

Uni-Body, Subframe and Mounting System -

Description	Nm	lb-ft
Front subframe to body bolts*	140 + 240°	103 + 240°
Front subframe cross brace bolts*	45	33
Rear subframe bolts*	175	129
Trailing arm to body bracket bolts*	110	81

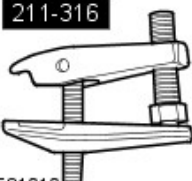
*** New nuts/ bolts must be fitted**

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Uni-Body, Subframe and Mounting System - Front Subframe

Removal and Installation

Special Tool(s)

 211-316 Separator, Ball Joint E81010	
 502-012 Alignment Pins, Subframe E118821	

General Equipment

Powertrain Jack

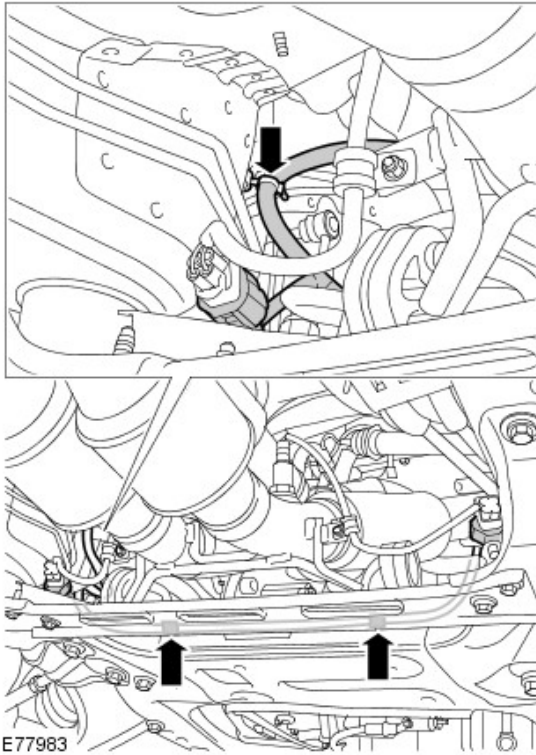
Removal

1.  **WARNING:** Make sure to support the vehicle with axle stands.
Raise and support the vehicle.
2. Siphon the fluid from the power steering reservoir.
3. Remove the front road wheels and tires.

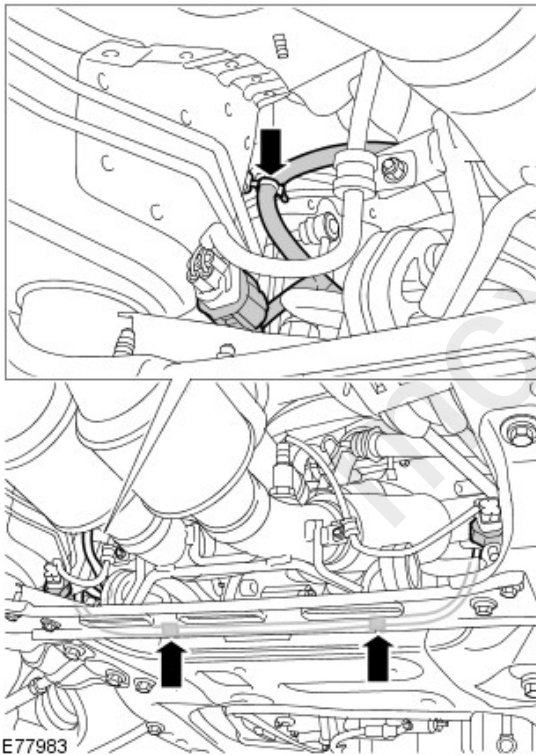
Refer to: [Wheel and Tire](#) (204-04 Wheels and Tires, Removal and Installation).
4. Remove the engine undershield.

Refer to: [Engine Undershield](#) (501-02 Front End Body Panels, Removal and Installation).
5. Disconnect the LH catalyst monitor sensor electrical connector.

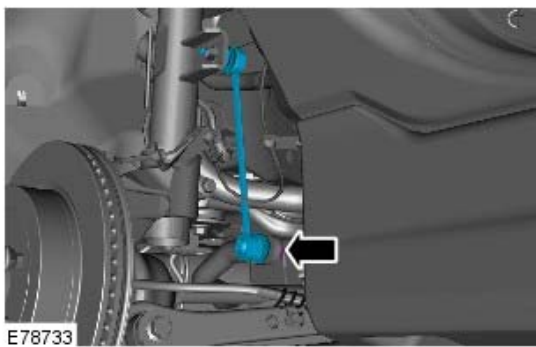
6. Disconnect the RH catalyst monitor sensor electrical connector.

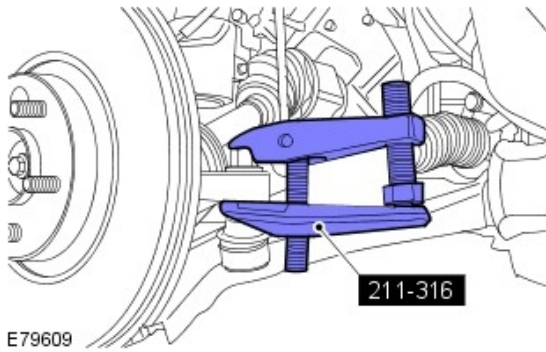


7. Release the catalyst monitor sensor wiring harness.



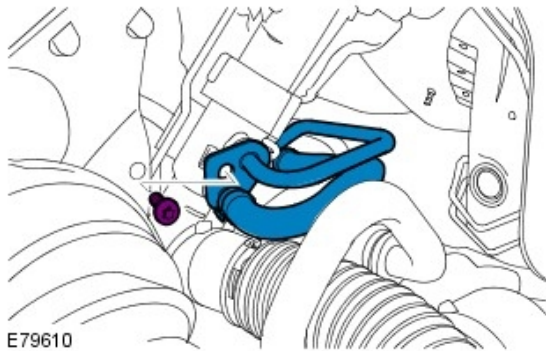
8.  **CAUTION:** Make sure that the ball joint ball does not rotate.
Disconnect both front stabilizer bar links from the lower suspension arm.



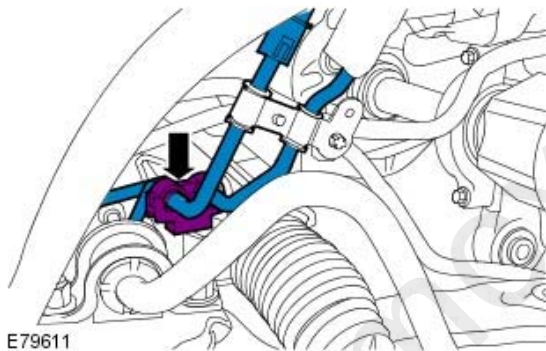


9. Using the special tool, release the LH and RH tie-rod end ball joints.

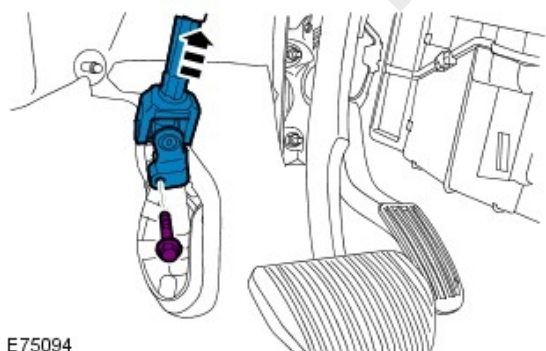
Special Tool(s): [211-316](#)



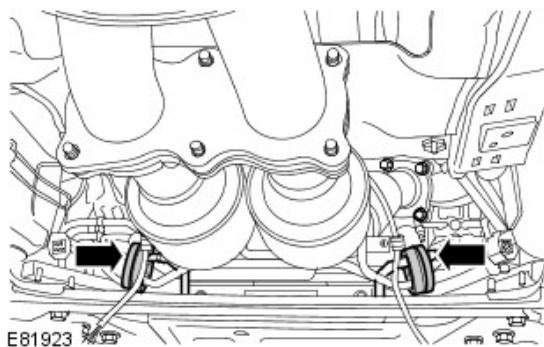
10. **10.**  **CAUTION:** Be prepared to collect escaping fluids.
 • **NOTE:** Make sure that all openings are sealed.
 Disconnect the pressure lines from the power steering gear.



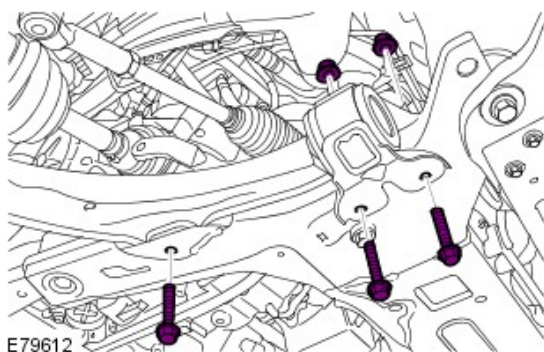
11. Release the PAS lines.



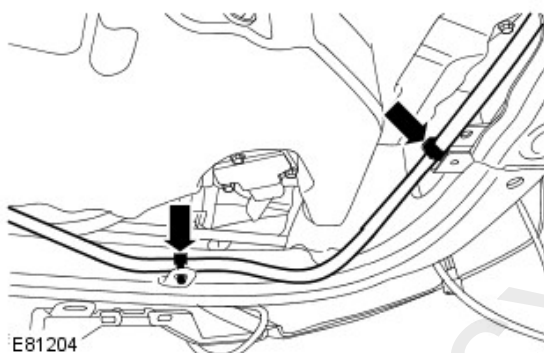
12. **12.**  **WARNING:** Make sure that a new steering column flexible coupling bolt is installed.
 Disconnect the lower steering column from the steering gear.



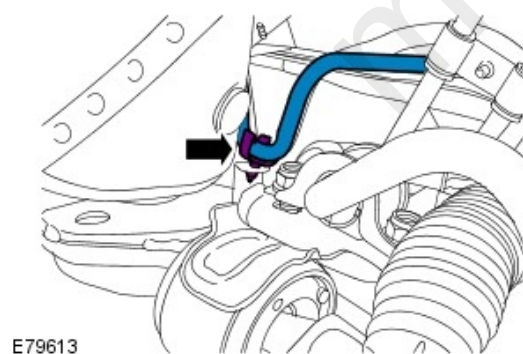
13. Release the downpipe catalytic converters.



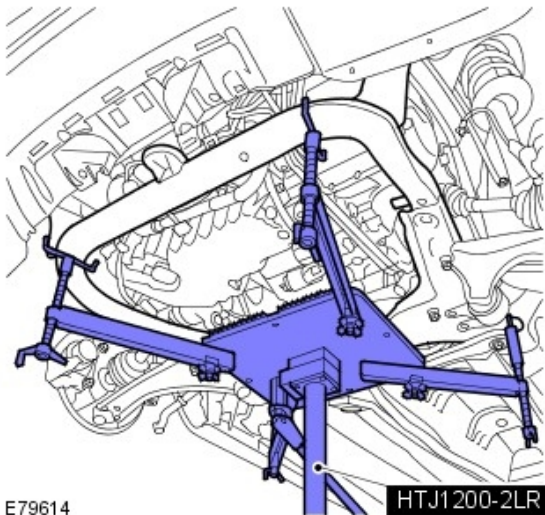
14. Release the LH and RH lower suspension arms.



15. Release the purge line from the subframe.



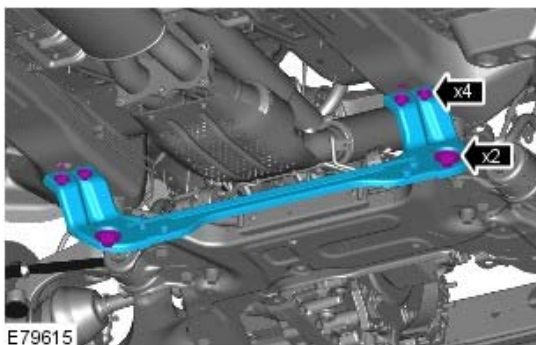
16. Release the fuel line.



E79614

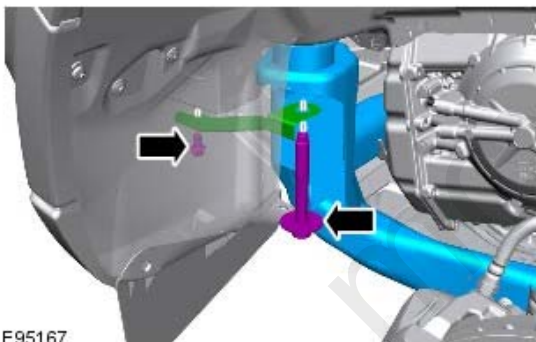
17. Support the subframe.

General Equipment: [Powertrain Jack](#)



E79615

18. **18.**  **CAUTION:** Make sure that new subframe bolts are installed.
Remove the front subframe cross-brace.



E95167

19. **19.** CAUTIONS:



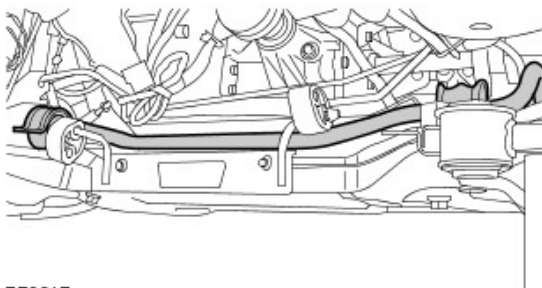
Mark the components to aid installation.



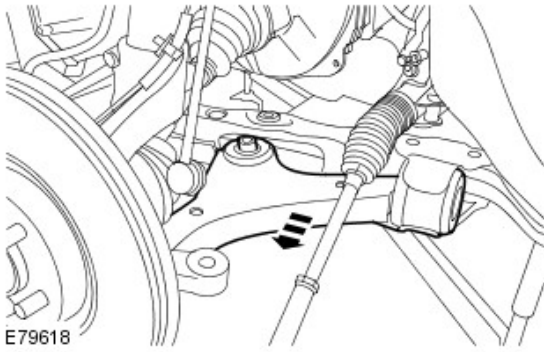
Make sure that new subframe bolts are installed.

Lower the front subframe assembly.

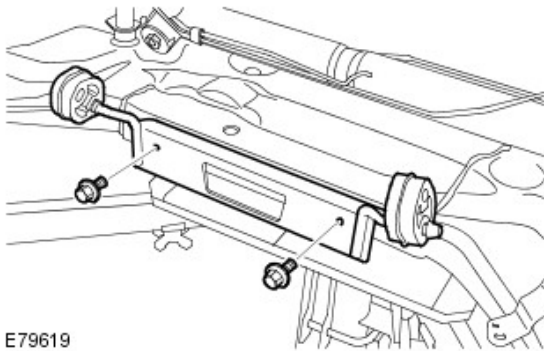
20. Remove the stabilizer bar.



E79617

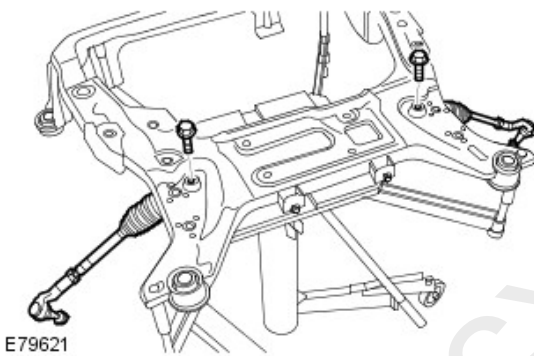


21. Release the LH and RH suspension arms, as the subframe is lowered, and tie them aside.



22. **22. NOTE: Do not disassemble further if the component is removed for access only.**

Remove the catalyst support bracket.



23. Remove the steering gear.

Installation

1. Install the steering gear.

Torque: 105 Nm

2. Using the special tool, support the subframe.

3. **3. CAUTION: Install all the bolts finger tight before final tightening.**

Raise the front subframe to allow installation of the suspension arms and the bolts.

4. Install the LH and RH suspension arms as the subframe is raised.

5. Install the stabilizer bar.

6. **6. CAUTION: Make sure that new bolts are installed.**

Install the subframe cross-brace.

Torque: 45 Nm

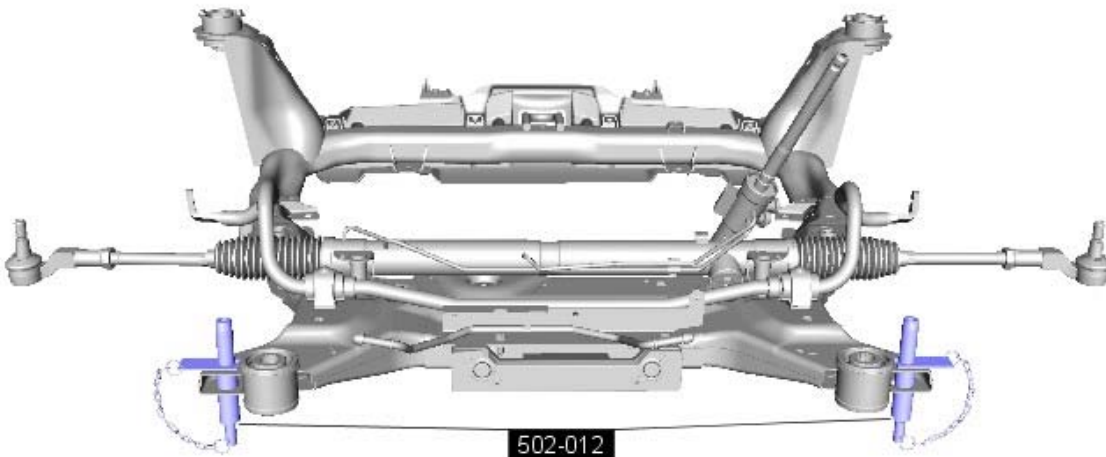
7. **7. CAUTION: Make sure that new bolts are installed.**

- Install the 2 support brackets.

Torque: 25 Nm

8. Install the front subframe.

Special Tool(s):
[502-012](#)
Torque:
 Stage 1:
 140 Nm
 Stage 2:
 240°



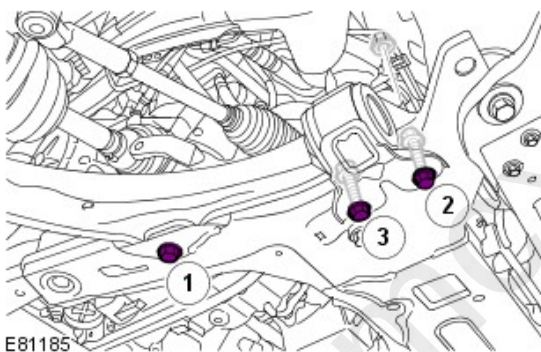
E133121

9. Install the catalyst support bracket.

Torque: 10 Nm

10. Install the fuel line.

11. Install the purge line.



E81185

- 12.

- Tighten bolt 1.

Torque:
 Stage 1: 140 Nm
 Stage 2: 45°

- Tighten bolt 2 to

Torque: 175 Nm
 • Tighten bolt 3 to

Torque: 175 Nm

13. Secure the catalytic converters.

14.  **WARNING:** Make sure that new nuts are installed.

Connect the LH and RH tie-rod end ball joints.

Torque: 105 Nm

15. Connect the steering gear pressure lines.

Torque: 25 Nm

16.  **WARNING:** Make sure that new nuts are installed.

 **CAUTION:** Make sure that the ball joint ball does not rotate.

Install the stabilizer link bar to the lower suspension arm, and tighten to 55 Nm (41 lb.ft)

17. Secure the electrical harness.

18.  **18. WARNING:** Make sure that a new steering column flexible coupling bolt is installed.

Connect the steering column to the steering gear.

Torque: 25 Nm

19. Connect and secure the catalyst monitor sensor electrical connectors.

20. Install the 2 subframe mounting bolts and remove the jack.

21. Install the engine undershield.

Refer to: [Engine Undershield](#) (501-02 Front End Body Panels, Removal and Installation).

22. Install the wheels and tires.

Refer to: [Wheel and Tire](#) (204-04 Wheels and Tires, Removal and Installation).

23. Refill and bleed the power steering.

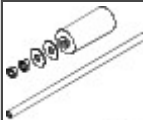
Refer to: [Power Steering System Bleeding](#) (211-00 Steering System - General Information, General Procedures).

24. Using only four wheel alignment equipment approved by Land Rover, check and adjust the wheel alignment.

Uni-Body, Subframe and Mounting System - Front Subframe Front Bushing

Removal and Installation

Special Tool(s)

 E75373	204-598 Hydraulic Cylinder 10t
 E73708	204-598-01 Remover/Installer, Subframe Bushing Guide

Removal

1. Remove the cover and disconnect the battery ground cable.

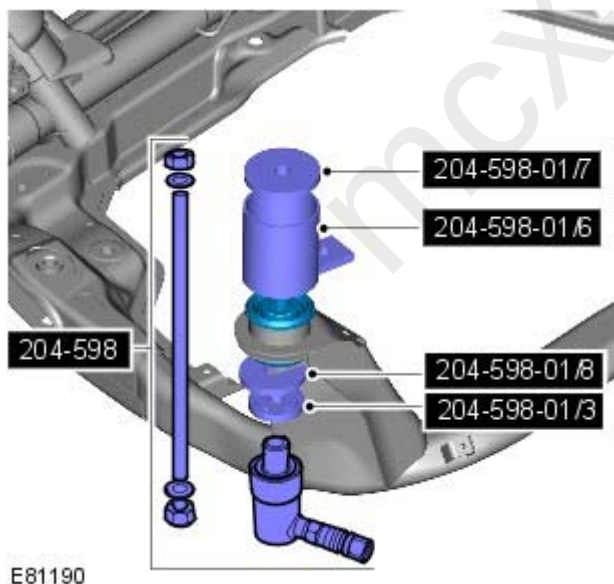
Refer to: [Specifications](#) (414-00 Battery and Charging System - General Information, Specifications).

2.  **WARNING:** Make sure to support the vehicle with axle stands.

Raise and support the vehicle.

3. Remove the front subframe assembly.

Refer to: [Front Subframe](#) (502-00 Uni-Body, Subframe and Mounting System, Removal and Installation).

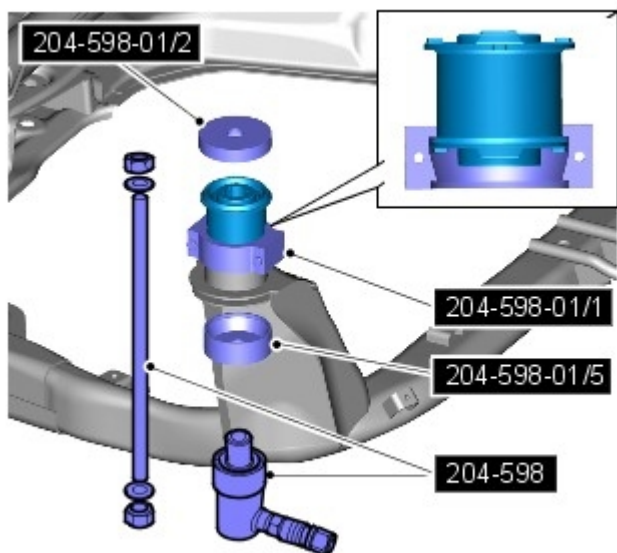


4.  **CAUTION:** Mark the components to aid installation.

- Remove the bushing.

- *Special Tool(s):* [204-598](#), [204-598-01](#)
- Special tool 204-598-01/8 is used to start the bushing removal process, and must be removed after the bushing has released, as it will not pass through the sub-frame bushing aperture.

Installation



E81189

1.  **CAUTION:** Make sure that the component aligns with the installation mark.

Install the bushing.

Special Tool(s): [204-598](#), [204-598-01](#)

2. Install the front subframe.

Refer to: [Front Subframe](#) (502-00 Uni-Body, Subframe and Mounting System, Removal and Installation).

3. Connect the battery ground cable and install the cover.

Refer to: [Specifications](#) (414-00 Battery and Charging System - General Information, Specifications).

Uni-Body, Subframe and Mounting System - Front Subframe Rear Bushing

Removal and Installation

Special Tool(s)

 E75373	204-598 Hydraulic Cylinder 10t
 E73708	204-598-01 Remover/Installer, Subframe Bushing Guide

Removal

1. Remove the cover and disconnect the battery ground cable.

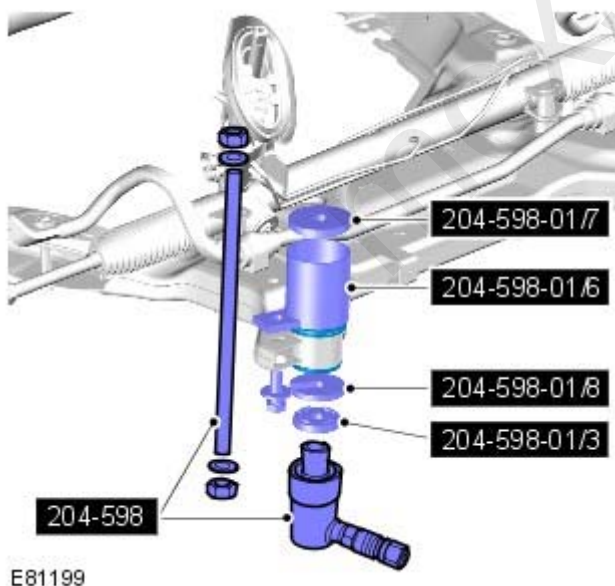
Refer to: [Specifications](#) (414-00 Battery and Charging System - General Information, Specifications).

2.  **WARNING:** Make sure to support the vehicle with axle stands.

Raise and support the vehicle.

3. Remove the front subframe assembly.

Refer to: [Front Subframe](#) (502-00 Uni-Body, Subframe and Mounting System, Removal and Installation).

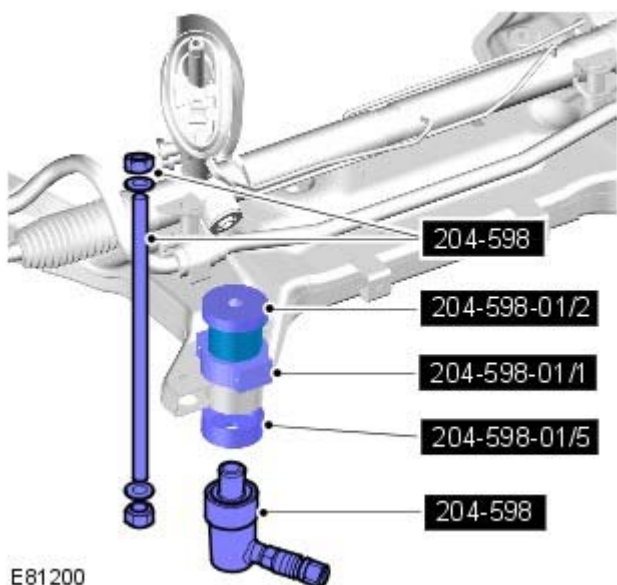


4.  **CAUTION:** Mark the components to aid installation.

- Special tool 204-598-01/8 is used to start the bushing removal process, and must be removed after the bushing has released, as it will not pass through the sub-frame bushing aperture.
- Remove the bushing.

Special Tool(s): [204-598](#), [204-598-01](#)

Installation



E81200

1.  **CAUTION:** Make sure that the component aligns with the installation mark.

Install the bushing.

Special Tool(s): [204-598](#), [204-598-01](#)

2. Install the front subframe.

Refer to: [Front Subframe](#) (502-00 Uni-Body, Subframe and Mounting System, Removal and Installation).

3. Connect the battery ground cable and install the cover.

Refer to: [Specifications](#) (414-00 Battery and Charging System - General Information, Specifications).

Uni-Body, Subframe and Mounting System - Rear Subframe

Removal and Installation

General Equipment

Powertrain Jack

Removal

1.



E73369

2. Remove the stowage compartment.

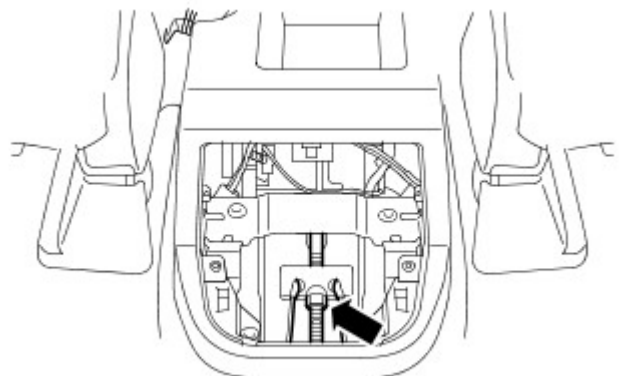


E73370

3. **3. NOTE:** Use an additional wrench to prevent the component from rotating.

Remove the adjusting nut and disconnect the front parking brake cable.

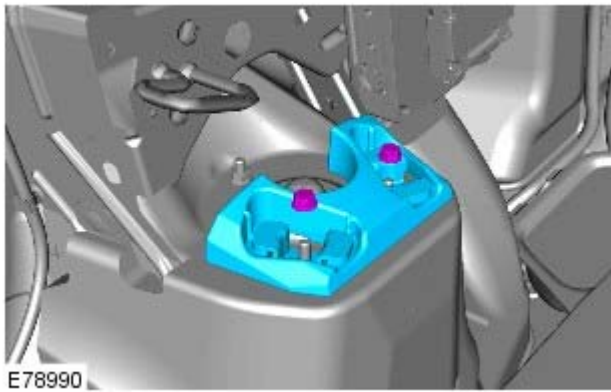
4. Release the rear parking brake cables and remove the compensator.



E80764

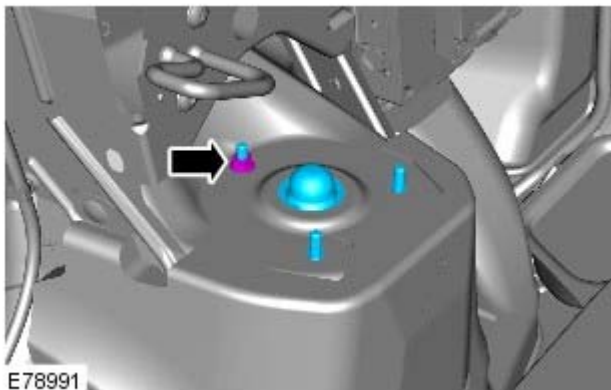
5. Remove the rear quarter trim panels.

Refer to: [Rear Quarter Trim Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).



6.

7. Repeat the above procedure on the opposite hand.



8.

9. Repeat the above procedure on the opposite hand.

10. **10.**  **WARNING:** Make sure to support the vehicle with axle stands.

Raise and support the vehicle.

11. Remove both rear wheels and tires.

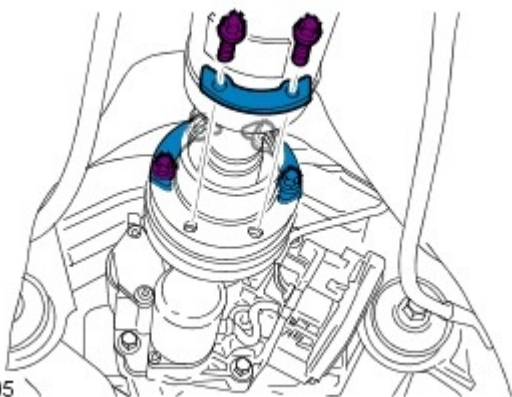
Refer to: [Wheel and Tire](#) (204-04 Wheels and Tires, Removal and Installation).

12. If installed, remove the rear suspension height sensor.

Refer to: [Rear Suspension Height Sensor](#) (204-05 Vehicle Dynamic Suspension, Removal and Installation).

13. Remove the rear muffler.

Refer to: [Exhaust System](#) (309-00B Exhaust System - TD4 2.2L Diesel, Removal and Installation).



14. **14. CAUTIONS:**

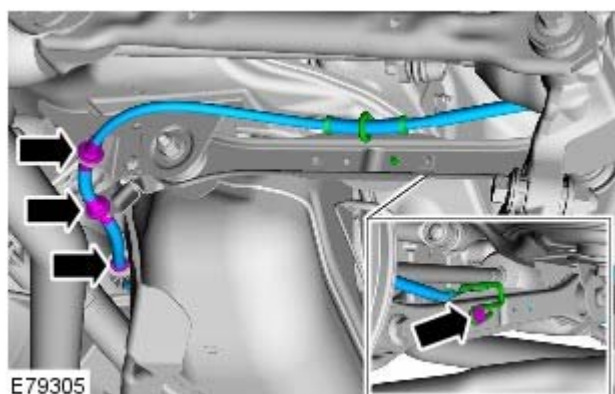


Mark the position of the driveshaft flange in relation to the drive pinion flange.



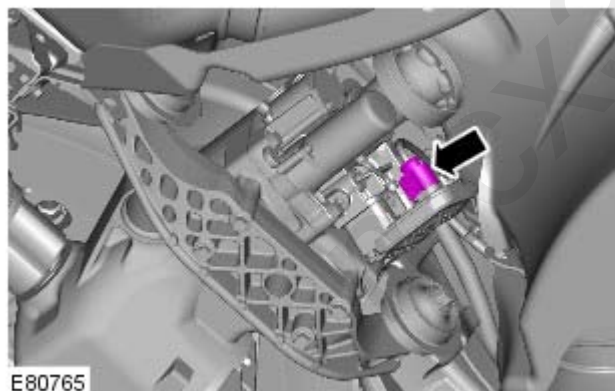
To avoid damage to the joint or gaiter, do not allow the driveshaft to hang.

Discard the bolts.



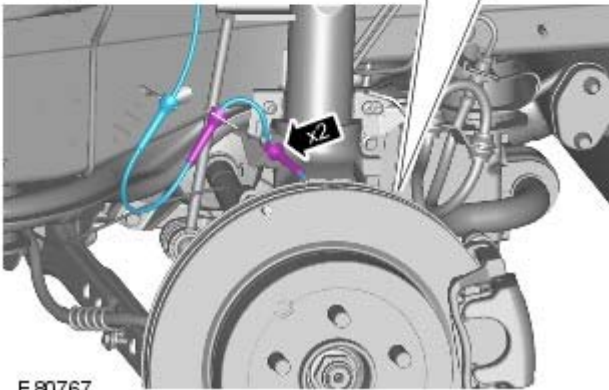
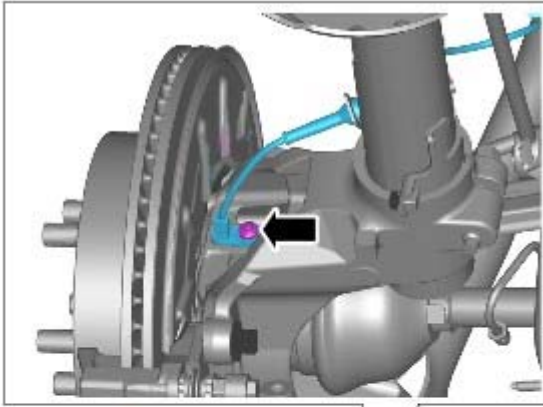
15.

16. Repeat the above procedure on the opposite hand.

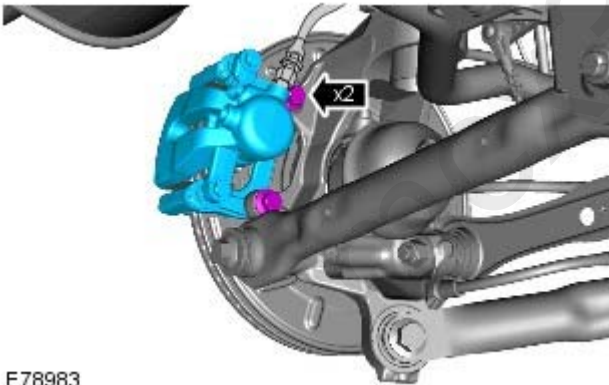


17.

18.



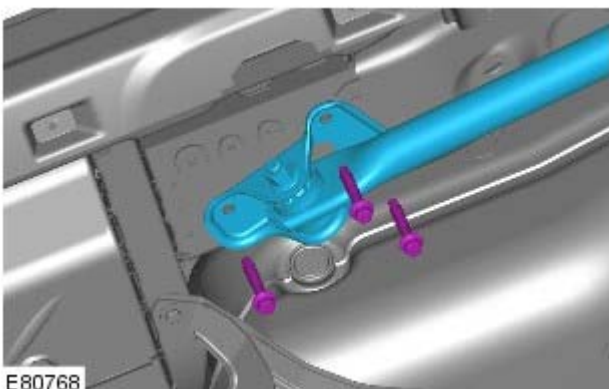
19. Repeat the above procedure on the opposite hand.



20. **20.**  **CAUTION:** Make sure that no load is placed on the brake hose.

Tie the rear brake caliper aside.

21. Repeat the above procedure on the opposite hand.



22. **22.**  **CAUTION:** Make sure the bushing(s) or isolator(s), are not strained or left unsupported during this procedure.

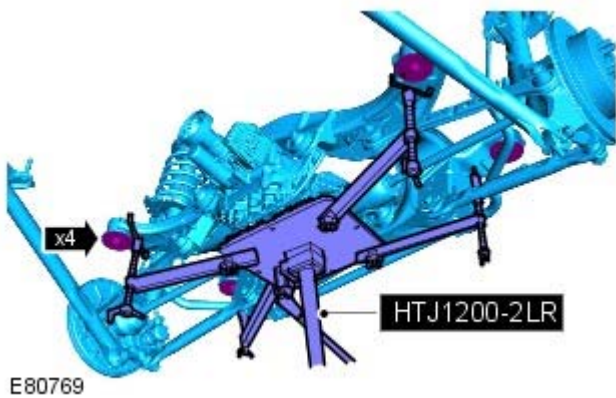
Release the trailing arm to body bracket.

23. Repeat the above procedure on the opposite hand.

24. Support the subframe.

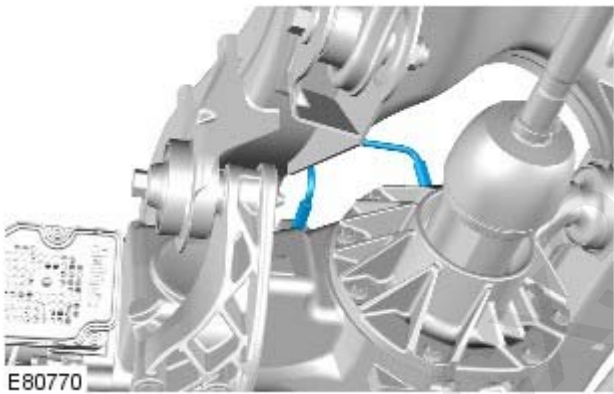
General Equipment: [Powertrain Jack](#)

25.



26. Carefully lower the subframe for access to the differential breather lines.

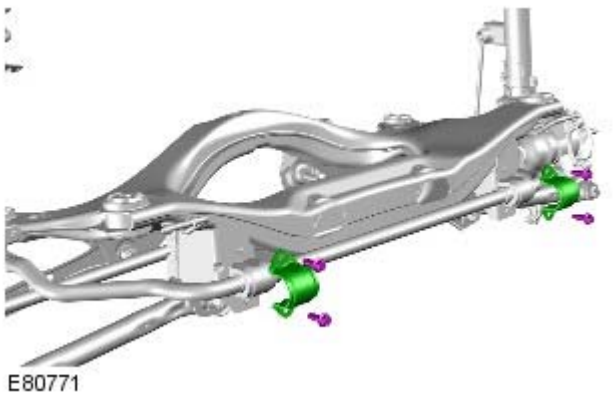
27.

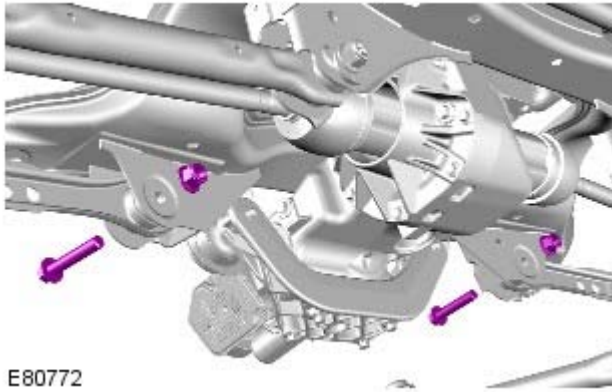


28. **28.**  **CAUTION:** Make sure that no components catch.

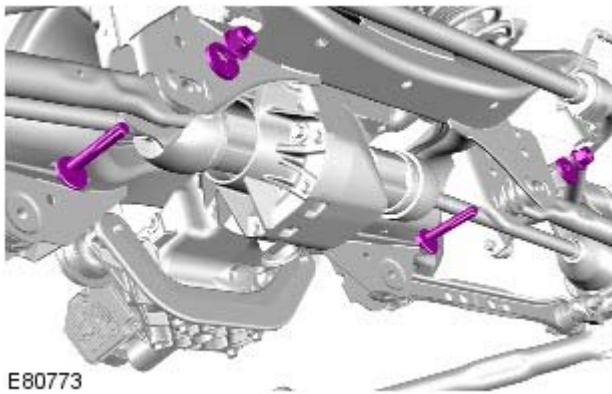
With assistance, remove the rear subframe assembly.

29. **29.** **NOTE:** Do not disassemble further if the component is removed for access only.

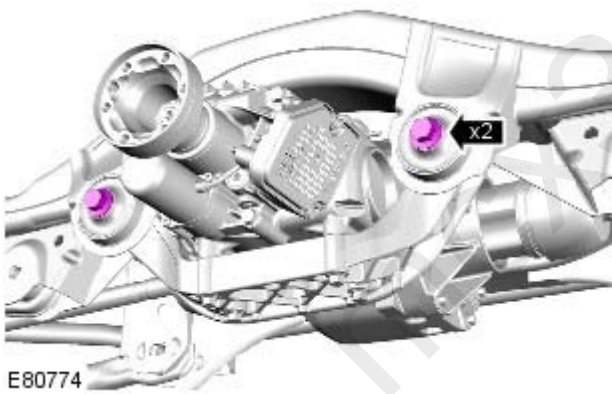




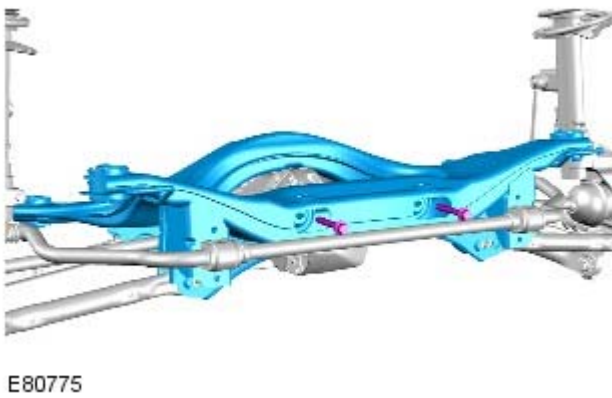
30.



31.



32. Discard the bolts.



33. Discard the bolts.

34. With assistance, remove the rear subframe.

Installation

1. **1.**  **CAUTION: Make sure that new bolts are installed.**

- Clean the component mating faces.
- With assistance, install the subframe.
- With assistance, align and secure the differential.
- Tighten the rear bolts.

Torque: 110 Nm

- Tighten the front bolts.

Torque: 175 Nm

2. **2.**  **CAUTION: Make sure that new bolts are installed.**

Align the suspension arms to the subframe and install the bolts, do not fully tighten at this stage.

3. Using the special tool, support the subframe.

4. Connect the transmission breather lines.

5. **5. CAUTIONS:**



Make sure that no components catch.



Make sure that new bolts are installed.

With assistance, position the subframe to the body and tighten the bolts.

Torque: 175 Nm

6. **6.**  **CAUTION: Make sure that new bolts are installed.**

Install the stabilizer clamp bolts, but do not tighten fully at this stage.

7. Connect the Active On-demand Coupling module electrical connector.

8. Remove the powertrain jack.

General Equipment: [Powertrain Jack](#)

9. **9.**  **CAUTION: Make sure that new bolts are installed.**

Install the trailing arm to body brackets.

Torque: 110 Nm

10. **10.**  **CAUTION: Make sure that the brake hose is not twisted and is correctly located.**

- Clean the component mating faces.
- Install the brake caliper anchor plate.

Torque: 110 Nm

- Repeat the above procedure for the other side.

- 11.

- Secure the wheel speed sensor and lead.

Torque: 5 Nm

- Secure the lead in the clips.
- Repeat the above procedure for the other side.

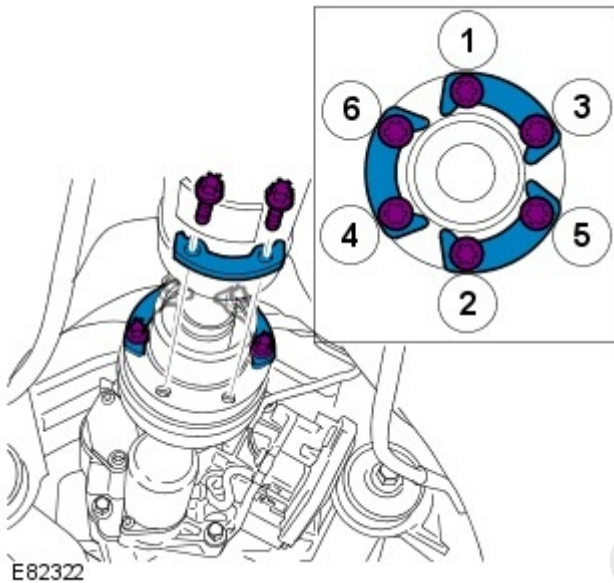
12. LH side: Connect the ride height sensor electrical connector.

13.

- Position and secure the rear shock absorbers.
- Install both mass dampers.

Torque: 25 Nm

- Repeat the above procedure for the other side.



14.  **CAUTION:** Make sure that new bolts are installed.

- Clean the component mating faces.
- Connect the driveshaft to the rear flange.

Torque: 40 Nm

15. Install the parking brake cables to the guide tubes.

16. Connect the parking brake cables.

17. Adjust the parking brake.

Refer to: [Parking Brake Cable Adjustment](#) (206-05 Parking Brake and Actuation, General Procedures).

18. Install the rear muffler.

Refer to: [Exhaust System](#) (309-00B Exhaust System - TD4 2.2L Diesel, Removal and Installation).

19. Install the rear quarter trim panels.

Refer to: [Rear Quarter Trim Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).

20. Install the rear suspension height sensor.

Refer to: [Rear Suspension Height Sensor](#) (204-05 Vehicle Dynamic Suspension, Removal and Installation).

21. Install the wheels and tires.

Refer to: [Wheel and Tire](#) (204-04 Wheels and Tires, Removal and Installation).

22. **22.**  **CAUTION:** Nuts and bolts must be tightened with the weight of the vehicle on the suspension.

Tighten the stabilizer bar clamp bolts.

Torque: 60 Nm

23. **23.**  **CAUTION:** Nuts and bolts must be tightened with the weight of the vehicle on the suspension.

- Tighten the suspension arms to the subframe.

Torque: 175 Nm

- During installation, do not tighten the nuts and bolts until the 4 wheel alignment procedure has been carried out.

24. Carry out a complete vehicle geometry check and adjustment.

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Uni-Body, Subframe and Mounting System - Rear Subframe Front Bushing

Removal and Installation

Special Tool(s)

 E75373	204-598 Hydraulic Cylinder 10t
 E73708	204-598-01 Remover/Installer, Subframe Bushing Guide

Removal

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

1.  **WARNING:** Make sure to support the vehicle with axle stands.

Raise and support the vehicle.

2. Remove both rear wheels and tires.

Refer to: [Wheel and Tire](#) (204-04 Wheels and Tires, Removal and Installation).

3. Remove the rear subframe assembly for access.

Refer to: [Rear Subframe](#) (502-00 Uni-Body, Subframe and Mounting System, Removal and Installation).

4. **CAUTIONS:**



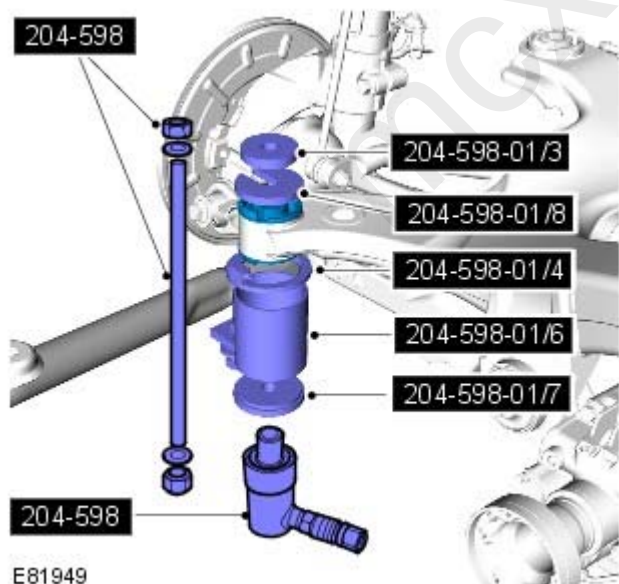
Mark the components to aid installation.



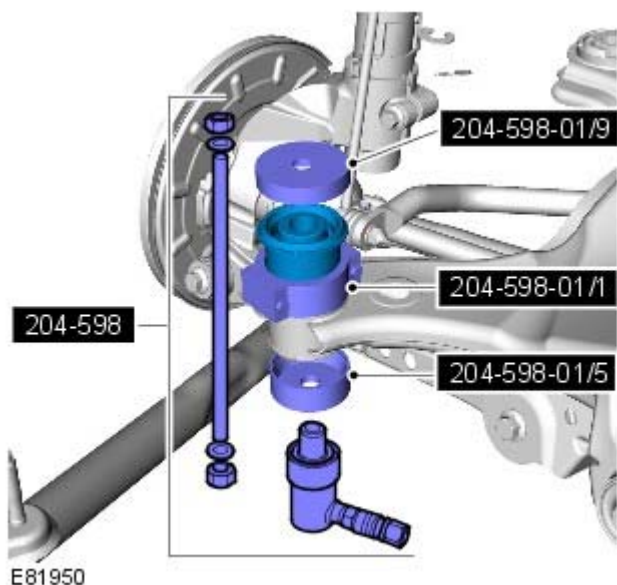
Special tool 204-598-01/8 is used to start the bushing removal process, and must be removed after the bushing has released, as it will not pass through the subframe bushing aperture.

Remove the bushing.

Special Tool(s): [204-598](#), [204-598-01](#)



Installation



1. **1. CAUTIONS:**

 Make sure the correct special tool is used to install the bushings to the correct depth.

 Make sure that the installation marks are aligned.

Install the bushing.

Special Tool(s): [204-598](#), [204-598-01](#)

2. Install the rear subframe assembly.

Refer to: [Rear Subframe](#) (502-00 Uni-Body, Subframe and Mounting System, Removal and Installation).

3. Install the wheels and tires.

Refer to: [Wheel and Tire](#) (204-04 Wheels and Tires, Removal and Installation).

Uni-Body, Subframe and Mounting System - Rear Subframe Rear Bushing

Removal and Installation

Special Tool(s)

 E75373	204-598 Hydraulic Cylinder 10t
 E73708	204-598-01 Remover/Installer, Subframe Bushing Guide

Removal

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

1.  **WARNING:** Make sure to support the vehicle with axle stands.

Raise and support the vehicle.

2. Remove both rear wheels and tires.

Refer to: [Wheel and Tire](#) (204-04 Wheels and Tires, Removal and Installation).

3. Remove the rear subframe assembly for access.

Refer to: [Rear Subframe](#) (502-00 Uni-Body, Subframe and Mounting System, Removal and Installation).

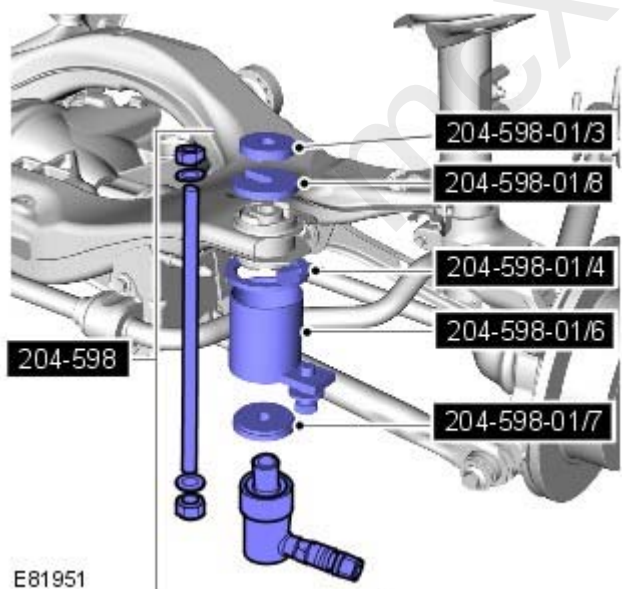
4. **CAUTIONS:**

 Mark the components to aid installation.

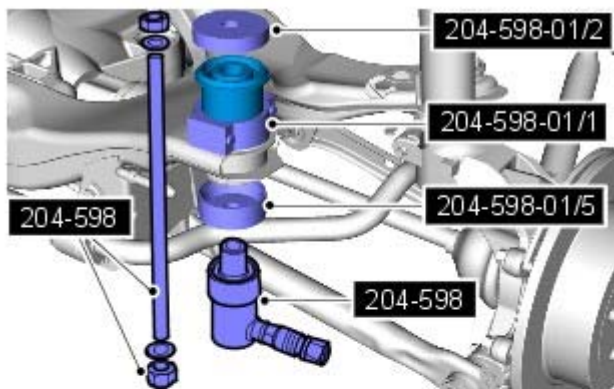
 Special tool 204-598-01/8 is used to start the bushing removal process, and must be removed after the bushing has released, as it will not pass through the subframe bushing aperture.

Remove the bushing.

Special Tool(s): [204-598-01](#)



Installation



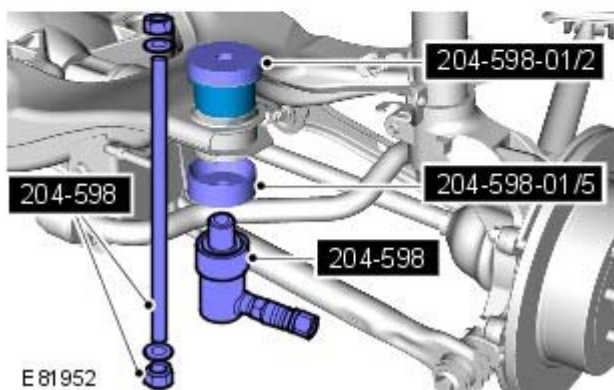
1. **1. CAUTIONS:**

 Make sure the correct special tool is used to install the bushings to the correct depth.

 Make sure that the installation marks are aligned.

Install the bushing.

Special Tool(s): [204-598](#), [204-598-01](#)



2. Install the rear subframe assembly.

Refer to: [Rear Subframe](#) (502-00 Uni-Body, Subframe and Mounting System, Removal and Installation).

3. Install the wheels and tires.

Refer to: [Wheel and Tire](#) (204-04 Wheels and Tires, Removal and Installation).