

### Spring and Stabilizer Bar Kit w/ MagneRide Calibration

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Please visit www. performanceparts.ford.com for the most current instruction and warranty information.

PLEASE READ ALL OF THE FOLLOWING INSTRUCTIONS CAREFULLY PRIOR TO INSTALLATION. AT ANY TIME YOU DO NOT UNDERSTAND THE INSTRUCTIONS, PLEASE CALL THE FORD PERFORMANCE TECHLINE AT 1-800-367-3788

M-9602-M is designed for 2018 + Mustangs equipped with MagneRide and includes a unique MagneRide calibration that is loaded with the included Procal voucher and software. Please reference the instruction tab on the Procal and make sure you use version 3.9+

#### Kit Includes:

Front Stabilizer Bar Front Springs Rear Stabilizer Bar Rear Springs MagneRide Tuning Calibration

#### Front Stabilizer Bar Removal

NOTICE: Suspension fasteners are critical parts that affect the performance of vital components and systems. Failure of these fasteners may result in major service expense. Use the same or equivalent parts if replacement is necessary. Do not use a replacement part of lesser quality or substitute design. Tighten fasteners as specified.

- 1. Remove all 4 wheels and tires and set aside.
- 2. On both sides.
  - 1. **NOTE:** The stabilizer bar links are designed with low friction ball joints that have a low breakaway torque.

**NOTE**: Use the hex-holding feature to prevent the ball stud from turning while removing the stabilizer bar link nut.

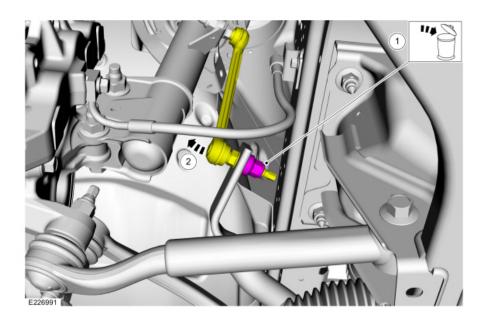
Remove and the front stabilizer bar link lower nut.

2. Position aside the front stabilizer bar link.

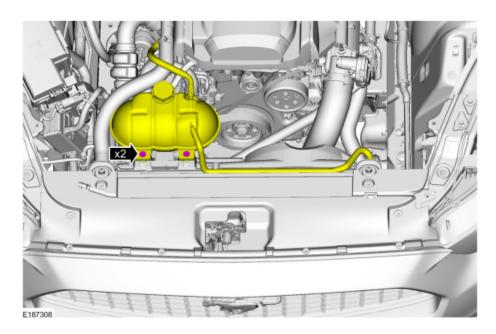


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- 4. Remove the air cleaner.
- 5. Remove the bolts and position the degas bottle aside.





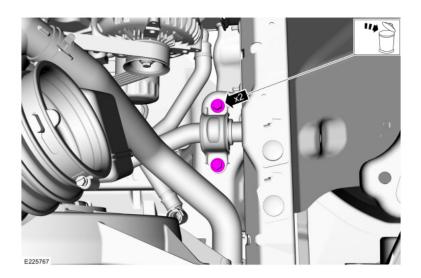
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6. **NOTE**: All vehicles except vehicles equipped with 5.0L engine.

On both sides.

Remove the front stabilizer bar bushing bracket bolts.



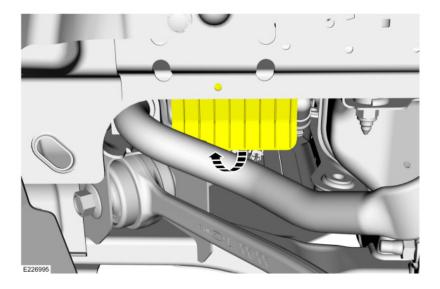
7. NOTE: Shield located on LH side of vehicle.

If equipped, position the splash shield up out of the way to gain access to the rearward front stabilizer bar bushing bracket bolt.



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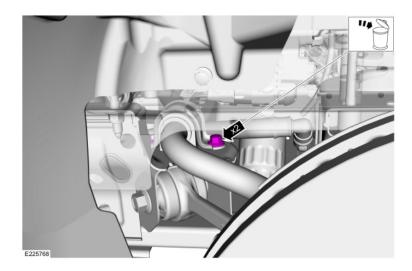


8. **NOTE**: Vehicles equipped with 5.0L engine.

**NOTE:** On vehicles equipped with 5.0L engine, the rearward front stabilizer bar bushing bracket bolt is under the alternator and must be removed through the wheel opening.

On both sides.

Remove and the front stabilizer bar bushing bracket bolts.

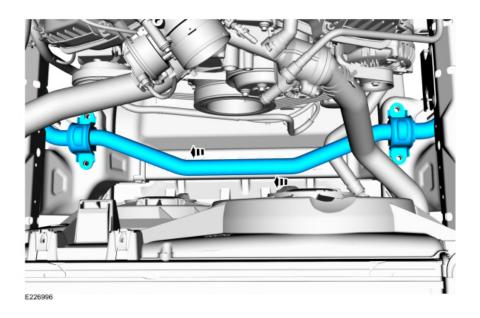




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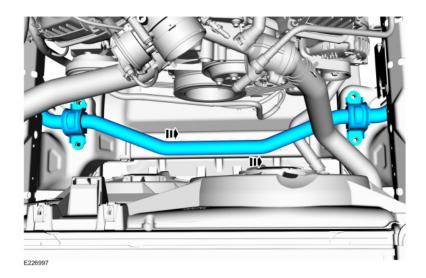
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9. Remove the stabilizer bar.



#### Front Stabilizer Bar Installation

1. Install the stabilizer bar.



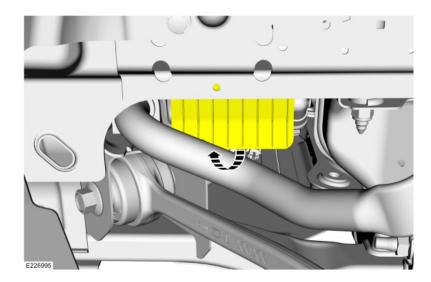


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2. **NOTE:** Shield located on <u>LH</u> side of vehicle.

If equipped, position the splash shield up out of the way to gain access to the rearward front stabilizer bar bushing bracket bolt.



3. **NOTE:** On vehicles equipped with 5.0L engine, the rearward front stabilizer bar bushing bracket bolt is under the alternator and must be installed through the wheel opening.

On both sides.

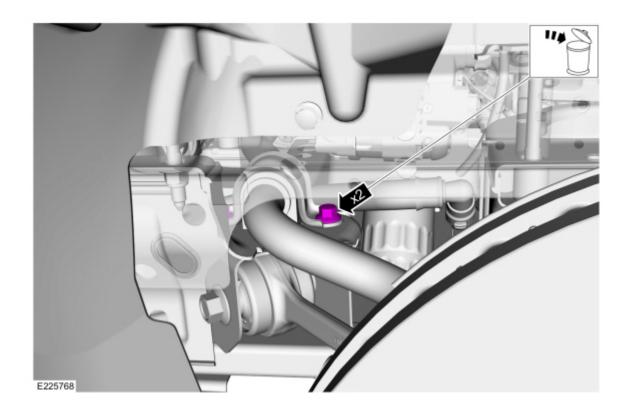
Install the front stabilizer bar bushing bracket bolts.

*Torque*: 81 lb.ft (110 Nm)



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4. **NOTE:** All vehicles except vehicles equipped with 5.0L engine.

On both sides.

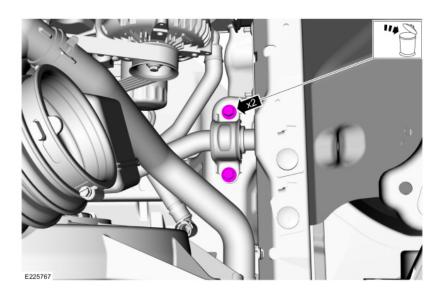
Install the front stabilizer bar bushing bracket bolts.

Torque: 81 lb.ft (110 Nm)

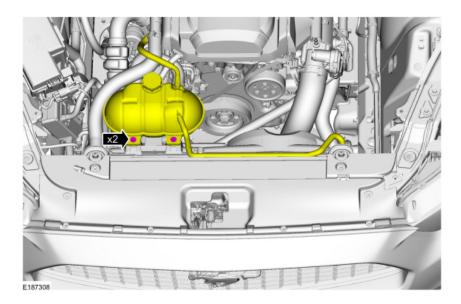


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5. Position the degas bottle and install the bolts. *Torque*: 80 lb.in (9 Nm)





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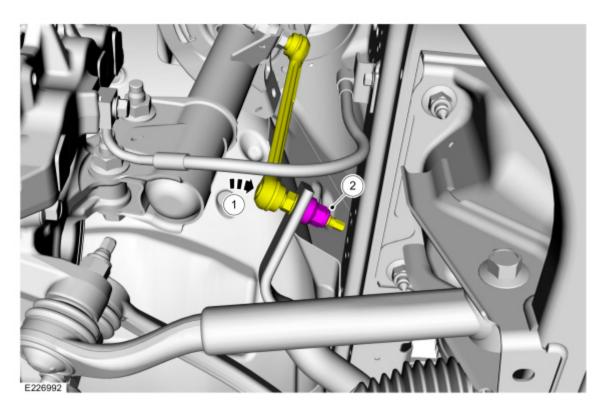
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- 6. Install the air cleaner.
- 7. **NOTE**: The stabilizer bar links are designed with low friction ball joints that have a low breakaway torque.

**NOTE**: Use the hex-holding feature to prevent the ball stud from turning while installing the stabilizer bar link nut.

On both sides.

- 1. Position the front stabilizer bar link.
- 2. Install the front stabilizer bar link lower nut. *Torque*: 85 lb.ft (115 Nm)





## Spring and Stabilizer Bar Kit w/ MagneRide Calibration

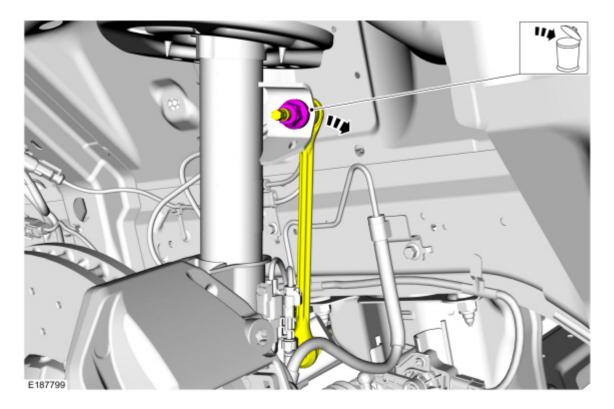
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#### **Front Springs Removal**

1. **NOTE**: The stabilizer bar links are designed with low friction ball joints that have a low breakaway torque.

**NOTE:** Use the hex-holding feature to prevent the ball stud from turning while removing or installing the stabilizer bar link nut.

Remove the front stabilizer bar link upper nut and separate the front stabilizer bar link from the strut and spring assembly.

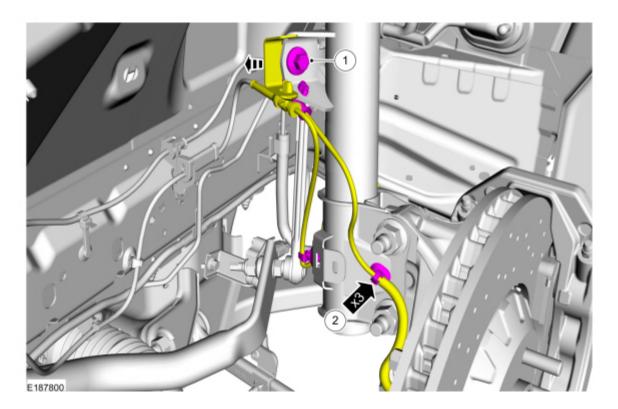




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- 2. If equipped with dynamic suspension.
  - 1. Remove the dynamic suspension strut wire harness bracket bolt and position the bracket and wire harness aside.
  - 2. Disconnect the 2 wheel speed sensor retainers and the 1 dynamic suspension strut wire harness retainer





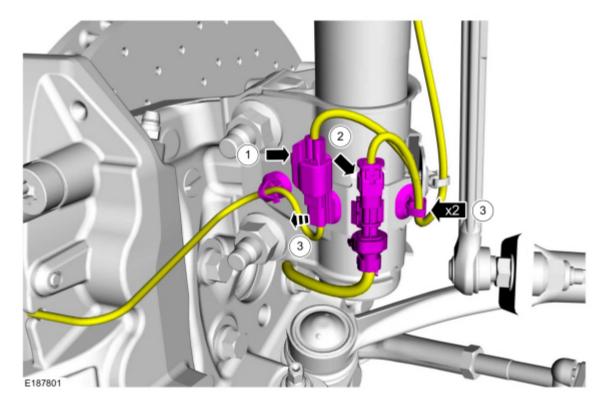
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3.

- If equipped.
   Disconnect the brake sensor electrical connector.
- 2. If equipped with dynamic suspension.

  Disconnect the dynamic suspension strut wire harness connector.
- If equipped.
   Unclip the brake sensor electrical connector and the 2 wire retainers from the strut.





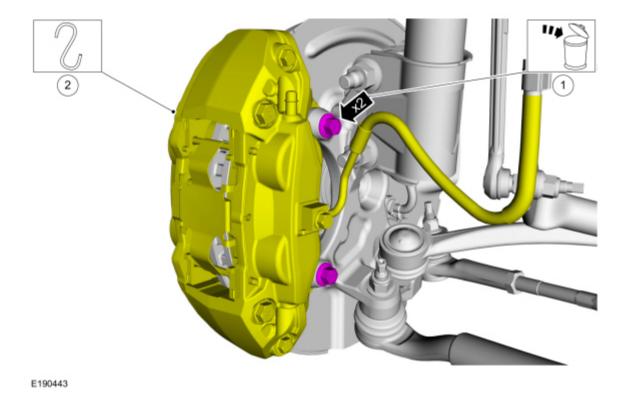
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4. NOTE: Base brakes shown, other applications similar.

Position aside the brake caliper assembly.

- 1. Remove the 2 brake caliper anchor plate bolts.
- 2. Position aside the brake caliper assembly.



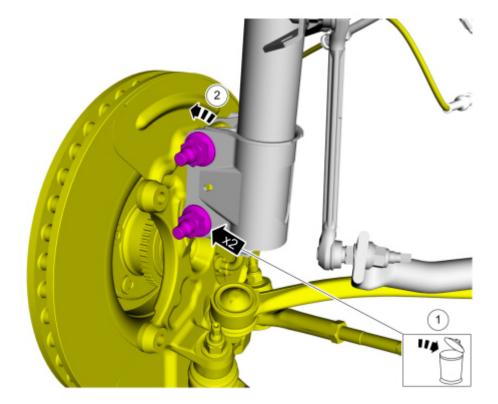


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5.

- NOTE: Original strut-to-wheel spindle bolts are splined and may need to be driven out.
   Remove the 2 strut-to-wheel spindle bolts and nuts.
- 2. Separate the wheel spindle from the front strut and spring assembly.



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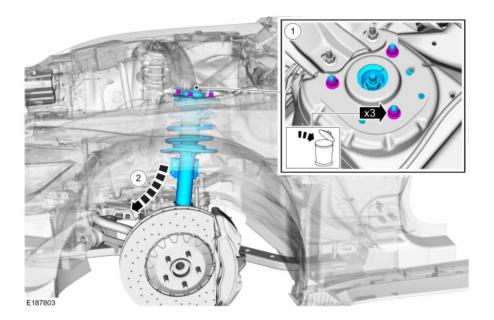


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6.

- 1. Remove the 3 upper strut mount nuts.
- 2. Remove the front strut and spring assembly.



7.

- 1. Compress the coil spring with a spring compressor
- 2. Remove the top mount from the strut assembly
- 3. Compress the new Ford Performance Spring and install on strut assembly
- 4. Re-install the strut top mount



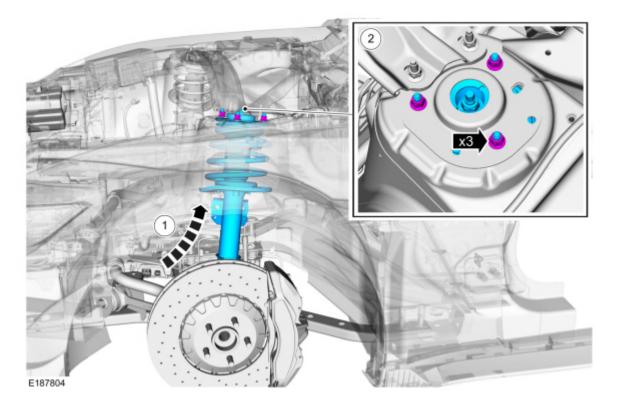
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#### **Front Spring Installation**

1.

- 1. Install the front strut and spring assembly.
- 2. Install the 3 upper strut mount nuts. *Torque*: 46 lb.ft (63 Nm)



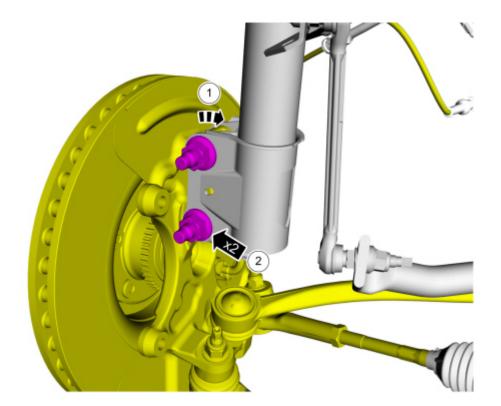


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2.

- 1. Attach the wheel spindle to the front strut and spring assembly.
- 2. Install the 2 strut-to-wheel spindle bolts and nuts. *Torque*: 184 lb.ft (250 Nm)



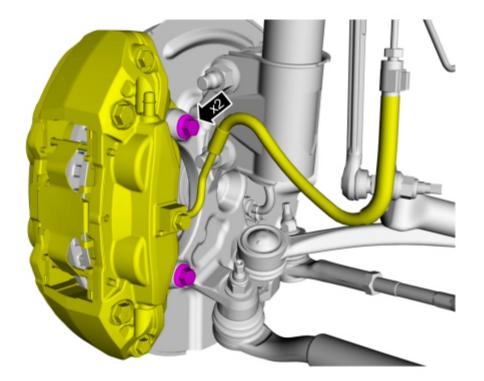
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3. Position the brake caliper assembly and install the 2 brake caliper anchor plate bolts. *Torque*: 85 lb.ft (115 Nm)



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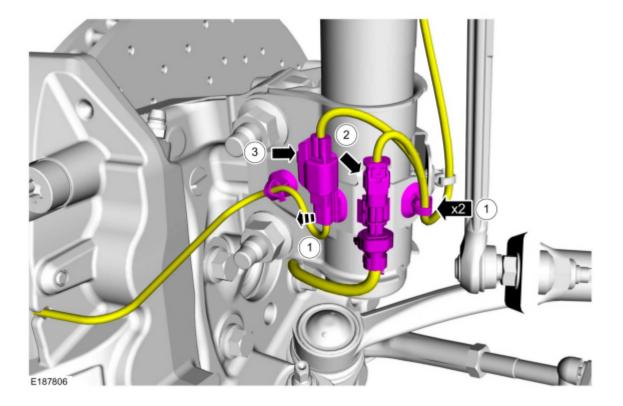
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4.

- If equipped.
   Clip the brake sensor electrical connector and the 2 wire retainers to the strut.
- 2. If equipped with dynamic suspension.

  Connect the dynamic suspension strut wire harness connector.
- 3. If equipped.

  Connect the brake sensor electrical connector.



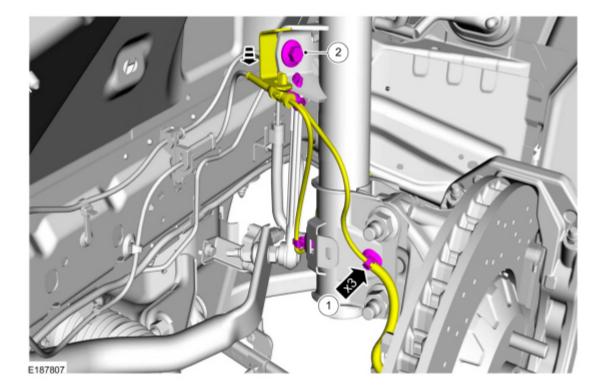


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5.

- 1. Connect the 2 wheel speed sensor retainers and the 1 dynamic suspension strut wire harness retainer.
- If equipped with dynamic suspension.
   Position the dynamic suspension strut wire harness bracket and install the bolt.
   Torque: 46 lb.ft (63 Nm)





## Spring and Stabilizer Bar Kit w/ MagneRide Calibration

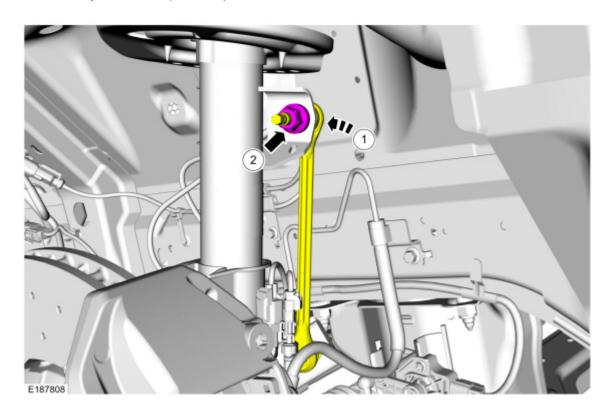
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6.

- 1. Position the front stabilizer bar link.
- 2. **NOTE:** The stabilizer bar links are designed with low friction ball joints that have a low breakaway torque.

**NOTE**: Use the hex-holding feature to prevent the ball stud from turning while removing or installing the stabilizer bar link nut.

Install the front stabilizer bar link upper nut. *Torque*: 85 lb.ft (115 Nm)



7. Install the front wheel and tire assemblies.



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#### **Rear Stabilizer Bar Removal**

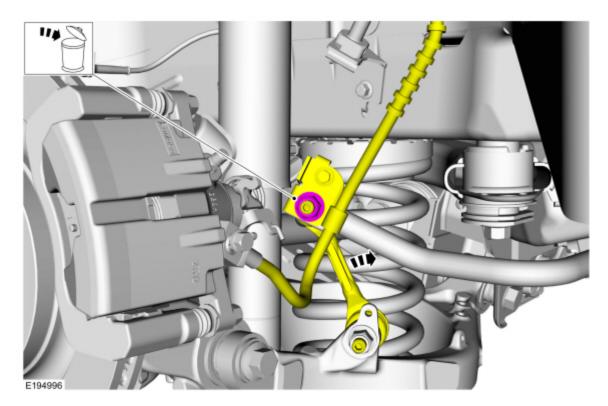
1. NOTICE: Do not use power tools to remove or install the stabilizer bar link nuts. Damage to the stabilizer bar link ball joints and boots may occur.

**NOTE:** The stabilizer bar links are designed with low friction ball joints that have a low breakaway torque.

**NOTE:** Use the hex-holding feature to prevent the ball stud from turning while removing the stabilizer bar link nut.

On both sides.

Remove the stabilizer bar link upper nut and position the stabilizer bar link aside.

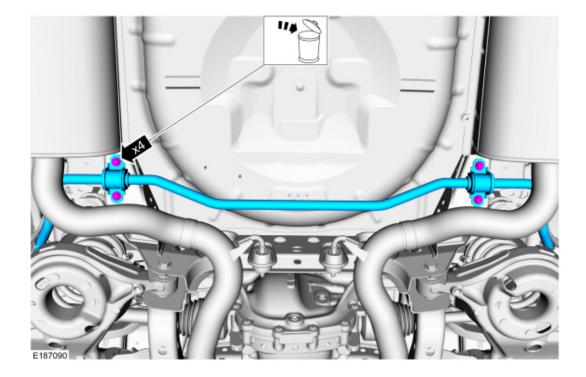




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2. Remove the 4 stabilizer bar bracket bolts, remove the stabilizer bar brackets and remove the stabilizer bar.



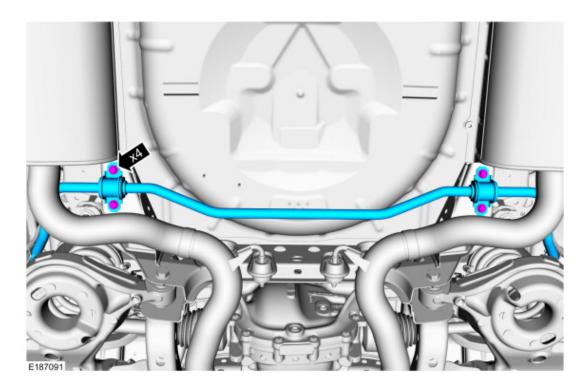


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#### **Rear Stabilizer Bar Installation**

1. Position the stabilizer bar, the stabilizer bar brackets and install the 4 stabilizer bar bracket bolts. *Torque*: 52 lb.ft (70 Nm)





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#### 2. On both sides.

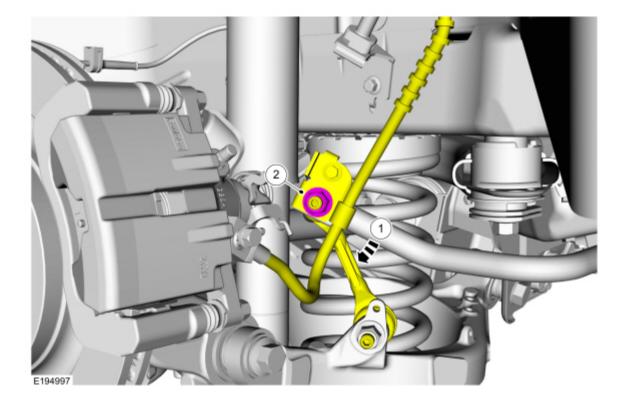
Position the stabilizer bar link.

**NOTE**: Use the hex-holding feature to prevent the ball stud from turning while installing the stabilizer bar link nut.

On both sides.

Install the stabilizer bar link upper nut.

Torque: 85 lb.ft (115 Nm)



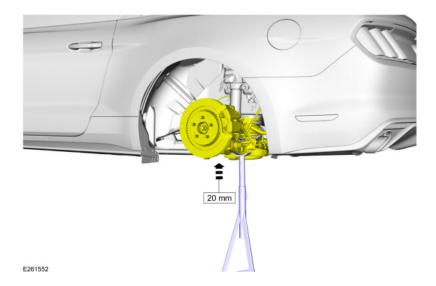


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#### **Rear Spring Removal**

1. Raise the suspension approximately 20mm from rebound condition. Recommended to use jack stands or vehicle stands.

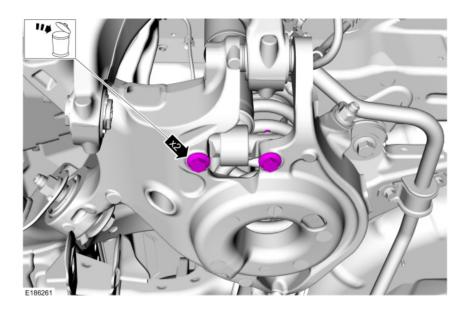


2. Remove the shock absorber lower bolts.



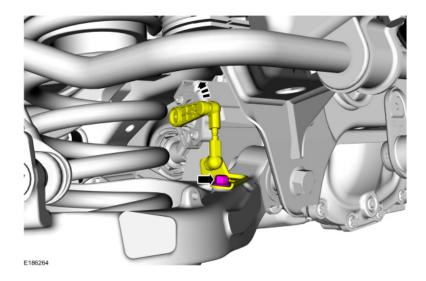
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3. **NOTE:** If equipped with dynamic suspension.

Remove the rear height sensor arm bracket bolt and position the rear height sensor arm bracket aside.

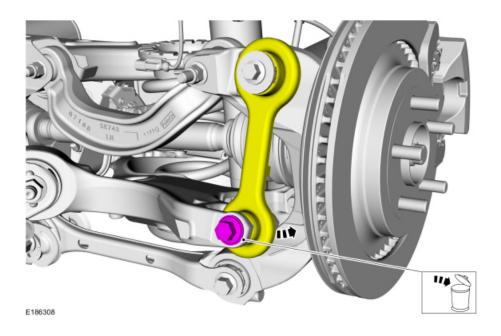


4. Remove the lower arm vertical link lower bolt and position the lower arm vertical link aside.



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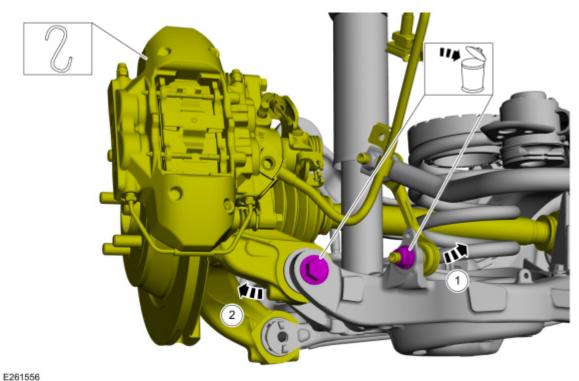


- 5. **NOTE:** *Make sure that the knuckle is supported with suitable retaining straps.* 
  - 1. Remove the rear stabilizer bar link lower nut and position the rear stabilizer bar link aside.
  - 2. Remove the lower arm-to-wheel knuckle bolt and separate the wheel knuckle from the lower arm.



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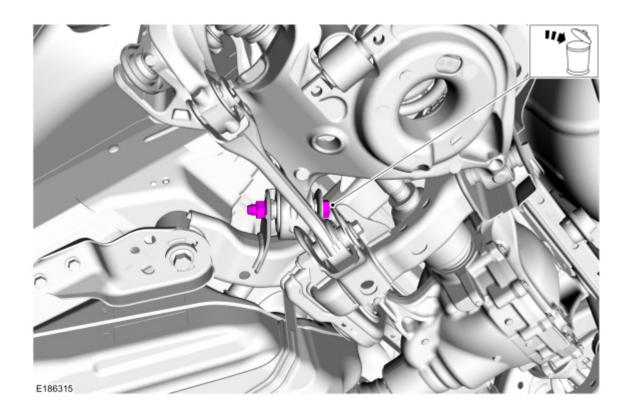
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- 6. **NOTE:** The muffler and tailpipe must be removed for clearance for the lower control arm rearward bolts.
- 7. Remove the forward lower control arm-to-frame bolt.



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8. NOTICE: Take extra care when handling a compressed spring. Failure to follow this instruction may result in personal injury.

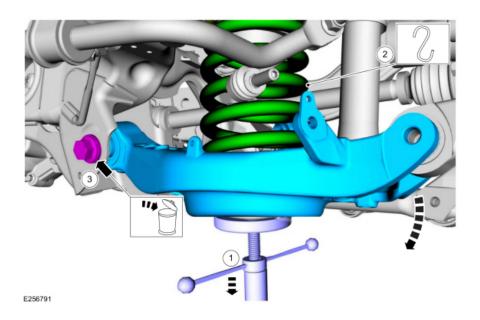
**NOTE**: Do not allow the rear spring to fall. Advised to use axle/vehicle stands to lower rear arm.

- 1. Lower the suspension to release the spring compression.
- 2. Remove the spring by lowering the lower arm and position aside.
- 3. Remove the lower arm-to-frame rearward bolt and remove the lower arm

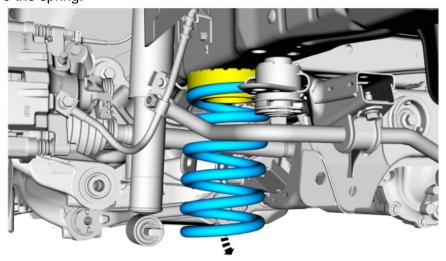


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#### 9. Remove the spring.



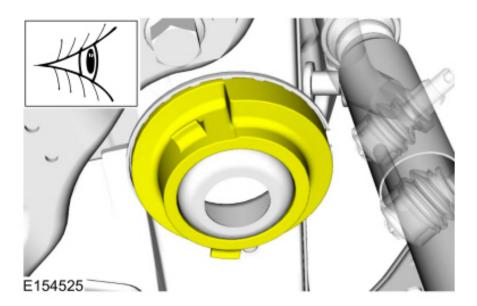
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10. Inspect the upper spring seat for damage. Replace as necessary.



11. Inspect the lower coil spring seat for damage. Replace as necessary. Make sure it is properly aligned in the lower control arm.



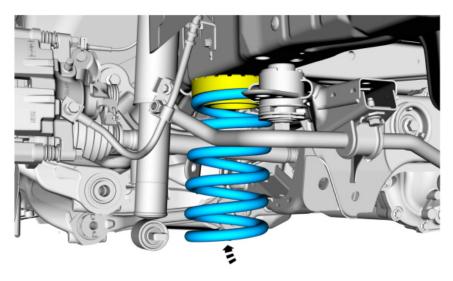


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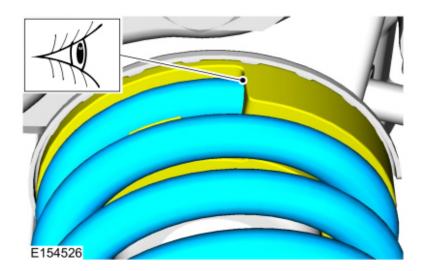
#### **Rear Spring Installation**

Install the spring.
 NOTICE: The springs are handed. Be sure to note which spring is LH and RH and install as such.



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2. Make sure that the spring is correctly located in the upper spring seat.





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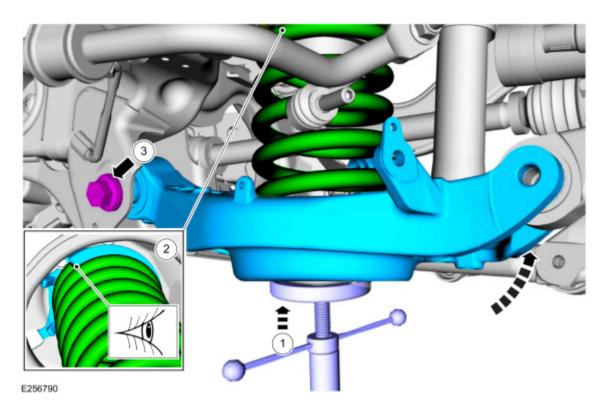
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- 3. **NOTE:** Hold spring in place while installing lower arm.
  - 1. **NOTE:** Before tightening the lower arm bolt, use a jackstand to raise the rear suspension to ride height

Position the jackstand under the lower arm and raise the lower arm into position.

- NOTE: Make sure the upper spring seat is properly positioned on the upper spring mount.
   Install the spring into the upper and lower spring seat.
- 3. **NOTE:** Only tighten the bolt finger tight at this stage.

Install the lower arm-to-frame rearward bolt.

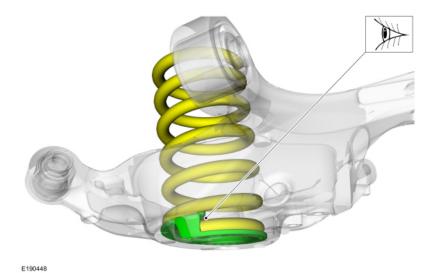




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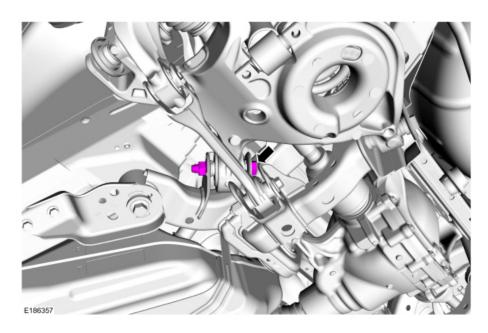
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4. Make sure that the coil spring is properly positioned in the lower coil spring seat.



5. **NOTE:** Only tighten the bolt finger tight at this stage.

Install the forward lower control arm-to-frame bolt.

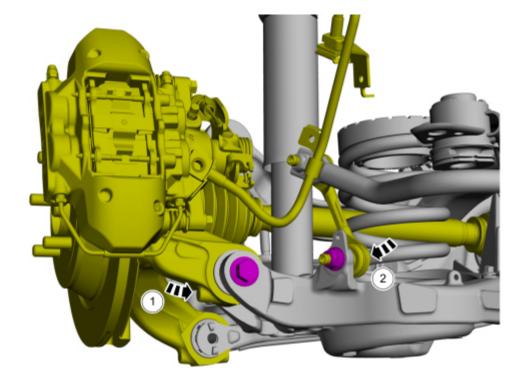




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- 6. Install the muffler and tailpipe.
- 7. **NOTE:** Only tighten the bolt finger tight at this stage.
  - 1. Position the wheel knuckle and install the lower arm-to-wheel knuckle bolt.
  - 2. Position the stabilizer bar link and install the new stabilizer bar link lower nut.



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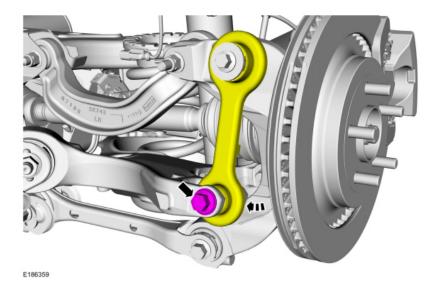


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8. **NOTE:** Only tighten the bolt finger tight at this stage.

Position the lower arm vertical link and install the lower arm vertical link lower bolt.



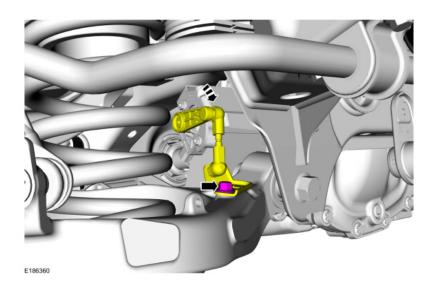
9. **NOTE:** If equipped with dynamic suspension.

Position the ride height sensor arm bracket and install the ride height sensor arm bracket bolt. *Torque*: 177 lb.in (20 Nm)



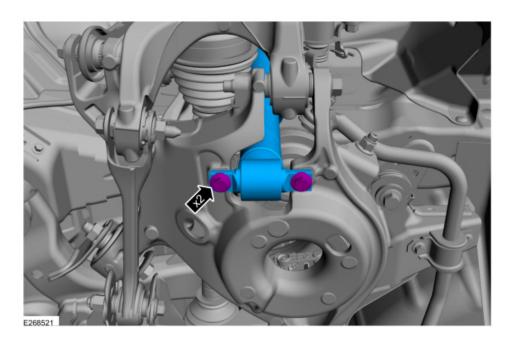
## Spring and Stabilizer Bar Kit w/ MagneRide Calibration

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10. **NOTE:** If equipped with dynamic suspension.

Install the rear shock absorber and install the 2 rear shock absorber lower bolts. *Torque*: 35 lb.ft (48 Nm)

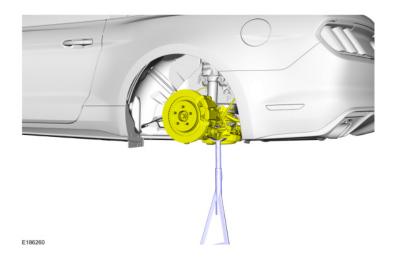




## Spring and Stabilizer Bar Kit w/ MagneRide Calibration

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11. Support the suspension at curb height.

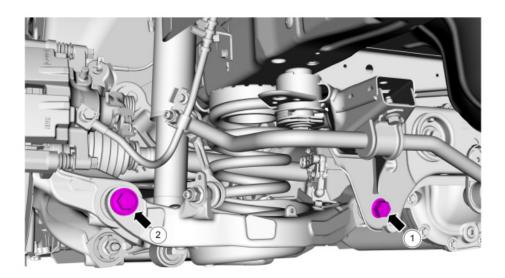


- 12. NOTICE: Tighten the suspension bushing fasteners with the suspension loaded or with the weight of the vehicle resting on the wheels and tires, otherwise incorrect clamp load and bushing damage may occur.
  - 1. Tighten the rearward lower control arm-to-frame bolt. *Torque*: 184 lb.ft (250 Nm)
  - Tighten the lower control arm-to-wheel knuckle bolt. Torque: 203 lb.ft (275 Nm)



## Spring and Stabilizer Bar Kit w/ MagneRide Calibration

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13. NOTICE: Tighten the suspension bushing fasteners with the suspension loaded or with the weight of the vehicle resting on the wheels and tires, otherwise incorrect clamp load and bushing damage may occur.

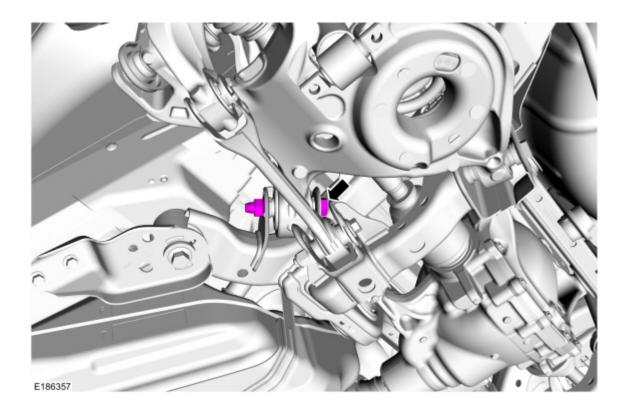
Tighten the forward lower control arm-to-frame bolt.

*Torque*: 166 lb.ft (225 Nm)



## Spring and Stabilizer Bar Kit w/ MagneRide Calibration

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14. NOTICE: Tighten the suspension bushing fasteners with the suspension loaded or with the weight of the vehicle resting on the wheels and tires, otherwise incorrect clamp load and bushing damage may occur.

Tighten lower arm vertical link lower bolt.

Torque: 129 lb.ft (175 Nm)

- 15. Install the rear wheel and tire assemblies.
- 16. Check alignment, and re-align if necessary.
- 17. Please refer to instructions within ProCal3.9+ software to load the included MagneRide calibration.