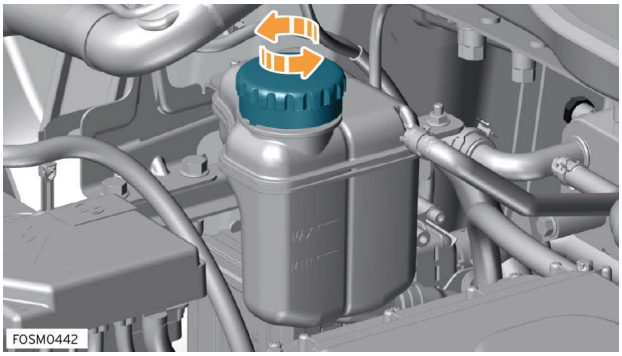

1. Remove surge tank cap.
2. Fill surge tank to the **MAX** level indicator with the recommended coolant.
3. Operate the water pump using the Fisker Aftersales Service Tool. Allow the pump to run for 5 minutes, this will circulate the coolant fully around the system to bleed out any air in the system.
4. If required, top up surge tank to the **MAX** level indicator with the recommended coolant.
5. Install surge tank cap.
6. Wipe clean any spillages.
7. Secure hood.

## Coolant Drain & Refill - Heater

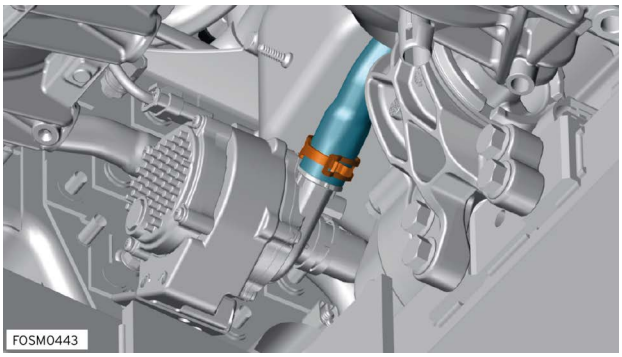
### Drain

1. Open hood. Refer to Open Hood.

**WARNING: Allow cooling system to cool completely before proceeding.**




2. Remove surge tank cap.
3. Remove front underbody cover. Refer to Underbody Cover - Front.



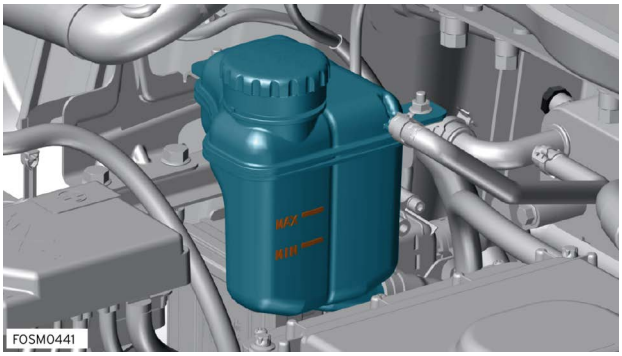

4. Release hose clamp securing coolant hose to water pump.
5. Disconnect coolant hose from water pump and allow coolant to drain completely.

**WARNING: Coolant is a toxic substance and can be lethal if ingested.**

*NOTE: Drain coolant into a suitable container and dispose of appropriately.*

### Refill

1. Connect hose to water pump and secure hose clamp.




2. Fill surge tank to the **MAX** level indicator with the recommended coolant.
3. Operate the water pump using the Fisker Aftersales Service Tool. Allow the pump to run for 5 minutes, this will circulate the coolant fully around the system to bleed out any air in the system.
4. If required, top up surge tank to the **MAX** level indicator with the recommended coolant.
5. Install surge tank cap.
6. Wipe clean any spillages.
7. Secure hood.
8. Install front underbody cover.

## Refrigerant Recovery & Recharging

Operation Code: 30004000

### Procedure Introduction

**WARNING: On no account should refrigerant ever be discharged to atmosphere - use a refrigerant recovery/ recycling station in accordance with the manufacturer's instructions.**

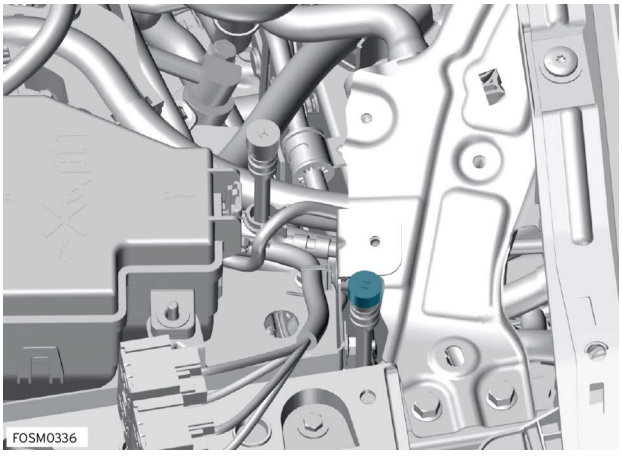
**WARNING: Heavy concentrations of refrigerant vapour can produce toxic gas if exposed to a naked flame. The gas can also attack metal.**

**WARNING: Refrigerant is a hazardous liquid and if handled incorrectly can cause serious injury. Suitable Personal Protective Equipment consisting of safety goggles and heat-proof gloves must be worn when carrying out operations on the air conditioning system.**

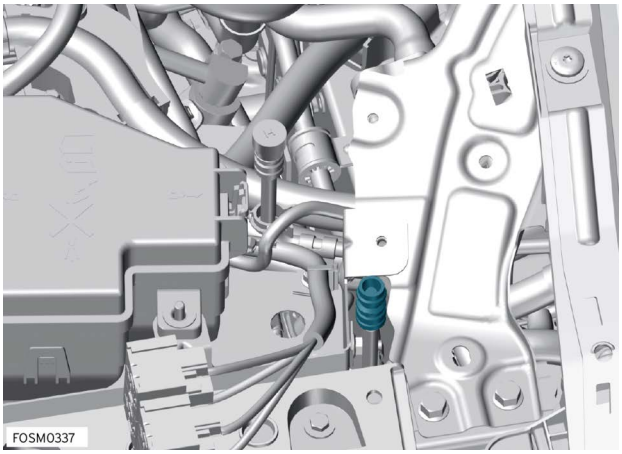
**WARNING: Servicing must only be carried out by personnel familiar with both the vehicle system and the charging and testing equipment. All operations must be carried out in a well-ventilated area away from open flame and heat sources.**

### Recovery

1. Open hood. Refer to Open Hood.




2. Remove cap from refrigerant gas outlet port.

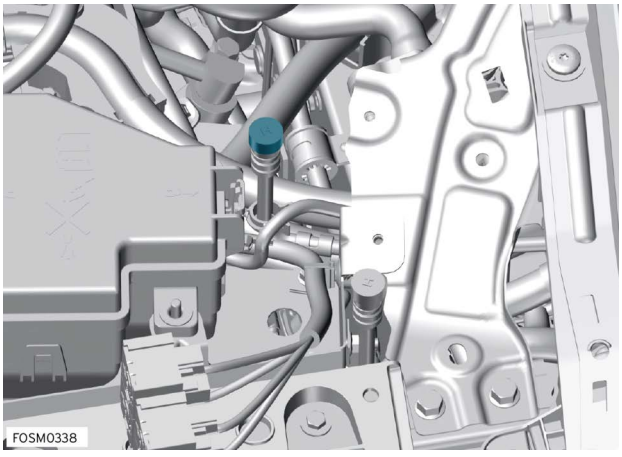



3. Connect air conditioning discharge line to outlet port.
4. Remove air conditioning refrigerant gas and depressurize system.
5. Install cap to refrigerant gas outlet port.

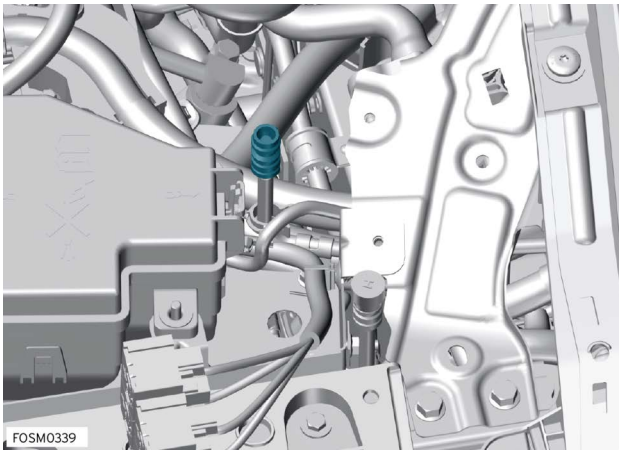
### Recharge

1. Open all doors on the vehicle to allow fresh air to circulate through vehicle during the recharge process.

**WARNING: All doors must be open to prevent a build up of gas in the cabin in the event of a HVAC leak.**




2. Remove cap from air conditioning inlet port.
3. Set air-conditioning to coldest setting.



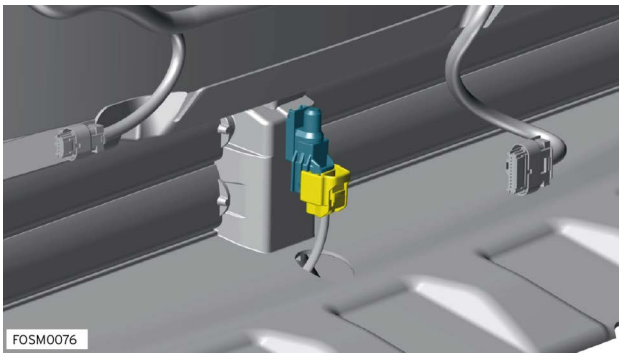

4. Connect air-conditioning recharge line to inlet port.
5. Recharge / pressurize air-conditioning system. Refer to operators manual for refrigerant specification.

   *NOTE: Check inside the cabin to ensure air is cold.*
6. Install cap to air conditioning inlet port.
7. Secure hood.

## Ambient Temperature Sensor - Outside

### Removal

1. Remove front bumper assembly. Refer to Bumper Assembly - Front.




2. Disconnect harness connector from ambient temperature sensor.
3. Release clip securing ambient temperature sensor to active grille.
4. Remove ambient temperature sensor.

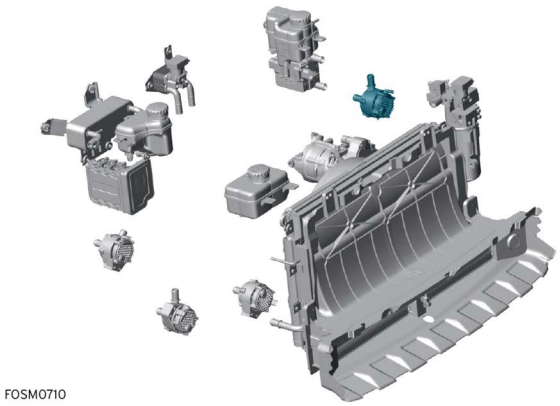
### Installation

1. Installation is the reverse of the removal procedure.

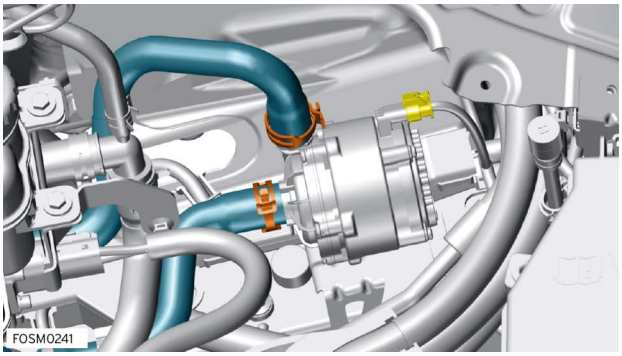
## Water Pump - Energy Storage

### Removal

1. Open hood. Refer to Open Hood.




2. Locate water pump.

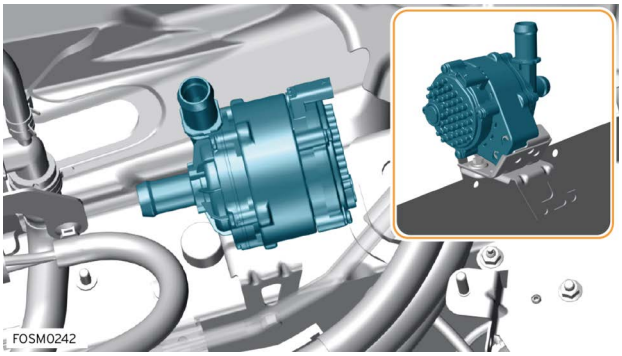



3. Disconnect harness connector from water pump.
4. Release clamps (x2) securing coolant hoses (x2) to water pump.

**WARNING: Risk of scalding. Allow coolant to cool completely before proceeding.**

5. Release and plug hoses (x2) from water pump.

   *NOTE: Be prepared to catch any excess fluid.*




6. Slide water pump left and remove from bracket.

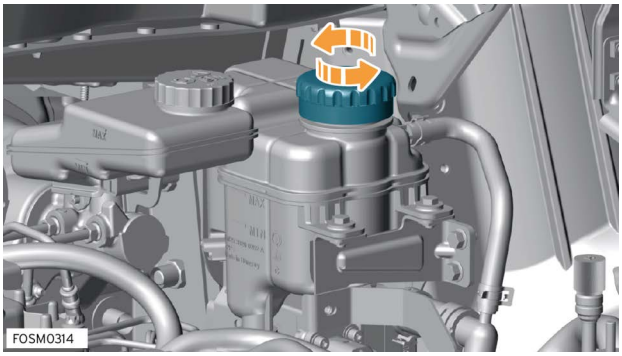
### Installation

1. Installation is the reverse of removal procedure except for the following:
2. Check and top up coolant if necessary. Refer to Coolant Level Check & Top Up - Energy Storage.

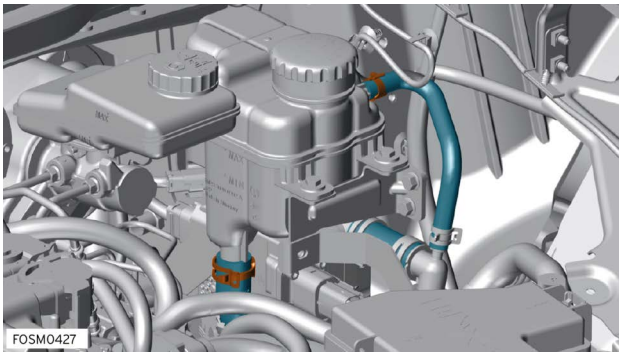
## Surge Tank - Energy Storage

### Removal

1. Open hood. Refer to Open Hood.

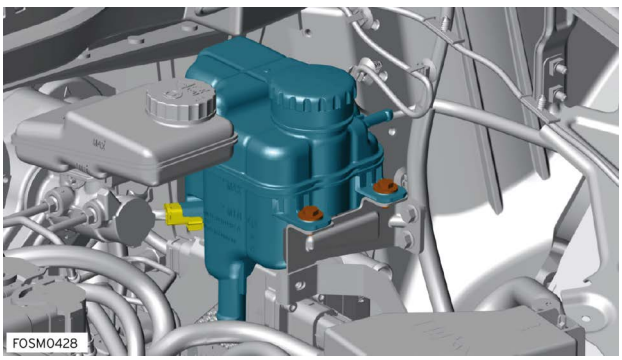



2. Remove surge tank cap.
3. Syphon coolant from surge tank.




4. Release clamps (x2) securing coolant hoses (x2) to surge tank.
5. Disconnect and plug coolant hoses (x2) from surge tank.

   *NOTE: Be prepared to catch any excess fluid.*




6. Disconnect harness connector from surge tank level sensor.
7. Remove M6x16 bolts (x2) securing surge tank to chassis. **Torque 9 Nm.**
8. Release clip securing surge tank to chassis.
9. Remove surge tank.

***Do not carry out further disassembly if component is removed for access only.***




10. Release and remove surge tank level sensor from surge tank.

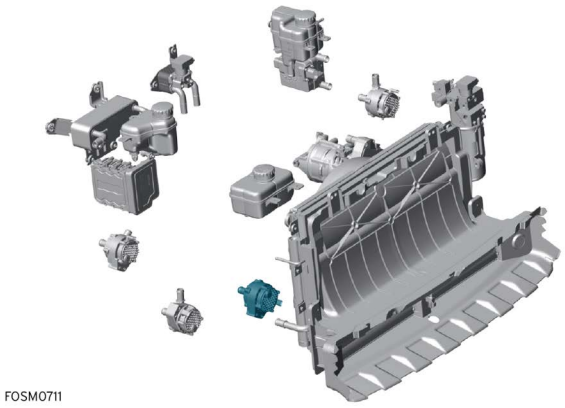
### Installation

1. Installation is the reverse of removal procedure.
2. Check and top up coolant. Refer to Coolant Level Check & Top Up - Energy Storage.

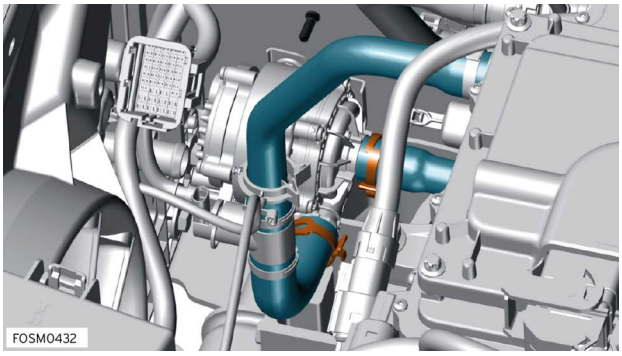
## Water Pump - Powertrain

### Removal

1. Remove front underbody cover. Refer to Underbody Cover - Front.
2. Remove surge tank. Refer to Surge Tank - Powertrain.

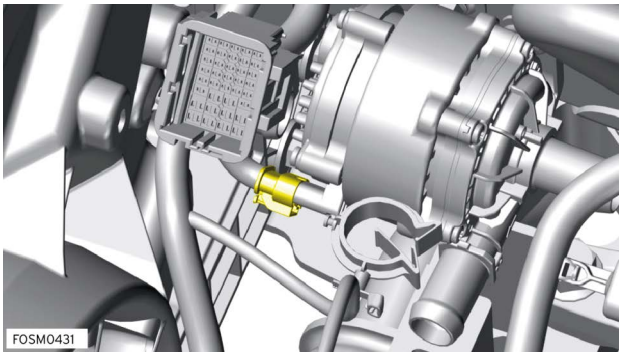



3. Locate water pump.

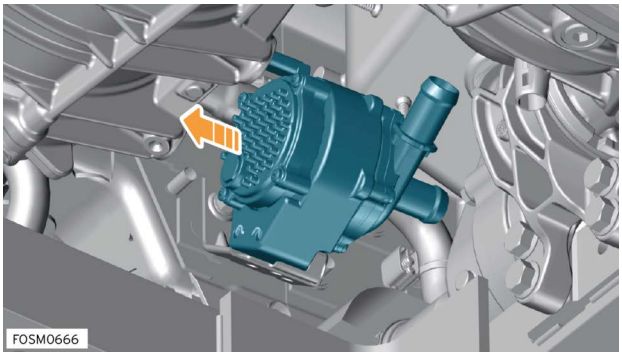



4. Release clamps (x2) securing coolant hoses (x2) to water pump.
5. Disconnect and plug coolant hoses (x2) from water pump.

   *NOTE: Be prepared to catch any excess fluid.*




6. Disconnect harness connector from water pump.




7. Slide water pump left and remove from bracket.

### Installation

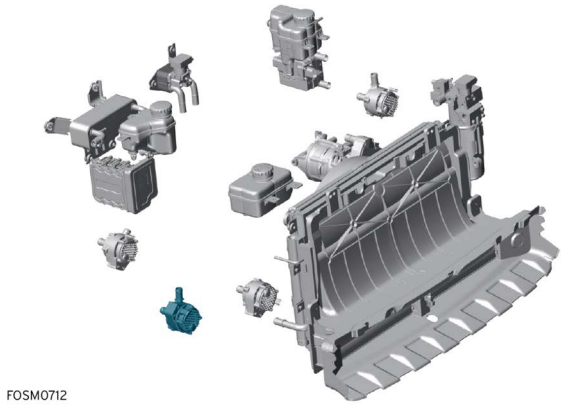
1. Installation is the reverse of removal procedure except for the following:
2. Check and top up coolant. Refer to Coolant Level Check & Top Up - Powertrain.

## Water Pump - Powertrain - AWD

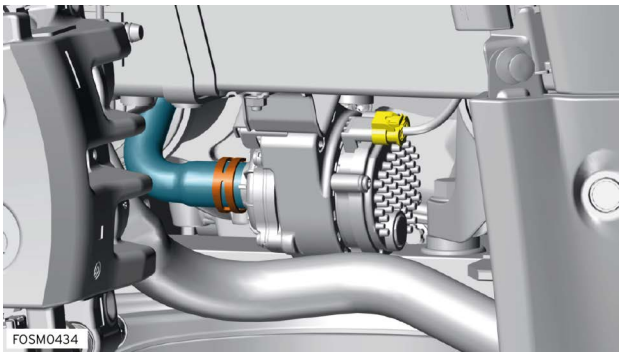
### Removal

1. Remove front underbody cover. Refer to Underbody Cover - Front.
2. Remove RH front fender liner.

   *NOTE: Procedure is the same as for left side component.*



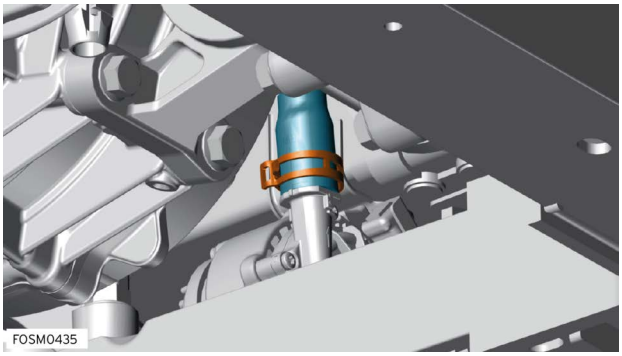

3. Locate water pump.




4. Release clamp securing coolant hose to water pump.
5. Disconnect and plug coolant hose from water pump.

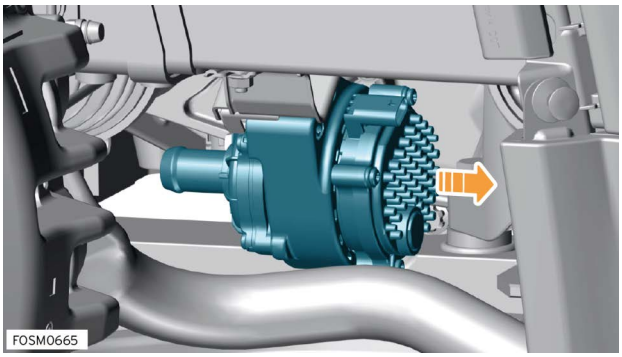
   *NOTE: Be prepared to catch any excess fluid.*

6. Disconnect harness connector from water pump.




7. Release clamp securing coolant hose to water pump.
8. Disconnect and plug coolant hose from water pump.

   *NOTE: Be prepared to catch any excess fluid.*




9. Slide water pump right and remove from bracket.

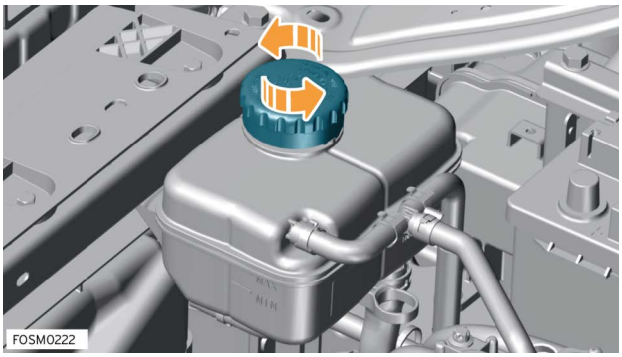
### Installation

1. Installation is the reverse of removal procedure except for the following:
2. Check and top up coolant. Refer to Coolant Level Check & Top Up - Powertrain.

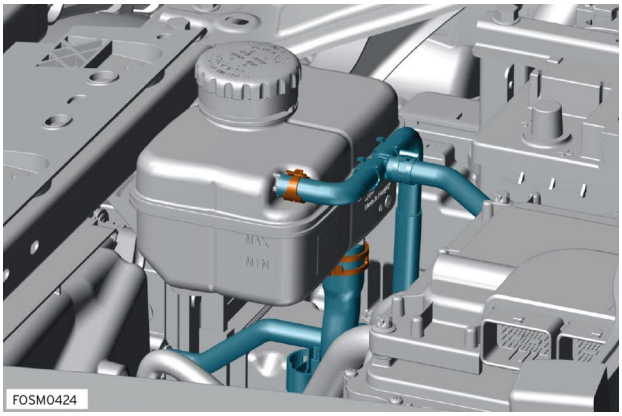
## Surge Tank - Powertrain

### Removal

1. Open hood. Refer to Open Hood.

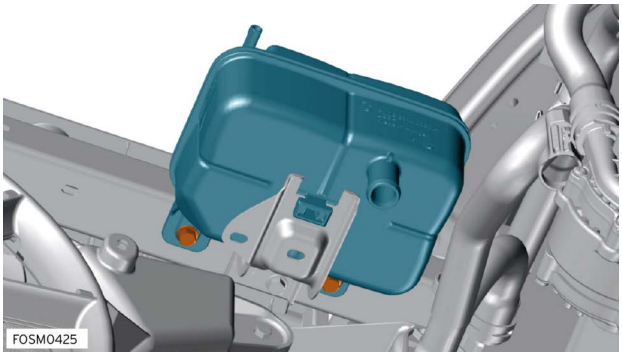



2. Remove surge tank cap.
3. Syphon coolant from surge tank.




4. Release clamps (x2) securing coolant hoses (x2) to surge tank.
5. Disconnect and plug coolant hoses (x2) from surge tank.

   *NOTE: Be prepared to catch any excess fluid.*




6. Remove M6x16 bolts (x2) securing surge tank to front cross member. **Torque 9 Nm.**
7. Remove surge tank.

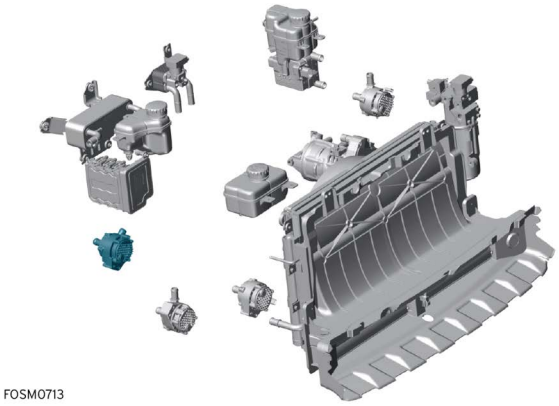
### Installation

1. Installation is the reverse of removal procedure.
2. Check and top up coolant. Refer to Coolant Level Check & Top Up - Powertrain.

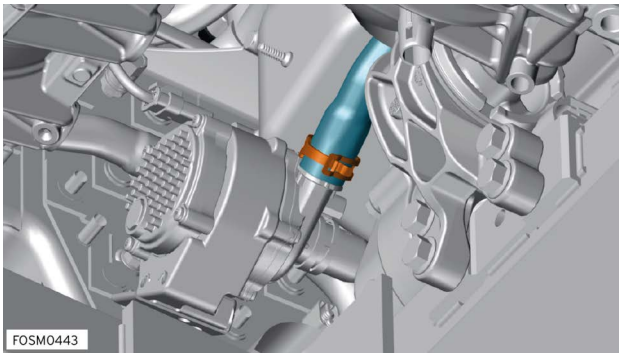
## Water Pump - Heater

### Removal

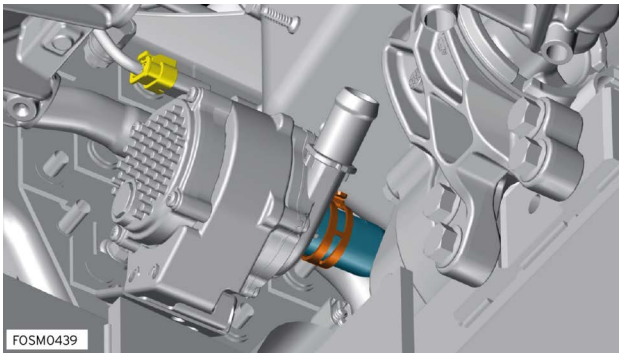
1. Remove front underbody cover. Refer to Underbody Cover - Front.




2. Locate water pump.



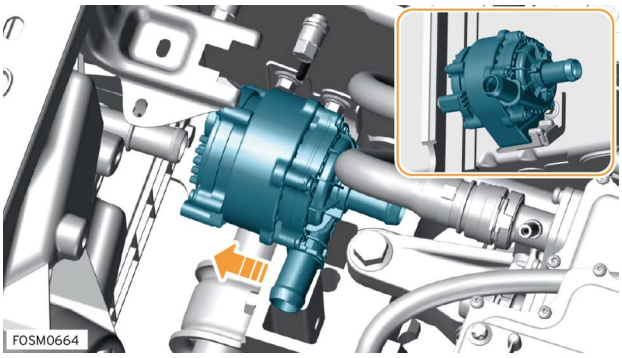

3. Release clamp securing coolant hose to water pump.
4. Disconnect and plug coolant hose from water pump.




5. Release clamp securing coolant hose to water pump.
6. Disconnect and plug coolant hose from water pump.

*NOTE: Be prepared to catch any excess fluid.*

7. Disconnect harness connector from water pump.




8. Slide water pump left and remove from bracket.

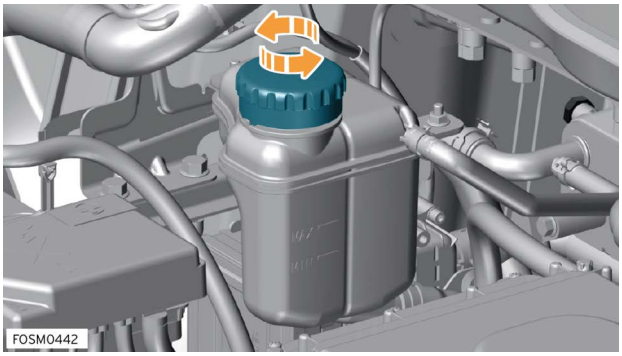
### Installation

1. Installation is the reverse of removal procedure except for the following:
2. Check and top up coolant. Refer to Coolant Level Check & Top Up - Heater.

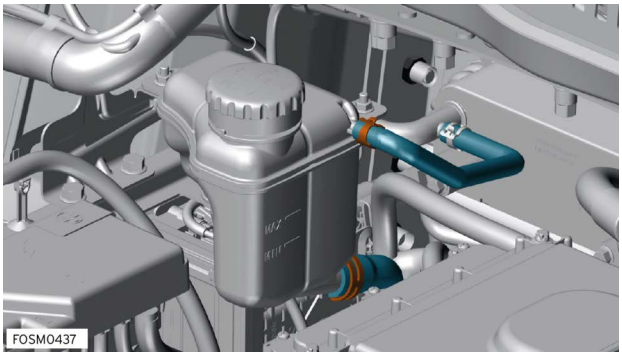
## Surge Tank - Heater

### Removal

1. Open hood. Refer to Open Hood.

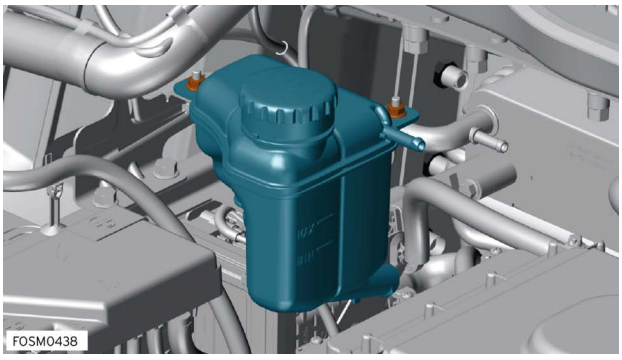



2. Remove surge tank cap.
3. Syphon coolant from surge tank.




4. Release clamps (x2) securing coolant hoses (x2) to surge tank.
5. Disconnect and plug coolant hoses (x2) from surge tank.

   *NOTE: Be prepared to catch any excess fluid.*




6. Remove M6 nuts (x2) securing surge tank to chassis. **Torque 9 Nm.**
7. Release surge tank from mounting bracket.
8. Remove surge tank.

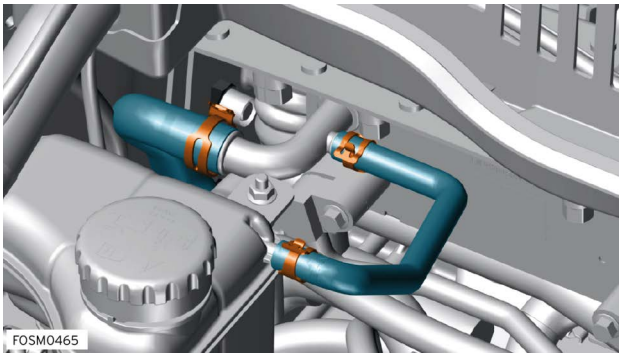
### Installation

1. Installation is the reverse of removal procedure.
2. Check and top up coolant. Refer to Coolant Level Check & Top Up - Heater.

## Liquid-Cooled Condenser

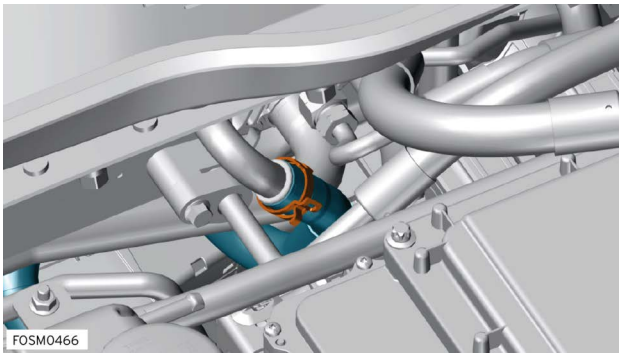
### Removal

1. Drain coolant. Refer to Coolant Drain & Refill - Heater.
2. Recover refrigerant. Refer to Refrigerant Recovery & Recharging.



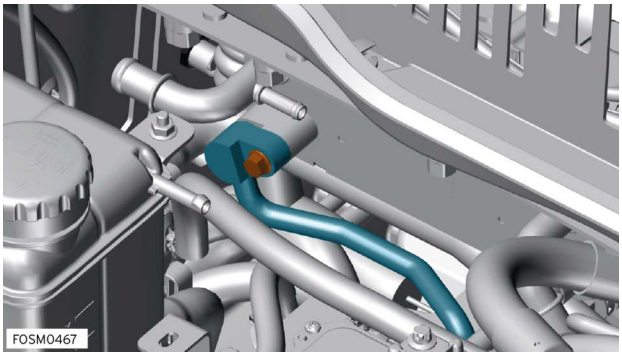

3. Release clamps (x2) securing coolant hoses (x2) to liquid-cooled condenser.
4. Disconnect coolant hoses (x2) from liquid-cooled condenser.

   *NOTE: Be prepared to catch any excess fluid.*

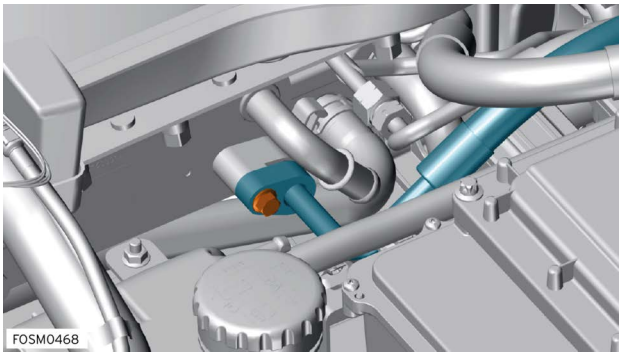



5. Release clamp securing coolant hose to liquid-cooled condenser.
6. Disconnect coolant hose from liquid-cooled condenser.

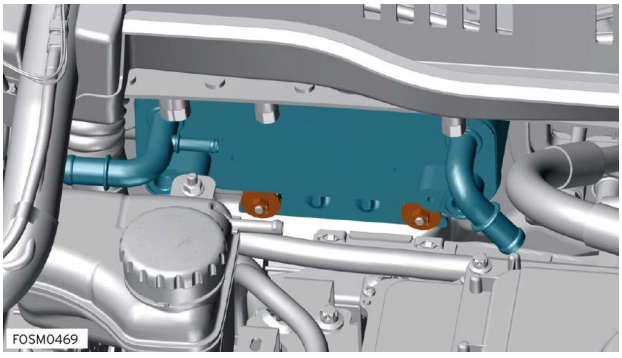
   *NOTE: Be prepared to catch any excess fluid.*

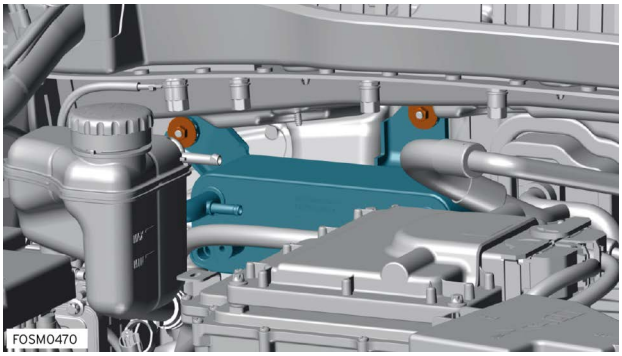



7. Remove M6x25 bolt securing AC inlet pipe to liquid-cooled condenser. **Torque 9 Nm.**
8. Disconnect AC inlet pipe from liquid-cooled condenser and discard O-ring.




9. Remove M6x25 bolt securing AC outlet pipe to liquid-cooled condenser. **Torque 9 Nm.**
10. Disconnect AC outlet pipe from liquid-cooled condenser and discard O-ring.






11. Remove M6 nuts (x4) securing liquid-cooled condenser to chassis. **Torque 9 Nm.**
12. Remove liquid-cooled condenser.

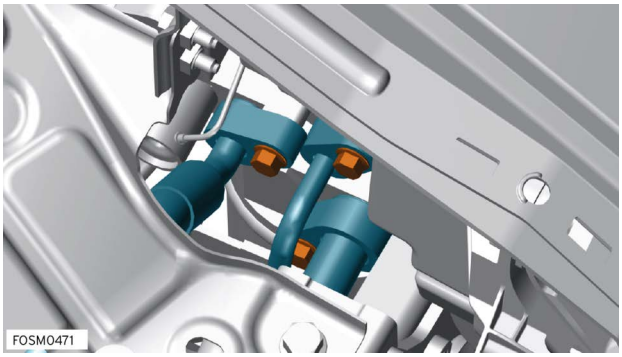
### Installation

1. Installation is the reverse of removal procedure except for the following:
2. Install new O-rings (x2) to AC pipes (x2).
3. Recharge refrigerant.

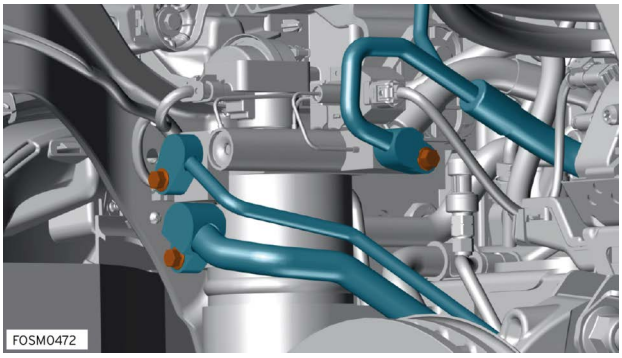
## Gas-Liquid Separator

### Removal

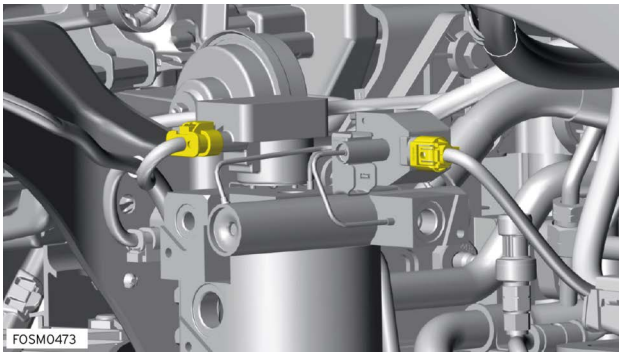
1. Recover refrigerant. Refer to Refrigerant Recovery & Recharging.
2. Remove LH front fender liner. Refer to Fender Liner - Front - LH.



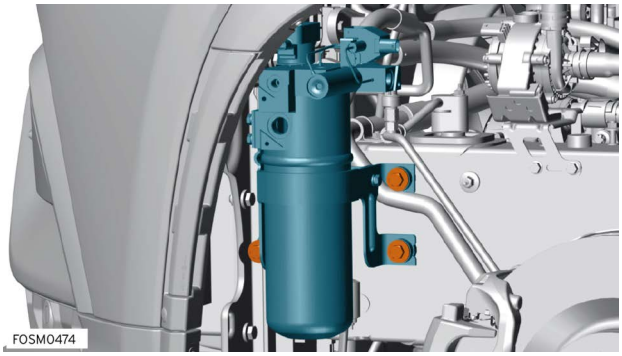

3. Remove M6x25 bolts (x3) securing AC pipes (x3) to gas-liquid separator. **Torque 9 Nm.**
4. Disconnect AC pipes (x3) from gas-liquid separator and discard O-rings (x3).




5. Remove M6x25 bolts (x3) securing AC pipes (x3) to gas-liquid separator. **Torque 9 Nm.**
6. Disconnect AC pipes (x3) from gas-liquid separator and discard O-rings (x3).




7. Disconnect harness connectors (x2) from gas-liquid separator.




8. Remove M8x35 bolts (x3) securing gas-liquid separator to chassis. **Torque 21 Nm.**
9. Remove gas-liquid separator.

**Installation**

1. Installation is the reverse of removal procedure except for the following:
2. Install new O-rings (x6) to AC pipes (x6).
3. Recharge refrigerant.

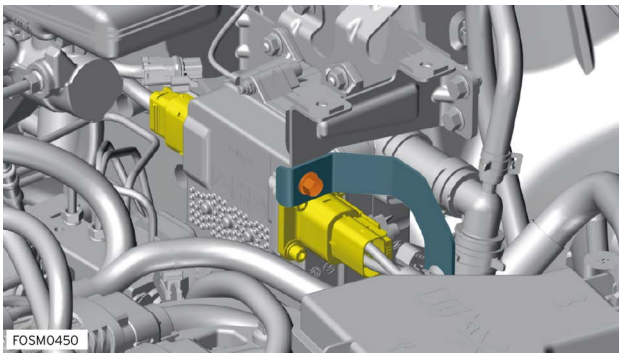
## PTC Heater - 3.5 kW

### Removal

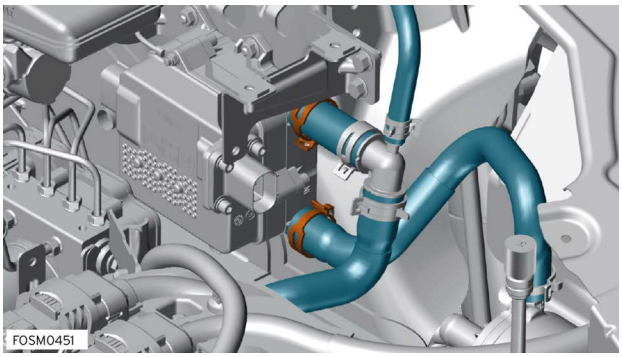
1. Deactivate high voltage battery system. Refer to Deactivate/Activate - High Voltage Battery System.

**WARNING: High-voltage cables and components may remain energized for up to 5 minutes after isolating.**

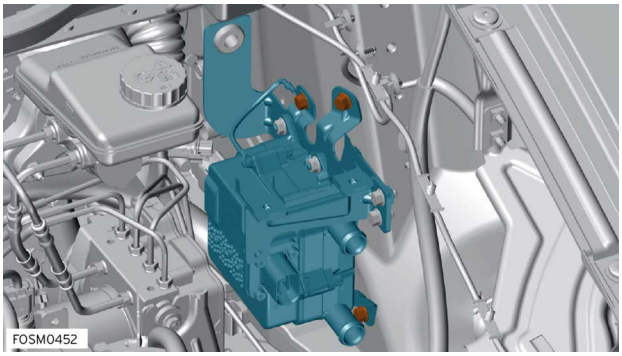
2. Drain coolant. Refer to Coolant Drain & Refill - Energy Storage.
3. Remove surge tank. Refer to Surge Tank - Energy Storage.




4. Disconnect harness connectors (x2) from heater.
5. Remove bolt securing harness bracket to mounting bracket.

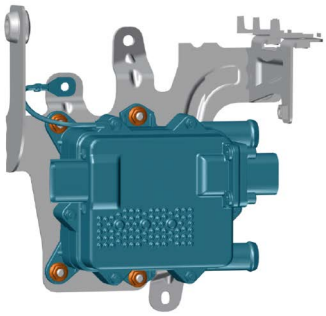



6. Release clamps (x2) securing coolant hoses (x2) to heater.
7. Disconnect hoses (x2) from heater.




8. Remove M6x16 bolts (x3) securing heater to chassis. **Torque 9 Nm.**
9. Remove heater.

***Do not carry out further disassembly if component is removed for access only.***




10. Remove M6 nuts (x4) securing heater to mounting bracket. **Torque 9 Nm.**
11. Remove mounting bracket.

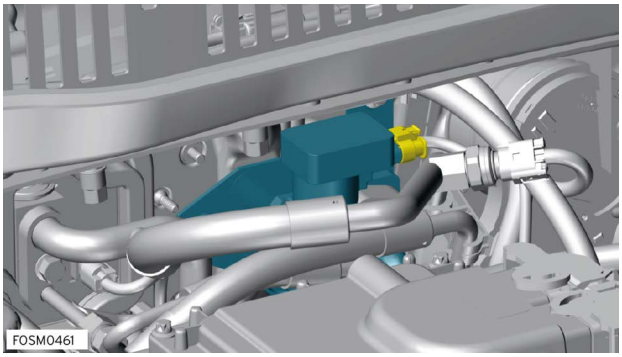
### Installation

1. Installation is the reverse of removal procedure except for the following:
2. Replace all coolant in energy storage circuit.

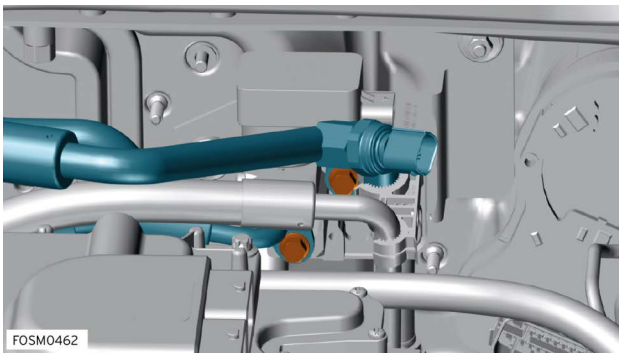
## Battery Chiller

### Removal

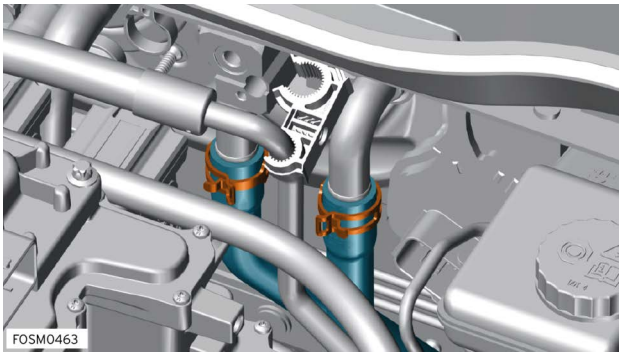
1. Drain coolant. Refer to Coolant Drain & Refill - Energy Storage.
2. Recover AC refrigerant. Refer to Refrigerant Recovery & Recharging.



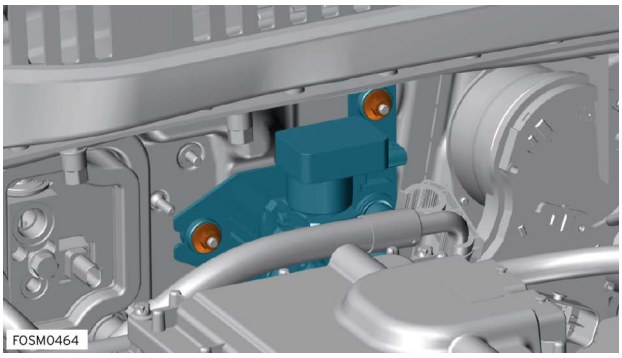

3. Disconnect harness connector from battery chiller.




4. Remove M6x30 bolt securing upper AC pipe to battery chiller. **Torque 9 Nm.**
5. Remove M6x16 bolt securing lower AC pipe to battery chiller. **Torque 9 Nm.**
6. Disconnect AC pipes (x2) from battery chiller and discard O-rings (x2).




7. Release clamps (x2) securing coolant hoses (x2) to battery chiller.
8. Disconnect coolant hoses (x2) from battery chiller.




9. Remove M6 nuts (x2) securing battery chiller to body. **Torque 8 Nm.**
10. Remove battery chiller.

### Installation

1. Installation is the reverse of removal procedure except for the following:
2. Install new O-rings (x2) to AC pipes (x2).
3. Recharge AC refrigerant
4. Replace all coolant in energy storage circuit.

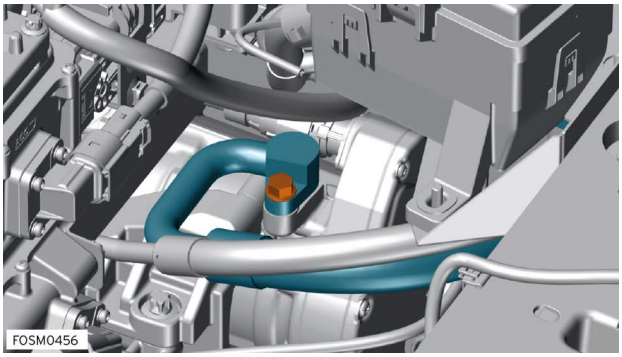
## AC Compressor

### Removal

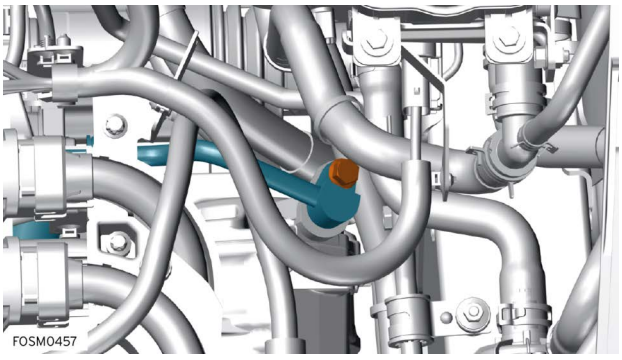
1. Deactivate high voltage battery system. Refer to Deactivate/Activate - High Voltage Battery System.

**WARNING: High-voltage cables and components may remain energized for up to 5 minutes after isolating.**

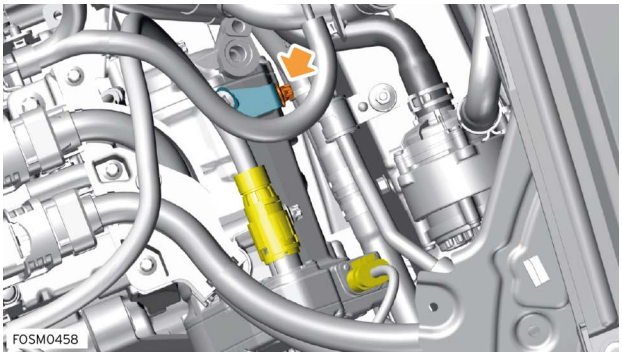
2. Recover AC refrigerant. Refer to Refrigerant Recovery & Recharging.



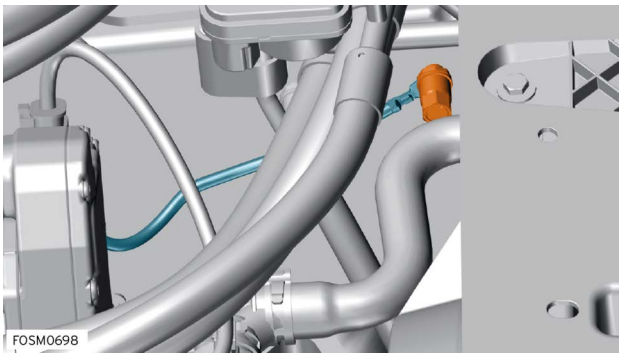

3. Remove M8x30 bolt securing AC inlet pipe to AC compressor. **Torque 16 Nm.**
4. Disconnect AC inlet pipe from AC compressor and discard O-ring.



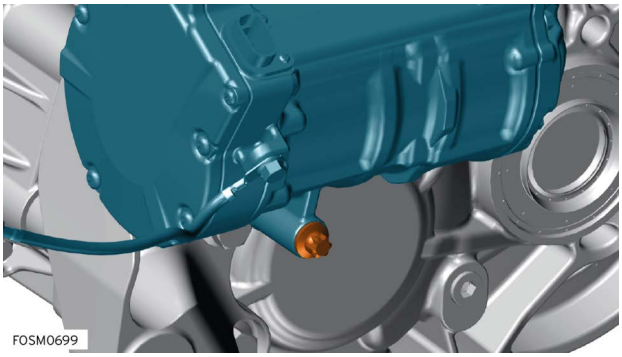

5. Remove M8x30 bolt securing AC inlet pipe to AC compressor. **Torque 16 Nm.**
6. Disconnect AC inlet pipe from AC compressor and discard O-ring.



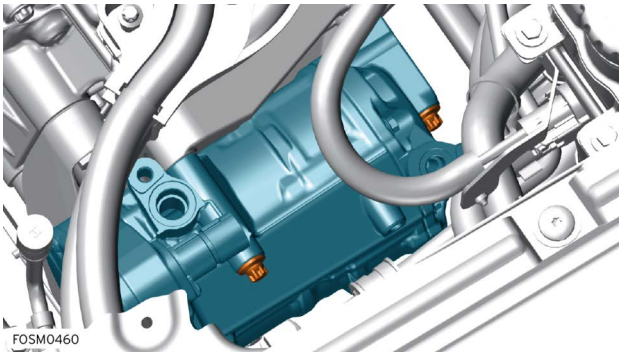

7. Remove M8x16 Torx bolt securing bracket to AC compressor. **Torque 9 Nm.**
8. Disconnect harness connectors (x2) from AC compressor.



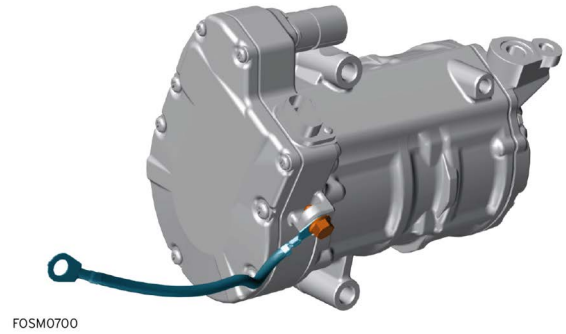

9. Remove bolt securing ground cable to body.




10. Remove M8x90 Torx bolt securing AC compressor to mounting bracket. **Torque 19 Nm.**




11. Remove M8x90 Torx bolts (x2) securing AC compressor to mounting bracket. **Torque 19 Nm.**
12. Remove AC compressor.
13. Do not carry out further disassembly if component is removed for access only.




14. Remove M6x12 bolt securing ground cable to AC compressor. **Torque 9 Nm.**

**Installation**

1. Installation is the reverse of removal procedure except for the following:
2. Install new O-rings (x2) to AC pipes (x2).
3. Recharge AC refrigerant.

## PTC Heater - 6 kW

### Removal

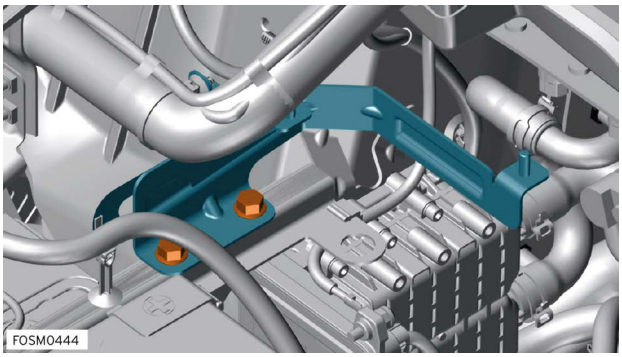
1. Deactivate high voltage battery system. Refer to Deactivate/Activate - High Voltage Battery System.

**WARNING: High-voltage cables and components may remain energized for up to 5 minutes after isolating.**

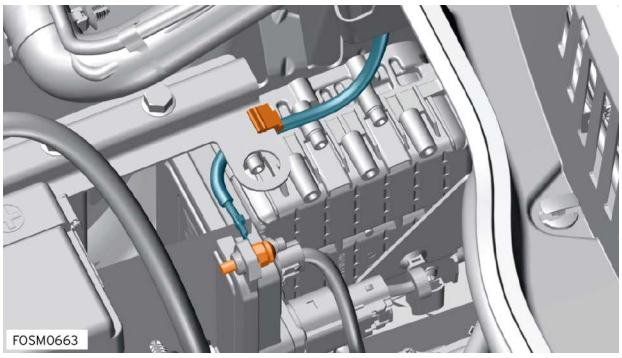
2. Drain coolant. Refer to Coolant Drain & Refill - Heater.

**WARNING: Risk of scalding. Allow coolant to cool completely before proceeding.**

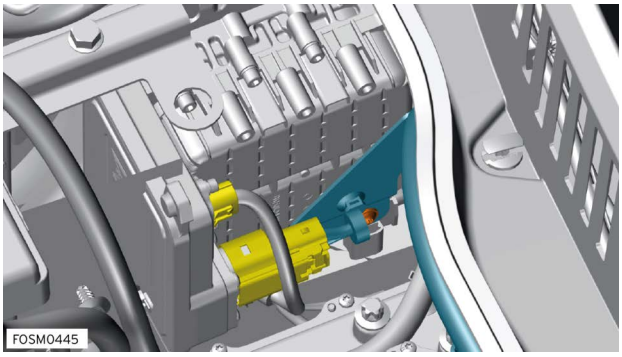
3. Remove surge tank. Refer to Surge Tank - Heater.



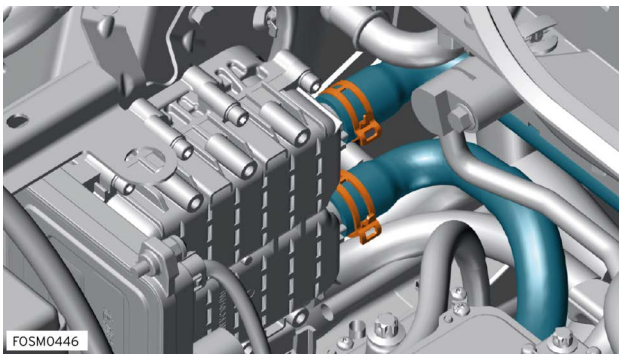

4. Remove M8x40 bolts (x2) securing mounting bracket to body. **Torque 9 Nm.**
5. Remove mounting bracket.



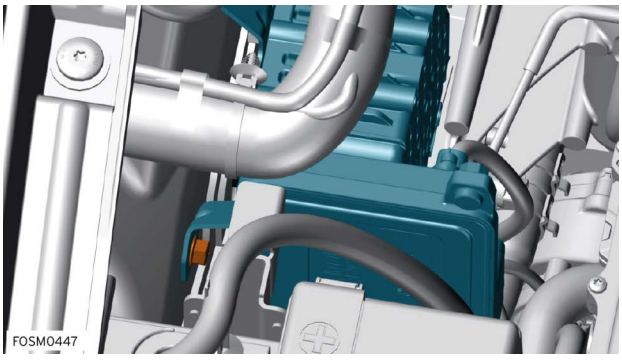

6. Remove bolt securing ground cable to heater. **Torque 7.3 Nm.**
7. Release clip securing ground cable to mounting bracket.



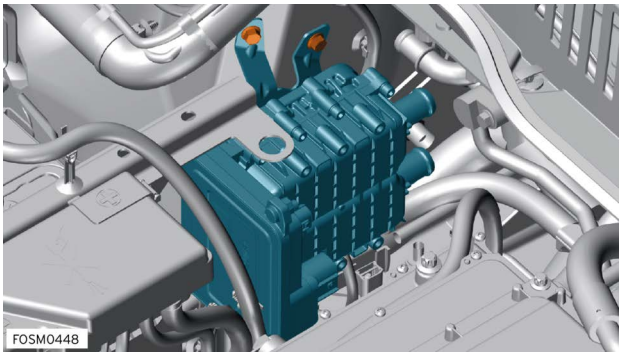

8. Disconnect harness connectors (x2) from heater.
9. Remove Torx M6x20 screws (x2) securing mounting bracket to heater. **Torque 3.9 Nm.**




10. Release clamps (x2) securing coolant hoses (x2) to heater.
11. Disconnect hoses (x2) from heater.

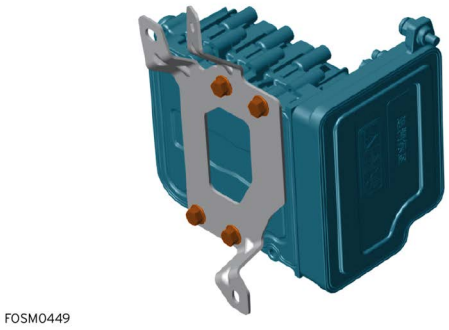



12. Remove M6x16 bolt securing heater to body. **Torque 9 Nm.**




13. Remove M6x16 bolts (x2) securing heater to body. **Torque 9 Nm.**
14. Remove heater.

***Do not carry out further disassembly if component is removed for access only.***




15. Remove M6x12 bolts (x4) securing heater to mounting bracket. **Torque 9 Nm.**
16. Remove heater from mounting bracket.

**Installation**

1. Installation is the reverse of removal procedure except for the following:
2. Replace all coolant in heater circuit.

## Radiator/Condenser/Outside Heat Exchanger/Fan Assembly/Grille Assembly

Operation Code: 30410102

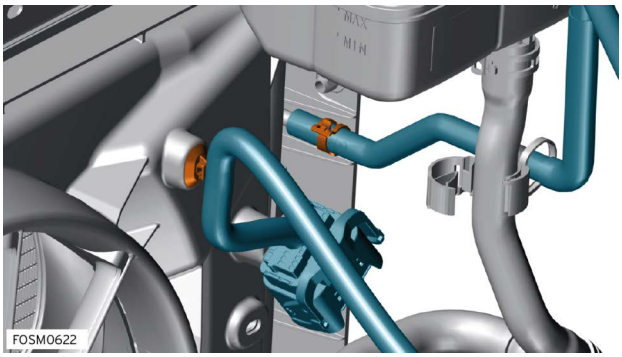
### Introduction

*NOTE:Condenser is used for non-heat pump system. Outside Heat Exchanger is used for heat pump system.*

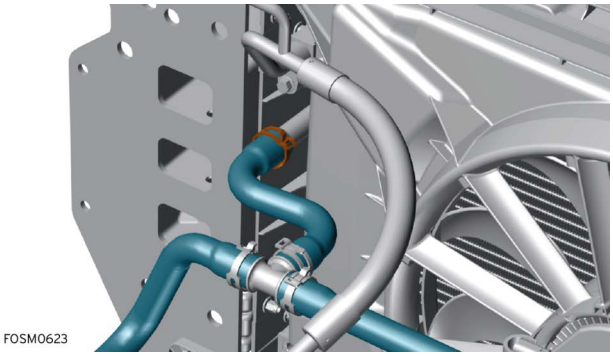
### Removal

1. Remove active grille. Refer to Active Grille.
2. Recover AC refrigerant. Refer to Refrigerant Recovery & Recharging.
3. Drain coolant. Refer to Coolant Drain & Refill - Powertrain.

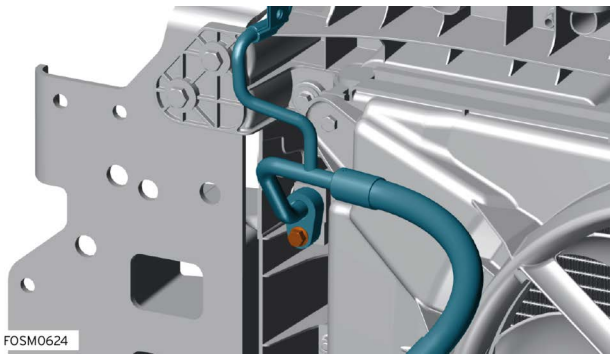
**WARNING: Allow cooling system to cool completely before proceeding.**



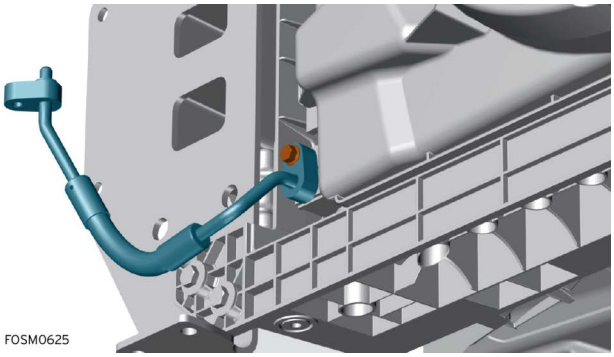

4. Release clamp securing coolant hose to radiator.
5. Disconnect coolant hose from radiator.
6. Release clip securing harness to fan.



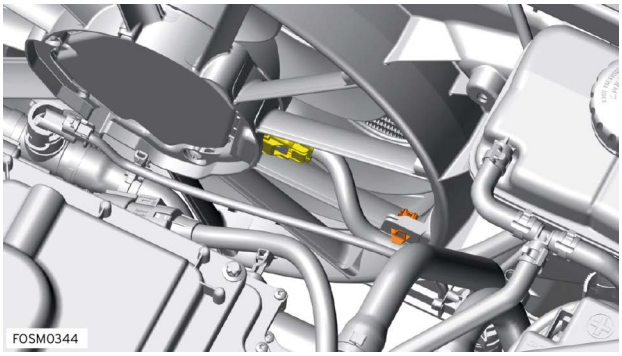

7. Release clamp securing coolant hose to radiator.
8. Disconnect coolant hose from radiator.



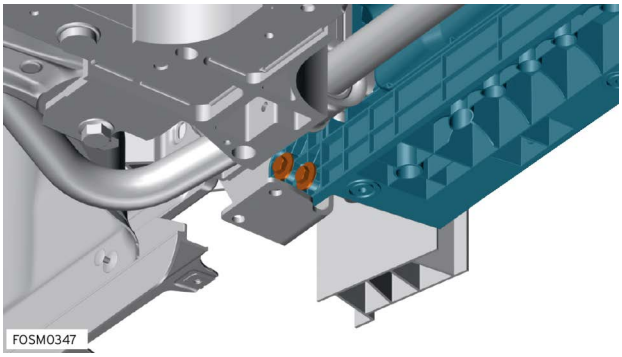

9. Remove M6x25 bolt securing AC outlet pipe to condenser. **Torque 9 Nm.**
10. Disconnect AC outlet pipe from condenser and discard O-ring.



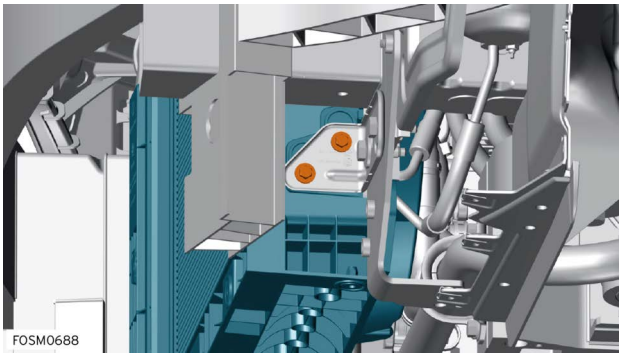

11. Remove M6x25 bolt securing AC inlet pipe to condenser. **Torque 9 Nm.**
12. Disconnect AC inlet pipe from condenser and discard O-ring.



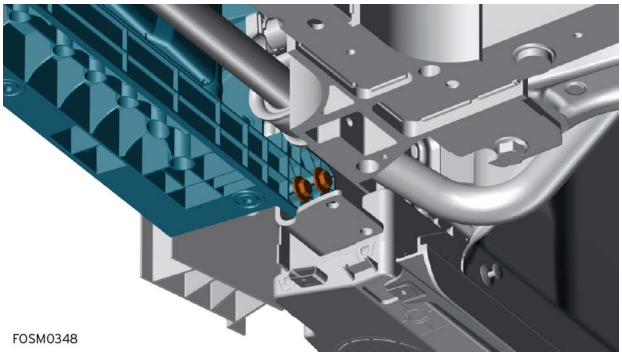

13. Disconnect harness connector from fan.
14. Release clip securing harness to fan.



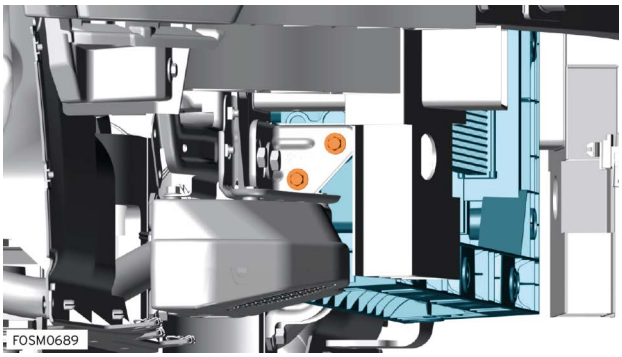

15. Remove M8x25 bolts (x2) securing front end carrier to front impact bar. **Torque 21 Nm.**



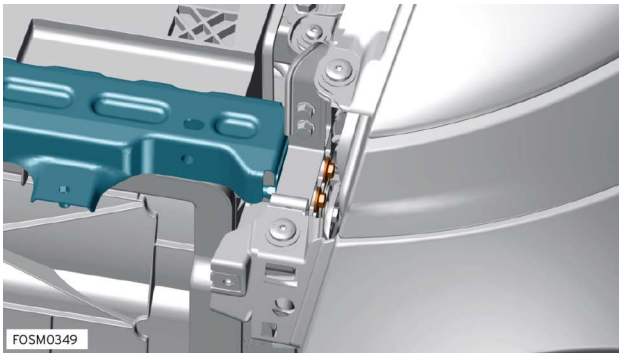

16. Remove M6x20 bolts (x2) securing front end carrier to mounting bracket. **Torque 5 Nm.**



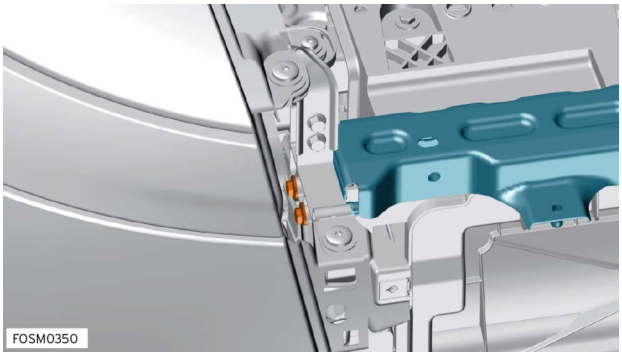

17. Remove M8x25 bolts (x2) securing front end carrier to front impact bar. **Torque 21 Nm.**



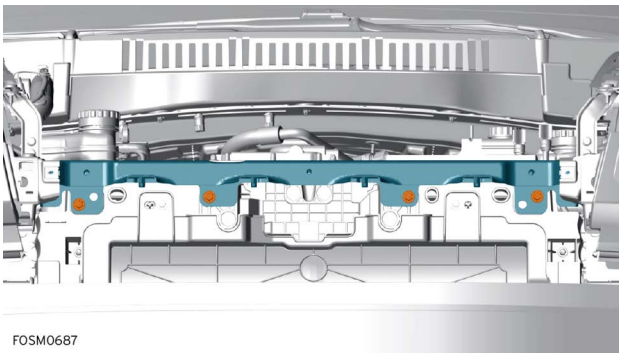

18. Remove M6x20 bolts (x2) securing front end carrier to mounting bracket. **Torque 5 Nm.**



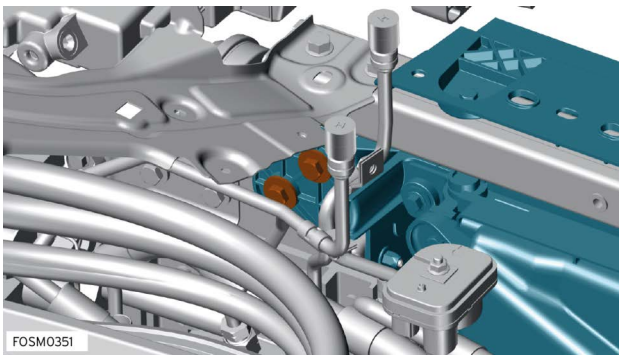

19. Remove M6x40 bolts (x2) securing upper metal bracket to fender bracket. **Torque 5.8 Nm.**



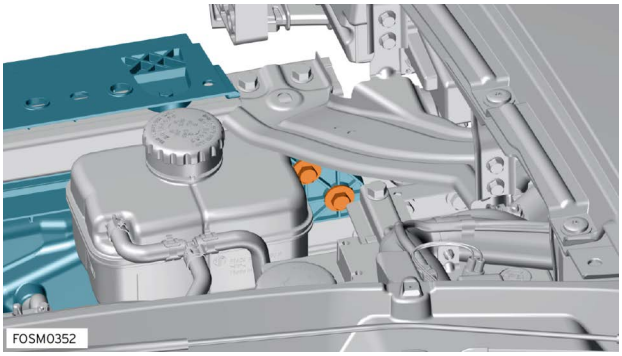

20. Remove M6x40 bolts (x2) securing upper metal bracket to fender bracket. **Torque 5.8 Nm.**



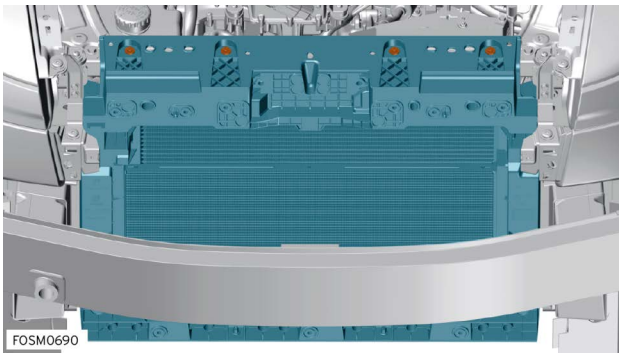

21. Remove M6x20 bolts (x4) securing upper metal bracket to front end carrier. **Torque 3.5 Nm.**
22. Remove upper metal bracket.




23. Remove M8x25 bolts (x2) securing front end carrier to front impact bar. **Torque 21 Nm.**




24. Remove M8x25 bolts (x2) securing front end carrier to front impact bar. **Torque 21 Nm.**




25. Remove M6x20 bolts (x4) securing front end carrier to body. **Torque 5.5 Nm.**
26. Using assistance, remove radiator/ condenser/outside heat exchanger/fan assembly.

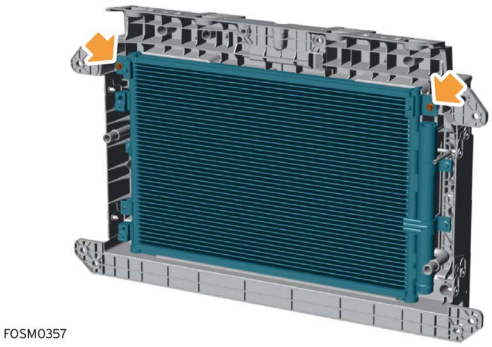
**Installation**

1. Installation is the reverse of removal procedure except for the following:
2. Install new O-rings (x2) to AC pipes (x2).
3. Recharge AC refrigerant.
4. Replace all coolant in powertrain circuit.

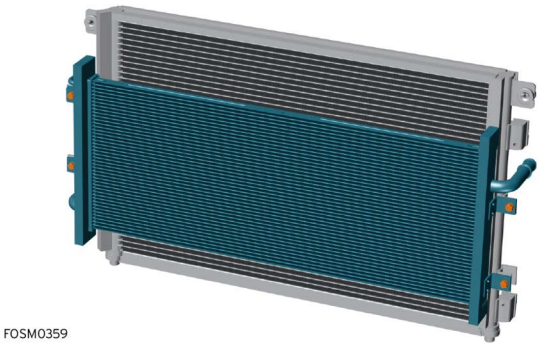
## Radiator

### Removal

1. Remove fan. Refer to Fan.


FOSM0357

2. Remove M6x40 bolts (x2) securing radiator/condenser to front end carrier. **Torque 8 Nm.**
3. Lift and remove radiator/condenser assembly.


FOSM0359

4. Remove nuts (x4) and bolts (x4) securing condenser to radiator. **Torque 7 Nm.**
5. Remove radiator.

### Installation

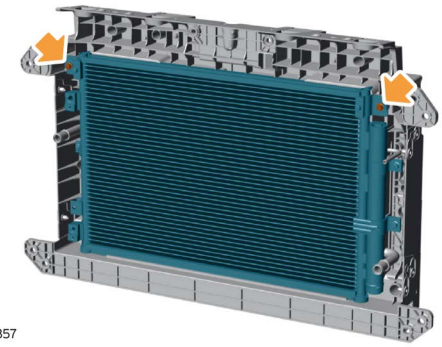
1. Installation is the reverse of removal procedure.

   *NOTE: If renewing radiator replace all coolant in powertrain circuit. If removed for access only top up coolant as necessary.*

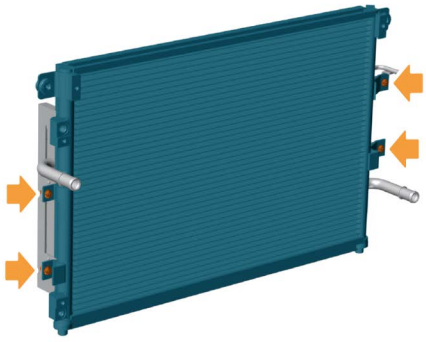
## Condenser

### Removal

1. Remove fan. Refer to Fan.


FOSM0357

2. Remove M6x40 bolts (x2) securing radiator/condenser to front end carrier. **Torque 8 Nm.**
3. Lift and remove radiator/condenser assembly.


FOSM0358

4. Remove nuts (x4) and bolts (x4) securing condenser to radiator. **Torque 7 Nm.**
5. Remove condenser.

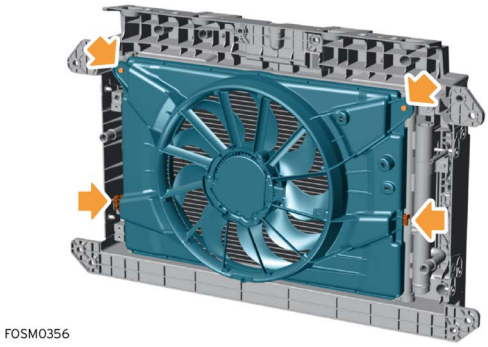
### Installation

1. Installation is the reverse of removal procedure.

## Fan

### Removal

1. Remove radiator/condenser/outside heat exchanger/fan assembly. Refer to Radiator/Condenser/Outside Heat Exchanger/Fan Assembly/Grille Assembly.


FOSM0356

2. Remove bolts (x2) securing fan to condenser. **Torque 7 Nm.**
3. Slide fan upwards to release clips (x2) securing fan to condenser.
4. Remove fan.

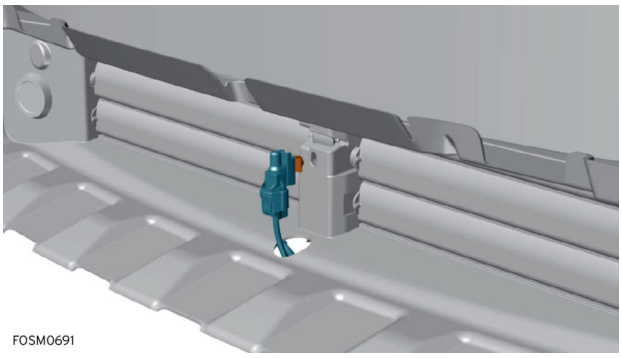
### Installation

1. Installation is the reverse of removal procedure.

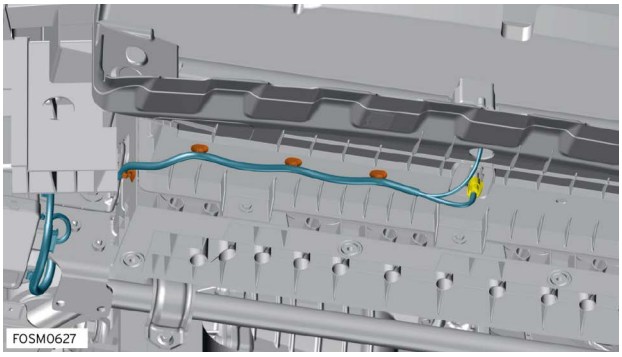
## Active Grille

### Removal

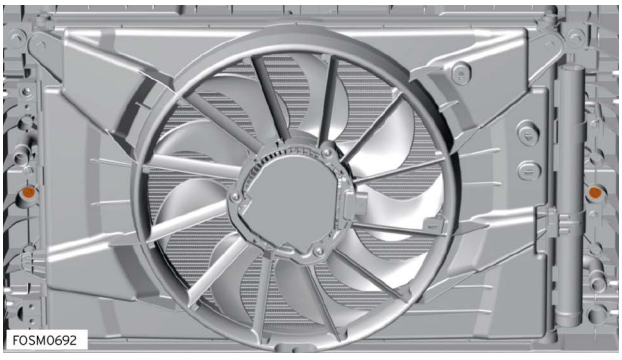
1. Remove front bumper assembly. Refer to Bumper Assembly - Front.


FOSM0691

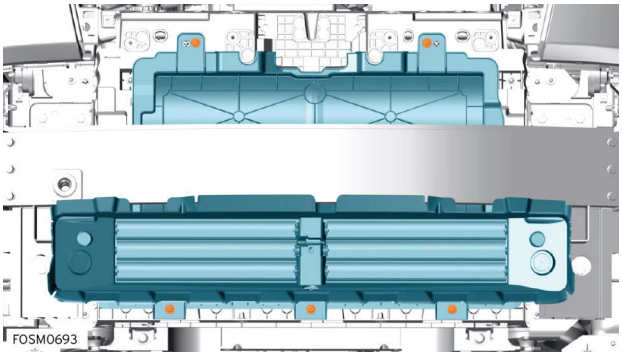
2. Release clip securing ambient temperature sensor to active grille.


FOSM0627

3. Disconnect harness connector from active grille.
4. Release clips (x4) securing harness to active grille.


FOSM0692

5. Remove M5x20 bolts (x2) securing active grille to front end carrier. **Torque 2 Nm.**




6. Remove M6x30 bolts (x5) securing active grille to front end carrier. **Torque 4.5 Nm.**
7. Remove active grille.

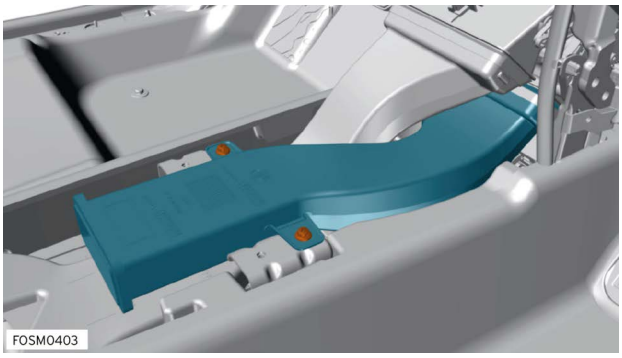
**Installation**

1. Installation is the reverse of removal procedure.

## Floor Duct - Floor Console - Front

### Removal

1. Remove floor console assembly. Refer to Floor Console Assembly.




2. Remove push pins (x2) securing floor console front duct to vehicle.
3. Release floor console front duct from HVAC assembly.
4. Remove floor console front duct.

### Installation

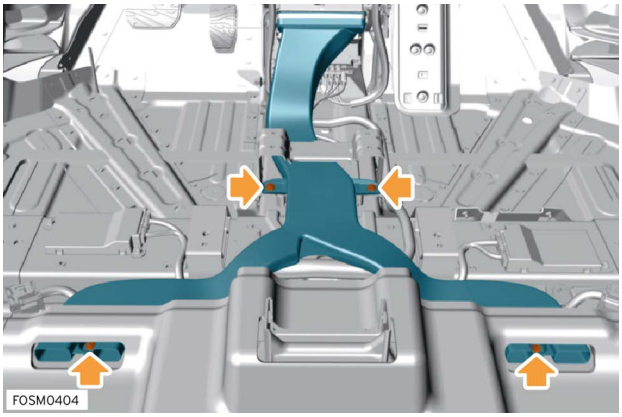
1. Installation is the reverse of the removal procedure.

## Floor Duct - Second Row Footwell

### Removal

1. Remove floor console front duct. Refer to Floor Duct - Floor Console - Front.
2. Remove LH front carpet. Refer to Carpet - Front - LH.
3. Remove RH front carpet.

   *NOTE: Procedure is the same as for left side component.*



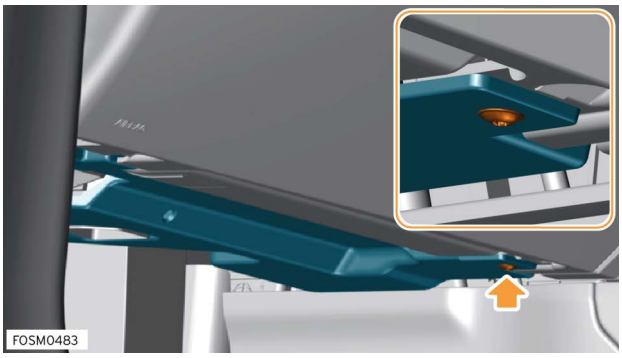

4. Remove push pins (x4) securing second row footwell duct to vehicle.
5. Release second row footwell duct from HVAC assembly.
6. Manuever and remove second row footwell duct.

### Installation

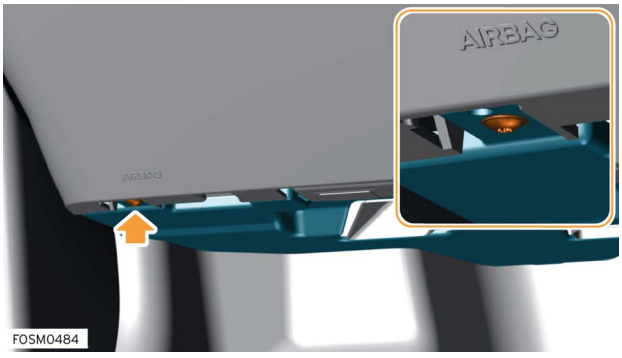
1. Installation is the reverse of the removal procedure.

## Hush Panel - Driver

### Removal




1. Remove M4.2x16 Torx screw securing hush panel to lower instrument panel (IP) trim. **Torque 1.6 Nm.**




2. Remove M4.2x16 Torx screw securing hush panel to lower IP trim. **Torque 1.6 Nm.**
3. Pull hush panel to release from rear locator.

   *NOTE: Be careful not to damage air ducts when removing hush panel.*




4. Remove hush panel.

   *NOTE: If equipped, disconnect and remove footwell lamp from hush panel.*

### Installation

1. Installation is the reverse of removal procedure.

## End Cap - LH

### Removal



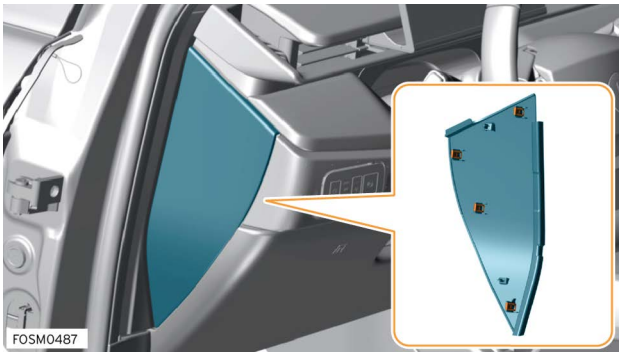

1. Release section of weatherstrip.




2. Release clips (x5) securing A pillar mid substrate panel.

   *NOTE: Door removed from image for image clarity.*

3. Remove A pillar mid substrate panel.




4. Release clips (x4) securing end cap trim panel to instrument panel (IP).
5. Remove end cap trim.

### Installation

1. Installation is the reverse of removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*

## Trim - Lower - Driver

### Removal

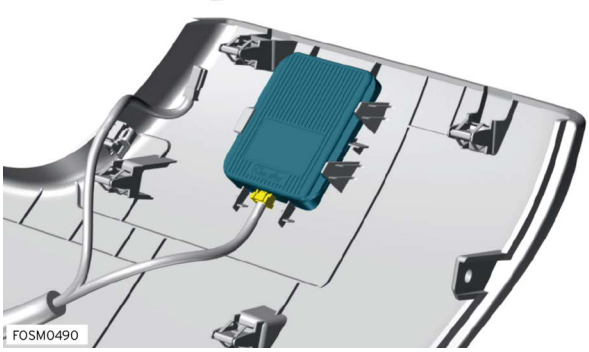
1. Remove driver side hush panel. Refer to Hush Panel - Driver.
2. Remove driver side end cap trim. Refer to End Cap - LH.




3. Remove M4.2x16 Torx screw securing lower driver`s trim panel to Instrument Panel (IP) structure. **Torque 1.6 Nm.**

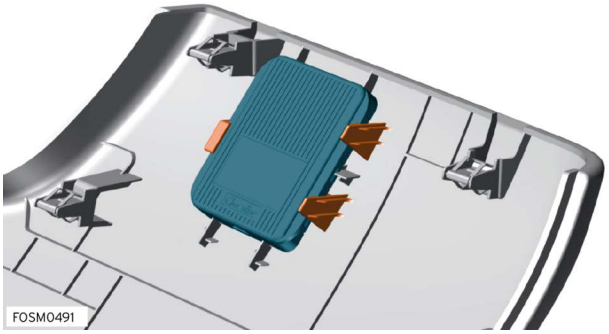



4. Release clips (x15) securing trim panel to IP structure.




5. Disconnect electrical harness from NFC module.
6. Remove trim panel.

***Do not carry out further disassembly if component is removed for access only.***




7. Release clips (x3) securing NFC module to trim panel.
8. Remove NFC module.

### Installation

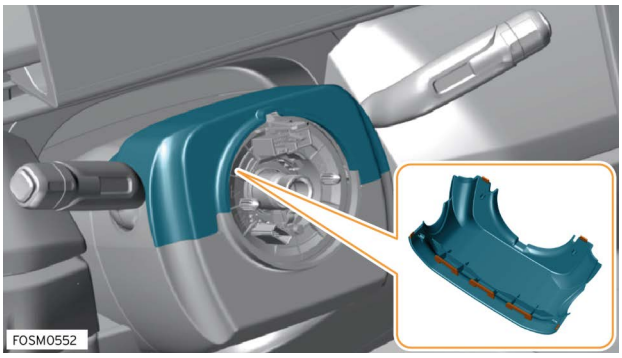
1. Installation is the reverse of removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*

## Column Shroud - Upper

### Removal

1. Remove steering wheel. Refer to Steering Wheel.




2. Release clips (x7) securing upper column shroud.
3. Remove upper column shroud.

### Installation

1. Installation is the reverse of removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*

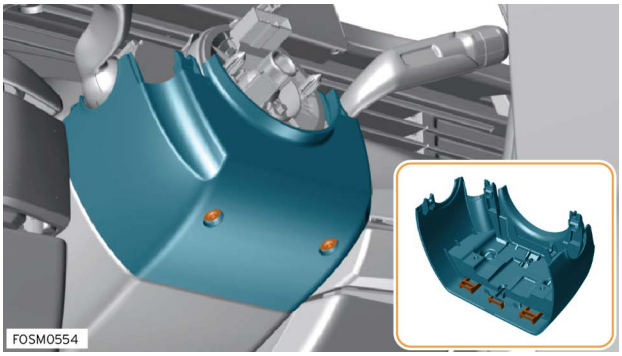
## Column Shroud - Lower

### Removal

1. Remove upper column shroud. Refer to Column Shroud - Upper.




2. Remove screws (x2) securing lower column shroud to clock spring. **Torque 0.7 Nm.**




3. Remove screws (x2) securing lower column shroud to clock spring. **Torque 0.7 Nm**.
4. Release clips (x3) and remove lower column shroud.

### Installation

1. Installation is the reverse of removal procedure except for the following:

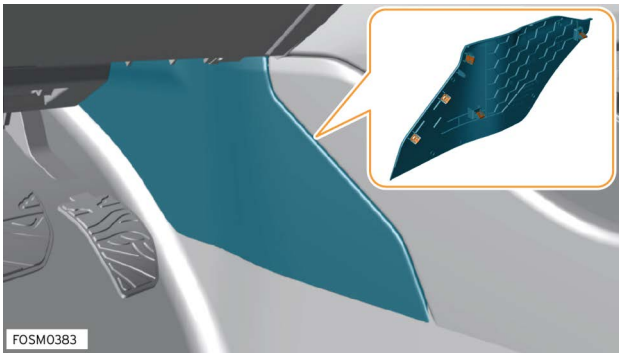
   *NOTE: Inspect clips for damage and replace if necessary.*

## Floor Console Assembly

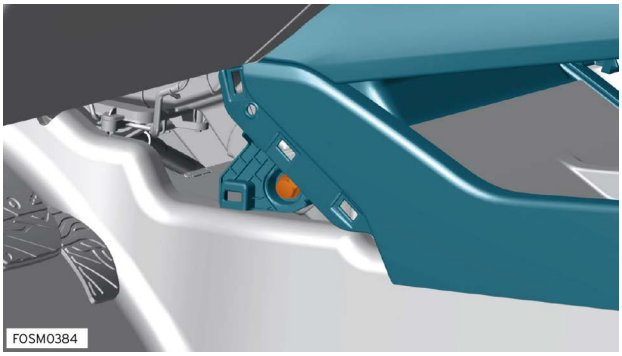
### Removal

1. Remove LH front seat assembly. Refer to Seat Assembly - LH.
2. Remove RH front seat assembly.

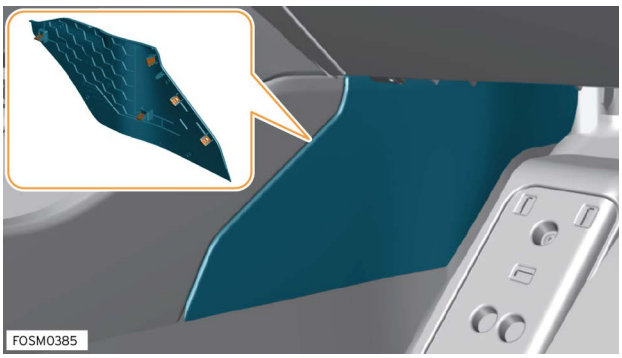
   *NOTE: Procedure is the same as for left side component.*



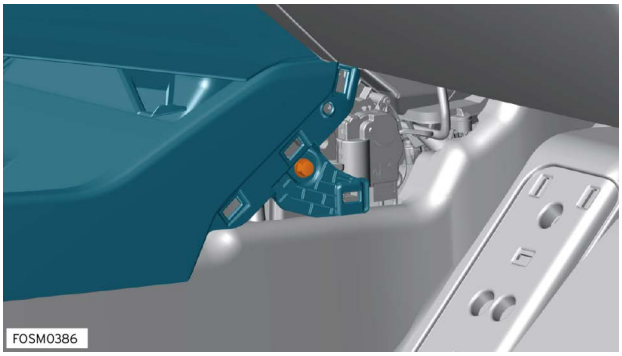

3. Release clips (x5) securing LH extension panel to floor console assembly.
4. Remove LH extension panel.



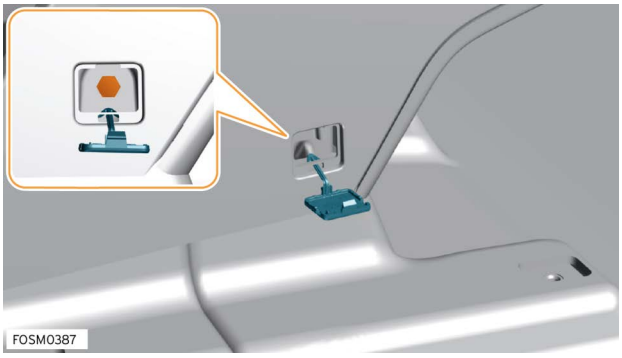

5. Remove M6x20 bolt securing floor console assembly to vehicle. **Torque 5 Nm.**



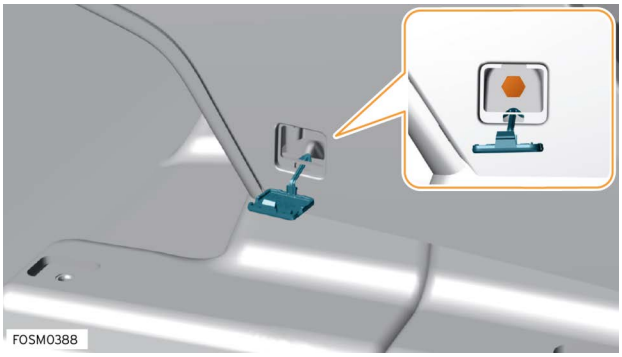

6. Release clips (x5) securing RH extension panel to floor console assembly.
7. Remove RH extension panel.



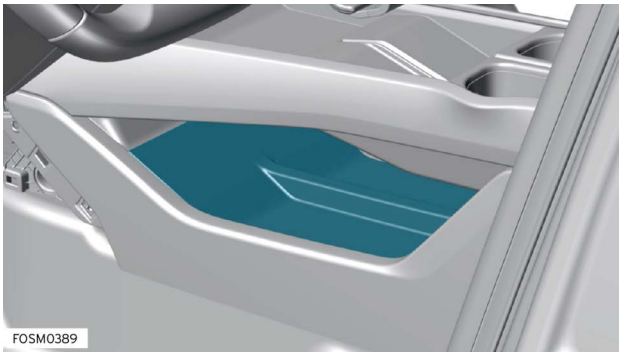

8. Remove M6x20 bolt securing floor console assembly to vehicle. **Torque 5 Nm.**



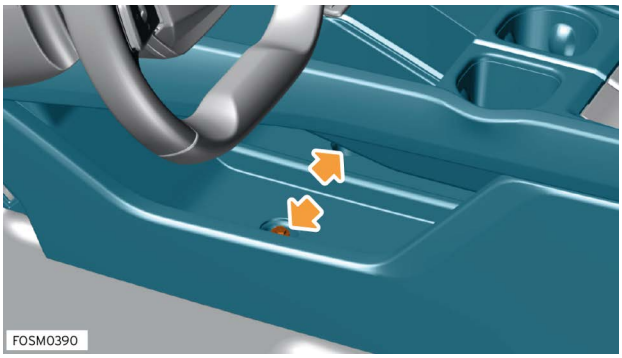

9. Remove LH cover cap from floor console assembly.
10. Remove M6x20 bolt securing floor console assembly to vehicle. **Torque 5 Nm.**



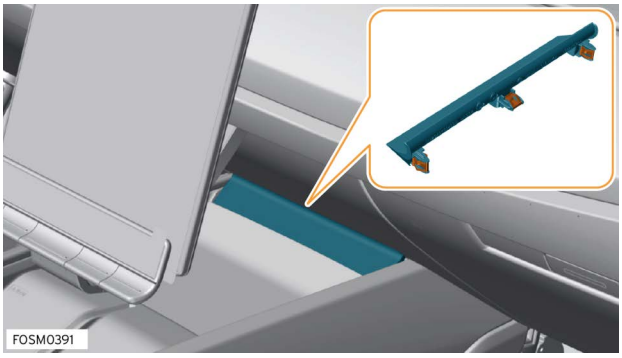

11. Remove RH cover cap from floor console assembly.
12. Remove M6x20 bolt securing floor console assembly to vehicle. **Torque 5 Nm.**



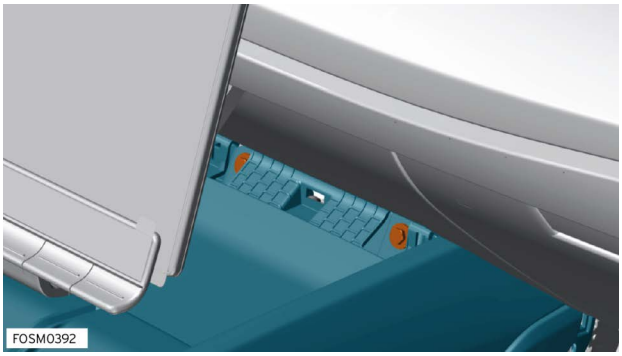

13. Remove lower storage mat.



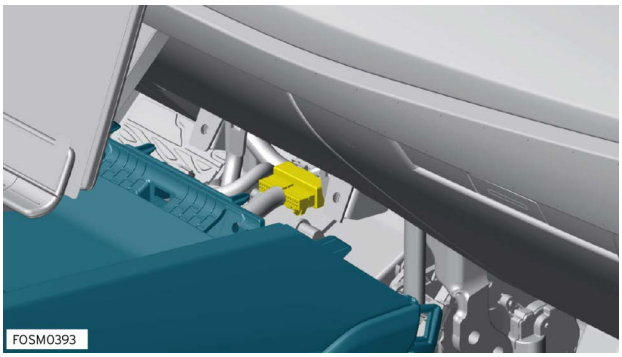

14. Remove M6x20 bolts (x2) securing floor console assembly to vehicle. **Torque 5 Nm.**



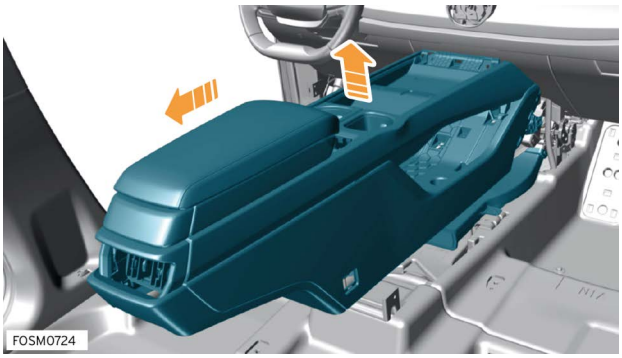

15. Release clips (x3) securing front screw cover to floor console assembly.
16. Remove front screw cover.




17. Remove M6x20 bolts (x2) securing floor console assembly to vehicle. **Torque 5 Nm.**




18. Disconnect harness connector from floor console assembly.




19. Manouvre floor console assembly up and rearwards to release from heating duct.
20. Remove floor console assembly.

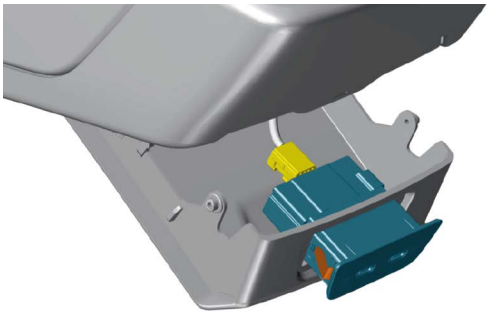
***Do not carry out further disassembly if component is removed for access only.***

21. Pull down rear USB panel.



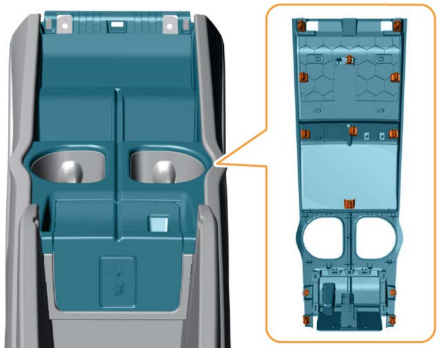
FOSM0409

22. Release hinges (x2) securing rear USB panel to floor console.



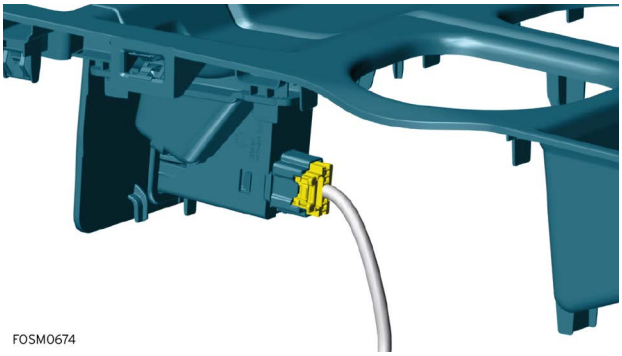
FOSM0410

23. Disconnect harness connector from rear USB outlet.
24. Release clips (x2) securing rear USB outlet to rear USB panel.
25. Remove rear USB outlet.
26. Open armrest.



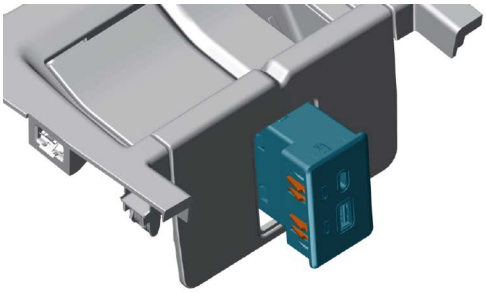
FOSM0675

27. Release clips (x13) securing upper panel assembly to floor console assembly.



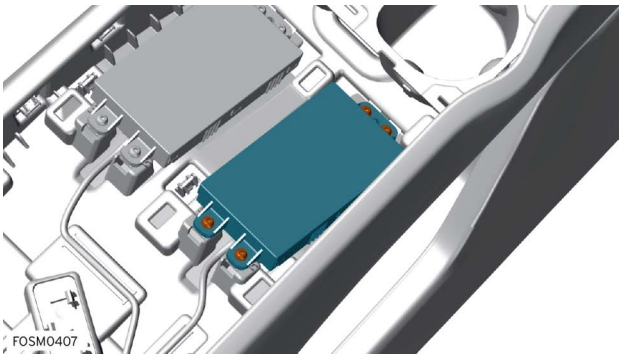
FOSM0674

28. Disconnect harness connector from front USB outlet.
29. Remove upper panel assembly.



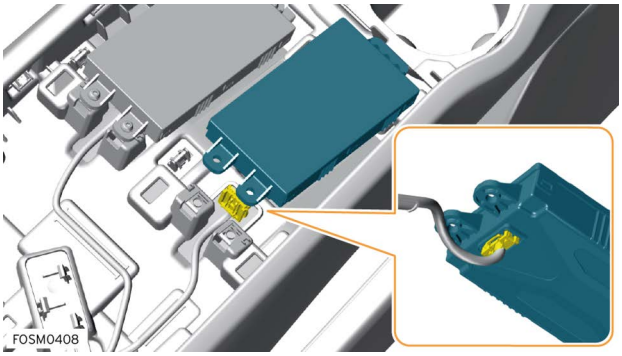
FOSM0399

30. Release clips (x4) securing front USB outlet to upper panel.
31. Remove front USB outlet.



FOSM0407

32. Remove Torx screws (x4) securing LH wireless charging module to floor console assembly. **Torque 1.6 Nm**.




33. Disconnect harness connector from LH wireless charging module.
34. Remove LH wireless charging module.
35. Repeat steps **32** through **34** for RH wireless charging module.

**Installation**

1. Installation is the reverse of removal procedure.

## Seat Assembly - LH

### Removal

1. Disconnect 12V battery. Refer to Battery Disconnect - 12V.

**CAUTION: Wait 2 minutes to allow Supplementary Restraint System back up power circuit to discharge before commencing work.**

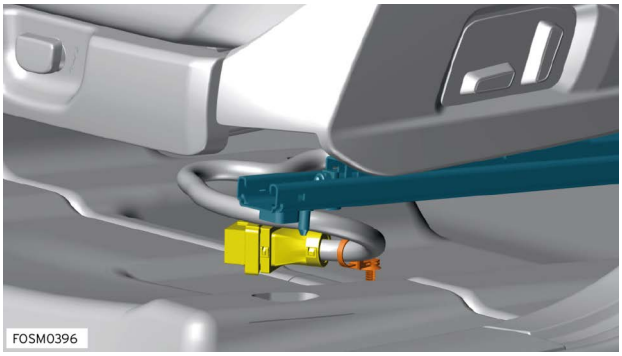
2. Move seat to fully forward position.




3. Remove M10x32 Torx bolts (x2) securing front seat assembly to vehicle. **Torque 45 Nm.**
4. Move seat to fully back position.




5. Remove M10x32 Torx bolts (x2) securing front seat assembly to vehicle. **Torque 45 Nm.**
6. Pull back section of front floor carpet.




7. Release clip securing harness to vehicle.
8. Disconnect harness from from seat assembly.
9. Using assistance, remove front seat assembly.

   *NOTE: Be careful not to damage surrounding trim when removing seat.*

### Installation

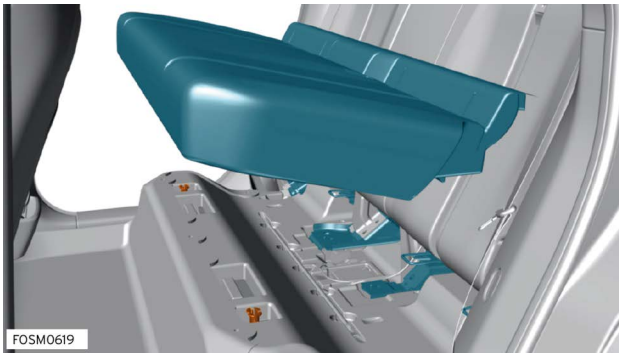
1. Installation is the reverse of removal procedure.

## Seat Assembly - Rear

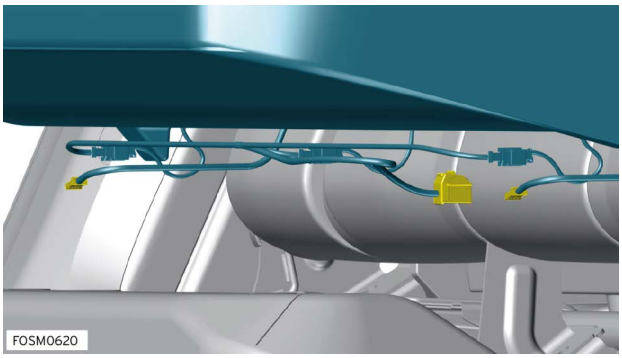
### Removal

1. Remove C pillar lower LH trim. Refer to Trim - C Pillar - Lower - LH.
2. Remove C pillar lower RH trim.

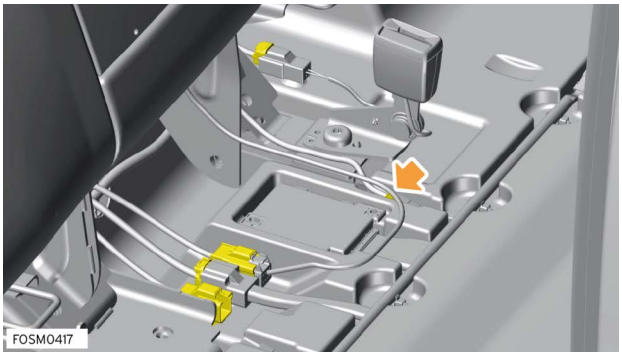
   *NOTE: Procedure is the same as for left side component.*



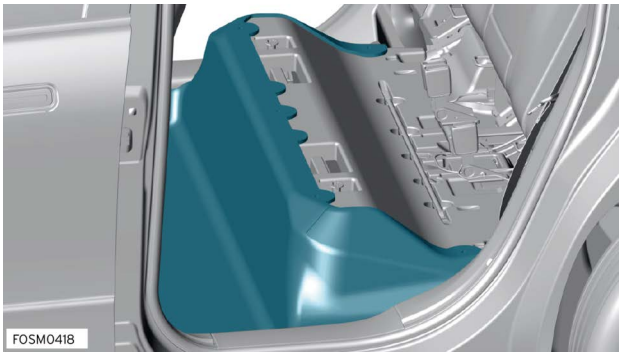

3. Release second row seat base cushion from cushion clips (x2) securing seat base cushion to seat base.
4. Release second row seat base cushion from rear seat crossbar.



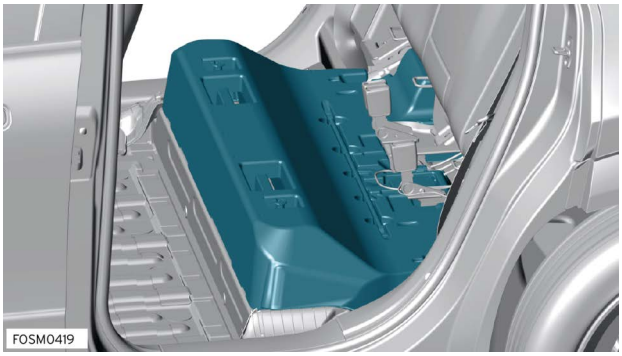

5. Disconnect harness connectors (x3) from second row seat base cushion.
6. Using assistance, remove second row seat base cushion.



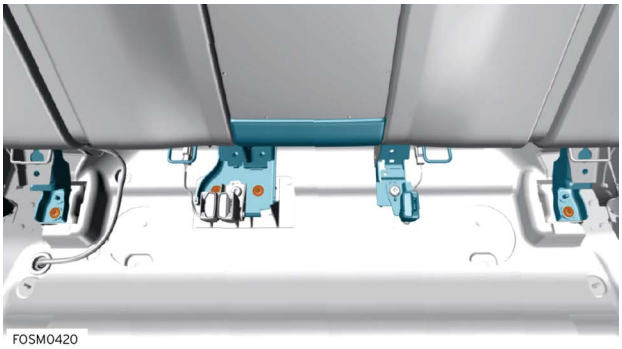

7. Disconnect harness connectors (x5) from rear seat.



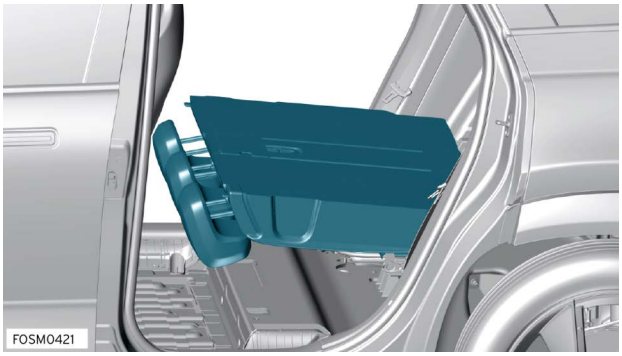

8. Release rear carpet from rear seat base.




9. Using assistance, remove rear seat base.



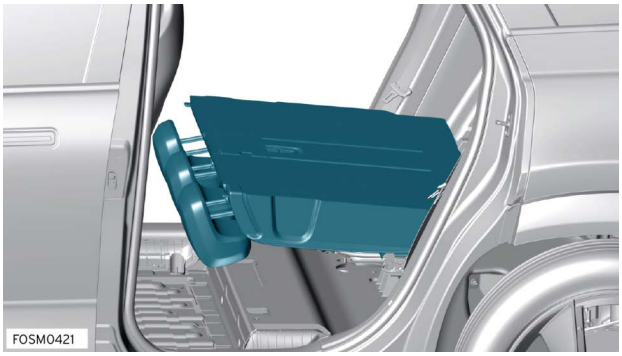

10. Remove Torx bolts (x4) securing rear seat frame to vehicle. **Torque 40 Nm.**




11. Fold down rear seat back.

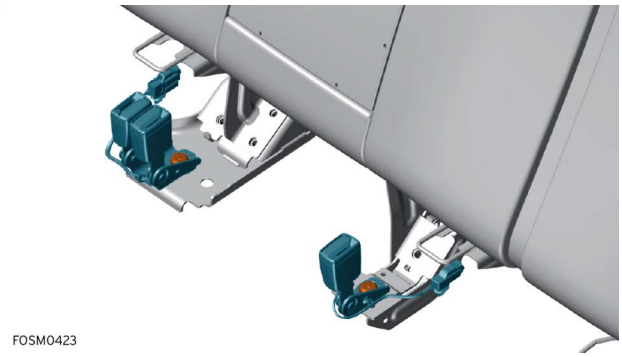



12. Remove Torx bolts (x4) securing rear seat frame to vehicle. **Torque 40 Nm.**




13. Using assistance, remove rear seat assembly.

***Do not carry out further disassembly if component is removed for access only.***




14. Remove Torx bolts (x2) securing seat belt buckles (x2) to rear seat frame. **Torque 40 Nm.**
15. Remove seat belt buckles (x2).

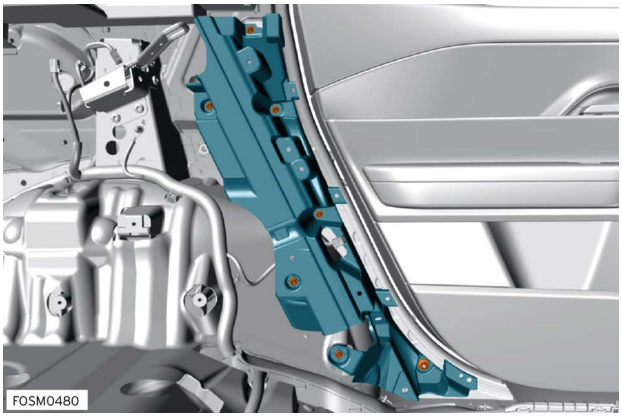
### Installation

1. Installation is the reverse of removal procedure.

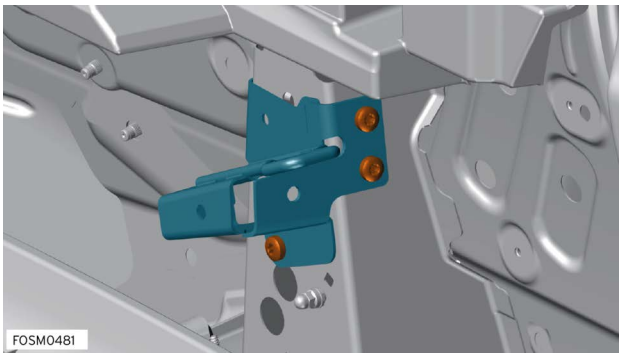
## Striker - LH

### Removal

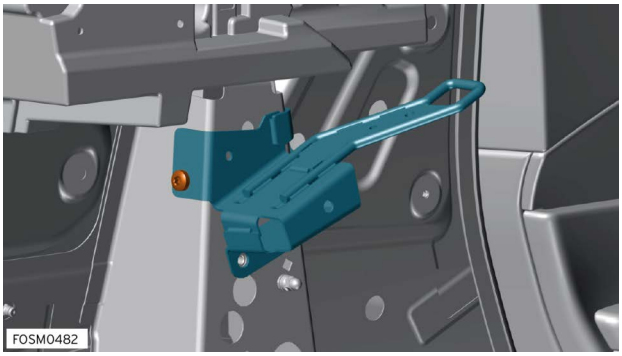
1. Remove LH rear compartment lower trim. Refer to Trim - Rear Compartment - Lower - LH.
2. Remove subwoofer. Refer to Subwoofer.




3. Remove M6x16 Torx screws (x6) securing trim mounting bracket to body.**Torque 5 Nm.**
4. Remove plastic M6 nut securing trim mounting bracket to body. **Torque 2.1 Nm.**
5. Remove trim mounting bracket.




6. Remove M8x20 Torx bolts (x3) securing striker to body. **Torque 25 Nm.**




7. Remove M8x20 Torx bolt securing striker to body. **Torque 25 Nm.**
8. Remove striker.

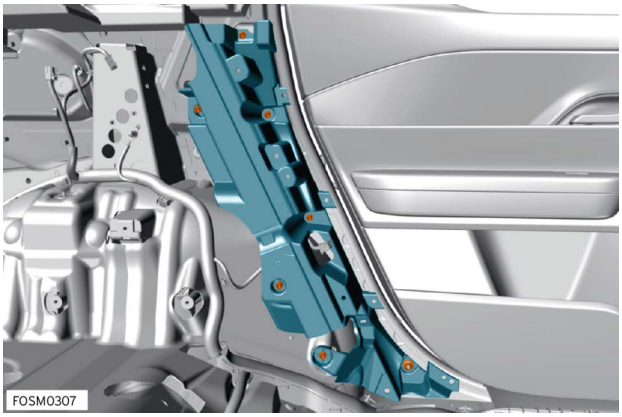
### Installation

1. Installation is the reverse of the removal procedure.

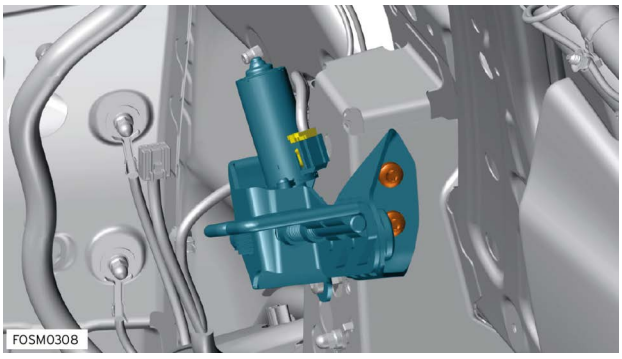
## Power Striker - LH

### Removal

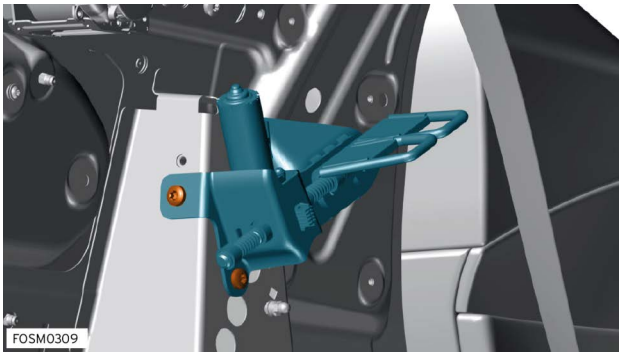
1. Remove LH rear compartment lower trim. Refer to Trim - Rear Compartment - Lower - LH.
2. Remove subwoofer. Refer to Subwoofer.




3. Remove M6x16 Torx screws (x6) securing trim mounting bracket to body. **Torque 5 Nm.**
4. Remove plastic M6 nut securing trim mounting bracket to body. **Torque 2.1 Nm.**
5. Remove trim mounting bracket.




6. Disconnect harness connector from power striker.
7. Remove M8x20 Torx bolts (x2) securing power striker to body. **Torque 25 Nm.**



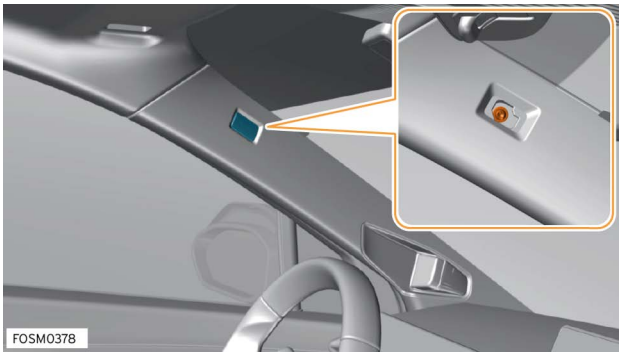

8. Remove M8x20 Torx bolts (x2) securing power striker to body. **Torque 25 Nm.**
9. Remove power striker.

### Installation

1. Installation is the reverse of the removal procedure.

## Trim - A Pillar - Upper - LH

### Removal



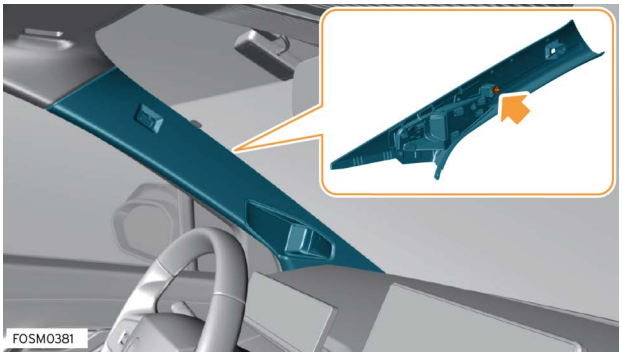

1. Remove airbag trim cover from A pillar trim.
2. Remove M6x20 Torx screw securing A pillar trim to A pillar. **Torque 5 Nm.**



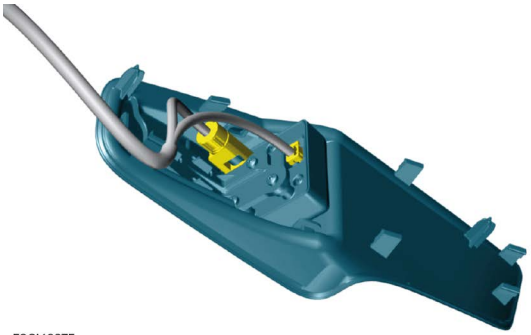

3. Release upper section of weatherstrip covering A pillar upper and middle trim panels.




4. Release A pillar mid substrate trim from A pillar upper trim.

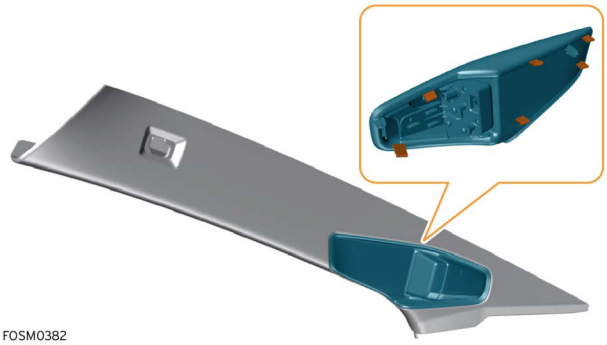



5. Release clip securing A pillar trim to A pillar.




6. Disconnect harness connectors (x2) from occupant camera.
7. Remove A pillar trim.

***Do not carry out further disassembly if component is removed for access only.***




8. Release clips (x6) securing camera bezel trim to A pillar trim.
9. Remove camera bezel trim.

### Installation

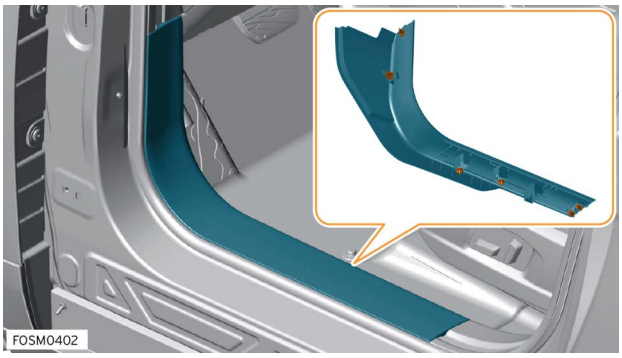
1. Installation is the reverse of removal procedure except for the following:

*NOTE: Inspect clips for damage and replace if necessary.*

## Trim - A Pillar - Lower - LH

### Removal

1. Release section of weatherstrip covering A pillar lower trim.




2. Release clips (x6) securing A pillar lower trim to vehicle.
3. Remove A pillar lower trim.

### Installation

1. Installation is the reverse of removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*

## Trim - B Pillar - Upper - LH

### Removal

1. Adjust front seat as required.


FOSM0684

2. Insert 3 mm Allen key approximately 40 mm into lower hole in seat belt to release first latch.


FOSM0685

3. Insert second 3 mm Allen key approximately 21 mm into side hole in seat belt to release second latch.


FOSM0361

4. Release seat belt from pretensioner.
5. Release section of weatherstrip covering B pillar upper trim.


FOSM0362

6. Release clips (x8) securing B pillar upper trim to chassis.
7. Release clips (x2) securing B pillar upper trim to roof trim.
8. Pass seat belt through slot in B pillar upper trim.
9. Remove B pillar upper trim.

### Installation

1. Installation is the reverse of removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*

2. Secure seat belt to pretensioner so that an audible click is heard.

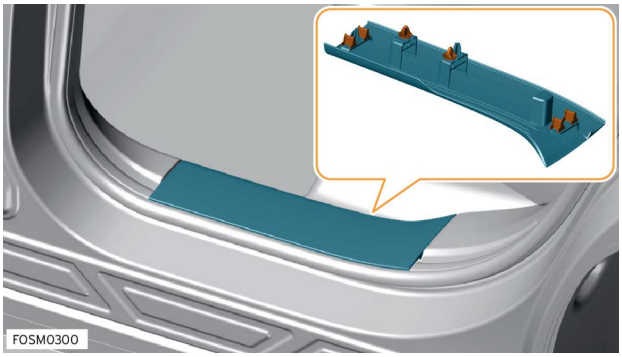
**CAUTION: Ensure seat belt is not twisted.**

3. Pull seat belt to ensure pretensioner is fully locked.

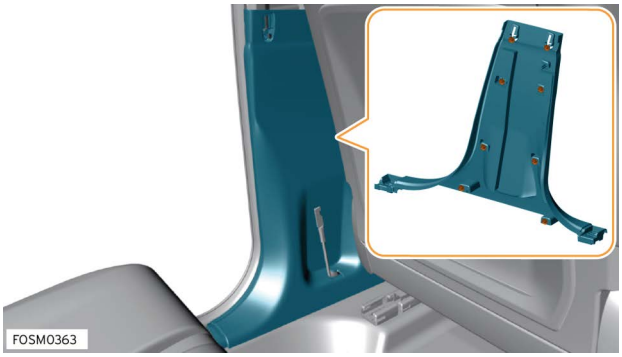
## Trim - B Pillar - Lower- LH

### Removal

1. Remove A pillar lower trim. Refer to Trim - A Pillar - Lower - LH.
2. Remove B pillar upper trim. Refer to Trim - B Pillar - Upper - LH.




3. Release clips (X6) securing rear scuff plate to chassis.
4. Remove rear scuff plate.
5. Release section of weatherstrip covering B pillar lower trim.




6. Release clips (x8) securing B pillar lower trim to chassis.
7. Remove B pillar lower trim.

### Installation

1. Installation is the reverse of removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*

## Trim - C Pillar - Upper - LH

### Removal

1. Release section of weatherstrip covering C pillar upper trim.




2. Release clips (x5) securing C pillar upper trim to body.
3. Remove C pillar upper trim.

### Installation

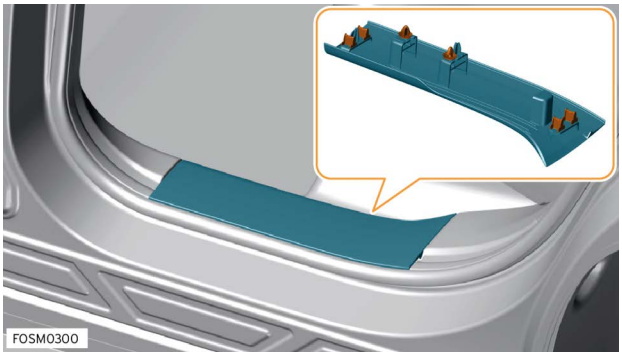
1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*

## Trim - C Pillar - Lower - LH

### Removal

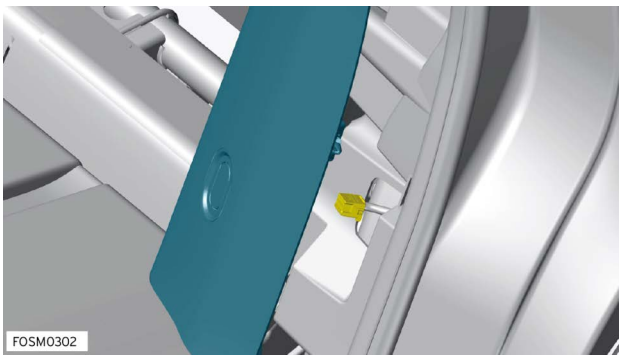
1. Fold down second row seat back.




2. Release clips (X6) securing rear scuff plate to body.
3. Remove rear scuff plate.
4. Release section of weatherstrip covering C pillar lower trim.




5. Release clips (x9) securing C pillar lower trim to body.




6. Disconnect harness connector from second row seat switch.
7. Remove C pillar lower trim.

***Do not carry out further disassembly if removing for access only.***




8. Release clips (x4) securing second row seat switch to C pillar lower trim.
9. Remove second row seat switch.

### Installation.

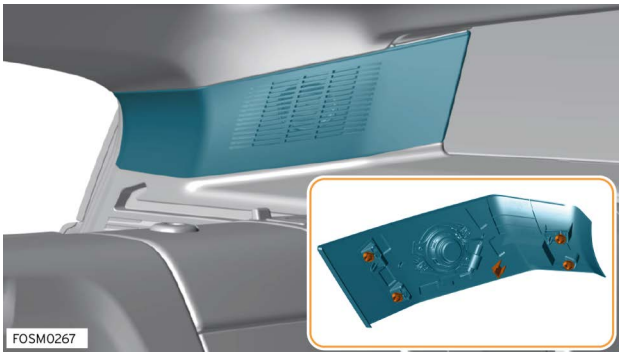
1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*

## Trim - D Pillar - LH

### Removal

1. Remove rear compartment luggage cover.
2. Release section of weatherstrip covering D pillar trim.

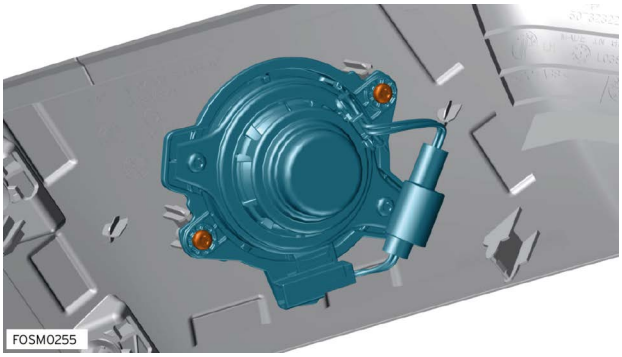



3. Release clips (x5) securing D pillar trim to body.




4. Disconnect harness connector from speaker.
5. Remove D pillar trim.

***Do not carry out further disassembly if removing for access only.***




6. Remove M4.2x16 Torx screws (x2) securing speaker assembly to D pillar trim. **Torque 3 Nm.**
7. Remove speaker assembly.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

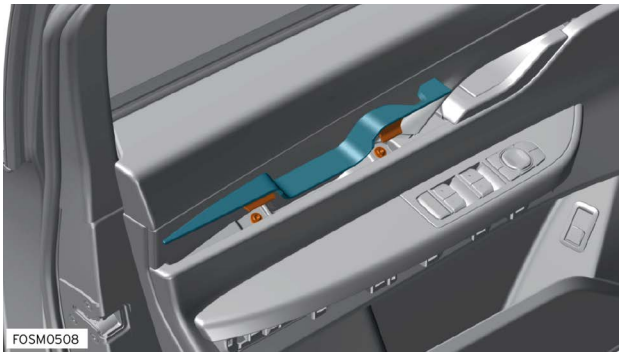
   *NOTE: Inspect clips for damage and replace if necessary.*

## Trim - Door - Front - LH

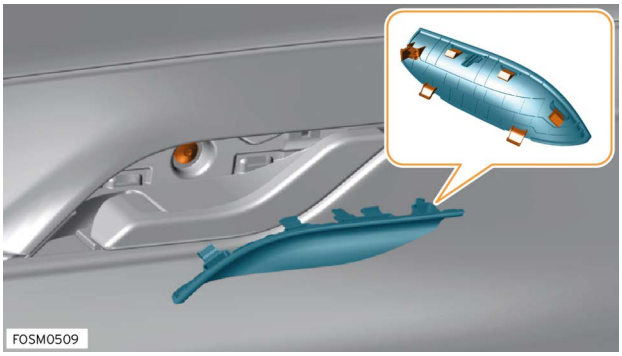
### Removal



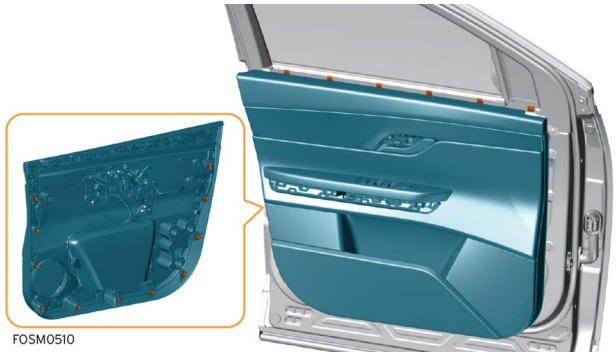

1. Release clips (x14) securing armrest trim to front door trim.
2. Remove armrest trim.
3. Remove M6x20 Torx screw securing front door trim to front door. **Torque 5 Nm.**



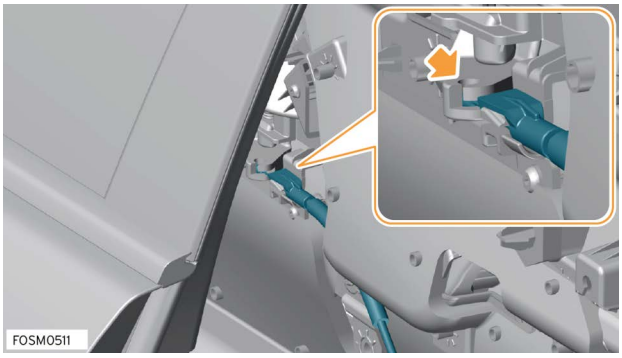

4. Release clips (x2) securing pull handle trim to front door trim.
5. Remove pull handle trim.
6. Remove M6x20 Torx screws (x2) securing front door trim to front door. **Torque 1.6 Nm.**




7. Release clips (x6) securing cover trim to front door trim.
8. Remove cover trim.
9. Remove M5x15 Torx screw securing front door trim to front door. **Torque 1.6 Nm.**




10. Release clips (x17) securing front door trim to front door.

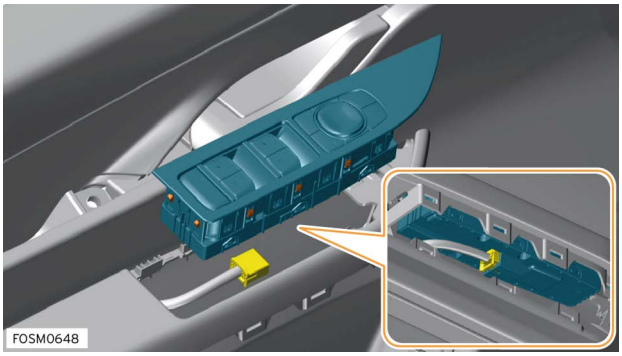



11. Release inner cable from inner handle.

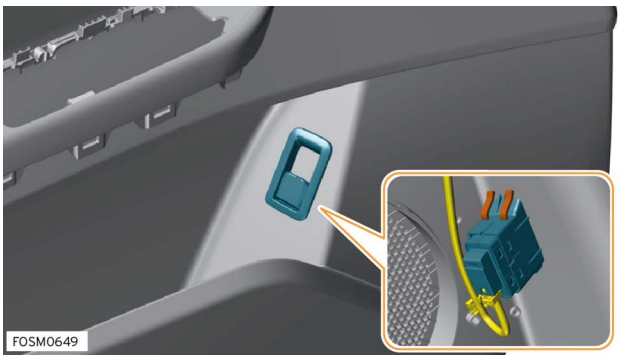



12. Disconnect harness connector from front door harness.
13. Remove front door trim.

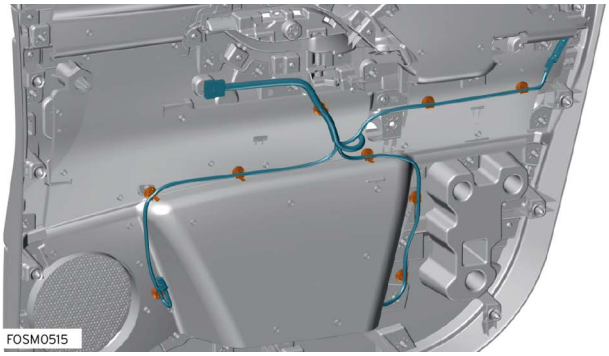
***Do not carry out further disassembly if component is removed for access only.***



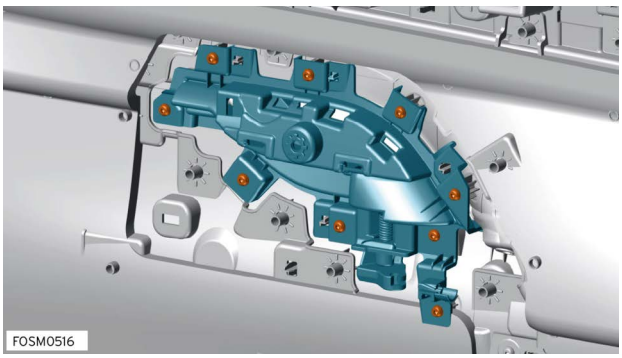

14. Carefully release clips (x10) securing switch pack to door trim.
15. Disconnect harness connector from switch pack.
16. Remove switch pack.




17. Carefully release clips (x2) securing liftgate switch to door trim.
18. Disconnect harness connector from liftgate switch.
19. Remove liftgate switch.




20. Release clips (x9) securing door trim harness to front door trim.
21. Remove door trim harness.




22. Remove Torx screws (x9) securing inner handle to front door trim. **Torque 1.6 Nm.**
23. Remove inner handle.

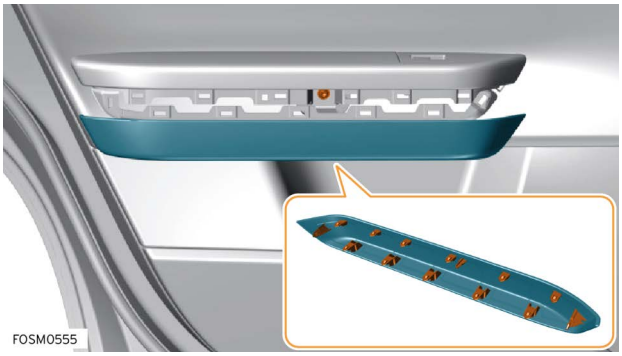
### Installation

1. Installation is the reverse of the removal procedure except for the following:

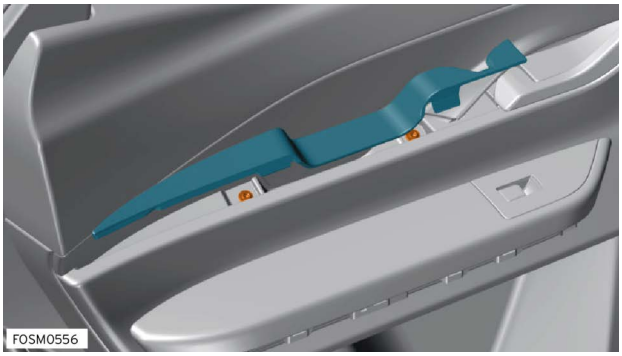
   *NOTE: Inspect clips for damage and replace if necessary.*

## Trim - Door - Rear - LH

### Removal



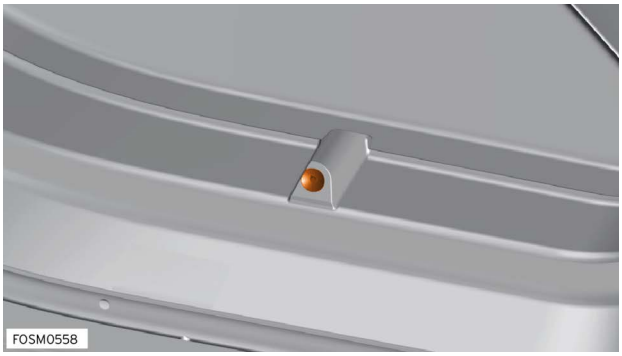

1. Release clips (x14) securing armrest trim to rear door trim.
2. Remove armrest trim.
3. Remove M6x20 Torx screw securing rear door trim to rear door. **Torque 5 Nm.**



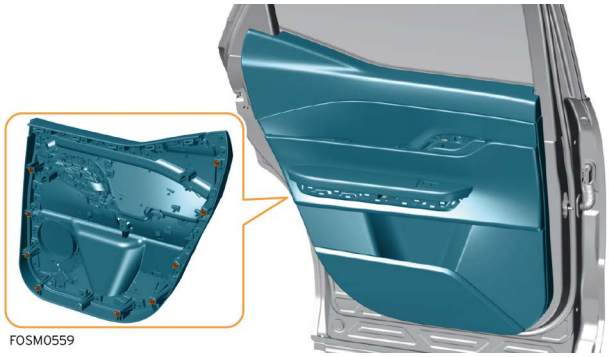

4. Release clips (x2) securing pull handle trim to rear door trim.
5. Remove pull handle trim.
6. Remove M6x20 Torx screws (x2) securing rear door trim to rear door. **Torque 5 Nm.**




7. Release clips (x6) securing cover trim to rear door trim.
8. Remove cover trim.



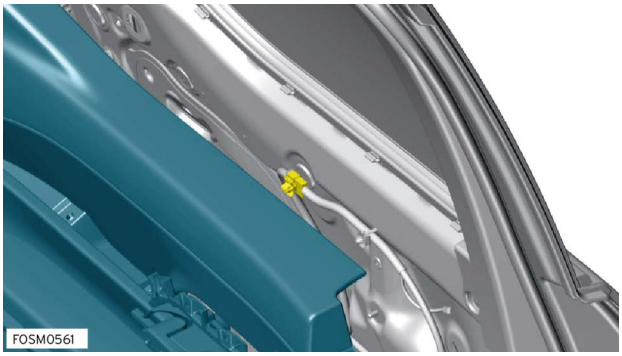

9. Remove M5x15 Torx screw securing rear door trim to rear door. **Torque 1.6 Nm.**




10. Release clips (x16) securing rear door trim to rear door.

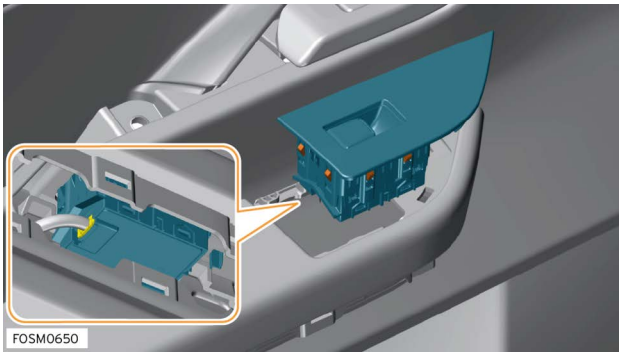



11. Release inner cable from inner handle.

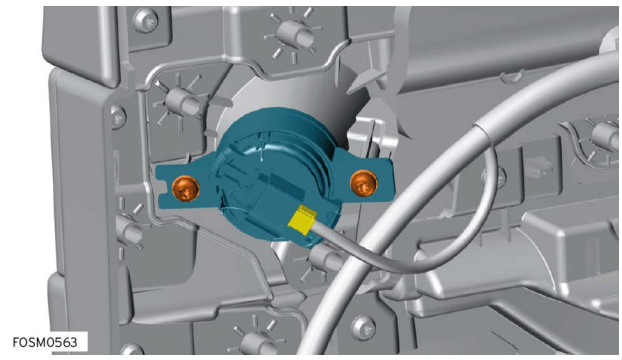



12. Disconnect harness connector from rear door harness.
13. Remove rear door trim.

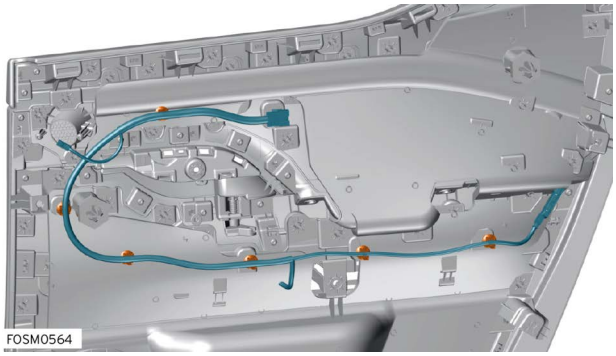
***Do not carry out further disassembly if component is removed for access only.***



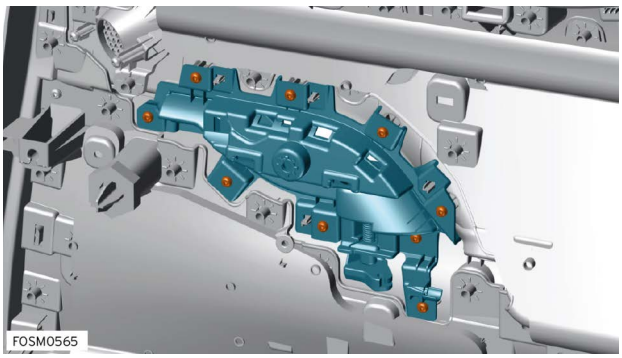

14. Carefully release clips (x8) switch pack from door trim.
15. Disconnect harness connector from switch pack.
16. Remove switch pack.




17. Disconnect harness connector from tweeter.
18. Remove Torx screws (x2) securing tweeter to rear door trim. **Torque 2 Nm.**
19. Remove tweeter.




20. Release clips (x6) securing door trim harness to rear door trim.
21. Remove door trim harness.




22. Remove Torx screws (x9) securing inner handle to rear door trim. **Torque 1.6 Nm.**
23. Remove inner handle.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*

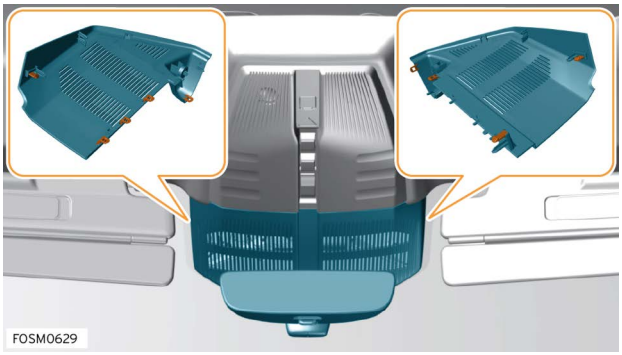
## Trim - Roof

### Removal

1. Remove A pillar trim upper LH. Refer to Trim - A Pillar - Upper - LH.
2. Remove A pillar trim upper RH. Refer to Trim - A Pillar - Upper - LH.

   *NOTE: Procedure is the same for left side component.*
3. Remove D pillar trim upper LH. Refer to Trim - D Pillar - LH.
4. Remove D pillar trim upper RH. Refer to Trim - D Pillar - LH.

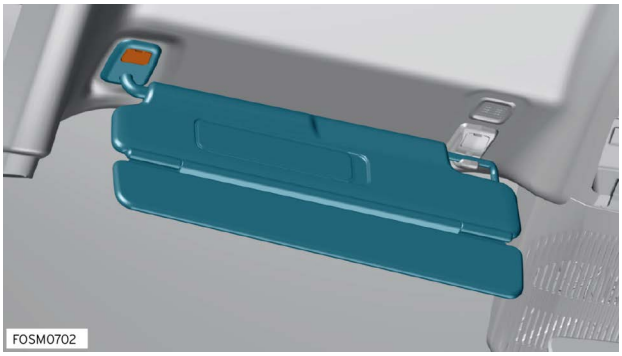
   *NOTE: Procedure is the same for left side component.*
5. Remove overhead console. Refer to Overhead Console.



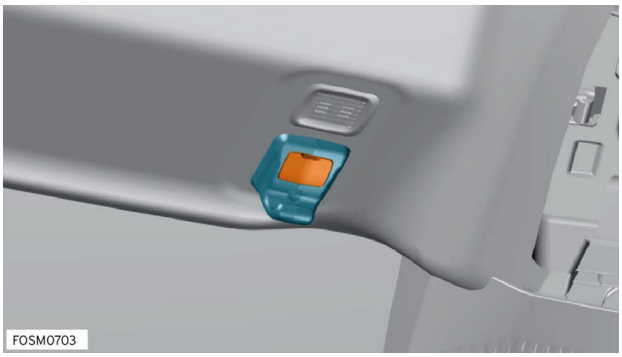

6. Release clips (x9) securing LH mirror trim to RH mirror trim.
7. Remove mirror trims (x2).



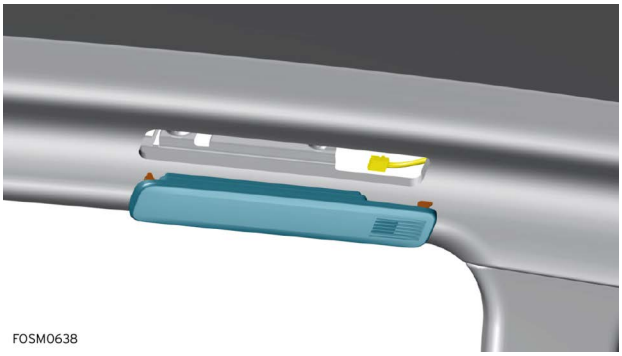

8. Disconnect harness connectors (x2) from rear view mirror.
9. Rotate base of rear view mirror counter-clockwise and remove from windshield.
10. Release sun visor from sun visor holder.




11. Remove cover and remove M6x12 bolt securing sun visor LH to roof trim. **Torque 1.8 Nm**.
12. Disconnect harness connector from sun visor LH.
13. Remove sun visor LH.
14. Repeat steps **10** through **13** for sun visor RH.



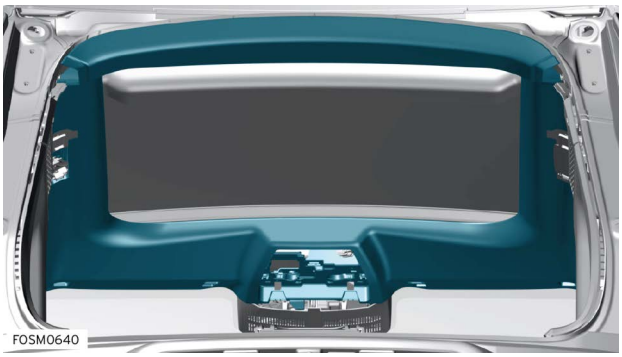

15. Remove cover and remove M6x12 bolt securing sun visor LH to roof trim. **Torque 1.8 Nm**.
16. Remove sun visor holder LH.
17. Repeat steps **15** through **16** for sun visor holder RH.




18. Release clips (x2) securing reading light rear LH to roof trim.
19. Disconnect harness connector from reading light rear LH.
20. Remove reading light rear LH.
21. Repeat steps **18** through **20** for reading light rear RH.




22. Release clips (x11) securing roof trim to vehicle.




23. Using assistance, maneuver and remove roof trim.

**Installation**

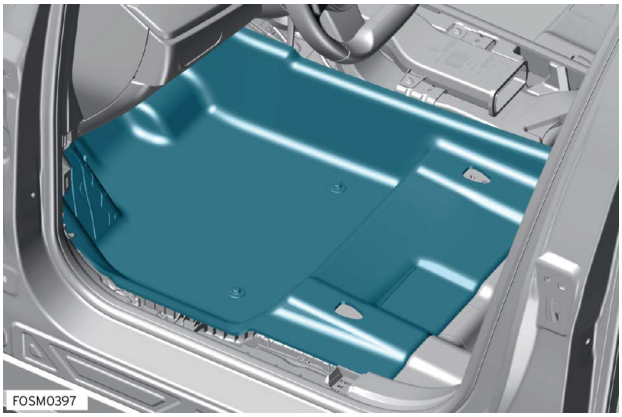
1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*

## Carpet - Front - LH

### Removal

1. Remove floor console assembly. Refer to Floor Console Assembly.
2. Remove LH A pillar lower trim. Refer to Trim - A Pillar - Lower - LH.




3. Remove front carpet.

### Installation

1. Installation is the reverse of removal procedure.

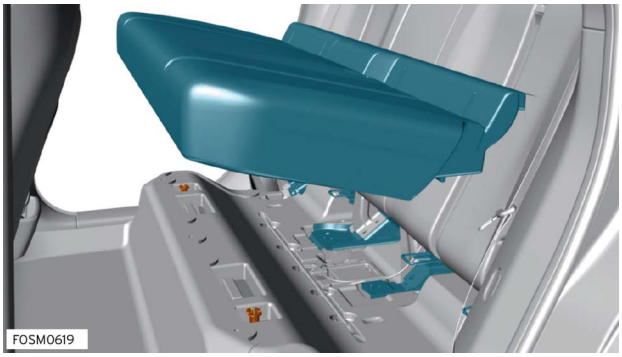
## Carpet - Rear

### Removal

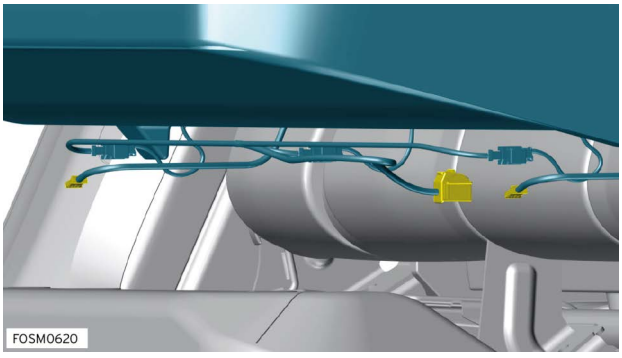
1. Remove floor console assembly. Refer to Floor Console Assembly.
2. Remove B pillar lower LH trim. Refer to Trim - B Pillar - Lower- LH.
3. Remove B pillar lower RH trim.

   *NOTE: Procedure is the same as for left side component.*
4. Remove C pillar lower LH trim. Refer to Trim - C Pillar - Lower - LH.
5. Remove C pillar lower RH trim.

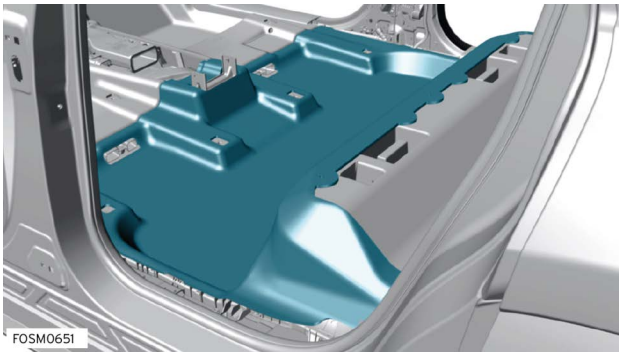
   *NOTE: Procedure is the same as for left side component.*




6. Release second row seat base cushion from cushion clips (x2) securing seat base cushion to seat base.
7. Release second row seat base cushion from rear seat crossbar.




8. Disconnect harness connectors (x3) from second row seat base cushion.
9. Using assistance, remove second row seat base cushion.




10. Release rear carpet from under front carpets (x2).
11. Using assistance, remove rear carpet.

**Installation**

1. Installation is the reverse of removal procedure.

## Trim - Rear Compartment - Upper - LH

### Removal

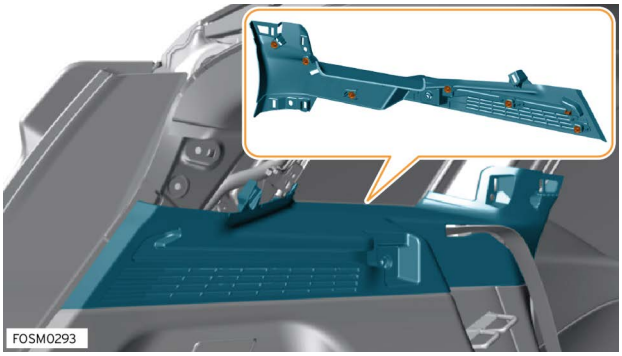
1. Remove C pillar upper trim. Refer to Trim - C Pillar - Upper - LH.
2. Remove C pillar lower trim. Refer to Trim - C Pillar - Lower - LH.
3. Remove D pillar trim. Refer to Trim - D Pillar - LH.
4. Fold down second row seat back.




5. Remove bolt securing seat belt to body. **Torque 40 Nm.**
6. Pass seat belt through slot in rear compartment trim.




7. Remove cover cap from rear compartment trim.
8. Remove M6x20 Torx screw securing rear compartment trim to body. **Torque 5 Nm.**




9. Release clips (x7) securing rear compartment trim to body.
10. Remove rear compartment trim.

### Installation

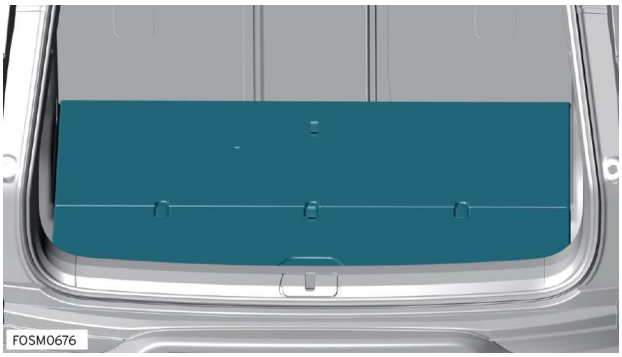
1. Installation is the reverse of removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*

## Trim - Rear Compartment - Lower - LH

### Removal

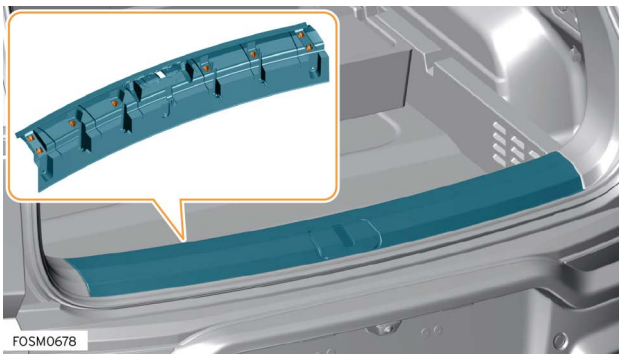
1. Remove rear compartment upper trim. Refer to Trim - Rear Compartment - Upper - LH.
2. Remove rear compartment lamp. Refer to Rear Compartment Lamp - LH.



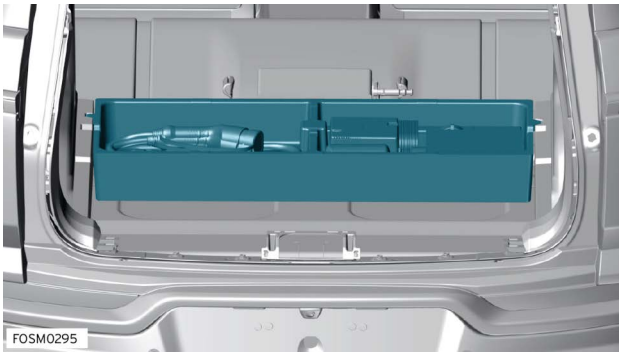

3. Remove rear compartment carpet.



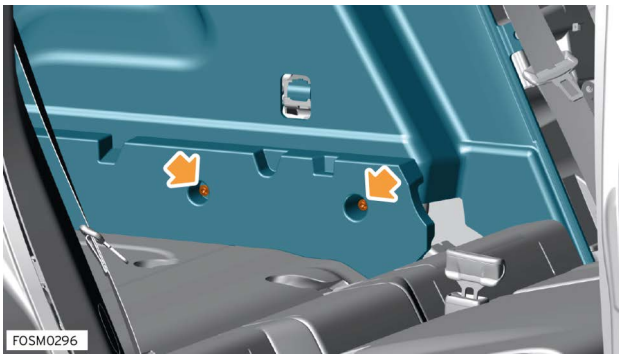

4. Remove M6x30 bolts (x3) securing rear compartment scuff plate to body. **Torque 4 Nm.**



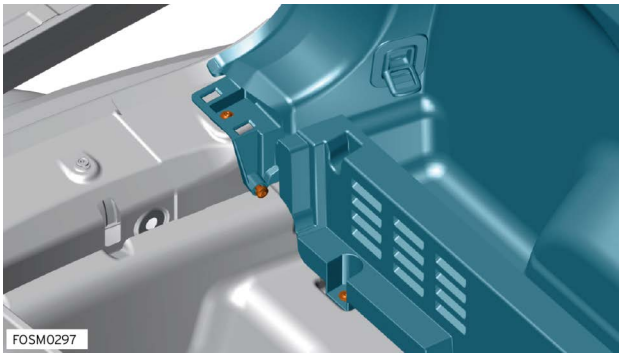

5. Release clips (x8) securing rear compartment scuff plate to body.
6. Remove rear compartment scuff plate.




7. Remove rear compartment partition box.




8. Remove M6x20 screws (x2) securing rear compartment lower trim to body. **Torque 5 Nm.**




9. Remove M6x20 screws (x2) securing rear compartment lower trim to body. **Torque 5 Nm.**
10. Remove M6x30 screw securing rear compartment lower trim to body. **Torque 4 Nm.**




11. Release clips (x2) securing rear compartment lower trim to body.
12. Remove rear compartment lower trim.

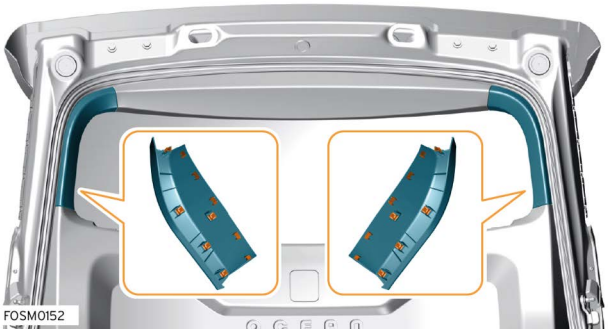
**Installation**

1. Installation is the reverse of the removal procedure except for the following:

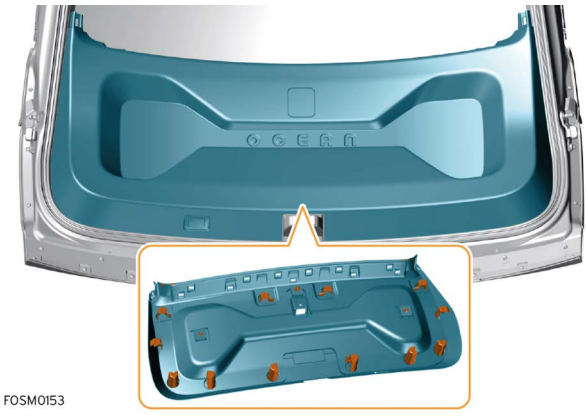
   *NOTE: Inspect clips for damage and replace if necessary.*

## Trim - Liftgate - Lower

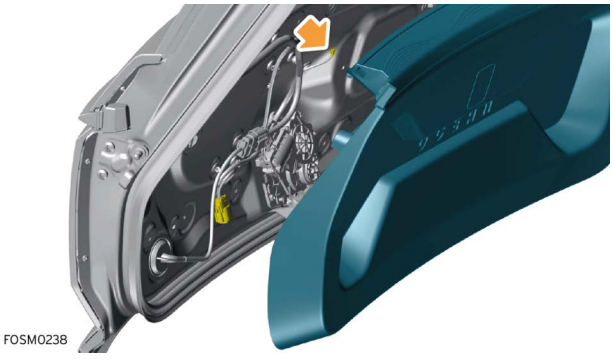
### Removal




1. Release clips (x10) securing liftgate LH inner trim to liftgate.
2. Remove LH liftgate inner trim.
3. Release clips (x10) securing RH liftgate inner trim to liftgate.
4. Remove RH liftgate inner trim.




5. Release clips (x19) securing liftgate inner lower trim to liftgate.




6. Disconnect harness connectors (x2) from lamp and liftgate switch.
7. Remove liftgate lower inner trim.

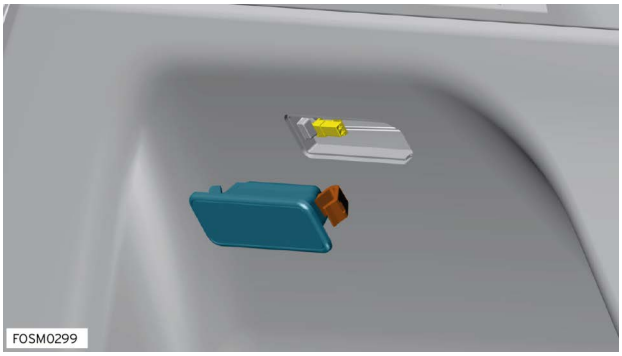
### Installation

1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*

## Rear Compartment Lamp - LH

### Removal




1. Use a suitable tool to push the rear compartment lamp left to release clip securing rear compartment lamp to rear compartment lower trim.
2. Disconnect harness connector from rear compartment lamp.
3. Remove rear compartment lamp.

### Installation

1. Installation is the reverse of the removal procedure.

## Seat Belt Reel/Belt - Front - LH

### Removal

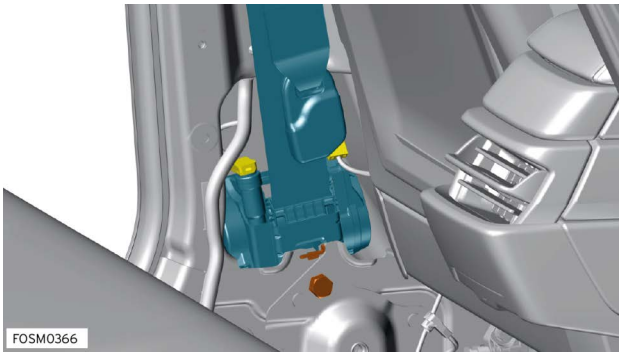
1. Disconnect 12V battery. Refer to Battery Disconnect - 12V.
2. Remove B pillar lower trim. Refer to Trim - B Pillar - Lower- LH.




3. Remove M6x12 bolts (x2) securing seat belt guide to chassis. **Torque 1.8 Nm.**
4. Remove seat belt guide.




5. Remove Torx 7/16-20UNF bolt securing seat belt to height adjuster. **Torque 40 Nm.**



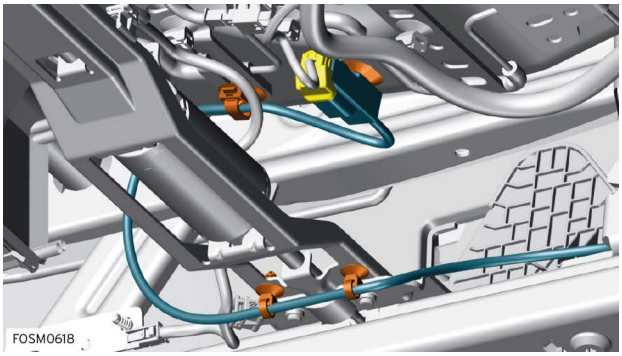

6. Disconnect harness connectors (x2) from seat belt.
7. Remove 7/16-20UNF bolt securing seat belt reel to chassis. **Torque 40 Nm.**
8. Release clip securing seat belt reel to chassis.
9. Remove seat belt reel.

### Installation

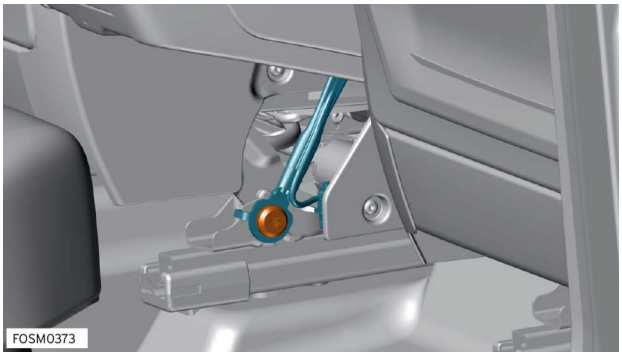
1. Installation is the reverse of removal procedure.

## Seat Belt Buckle - Front - LH

### Removal




1. Disconnect harness connector from front seat harness.
2. Release clips (x4) securing seat belt buckle harness to front seat assembly.
3. Move seat to fully back position.




4. Remove Torx bolt securing seat belt buckle to front seat assembly. **Torque 40 Nm.**
5. Remove seat belt buckle.

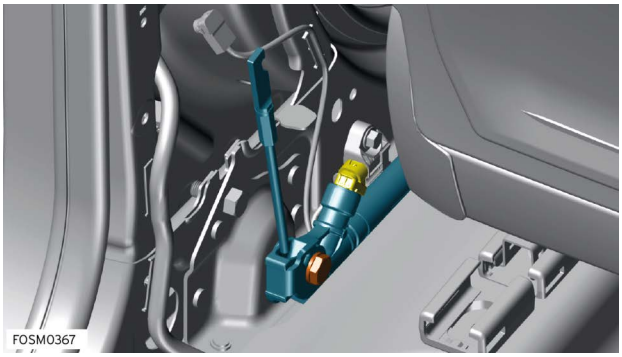
### Installation

1. Installation is the reverse of removal procedure.

## Seat Belt Pretensioner - Front - LH

### Removal

1. Disconnect 12V battery. Refer to Battery Disconnect - 12V.
2. Remove B pillar lower trim. Refer to Trim - B Pillar - Lower- LH.




3. Disconnect harness connector from seat belt pretensioner.
4. Remove bolt securing seat belt pretensioner to chassis. **Torque 40 Nm.**
5. Remove seat belt pretensioner.

**CAUTION: Do not handle the pretensioner by the cable.**

### Installation

1. Installation is the reverse of removal procedure except for the following:

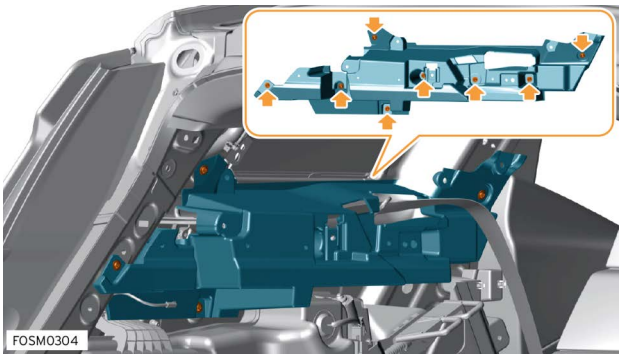
**CAUTION: Carefully inspect the pretensioner before installation. Do not install a pretensioner that shows signs of being dropped or improperly handled, such as dents, cracks or deformation.**

**CAUTION: Do not try to disassemble, or tamper with the pretensioner.**

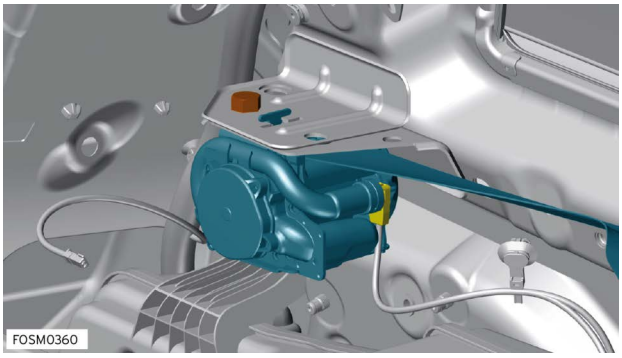
## Seat Belt Reel/Belt - Second Row - LH

### Removal

1. Remove LH rear compartment lower trim. Refer to Trim - Rear Compartment - Lower - LH.




2. Remove M6x20 Torx screws (x8) securing trim mounting bracket to chassis. **Torque 5 Nm.**
3. Pass seat belt through slot in trim mounting bracket.
4. Remove trim mounting bracket.



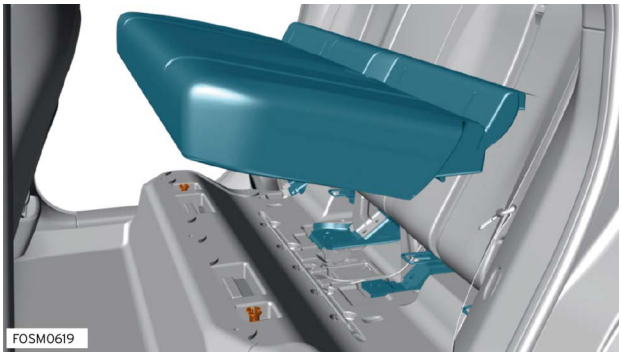

5. Disconnect harness connector from seat belt reel.
6. Remove 7/16"-20UNF bolt securing seat belt reel to chassis. **Torque 40 Nm.**
7. Release clip securing seat belt reel to chassis.
8. Remove seat belt reel.

### Installation

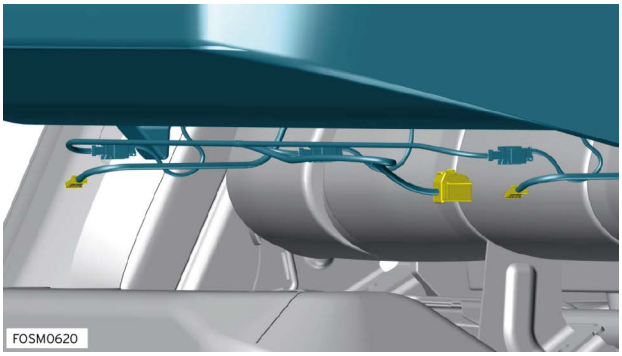
1. Installation is the reverse of removal procedure.

## Seat Belt Buckle - Second Row - LH

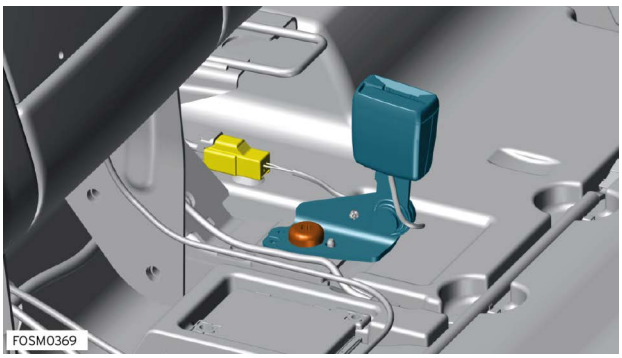
### Removal




1. Release second row seat base cushion from cushion clips (x2) securing seat base cushion to seat base.
2. Release second row seat base cushion from rear seat crossbar.




3. Disconnect harness connectors (x3) from second row seat base cushion.
4. Using assistance, remove second row seat base cushion.




5. Disconnect harness connector from seat belt buckle.

6. Remove Torx bolt securing seat belt buckle to second row seat base. **Torque 40 Nm.**
7. Remove seat belt buckle.

**Installation**

1. Installation is the reverse of removal procedure.

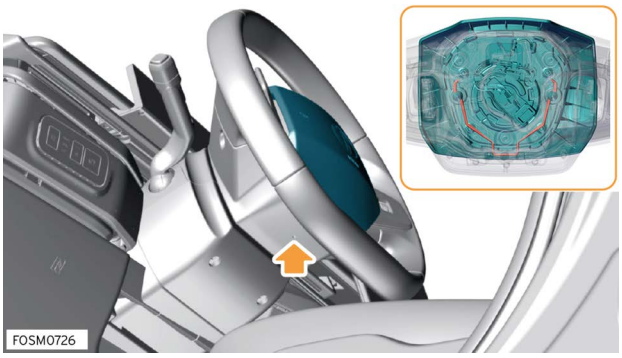
## Air Bag Module - Driver

### Removal

1. Disconnect 12V battery. Refer to Battery Disconnect - 12V.

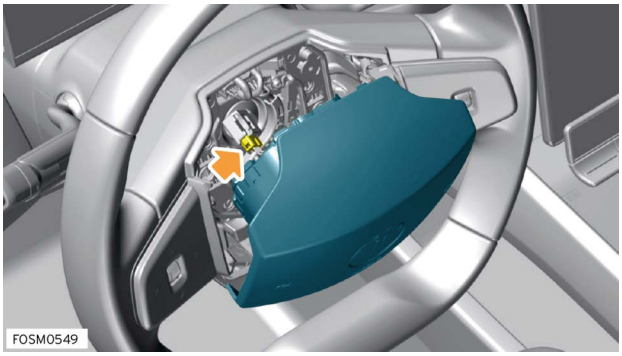
**CAUTION: Wait 2 minutes to allow Supplementary Restraint System back up power circuit to discharge before commencing work.**




2. Insert release pin through hole in bottom of steering wheel to release internal spring clip securing driver`s airbag to steering wheel.
3. Release driver`s airbag from steering wheel.

**CAUTION: Do not allow the airbag to hang by the harness.**




4. Disconnect harness connector from driver`s airbag.
5. Remove airbag.

**CAUTION: Store airbag face up in a cool, dry, secure area away from all corrosives, oxidizers, ignition sources, or high heat sources.**

### Installation

1. Installation is the reverse of removal procedure except for the following:

**CAUTION: Carefully inspect the airbag before installing it. Do not install an airbag that shows signs of being dropped or improperly handled, such as dents, cracks or deformation.**

2. Locate driver`s airbag on steering wheel and then firmly press to engage locking pins. Check that both sides of the airbag are securely retained.

**WARNING: Do not hit the airbag to engage the locking pins. This could damage the airbag or cause accidental deployment. Remove airbag, inspect locking mechanism and then try reinstalling the airbag. If the airbag will not securely engage on the steering wheel, either the airbag or steering wheel may need to be replaced.**

**CAUTION: Do not try to disassemble, or tamper with the airbag assembly.**

3. After installation delete DTC's using the Fisker Aftersales Service Tool.

## Steering Wheel

### Removal

1. Remove driver air bag module. Refer to Air Bag Module - Driver.




2. Disconnect harness connector from clock spring.
3. Restrain steering wheel and loosen M16x25 bolt securing steering wheel to column. **Torque 62.5 Nm.**

**WARNING: Do not remove bolt until steering wheel has been released from splines.**

4. Release steering wheel from column splines by rocking steering wheel from side-to-side and pulling with both hands.
5. Position steering wheel with front wheels in straight ahead position.
6. Remove bolt securing steering wheel to column.
7. Remove steering wheel.




8. Attach tape across edge of clock spring to retain central setting and prevent it from being rotated.

### Installation

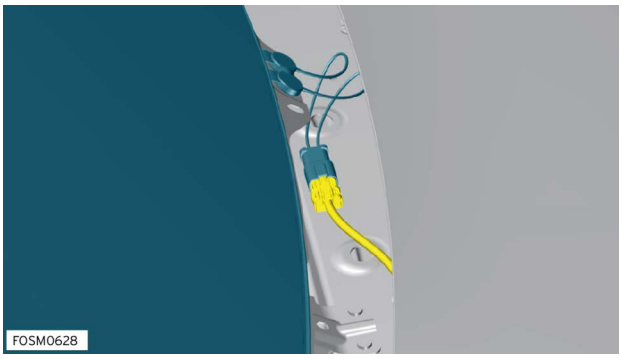
1. Installation is the reverse of removal procedure.

## Windshield - Heated

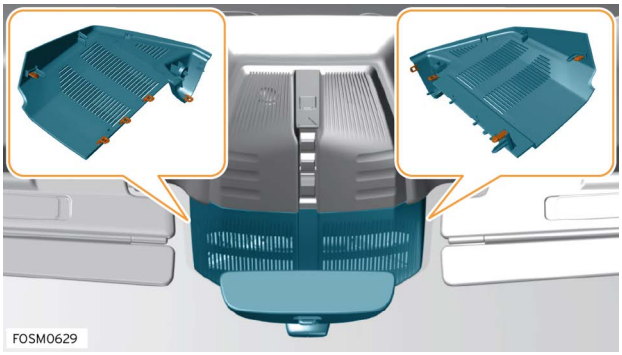
### Removal

1. Remove cowl assembly. Refer to Cowl Assembly.
2. Remove A pillar trim upper LH. Refer to Trim - A Pillar - Upper - LH.
3. Remove A pillar trim upper RH. Refer to Trim - A Pillar - Upper - LH.

   *NOTE: Procedure is the same for left side component.*



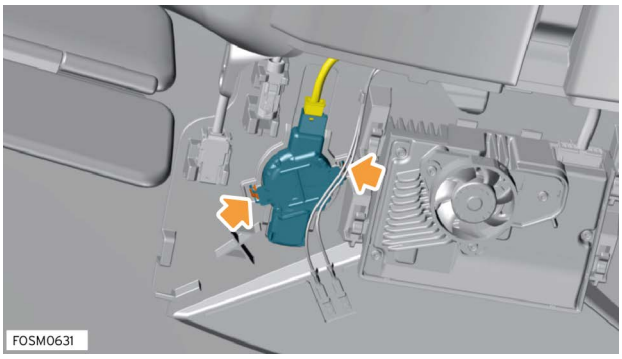

4. Disconnect harness connector from heated windshield.



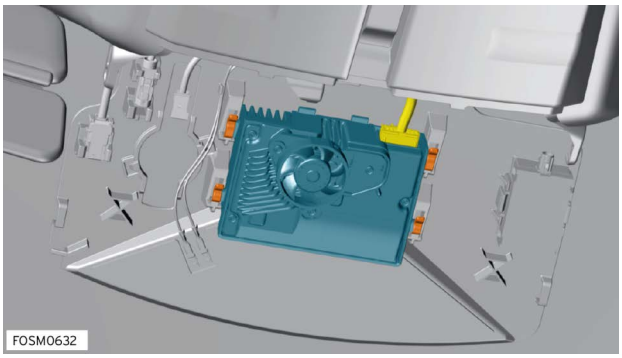

5. Release clips (x9) securing LH mirror trim to RH mirror trim.
6. Remove mirror trims (x2).




7. Disconnect harness connectors (x2) from rear view mirror.
8. Release clips (x3) securing rear view mirror to windshield.
9. Rotate base of rear view mirror counter-clockwise and remove from windshield.

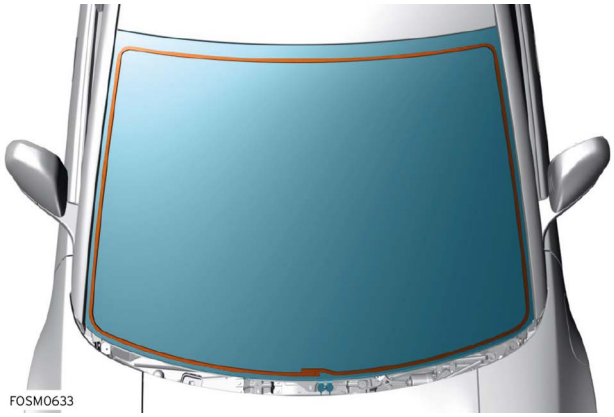



10. Disconnect harness connector from rain/light/temperature sensor.
11. Release clips (x2) securing rain/light/temperature sensor to windshield.
12. Remove rain/light/temperature sensor.




13. Disconnect harness connector from front camera.

14. Release clips (x4) securing front camera to windshield.
15. Remove front camera.




16. Using suitable equipment, cut adhesive securing windshield to vehicle.
17. Using assistance remove windscreen.

**CAUTION: If glass is to be reused place on suitable surface to prevent damage.**

**Installation**

1. Installation is the reverse of removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*
2. Remove old adhesive from windshield bonding surface.
3. Clean windshield bonding surface using a suitable cleaning fluid.
4. Clean windshield using a suitable cleaning fluid.




5. Apply a continuous 12 mm bead of Sikaflex 250 DB3 to windshield bonding surface.
6. Using assistance, align tabs (x2) to locate windshield correctly and install to windshield aperture.
7. Push windshield with palm of hand all around windshield adhesive bead.
8. Apply tape to hold windshield in position until adhesive has cured.
9. After installation of front camera perform the calibration procedure using the Fisker Aftersales Service Tool.

## Glass - Quarter - Rear - LH

### Removal

1. Remove window regulator, if equipped. Refer to Window Regulator - Quarter - Rear - LH.

**CAUTION: Support the quarter glass as it is not secured in the glass channels.**




2. Slide glass downwards to release from glass channels (x2).
3. Remove quarter glass.

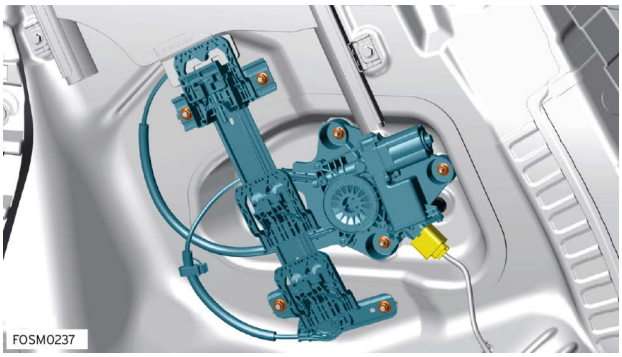
### Installation

1. Installation is the reverse of removal procedure except for the following:
2. Raise and lower window to ensure quarter glass drop is working correctly.

## Window Regulator - Quarter - Rear - LH

### Removal

1. Remove rear fender. Refer to Fender - LH.




2. Disconnect harness connector from window regulator.
3. Remove M6 nuts (x7) securing window regulator to chassis. **Torque 9 Nm.**
4. Release glass from window regulator.
5. Using assistance, support the glass.

**CAUTION: The glass is not secured in the glass channels.**

6. Remove window regulator.

### Installation

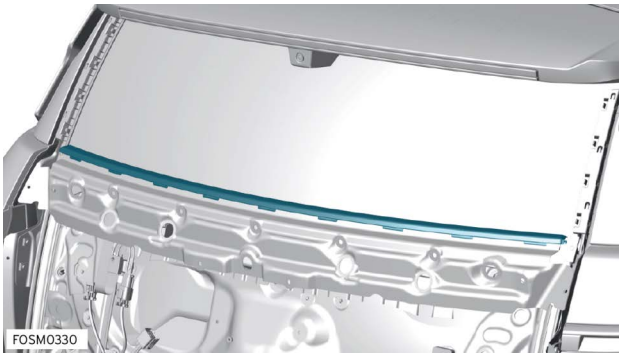
1. Installation is the reverse of removal procedure except for the following:
2. After installation perform the calibration procedure using the Fisker Aftersales Service Tool.

## Glass - Liftgate

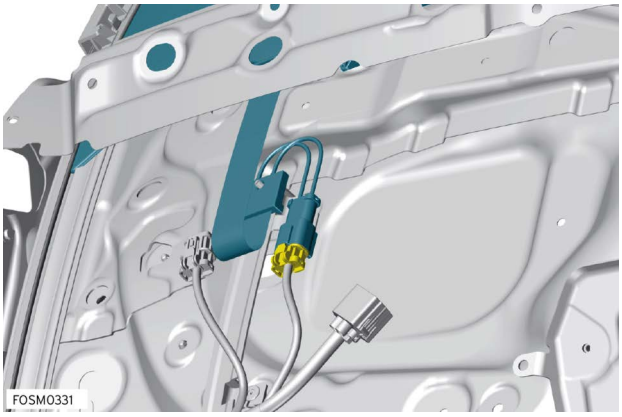
### Removal

1. Remove window regulator. Refer to Window Regulator - Liftgate.

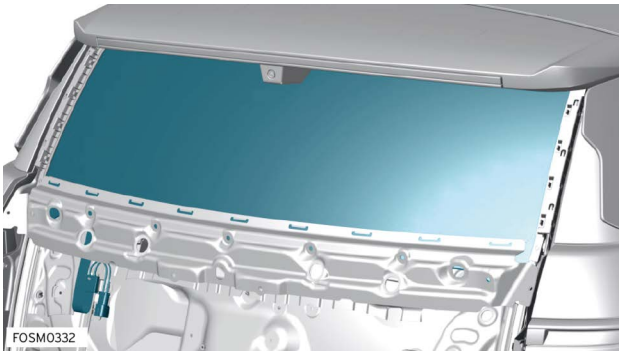
**CAUTION: The liftgate glass assembly is not secured in the glass channels.**




2. Remove liftgate glass sealing strip.




3. Disconnect harness connector from liftgate glass assembly.
4. Release liftgate glass harness from cable rail.




5. Slide glass downwards to release from glass channels (x2).
6. Remove liftgate glass assembly.

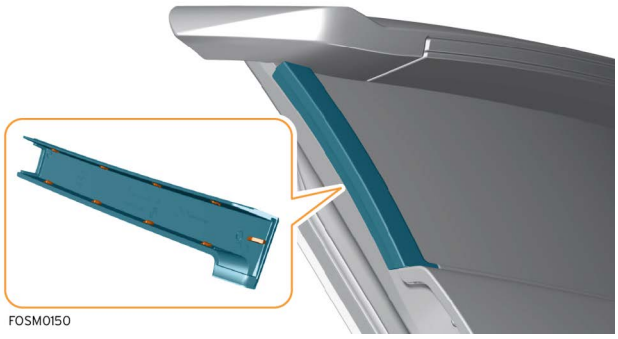
### Installation

1. Installation is the reverse of removal procedure except for the following:
2. Raise and lower window to ensure liftgate glass drop is working correctly.

## Window Regulator - Liftgate

### Removal

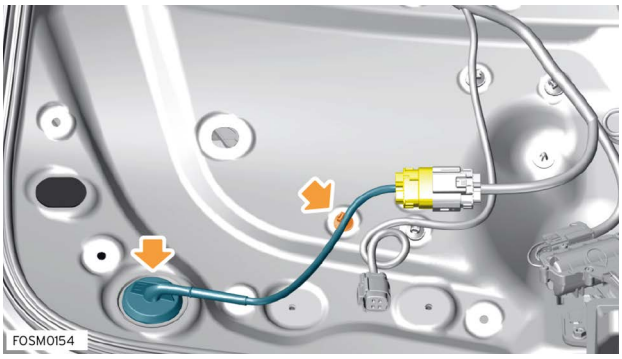
1. Remove liftgate lower trim. Refer to Trim - Liftgate - Lower.



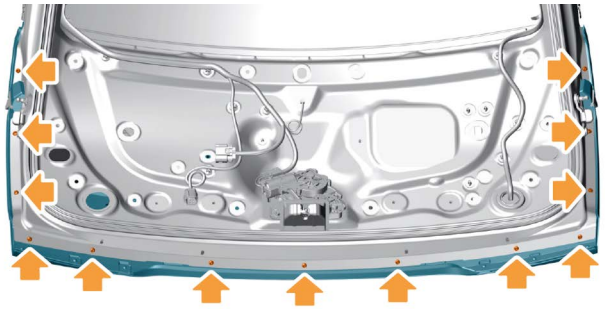

2. Release clips (x9) securing LH liftgate outer trim panel to liftgate.
3. Remove LH liftgate outer trim panel.




4. Release clips (x9) securing RH liftgate outer trim panel to liftgate.
5. Remove RH liftgate outer trim panel.

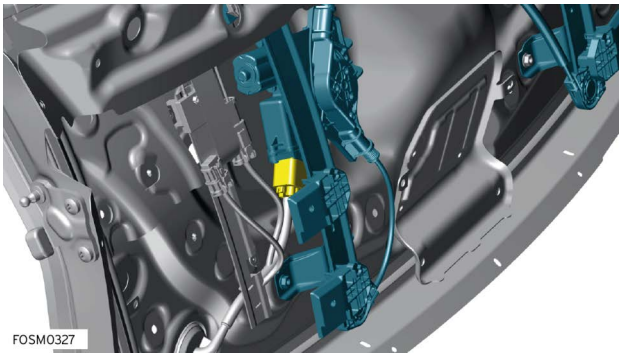



6. Disconnect harness connector from liftgate light harness
7. Release clip securing liftgate light harness to liftgate.
8. Release grommet from liftgate.

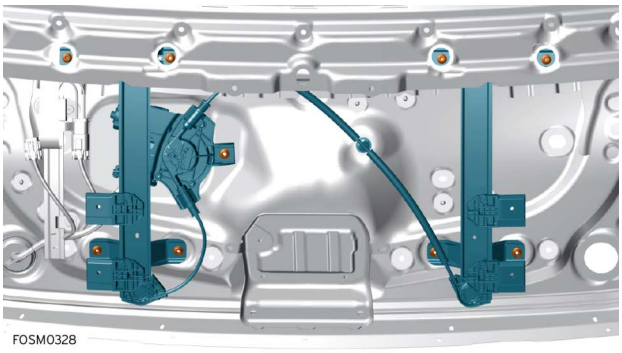



9. Remove M5x8 Torx screws (x13) securing liftgate outer panel to liftgate. **Torque 2 Nm.**
10. Remove liftgate outer panel.

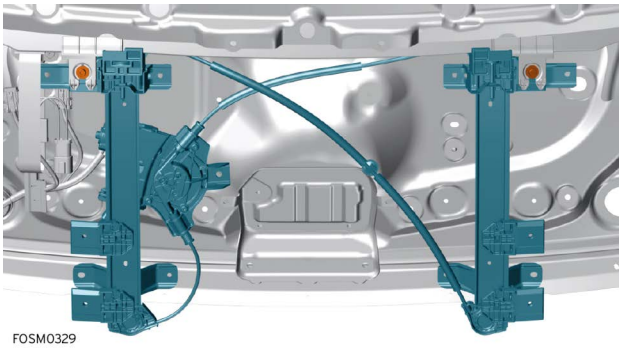
**CAUTION: Place on secure suitable surface to prevent damage.**




11. Disconnect harness connector from window regulator.




12. Remove M6 nuts (x9) securing window regulator to liftgate. **Torque 9 Nm.**




13. Using assistance, lower window regulator and liftgate glass assembly.
14. Remove M6x16 Torx bolts (x2) securing window regulator to liftgate glass assembly. **Torque 12 Nm.**
15. Using assistance, support the liftgate glass assembly.

**CAUTION: The liftgate glass assembly is not secured in the glass channels.**

16. Remove window regulator.

### Installation

1. Installation is the reverse of removal procedure except for the following:

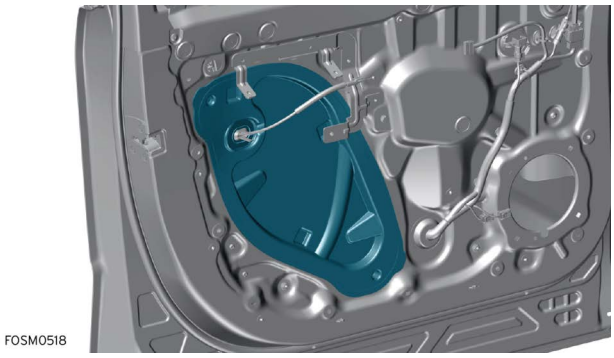
   *NOTE: Inspect clips for damage and replace if necessary.*

2. After installation perform the calibration procedure using the Fisker Aftersales Service Tool.

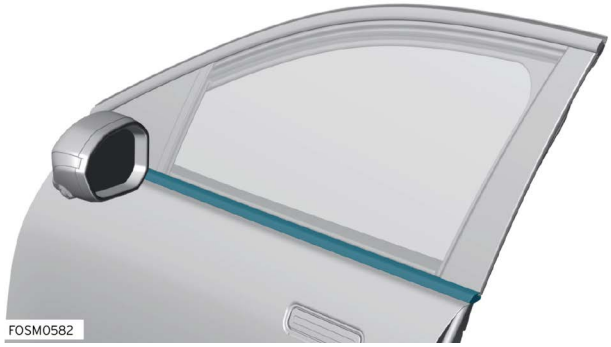
## Glass - Front - LH

### Removal

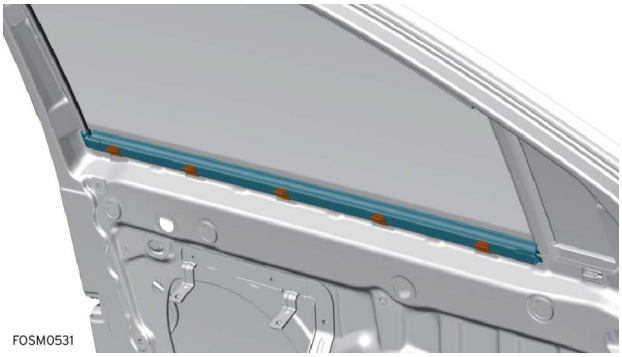
1. Remove front door trim. Refer to Trim - Door - Front - LH.



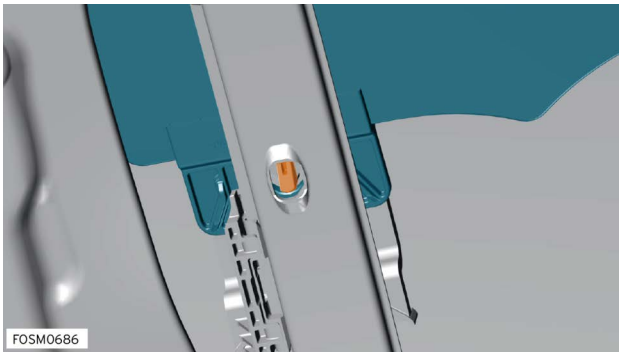

2. Release waterproof membrane from front door and inner cable.
3. Remove waterproof membrane.



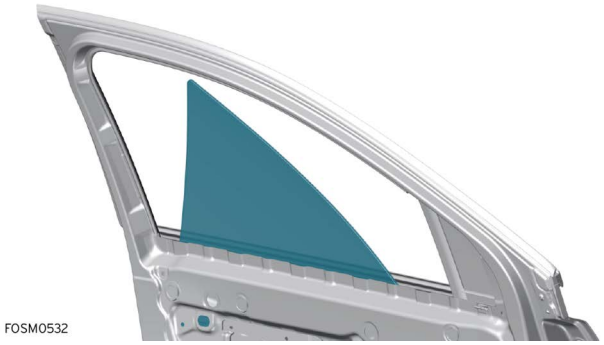

4. Release and remove outer sealing strip from front door.




5. Remove clips (x5) securing inner sealing strip to front door.
6. Remove inner sealing strip.




7. Lower glass to access retaining clips (x2).
8. Release glass from retaining clips (x2) on window regulator.




9. Rotate the shorter side of the glass down to release from frame seal.
10. Lift and remove glass.

### Installation

1. Installation is the reverse of removal procedure except for the following:

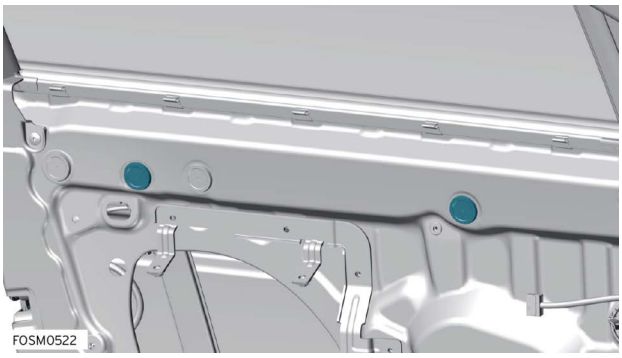
   *NOTE: Inspect waterproof membrane for damage and replace if necessary.*

2. Raise and lower window to ensure door glass drop is working correctly.

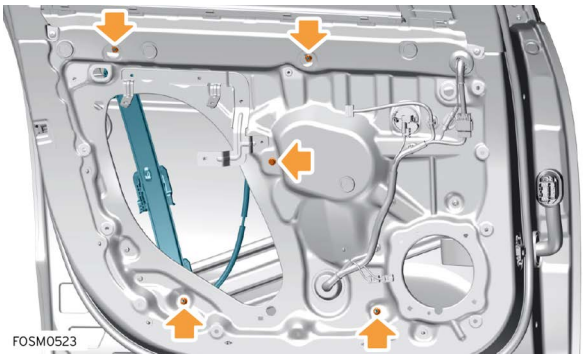
## Window Regulator - Front - LH

### Removal

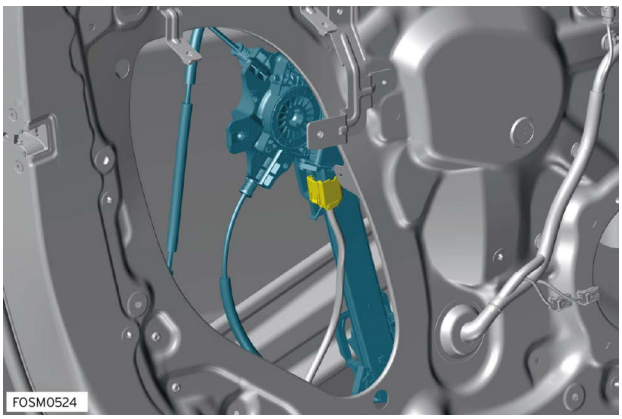
1. Remove front door glass. Refer to Glass - Front - LH.




2. Remove plugs (x2) from front door




3. Remove M6x16 bolt securing window regulator to front door. **Torque 9 Nm.**
4. Remove M6 nuts (x4) securing window regulator to front door. **Torque 9 Nm.**




5. Maneuver and disconnect harness connector from window regulator.
6. Remove window regulator.

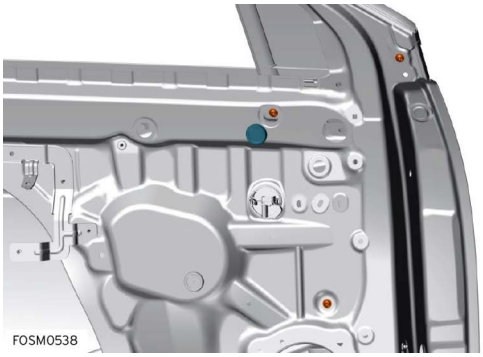
### Installation

1. Installation is the reverse of removal procedure except for the following:
2. After installation perform the calibration procedure using the Fisker Aftersales Service Tool.

## Glass - Quarter - Front - LH

### Removal

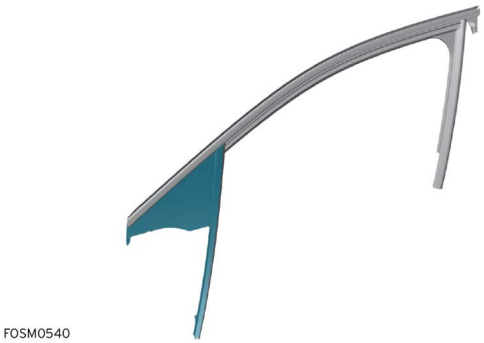
1. Remove exterior mirror. Refer to Exterior Mirror - LH.
2. Remove front door glass. Refer to Glass - Front - LH.




3. Remove plug from front door.
4. Remove M5x6 Torx screws (x3) securing quarter glass to front door. **Torque 5.3 Nm.**




5. Pull off frame seal assembly from front door.
6. Remove quarter glass and frame seal assembly.




7. Pull off quarter glass from frame seal.
8. Remove quarter glass.

### Installation

1. Installation is the reverse of removal procedure.

## Glass - Rear- LH

### Removal

1. Remove rear door trim. Refer to Trim - Door - Rear - LH.


FOSM0566

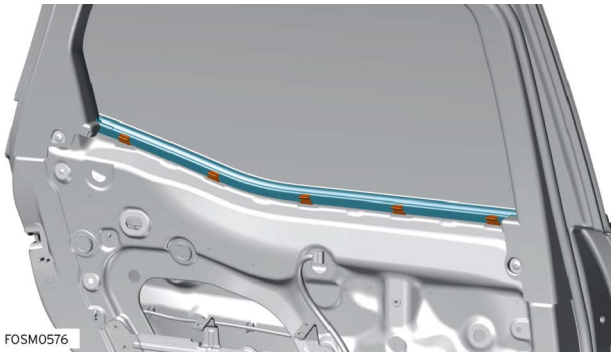
2. Release waterproof membrane from rear door and inner cable.
3. Remove waterproof membrane.


FOSM0574

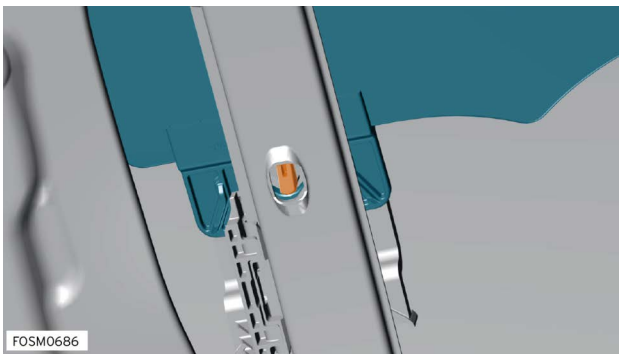
4. Release and remove outer sealing strip from rear door.


FOSM0575

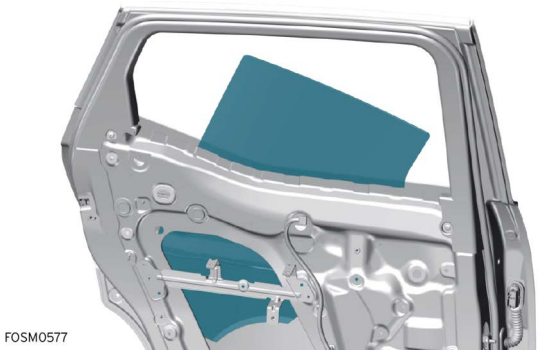
5. Remove plug from rear door.
6. Remove M6x12 Torx screws (x2) securing glass channel to rear door. **Torque 9 Nm.**


FOSM0576

7. Remove clips (x5) securing inner sealing strip to rear door.
8. Remove inner sealing strip.


FOSM0686

9. Lower glass to access retaining clips (x2).
10. Release glass from retaining clips (x2) on window regulator.


FOSM0577

11. Rotate the shorter side of the glass down to release from frame seal.
12. Lift and remove glass.

### Installation

1. Installation is the reverse of removal procedure except for the following:

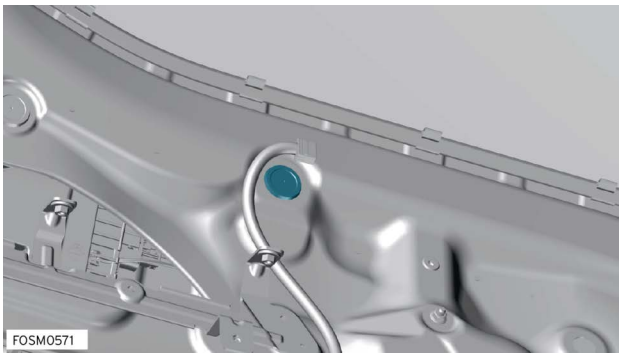
   *NOTE: Inspect waterproof membrane for damage and replace if necessary.*

2. Raise and lower window to ensure door glass drop is working correctly.

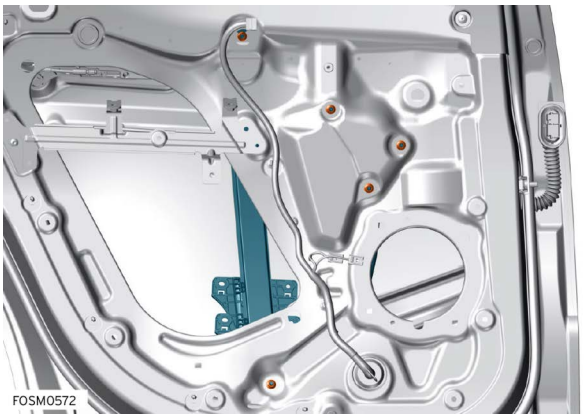
## Window Regulator - Rear - LH

### Removal

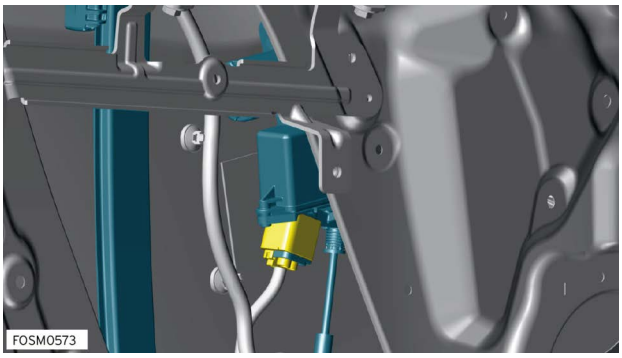
1. Remove rear door glass. Refer to Glass - Rear- LH.




2. Remove plug from rear door.




3. Remove M6 nuts (x5) securing window regulator to rear door. **Torque 9 Nm.**



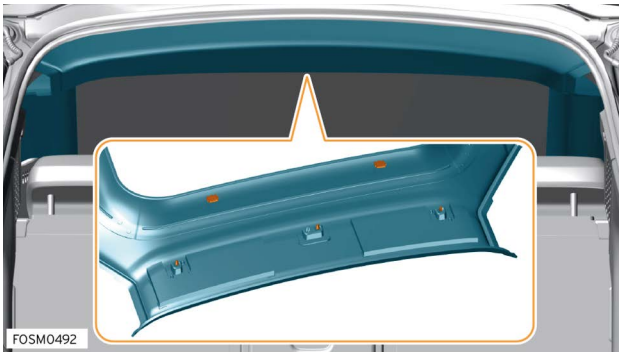

4. Maneuver and disconnect harness connector from window regulator.
5. Remove window regulator.

**Installation**

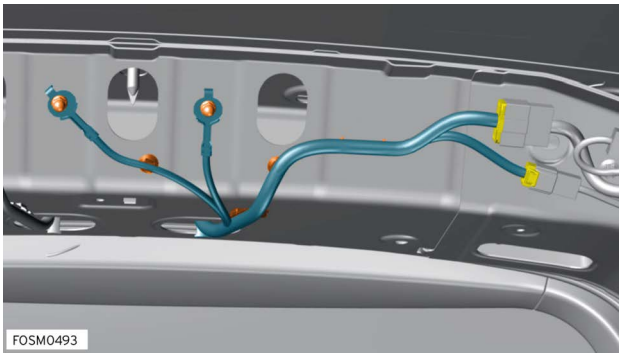
1. Installation is the reverse of removal procedure except for the following:
2. After installation perform the calibration procedure using the Fisker Aftersales Service Tool.

## Liftgate Assembly

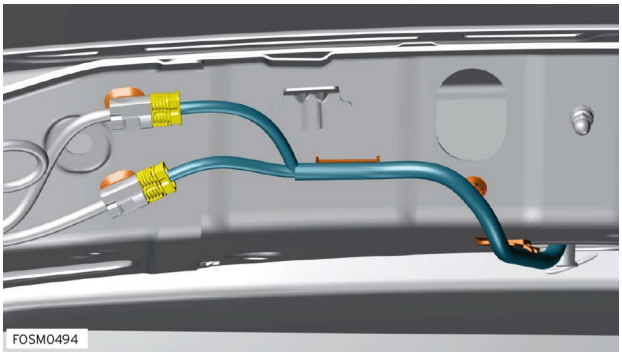
### Removal



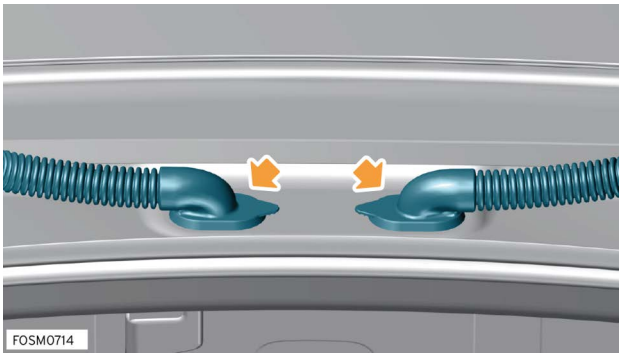

1. Release clips (x5) securing roof trim to vehicle.
2. Pull down rear section of roof trim.




3. Disconnect harness connectors (x2) from the body harness.
4. Remove nuts (x2) securing harness to liftgate assembly. **Torque 9 Nm.**
5. Release clips (x4) securing harness to liftgate assembly.




6. Disconnect harness connectors (x2) from the body harness.
7. Release clips (x3) securing harness to liftgate assembly.




8. Release grommets (x2) and withdraw harnesses (x2) from vehicle.







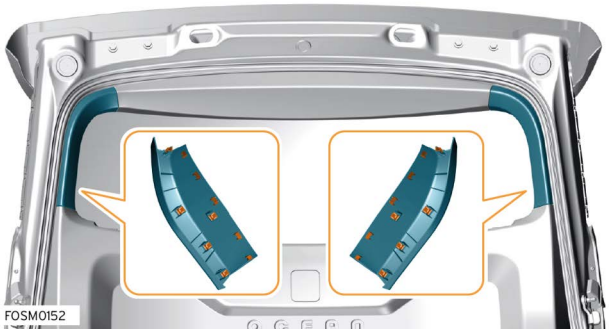
9. Release clips (x2) securing struts (x2) to liftgate.
10. Disconnect struts (x2) from liftgate assembly.
11. If liftgate is to be reinstalled, mark outline of hinges on liftgate.



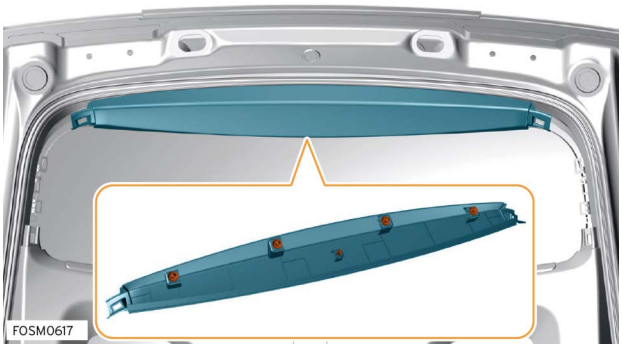

12. Using an assistant to support the liftgate assembly, remove M8x20 bolts (x4) securing liftgate assembly to vehicle. **Torque 19 Nm.**
13. Remove liftgate assembly.

**CAUTION: Place on secure suitable surface to prevent damage.**

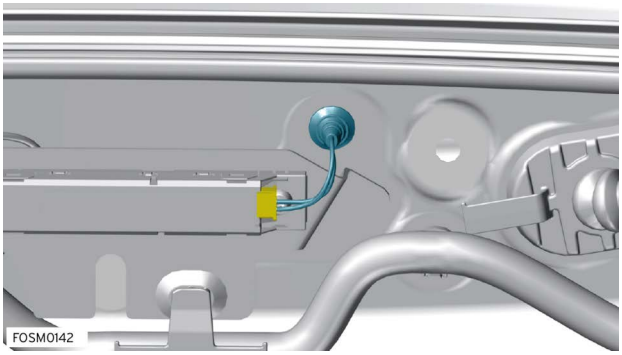
***Do not carry out further disassembly if component is removed for access only.***




14. Release clips (x10) securing LH liftgate inner trim to liftgate.
15. Remove LH liftgate inner trim.
16. Release clips (x10) securing RH liftgate inner trim to liftgate.
17. Remove RH liftgate inner trim.




18. Release clips (x5) securing liftgate upper inner trim to liftgate.
19. Remove liftgate upper inner trim.



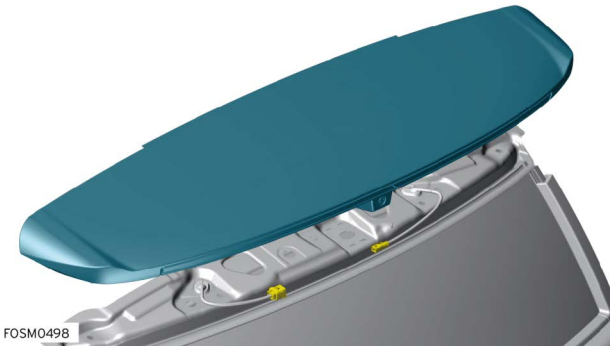

20. Disconnect harness connector from antenna amplifier.
21. Release grommet from liftgate.




22. Remove plugs (x5) from liftgate inner panel.

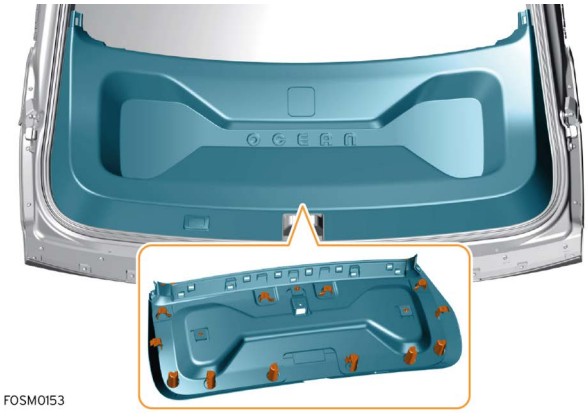



23. Remove M6 nuts (x5) securing rear spoiler to liftgate. **Torque 8 Nm.**




24. Disconnect harness connectors (x2) from rear spoiler.
25. Remove rear spoiler.

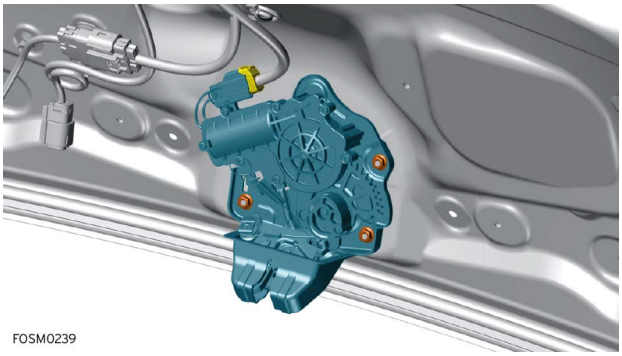
**CAUTION: Place on secure suitable surface to prevent damage.**



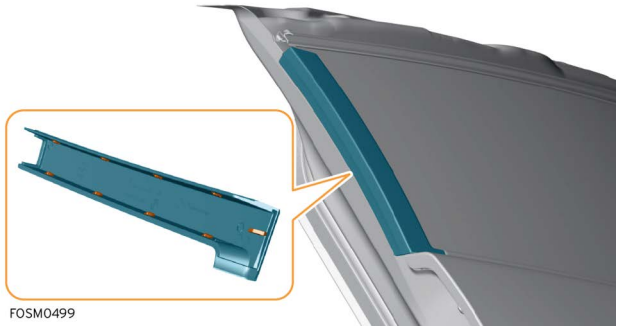

26. Release clips (x19) securing liftgate inner lower trim to liftgate.



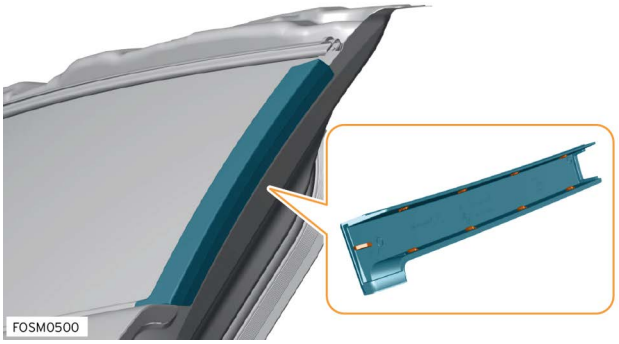

27. Disconnect harness connector from liftgate switch and lamp (arrowed).
28. Remove liftgate lower inner trim.



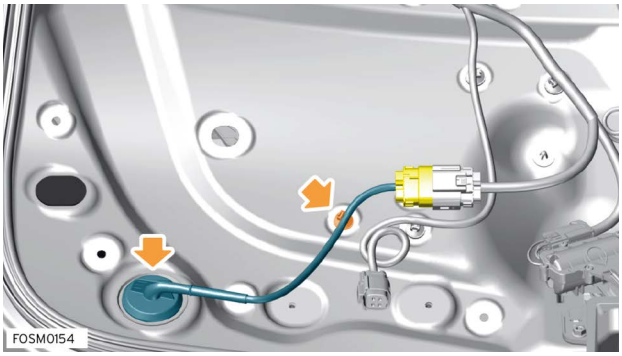

29. Disconnect harness connector from liftgate latch assembly.
30. Remove M6 nuts (x3) securing liftgate latch assembly to lower liftgate trim panel. **Torque 9 Nm.**
31. Remove liftgate latch assembly.




32. Release clips (x9) securing LH liftgate outer trim panel to liftgate.
33. Remove LH liftgate outer trim panel.




34. Release clips (x9) securing RH liftgate outer trim panel to liftgate.
35. Remove RH liftgate outer trim panel.

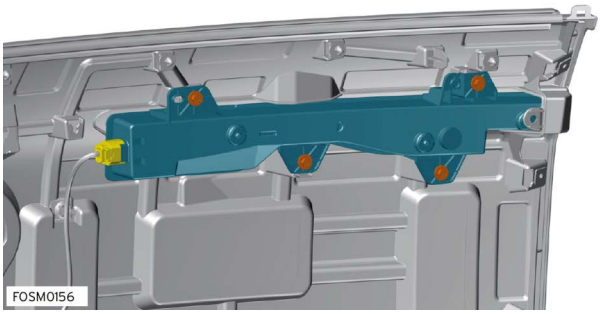



36. Disconnect harness connector from liftgate light harness.
37. Release clip securing liftgate light harness to liftgate.
38. Release grommet from liftgate.

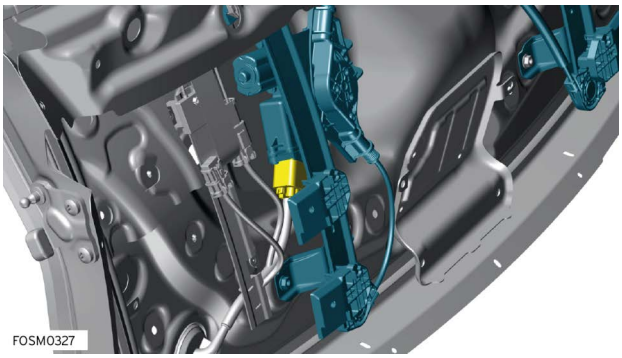



39. Remove M5x8 Torx screws (x13) securing liftgate outer panel to liftgate. **Torque 2 Nm.**
40. Remove liftgate outer panel.

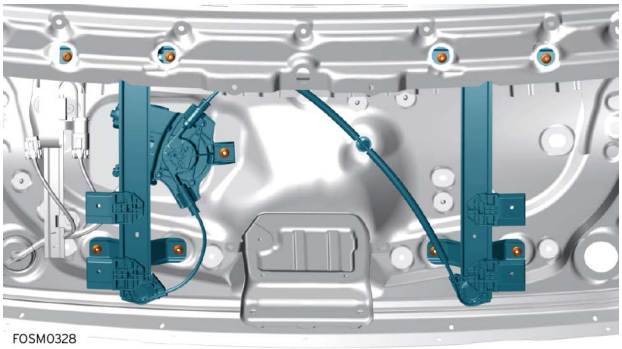
**CAUTION: Place on secure suitable surface to prevent damage.**



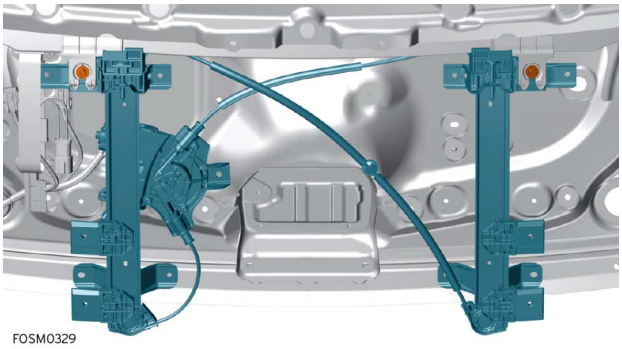

41. Disconnect harness connector from LH liftgate lamp.
42. Remove M5x17 bolts (x4) securing LH liftgate lamp to liftgate outer panel. **Torque 2.6 Nm.**
43. Remove LH liftgate lamp.
44. Repeat steps **42** through **44** for RH liftgate lamp.




45. Disconnect harness connector from window regulator.



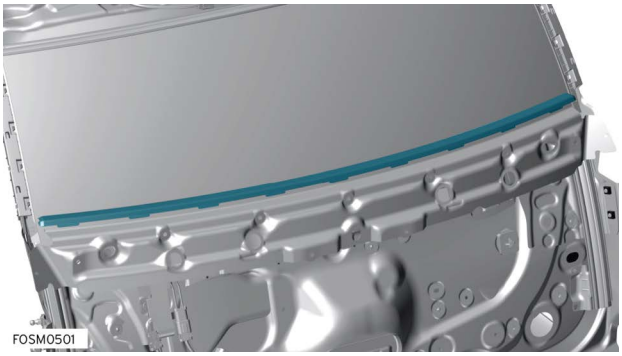

46. Remove M6 nuts (x9) securing window regulator to liftgate. **Torque 9 Nm.**



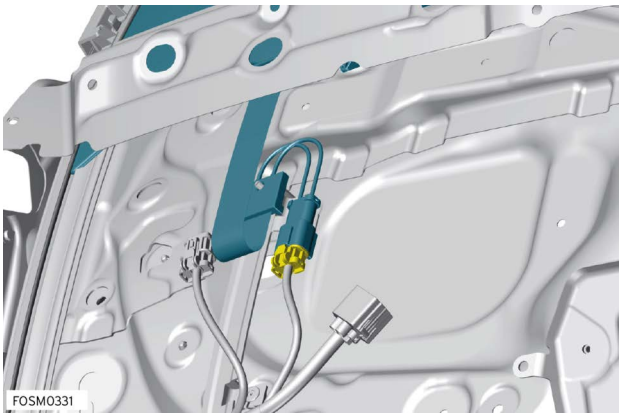

47. Using assistance, lower window regulator and liftgate glass assembly.
48. Remove M6x16 Torx bolts (x2) securing window regulator to liftgate glass assembly. **Torque 12 Nm.**
49. Using assistance, support the liftgate glass assembly.

**CAUTION: The liftgate glass assembly is not secured in the glass channels.**

50. Remove window regulator.



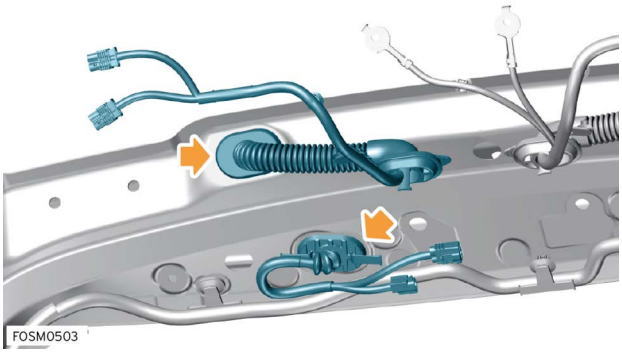

51. Remove liftgate glass sealing strip.



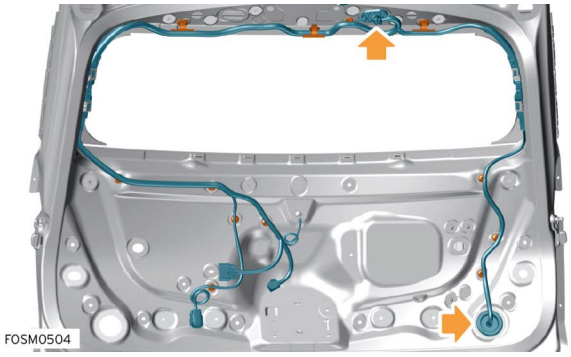

52. Disconnect harness connector from liftgate glass assembly.
53. Release liftgate glass harness from cable rail.




54. Carefully slide liftgate glass assembly downwards and remove from liftgate.




55. Release grommets (x2) from liftgate.
56. Remove harness from liftgate.




57. Release grommets (x2) from liftgate.
58. Release clips (x12) securing harness to liftgate.
59. Remove wiring harness.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

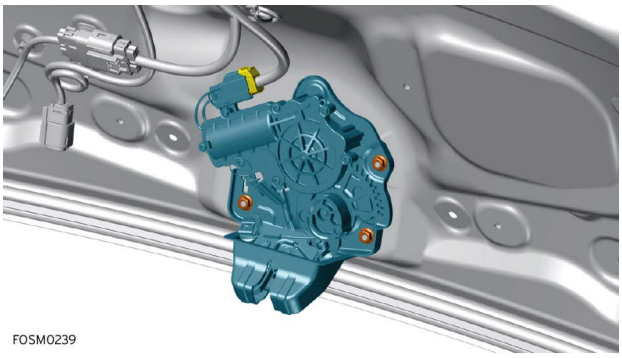
*NOTE: Inspect clips for damage and replace if necessary.*

2. Check the alignment of the liftgate assembly to the rear fenders and rear fascia. Reposition liftgate on hinges as necessary.
3. After installation perform the initialization procedure using the Fisker Aftersales Service Tool.
4. Raise and lower window to ensure liftgate glass drop is working correctly.

## Liftgate Latch Assembly

### Removal

1. Remove liftgate lower trim. Refer to Trim - Liftgate - Lower.



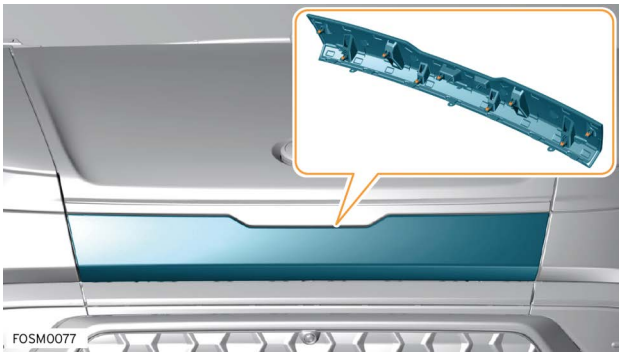

2. Disconnect harness connector from liftgate latch assembly.
3. Remove M6 nuts (x3) securing liftgate latch assembly to lower liftgate trim panel. **Torque 9 Nm.**
4. Remove liftgate latch assembly.

### Installation

1. Installation is the reverse of the removal procedure except for the following:
2. Check the alignment of the liftgate assembly to the rear fenders and rear fascia. Reposition liftgate latch assembly as necessary.

## Open Hood

### Open Hood




1. Using fish bone tool, release clips (x9) securing service lid to front bumper assembly.

**Caution: Take extra care when releasing clips to avoid paint damage.**

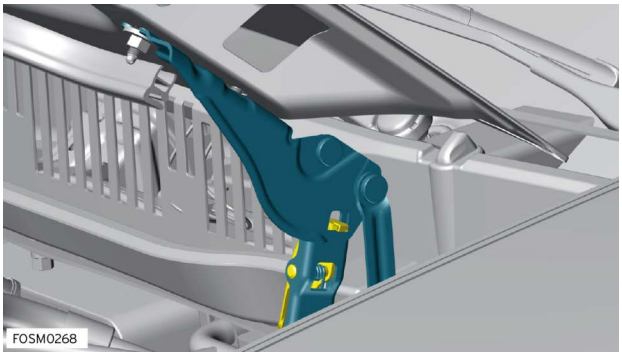
*NOTE: Start releasing clips from side of service lid.*

2. Remove service lid.




3. Remove M8x25 bolts (x2) securing hood to front bumper assembly. **Torque 19 Nm.**

**Caution: Do not allow bolts to drop into gap between bumper and cooling system.**




4. Open the hood until locking pin on LH hinge engages on hinge arm.

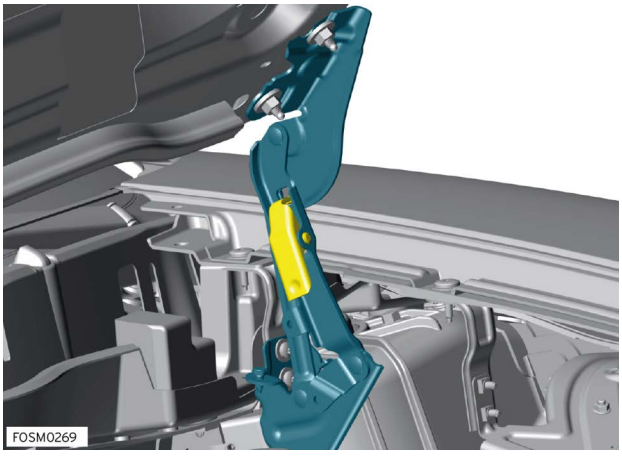
**WARNING: Ensure locking pin is fully engaged.**




5. Cover sharp edges of hood fastening brackets (x2).

### Close Hood

1. Close is the reverse of the open procedure except for the following:




2. Press catch to release locking pin from LH hinge arm.

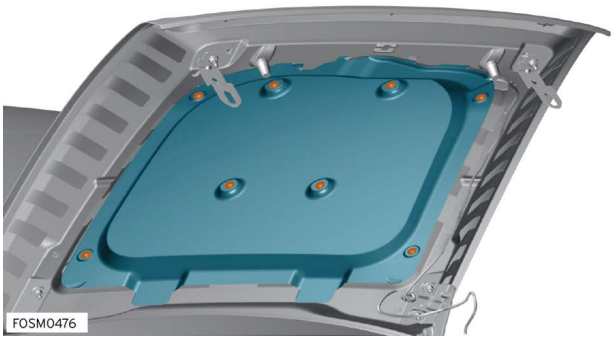
**WARNING: Failure to release locking pin before closing may cause damage to hood.**

3. Before tightening the bolts securing the hood to the front bumper assembly, check and adjust the alignment/gaps to other panels and components.

## Hood Assembly

### Removal

1. Open hood. Refer to Open Hood.
2. Fit protective covers to front fenders.



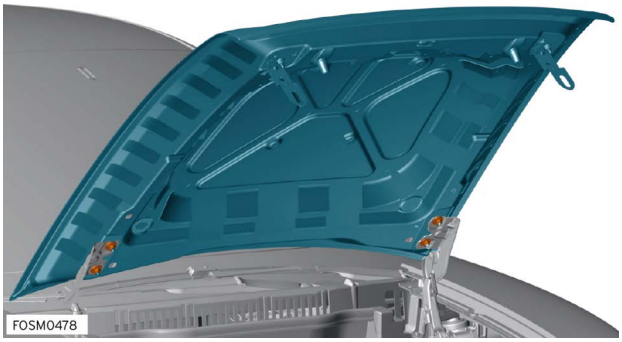

3. Remove push pins (x8) securing hood insulator to hood.
4. Remove hood insulator.




5. Disconnect harness from illuminated logo.




6. Release clips (x8) securing harness to hood.
7. If hood is to be reinstalled, mark outline of hinges on hood.




8. Using an assistant to support the hood, loosen upper M8 nuts (x2) securing LH and RH hinges to hood. **Torque 19 Nm.**

   *NOTE: Do not remove nuts.*

9. Remove lower M8 nuts (x2) securing LH and RH hinges to hood. **Torque 19 Nm.**
10. Tilt and lift hood to remove from hinges.

**CAUTION: Place on secure suitable surface to prevent damage.**

***Do not carry out further disassembly if component is removed for access only.***




11. Release clip securing illuminated logo to hood.
12. Remove illuminated logo.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: When installing the hood, slide the hood onto the hood hinges and then install the two lower hinge nuts.*

2. Check the alignment of the hood to the front fenders and front fascia. Reposition hood on hinges as necessary.

## Door Assembly - Front - LH

### Removal

1. Disconnect 12V battery. Refer to Battery Disconnect - 12V.

**CAUTION: Wait 2 minutes to allow Supplementary Restraint System back up power circuit to discharge before commencing work.**




2. Remove M6x8 Torx bolt securing door stop to front door assembly. **Torque 21 Nm.**
3. Disconnect harness connector from vehicle wiring harness.
4. If front door is to be reinstalled, mark outline of hinges on front door.



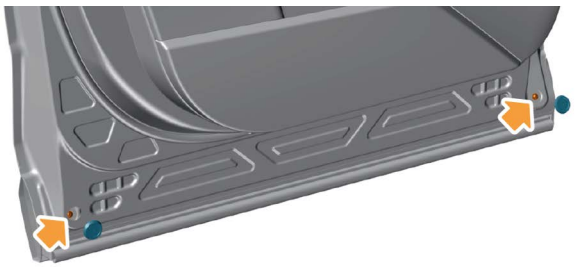




5. Using an assistant to support the front door assembly, loosen Torx grub screws (x2) securing hinge pins to hinges. **Torque 23 Nm.**
6. Remove hinges pins (x2).
7. Remove front door assembly.

**CAUTION: Place on secure suitable surface to prevent damage.**

***Do not carry out further disassembly if component is removed for access only.***



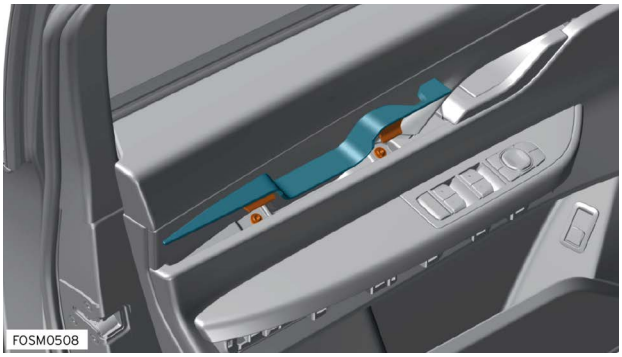

8. Remove plugs (x2) from front door.
9. Remove M6x16 Torx screws (x2) securing door cladding to front door. **Torque 1.6 Nm.**



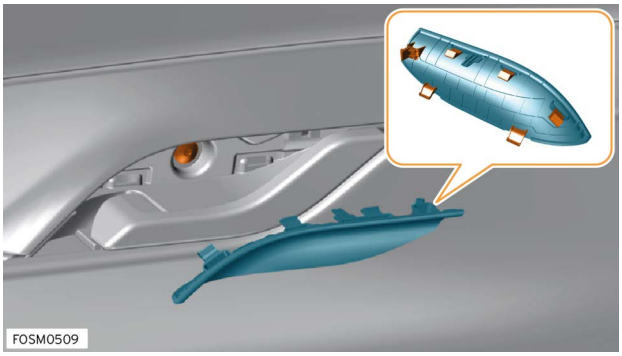

10. Release clips (x14) securing door cladding to front door.
11. Remove door cladding.



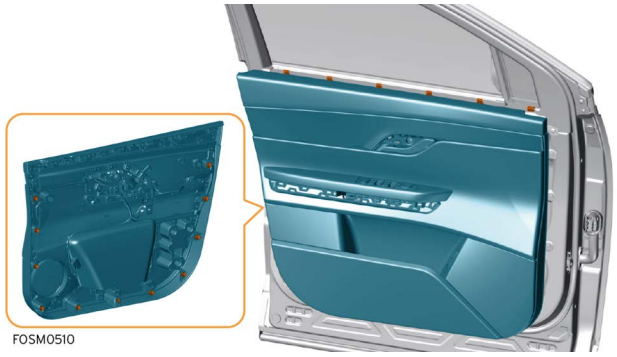

12. Release clips (x14) securing armrest trim to front door trim.
13. Remove armrest trim.
14. Remove M6x20 Torx screw securing front door trim to front door. **Torque 5 Nm.**



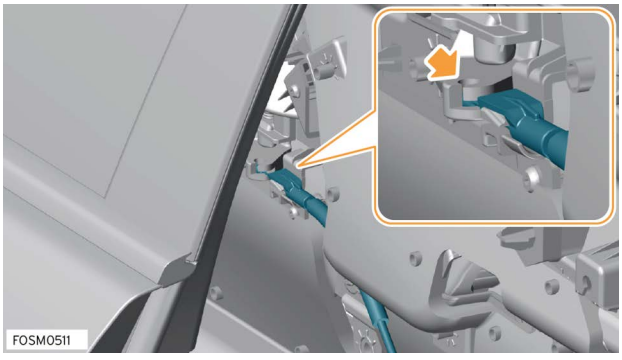

15. Release clips (x2) securing pull handle trim to front door trim.
16. Remove pull handle trim.
17. Remove M6x20 Torx screws (x2) securing front door trim to front door. **Torque 5 Nm.**




18. Release clips (x6) securing cover trim to front door trim.
19. Remove cover trim.
20. Remove M5x15 Torx screw securing front door trim to front door. **Torque 5 Nm.**



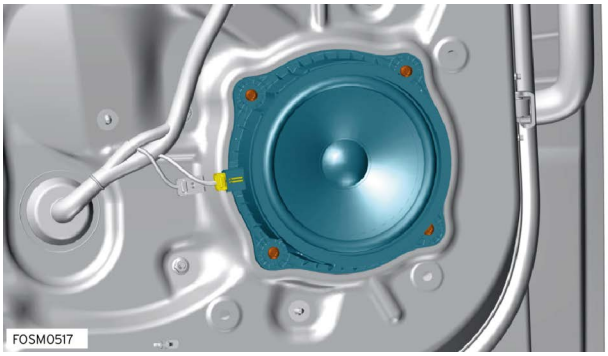

21. Release clips (x17) securing front door trim to front door.



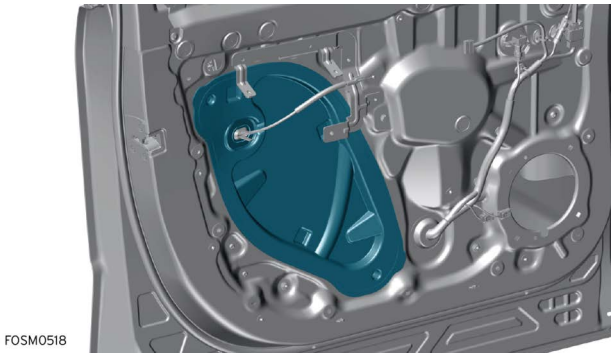

22. Release inner cable from inner handle.




23. Disconnect harness connector from front door harness.
24. Remove front door trim.

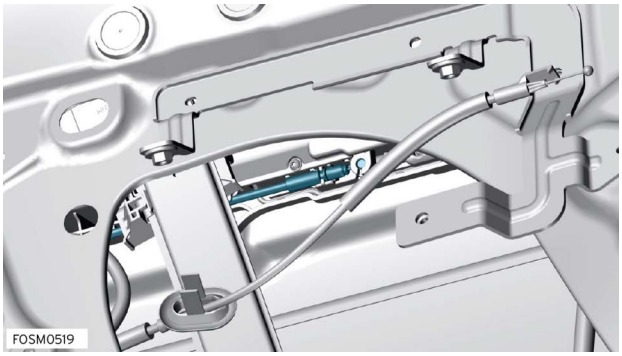



25. Disconnect harness connector from front door speaker.
26. Remove M4x8 Torx screws (x4) securing front door speaker to front door. **Torque 3 Nm.**
27. Remove front door speaker.




28. Release waterproof membrane from front door and inner cable.
29. Remove waterproof membrane.

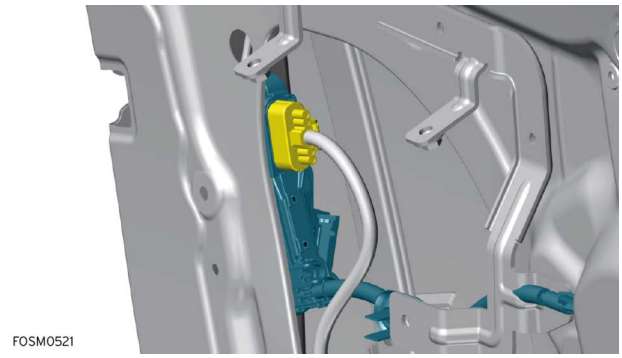
    *NOTE: Inspect waterproof membrane for damage and replace if necessary.*



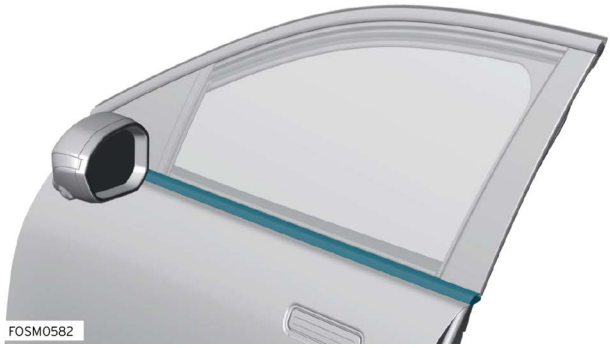

30. Release outer cable from outer door handle.



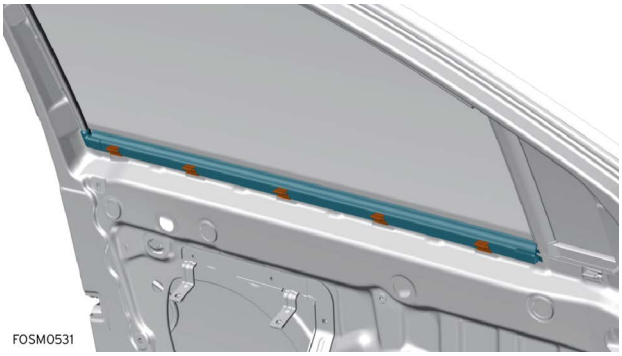

31. Remove M6x16 Torx bolts (x3) securing door latch assembly to front door. **Torque 9 Nm.**



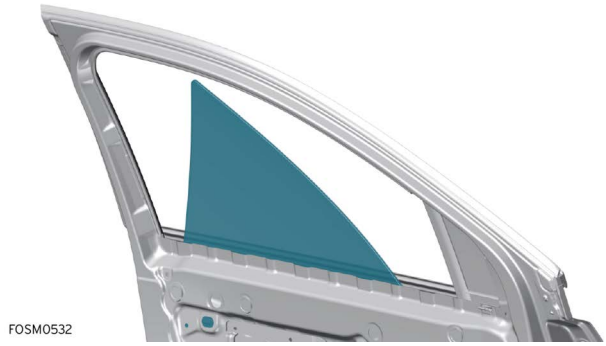

32. Disconnect harness connector from door latch assembly.
33. Remove door latch assembly.



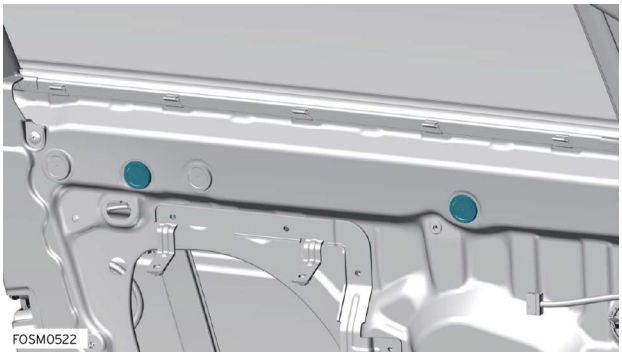

34. Release and remove outer sealing strip from front door.



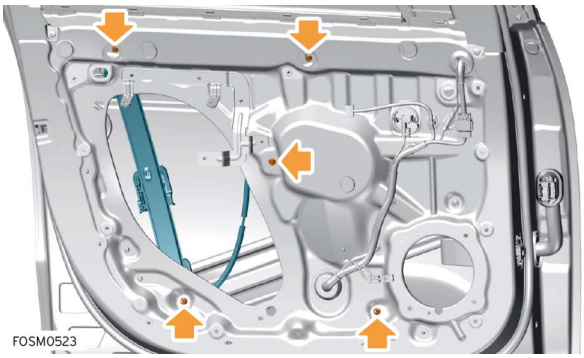

35. Remove clips (x5) securing inner sealing strip to front door.
36. Remove inner sealing strip.
37. Release glass from retaining clamps (x2) on window regulator.



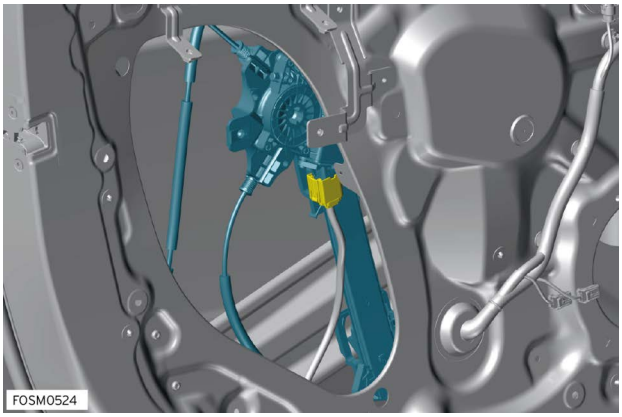

38. Rotate the shorter side of the glass down to release from frame seal.
39. Lift and remove glass.



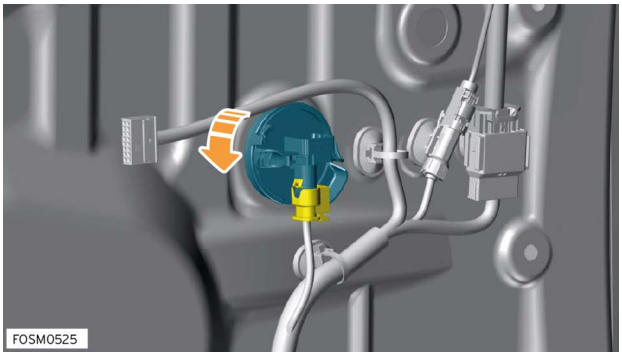

40. Remove plugs (x2) from front door



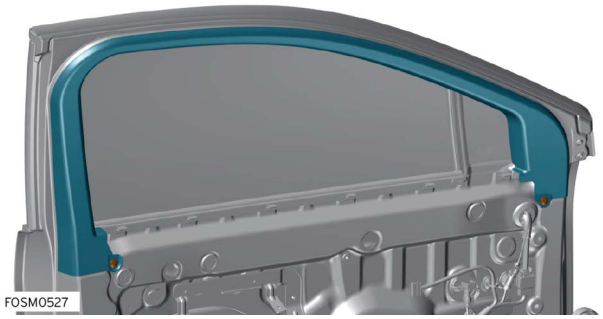

41. Remove M6x16 bolt securing window regulator to front door. **Torque 9 Nm.**
42. Remove M6 nuts (x4) securing window regulator to front door. **Torque 9 Nm.**



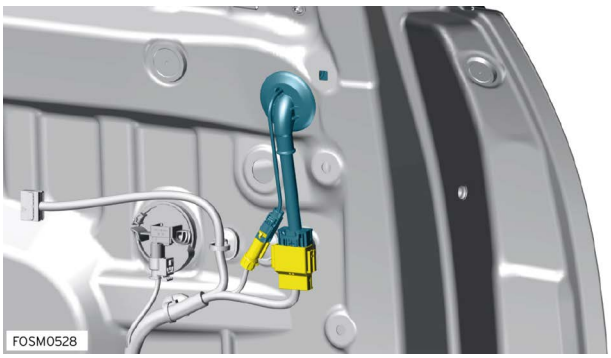

43. Maneuver and disconnect harness connector from window regulator.
44. Remove window regulator.




45. Disconnect harness connector from door pressure sensor.
46. Rotate door pressure sensor counterclockwise to release from front door.
47. Remove door pressure sensor.




48. Remove M4x15 Torx screws (x2) securing door frame trim to front door. **Torque 1.6 Nm.**
49. Remove door frame trim.



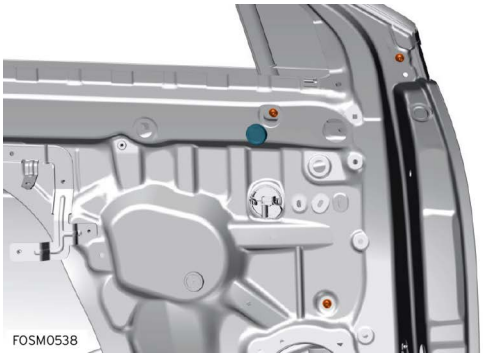

50. Disconnect harness connector from exterior mirror.
51. Release grommet and feed harness through aperture in front door.




52. Remove M6x20 Torx screws (x3) securing exterior mirror to front door. **Torque 10 Nm.**




53. Maneuver and remove exterior mirror.




54. Remove plug from front door.
55. Remove M5x6 Torx screws (x3) securing quarter glass to front door. **Torque 5.3 Nm.**



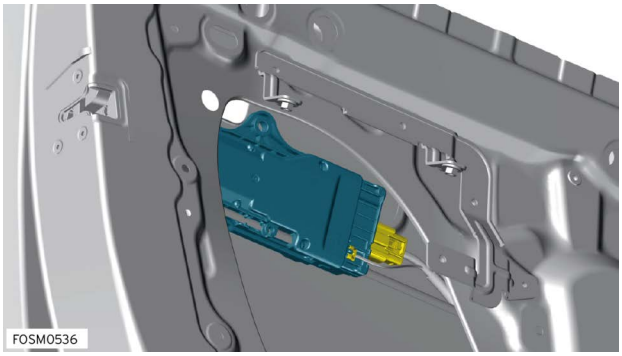

56. Release frame seal from front door.
57. Remove quarter glass and frame seal assembly.




58. Remove plugs (x2) from front door.




59. Remove M6x25 bolts (x3) securing outer door handle to front door. **Torque 9 Nm.**



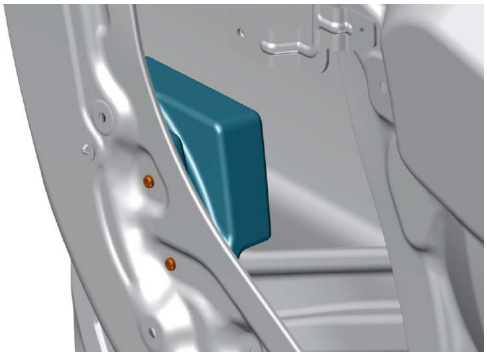

60. Disconnect harness connector from outer door handle.
61. Remove outer door handle.



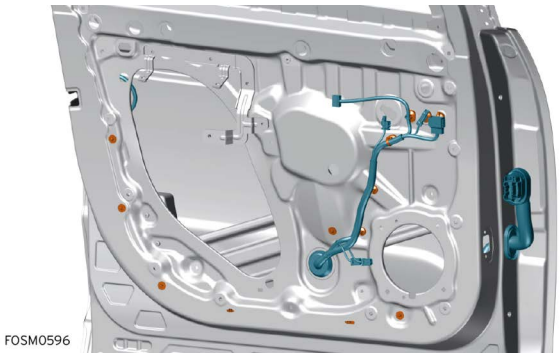

62. Remove M4x17 Torx screws (x3) securing B pillar outer trim to front door. **Torque 1.8 Nm.**
63. Remove B pillar outer trim.




64. Remove M6 nuts (x2) securing door stop to front door. **Torque 8 Nm.**
65. Remove door stop.




66. Remove M4.8x16 Torx screws (x2) securing crash pad to front door. **Torque 3 Nm.**
67. Remove crash pad.




68. Release grommets (x2) and clips (x13) securing harness to front door.
69. Remove harness.

### Installation

1. Installation is the reverse of removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*
2. Check the alignment of the front door assembly to the front fender and rear door. Reposition front door on hinges as necessary.
3. After installation perform the initialization procedure using the Fisker Aftersales Service Tool.
4. Raise and lower window to ensure door glass drop is working correctly.

## Door Assembly - Rear - LH

### Removal




1. Remove M8x16 Torx bolt securing door stop to rear door assembly. **Torque 21 Nm.**
2. Disconnect harness connector from vehicle wiring harness.
3. If rear door is to be reinstalled, mark outline of hinges on rear door.







4. Using an assistant to support the rear door assembly, loosen Torx grub screws (x2) securing hinge pins to hinges. **Torque 23 Nm.**
5. Remove hinges pins (x2).

6. Remove rear door assembly.

**CAUTION: Place on secure suitable surface to prevent damage.**

***Do not carry out further disassembly if component is removed for access only.***



FOSM0138

7. Remove plug from rear door.



FOSM0139

8. Remove Torx screw securing door cladding to rear door. **Torque 1.6 Nm.**



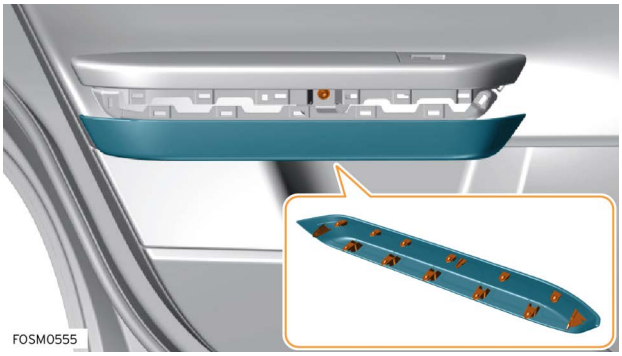
FOSM0140

9. Release clips (x3) securing door cladding to rear door.
10. Remove door cladding.



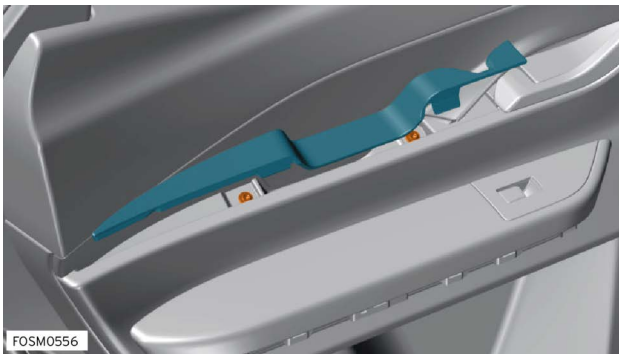
FOSM0541

11. Remove plugs (x2) from rear door.
12. Remove M6x16 Torx screws (x2) securing door cladding to rear door. **Torque 3 Nm.**
13. Release clips (x12) securing door cladding to rear door.
14. Remove door cladding.



FOSM0555

15. Release clips (x14) securing armrest trim to rear door trim.
16. Remove armrest trim.
17. Remove M6x20 Torx screw securing rear door trim to rear door. **Torque 5 Nm.**



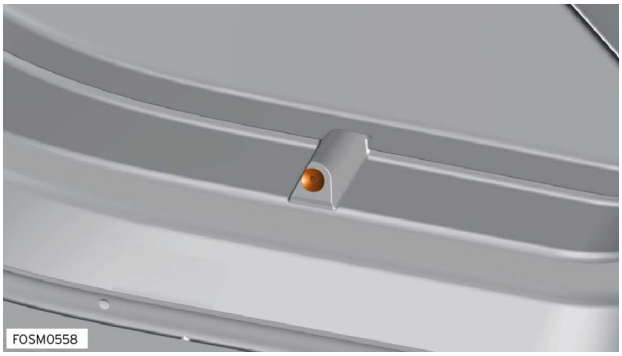
FOSM0556

18. Release clips (x2) securing pull handle trim to rear door trim.
19. Remove pull handle trim.

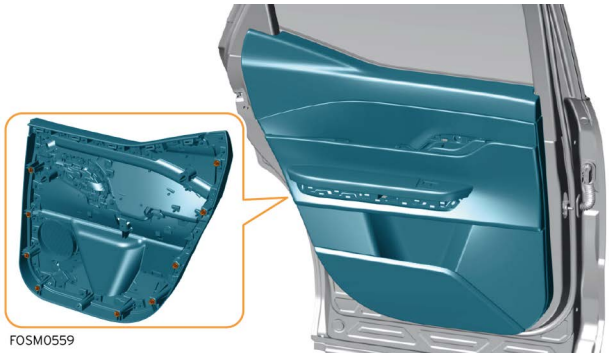
20. Remove M6x20 Torx screws (x2) securing rear door trim to rear door. **Torque 5 Nm.**




21. Release clips (x6) securing cover trim to rear door trim.
22. Remove cover trim.



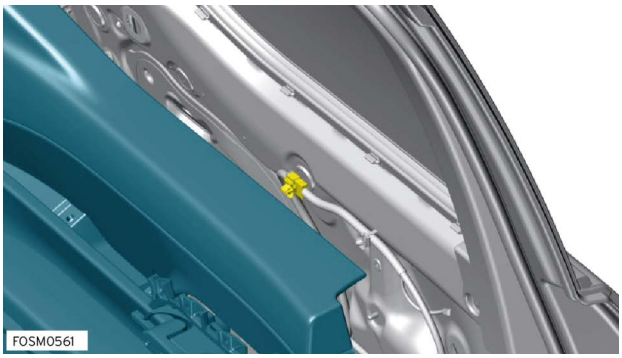

23. Remove M5x15 Torx screw securing rear door trim to rear door. **Torque 1.6 Nm.**



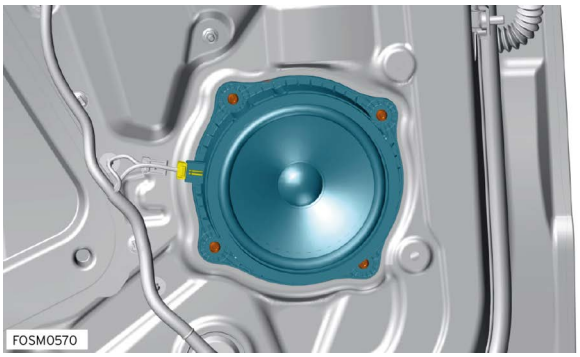

24. Release clips (x16) securing rear door trim to rear door.



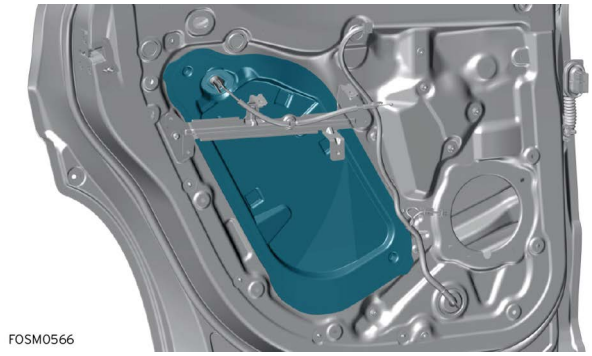

25. Release inner cable from inner handle.




26. Disconnect harness connector from rear door harness.
27. Remove rear door trim.

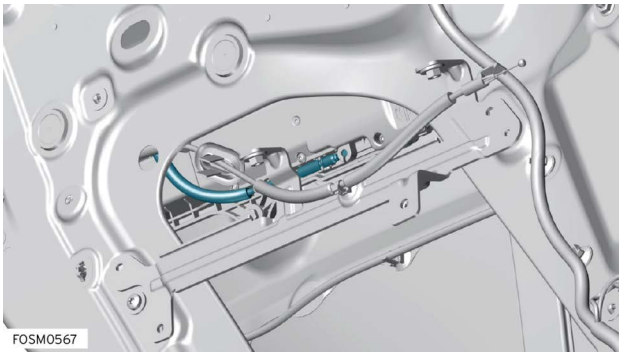



28. Disconnect harness connector from rear door speaker.
29. Remove M4x8 Torx screws (x4) securing rear door speaker to rear door. **Torque 3 Nm.**
30. Remove rear door speaker.

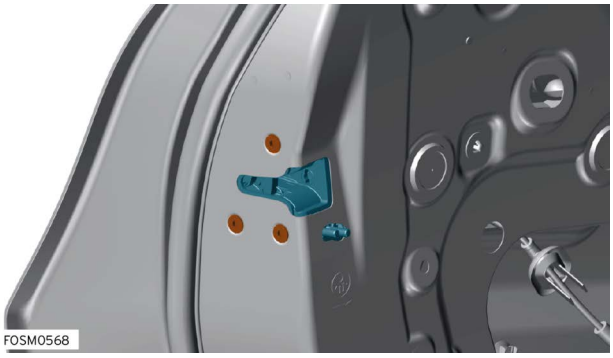



31. Release waterproof membrane from rear door and inner cable.
32. Remove waterproof membrane.

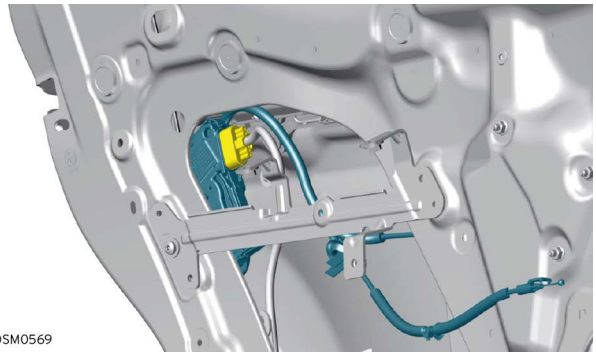
    *NOTE: Inspect waterproof membrane for damage and replace if necessary.*




33. Release outer cable from outer door handle.




34. Remove M6x16 Torx bolts (x3) securing door latch assembly to rear door. **Torque 9 Nm.**



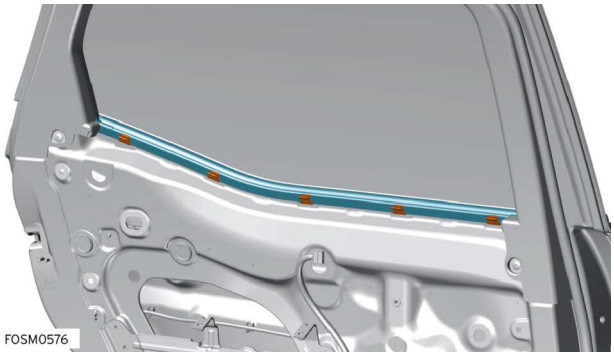

35. Disconnect harness connector from door latch assembly.
36. Remove door latch assembly.



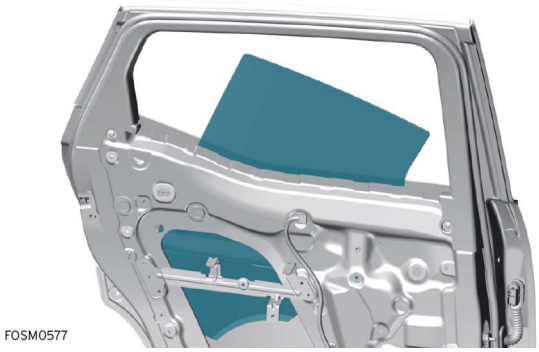

37. Release and remove outer sealing strip from rear door.



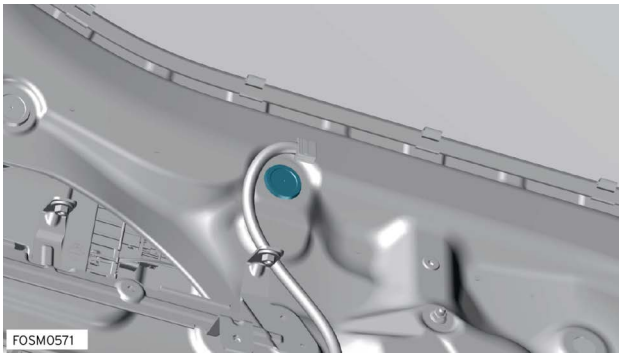

38. Remove plug from rear door.
39. Remove M6x12 Torx screws (x2) securing glass channel to rear door. **Torque 9 Nm.**



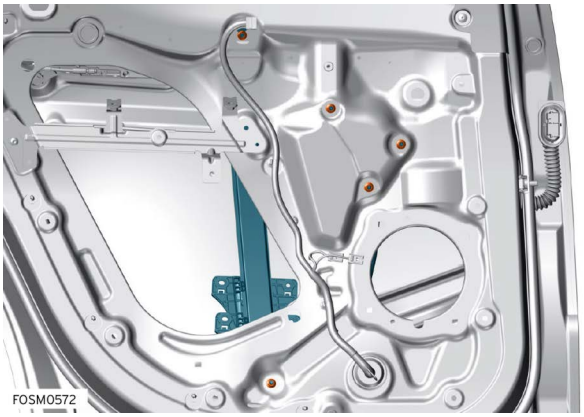

40. Remove clips (x5) securing inner sealing strip to rear door.
41. Remove inner sealing strip.
42. Release glass from retaining clamps (x2) on window regulator.



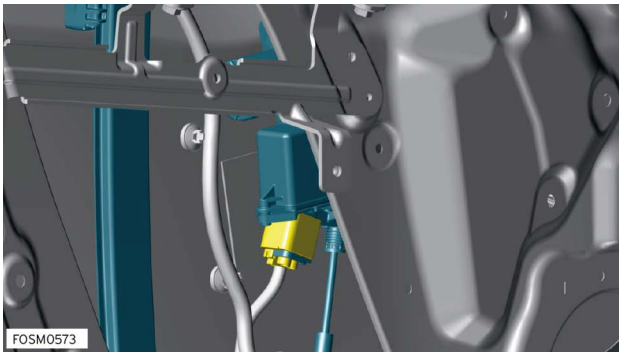

43. Rotate the shorter side of the glass down to release from frame seal.
44. Lift and remove glass.




45. Remove plug from rear door.



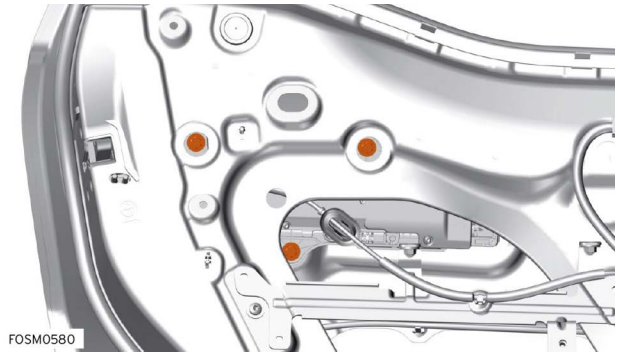

46. Remove M6 nuts (x5) securing window regulator to rear door. **Torque 9 Nm.**



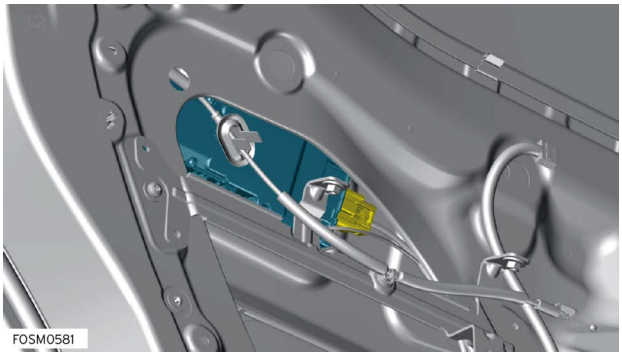

47. Maneuver and disconnect harness connector from window regulator.
48. Remove window regulator.




49. Remove plugs (x2) from rear door.




50. Remove M6x25 bolts (x3) securing outer door handle to rear door. **Torque 9 Nm.**




51. Disconnect harness connector from outer door handle.
52. Remove outer door handle.



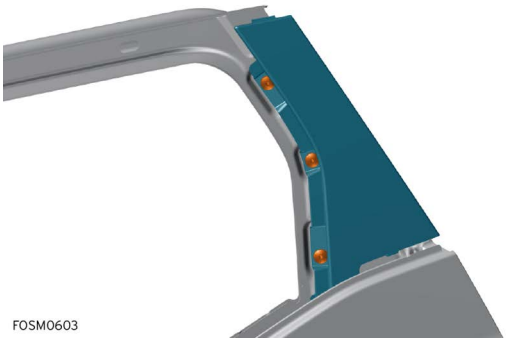

53. Remove M4x15 Torx screws (x2) securing door frame trim to front door. **Torque 1.6 Nm.**
54. Remove door frame trim.



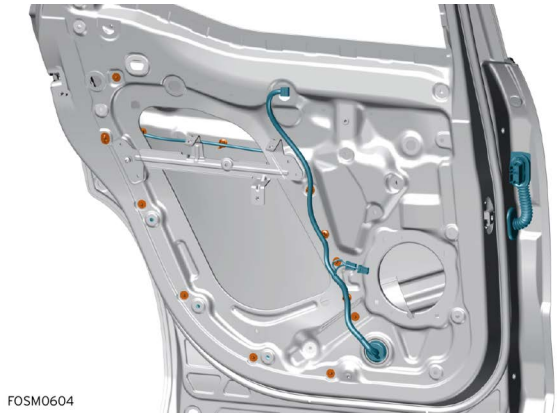

55. Release frame seal from rear door.
56. Remove frame seal.




57. Remove M4x17 Torx screws (x3) securing B pillar outer trim to front door. **Torque 1.8 Nm.**
58. Remove B pillar outer trim.




59. Remove M4x17 Torx screws (x3) securing C pillar outer trim to front door. **Torque 1.8 Nm.**
60. Remove C pillar outer trim.




61. Release grommets (x2) and clips (x13) securing harness to front door.
62. Remove harness.

### Installation

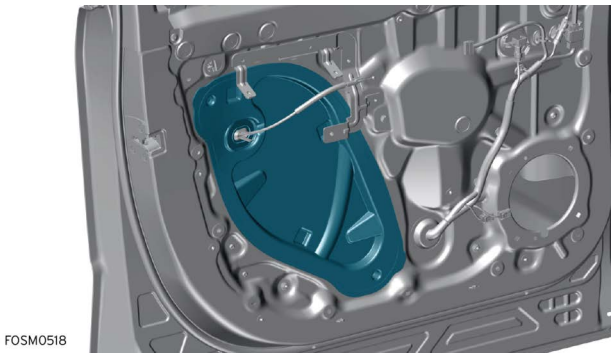
1. Installation is the reverse of removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*
2. Check the alignment of the rear door assembly to the rear fender and front door. Reposition rear door assembly on hinges as necessary.
3. After installation perform the initialization procedure using the Fisker Aftersales Service Tool.
4. Raise and lower window to ensure door glass drop is working correctly.

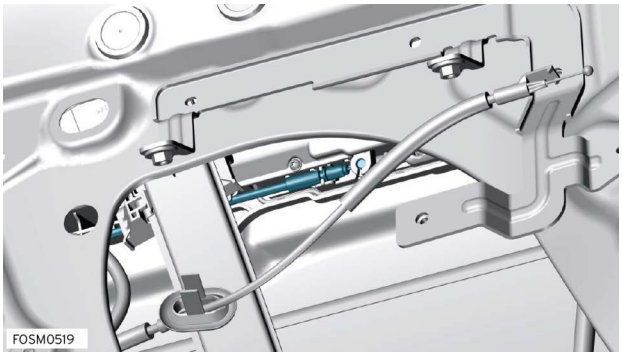
## Door Latch Assembly - Front - LH

### Removal

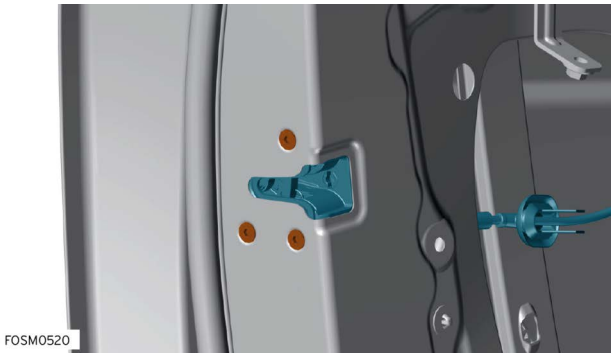
1. Remove front door trim. Refer to Trim - Door - Front - LH.



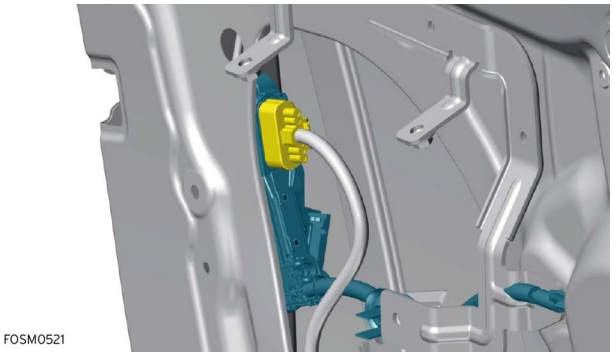

2. Release waterproof membrane from front door and inner cable.
3. Remove waterproof membrane.




4. Release outer cable from outer door handle.




5. Remove M6x16 Torx bolts (x3) securing door latch assembly to front door. **Torque 9 Nm.**




6. Disconnect harness connector from door latch assembly.
7. Remove door latch assembly.

### Installation

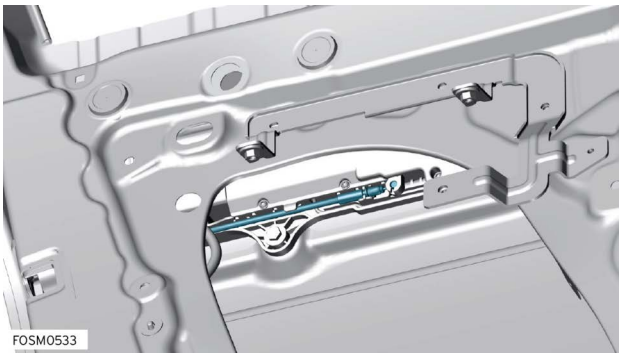
1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect waterproof membrane for damage and replace if necessary.*
2. Check the alignment of the front door assembly to the front fender and rear door. Reposition door latch assembly as necessary.

## Door Handle - Outer - Front - LH

### Removal

1. Remove front door glass. Refer to Glass - Front - LH.



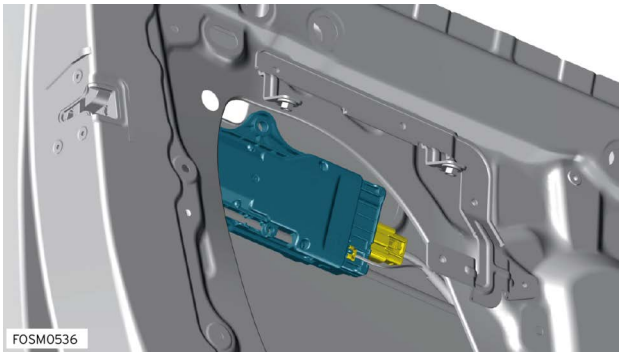

2. Release outer cable from outer door handle.




3. Remove plugs (x2) from front door.




4. Remove M6x25 bolts (x3) securing outer door handle to front door. **Torque 9 Nm.**




5. Disconnect harness connector from outer door handle.
6. Remove outer door handle.

### Installation

1. Installation is the reverse of the removal procedure.

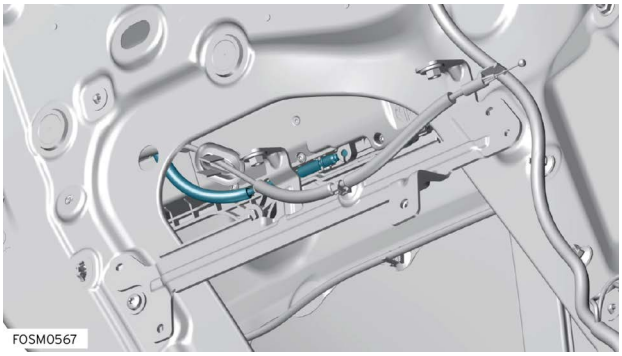
## Door Latch Assembly - Rear - LH

### Removal

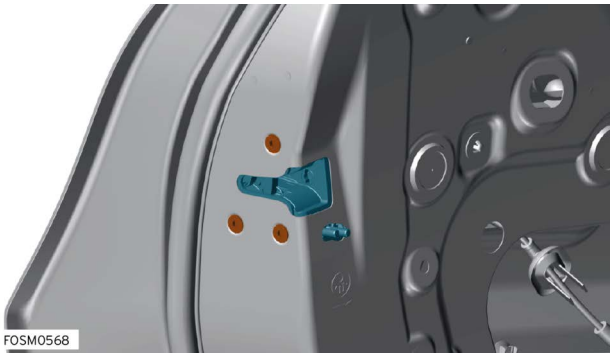
1. Remove rear door trim. Refer to Trim - Door - Rear - LH.



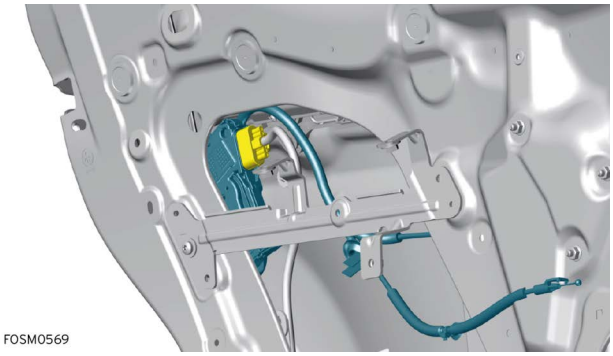

2. Release waterproof membrane from rear door and inner cable.
3. Remove waterproof membrane.




4. Release outer cable from outer door handle.




5. Remove M6x16 Torx bolts (x3) securing door latch assembly to rear door. **Torque 9 Nm.**




6. Disconnect harness connector from door latch assembly.
7. Remove door latch assembly.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect waterproof membrane for damage and replace if necessary.*
2. Check the alignment of the rear door assembly to the rear fender and front door. Reposition door latch assembly as necessary.

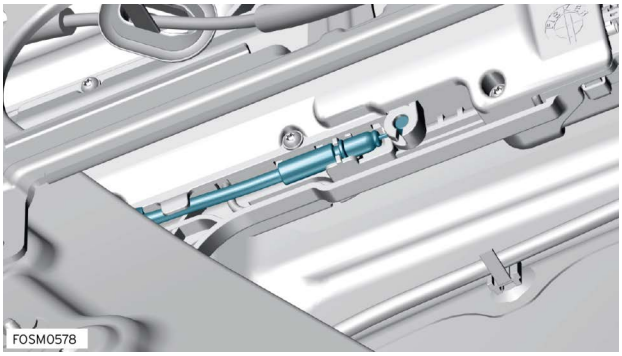
## Door Handle - Outer - Rear - LH

### Removal

1. Remove rear door trim. Refer to Trim - Door - Rear - LH.



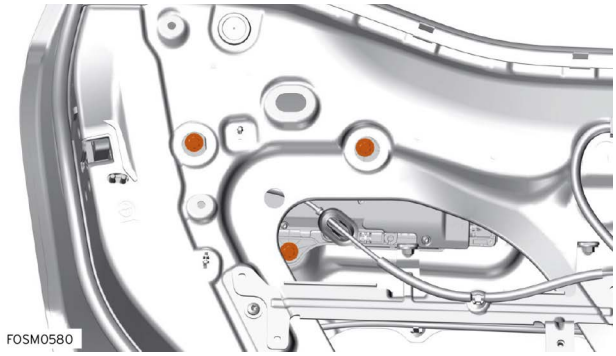

2. Release waterproof membrane from rear door and inner cable.
3. Remove waterproof membrane.



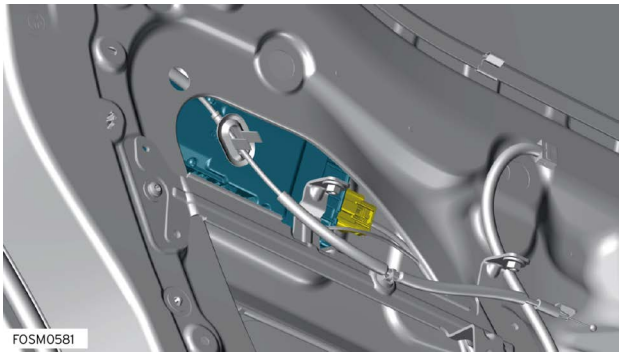

4. Release outer cable from outer door handle.




5. Remove plugs (x2) from rear door.




6. Remove M6x25 bolts (x3) securing outer door handle to rear door. **Torque 9 Nm.**




7. Disconnect harness connector from outer door handle.
8. Remove outer door handle.

**Installation**

1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect waterproof membrane for damage and replace if necessary.*

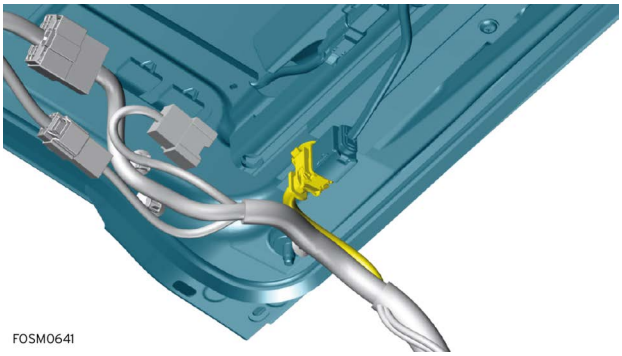
## Sunroof - Sliding Photovolt Panoramic

### Removal

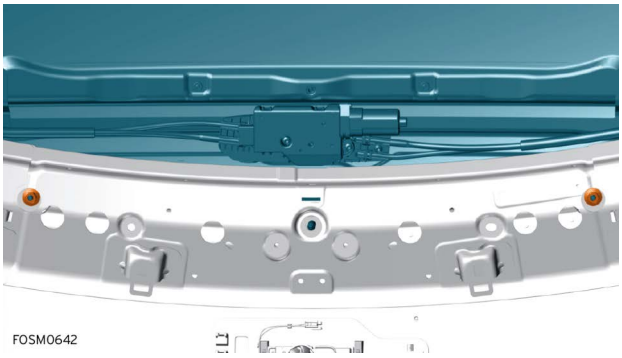
1. Deactivate the high voltage system. Refer to Deactivate/Activate - High Voltage Battery System.

**WARNING: High-voltage cables and components may remain energized for up to 5 minutes after isolating.**

2. Remove roof trim. Refer to Trim - Roof.



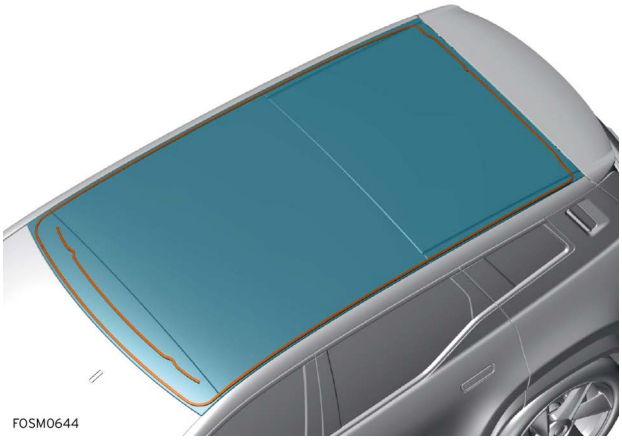

3. Disconnect harness connector from photovolt sunroof.




4. Remove M8 nuts (x2) securing photovolt sunroof to vehicle. **Torque 18 Nm.**




5. Remove M8 nuts (x6) securing photovolt sunroof to vehicle. **Torque 18 Nm.**




6. Using suitable equipment, cut adhesive securing photovolt sunroof to vehicle.
7. Install suitable suction handles (x4) to photovolt sunroof.
8. Install lifting hooks (x4) to suction handles.
9. Use crane to slowly lift and remove photovolt sunroof from vehicle.

**CAUTION: If photovolt sunroof is to be reused place on suitable surface to prevent damage.**

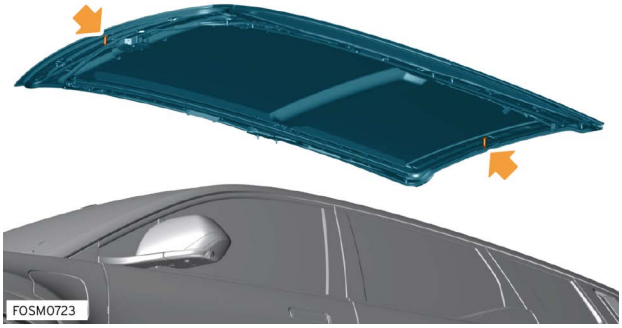
### Installation

1. Installation is the reverse of removal procedure except for the following:
2. Remove old adhesive from photovolt sunroof bonding surface.
3. Clean photovolt sunroof bonding surface using a suitable cleaning fluid.

4. Clean photovolt sunroof using a suitable cleaning fluid.




5. Apply a continuous 12 mm bead of Sikaflex 250 DB3 to photovolt sunroof bonding surface.

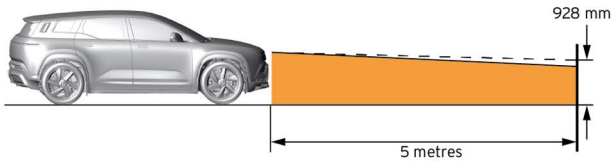



6. Using crane, lower and align tabs (x2) to locate photovolt sunroof correctly and install to vehicle.

## Headlamp Alignment

### Check

1. Ensure tire pressures are correct and vehicle is at kerbside weight.

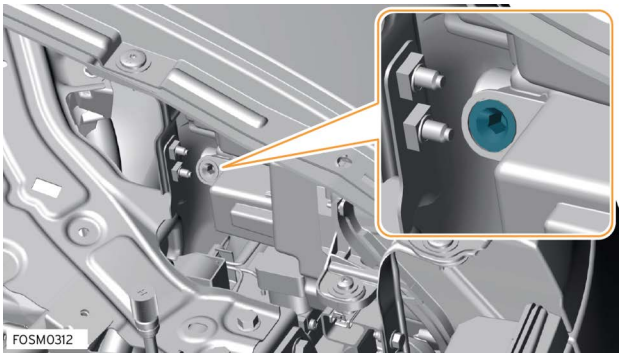



FOSM0311

2. Position vehicle on a flat, horizontal surface with the front end at a distance of 5 m from a vertical wall.
3. Mark a horizontal line on the wall at an exact height of 928 mm from the ground.
4. Turn ON low beam.
5. Check low beam is just below the horizontal line.

### Vertical Adjustment

1. Open hood. Refer to Open Hood.



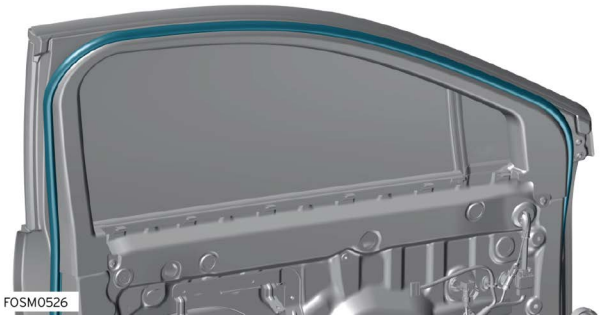

2. Rotate vertical adjuster screws to obtain correct alignment.

   *NOTE: Initial vertical headlamp adjustment is -1%.*
3. Recheck low beam is just below the horizontal line.
4. Turn OFF low beam.
5. Secure hood.

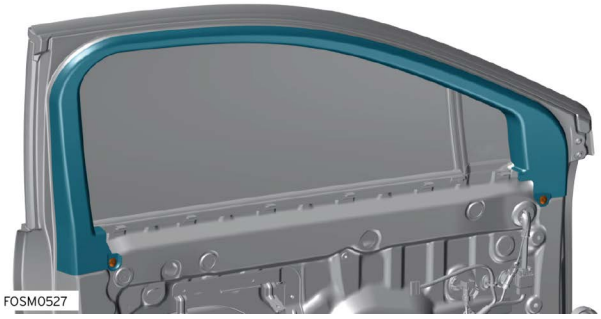
## Exterior Mirror - LH

### Removal

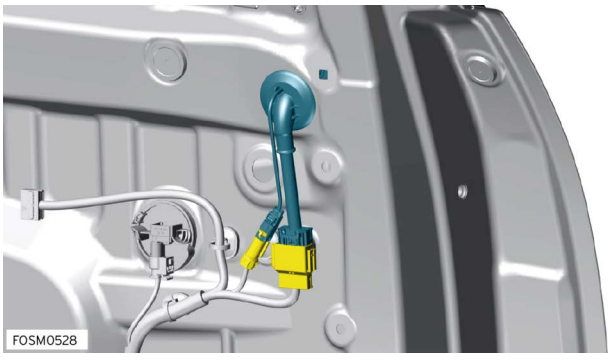
1. Remove front door trim. Refer to Trim - Door - Front - LH.




2. Release upper section of seal from front door.




3. Remove M4x15 Torx screws (x2) securing door frame trim to front door. **Torque 1.6 Nm.**
4. Remove door frame trim.




5. Disconnect harness connector from exterior mirror.
6. Release grommet and feed harness through aperture in front door.




7. Remove M6x20 Torx screws (x3) securing exterior mirror to front door. **Torque 10 Nm.**




8. Maneuver and remove exterior mirror.

### Installation

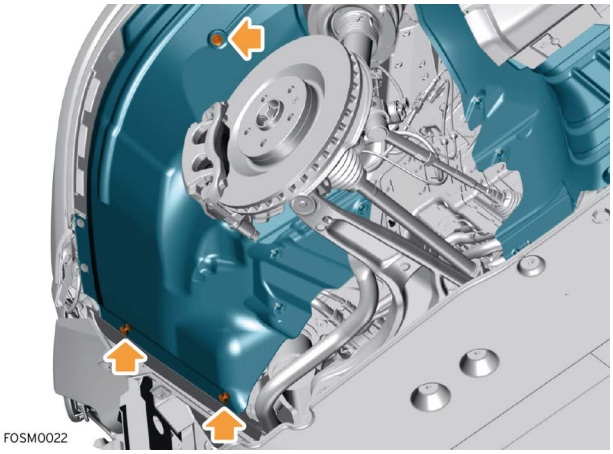
1. Installation is the reverse of the removal procedure.

## Bumper Assembly - Front

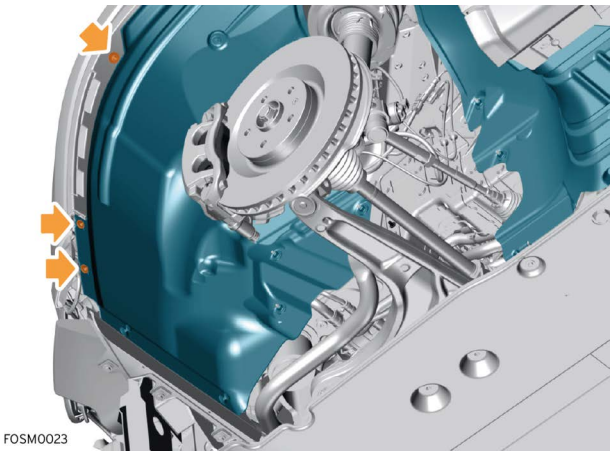
### Removal

1. Remove center headlamp assembly. Refer to Headlamp Assembly - Center.
2. Remove LH wheel. Refer to Wheel - Front - LH.
3. Remove RH wheel.

   *NOTE: Procedure is the same as for left side component.*




4. Remove push pins (x3) securing LH fender liner to fender.



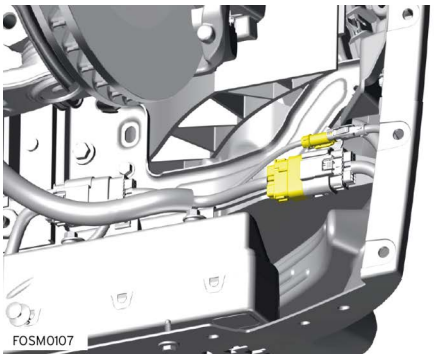

5. Remove M4x15 screws (x3) securing LH fender liner to front bumper and fender cladding. **Torque 2.2 Nm.**
6. Repeat steps **4** through **5** for RH fender liner.



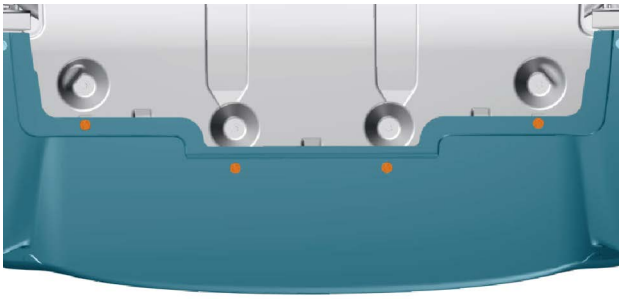

7. Remove push pin securing front bumper assembly to LH fender cladding.
8. Partially release LH fender cladding from front bumper assembly.




9. Remove push pin securing front bumper assembly to RH fender cladding.
10. Partially release RH fender cladding from front bumper assembly.

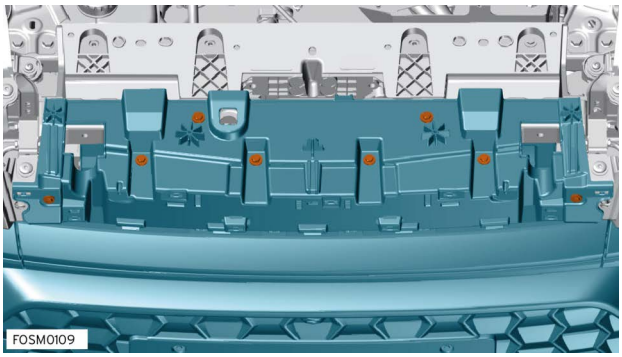



11. Disconnect harness connectors (x2) from front bumper harness.



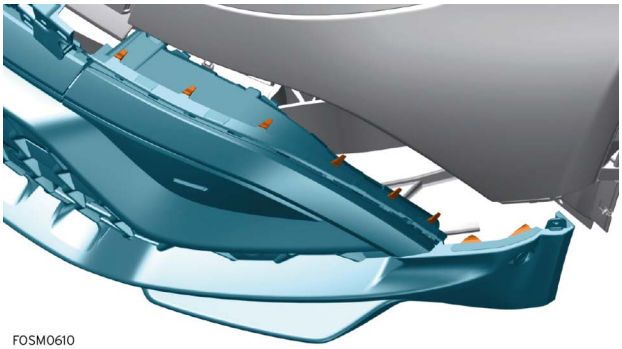
FOSM0108

12. Remove M5x20 bolts (x4) securing front bumper assembly to front undercover. **Torque 2 Nm.**



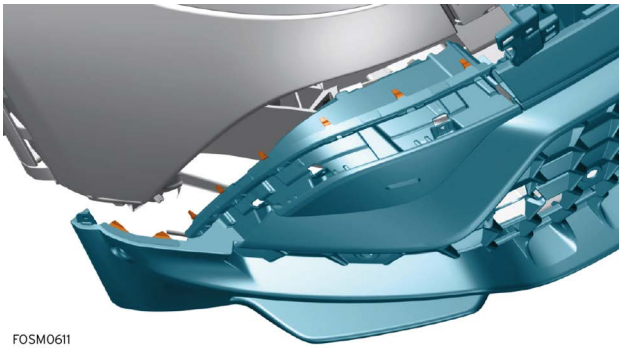
FOSM0109

13. Remove M6x20 bolts (x8) securing front bumper assembly to front end. **Torque 3.5 Nm.**



FOSM0610

14. Release clips (x8) securing front bumper assembly to LH fender.



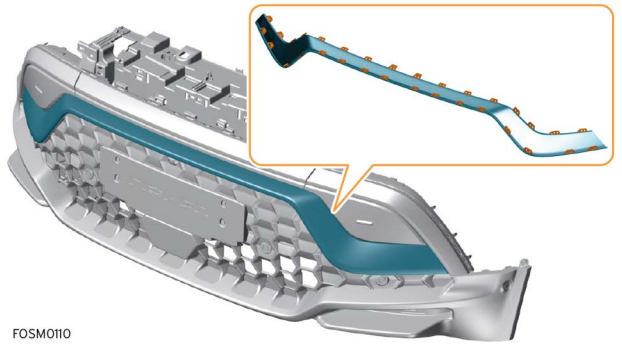
FOSM0611

15. Release clips (x8) securing front bumper assembly to RH fender.
16. Using assistance, remove front bumper assembly.

**CAUTION: Place on secure suitable surface to prevent damage.**

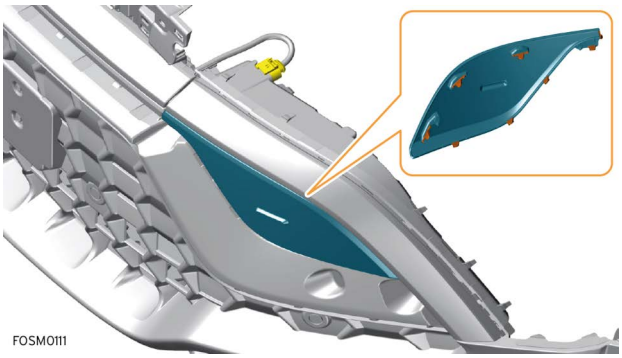
***Do not carry out further disassembly if removing for access only.***

17. Release clips (x8) securing LH bumper fascia to front bumper assembly.



FOSM0110

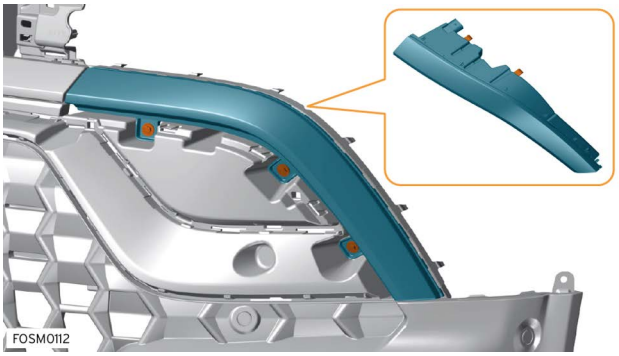
18. Release clips (x31) securing lower bumper strip to front bumper assembly.
19. Remove lower bumper strip.



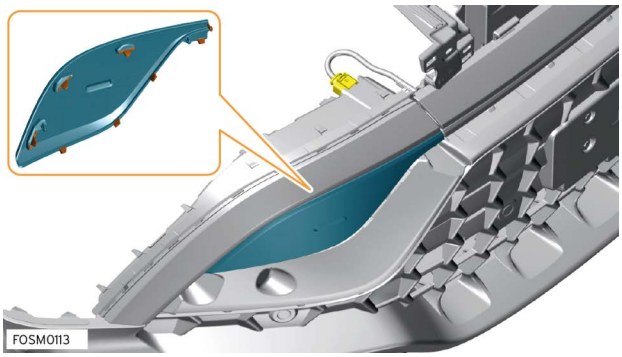
FOSM0111

20. Disconnect harness connector from LH turn indicator lamp.

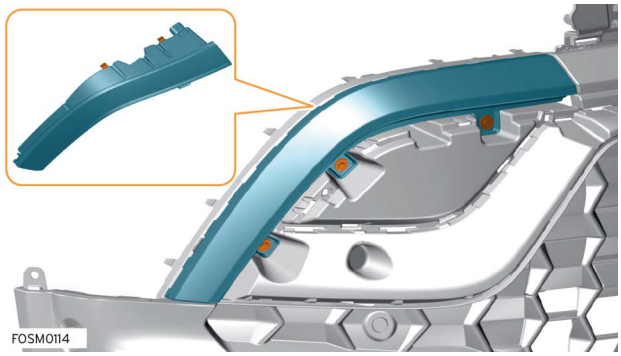
21. Remove LH bumper fascia.



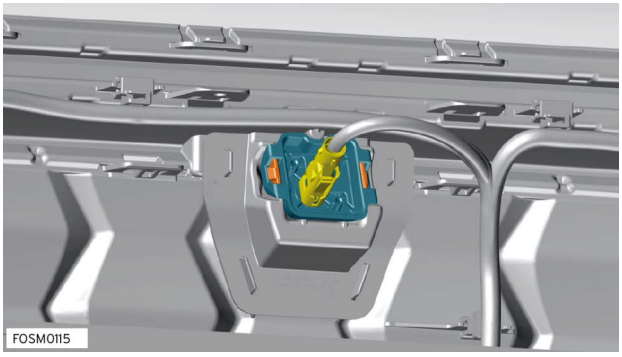

22. Remove M5x20 bolts (x3) securing LH turn indicator lamp to front bumper assembly. **Torque 2 Nm.**
23. Using a suitable tool, carefully release clips (x2) securing LH turn indicator lamp to front bumper assembly.
24. Remove LH turn indicator lamp.



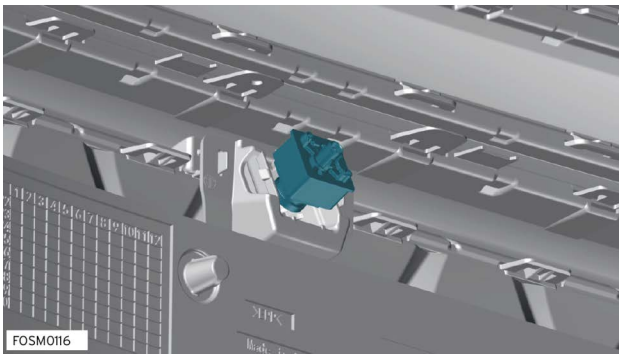

25. Disconnect harness connector from RH turn indicator lamp.
26. Release clips (x8) securing RH bumper fascia to front bumper assembly.
27. Remove RH bumper fascia.



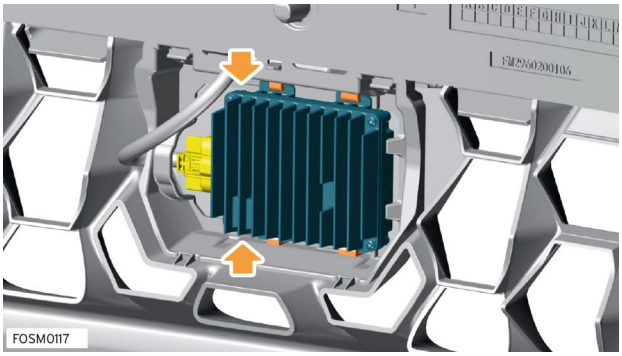

28. Remove M5x20 bolts (x3) securing RH turn indicator lamp to front bumper assembly. **Torque 2 Nm.**
29. Using a suitable tool, carefully release clips (x2) securing RH turn indicator lamp to front bumper assembly.
30. Remove RH turn indicator lamp.




31. Disconnect harness connector from front camera.
32. Release clips (x2) securing front camera bracket to front bumper assembly.
33. Remove front camera bracket.



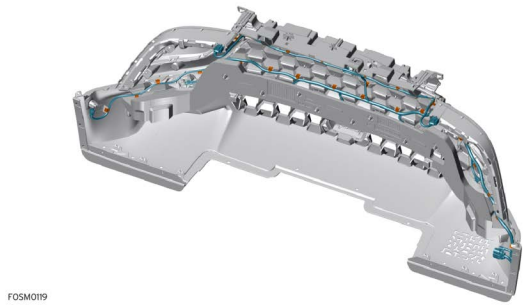

34. Remove front camera.



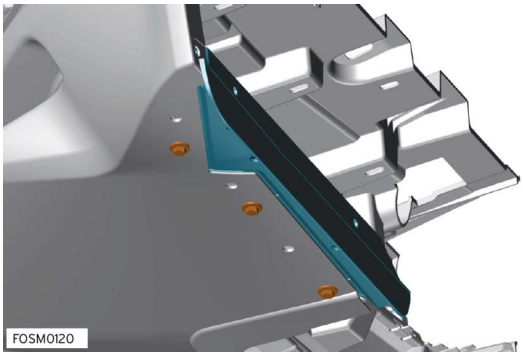

35. Disconnect harness connector from mid range radar.
36. Depress tabs (x2) (arrowed) and slide mid range radar left to release from clips (x4) securing mid range radar to the front bumper assembly.
37. Remove mid range radar.



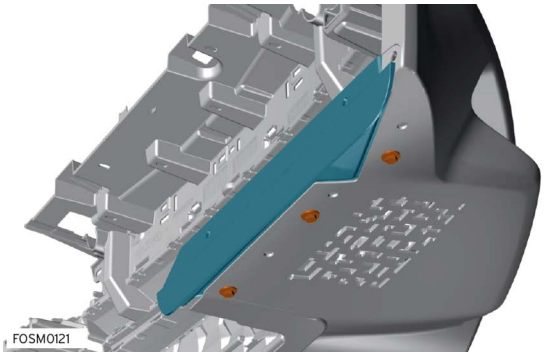

38. Disconnect harness connector from ultrasonic sensor.
39. Release clips (x2) securing ultrasonic sensor to front bumper assembly.
40. Remove ultrasonic sensor.
41. Repeat steps **36** through **38** for remaining ultrasonic sensors (x5).




42. Release clips (x25) securing harness to front bumper assembly.
43. Remove front bumper harness.




44. Remove M6x20 bolts (x2) securing LH wheel air flap to front bumper assembly. **Torque 2 Nm.**
45. Remove LH wheel air flap.




46. Remove M6x20 bolts (x2) securing RH wheel air flap to front bumper assembly. **Torque 2 Nm.**
47. Remove RH wheel air flap.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect push pins and clips for damage and replace if necessary.*
2. Before tightening the screws securing the front bumper to the fenders, check and adjust the alignment/gaps to other panels and components.
3. After installation perform the calibration procedures using the Fisker Aftersales Service Tool.

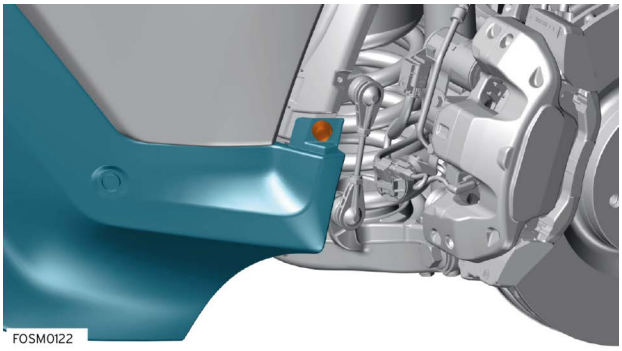
## Bumper Assembly - Rear

### Removal

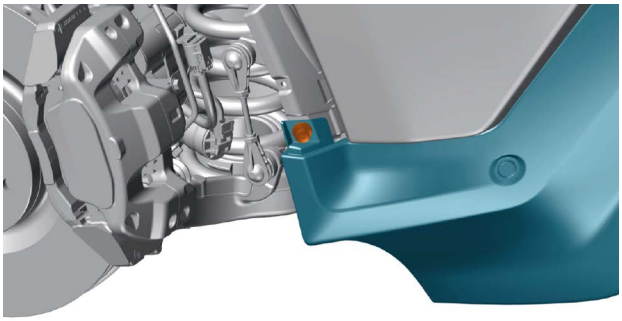
1. Remove LH rear fender liner. Refer to Fender Liner - Rear - LH.
2. Remove RH rear fender liner.

   *NOTE: Procedure is the same as for left side component.*
3. Remove LH rear fender cladding. Refer to Fender Cladding - Rear - LH.
4. Remove RH rear fender cladding.

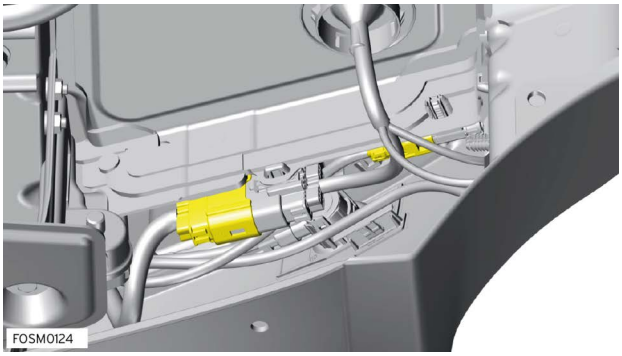
   *NOTE: Procedure is the same as for left side component.*


FOSM0122

5. Remove push pin securing rear bumper assembly to RH rear fender.


FOSM0123

6. Remove push pin securing rear bumper assembly to LH rear fender.


FOSM0124

7. Disconnect harness connectors (x2) from rear bumper harness.


FOSM0125

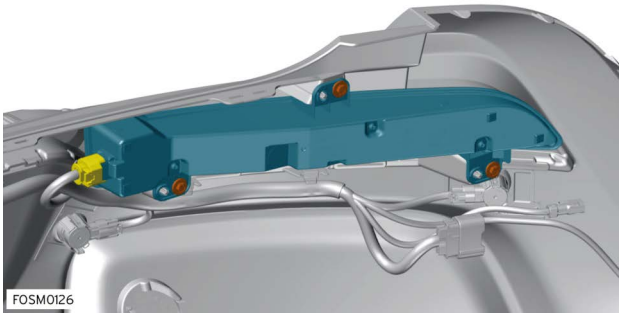
8. Remove M6x20 bolts (x4) securing rear bumper assembly to chassis. **Torque 3.5 Nm.**


FOSM0612

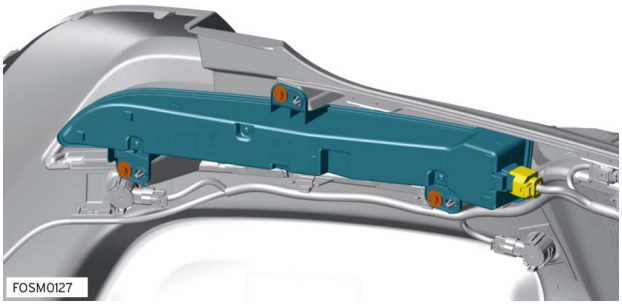
9. Release clips (x19) securing rear bumper assembly to chassis.
10. Using assistance, remove rear bumper assembly.

**CAUTION: Place on secure suitable surface to prevent damage.**

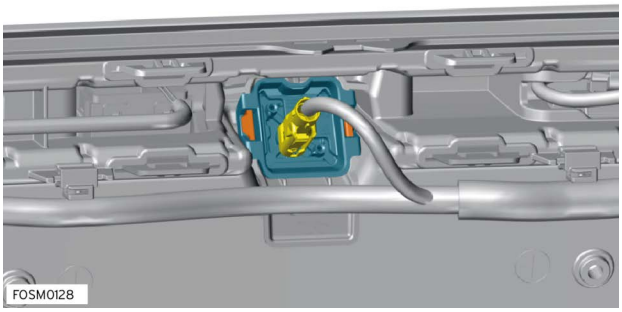
***Do not carry out further disassembly if removing for access only.***




11. Disconnect harness connector from LH bumper lamp.
12. Remove M5x20 bolts (x3) securing LH bumper lamp to rear bumper assembly. **Torque 2 Nm.**
13. Remove LH bumper lamp.



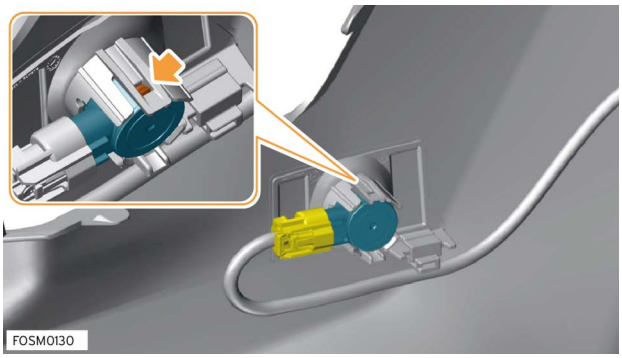

14. Disconnect harness connector from RH bumper lamp.
15. Remove M5x20 bolts (x3) securing RH bumper lamp to rear bumper assembly. **Torque 2 Nm.**
16. Remove RH bumper lamp.



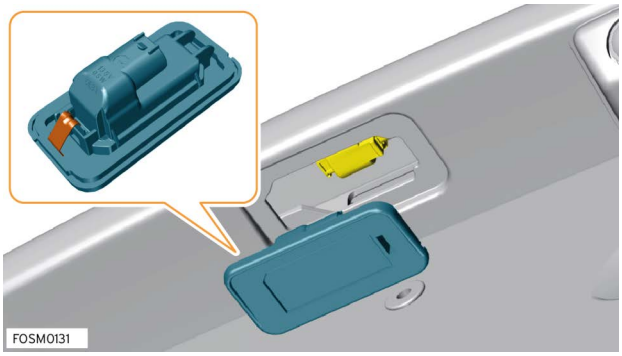

17. Disconnect harness connector from rear camera.
18. Release clips (x2) securing rear camera bracket to rear bumper assembly.
19. Remove rear camera bracket.



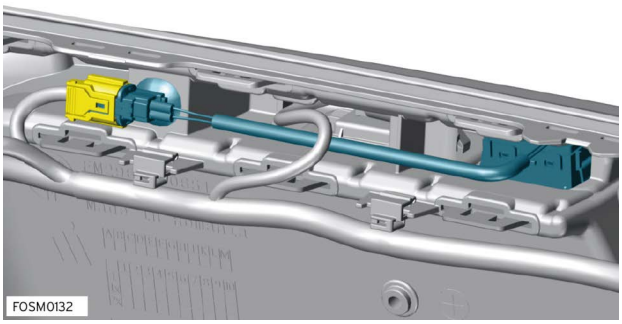

20. Remove rear camera.



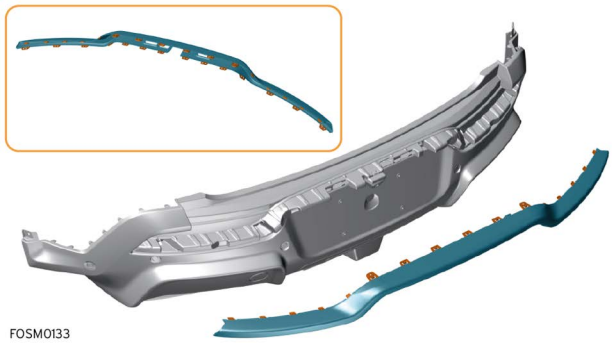

21. Disconnect harness connector from ultrasonic sensor.
22. Release clips (x2) securing ultrasonic sensor to rear bumper assembly.
23. Remove ultrasonic sensor.
24. Repeat steps **22** through **24** for remaining ultrasonic sensors (x5).



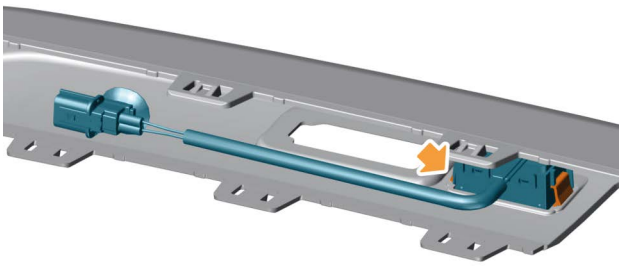

25. Use a suitable tool to push the LH licence plate lamp left to release clip securing lamp to rear bumper assembly.
26. Disconnect harness connector from LH licence plate lamp.
27. Remove LH licence plate lamp.
28. Repeat steps **26** through **28** for the RH licence plate lamp.




29. Disconnect harness connector from trunk lid switch.




30. Release clips (x30) securing rear bumper trim to rear bumper assembly.
31. Remove rear bumper trim.




32. Release clips (x2) securing tailgate switch to rear bumper trim.
33. Remove tailgate switch.




34. Release clips (x14) securing rear bumper harness to rear bumper assembly.
35. Remove rear bumper harness.

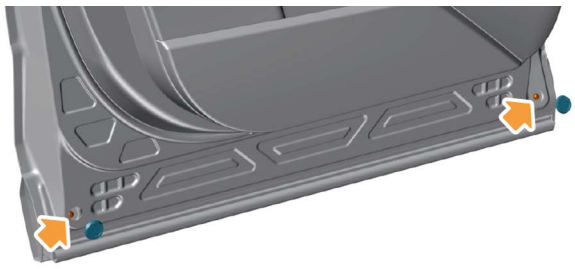
### Installation

1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect push pins and clips for damage and replace if necessary.*
2. Before tightening the bolts securing the rear bumper to the chassis, check and adjust the alignment/gaps to other panels and components.
3. After installation of rear camera perform the programming/calibration procedure using the Fisker Aftersales Service Tool.

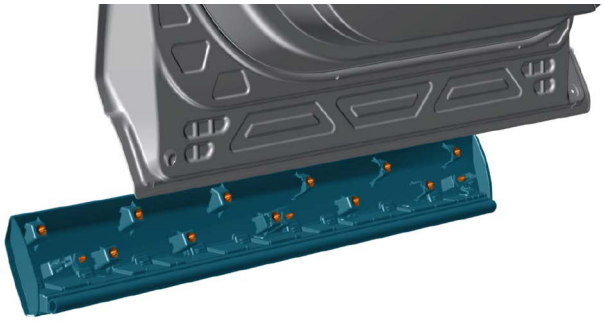
## Door Cladding - Front - LH

### Removal



FOSM0505

1. Remove plugs (x2) from front door.
2. Remove M6x16 Torx screws (x2) securing door cladding to front door. **Torque 1.6 Nm.**



FOSM0506

3. Release clips (x14) securing door cladding to front door.
4. Remove door cladding.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*

## Door Cladding - Rear - LH

### Removal

1. Remove rear door upper cladding. Refer to Door Cladding - Rear - Upper - LH.



FOSM0541

2. Remove plugs (x2) from rear door.
3. Remove M6x16 Torx screws (x2) securing door cladding to rear door. **Torque 1.6 Nm.**



FOSM0542

4. Release clips (x12) securing door cladding to rear door.
5. Remove door cladding.

### Installation

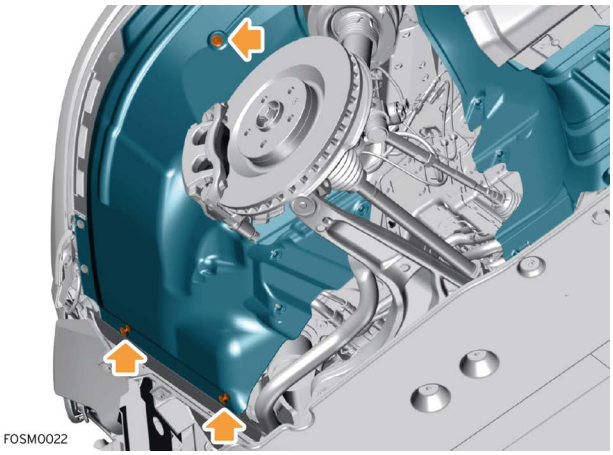
1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*

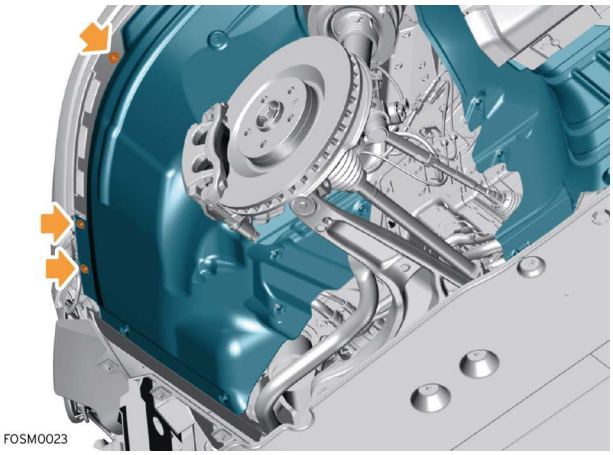
## Fender Liner - Front - LH

### Removal

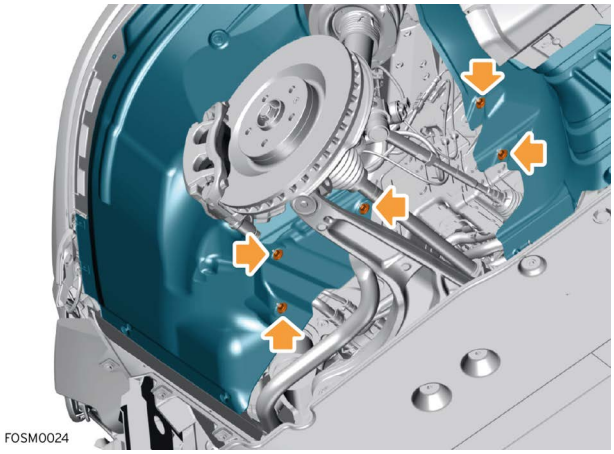
1. Remove front wheel. Refer to Wheel - Front - LH.



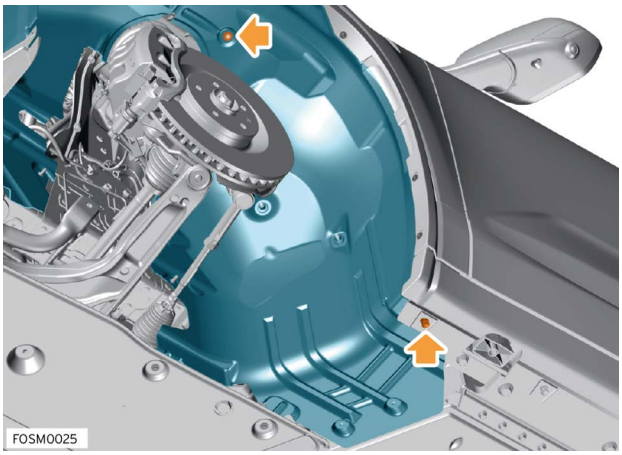

2. Remove push pins (x3) securing fender liner to fender.



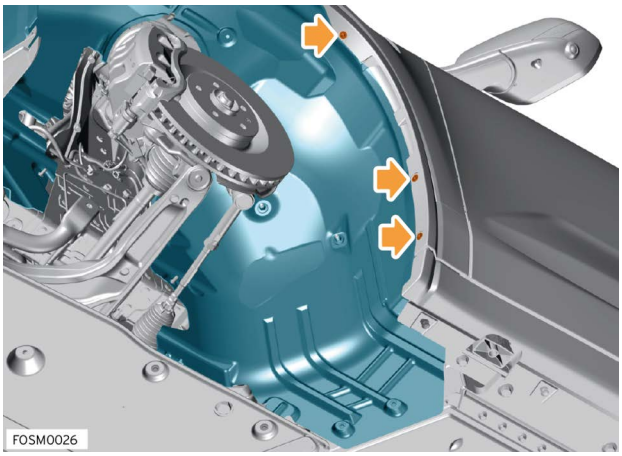

3. Remove M4x15 screws (x3) securing fender liner to front bumper and fender cladding. **Torque 2.2 Nm.**



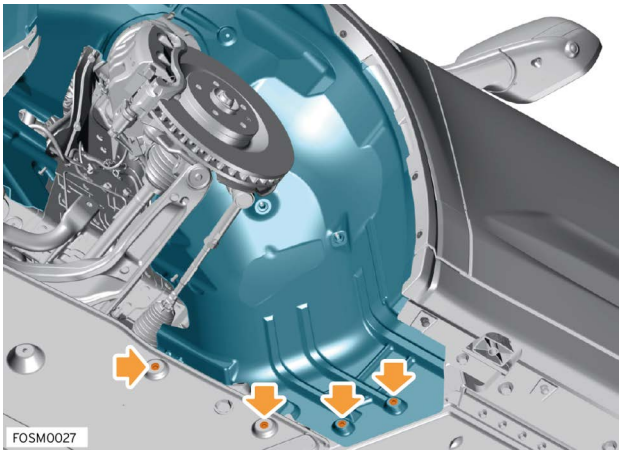

4. Remove plastic M6 nuts (x5) securing fender liner to body. **Torque 2.3 Nm.**



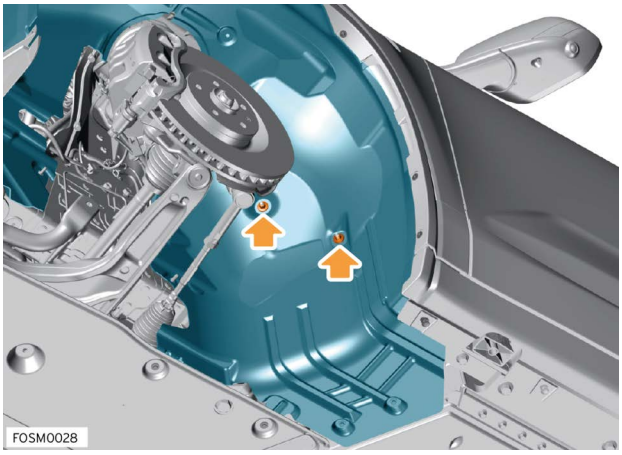

5. Remove push pins (x2) securing fender liner to body.




6. Remove M4x15 screws (x3) securing fender liner to fender cladding. **Torque 2.2 Nm.**




7. Remove M5x17 bolts (x4) securing lower edge of fender liner to underbody. **Torque 5 Nm.**




8. Remove M6 nuts (x2) securing fender liner to body. **Torque 2.3 Nm.**
9. Remove fender liner.

### Installation

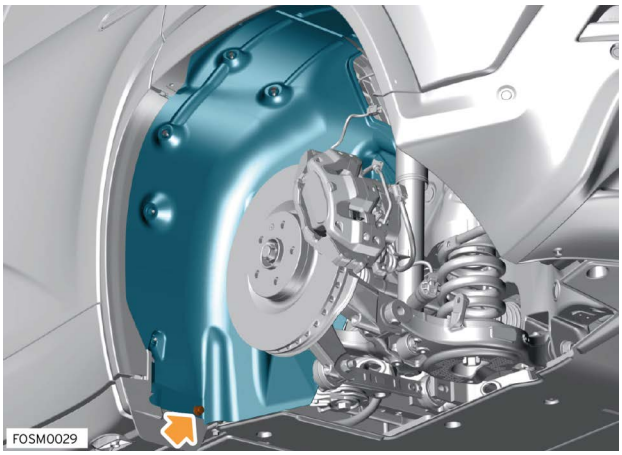
1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect push pins for damage and replace if necessary.*

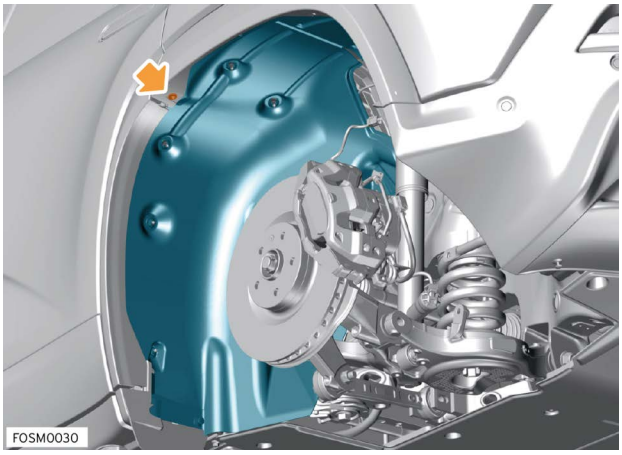
## Fender Liner - Rear - LH

### Removal

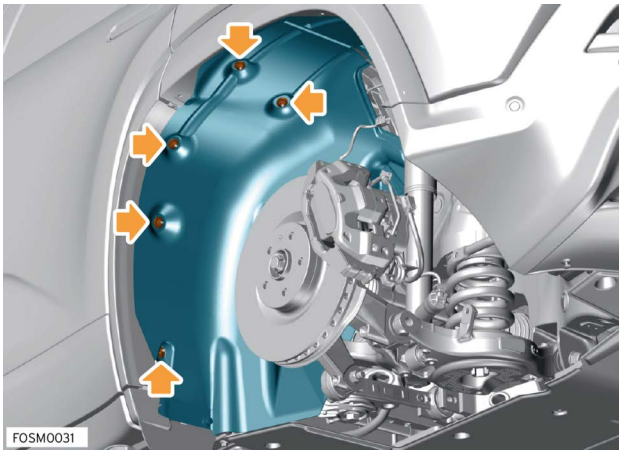
1. Remove rear wheel. Refer to Wheel - Rear - LH.



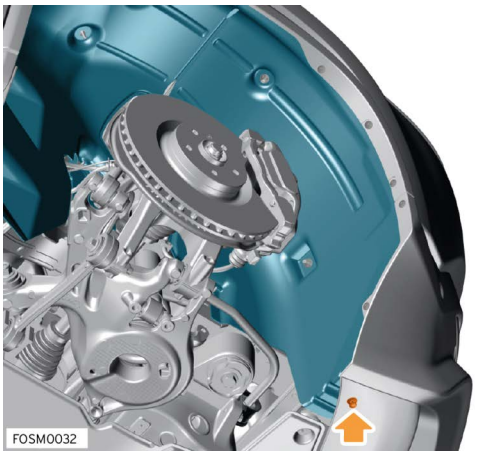

2. Remove push pin securing fender liner to fender.



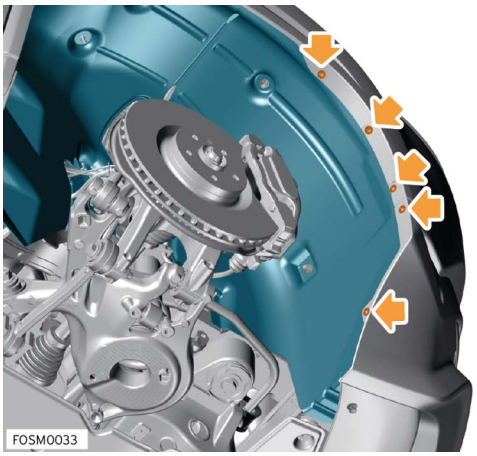

3. Remove M4x15 Torx screw securing fender liner to fender cladding. **Torque 2.2 Nm.**



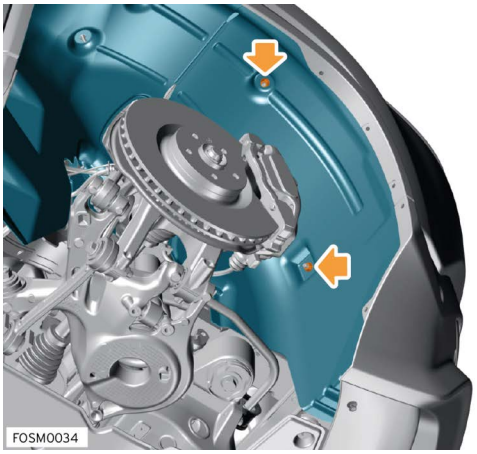

4. Remove M6 nuts (x5) securing fender liner to chassis. **Torque 2.3 Nm.**



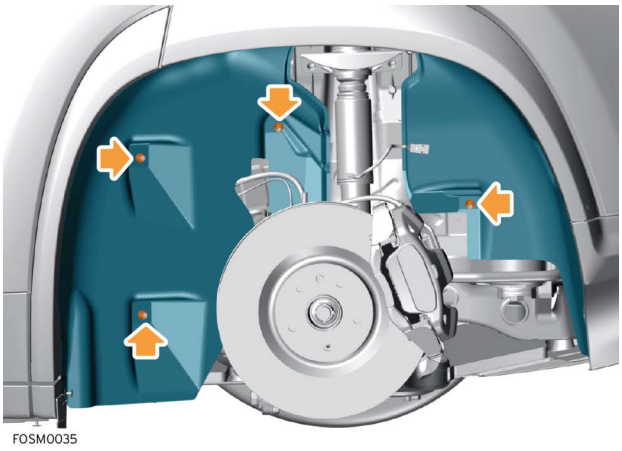

5. Remove push pin securing lower edge of fender liner to rear bumper.




6. Remove M4x15 Torx screws (x5) securing fender liner to rear bumper and rear fender. **Torque 2.2 Nm.**




7. Remove M6 nuts (x2) securing fender liner to chassis. **Torque 2.3 Nm.**




8. Remove M6 nuts (x4) securing fender liner to chassis. **Torque 2.3 Nm.**
9. Remove fender liner.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect push pins for damage and replace if necessary.*

## Fender Cladding - Front - LH

### Removal




1. Remove M4x15 screws (x3) securing fender cladding to fender. **Torque 2.2 Nm.**




2. Remove upper M4x15 screw securing fender cladding to fender. **Torque 2.2 Nm.**
3. Remove lower push pin securing fender cladding to fender.




4. Carefully pull fender cladding to release clips (x22) securing fender cladding to fender.
5. Remove fender cladding.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect push pins and clips for damage and replace if necessary.*

## Door Cladding - Rear - Upper - LH

### Removal

1. Open rear door.


FOSM0138

2. Remove plug from rear door.


FOSM0139

3. Remove Torx screw securing door cladding to rear door. **Torque 1.6 Nm.**


FOSM0140

4. Release clips (x3) securingdoor cladding to rear door.
5. Remove door cladding.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*

## Fender Cladding - Rear - LH

### Removal

1. Remove rear wheel. Refer to Wheel - Rear - LH.




2. Remove M4x15 Torx screws (x4) securing fender cladding to fender liner. **Torque 2.2 Nm.**




3. Release clips (x12) securing fender cladding to fender.
4. Remove fender cladding.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*

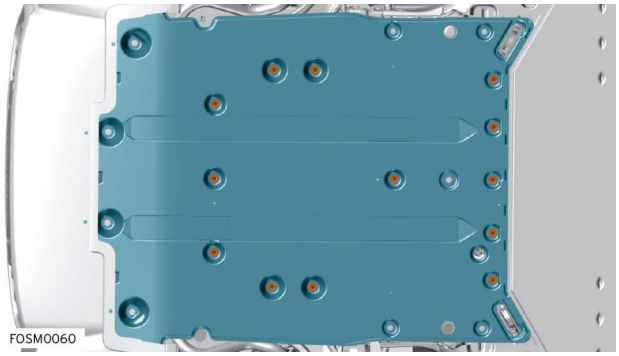
## Underbody Cover - Front

### Removal

1. Raise and support vehicle. Refer to Raise and Support Vehicle - 2 Post Lift.




2. Remove M4x15 screws (x4) securing front underbody cover to front bumper assembly. **Torque 2 Nm.**




3. Remove push pins (x13) securing front underbody cover to front subframe.
4. Remove front underbody cover.

### Installation

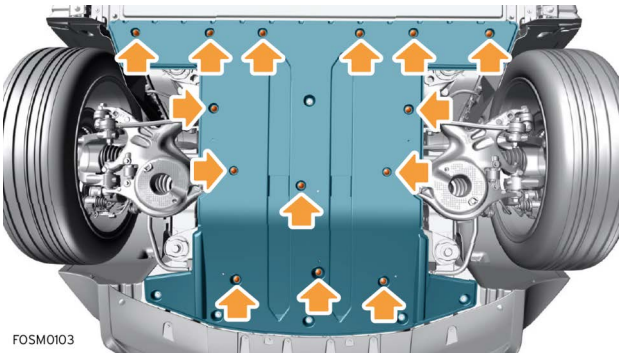
1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect push pins for damage and replace if necessary.*

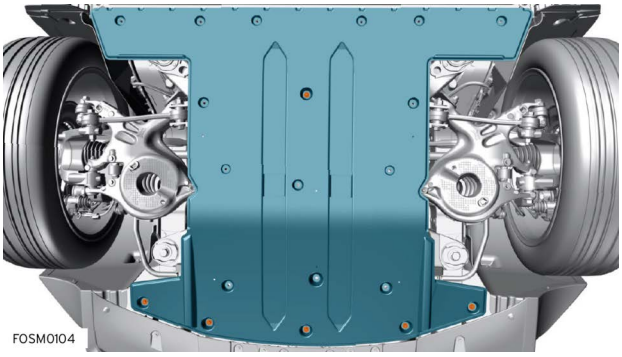
## Underbody Cover - Rear

### Removal

1. Raise and support vehicle. Refer to Raise and Support Vehicle - 2 Post Lift.




2. Remove push pins (x14) securing rear underbody cover to rear subframe.




3. Remove M6x20 bolts (x6) securing rear underbody cover to rear subframe. **Torque 5.5 Nm.**
4. Remove rear underbody cover.

### Installation

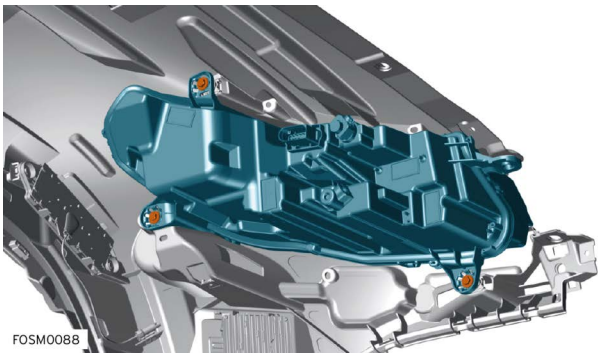
1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect push pins for damage and replace if necessary.*

## Headlamp Assembly - LH

### Removal

1. Remove front fender. Refer to Fender - LH.




2. Remove M6x40 bolts (x3) securing headlamp assembly to front fender. **Torque 5.8 Nm.**
3. Remove headlamp assembly.

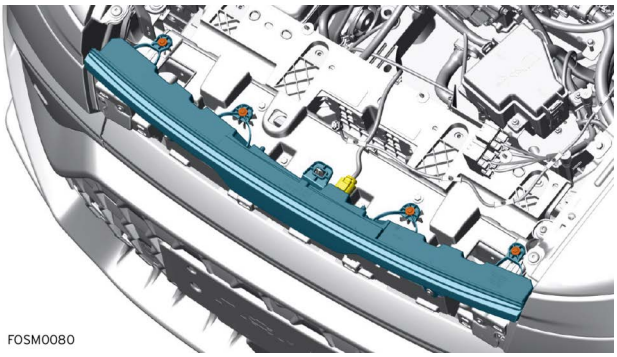
### Installation

1. Installation is the reverse of the removal procedure except for the following:
2. Check and adjust headlamp alignment. Refer to Headlamp Alignment.
3. After installation perform the programming/calibration procedure using the Fisker Aftersales Service Tool.

## Headlamp Assembly - Center

### Removal

1. Open hood. Refer to Open Hood.




2. Disconnect harness connector from center headlamp assembly.
3. Remove M5x25 bolts (x4) securing center headlamp assembly to front bumper assembly. **Torque 1.5 Nm.**
4. Remove center headlamp assembly.

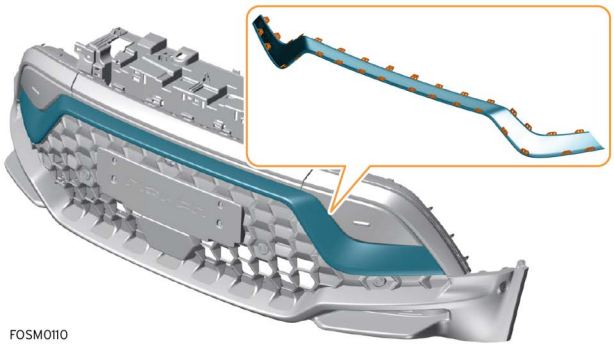
### Installation

1. Installation is the reverse of the removal procedure.

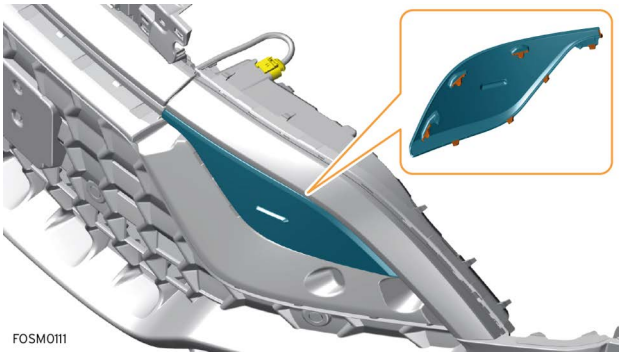
## Turn Indicator Lamp - Front - LH

### Removal

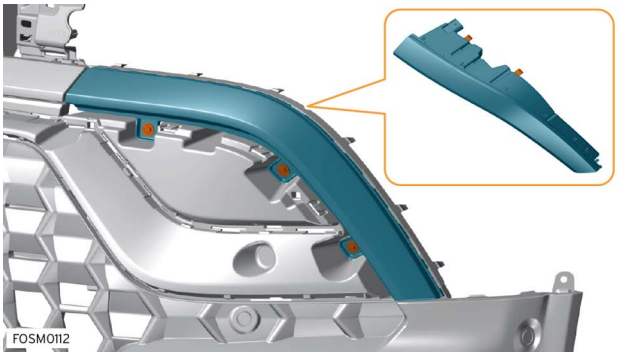
1. Remove front bumper. Refer to Bumper Assembly - Front.




2. Release clips (x31) securing lower bumper strip to front bumper assembly.
3. Remove lower bumper strip.




4. Disconnect harness connector from turn indicator lamp.
5. Release clips (x8) securing LH bumper fascia to front bumper assembly.
6. Remove LH bumper fascia.




7. Remove M5x20 bolts (x3) securing turn indicator lamp to front bumper assembly. **Torque 2 Nm.**
8. Using a suitable tool, carefully release clips (x2) securing turn indicator lamp to front bumper assembly.
9. Remove turn indicator lamp.

### Installation

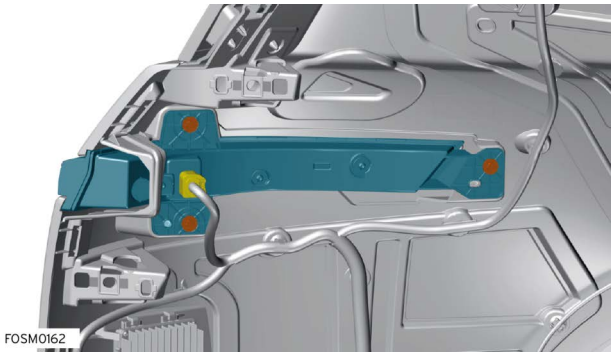
1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*

## Lamp Assembly - Bodyside - Rear - LH

### Removal

1. Remove rear fender. Refer to Fender - LH.




2. Disconnect harness connector from bodyside lamp assembly.
3. Remove M5x17 bolts (x3) securing bodyside lamp assembly to rear fender. **Torque 2.6 Nm.**
4. Remove bodyside lamp assembly.

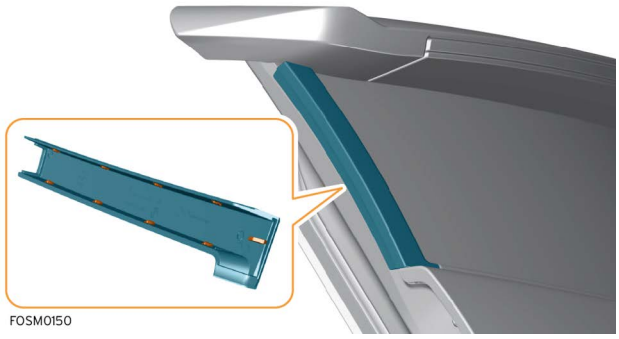
### Installation

1. Installation is the reverse of the removal procedure.

## Lamp Assembly - Liftgate - LH

### Removal

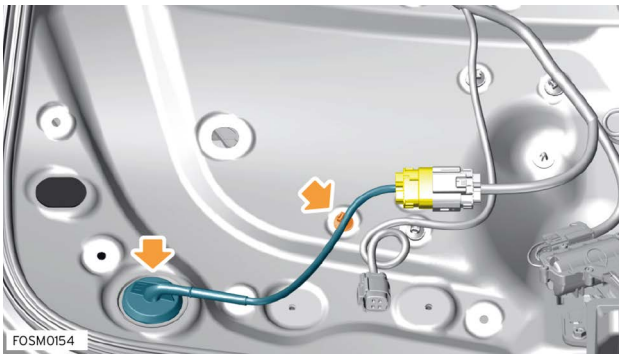
1. Remove liftgate lower trim. Refer to Trim - Liftgate - Lower.




2. Release clips (x9) securing LH liftgate outer trim panel to liftgate.
3. RemoveLH liftgate outer trim panel.




4. Release clips (x9) securing RH liftgate outer trim panel to liftgate.
5. Remove RH liftgate outer trim panel.



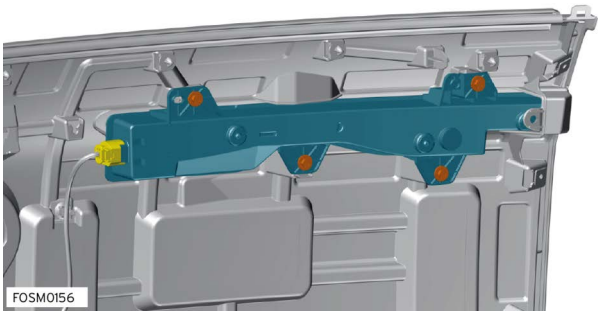

6. Disconnect harness connector from liftgate light harness.
7. Release clip securing liftgate light harness to liftgate.

8. Release grommet from liftgate.




9. Remove M5x8 Torx screws (x13) securing liftgate outer panel to liftgate. **Torque 2 Nm.**
10. Remove liftgate outer panel.

**CAUTION: Place on secure suitable surface to prevent damage.**




11. Disconnect harness connector from LH liftgate lamp.
12. Remove M5x17 bolts (x4) securing LH liftgate lamp to liftgate outer panel. **Torque 2.6 Nm.**
13. Remove LH liftgate lamp.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

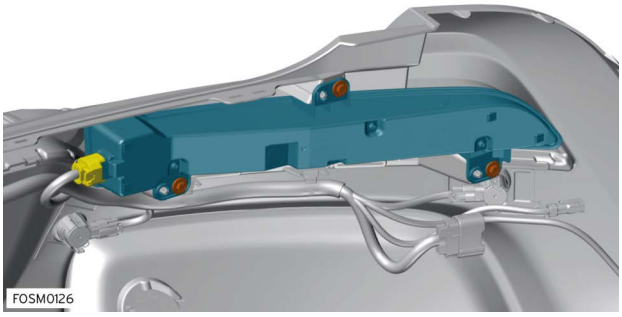
   *NOTE: Inspect clips for damage and replace if necessary.*

2. Before tightening the screws securing the liftgate outer panel to the liftgate, check and adjust the alignment/gaps to other panels and components.

## Lamp Assembly - Bumper - Rear - LH

### Removal

1. Remove rear bumper. Refer to Bumper Assembly - Rear.



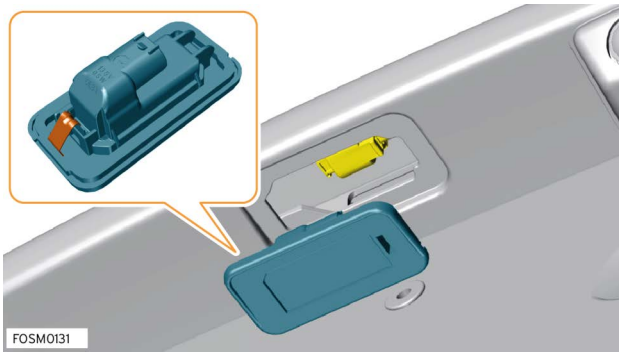

2. Disconnect harness connector from bumper lamp.
3. Remove M5x20 bolts (x3) securing bumper lamp to rear bumper assembly. **Torque 2 Nm.**
4. Remove bumper lamp.

### Installation

1. Installation is the reverse of the removal procedure.

## Licence Plate Lamp - Rear

### Removal




1. Use a suitable tool to push the licence plate lamp left to release clip securing licence plate lamp to rear bumper assembly.
2. Disconnect harness connector from licence plate lamp.
3. Remove licence plate lamp.

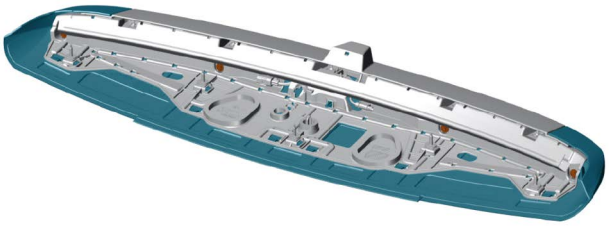
### Installation

1. Installation is the reverse of the removal procedure.

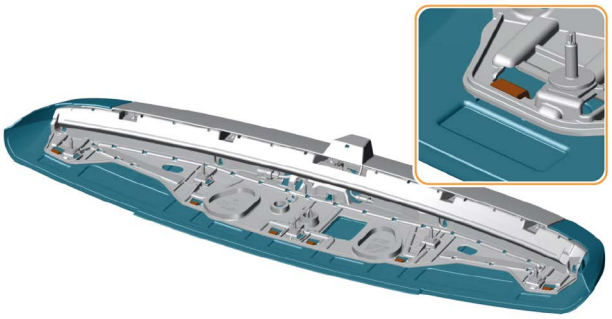
## Center High Mounted Stop Lamp (CHMSL)

### Removal

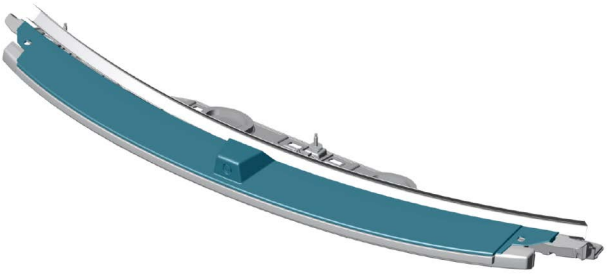
1. Remove rear spoiler. Refer to Spoiler - Rear.



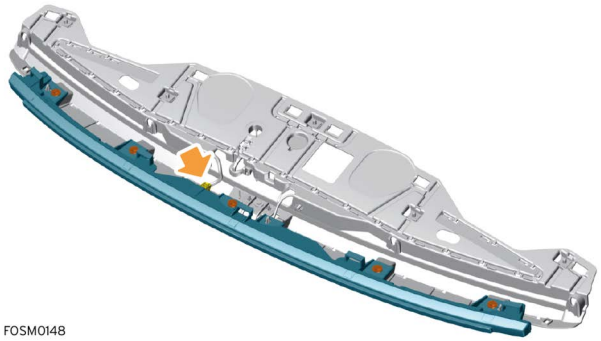

2. Remove M5x20 bolts (x4) securing spoiler upper panel to spoiler reinforcement panel. **Torque 2 Nm.**




3. Release clips (x6) securing spoiler upper panel to spoiler reinforcement panel.
4. Remove spoiler upper panel.




5. Remove spoiler lower panel.




6. Disconnect harness connector from centre high mounted stop lamp.
7. Remove M5x20 bolts (x5) securing centre high mounted stop lamp to spoiler reinforcement panel. **Torque 2 Nm.**
8. Remove centre high mounted stop lamp.

### Installation

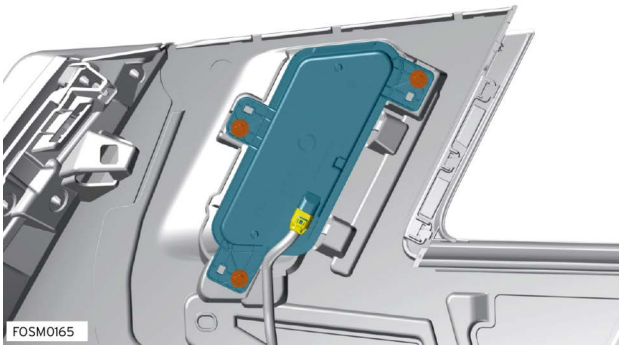
1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*

## Side Marker - Rear - LH

### Removal

1. Remove rear fender. Refer to Fender - LH.




2. Disconnect harness connector from rear side marker.
3. Remove M5x17 bolts (x3) securing rear side marker to rear fender. **Torque 2.6 Nm.**
4. Remove rear side marker.

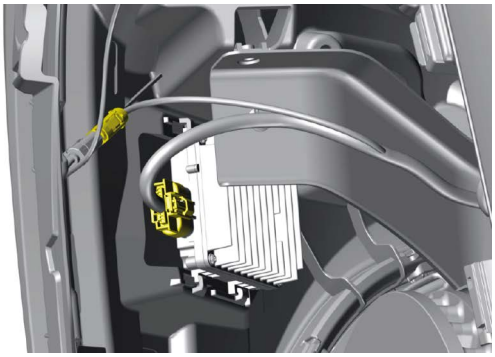
### Installation

1. Installation is the reverse of the removal procedure.

## Fender - LH

### Removal

1. Remove front bumper assembly. Refer to Bumper Assembly - Front.
2. Remove front fender cladding. Refer to Fender Cladding - Front - LH.


FOSM0082

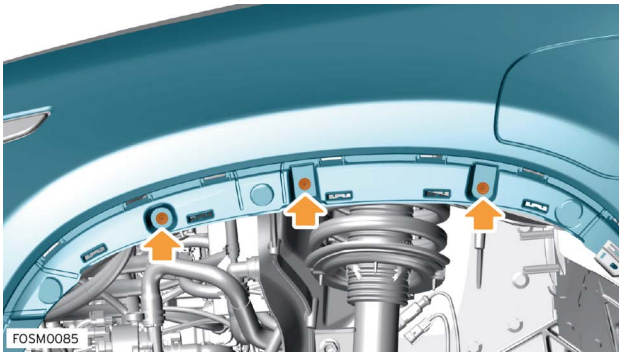
3. Disconnect harness connector from mid range radar.
4. Disconnect harness connector from 5G antenna.


FOSM0083

5. Disconnect harness connector from headlamp assembly.


FOSM0084

6. Disconnect harness connector from charging point.

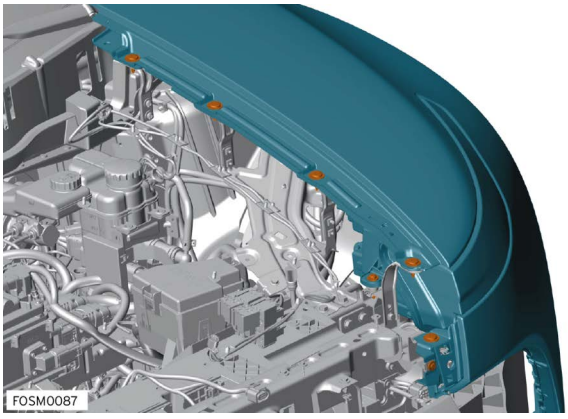

FOSM0085

7. Remove M4x15 screws (x3) securing front fender to fender bracket. **Torque 3.5 Nm.**
8. Open front door.


FOSM0086

9. Remove M6x28 Torx screws (x3) and M6 washers (x3) securing front fender to A pillar bracket. **Torque 4.8 Nm.**

   *NOTE: Door not shown for clarity.*

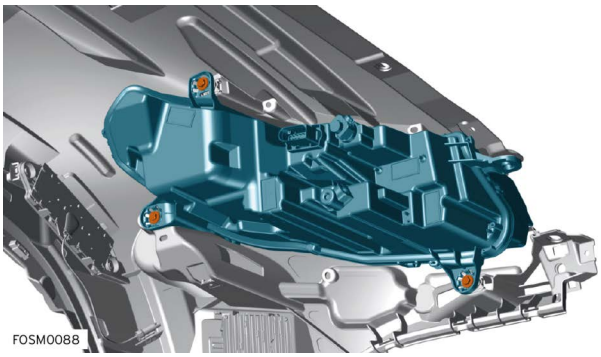

FOSM0087

10. Remove M6x28 Torx screws (x5) and M6 washers (x5) securing front fender to fender bracket. **Torque 4.8 Nm.**
11. Remove M6x35 Torx screw securing headlamp assembly to fender bracket. **Torque 4.5 Nm.**

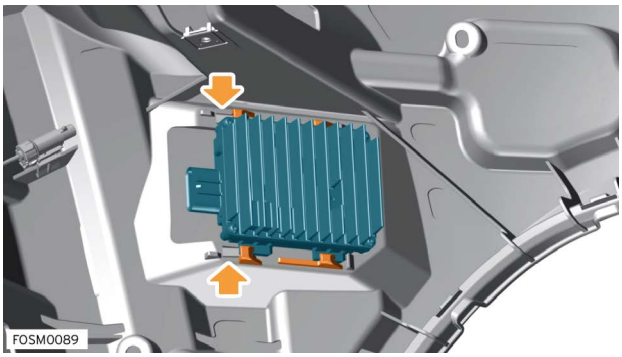
12. Remove M5x17 bolt securing front fender to fender bracket. **Torque 2.6 Nm.**
13. Using assistance, remove front fender.

**CAUTION: Place on secure suitable surface to prevent damage.**

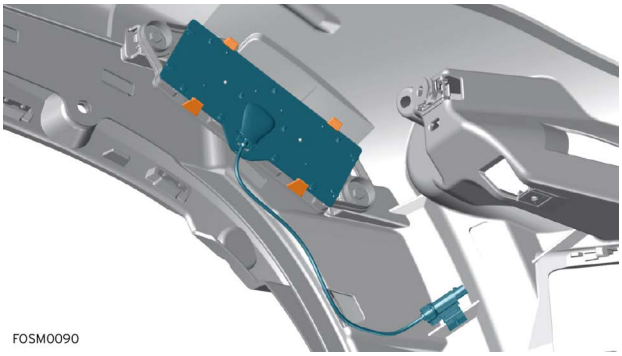
***Do not carry out further disassembly if removing for access only.***



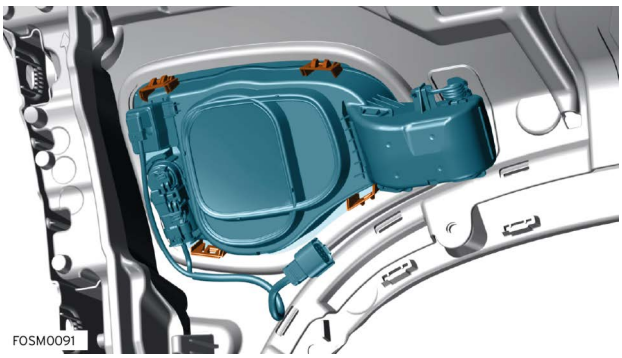

14. Remove M6x40 bolts (x3) securing headlamp assembly to front fender. **Torque 5.8 Nm.**
15. Remove headlamp assembly.




16. Depress tabs (x2) (arrowed) and slide mid range radar left to release from clips (x4) securing mid range radar to front fender.
17. Remove mid range radar.




18. Release clips (x4) securing 5G antenna to front fender.
19. Remove 5G antenna.




20. Release clips (x4) securing charging lid to front fender.
21. Remove charging lid.

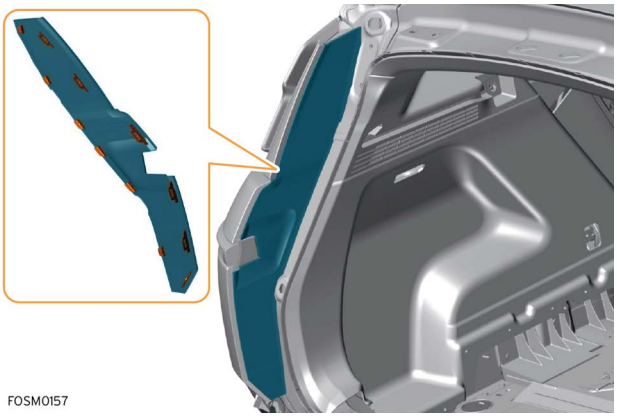
### Installation

1. Installation is the reverse of removal procedure except for the following:
2. Before tightening the screws securing the fender to the fender brackets, check and adjust the alignment/gaps to other panels and components.
3. Check and adjust headlamp alignment. Refer to Headlamp Alignment.
4. After installation perform the window and sunroof programming/calibration procedures and delete DTC's using the Fisker Aftersales Service Tool.

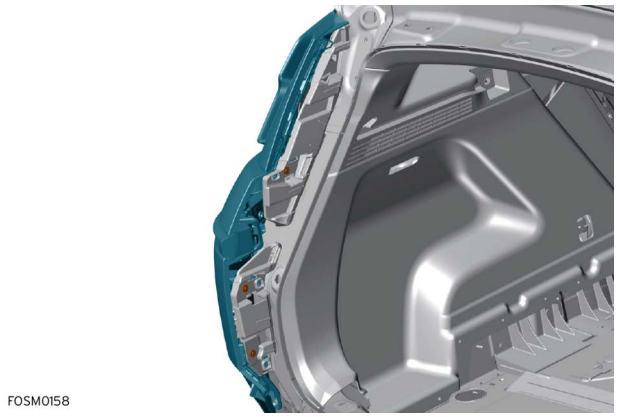
## Fender - LH

### Removal

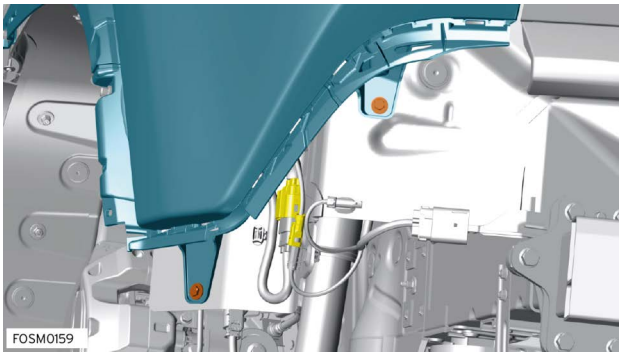
1. Remove rear bumper. Refer to Bumper Assembly - Rear.
2. Open liftgate.



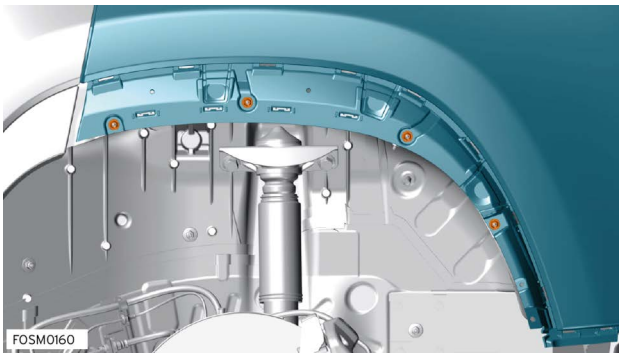

3. Release clips (x12) securing rear fender trim panel to chassis.
4. Remove rear fender trim panel.




5. Remove M5x17 bolts (x3) securing rear fender to chassis. **Torque 2.6 Nm.**



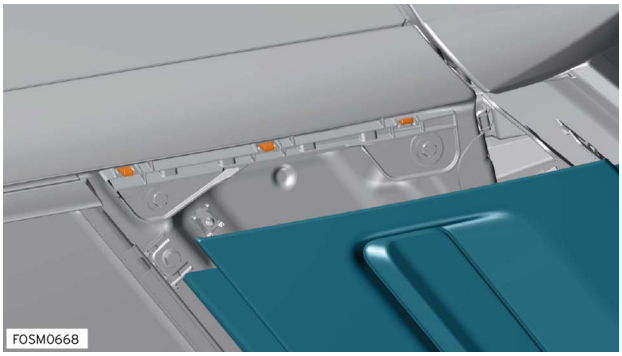

6. Disconnect harness connectors (x2) from rear fender harness.
7. Remove M6x16 bolts (x2) securing rear fender to chassis. **Torque 5 Nm.**



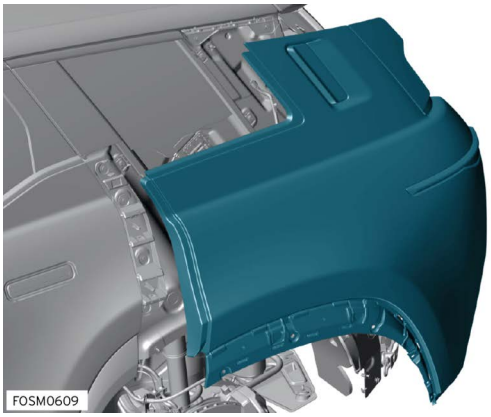

8. Remove M6 nuts (x4) securing rear fender to chassis. **Torque 2.5 Nm.**




9. Release clips (x6) securing rear fender to C pillar bracket.



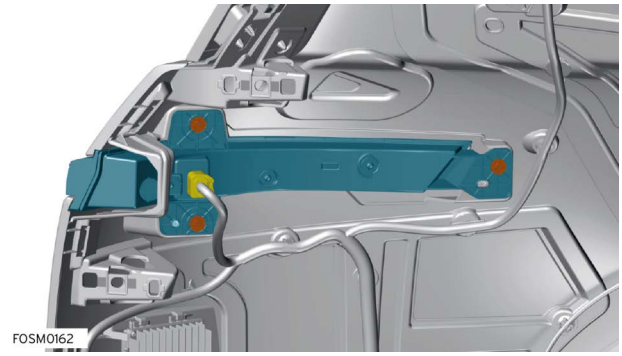

10. Release clips (x3) securing rear fender to roof rail bracket.



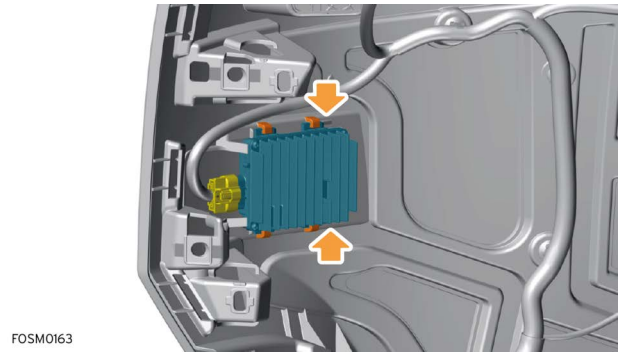

11. Using assistance remove rear fender.

**CAUTION: Place on secure suitable surface to prevent damage.**

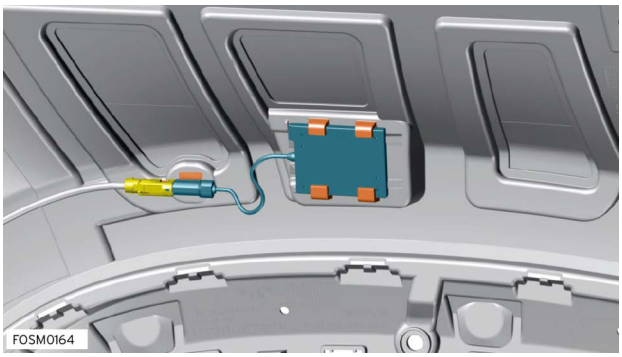
***Do not carry out further disassembly if removing for access only.***



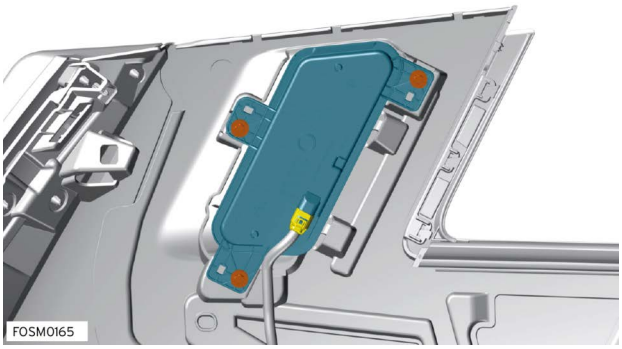

12. Disconnect harness connector from bodyside lamp assembly.
13. Remove M5x17 bolts (x3) securing bodyside lamp assembly to rear fender. **Torque 2.6 Nm.**
14. Remove bodyside lamp assembly.




15. Disconnect harness connector from mid range radar.
16. Depress tabs (x2) (arrowed) and slide mid range radar right to release from clips (x4) securing mid range radar to rear fender.
17. Removemid range radar.

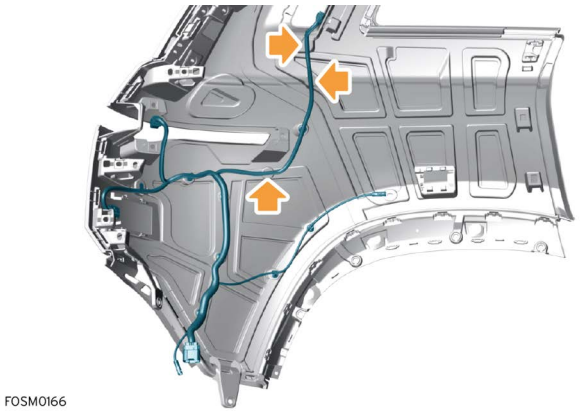



18. Disconnect harness connector from Wi-Fi antenna.
19. Release clips (x5) securing Wi-Fi antenna to rear fender.
20. Remove Wi-Fi antenna.

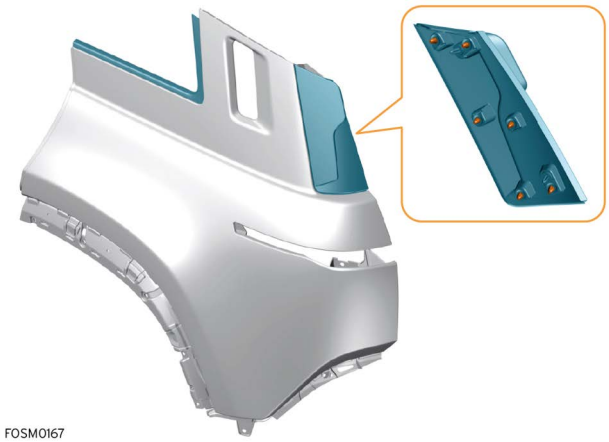



21. Disconnect harness connector from rear side marker.

22. Remove M5x17 bolts (x3) securing rear side marker to rear fender. **Torque 2.6 Nm.**
23. Remove rear side marker.


FOSM0166

24. Release clips (x11) securing rear fender harness to rear fender.
25. Remove rear fender harness.


FOSM0167

26. Release clips (x6) securing D pillar trim panel to rear fender.
27. Remove D pillar trim panel.
28. Remove rear quarter glass sealing strip.

**Installation**

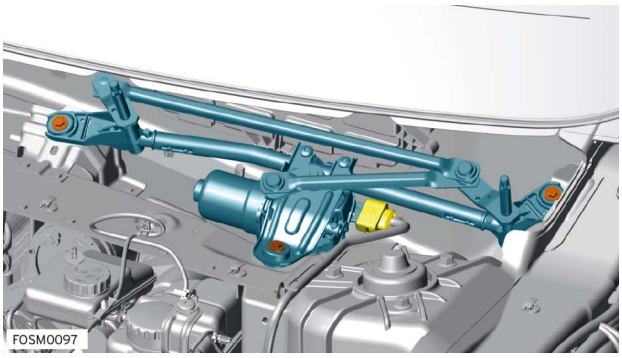
1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*
2. Before tightening the bolts securing the rear fender to the chassis, check and adjust the alignment/gaps to other panels and components.
3. After installation perform the mid range radar calibration procedure using the Fisker Aftersales Service Tool.

## Wiper Motor Assembly

### Removal

1. Remove cowl assembly. Refer to Cowl Assembly.




2. Disconnect harness connector from wiper motor assembly.
3. Remove M6x25 bolts (x3) securing wiper motor assembly to body. **Torque 9 Nm.**
4. Remove wiper motor assembly.

### Installation

1. Installation is the reverse of the removal procedure.

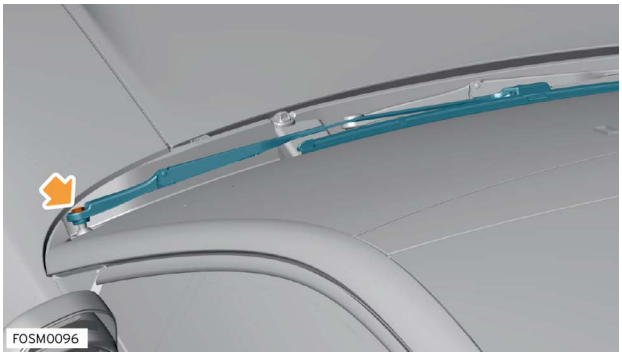
## Wiper Arm - LH

### Removal

1. Set wiper arms to Service Position using central touchscreen.




2. Remove cover from wiper arm.
3. If wiper arm is to be installed, mark alignment of wiper arm and spindle.




4. Remove M10 nut securing wiper arm to spindle. **Torque 56 Nm.**
5. Remove wiper arm.

### Installation

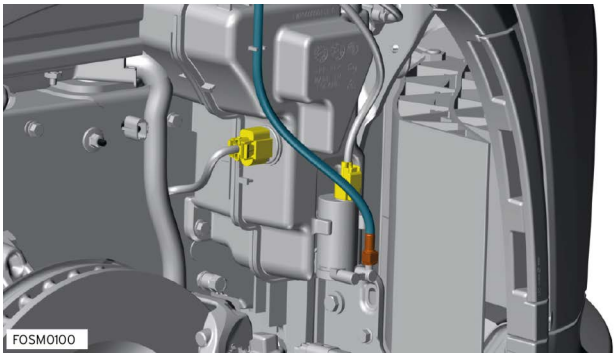
1. Installation is the reverse of the removal procedure except for the following:
2. Clean wiper linkage spindle and lightly lubricate to prevent the wiper arm seizing on the spindle.

## Washer Tank Assembly

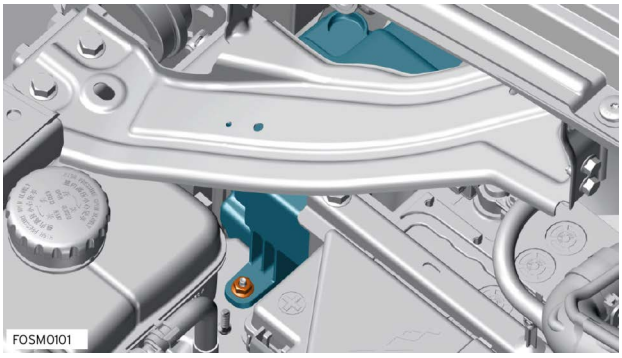
### Removal

1. Remove front RH fender liner. Refer to Fender Liner - Front - LH.

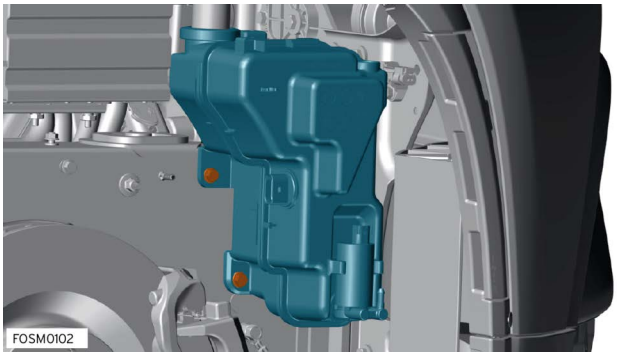
   *NOTE: Procedure is the same as for left side component.*




2. Disconnect harness connector from washer pump.
3. Disconnect hose from washer pump.
4. Disconnect harness connector from washer tank.
5. Open hood. Refer to Open Hood.




6. Remove M6 nut securing washer tank to front rail. **Torque 7 Nm.**




7. Remove M6x20 bolts (x2) securing washer tank to front rail. **Torque 7 Nm.**
8. Release from filler tube and remove the washer tank.

### Installation

1. Installation is a reverse of the removal procedure except for the following:
2. Refill washer reservoir with approved washer fluid.

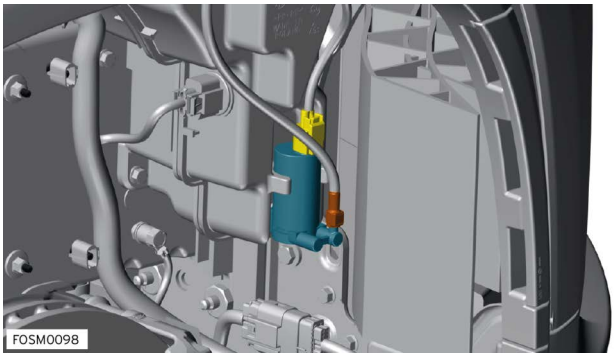
   *NOTE: Ensure tell-tale for washer fluid level is not active on drivers display.*

## Washer Pump

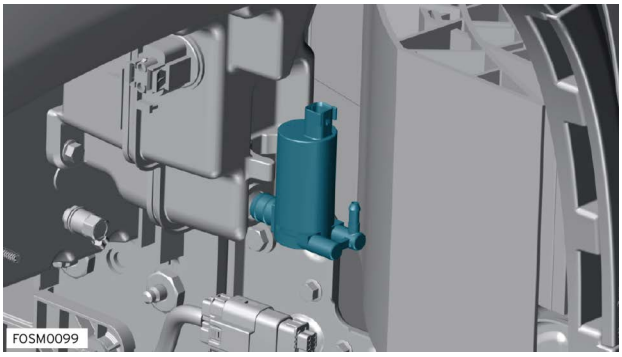
### Removal

1. Remove front RH fender liner. Refer to Fender Liner - Front - LH.

   *NOTE: Procedure is the same as for left side component.*




2. Disconnect harness connector from washer pump.
3. Disconnect hose from washer pump.




4. Release and remove washer pump from washer reservoir.
5. Allow washer fluid to drain into container and discard.

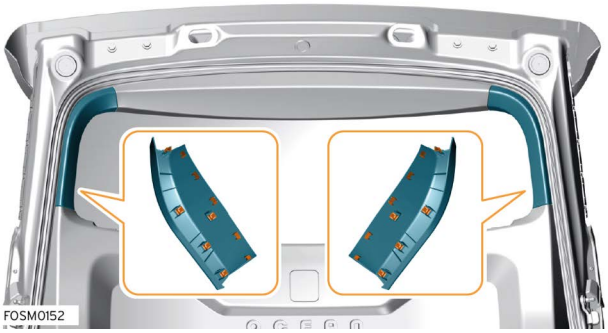
### Installation

1. Installation is the reverse of the removal procedure except for the following:
2. Fill washer tank with approved washer fluid.

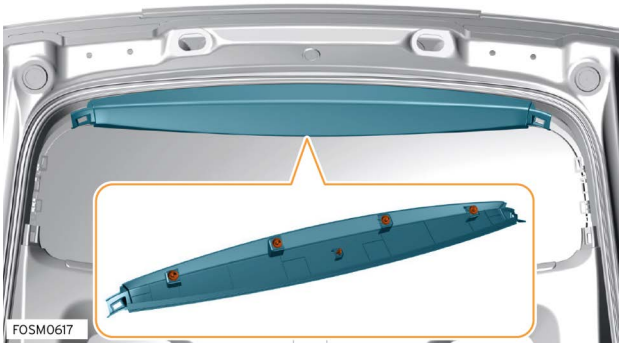
   *NOTE: Ensure tell-tale for washer fluid level is not active on drivers display.*

## Spoiler - Rear

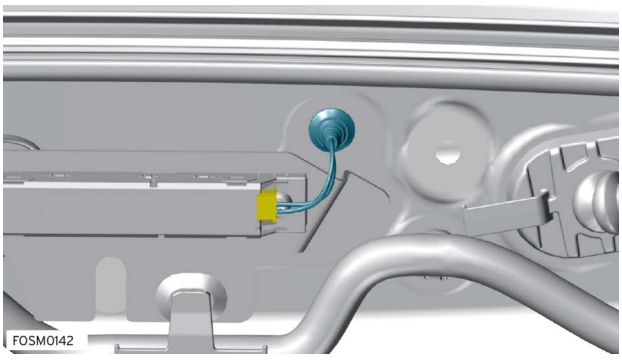
### Removal




1. Release clips (x10) securing LH liftgate inner trim to liftgate.
2. Remove LH liftgate inner trim.
3. Release clips (x10) securing RH liftgate inner trim to liftgate.
4. Remove RH liftgate inner trim.




5. Release clips (x5) securing liftgate upper inner trim to liftgate.
6. Remove liftgate upper inner trim.




7. Disconnect harness connector from antenna amplifier.
8. Release grommet from liftgate.




9. Remove plugs (x5) from liftgate inner panel.



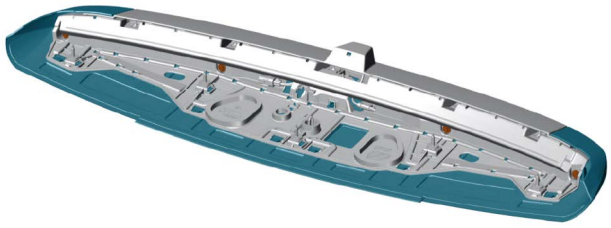

10. Remove M6 nuts (x5) securing rear spoiler to liftgate. **Torque 8 Nm.**




11. Disconnect harness connectors (x2) from rear spoiler.
12. Remove rear spoiler.

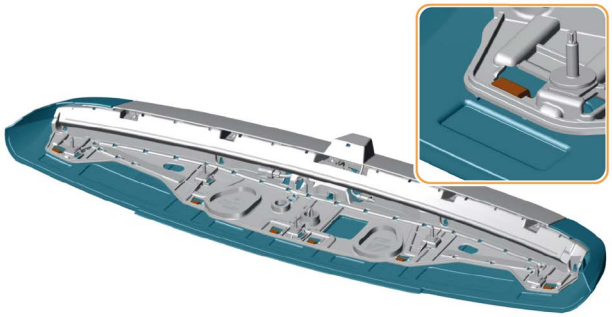
**CAUTION: Place on secure suitable surface to prevent damage.**

***Do not carry out further disassembly if removing for access only.***



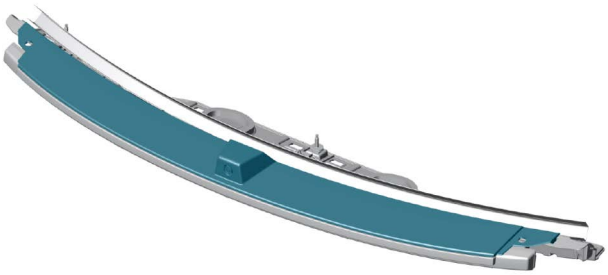
FOSM0670

13. Remove M5x20 bolts (x4) securing spoiler upper panel to spoiler reinforcement panel. **Torque 2 Nm.**



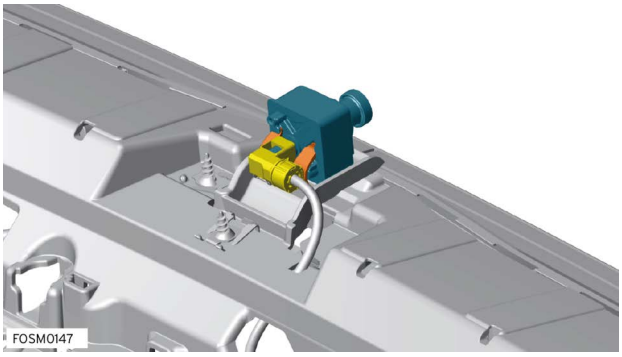
FOSM0671

14. Release clips (x6) securing spoiler upper panel to spoiler reinforcement panel.
15. Remove spoiler upper panel.



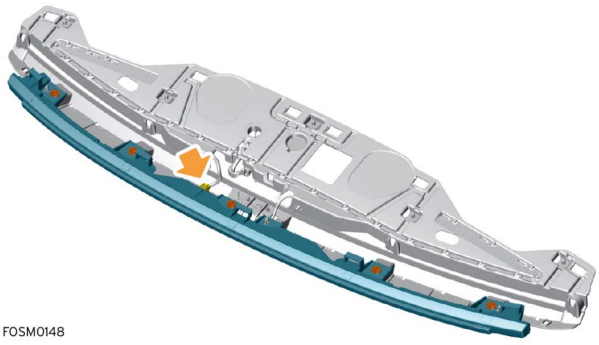
FOSM0672

16. Remove spoiler lower panel.



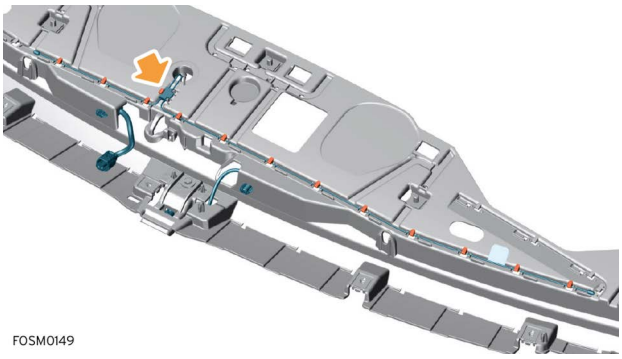
FOSM0147

17. Disconnect harness connector from camera interior rear view mirror.
18. Release clips (x2) securing camera interior rear view mirror to spoiler reinforcement panel.
19. Remove camera interior rear view mirror.



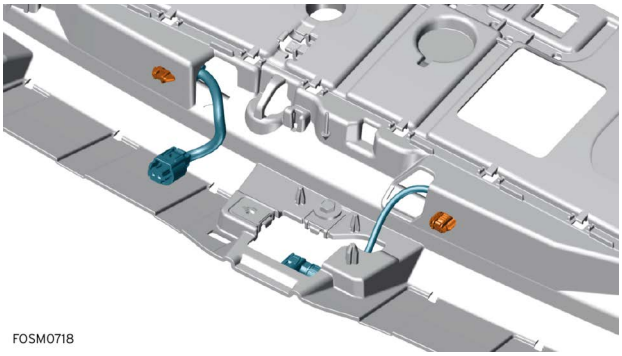
FOSM0148

20. Disconnect harness connector from centre high mounted stop lamp.
21. Remove M5x20 bolts (x5) securing centre high mounted stop lamp to spoiler reinforcement panel. **Torque 2 Nm.**
22. Remove centre high mounted stop lamp.



FOSM0149

23. Release clips (x13) securing FM DAB antenna to spoiler reinforcement panel.
24. Remove FM DAB antenna.




25. Release clips (x2) securing spoiler harnesses to spoiler reinforcement panel.
26. Remove spoiler harnesses (x2).

**Installation**

1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*

2. Before tightening the screws securing the rear spoiler to the liftgate, check and adjust the alignment/gaps to other panels and components.

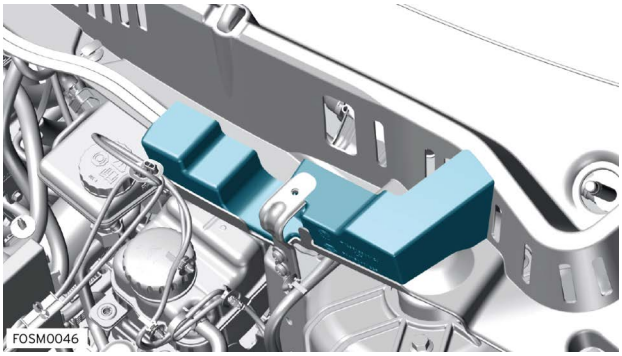
## Cowl Assembly

### Removal

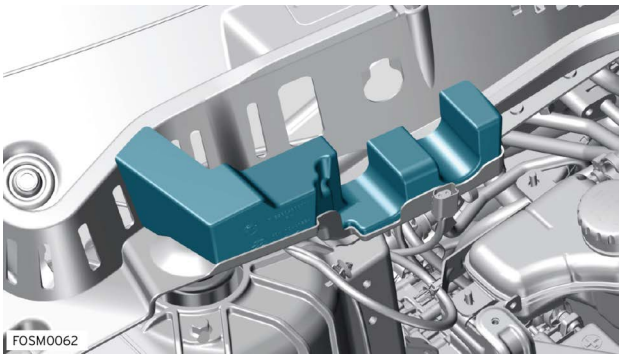
1. Remove front LH fender. Refer to Fender Liner - Front - LH.
2. Remove front RH fender.

   *NOTE: Procedure is the same as for left side component.*
3. Remove LH wiper arm. Refer to Wiper Arm - LH.
4. Remove RH wiper arm.

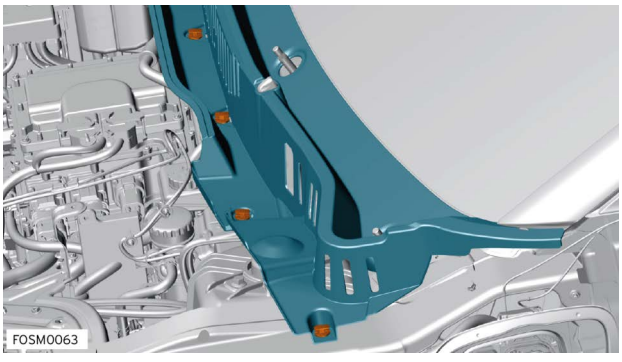
   *NOTE: Procedure is the same as for left side component.*

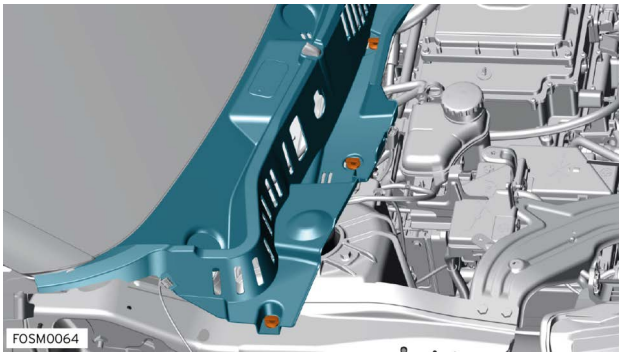



5. Remove LH insulator from cowl assembly.




6. Remove RH insulator from cowl assembly.

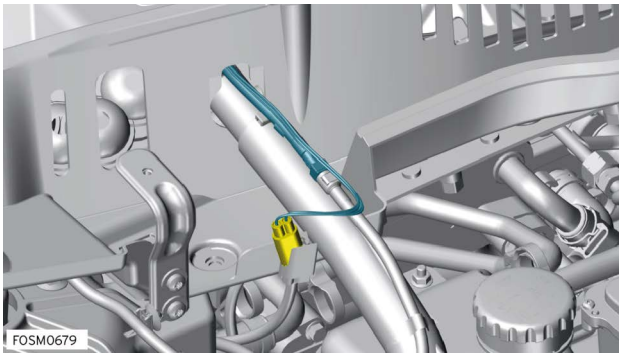


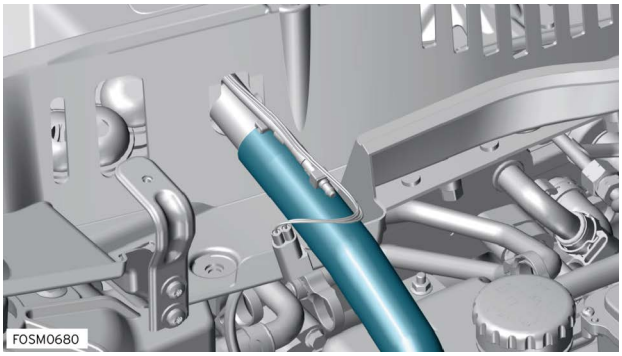

7. Remove push pins (x7) securing cowl assembly to chassis.



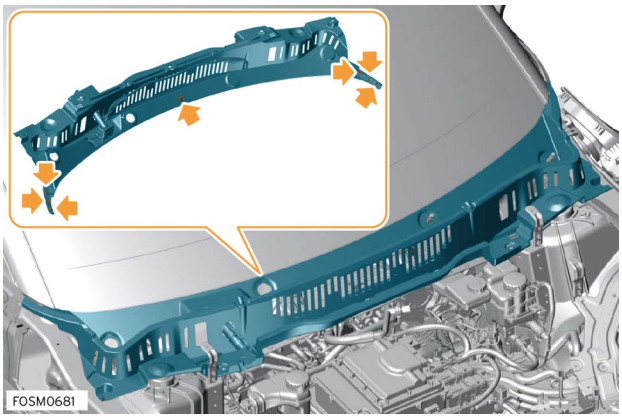

8. Remove seals (x2) from wiper motor shafts.




9. Disconnect harness connector and hose from cowl assembly.

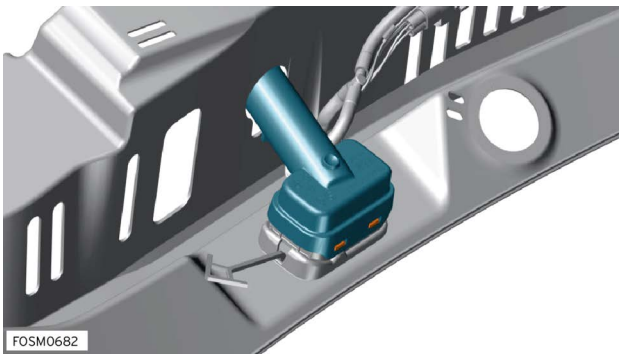



10. Release filler pipe from filler neck.

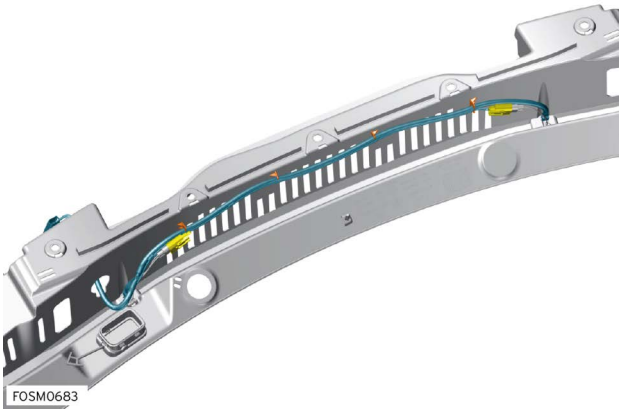



11. Release left side clips (x3), right side clips (x3) and center clip securing cowl assembly to vehicle.
12. Remove cowl assembly.

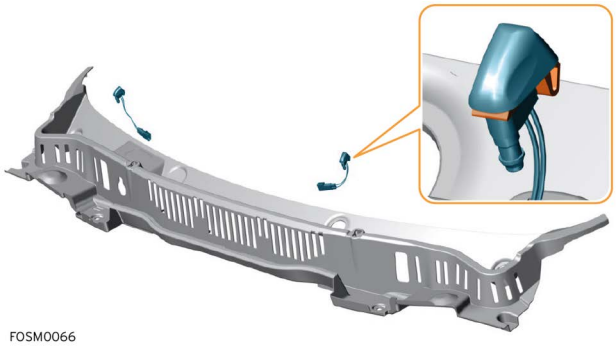
***Do not carry out further disassembly if component is removed for access only.***




13. Release clips (x4) securing filler neck to cowl.
14. Remove filler neck.




15. Disconnect harness connectors (x2) and hoses (x2) from washer jets.
16. Release from clips (x4) and remove harness/hose assembly.




17. Release clips (x2) securing washer jets to cowl assembly.
18. Remove washer jets.

**Installation**

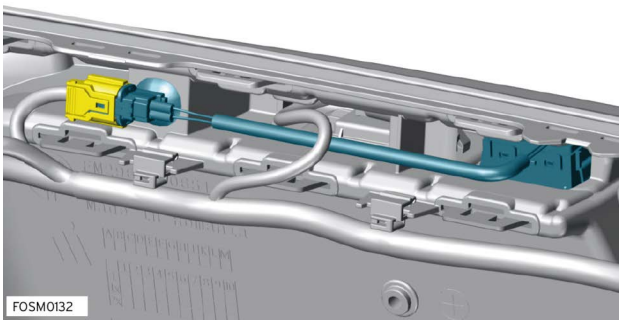
1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect push pins and clips for damage and replace if necessary.*

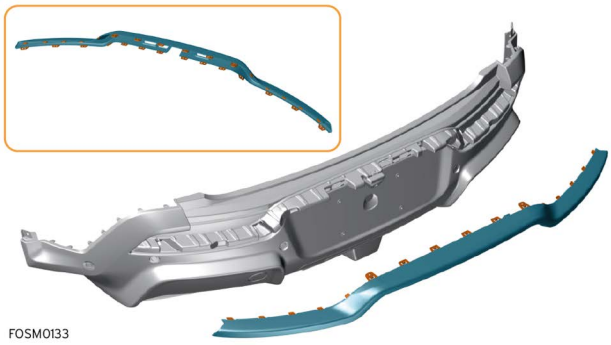
## Switch - Liftgate - Outside

### Removal

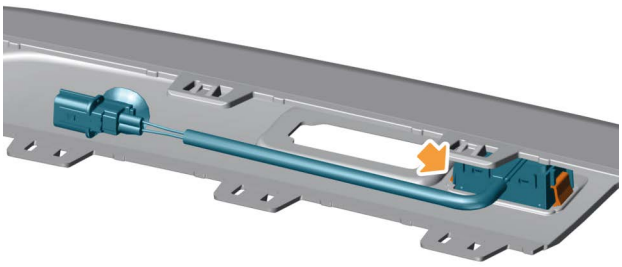
1. Remove rear bumper assembly. Refer to Bumper Assembly - Rear.




2. Disconnect harness connector from liftgate switch.




3. Release clips (x30) securing rear bumper trim to rear bumper assembly.
4. Remove rear bumper trim.




5. Release clips (x2) securing liftgate switch to rear bumper trim.
6. Remove liftgate switch.

### Installation

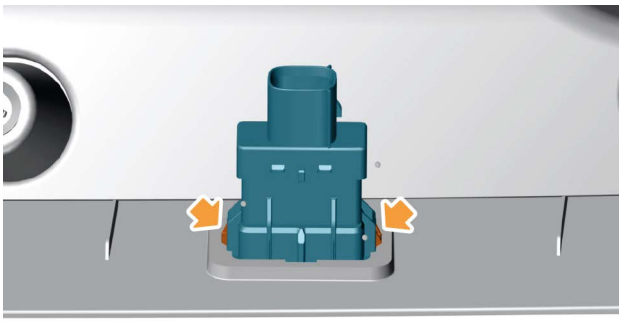
1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*

## Switch - Liftgate - Inside

### Removal

1. Remove liftgate lower inner trim. Refer to Trim - Liftgate - Lower.




2. Release clips (x2) securing liftgate switch to liftgate lower inner trim.
3. Remove liftgate switch.

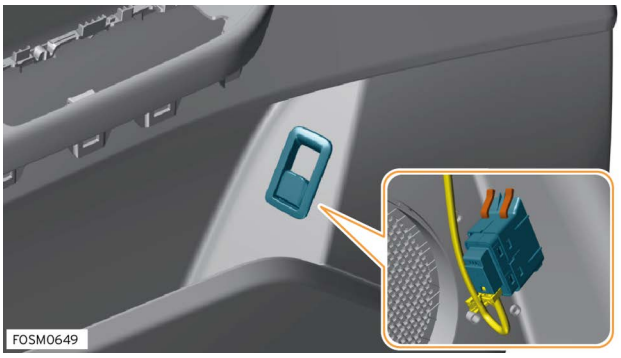
### Installation

1. Installation is the reverse of the removal procedure.

## Switch - Liftgate - Driver

### Removal

1. Remove front door trim LH. Refer to Trim - Door - Front - LH.



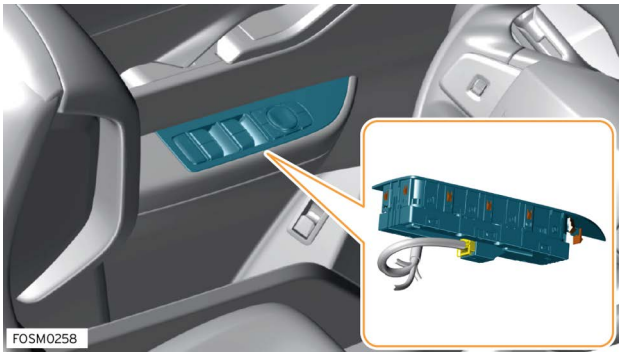

2. Carefully release clips (x2) securing liftgate switch to door trim.
3. Disconnect harness connector from liftgate switch.
4. Remove liftgate switch.

### Installation

1. Installation is the reverse of removal procedure.

## Switch - Window Lift - Driver

### Removal




1. Carefully release clips (x10) securing switch pack to door trim.

**CAUTION: Take care not to damage trim.**

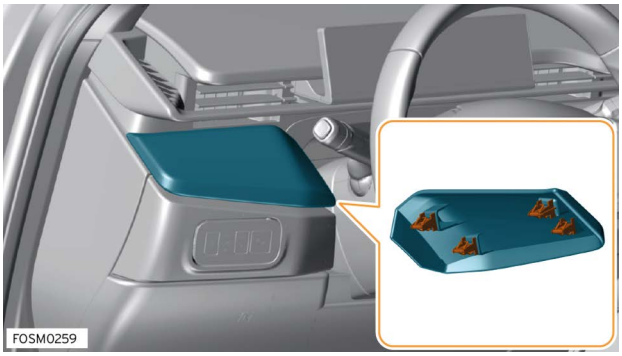
2. Disconnect electrical connector from switch pack.
3. Remove switch pack.

### Installation

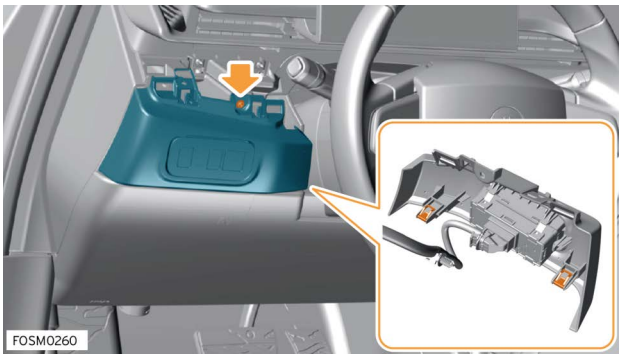
1. Installation is the reverse of removal procedure.

## Switch - Lighting

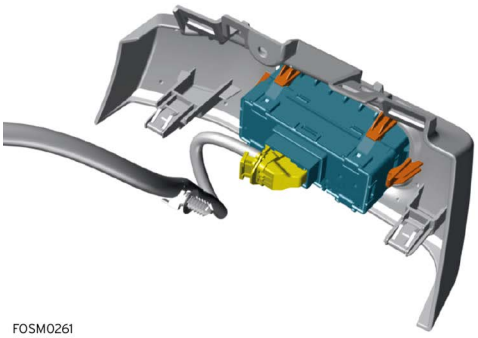
### Removal




1. Release clips (x4) securing trim to Instrument panel (IP).
2. Remove trim.




3. Remove screw securing trim to IP structure. **Torque 1.6 Nm**.
4. Release clips (x3) securing trim to IP structure.




5. Disconnect electrical connector from switch.
6. Release clips (x6) securing switch to trim panel.
7. Remove switch.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*

## Switch - Second Row Seat

### Removal

1. Remove C pillar lower trim. Refer to Trim - C Pillar - Lower - LH.




2. Release clips (x4) securing second row seat switch to C pillar lower trim.
3. Remove second row seat switch.

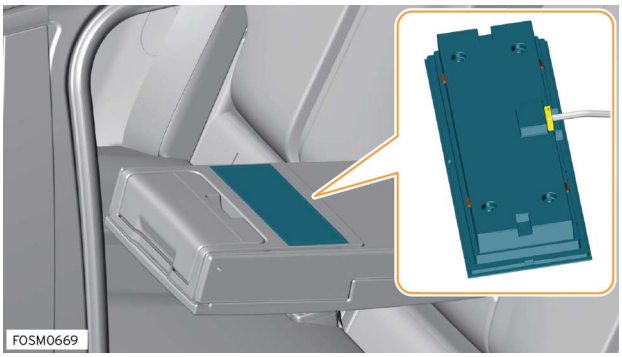
### Installation

1. Installation is the reverse of the removal procedure.

## Rear Climate Control Panel

### Removal

1. Fold down rear armrest.




2. Carefully release clips (x4) securing rear climate control panel to rear armrest.

**CAUTION: Take care not to damage trim.**

3. Disconnect harness connector from rear climate control panel.
4. Remove rear climate control panel.

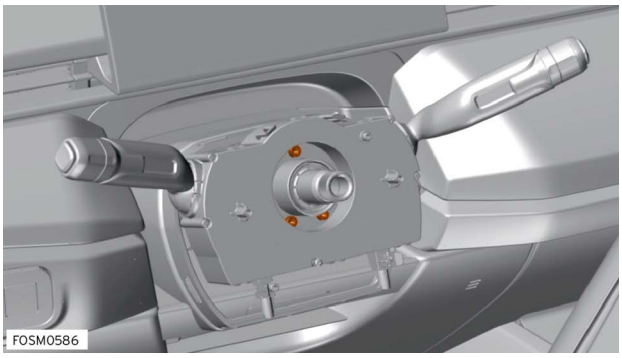
### Installation

1. Installation is the reverse of the removal procedure except for the following:
2. After installation perform programming using the Fisker Aftersales Service Tool and perform a function check.

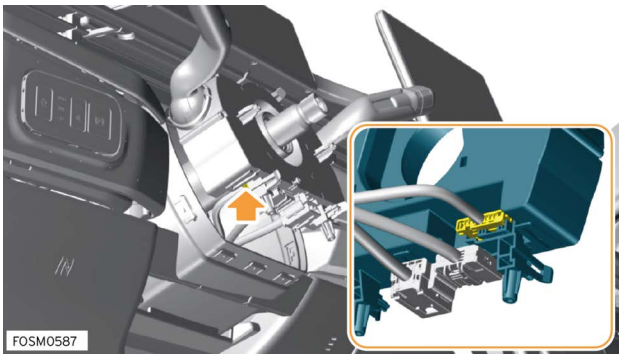
## Column Switch Integrated Module

### Removal

1. Remove clock spring. Refer to Clock Spring.




2. Remove M5x10 bolts (x3) securing column switch integrated module to steering column. **Torque 5 Nm**.
3. Release column switch integrated module from steering column.



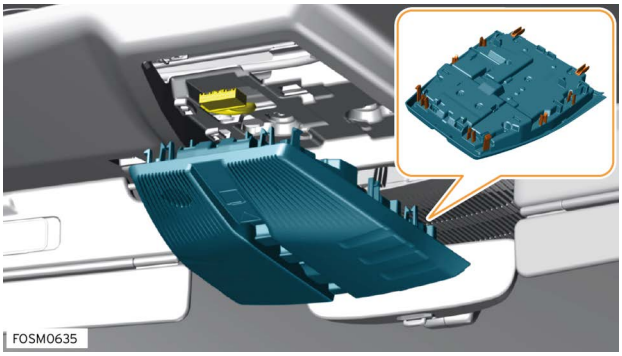

4. Disconnect harness connector from column switch integrated module.
5. Remove column switch integrated module.

### Installation

1. Installation is the reverse of removal procedure except for the following:
2. After installation perform programming using the Fisker Aftersales Service Tool and perform a function check.

## Overhead Console

### Removal




1. Release clips (x10) securing overhead console to roof trim.

   *NOTE: Release rear clips first, working towards mirror.*

2. Disconnect harness connector from overhead console.
3. Remove overhead console.

### Installation

1. Installation is the reverse of the removal procedure except for the following:

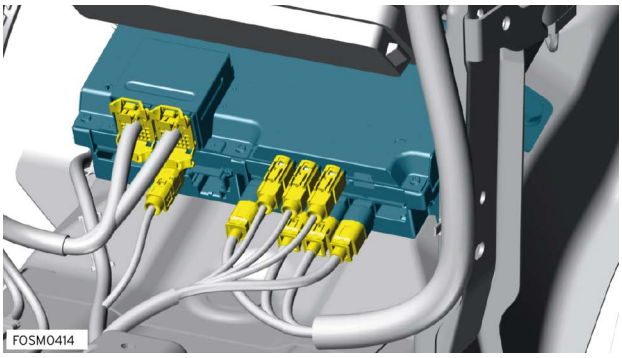
   *NOTE: Inspect clips for damage and replace if necessary.*

2. After installation perform programming using the Fisker Aftersales Service Tool and perform a function check.

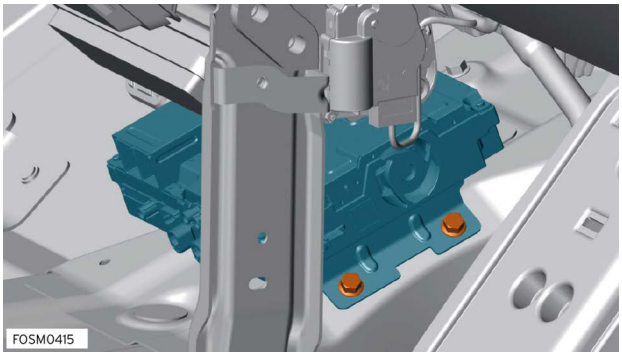
## Integrated Cockpit Controller

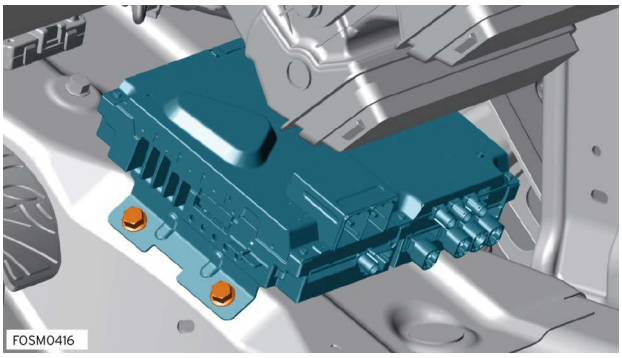
### Removal

1. Remove floor console assembly. Refer to Floor Console Assembly.




2. Disconnect harness connectors (x10) from integrated cockpit controller.




3. Remove M6x12 bolts (x4) securing integrated cockpit controller to vehicle. **Torque 9 Nm.**
4. Remove integrated cockpit controller.

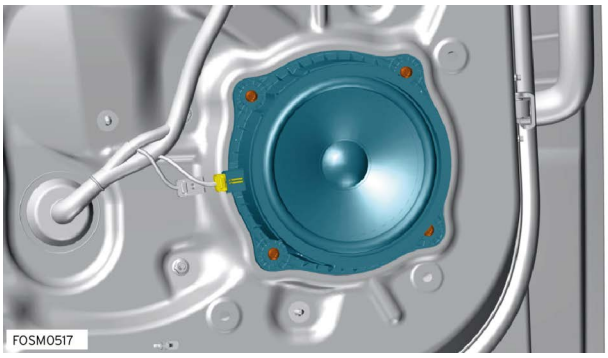
### Installation

1. Installation is the reverse of removal procedure except for the following:
2. After installation perform the programming/calibration procedure using the Fisker Aftersales Service Tool.

## Speaker - Front Door - LH

### Removal

1. Remove front door trim. Refer to Trim - Door - Front - LH.




2. Disconnect harness connector from front door speaker.
3. Remove M4x8 Torx screws (x4) securing front door speaker to front door. **Torque 3 Nm.**
4. Remove front door speaker.

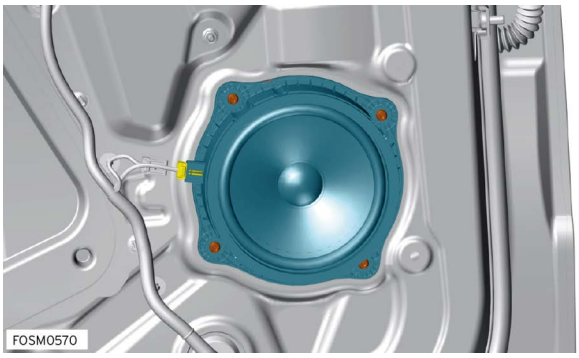
### Installation

1. Installation is the reverse of the removal procedure.

## Speaker - Woofer - Rear Door - LH

### Removal

1. Remove rear door trim. Refer to Trim - Door - Rear - LH.




2. Disconnect harness connector from rear door speaker.
3. Remove M4x8 Torx screws (x4) securing rear door speaker to rear door. **Torque 3 Nm.**
4. Remove rear door speaker.

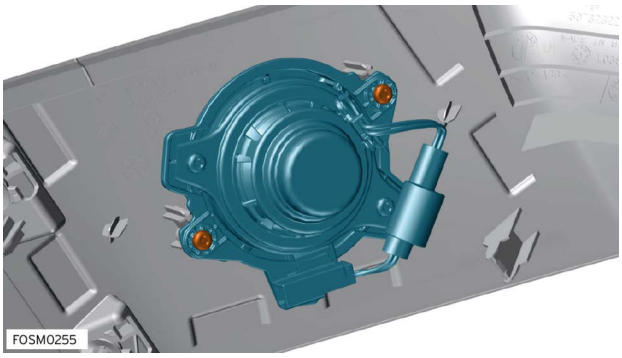
### Installation

1. Installation is the reverse of the removal procedure.

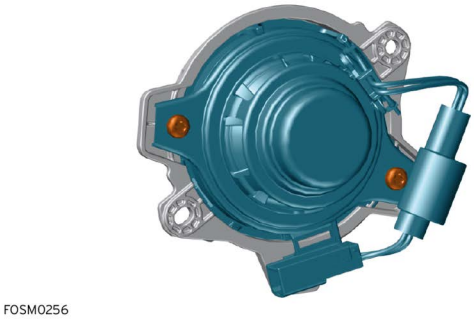
## Speaker - D Pillar - LH

### Removal

1. Remove D pillar trim. Refer to Trim - D Pillar - LH.




2. Remove M4.2x16 Torx screws (x2) securing speaker assembly to D pillar trim. **Torque 3 Nm.**
3. Remove speaker assembly.




4. Remove M4.2x16 Torx screws (x2) securing speaker to mounting bracket. **Torque 3 Nm.**
5. Remove speaker.

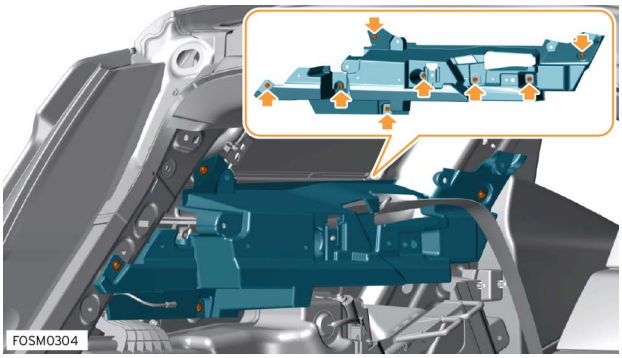
### Installation

1. Installation is the reverse of the removal procedure.

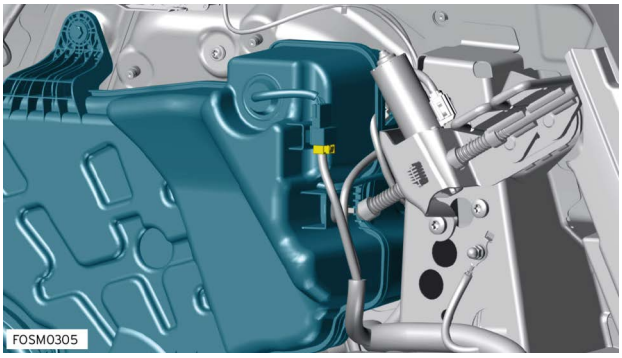
## Subwoofer

### Removal

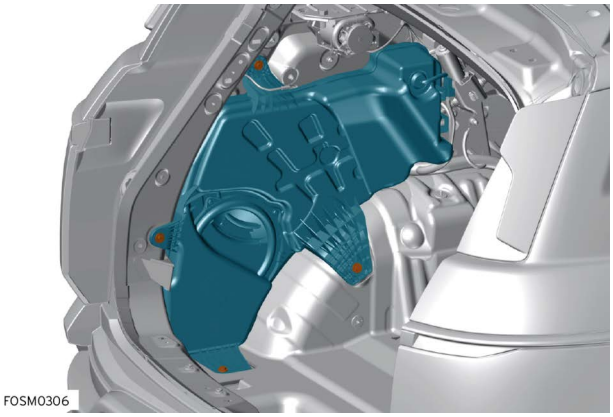
1. Remove LH rear compartment lower trim. Refer to Trim - Rear Compartment - Lower - LH.




2. Remove M6x20 Torx screws (x8) securing trim mounting bracket to chassis. **Torque 5 Nm.**
3. Pass seat belt through slot in trim mounting bracket.
4. Remove trim mounting bracket.




5. Disconnect harness connector from subwoofer.




6. Remove bolts (x4) securing subwoofer to chassis. **Torque 5 Nm.**
7. Remove subwoofer.

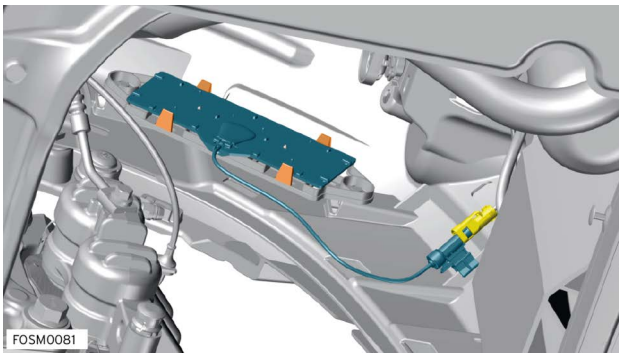
**Installation**

1. Installation is the reverse of the removal procedure.

## 5G Antenna - Exterior

### Removal

1. Remove front fender liner. Refer to Fender Liner - Front - LH.




2. Disconnect harness connector from 5G antenna.
3. Release clips (x4) securing 5G antenna to front fender.
4. Remove 5G antenna.

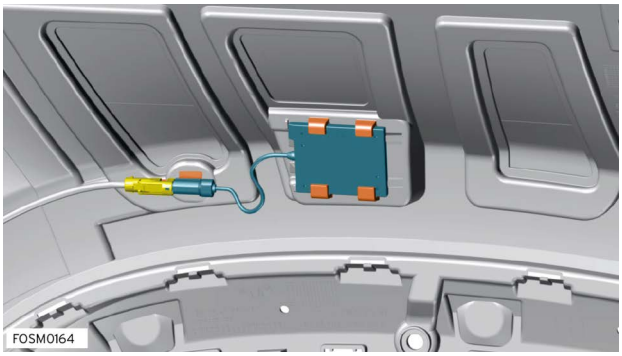
### Installation

1. Installation is the reverse of the removal procedure.

## Wi-Fi Antenna - Rear

### Removal

1. Remove rear fender. Refer to Fender - LH.




2. Disconnect harness connector from Wi-Fi antenna.
3. Release clips (x5) securing Wi-Fi antenna to rear fender.
4. Remove Wi-Fi antenna.

### Installation

1. Installation is the reverse of the removal procedure.

## Wi-Fi Antenna - Front

### Removal

1. Remove RH front fender.




2. Release upper clip securing Wi-Fi antenna to front fender.
3. Remove Wi-Fi antenna.

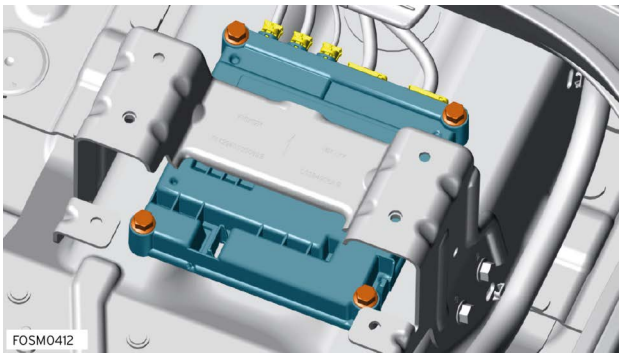
### Installation

1. Installation is the reverse of the removal procedure.

## Module - Telematics

### Removal

1. Remove second row footwell duct. Refer to Floor Duct - Second Row Footwell.




2. Disconnect harness connectors (x5) from telematics module.
3. Remove M6x35 bolts (x4) securing telematics module to vehicle. **Torque 5 Nm.**
4. Remove telematic module.

### Installation

1. Installation is the reverse of removal procedure except for the following:
2. After installation perform the programming/calibration procedure using the Fisker Aftersales Service Tool. Check functionality of telematics afterwards to ensure IMEI has been activated.

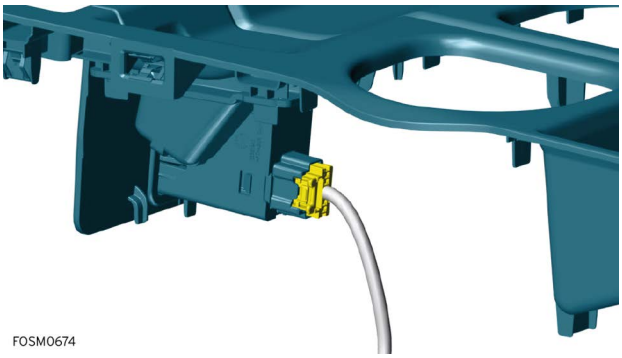
## USB Outlet - Front

### Removal

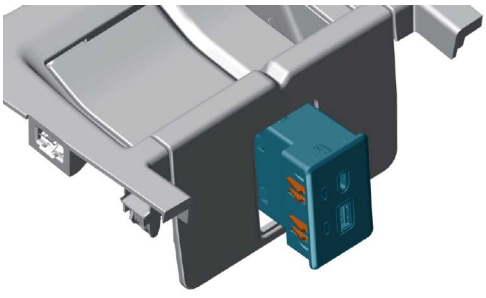
1. Open armrest.




2. Release clips (x13) securing upper panel assembly to floor console assembly.




3. Disconnect harness connector from front USB outlet.
4. Remove upper panel assembly.




5. Release clips (x4) securing front USB outlet to upper panel.
6. Remove front USB outlet.

### Installation

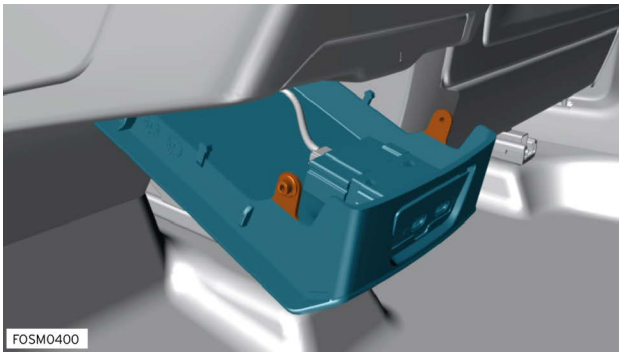
1. Installation is the reverse of removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*

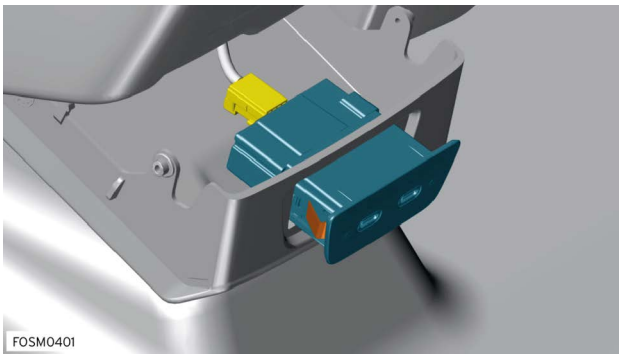
## USB Outlet - Rear

### Removal

1. Pull down rear USB panel.




2. Release hinges (x2) securing rear USB panel to floor console.




3. Disconnect harness connector from rear USB outlet.
4. Release clips (x2) securing rear USB outlet to rear USB panel.
5. Remove rear USB outlet.

### Installation

1. Installation is the reverse of removal procedure.

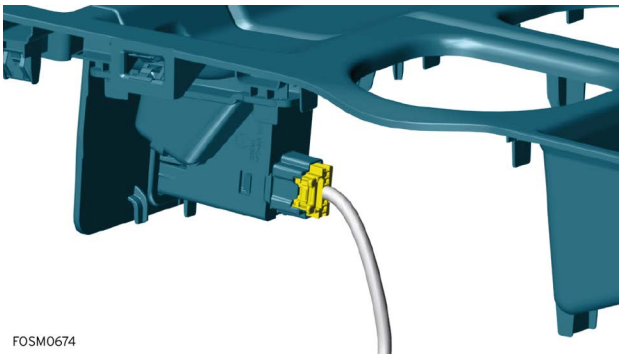
## Module - Wireless Charging

### Removal

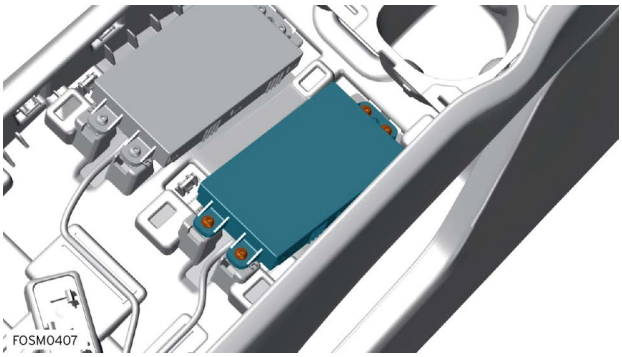
1. Open armrest.



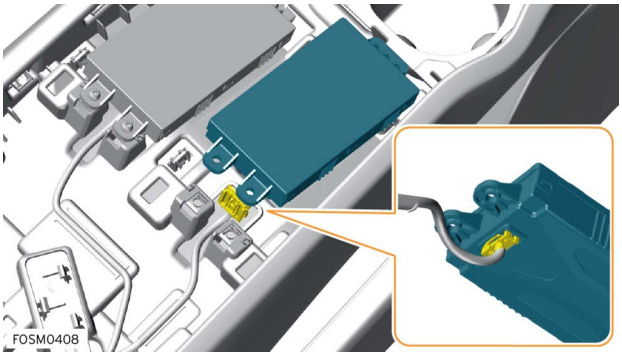

2. Release clips (x13) securing upper panel assembly to floor console assembly.




3. Disconnect harness connector from front USB outlet.
4. Remove upper panel assembly.




5. Remove Torx screws (x4) securing wireless charging module to floor console assembly. **Torque 1.6 Nm**.




6. Disconnect harness connector from wireless charging module.
7. Remove wireless charging module.

### Installation

1. Installation is the reverse of removal procedure except for the following:

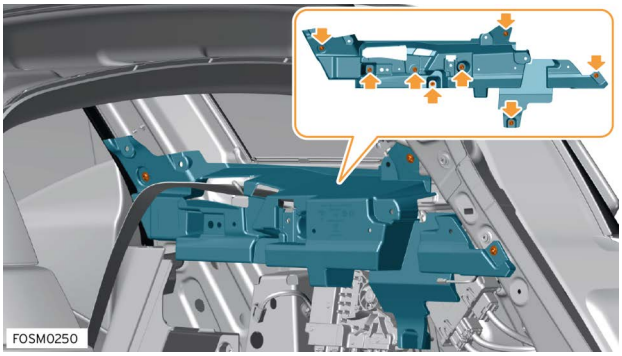
   *NOTE: Inspect clips for damage and replace if necessary.*

2. After installation perform programming using the Fisker Aftersales Service Tool and perform a function check.

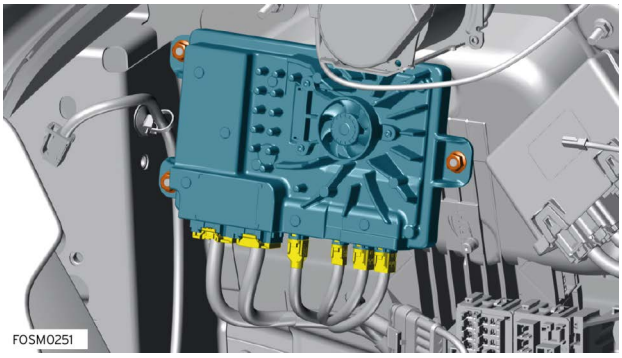
## Control Unit - ADAS

### Removal

1. Disconnect 12V battery. Refer to Battery Disconnect - 12V.
2. Remove RH rear compartment lower trim. Refer to Trim - Rear Compartment - Lower - LH.




3. Remove M6x20 Torx screws (x8) securing trim mounting bracket. **Torque 5 Nm.**
4. Remove trim mounting bracket.




5. Disconnect harness connectors (x6) from ADAS control unit.
6. Remove M6 nuts (x3) securing ADAS control unit to body.**Torque 9 Nm.**
7. Remove ADAS control unit.

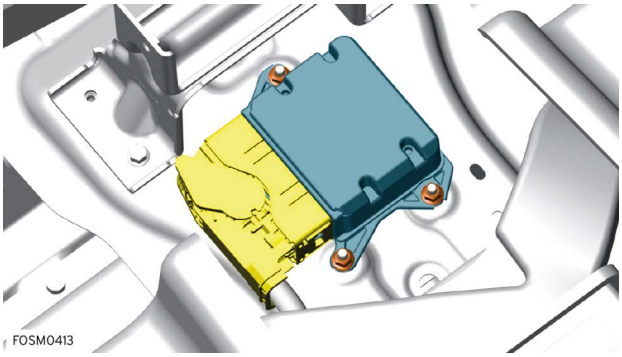
### Installation

1. Installation is the reverse of the removal procedure except for the following:
2. After installation perform the programming/calibration procedure using the Fisker Aftersales Service Tool.

## Control Unit - Airbag

### Removal

1. Disconnect 12V battery. Refer to Battery Disconnect - 12V.
2. Remove rear carpet. Refer to Carpet - Rear.




3. Disconnect harness connector from airbag control unit.
4. Remove nuts (x3) securing airbag control unit to vehicle. **Torque 5 Nm.**
5. Remove airbag control unit.

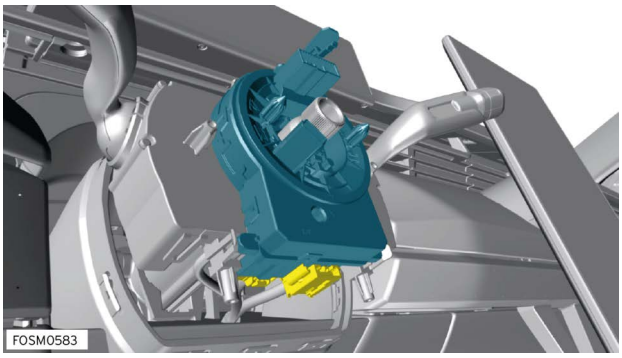
### Installation

1. Installation is the reverse of removal procedure except for the following:
2. After installation perform the programming/calibration procedure using the Fisker Aftersales Service Tool.

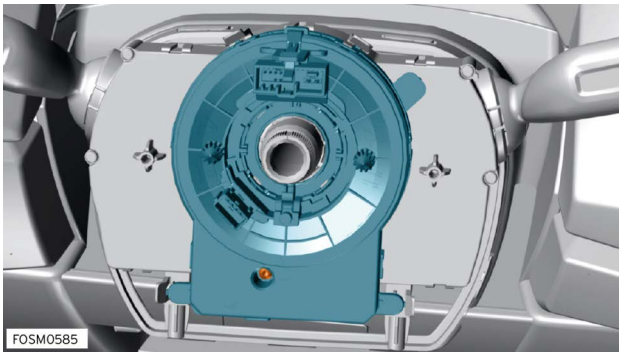
## Clock Spring

### Removal

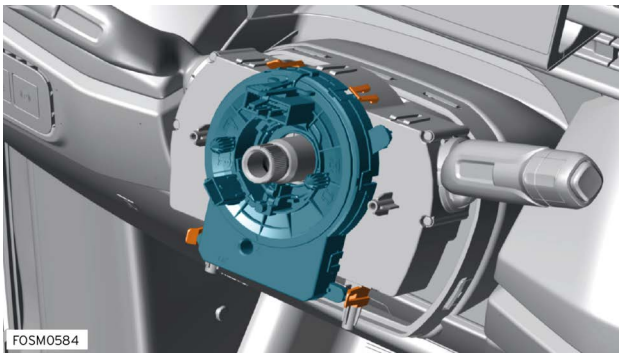
1. Remove lower column shroud. Refer to Column Shroud - Lower.




2. Disconnect harness connectors (x2) from clock spring.




3. Remove screw securing clock spring to integrated column switch module. **Torque 0.7 Nm.**




4. Release clips (x4) securing clock spring to multi-function switch housing.
5. Remove clock spring.

### Installation

1. Installation is the reverse of removal procedure.

   *NOTE: If installing a new clock spring, do not remove the alignment clip until the steering wheel has been installed.*

## Ultrasonic Sensor PDC - Front

### Removal

1. Remove front bumper assembly. Refer to Bumper Assembly - Front.




2. Disconnect harness connector from ultrasonic sensor.
3. Release clips (x2) securing ultrasonic sensor to front bumper assembly.
4. Remove ultrasonic sensor.

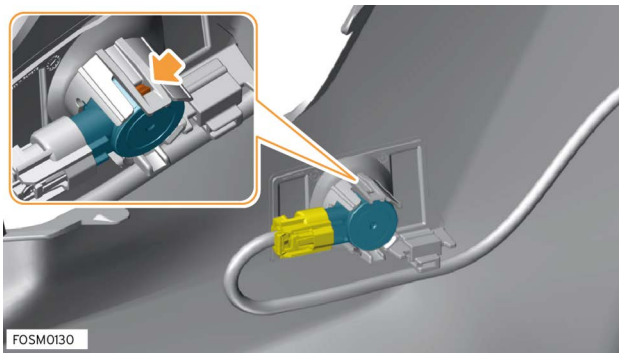
### Installation

1. Installation is the reverse of the removal procedure.

## Ultrasonic Sensor PDC - Rear

### Removal

1. Remove rear bumper assembly. Refer to Bumper Assembly - Rear.




2. Disconnect harness connector from ultrasonic sensor.
3. Release clips (x2) securing ultrasonic sensor to rear bumper assembly.
4. Remove ultrasonic sensor.

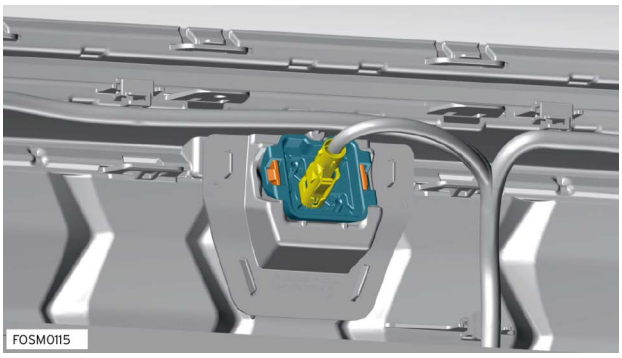
### Installation

1. Installation is the reverse of the removal procedure.

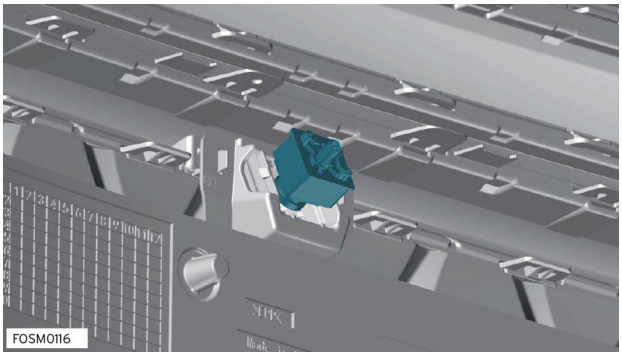
## Surround View Camera - Front

### Removal

1. Remove front bumper assembly. Refer to Bumper Assembly - Front.




2. Disconnect harness connector from front camera.
3. Release clips (x2) securing front camera bracket to front bumper assembly.
4. Remove front camera bracket.




5. Remove front camera.

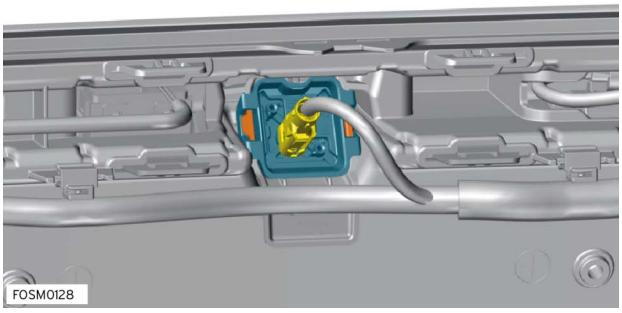
### Installation

1. Installation is the reverse of the removal procedure except for the following:
2. After installation perform the programming/calibration procedure using the Fisker Aftersales Service Tool.

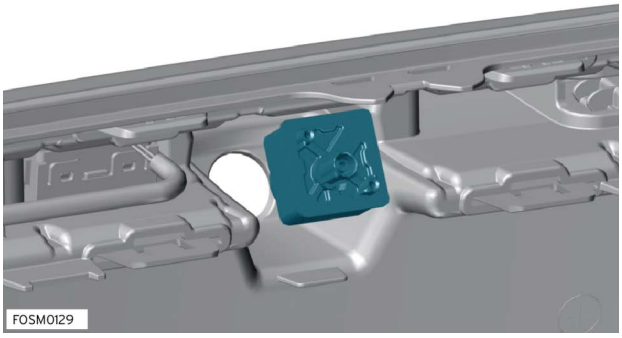
## Surround View Camera - Rear

### Removal

1. Remove rear bumper assembly. Refer to Bumper Assembly - Rear.




2. Disconnect harness connector from rear camera.
3. Release clips (x2) securing rear camera bracket to rear bumper assembly.
4. Remove rear camera bracket.




5. Remove rear camera.

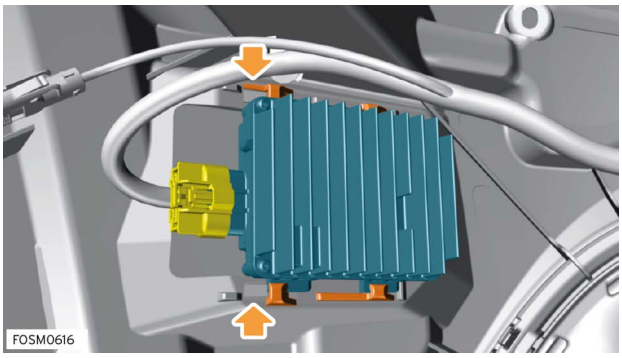
### Installation

1. Installation is the reverse of the removal procedure except for the following:
2. After installation perform the calibration procedure using the Fisker Aftersales Service Tool.

## Mid Range Radar - Front - LH

### Removal

1. Remove front fender liner. Refer to Fender Liner - Front - LH.




2. Disconnect harness connection from mid range radar.
3. Depress tabs (x2) (arrowed) and slide mid range radar left to release from clips (x4) securing mid range radar to front fender.
4. Remove mid range radar.

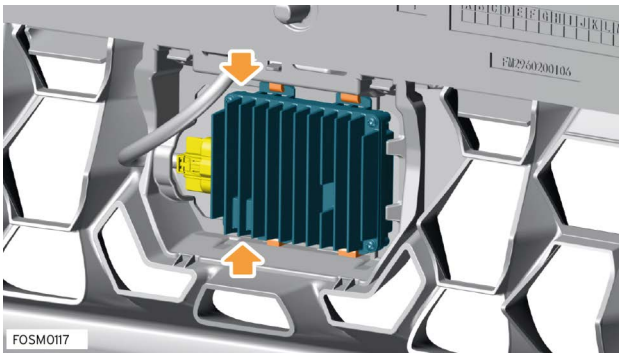
### Installation

1. Installation is the reverse of the removal procedure except for the following:
2. After installation perform the programming/calibration procedure using the Fisker Aftersales Service Tool.

## Mid Range Radar - Front - Center

### Removal

1. Remove front bumper assembly. Refer to Bumper Assembly - Front.




2. Disconnect harness connector from mid range radar.
3. Depress tabs (x2) (arrowed) and slide mid range radar left to release from clips (x4) securing mid range radar to front bumper assembly.
4. Remove mid range radar.

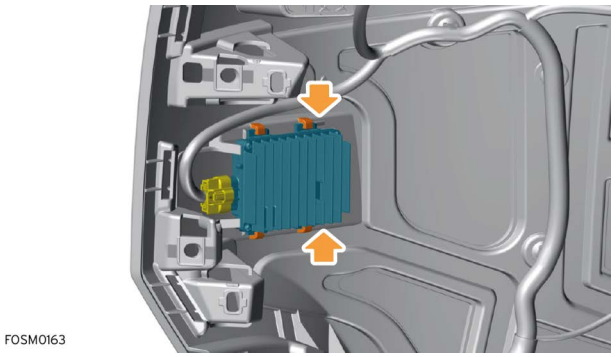
### Installation

1. Installation is the reverse of the removal procedure except for the following:
2. After installation perform the programming/calibration procedure using the Fisker Aftersales Service Tool.

## Mid Range Radar - Rear - LH

### Removal

1. Remove rear fender. Refer to Fender - LH.



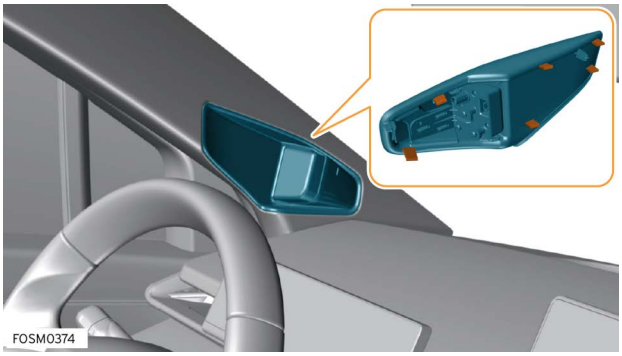

2. Disconnect harness connector from mid range radar.
3. Depress tabs (x2) (arrowed) and slide mid range radar right to release from clips (x4) securing mid range radar to rear fender.
4. Remove mid range radar.

### Installation

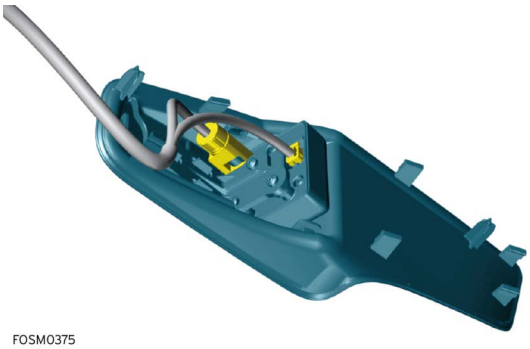
1. Installation is the reverse of the removal procedure except for the following:
2. After installation perform the programming/calibration procedure using the Fisker Aftersales Service Tool.

## Camera - Driver Recognition

### Removal




1. Carefully pull camera bezel trim to release clips (x6) securing bezel trim to A pillar trim.

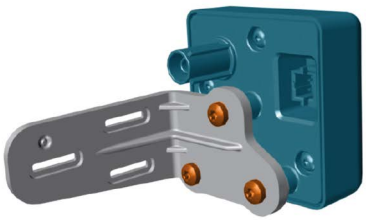



2. Disconnect electrical harness (x2) from camera.




3. Release clips (x3) securing camera and bracket to bezel trim.
4. Remove camera and bracket.

***Do not carry out further disassembly if component is removed for access only.***




5. Remove M2.5x8 screws (x3) securing camera to bracket. **Torque 1 Nm.**
6. Remove camera.

### Installation

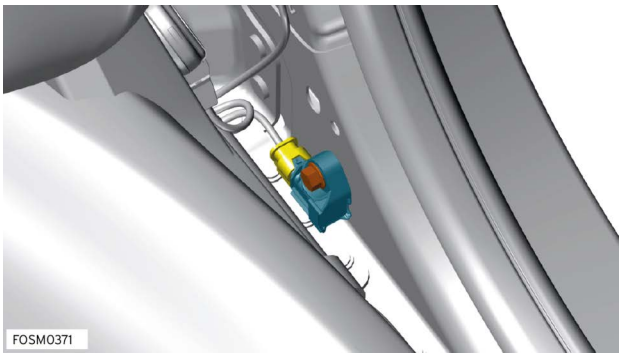
1. Installation is the reverse of removal procedure except for the following:

   *NOTE: Inspect clips for damage and replace if necessary.*

## Remote Sensor Unit - LH

### Removal

1. Remove B pillar lower trim. Refer to Trim - B Pillar - Lower- LH.




2. Disconnect harness connector from remote sensor unit.
3. Remove M6x20 bolt securing remote sensor unit to chassis. **Torque 9 Nm.**
4. Remove remote sensor unit.

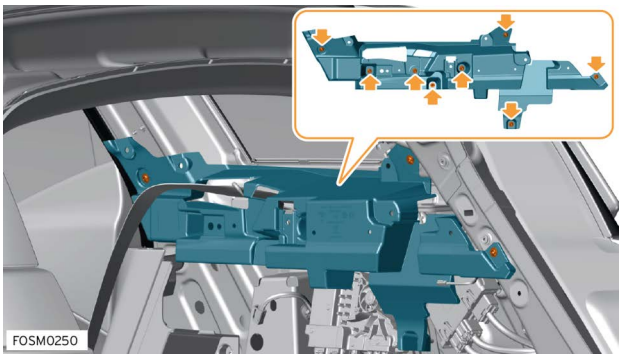
### Installation

1. Installation is the reverse of the removal procedure.

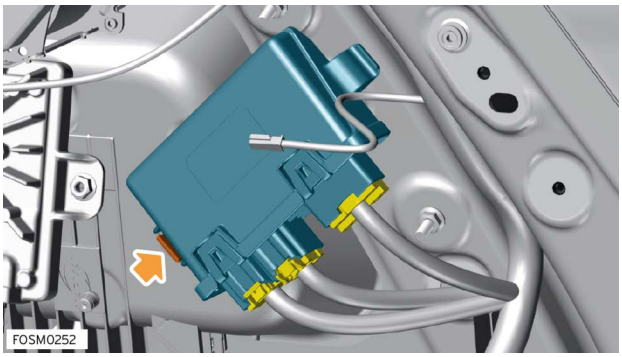
## Power Liftgate Module

### Removal

1. Remove RH rear compartment lower trim. Refer to Trim - Rear Compartment - Lower - LH.




2. Remove M6x20 Torx screws (x8) securing trim mounting bracket. **Torque 5 Nm.**
3. Remove trim mounting bracket.




4. Disconnect harness connectors (x3) from power liftgate module.
5. Release clip on left side securing power liftgate module to chassis.
6. Rotate power liftgate module forwards to release clip on right side.
7. Remove power liftgate module.

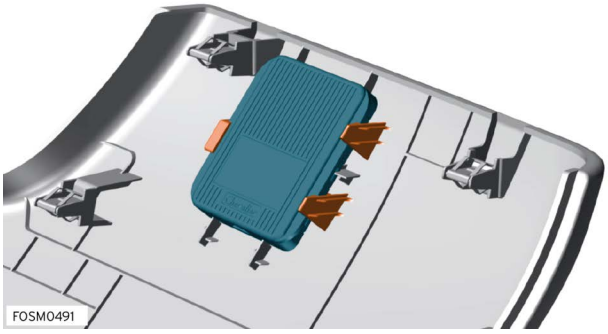
### Installation

1. Installation is the reverse of the removal procedure except for the following:
2. After installation perform the programming/calibration procedure using the Fisker Aftersales Service Tool.

## NFC Module

### Removal

1. Remove lower driver trim panel. Refer to Trim - Lower - Driver.




2. Release clips (x3) securing NFC module to trim panel.
3. Remove NFC module.

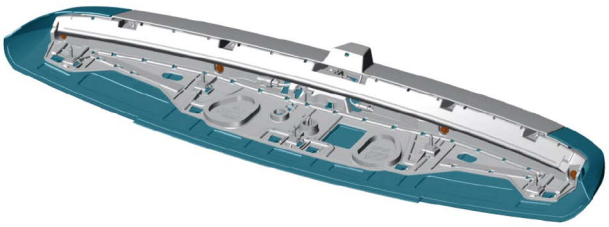
### Installation

1. Installation is the reverse of the removal procedure except for the following:
2. After installation perform the programming/calibration procedure using the Fisker Aftersales Service Tool.

## Camera - Interior - Rear View Mirror

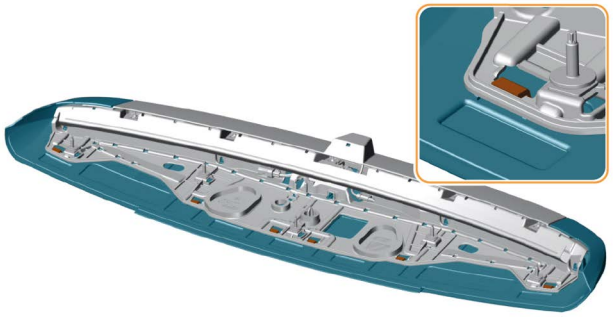
### Removal

1. Remove rear spoiler. Refer to Spoiler - Rear.



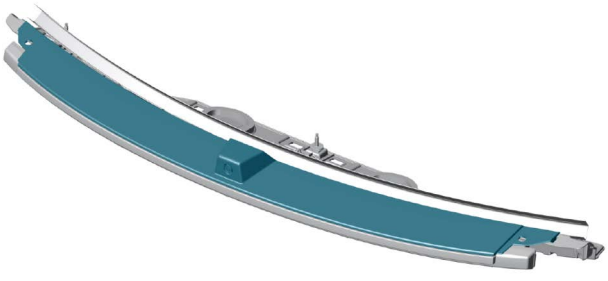
FOSM0670

2. Remove M5x20 bolts (x4) securing spoiler upper panel to spoiler reinforcement panel. **Torque 2 Nm.**



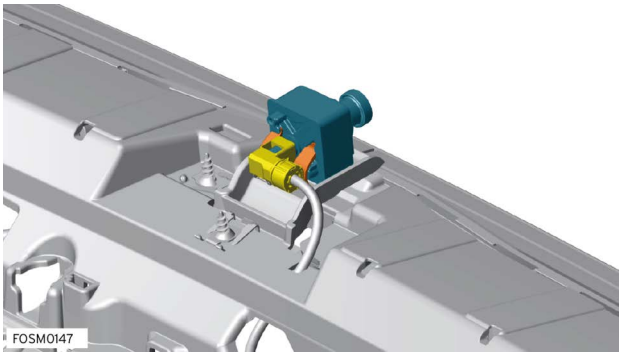
FOSM0671

3. Release clips (x6) securing spoiler upper panel to spoiler reinforcement panel.
4. Remove spoiler upper panel.



FOSM0672

5. Remove spoiler lower panel.



FOSM0147

6. Disconnect harness connector from camera interior rear view mirror.
7. Release clips (x2) securing camera interior rear view mirror to spoiler reinforcement panel.
8. Remove camera interior rear view mirror.

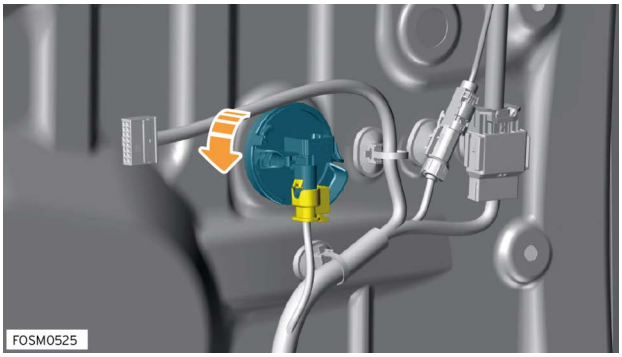
### Installation

1. Installation is the reverse of the removal procedure except for the following:
2. After installation perform a system function test.

## Sensor - Door Pressure - Front - LH

### Removal

1. Disconnect 12V battery. Refer to Battery Disconnect - 12V.
2. Remove front door trim. Refer to Trim - Door - Front - LH.




3. Disconnect harness connector from door pressure sensor.
4. Rotate door pressure sensor counterclockwise to release from front door.
5. Remove door pressure sensor.

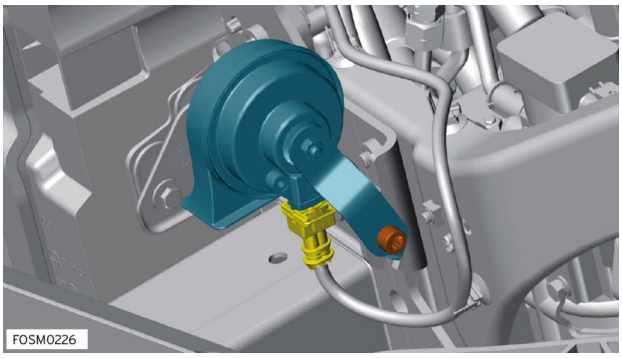
### Installation

1. Installation is the reverse of the removal procedure.

## Horn - LH

### Removal

1. Remove front LH fender. Refer to Fender - LH.




2. Disconnect electrical harness from horn.
3. Remove M8x25 bolt securing horn to chassis. **Torque 13 Nm**.
4. Remove horn.

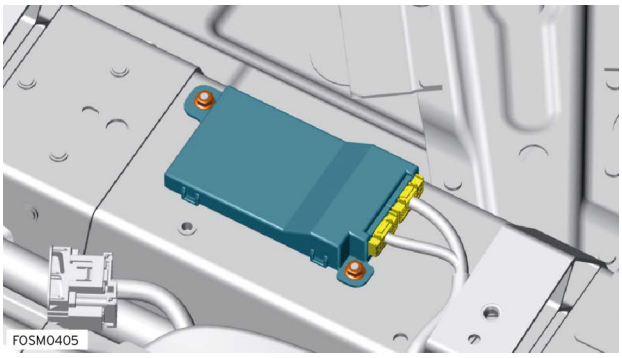
### Installation

1. Installation is the reverse of removal procedure.

## Driver Seat Memory Controller (DSMC)

### Removal

1. Remove LH front carpet. Refer to Carpet - Front - LH.



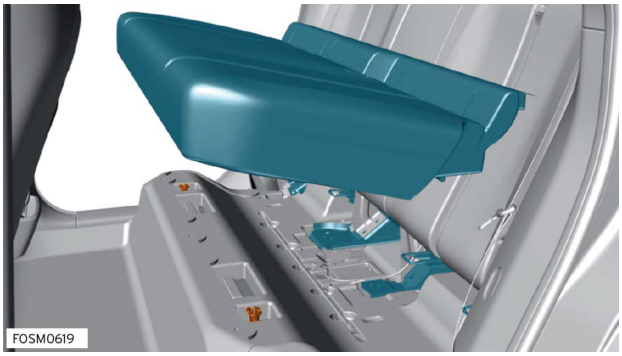

2. Disconnect harness connector from driver seat memory controller (DSMC).
3. Remove M6 nuts (x2) securing driver seat memory controller to vehicle. **Torque 9 Nm.**
4. Remove driver seat memory controller.

### Installation

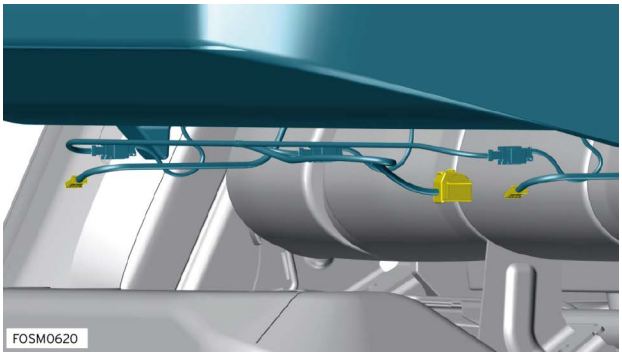
1. Installation is the reverse of removal procedure.
2. After installation perform the programming/calibration procedure using the Fisker Aftersales Service Tool.

## Module - Seat Heating - Rear

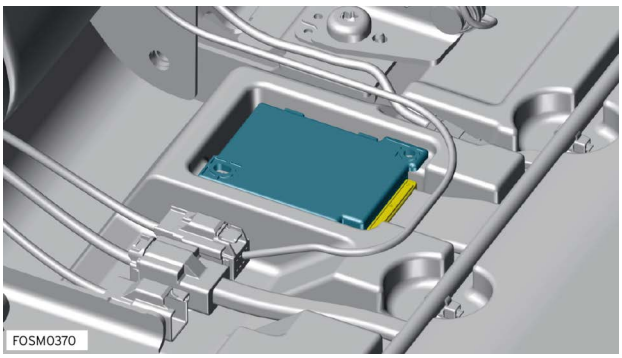
### Removal




1. Release second row seat base cushion from cushion clips (x2) securing seat base cushion to seat base.
2. Release second row seat base cushion from rear seat crossbar.




3. Disconnect harness connectors (x3) from second row seat base cushion.
4. Using assistance, remove second row seat base cushion.




5. Disconnect harness connector from rear seat heating module.
6. Remove rear seat heating module.

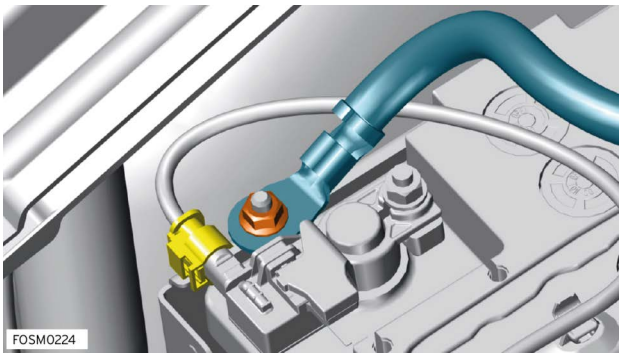
**Installation**

1. Installation is the reverse of removal procedure except for the following:
2. After installation perform the programming/calibration procedure using the Fisker Aftersales Service Tool.

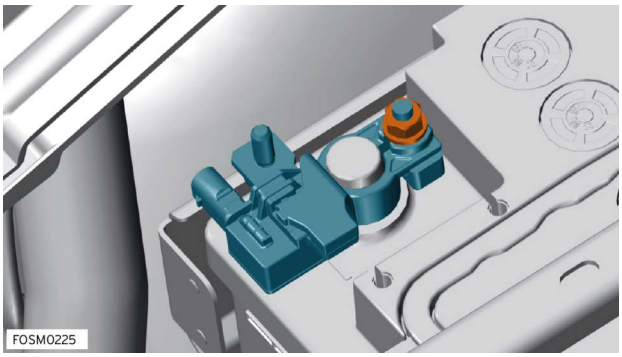
## Sensor - Intelligent Battery (IBS)

### Removal

1. Disconnect 12V battery. Refer to Battery Disconnect - 12V.




2. Disconnect harness connector from IBS.
3. Remove M6 nut securing negative (-) battery cable from IBS. **Torque 5 Nm.**
4. Release battery cable from IBS.




5. Loosen M6 nut securing IBS to battery terminal. **Torque 4 Nm.**
6. Remove IBS.

### Installation

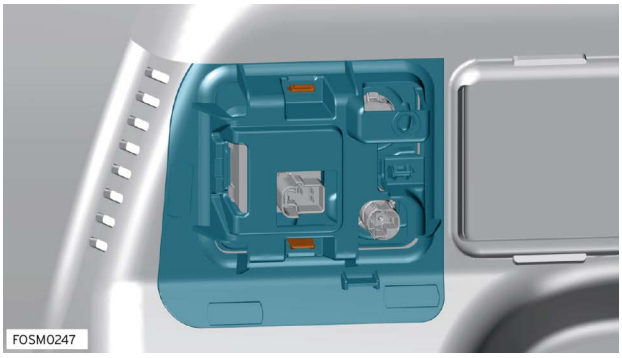
1. Installation is the reverse of removal procedure.

## Power Socket - 12V

### Removal

1. Disconnect 12V battery. Refer to Battery Disconnect - 12V.

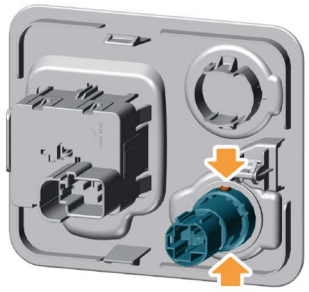



2. Release clips (x2) securing socket bezel to rear compartment lower trim.




3. Disconnect harness connectors (x2) from power sockets.
4. Remove socket bezel.



FOSM0249

5. Release clips (x2) securing power socket 12V to socket bezel.
6. Remove power socket 12V

### Installation

1. Installation is the reverse of the removal procedure.

## Power Socket - 220V

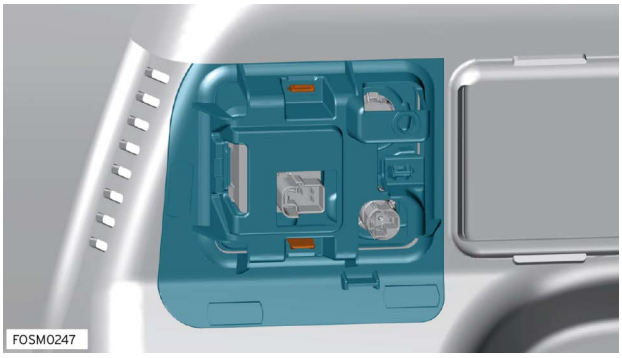
### Removal

1. Deactivate the high voltage system. Refer to Deactivate/Activate - High Voltage Battery System.

**WARNING: High-voltage cables and components may remain energized for up to 5 minutes after isolating.**



FOSM0719



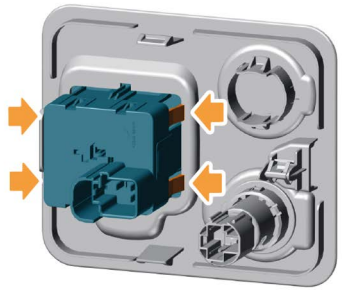
FOSM0247

2. Release clips (x2) securing socket bezel to rear compartment lower trim.



FOSM0720

3. Disconnect harness connectors (x2) from power sockets.
4. Remove socket bezel.



FOSM0248

5. Release clips (x4) securing power socket 220V to socket bezel.
6. Remove power socket 220V.

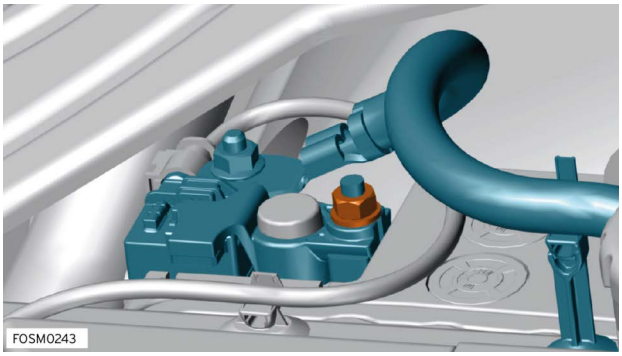
**Installation**

1. Installation is the reverse of the removal procedure.

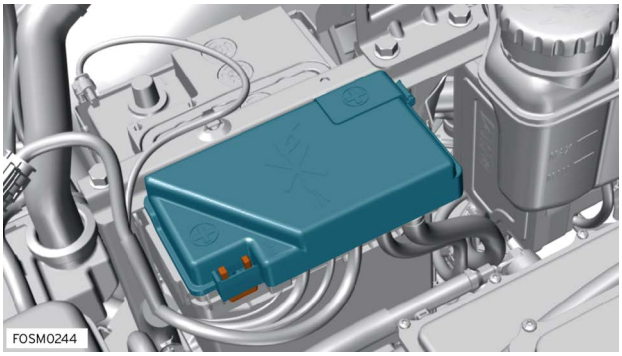
## Battery Disconnect - 12V

### Disconnection

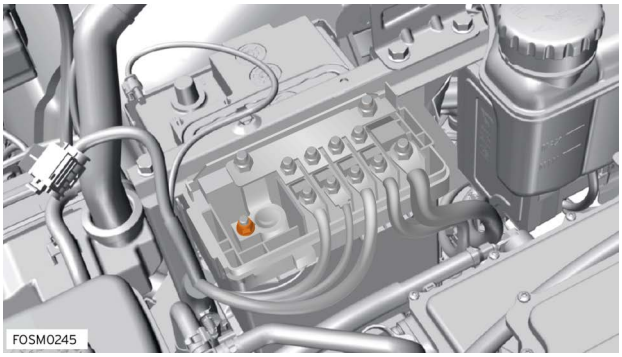
1. Open hood. Refer to Open Hood.



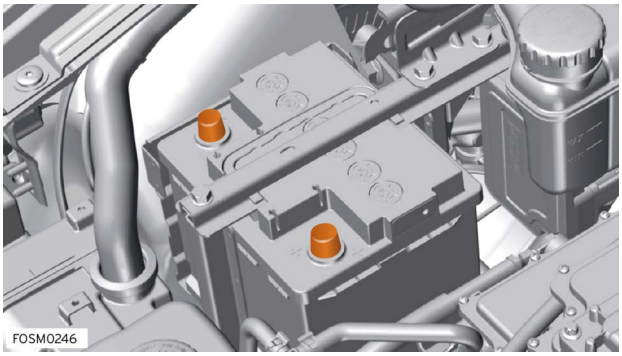

2. Loosen nut securing negative (-) electrical terminal to battery. **Torque 4 Nm**.
3. Disconnect electrical terminal from battery and position aside.




4. Release clips (x3) and open busbar box lid.




5. Loosen nut securing positive (+) terminal to battery. **Torque 5 Nm.**
6. Release busbar box from battery and position aside.




7. Install insulated caps to battery terminals to prevent accidental connection of electrical terminals.

### Connection

1. Battery connection is the reverse of the procedure for disconnection except for the following:

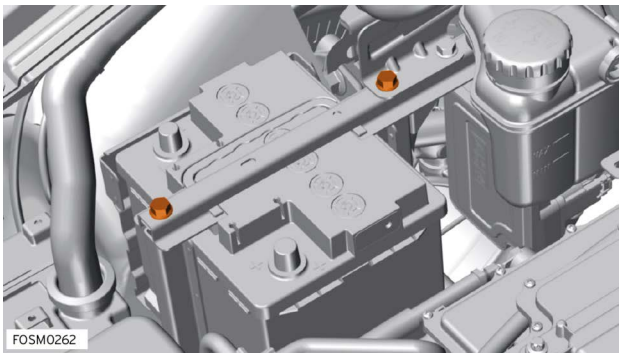
   *NOTE: Clean battery terminals and apply battery terminal grease to prevent corrosion.*

2. After installation perform the window and sunroof programming/calibration procedures and delete DTC's using the Fisker Aftersales Service Tool.

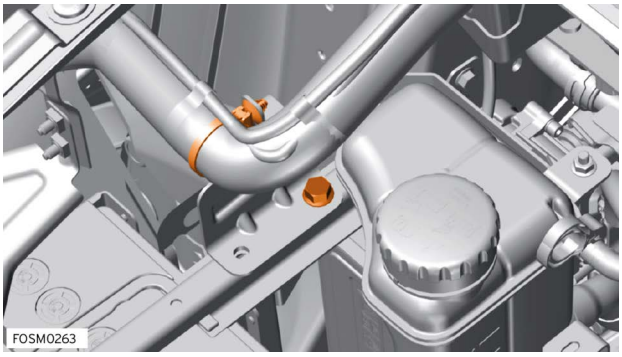
## Battery - 12V

### Removal

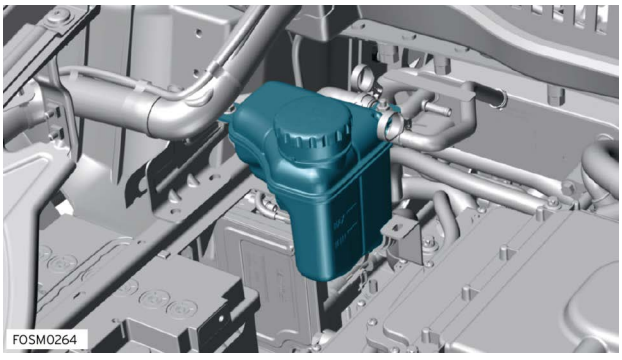
1. Disconnect 12V battery. Refer to Battery Disconnect - 12V.



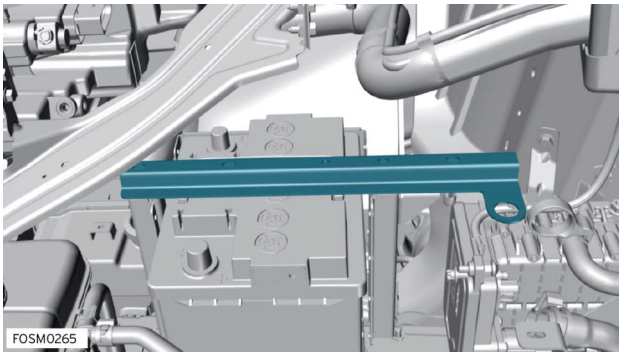

2. Remove M8x40 bolts (x2) securing battery bracket. **Torque 5 Nm.**



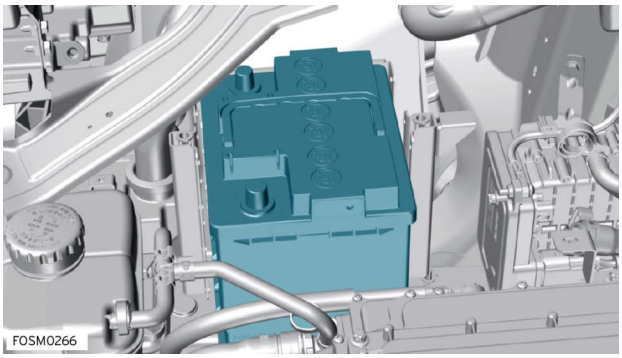

3. Remove M8x40 bolt securing battery bracket. **Torque 5 Nm.**
4. Release clip securing filler pipe to surge tank bracket.




5. Release surge tank from battery bracket and move aside.




6. Remove battery bracket.




7. Remove battery.

### Installation

1. Installation is the reverse of removal procedure except for the following:
2. After installation perform the battery registration procedure using the Fisker Aftersales Service Tool.