

SECTION 1G

ENGINE EXHAUST

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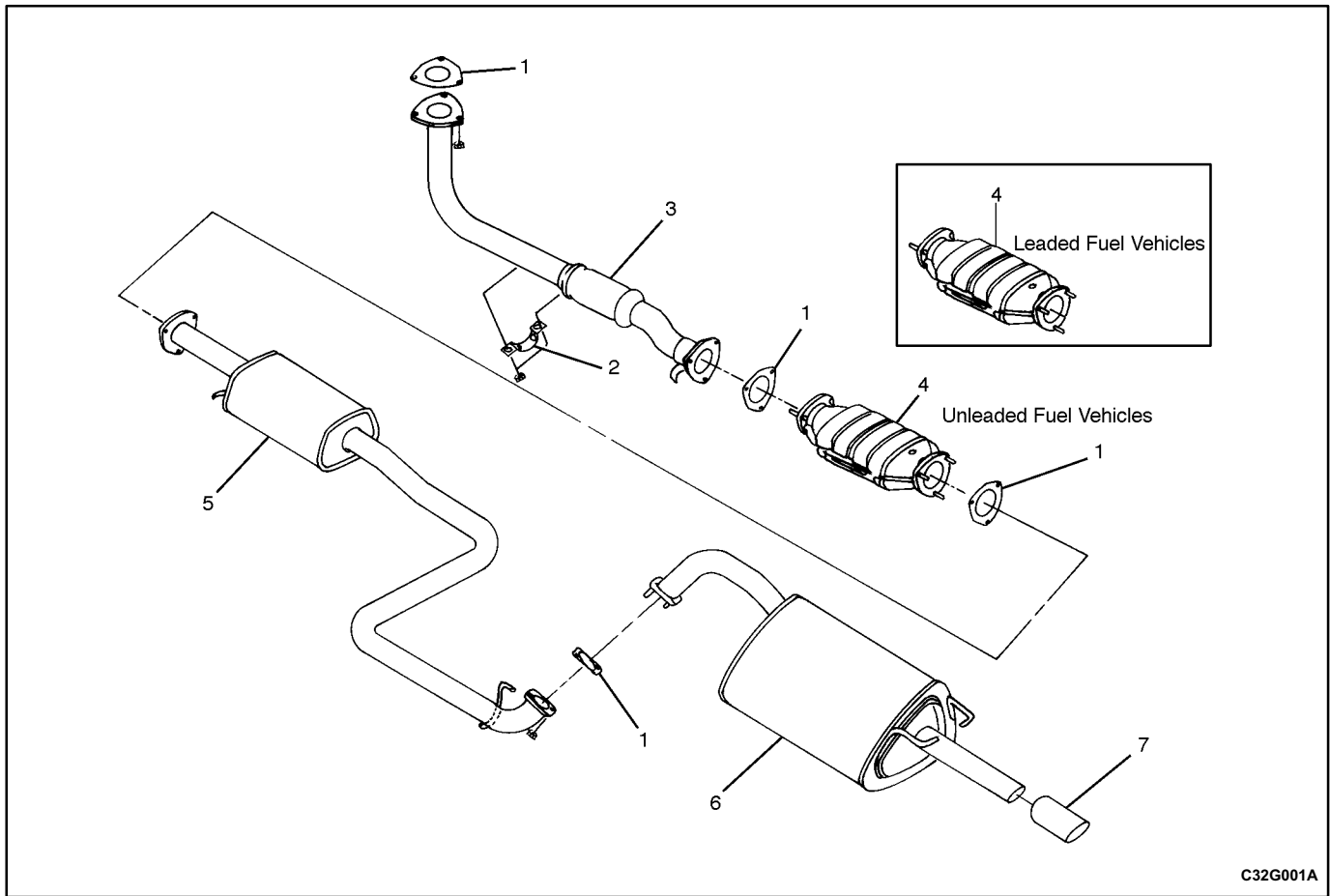
SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

Application	N•m	Lb•Ft	Lb•In
Front Exhaust Pipe to Catalytic Converter/Dummy Catalytic Converter Nuts	30	22	-
Front Exhaust Pipe to Exhaust Manifold Nuts	40	30	-
Front Muffler Pipe to Catalytic Converter/Dummy Catalytic Converter Nuts	30	22	-
Front Muffler Pipe to Rear Muffler Pipe Nuts	30	22	-
Lower Front Exhaust Pipe Mounting Bracket Nuts	30	22	-
Rear Muffler Pipe to Exhaust Trim Ring Bolt	15	11	-

COMPONENT LOCATORZD

EXHAUST SYSTEM



- 1 Metal Gasket
- 2 Metal Clamp
- 3 Front Exhaust Pipe
- 4 Catalytic Converter or Dummy Catalytic Converter

- 5 Front Muffler
- 6 Rear Muffler
- 7 Trim Ring

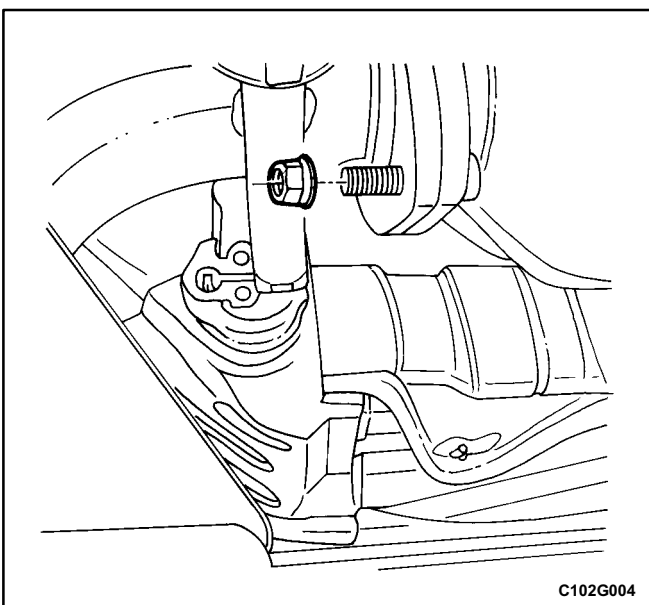
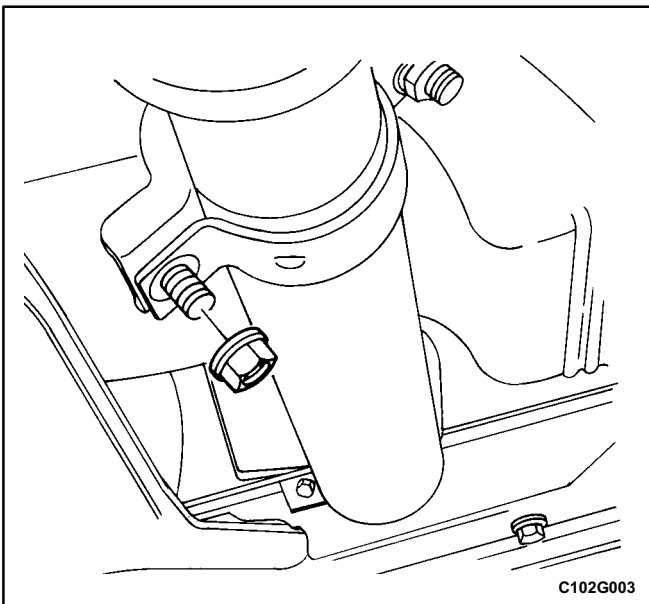
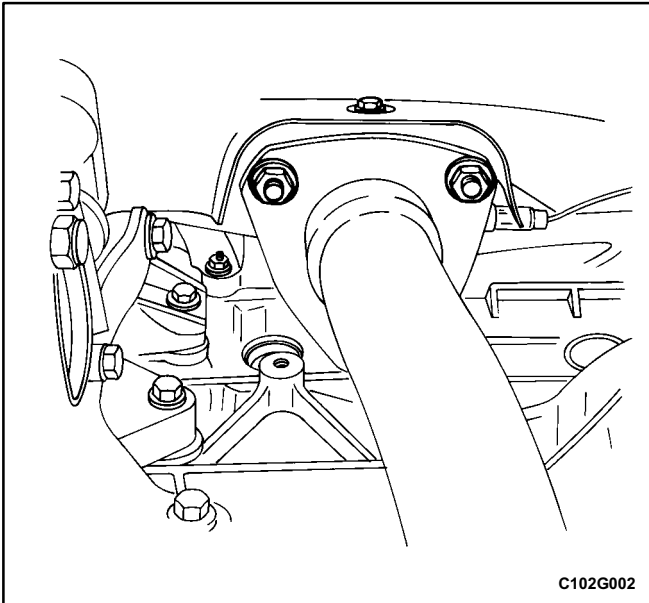
MAINTENANCE AND REPAIR

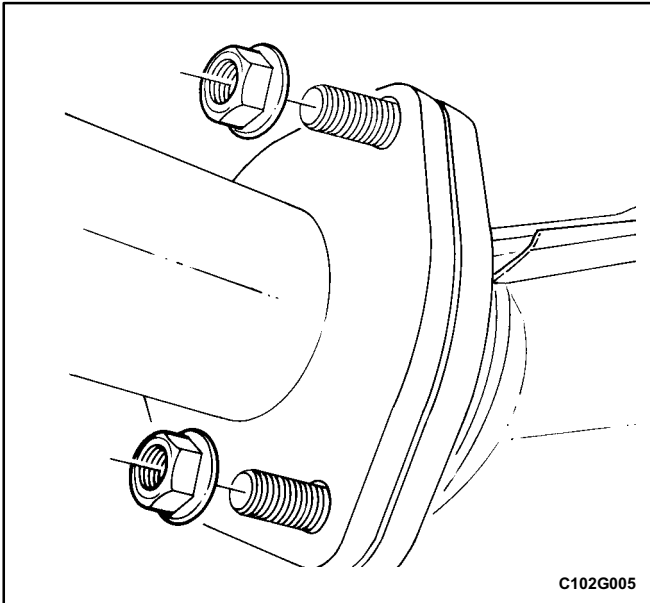
ON-VEHICLE SERVICE

CATALYTIC CONVERTER/ DUMMY CATALYTIC CONVERTER

Removal Procedure

1. Remove the splash guard. Refer to *Section 9N, Frame and Underbody*.
2. Remove the front exhaust pipe nuts and the gasket from the exhaust manifold.
3. Remove the locking nuts from the lower front exhaust pipe mounting bracket which attaches to the welded bolts of the upper front exhaust pipe mounting bracket.
4. Remove the lower front exhaust pipe bracket.
5. Remove the front exhaust pipe from the upper front exhaust pipe mounting bracket.
6. Remove the front exhaust pipe from the rubber ring hangers near where the front exhaust pipe flange connects to the catalytic converter (or the dummy catalytic converter) flange.
7. Remove the nuts that secure the front exhaust pipe flange to the catalytic converter (or the dummy catalytic converter) flange.





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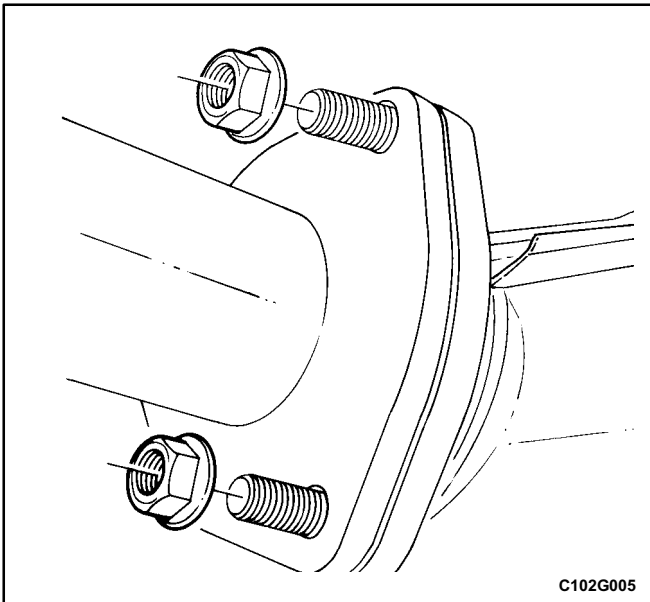
8. Remove the front exhaust pipe and the gasket.
9. Remove the nuts that secure the front muffler pipe to the catalytic converter (or the dummy catalytic converter) flange.
10. Remove the catalytic converter (or the dummy catalytic converter) and the gasket.
11. Clean the sealing surfaces on the front exhaust pipe flange and the exhaust manifold.
12. Check the front exhaust pipe and the catalytic converter (or the dummy catalytic converter) for holes, damage, open seams, or other deterioration which could permit exhaust fumes to seep into the passenger compartment or the trunk.

Installation Procedure

1. Install the gasket between the catalytic converter (or the dummy catalytic converter) flange and the front muffler pipe flange.
2. Install the catalytic converter (or the dummy catalytic converter) to the front muffler pipe.
3. Install the nuts to secure the front muffler pipe to the catalytic converter (or the dummy catalytic converter).

Tighten

Tighten the front muffler pipe to catalytic converter (or the dummy catalytic converter) nuts to 30 N•m (22 lb•ft).

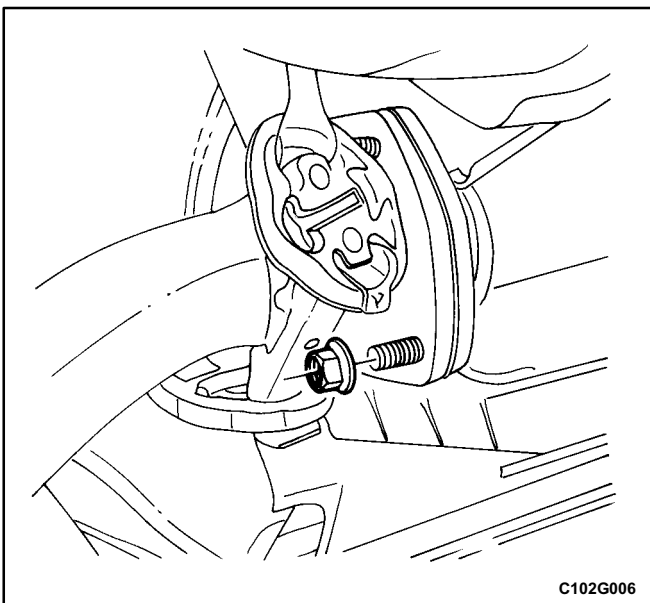


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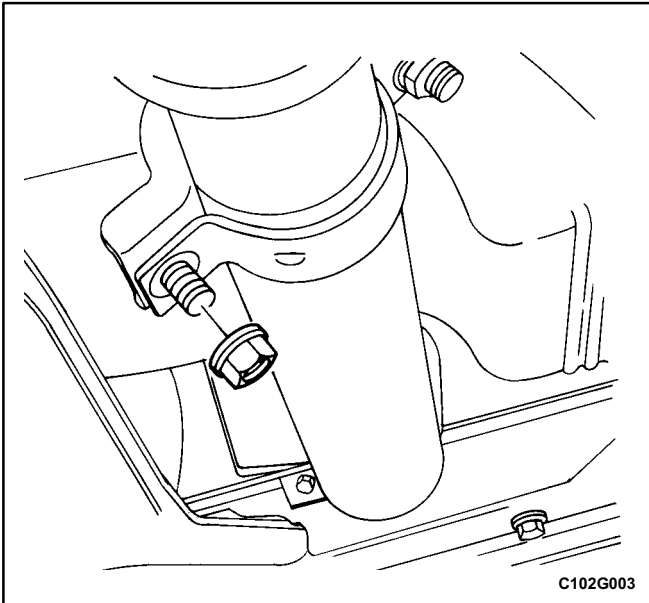
4. Install the front exhaust pipe to the rubber ring hangers.
5. Install the gasket between the front exhaust pipe flange and the catalytic converter (or the dummy catalytic converter) flange.
6. Install the front exhaust pipe to the catalytic converter (or the dummy catalytic converter) using the nuts.

Tighten

Tighten the front exhaust pipe to catalytic converter (or the dummy catalytic converter) nuts to 30 N•m (22 lb•ft).



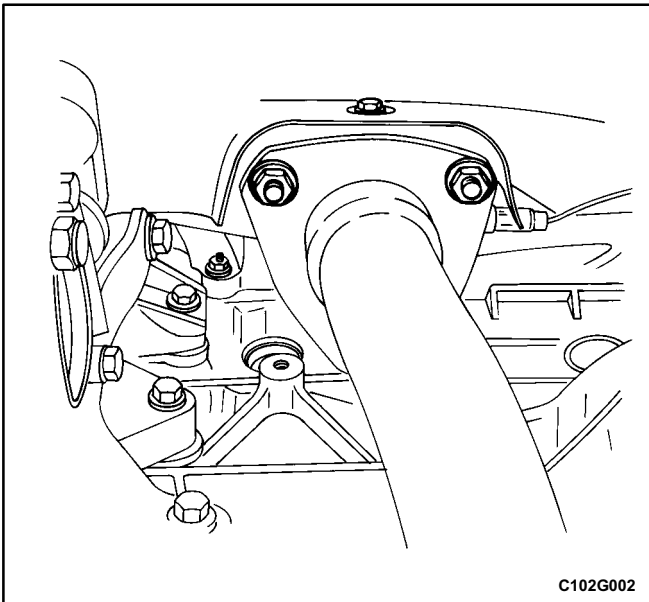
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7. Install the front exhaust pipe into the upper front exhaust pipe mounting bracket.
8. Install the lower front exhaust pipe mounting bracket onto the front exhaust pipe.
9. Install the lower front exhaust pipe mounting bracket to the welded bolts of the upper front exhaust pipe mounting bracket using the nuts.

Tighten

Tighten the lower front exhaust pipe mounting bracket nuts to 30 N•m (22 lb•ft).

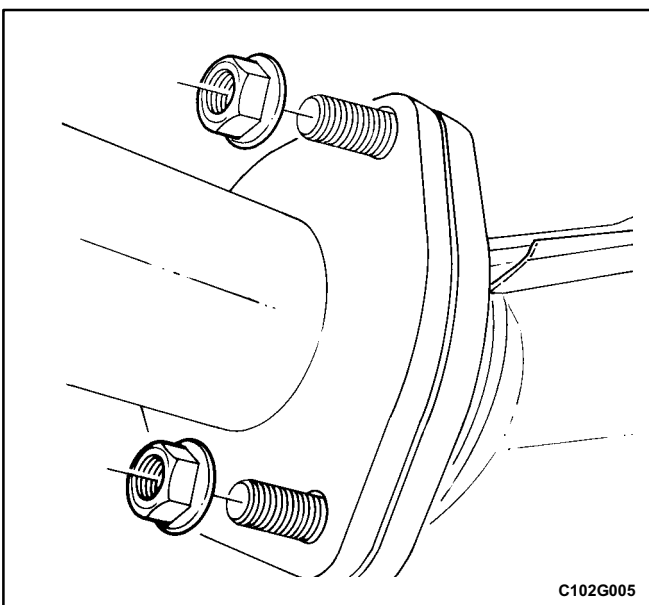


10. Install the gasket between the front exhaust pipe flange and the exhaust manifold.
11. Install the front exhaust pipe to the exhaust manifold using the nuts.

Tighten

Tighten the front exhaust pipe to exhaust manifold nuts to 40 N•m (30 lb•ft).

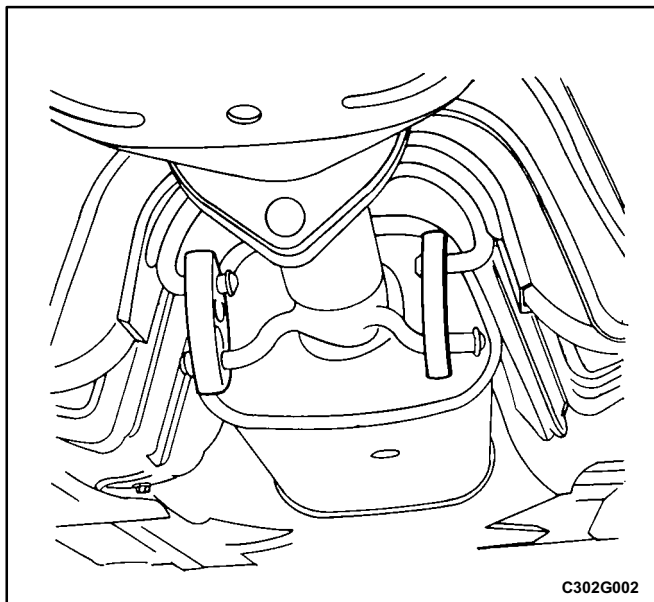
12. Install the splash guard. Refer to *Section 9N, Frame and Underbody*.



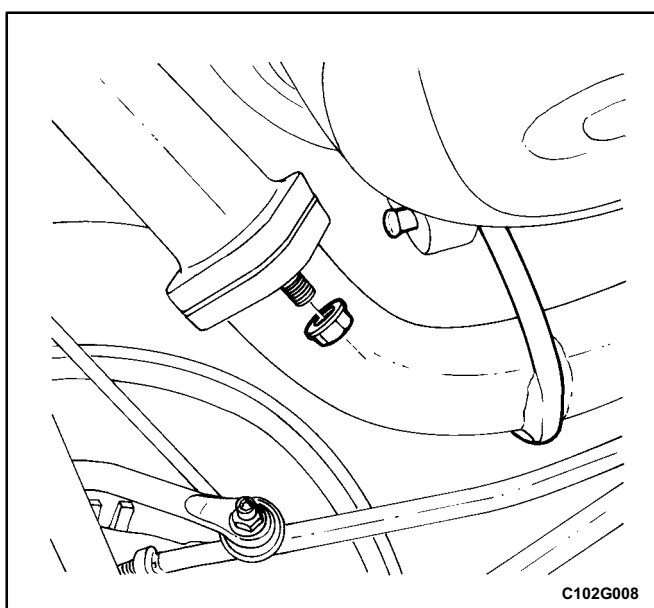
MUFFLER - FRONT

Removal Procedure

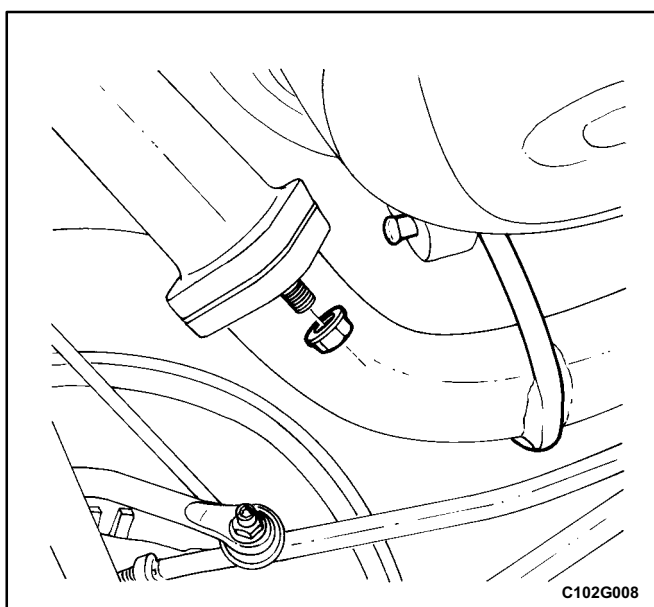
1. Remove the nuts that secure the front muffler pipe to the catalytic converter (or the dummy catalytic converter) flange.
2. Remove the gasket.



3. Remove the front muffler from the rubber hangers.



4. Remove the nuts that secure the front muffler pipe flange to the rear muffler pipe flange.
5. Remove the gasket from between the front muffler pipe flange and the rear muffler pipe flange.
6. Disconnect the front muffler pipe from the rubber hanger.
7. Remove the front muffler pipe.
8. Check the exhaust pipe and the front muffler pipe for holes, damage, open seams, or other deterioration which could permit exhaust fumes to seep into the passenger compartment or the trunk.

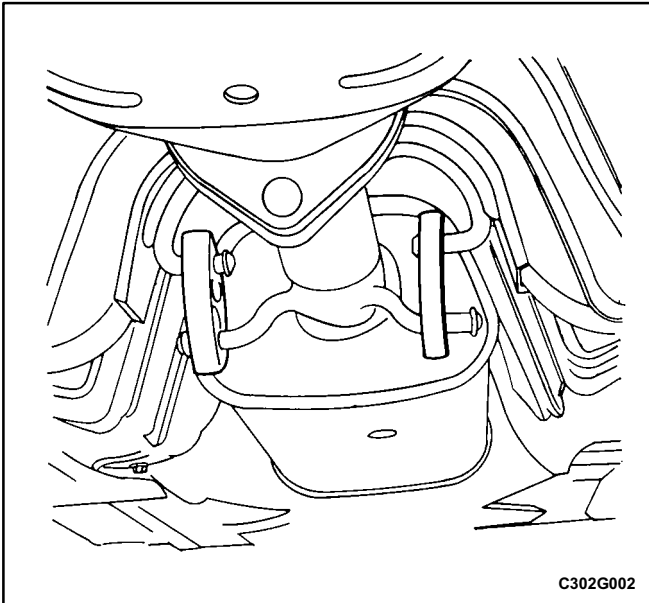


Installation Procedure

1. Install the front muffler pipe to the rubber hanger.
2. Install the gasket to the front muffler pipe.
3. Install the front muffler pipe to the rear muffler pipe with the nuts.

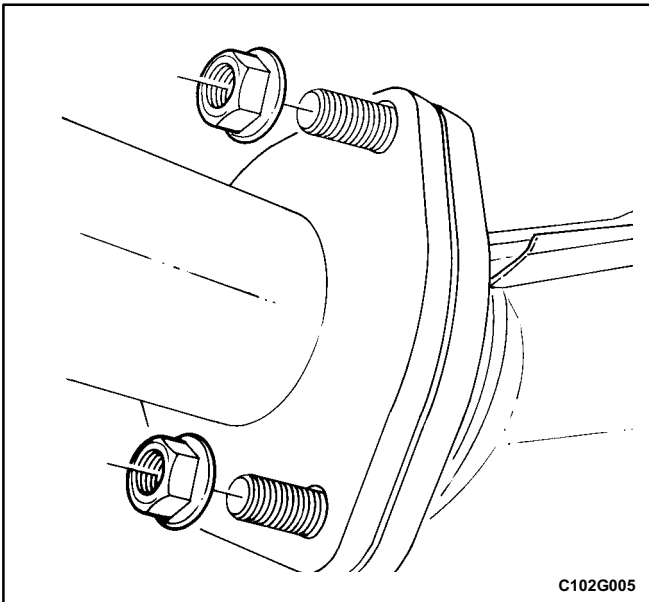
Tighten

Tighten the front muffler pipe to rear muffler pipe nuts to 30 N•m (22 lb•).



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4. Install the front muffler assembly to the rubber hangers.
5. Install the front muffler pipe to the catalytic converter (or the dummy catalytic converter) flange.

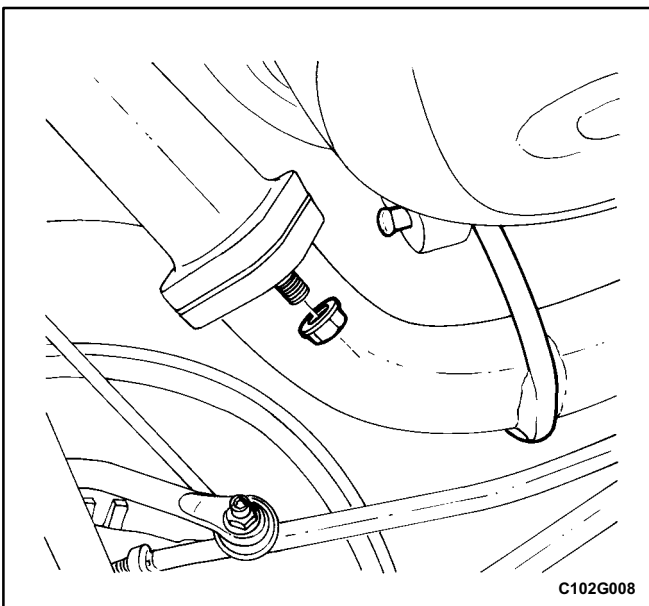


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6. Install the nuts to secure the front muffler pipe to the catalytic converter (or the dummy catalytic converter).

Tighten

Tighten the front muffler pipe to catalytic converter (or the dummy catalytic converter) nuts to 30 N•m (22 lb•).

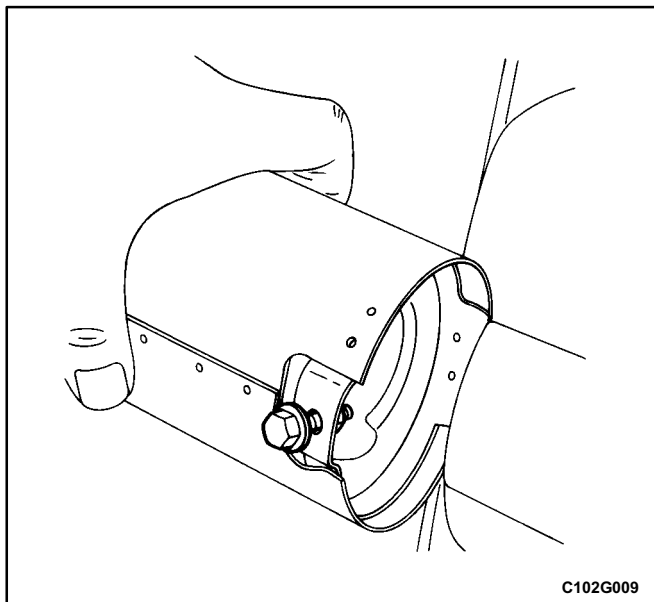


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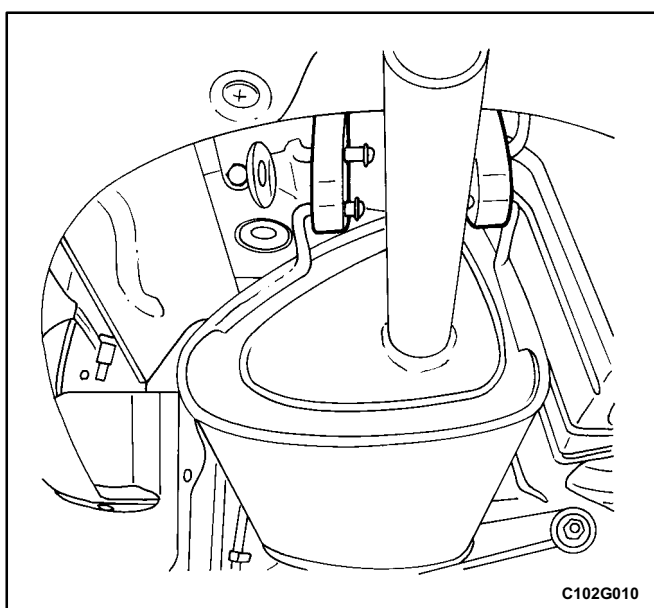
MUFFLER - REAR

Removal Procedure

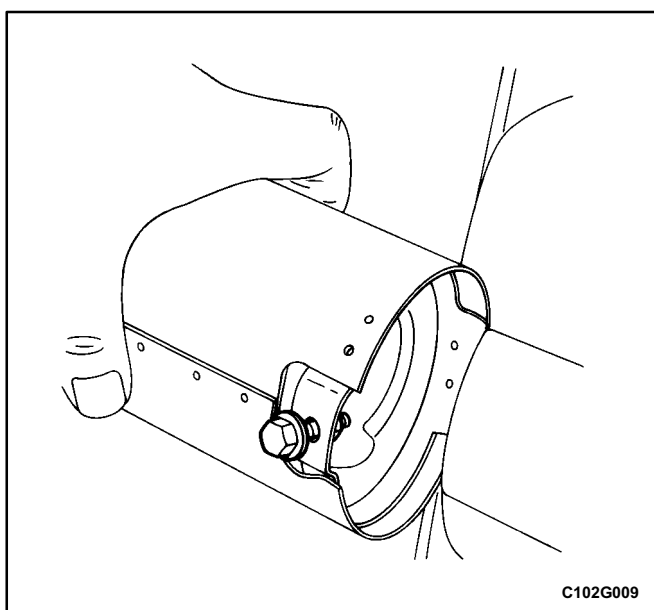
1. Remove the nuts that attach the rear muffler pipe flange to the front muffler pipe flange.
2. Remove the gasket from between the rear muffler pipe flange and the front muffler pipe flange.



3. Loosen the bolt that secures the trim ring to the rear muffler pipe.
4. Remove the trim ring.



5. Detach the rear muffler from the rubber hangers on the tail pipe end of the rear muffler assembly.
6. Remove the rear muffler assembly.
7. Check the rear muffler and the pipes for holes, damage, open seams, and other deterioration which could permit exhaust fumes to seep into the passenger compartment or the trunk.

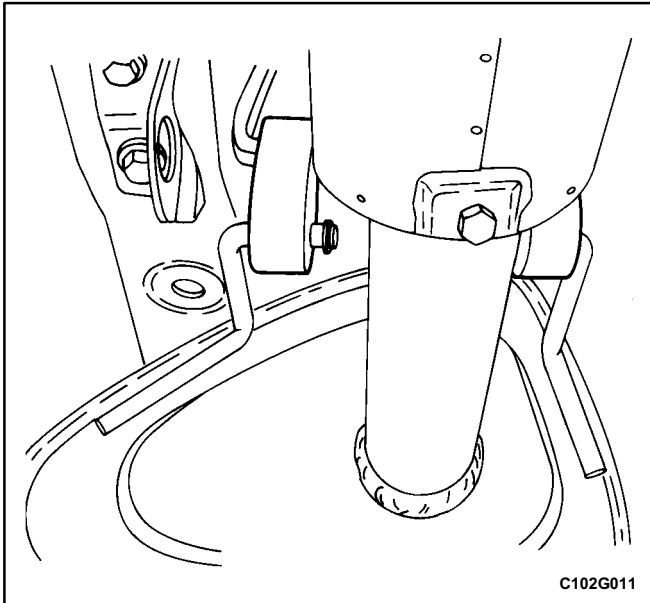


Installation Procedure

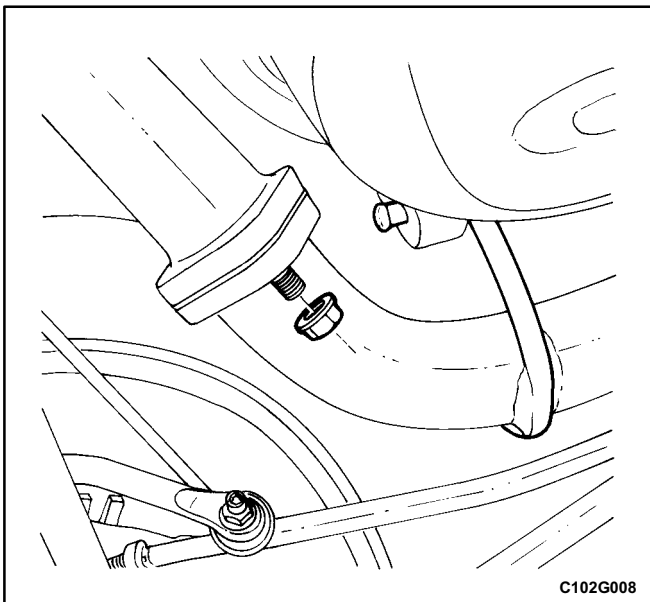
1. Place the exhaust tail pipe trim ring on the rear muffler pipe.
2. Secure the exhaust pipe trim ring on the rear muffler pipe with the bolt.

Tighten

Tighten the rear muffler pipe to exhaust trim ring bolt to 15 N•m (11 lb•ft).



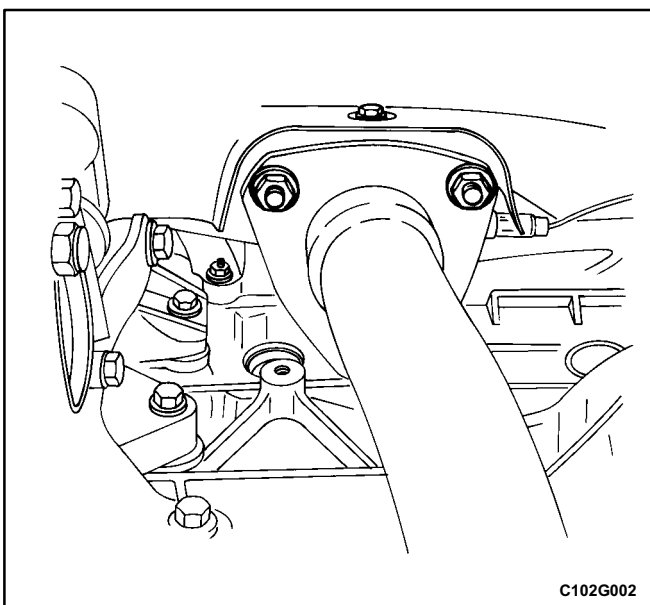
3. Install the rear muffler assembly on the rubber hangers.



4. Install the gasket between the rear muffler pipe flange and the front muffler pipe flange.
5. Install the front muffler pipe to the rear muffler pipe with the nuts.

Tighten

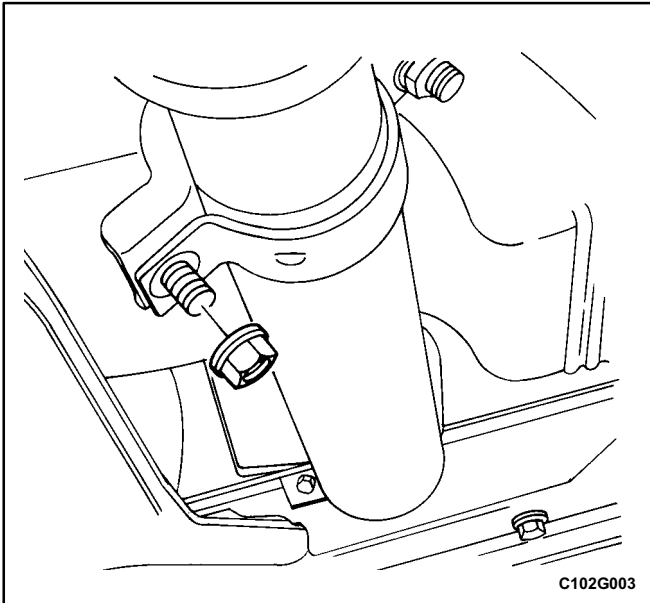
Tighten the front muffler pipe to rear muffler pipe nuts to 30 N•m (22 lb•ft).



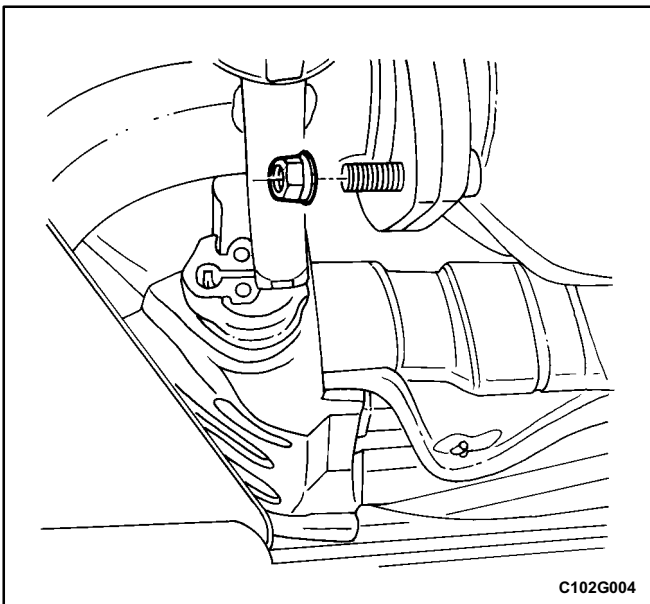
EXHAUST PIPE

Removal Procedure

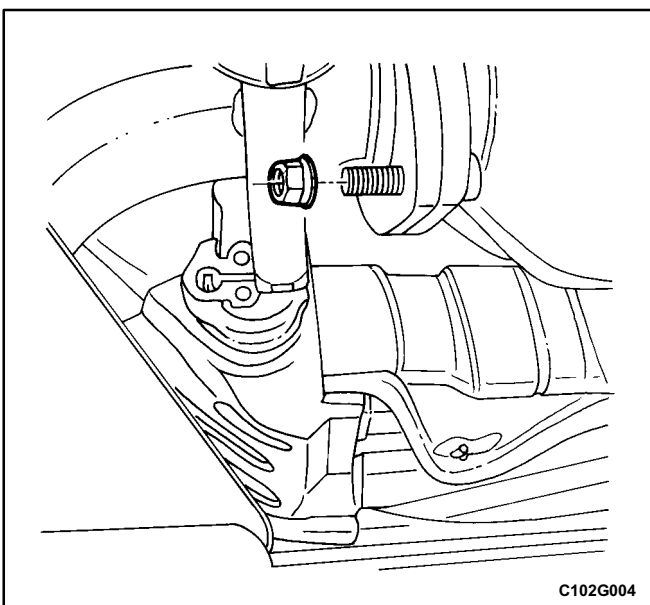
1. Remove the splash guard. Refer to *Section 9N, Frame and Underbody*.
2. Remove the front exhaust pipe nuts and the gasket from the exhaust manifold.



3. Remove the locking nuts from the lower front exhaust pipe mounting bracket which attaches to the welded bolts of the upper front exhaust pipe mounting bracket.
4. Remove the lower front exhaust pipe bracket from the front exhaust pipe.
5. Remove the front exhaust pipe from the upper front exhaust pipe mounting bracket.



6. Disconnect the front exhaust pipe from the rubber ring hangers near where the front exhaust pipe flange connects to the catalytic converter (or the dummy catalytic converter) flange.
7. Remove the nuts that secure the front exhaust pipe flange to the catalytic converter (or the dummy catalytic converter) flange.
8. Remove the front exhaust pipe and the gasket.
9. Check the front exhaust pipe and the catalytic converter (or the dummy catalytic converter) for holes, damage, open seams, or other deterioration which could permit exhaust fumes to seep into the passenger compartment or the trunk.
10. Clean the sealing surfaces on the front exhaust pipe flange and the exhaust manifold.

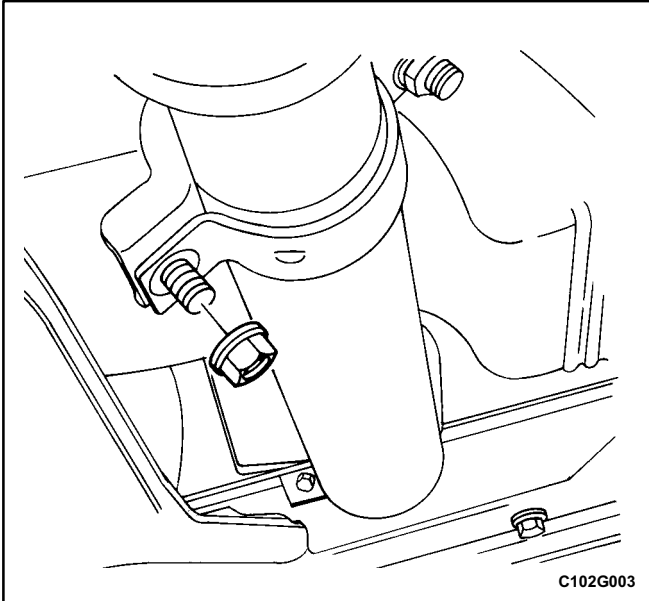


Installation Procedure

1. Install the front exhaust pipe on the rubber ring hangers.
2. Install the gasket between the front exhaust pipe and the catalytic converter (or the dummy catalytic converter).
3. Install the front exhaust pipe to the catalytic converter (or the dummy catalytic converter) using the nuts.

Tighten

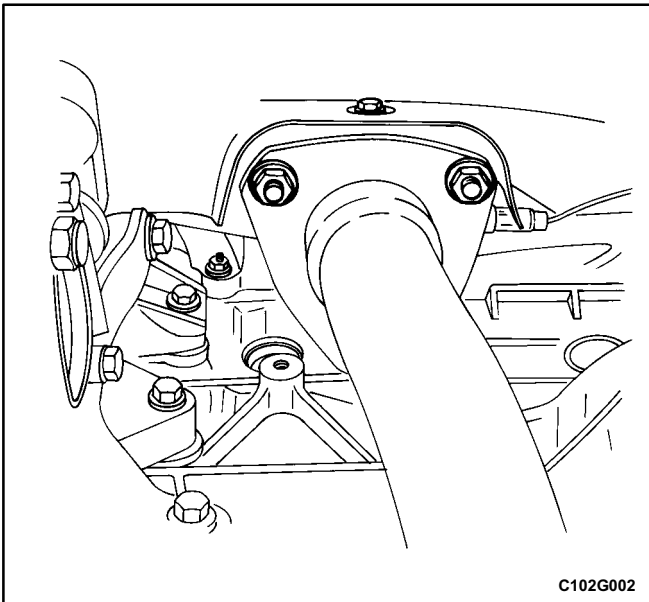
Tighten the front exhaust pipe to catalytic converter (or the dummy catalytic converter) nuts to 30 N•m (22 lb•ft).



4. Install the front exhaust pipe into the upper front exhaust pipe mounting bracket.
5. Install the lower front exhaust pipe mounting bracket onto the front exhaust pipe.
6. Use the nuts to secure the lower front exhaust pipe mounting bracket to the welded bolts of the upper front exhaust pipe mounting bracket.

Tighten

Tighten the lower front exhaust pipe mounting bracket nuts to 30 N•m (22 lb•ft).



7. Install the front exhaust pipe and the gasket to the exhaust manifold using the nuts.

Tighten

Tighten the front exhaust pipe to exhaust manifold nuts to 40 N•m (30 lb•ft).

8. Install the splash guard. Refer to *Section 9N, Frame and Underbody*.

GENERAL DESCRIPTION AND SYSTEM OPERATION

EXHAUST SYSTEM

Notice: When you are inspecting or replacing exhaust system components, make sure there is adequate clearance from all points on the underbody to avoid possible overheating of the floor pan and possible damage to the passenger compartment insulation and trim materials.

Check the complete exhaust system and the nearby body areas and trunk lid for broken, damaged, missing or mispositioned parts, open seams, holes, loose connections, or other deterioration which could permit exhaust fumes to seep into the trunk or passenger compartment. Dust or water in the trunk may be an indication of a problem in one of these areas. Any defects should be corrected immediately.

The exhaust manifold to front exhaust pipe connection is a flex joint.

MUFFLER

Aside from the exhaust manifold connection, the exhaust system uses a flange and seal joint design rather than a slip joint coupling design with clamp and U bolts. The exhaust manifold to exhaust pipe connection is a flex joint. If holes, open seams, or any deterioration is discovered upon inspection of the front muffler and pipe assembly, the complete assembly should be replaced.

The same procedure is applicable to the rear muffler assembly.

Heat shields for the front and rear muffler assembly and the catalytic converter protect the vehicle and the environment from the high temperatures that the exhaust system develops.

CATALYTIC CONVERTER

Notice: When jacking or lifting the vehicle from the body side rails, be certain that the lift pads do not contact the catalytic converter, as this could damage the catalytic converter.

Notice: Use of anything other than unleaded fuel will damage the catalyst in the catalytic converter.

The catalytic converter is an emission control device added to the exhaust system to reduce pollutants from the exhaust pipes.

The oxidation catalyst is coated with a catalytic material containing platinum and palladium, which reduces levels of hydrocarbon (HC) and carbon monoxide (CO) from the exhaust gas. The three way catalyst has coatings which contain platinum and rhodium, which additionally lower the levels of oxides of nitrogen (NOx).

DUMMY CATALYTIC CONVERTER

A dummy catalytic converter is used in place of the catalytic converter for those vehicles using leaded fuel to reduce exhaust noise.