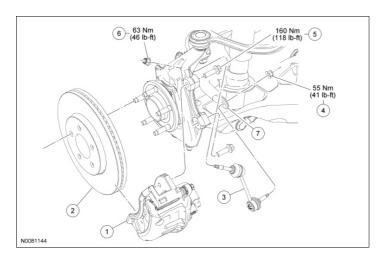
Stabilizer Bar Link



Item	Part Number	Description
1	2B120 LH/ 2B121 RH	Brake caliper
2	1125	Brake disc
3	3B438	Stabilizer bar link
4	W520213	Stabilizer bar link lower nut
5	W707589	Brake caliper anchor plate bolt (2 required)
6	W520213	Stabilizer bar link upper nut
7	5A771	Stabilizer bar

Removal and Installation

NOTICE: Suspension fasteners are critical parts because they affect performance of vital components and systems and their failure may result in major service expense. New parts must be installed with the same part numbers or equivalent part, if replacement is necessary. Do not use a replacement part of lesser quality or substitute design. Torque values must be used as specified during reassembly to make sure correct retention of these parts.

1. A WARNING: Before servicing a vehicle equipped with a fire suppression system, depower the system by following the procedure in <u>Section 419-03</u>. Failure to follow the instructions may result in serious personal injury.

Remove the wheel and tire. For additional information, refer to $\underline{\text{Section } 204-04}$.

2. NOTICE: Do not allow the caliper and anchor plate assembly to hang from the brake hose or damage to the hose may occur.

Remove the bolts and position the caliper, pads and anchor plate assembly aside.

- Support the caliper and anchor plate assembly using mechanic's wire.
- To install, tighten to 160 Nm (118 lb-ft).
- 3. Remove the brake disc.
- 4. **NOTE:** Use the hex-holding feature to prevent the stud from turning while removing the nut.

Stabilizer Bar Link 1407

Remove the stabilizer link upper nut.

- Discard the nut.
- To install, tighten the new nut to 63 Nm (46 lb-ft).
- 5. **NOTE:** Use the hex-holding feature to prevent the stud from turning while removing the nut.

Remove the stabilizer link lower nut and the stabilizer bar link.

- Discard the nut.
- To install, tighten the new nut to 55 Nm (41 lb-ft).
- 6. A WARNING: If the vehicle is equipped with a fire suppression system, repower the system. For important safety warnings and procedures, refer to Section 419-03. Failure to follow these instructions may result in serious personal injury.

To install, reverse the removal procedure.

7. If equipped with a fire suppression system, repower the system.

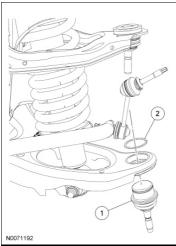
Stabilizer Bar Link 1408

2009 Crown Victoria/Grand Marquis Workshop Manual Procedure revision date: 07/21/2008

Ball Joint -- Lower

Special Tool(s)

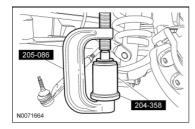
000 000 S12829-A	Installer/Remover, Ball Joint 204-358
ST1172-A	Installer/Remover, C-Frame and Screw 205-086



Item	Part Number	Description
1	3050	Lower ball joint
2		Lower ball joint snap ring (part of 3050 kit)

Removal

- 1. Remove the wheel knuckle. For additional information, refer to Wheel Knuckle in this section.
- 2. Remove and discard the lower ball joint snap ring.
- 3. Using the C-Frame and Screw Installer/Remover and Ball Joint Installer/Remover, remove the lower ball joint.



Installation

1. NOTICE: Do not damage the lower ball joint boot when installing the ball joint or premature

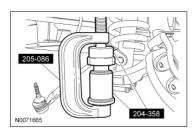
Ball Joint -- Lower 1409

failure of the ball joint may occur.

NOTE: Make sure the ball joint snap ring is fully seated.

Using the C-Frame and Screw Installer/Remover and Ball Joint Installer/Remover, install the lower ball joint.

• Install the ball joint snap ring.

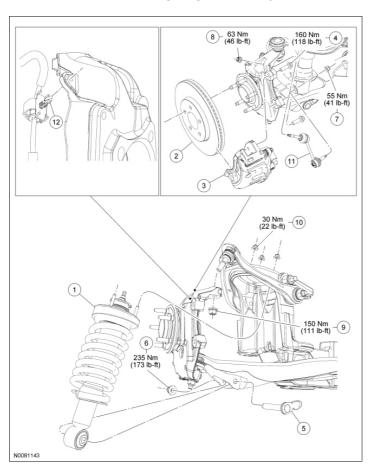


2. Install the wheel knuckle. For additional information, refer to Wheel Knuckle in this section.

Ball Joint -- Lower 1410

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Shock Absorber and Spring Assembly



Item	Part Number	Description
1	18045/5310	Shock absorber/coil spring assembly
2	1125	Brake disc
3	2B120	Brake caliper and anchor plate
4	W707589	Brake caliper anchor plate bolt (2 required)
5	3C177	Shock absorber lower flag bolt
6	W520216	Shock absorber lower nut
7	W520213	Lower stabilizer bar link nut
8	W520213	Upper stabilizer bar link nut
9	W710298	Upper ball joint nut
10	W700390	Shock absorber mounting bracket nut (3 required)
11	3B438	Stabilizer bar link
12		Wheel speed sensor wiring harness retainer (part of 2C204)

Removal

NOTICE: Suspension fasteners are critical parts because they affect performance of vital components and systems and their failure may result in major service expense. New parts must be installed with the same part numbers or equivalent part, if replacement is necessary. Do not use a replacement part of lesser quality or substitute design. Torque values must be used as specified during reassembly to make

sure correct retention of these parts.

1. A WARNING: Before servicing a vehicle equipped with a fire suppression system, depower the system by following the procedure in <u>Section 419-03</u>. Failure to follow the instructions may result in serious personal injury.

Remove the wheel and tire. For additional information, refer to Section 204-04.

2. A WARNING: Do not remove the shock absorber center nut. Removal of this nut releases the spring tension and may result in serious personal injury.

Remove and discard the 3 shock absorber upper mount nuts.

3. NOTICE: Do not allow the caliper and anchor plate assembly to hang from the brake hose or damage to the hose may occur.

Remove the 2 bolts and position the caliper, pads and anchor plate assembly aside.

- Support the caliper and anchor plate assembly using mechanic's wire.
- 4. Remove the brake disc.
- 5. **NOTE:** Use the hex-holding feature to prevent the stud from turning while removing the nut.

Remove and discard the stabilizer bar upper link nut.

6. **NOTE:** Use the hex-holding feature to prevent the stud from turning while removing the nut.

Remove and discard the stabilizer bar link lower nut and the stabilizer bar link.

- 7. Detach the wheel speed sensor wiring harness retainer from the wheel knuckle.
- 8. **NOTE:** Use the hex-holding feature to prevent the stud from turning while removing the nut.

Remove and discard the upper ball joint nut.

- 9. Remove and discard the shock absorber lower nut and flag bolt.
- 10. Remove the shock absorber and spring assembly.

Installation

1. **NOTE:** Do not tighten the nut at this time.

Install the shock absorber and spring assembly and loosely install the new lower nut and flag bolt.

- 2. Install the new upper ball joint nut and tighten to 150 Nm (111 lb-ft).
- 3. Attach the wheel speed sensor wiring harness to the wheel knuckle.
- 4. Position the stabilizer bar link and install the 2 new nuts.
 - Tighten the lower nut to 55 Nm (41 lb-ft).
 - Tighten the upper nut to 63 Nm (46 lb-ft).

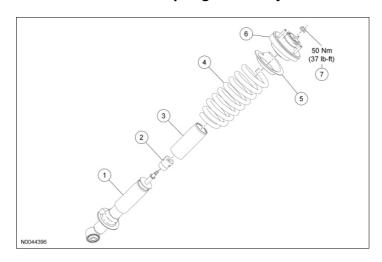
- 5. Install the brake disc.
- 6. Position the brake caliper and anchor plate assembly and install the 2 anchor plate bolts.
 - Tighten to 160 Nm (118 lb-ft).
- 7. Install the wheel and tire. For additional information, refer to Section 204-04.
- 8. Install the 3 new shock absorber upper mount nuts.
 - Tighten to 30 Nm (22 lb-ft).
- 9. With the weight of the vehicle on the wheel and tire assemblies, tighten the shock absorber lower nut to 235 Nm (173 lb-ft).
- 10. A WARNING: If the vehicle is equipped with a fire suppression system, repower the system. For important safety warnings and procedures, refer to Section 419-03. Failure to follow these instructions may result in serious personal injury.

If equipped with a fire suppression system, repower the system.

SECTION 204-01: Front Suspension DISASSEMBLY AND ASSEMBLY

2009 Crown Victoria/Grand Marquis Workshop Manual Procedure revision date: 07/21/2008

Shock Absorber and Spring Assembly



Item	Part Number	Description
1	18045	Shock absorber
2		Jounce bumper
3		Dust boot
4	5310	Coil spring
5	5415	Coil spring insulator
6	18183	Shock absorber mounting bracket
7	W520114	Shock rod nut

Disassembly

▲ WARNING: Do not apply heat or flame to the shock absorber or strut tube. The shock absorber and strut tube are gas pressurized and could explode if heated. Failure to follow this instruction may result in serious personal injury.

△ WARNING: Keep all body parts clear of shock absorbers or strut rods. Shock absorbers or struts can extend unassisted. Failure to follow this instruction may result in serious personal injury.

△ WARNING: Do not remove the shock absorber center nut. Removal of this nut releases the spring tension and may result in serious personal injury.

NOTICE: Suspension fasteners are critical parts because they affect performance of vital components and systems and their failure may result in major service expense. New parts must be installed with the same part numbers or equivalent part, if replacement is necessary. Do not use a replacement part of lesser quality or substitute design. Torque values must be used as specified during reassembly to make sure correct retention of these parts.

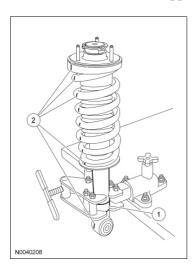
1. A WARNING: Before servicing a vehicle equipped with a fire suppression system, depower the system by following the procedure in <u>Section 419-03</u>. Failure to follow the instructions may result in serious personal injury.

Remove the shock absorber and spring assembly. For additional information, refer to **Shock Absorber** and **Spring Assembly** in this section.

2. NOTICE: Overtightening the vise may damage the shock absorber tube.

Mount and mark the shock absorber and spring assembly.

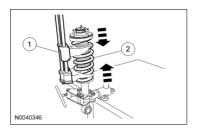
- 1. Position the shock absorber and spring assembly in a suitable holding device.
- 2. Mark the upper mounting bracket, spring and shock absorber for assembly reference.



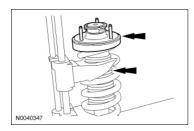
3. **NOTE:** If installing a new spring, make sure the part number is correct. Refer to the Vehicle Certification (VC) label for the correct spring code. For additional information, refer to Section 100-01 to convert the spring code to a part number.

Compress the spring.

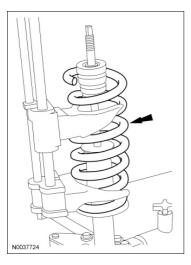
- 1. Install an appropriate spring compressor.
- 2. Compress the spring.



- 4. While holding the shock absorber rod, remove and discard the nut.
- 5. Remove the mounting bracket and dust boot as an assembly.



6. Carefully remove the spring and spring compressor.



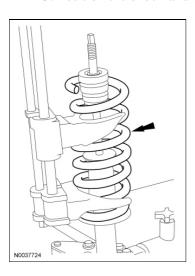
Assembly

NOTE: If a new shock absorber, spring or upper mount is installed, the new part should be marked in the same place as the old part to make sure the assembly is correctly aligned.

- 1. Inspect the lower and upper spring seats for damage.
- 2. Inspect the spring insulator for wear or damage. Install a new mounting bracket if necessary.
- 3. **NOTE:** If installing a new spring, make sure the part number is correct. Refer to the VC label for the correct spring code. For additional information, refer to <u>Section 100-01</u> to convert the spring code to a part number.

Inspect the spring for nicked or scratched paint. If the paint is nicked or scratched, install a new spring.

- 4. If removed, place the shock absorber into the vise.
- 5. Position the shock and spring compressor onto the strut.



- 6. Position the mounting bracket and dust boot onto the spring. Make sure the marks made during Disassembly, Step 3, are lined up.
- 7. Install a new shock rod nut.
 - To install, tighten to 50 Nm (37 lb-ft).

- 8. Remove the spring compressor.
- 9. Install the shock absorber and spring assembly. For additional information, refer to **Shock Absorber** and **Spring Assembly** in this section.
- 10. A WARNING: If the vehicle is equipped with a fire suppression system, repower the system. For important safety warnings and procedures, refer to Section 419-03. Failure to follow these instructions may result in serious personal injury.

If equipped with a fire suppression system, repower the system.