



V-PERFORMANCE PARTS

Blackwing Front Brake Cooling Deflector Kit Installation Instructions

Thank you for choosing genuine GM accessories. General Motors is committed to providing high quality accessories engineered to exceed your expectations for fit and function.

IMPORTANT!

Dealer Installation

Installation instructions for this accessory are available through GM Service Information (S.I.) within the "Accessories Manual" section specific to the vehicle make, model and year.

Customer Installation

Installation instructions for this accessory have been made available through the General Motors Accessory websites at the following locations:

- accessories.Chevrolet.com
- accessories.GMC.com
- accessories.Buick.com
- accessories.Cadillac.com

Navigate to the accessory for your vehicle and select the documentation link to view the installation instructions.

Note: Some accessories require vehicle programming to complete the installation. Programming can only be performed by a GM certified dealer technician. Refer to the instruction sheet for details. Not all installation instructions may be available. See your dealer for additional information.

Kit Contents

1	Rear Lower Control Arm Deflector – Left Hand	84946131
1	Rear Lower Control Arm Deflector – Right Hand	84946132
1	Rear Lower Control Arm Deflector Spacer Bracket – Left Hand	84946133
1	Rear Lower Control Arm Deflector Spacer Bracket – Right Hand	84946134
6	Fastener M5 Hex Fastener	11548166
6	Fastener M5 U-Nut	11546388
1	Installation Instructions	-

Observe all safety precautions and warnings in the service manuals when installing components on any vehicle. Wear eye protection and appropriate protective clothing. When working under or around the vehicle, support it securely with jack stands. Use only the proper tools. Exercise extreme caution when working with flammable, corrosive, and hazardous liquids and materials. Some procedures require special equipment and skills. If you do not have the appropriate training, expertise, and tools to perform any part of this conversion safely, this work should be done by a professional.

Special Tools

CH-41013 Rotor Resurfacing Kit

CH-42450-A Wheel Hub Resurfacing Kit

Warning: The battery must be disconnected to prevent the brake master cylinder from pressurizing the hydraulic system during its automated self diagnostic tests that can possibly occur when a door is opened or the key transmitter is activated. Failure to follow this precaution may cause personal injury.

Warning: Avoid taking the following actions when you service wheel brake parts:

- Do not grind brake linings.
- Do not sand brake linings.
- Do not clean wheel brake parts with a dry brush or with compressed air.

Some models or aftermarket brake parts may contain asbestos fibers which can become airborne in dust. Breathing dust with asbestos fibers may cause serious bodily harm. Use a water-dampened cloth in order to remove any dust on brake parts. Equipment is available commercially in order to perform this washing function. These wet methods prevent fibers from becoming airborne.

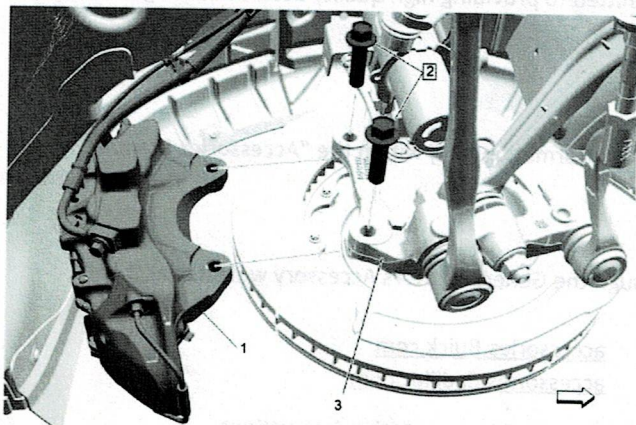
Procedure

1. Disconnect the battery negative cable. Refer to Battery Negative Cable Disconnection and Connection in Vehicle Service Manual.
2. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle in Vehicle Service Manual.



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3. Remove the front wheel and tire assembly. Refer to Tire and Wheel Removal and Installation in Vehicle Service Manual.

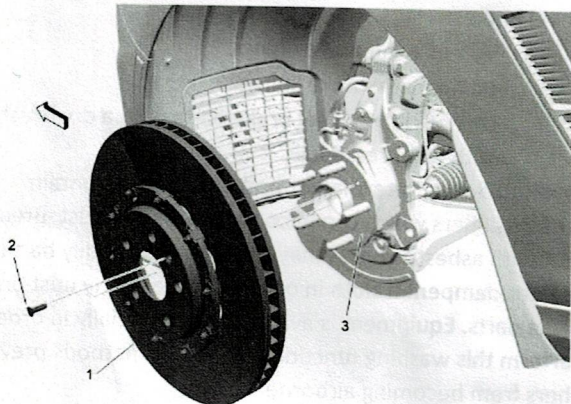


4. Front Brake Caliper Bolt (2) » Remove [2x]

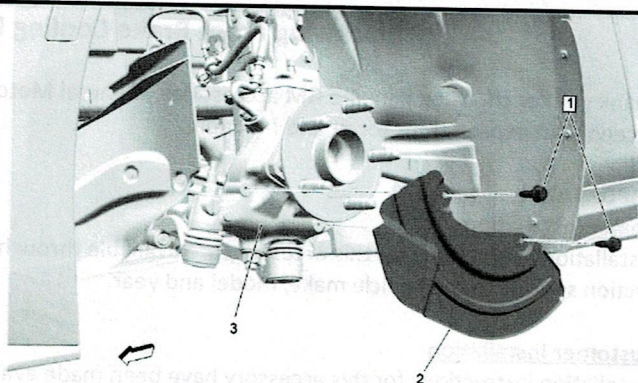
Caution: Support the brake caliper with heavy mechanic wire, or equivalent, whenever it is separated from its mount and the hydraulic flexible brake hose is still connected. Failure to support the caliper in this manner will cause the flexible brake hose to bear the weight of the caliper, which may cause damage to the brake hose and in turn may cause a brake fluid leak.

Note: It is not necessary to disconnect the front brake hose.

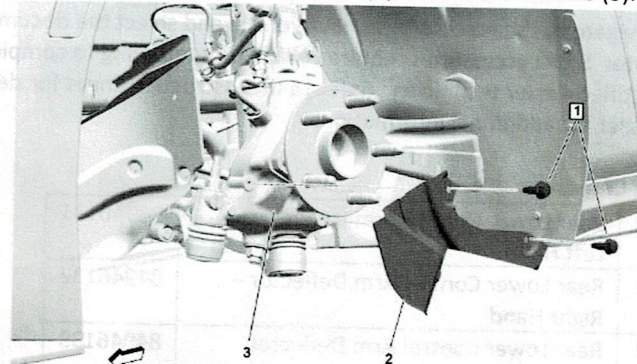
5. Remove the brake caliper (1) from the knuckle (3) and support with heavy mechanics wire.



6. Front Brake Rotor Bolt (2) » Remove
7. Remove the front brake rotor (1) from front hub (3).



8. Remove the front brake shield bolts (1).
9. Remove the front brake shield (2) from front knuckle (3).



Caution: Use the correct fastener in the correct location. Replacement fasteners must be the correct part number for that application. Fasteners requiring replacement or fasteners requiring the use of thread locking compound or sealant are identified in the service procedure. Do not use paints, lubricants, or corrosion inhibitors on fasteners or fastener joint surfaces unless specified. These coatings affect fastener torque and joint clamping force and may damage the fastener. Use the correct tightening sequence and specifications when installing fasteners in order to avoid damage to parts and systems.

10. Position Ball Joint Protector Front Rotor Shield (2) (P/N: LH-23385146 / RH-23385147) to front knuckle (3) and secure with the provided M6 fasteners (1). Tighten M6 fasteners to **9 N.m (80 lb in)**.

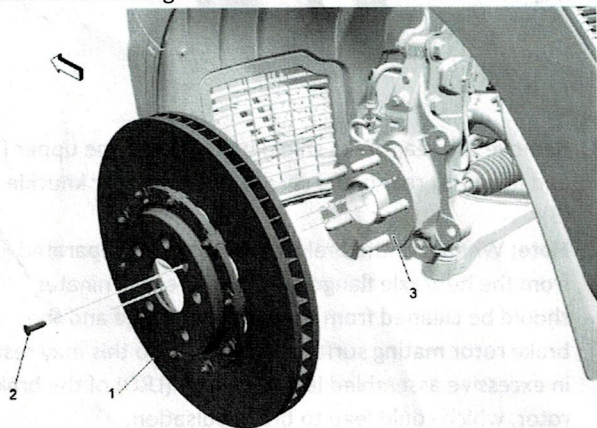
Note: Whenever the brake rotor has been separated from the hub/axle flange, any rust or contaminants should be cleaned from the hub/axle flange and the



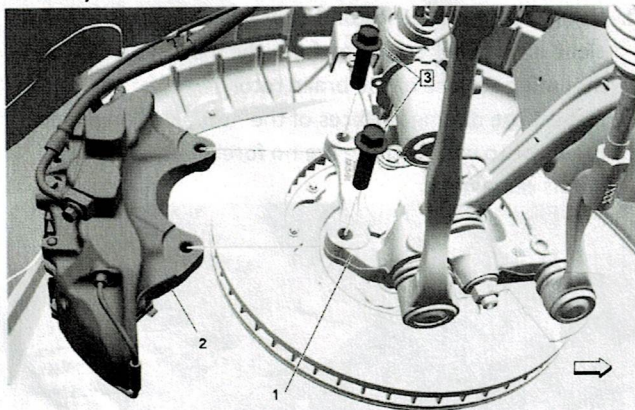
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brake rotor mating surfaces. Failure to do this may result in excessive assembled lateral runout (LRO) of the brake rotor, which could lead to brake pulsation.

11. Using the *CH-42450-A* Wheel Hub Resurfacing Kit, thoroughly clean any rust or corrosion from the mating surface of the hub/axle flange.
12. Using the *CH-41013* Rotor Resurfacing Kit, thoroughly clean any rust or corrosion from the mating surface and mounting surface of the brake rotor.
13. Inspect the mating surfaces of the hub/axle flange and the rotor to ensure there are no foreign particles or debris remaining.



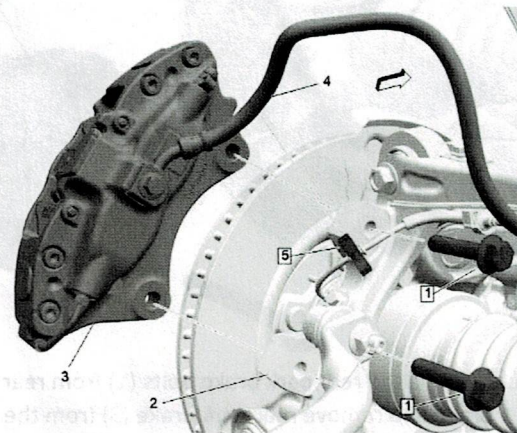
14. Reinstall front brake rotor (1) to front hub (3) and secure with front brake rotor bolt (2). Tighten bolt to **9 N.m (80 lb in)**.



15. Reinstall the front brake caliper (2) to the front knuckle (1).
16. If NEW threaded components are being installed, loosen the adhesive using a metal pick or similar tool before proceeding. If threaded components are reused, prepare the threaded components using the following steps a-d.

- a. Remove any loose cured adhesive from the external threads of the components using a lint free cloth.
- b. Thread the cleaned components into the internal mating threads and remove to loosen trapped cured adhesive.
- c. Apply thread locking adhesive to the external threads of the components.
- d. Ensure there are no gaps in the thread locking adhesive once applied to the compents.

17. Install the front brake caliper bolts (3) to front brake caliper and tighten:
 - a. **First Pass:** 150 N.m (111 lb ft).
 - b. **Final Pass:** 15 - 30 degrees.
18. Install the front wheel and tire assembly. Refer to Tire and Wheel Removal and Installation in Vehicle Service Manual.
19. Repeat steps 3 through 18 for opposite side.
20. Remove the rear wheel and tire assembly. Refer to Tire and Wheel Removal and Installation in Vehicle Service Manual.



Caution: Support the brake caliper with heavy mechanic wire, or equivalent, whenever it is separated from its mount and the hydraulic flexible brake hose is still connected. Failure to support the caliper in this manner will cause the flexible brake hose to bear the weight of the caliper, which may cause damage to the brake hose and in turn may cause a brake fluid leak.

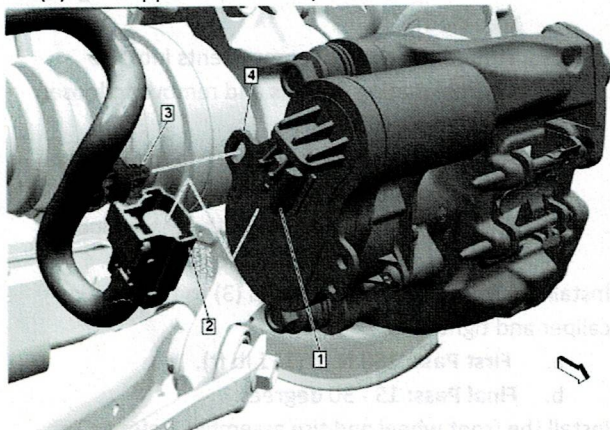
Note: Do NOT disconnect the hydraulic brake flexible hose from the caliper.

21. Rear Brake Caliper Bracket Bolt (1) » Remove[2x]
22. Disconnect retaining clip (5) from rear caliper hose (4).

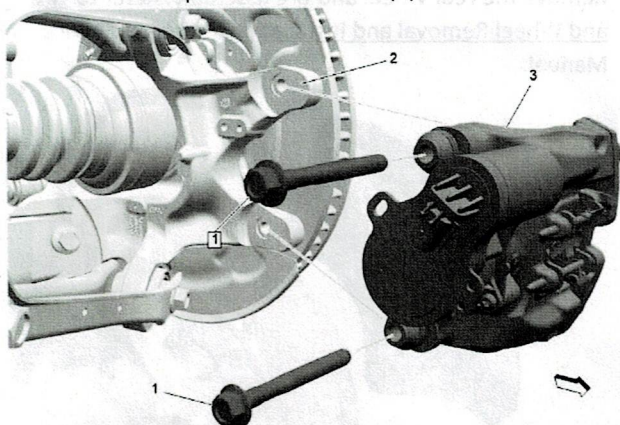


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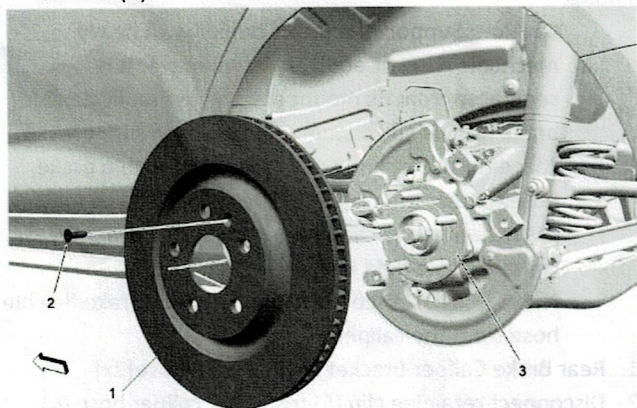
23. Remove the rear brake caliper (3) from the rear knuckle (2) and support with heavy mechanics wire.



24. Disconnect the electrical connector (2) from the rear park brake (1) and disengage the harness retainer (3) from the rear park brake bracket (4).

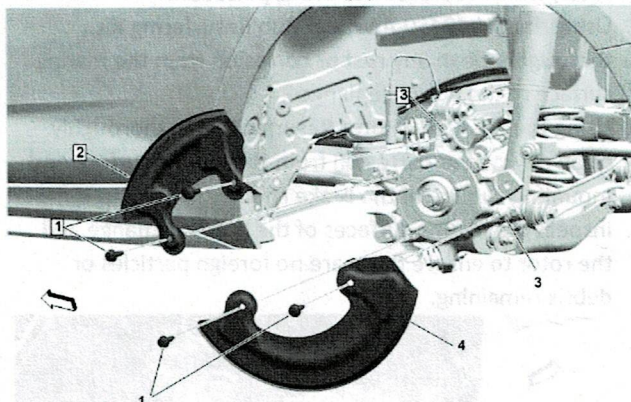


25. Remove the rear park brake bolts (1) from rear park brake and remove rear park brake (3) from the rear knuckle (2).



26. Remove the rear brake rotor bolt (2) from rear brake rotor.

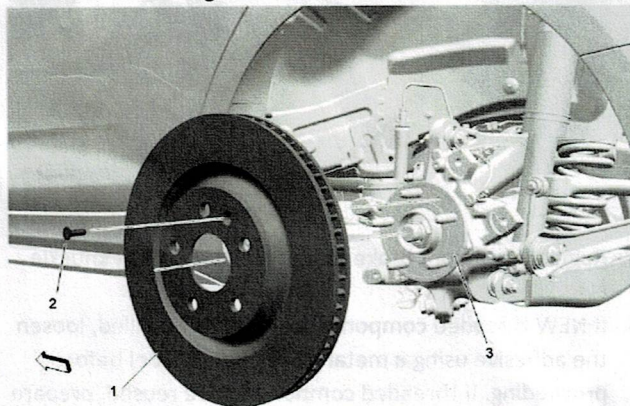
27. Remove the rear brake rotor (1) from the rear hub (3).



28. Remove the rear brake shield bolts (1) and the upper (2) and lower (4) rear brake shields from the rear knuckle (3).

Note: Whenever the brake rotor has been separated from the hub/axle flange, any rust or contaminants should be cleaned from the hub/axle flange and the brake rotor mating surfaces. Failure to do this may result in excessive assembled lateral runout (LRO) of the brake rotor, which could lead to brake pulsation.

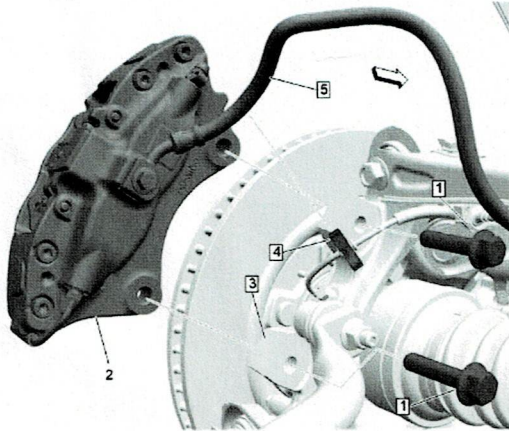
29. Using the CH-42450-A Wheel Hub Resurfacing Kit, thoroughly clean any rust or corrosion from the mating surface of the hub/axle flange.
30. Using the CH-41013 Rotor Resurfacing Kit, thoroughly clean any rust or corrosion from the mating surface and mounting surface of the brake rotor.
31. Inspect the mating surfaces of the hub/axle flange and the rotor to ensure there are no foreign particles or debris remaining.





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32. Reinstall the rear brake rotor (1) to the rear hub (3) and secure with the rear brake rotor bolt (2). Tighten bolt to **9 N.m (80 lb in)**.



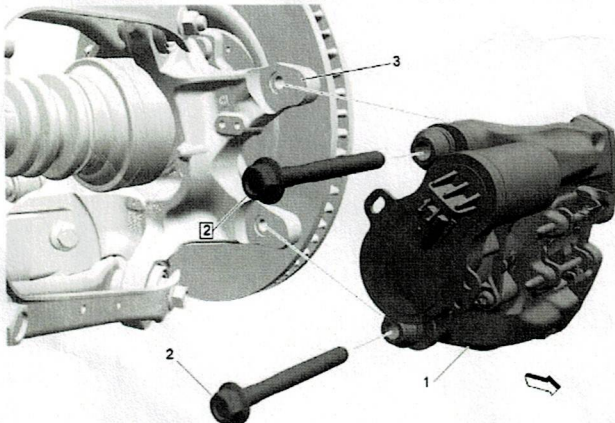
33. Reinstall the rear brake caliper (2) to the rear knuckle (3).
34. Prepare the 2 rear caliper bracket bolts (1) for installation as follows:

- Remove any loose cured adhesive from the external threads of the components using a lint free cloth.
- Thread the cleaned components into the internal mating threads and remove to loosen trapped cured adhesive.
- Apply thread locking adhesive to the external threads of the components.
- Ensure there are no gaps in the thread locking adhesive once applied to the components.

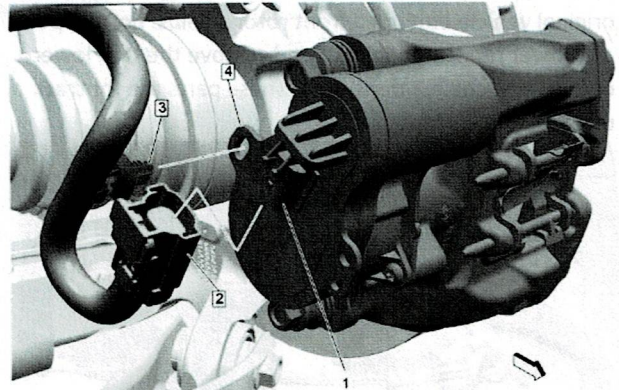
35. Install the rear brake caliper bolts (1) to rear brake caliper and tighten:

- First Pass:** 100 N.m (74 lb ft).
- Final Pass:** 15 - 30 degrees.

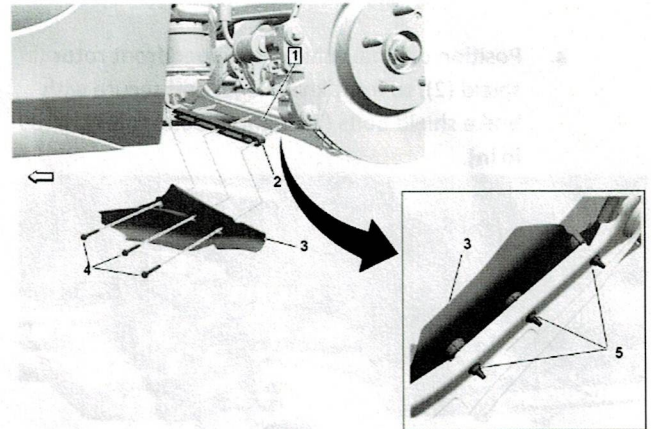
36. Reinstall the rear brake caliper hose (5) to retainer (4).



37. Reinstall the rear parking brake (1) to the rear knuckle (3) with the rear parking brake bolts (2). Tighten the bolts to **58 N.m (43 lb ft)**.



38. Connect the electrical connector (2) to the rear parking brake (1) and reinstall harness retainer (3) to rear parking brake bracket (4).

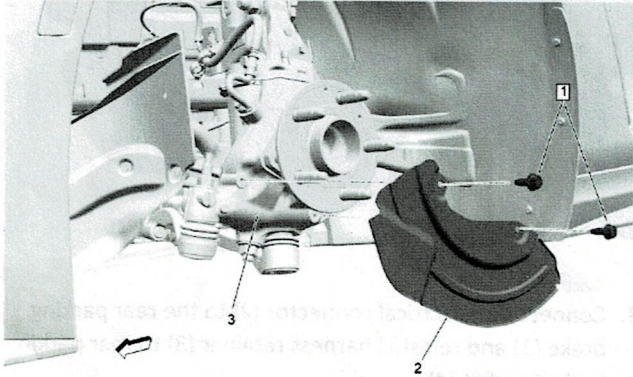


39. Position rear lower control arm deflector (3) (P/N: LH-84946131 / RH-84946132), and rear lower control arm deflector spacer bracket (2) (P/N: LH-84946133 / RH-84946134) to rear lower control arm (1) using M5 fasteners (4) (P/N: 11548166), secure rear lower control arm deflector (3) with M5 nuts (5) (P/N: 11546388) on the inside of the rear lower control arm.
40. Install the rear wheel and tire assembly. Refer to Tire and Wheel Removal and Installation in Vehicle Service Manual.
41. Repeat steps 20 through 40 for opposite side.
42. Lower the vehicle.

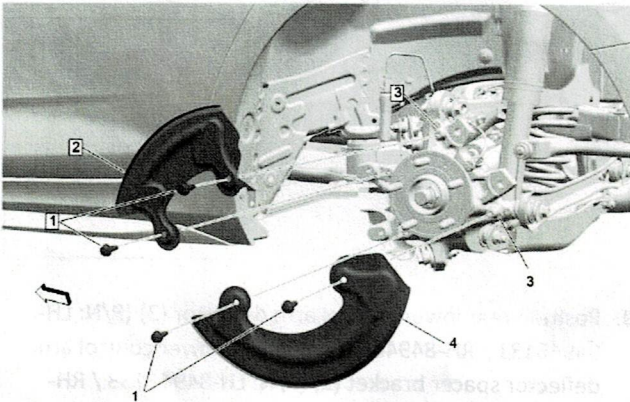


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43. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection in Vehicle Service Manual.
44. After any track event or competitive driving, reinstall the original vehicle equipped front rotor shields, both upper and lower rear rotor shields, and remove the rear lower control arm cooling deflectors. These parts are for track use only.



- a. Position original vehicle equipped front rotor shield (2), to front knuckle (3) and secure with brake shield bolts (2). Tighten bolts to **9 N.m (80 lb in)**.



- b. Position both upper (2) and lower (4) rear brake shields, to rear knuckle (3) and secure rear brake shield bolts (1). Tighten bolts to **9 N.m (80 lb in)**.