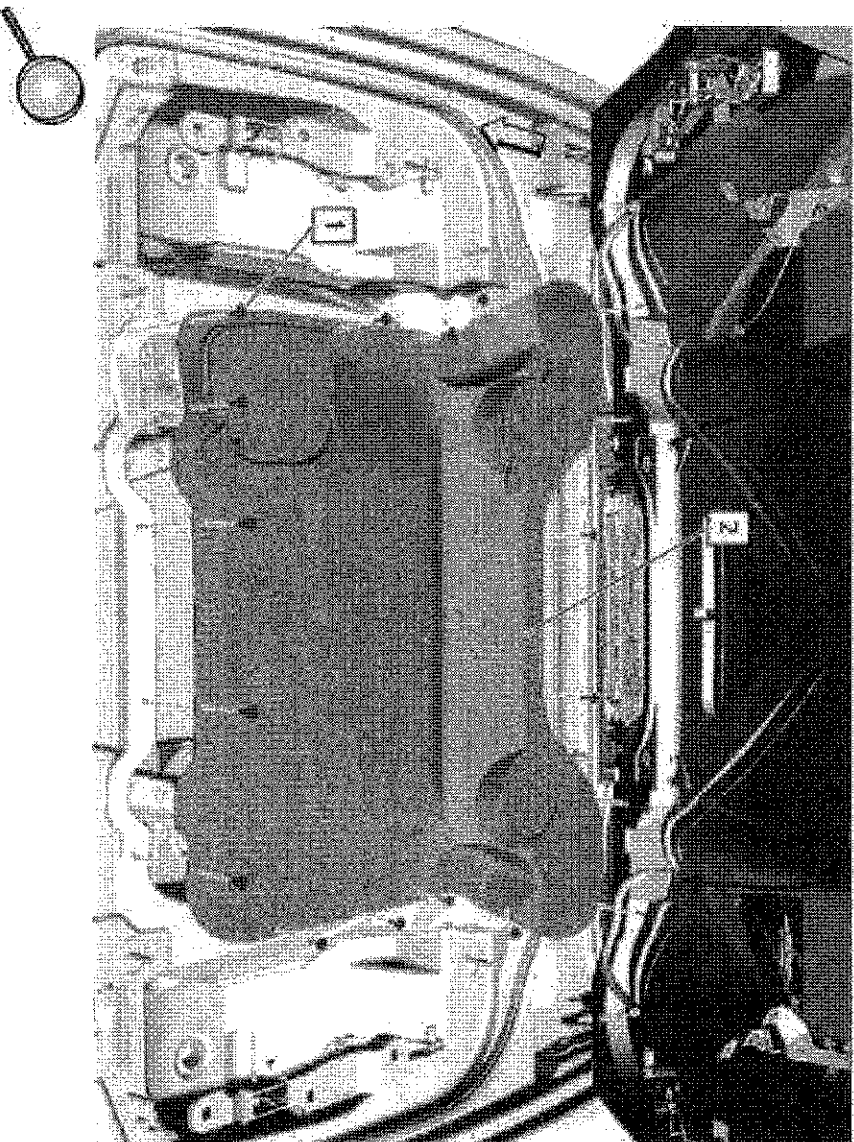


## Intake Manifold Replacement (Convertible)

### Single Use Fasteners and Components

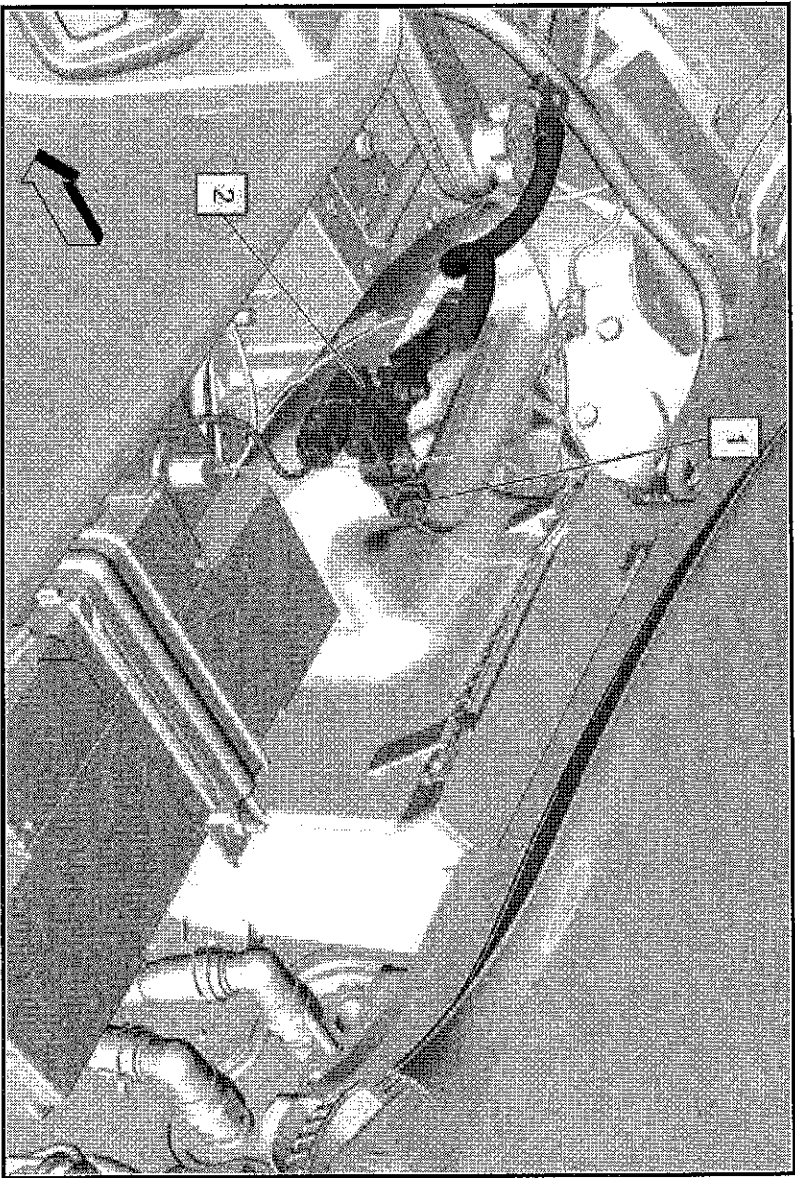
- Intake Manifold Gasket [8x]
- Throttle Body Gasket [2x]

### Removal Procedure



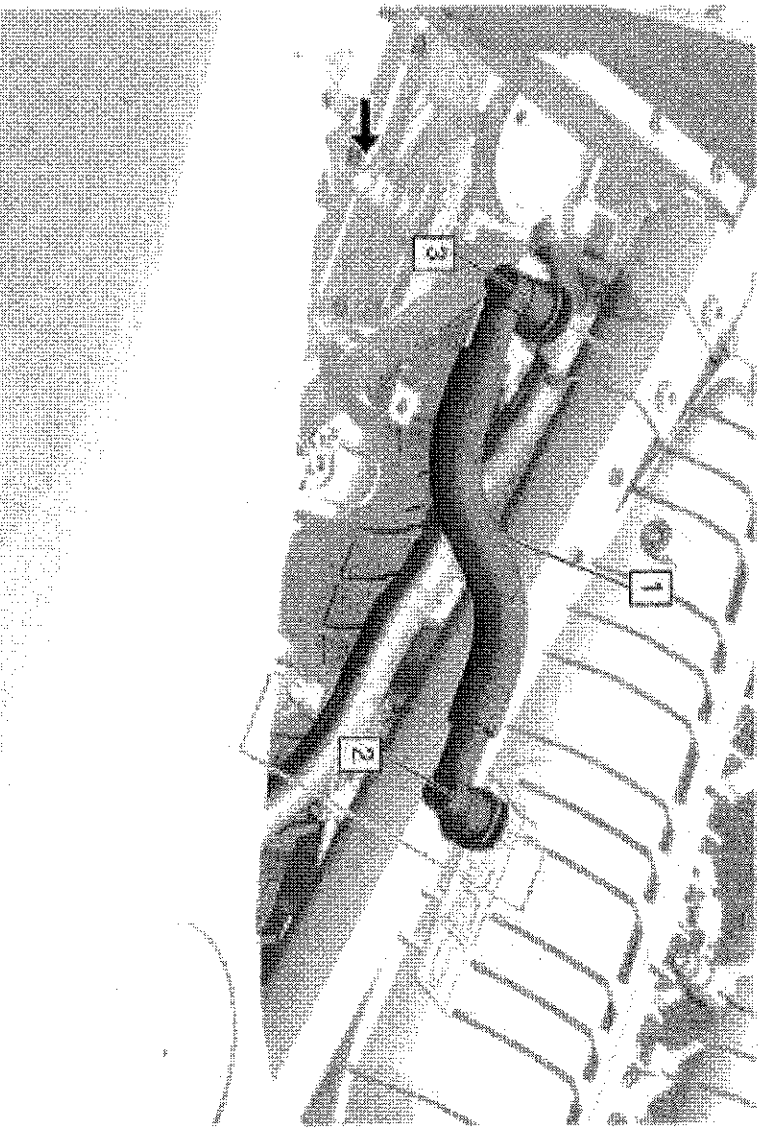
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1. [Rear Window Panel \(2\)](#) » [Remove — Rear Window Panel Replacement](#)
2. [Air Cleaner Outlet Duct](#) » [Remove \[2x\]](#)
  - [Air Cleaner Outlet Duct Replacement - Left Side](#)
  - [Air Cleaner Outlet Duct Replacement - Right Side](#)



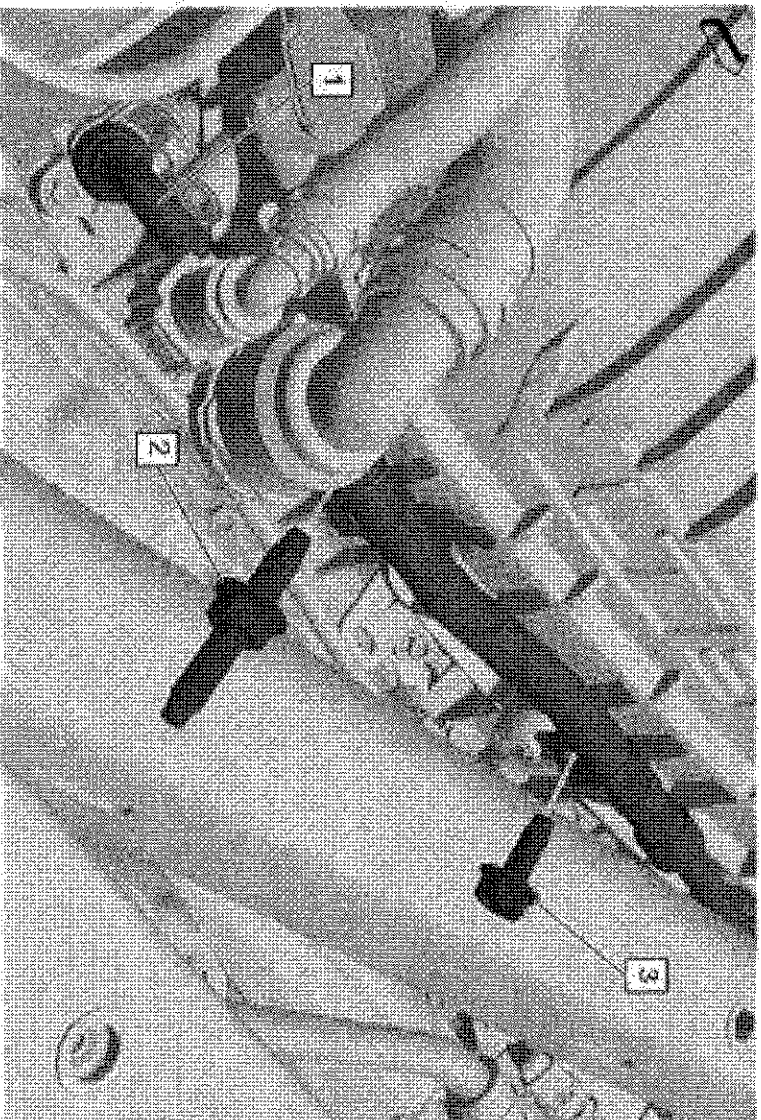
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3. Battery Monitor Module (2) » Disconnect — Battery Negative Cable Disconnection and Connection



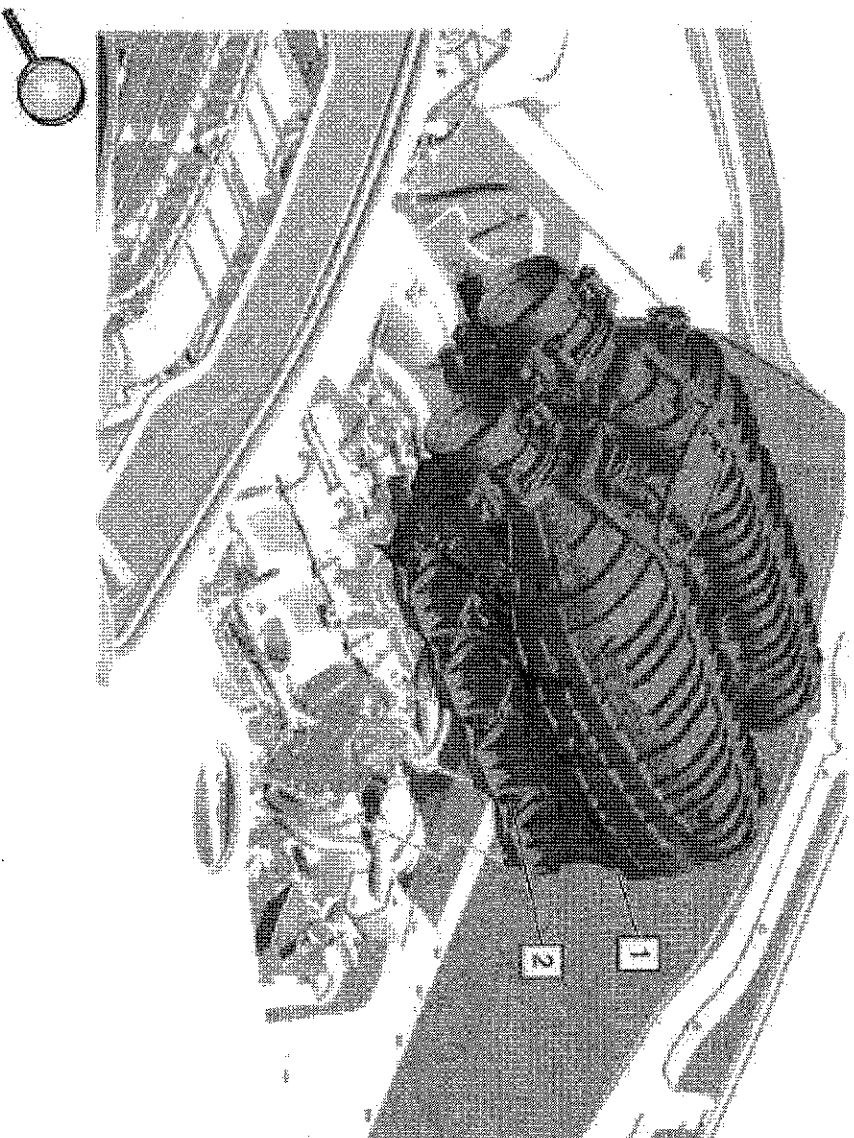
- Note:** The arrow shows location if entire positive crankcase ventilation tube is to be removed.
4. Positive Crankcase Ventilation Tube (1) @ Intake Manifold (2) » Disconnect — [Plastic Collar Quick Connect Fitting Service](#)
  5. Load Floor Panel Rear Cross Bar » Remove [2x]

- [Load Floor Panel Rear Cross Bar Replacement - Left Side](#)
- [Load Floor Panel Rear Cross Bar Replacement - Right Side](#)

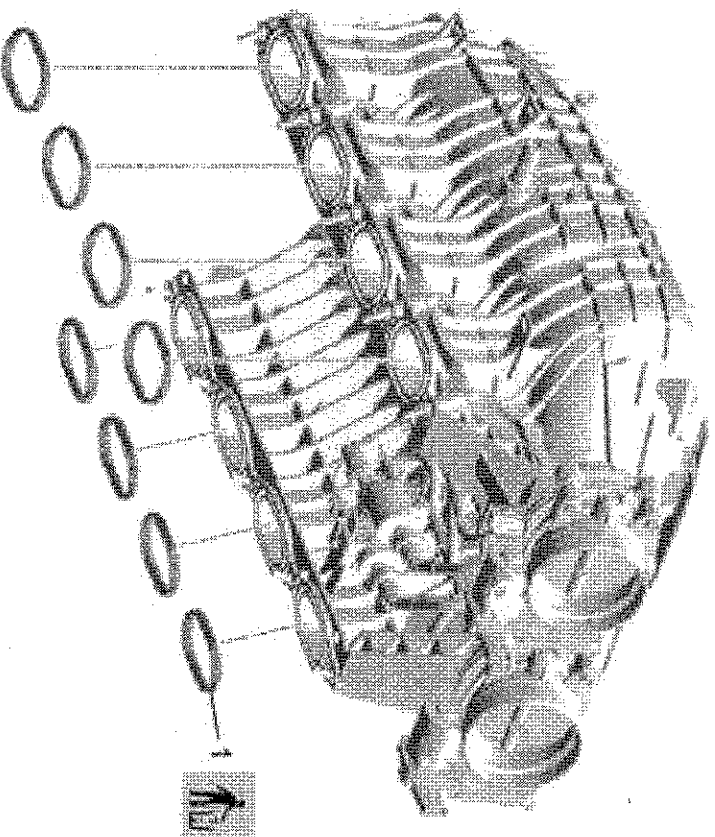


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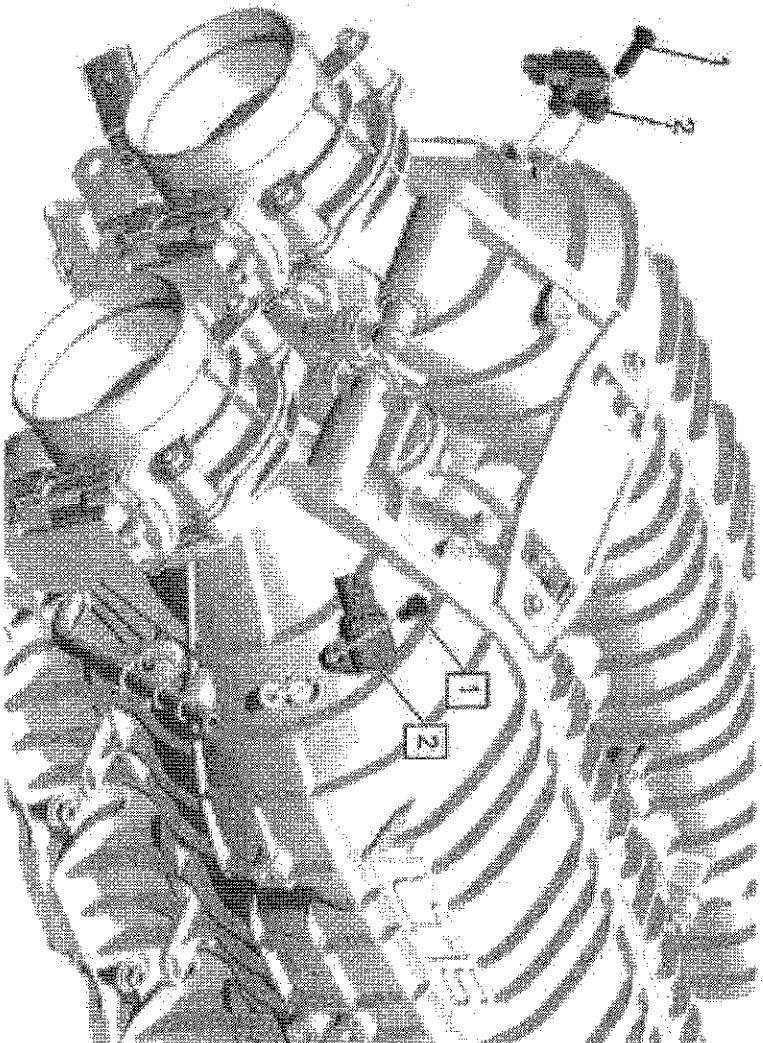
6. Evaporative Emission Canister Purge Front Pipe (1) @ Evaporative Emission Canister Purge Front Pipe » Disconnect — [Evaporative Emission Canister Purge Front Pipe Replacement](#)
7. Disconnect the electrical connectors and release the wiring harness retainers as necessary.



- 8. Intake Manifold Bolt (2) » Loosen [10x]
- 9. Intake Manifold (1) » Remove
- 10. Cover the cylinder head passages to prevent dirt or debris from entering the passages.



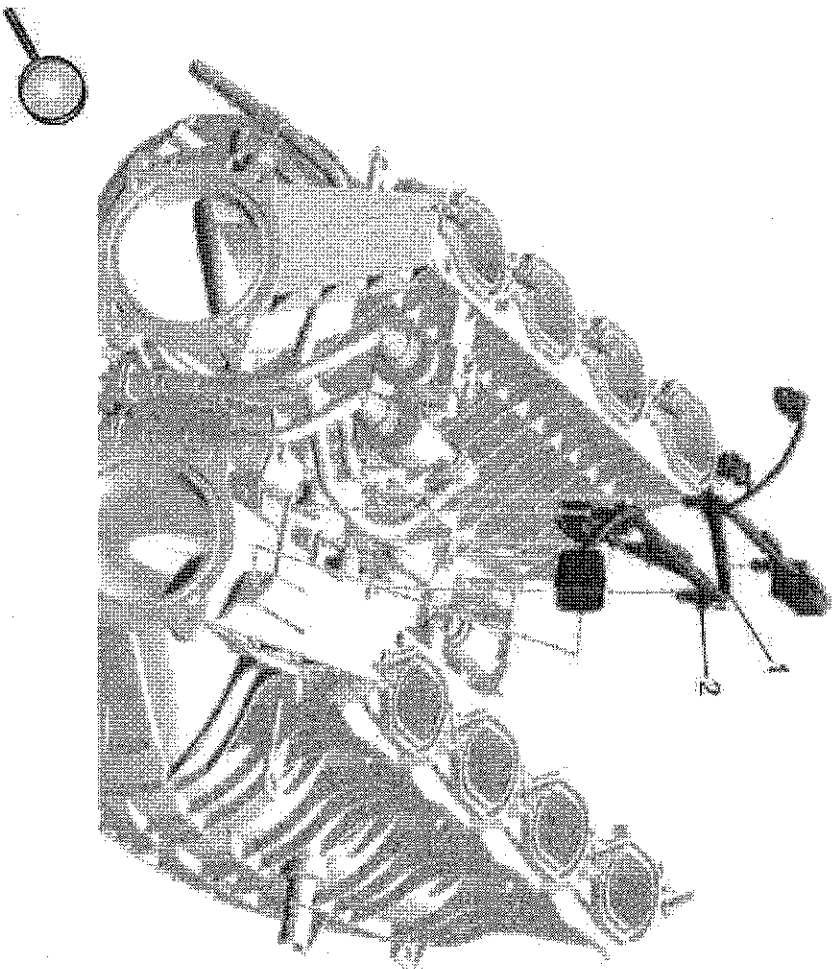
11. Intake Manifold Gasket (1) » Remove and DISCARD [8x]



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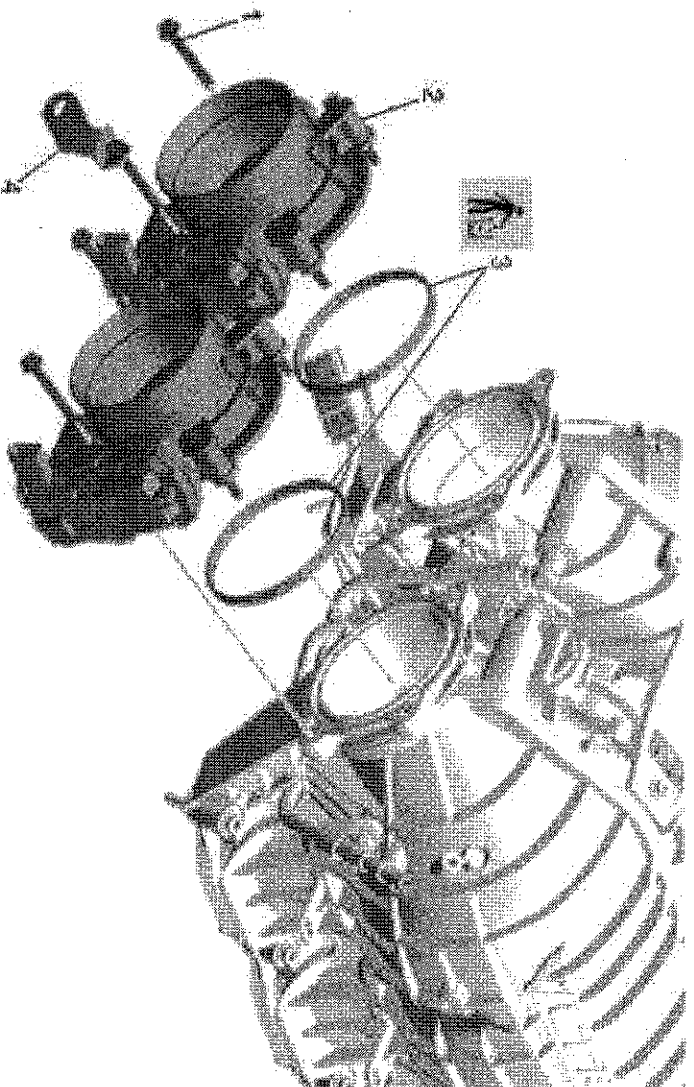
12. Manifold Absolute Pressure Sensor Bolt (1) » Remove [2x]

13. Manifold Absolute Pressure Sensor (2) » Remove [2x]

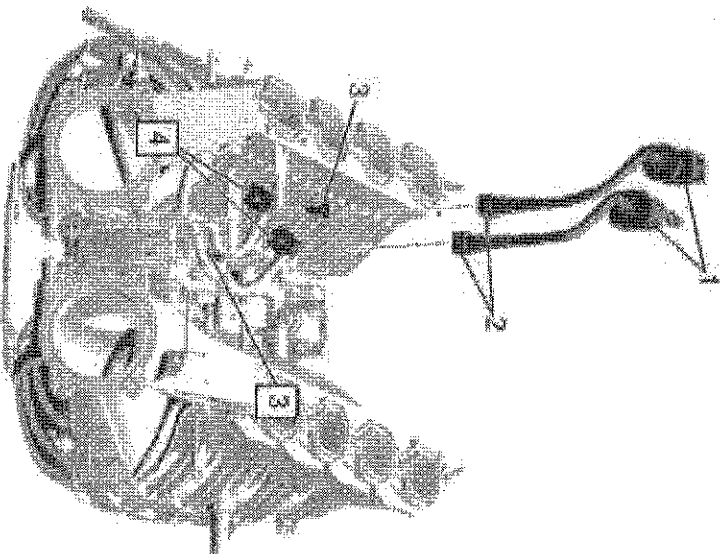


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- 14. Disconnect the electrical connectors.
- 15. Engine Wiring Harness Retainer (2) » Remove [6x]
- 16. Engine Wiring Harness (1) » Remove

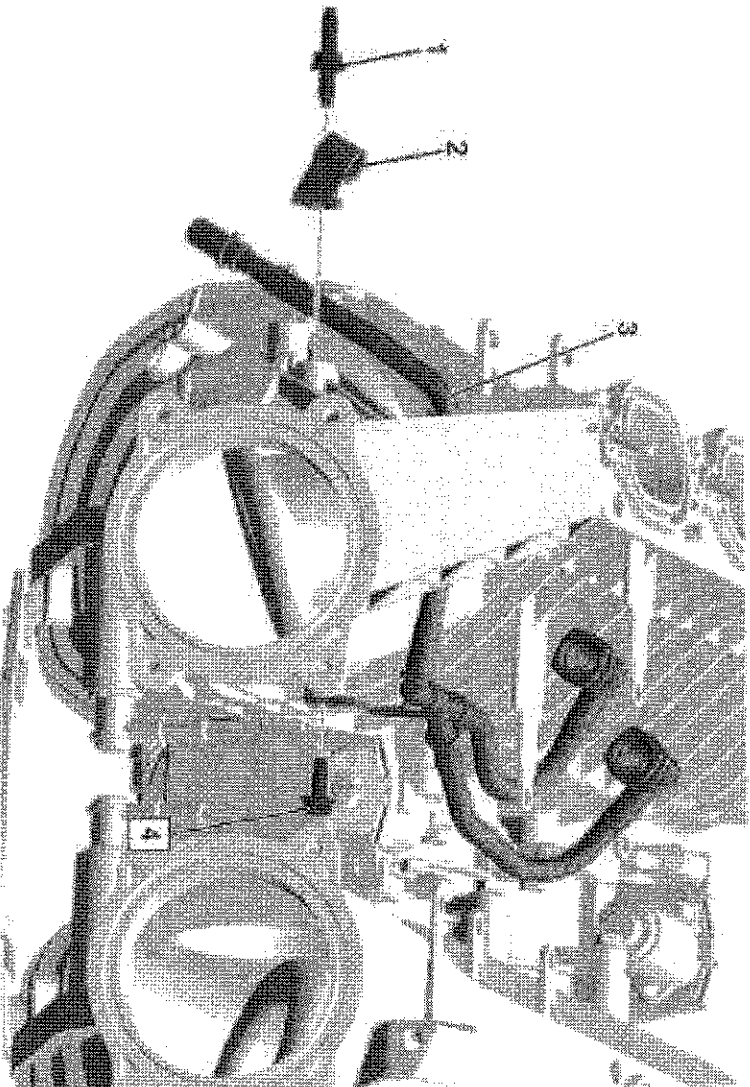


- 17. Throttle Body Bolt (1) » Remove [8x]
- 18. Throttle Body (2) » Remove [2x]
- 19. Throttle Body Gasket (3) » Remove and DISCARD [2x]
- 20. Throttle Body Bracket (4) » Remove

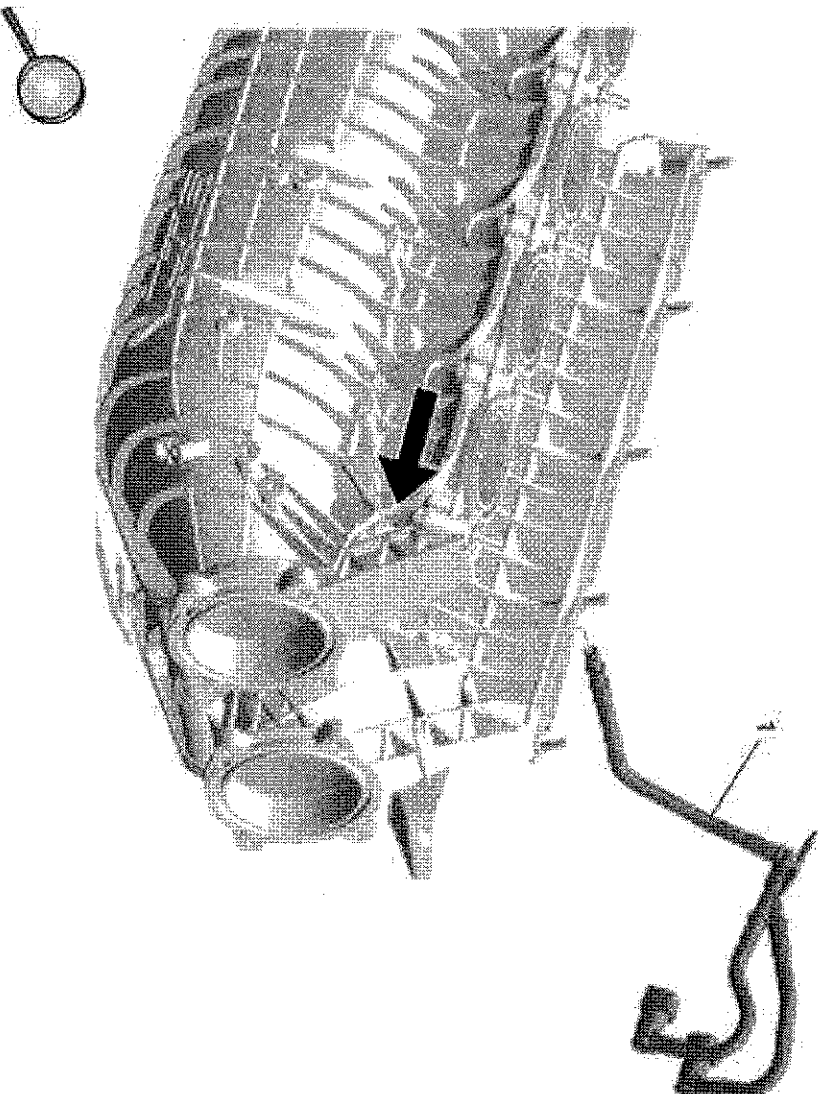


21. Evaporative Emission Canister Purge Tube (4) @ Evaporative Emission Canister Purge Solenoid Valve (1) » Disconnect [2x] — Plastic Collar Quick Connect Fitting Service
22. Intake Manifold Cover Retainer (3) » Remove [2x]
23. Evaporative Emission Canister Purge Tube (2) @ Intake Manifold » Disconnect [2x] — Plastic Collar Quick Connect Fitting Service
24. Evaporative Emission Canister Purge Solenoid Valve (1) & Evaporative Emission Canister Purge Tube (2) » Remove [2x]





- 25. Intake Manifold Bracket Bolt (1) » Remove
- 26. Intake Manifold Bracket (2) @ Evaporative Emission Canister Purge Tube (3) » Remove
- 27. Intake Manifold Bracket Bolt (4) » Remove



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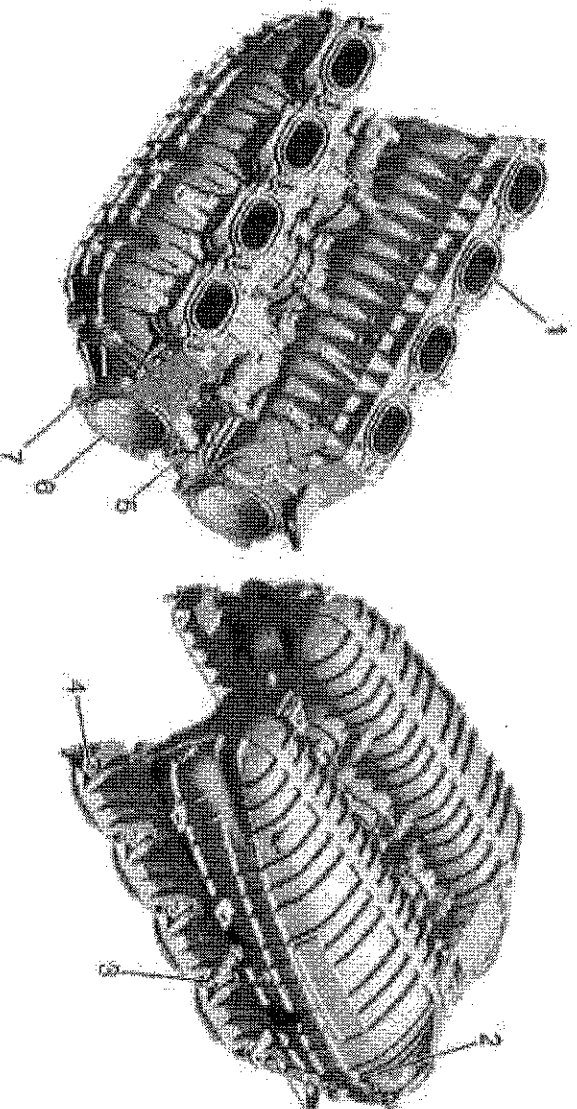
- Note:** You will need to twist and turn out of the hole on the side of the intake manifold.
28. Evaporative Emission Canister Purge Tube (1) » Remove

#### **Cleaning and Inspection Procedure - Conditional**

**Note:** The following cleaning and inspection and/or overhaul steps are ONLY to be performed as determined necessary based on the condition of the part being removed with the intention of reinstallation. The labor time to perform any of these steps is not included in the base labor time and if required would need to be documented and submitted as Other Labor Hours for warranty claim reimbursement. A description of the repairs performed must be documented in the technician correction comments.

**Warning:** Refer to Safety Glasses and Compressed Air Warning.

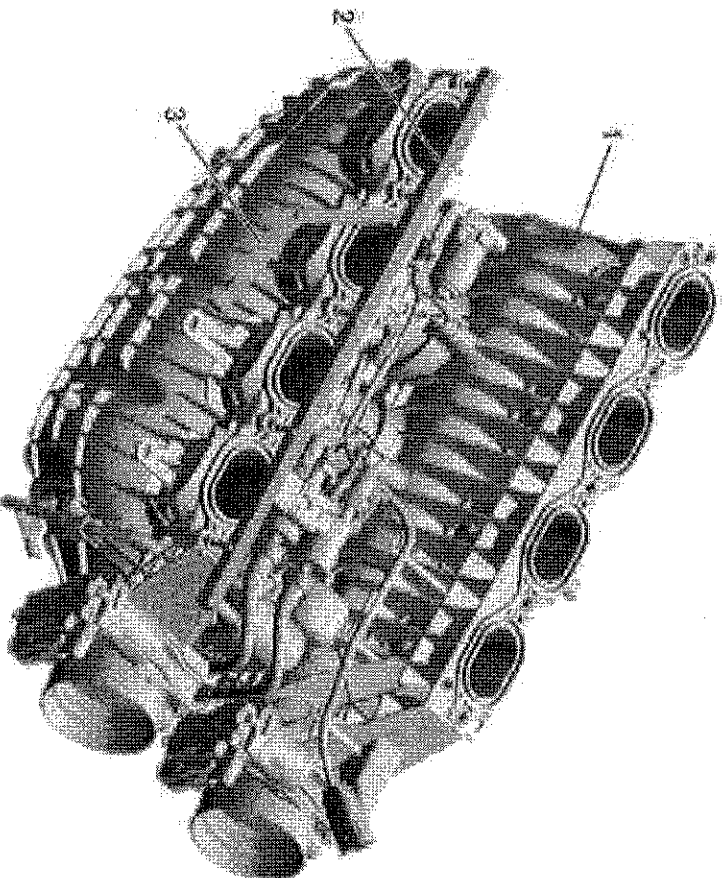
1. Remove components as necessary.
2. Clean the intake manifold in solvent.
3. Dry the intake manifold with compressed air.



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1. Inspect the manifold for the following conditions:

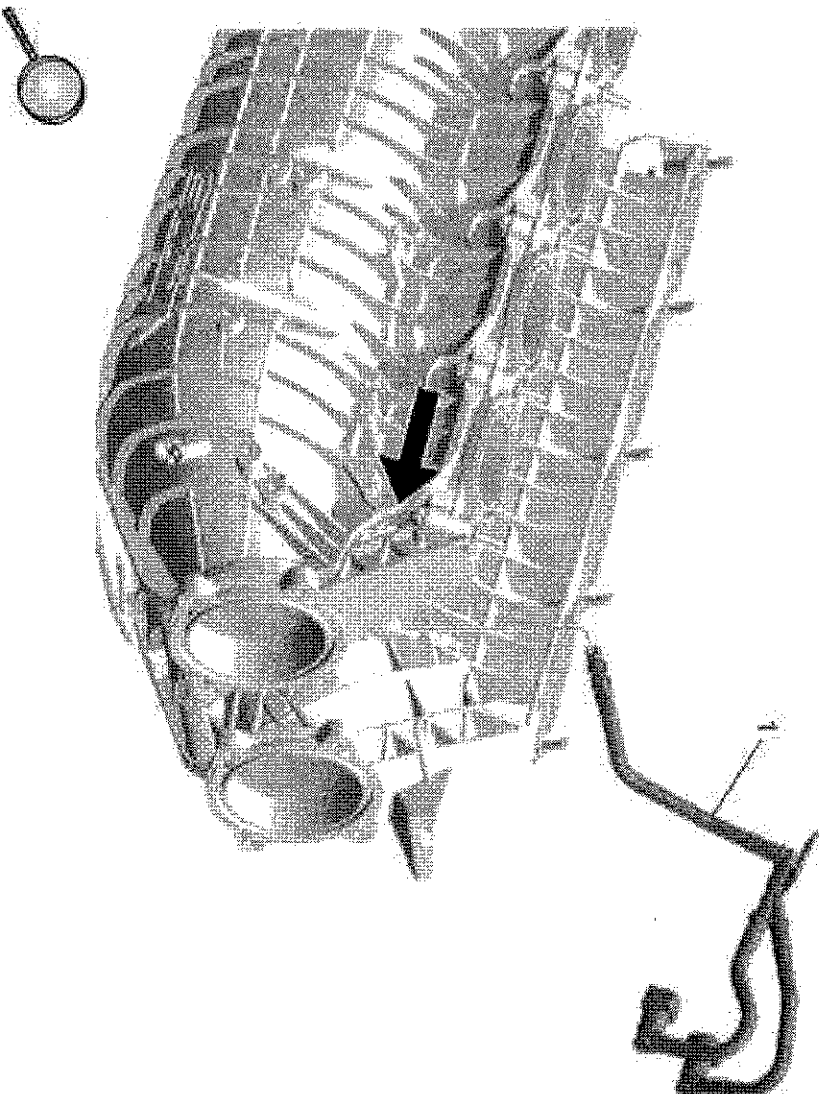
- Damaged gasket or sealing surfaces (1).
- Inspect the MAP sensor location for cracks or other damage (2).
- Damaged or broken positive crankcase ventilation fittings (3).
- Loose threaded inserts or studs (4).
- Damaged or broken positive crankcase ventilation fittings (5).
- Inspect the throttle body seal location for cracks or other damage (6).
- Inspect the throttle body bolt location for cracks or other damage (7).



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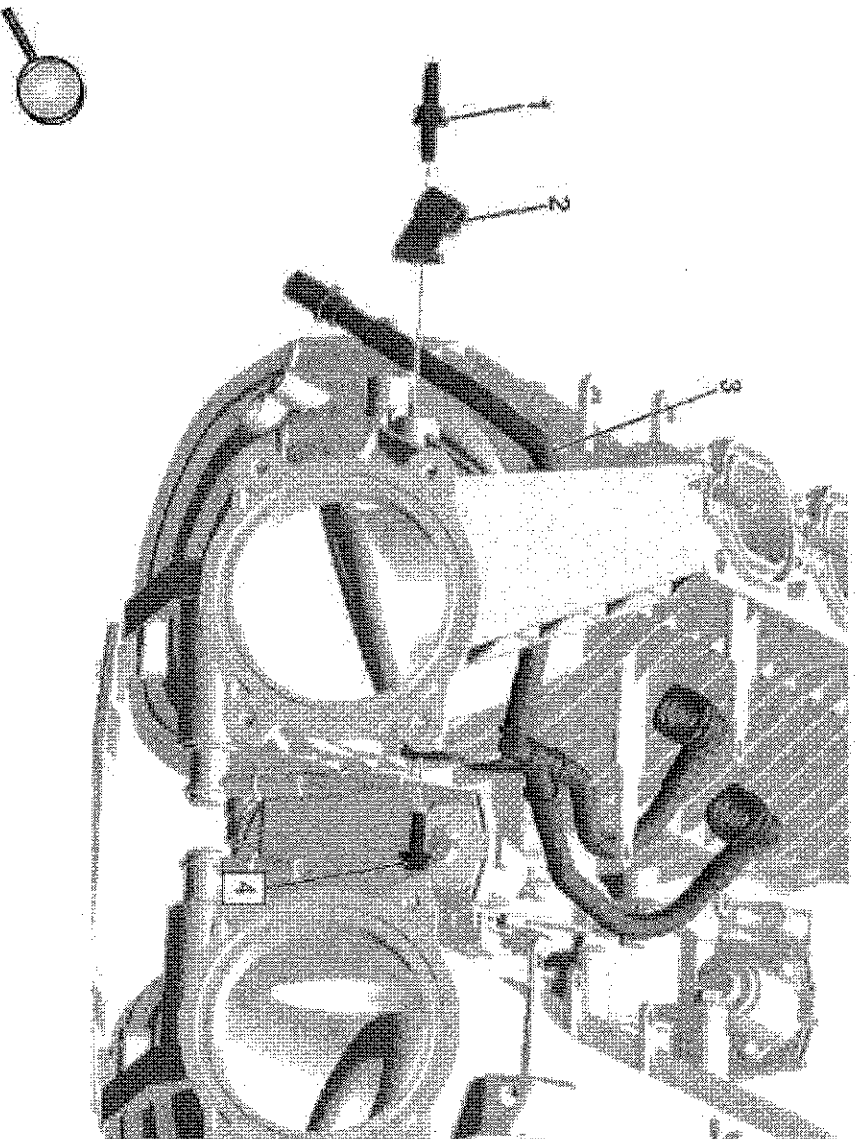
2. Inspect the intake manifold (1) cylinder head deck for warpage.
  - 2.1. Locate a straight edge (2) across the intake manifold (1) cylinder head deck surface. Position the straight edge (2) across a minimum of two runner port openings.
  - 2.2. Insert a feeler gauge (3) between the intake manifold (1) and the straight edge (2). An intake manifold (1) with warpage in excess of 3 mm (0.118 in) over a 200 mm (7.87 in) area is warped and should be replaced.

### **Installation Procedure**

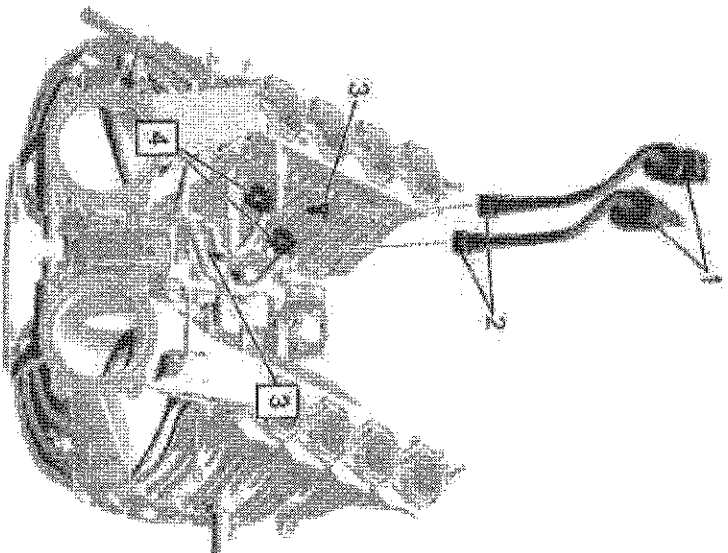


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**Note:** You will need to twist and turn to get into the hole on the side of the intake manifold.  
1. Evaporative Emission Canister Purge Tube (1) » Install



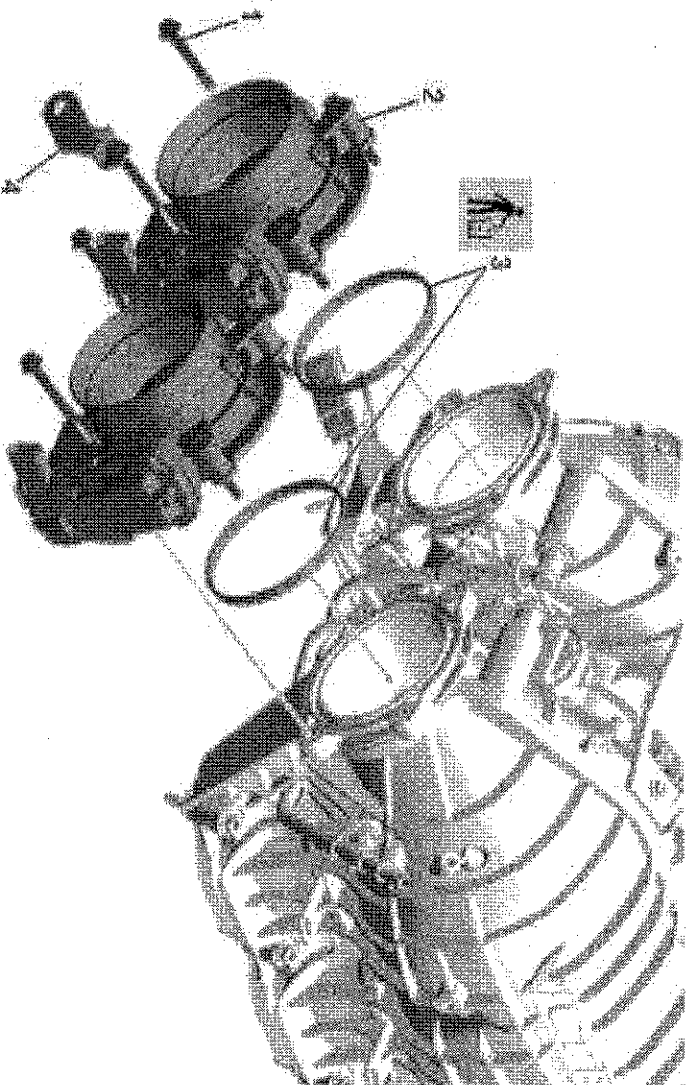
2. Intake Manifold Bracket (2) @ Evaporative Emission Canister Purge Tube (3) » Install
3. Intake Manifold Bracket Bolt (1) » Install and tighten — Evaporative Emission Canister Purge Tube Replacement - Evaporative Emission Canister Purge Front Pipe
4. Intake Manifold Bracket Bolt (4) » Install and tighten — Evaporative Emission Canister Purge Tube Replacement - Evaporative Emission Canister Purge Front Pipe



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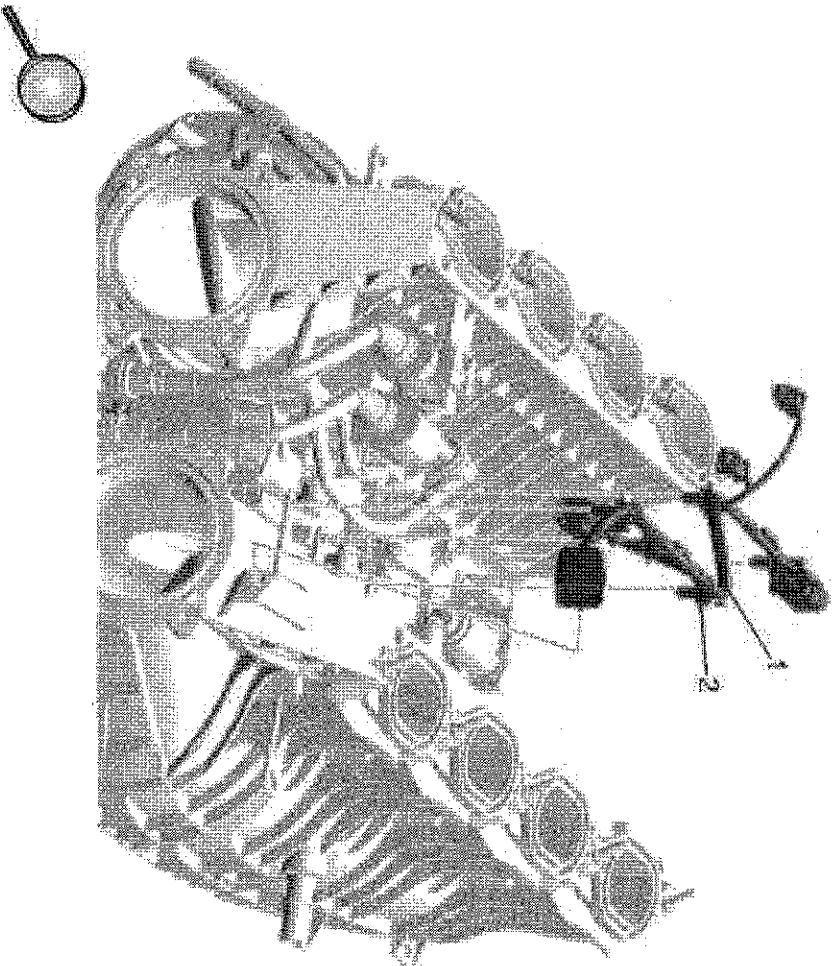


5. Evaporative Emission Canister Purge Solenoid Valve (1) & Evaporative Emission Canister Purge Tube (2) » Install [2x]
6. Intake Manifold Cover Retainer (3) » Install [2x]
7. Evaporative Emission Canister Purge Tube (2) @ Intake Manifold » Connect [2x]
8. Evaporative Emission Canister Purge Tube (4) @ Evaporative Emission Canister Purge Solenoid Valve (1) » Connect [2x]



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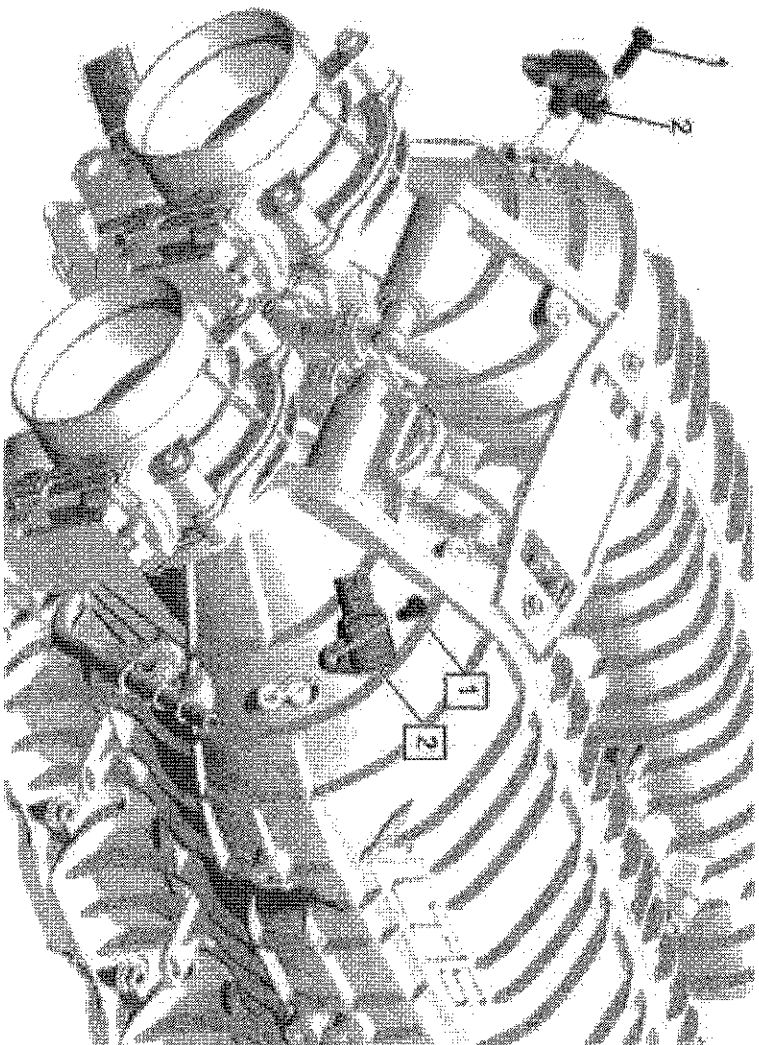
9. Throttle Body Gasket (3) » Install NEW [2x]
10. Throttle Body (2) » Install [2x]
11. Throttle Body Bracket (4) » Install
12. Throttle Body Bolt (1) » Install and tighten [8x]
  - Throttle Body Assembly Replacement - Bank 1
  - Throttle Body Assembly Replacement - Bank 2



- 13. Engine Wiring Harness (1) » Install
- 14. Engine Wiring Harness Retainer (2) » Install [6x]
- 15. Connect the electrical connectors.

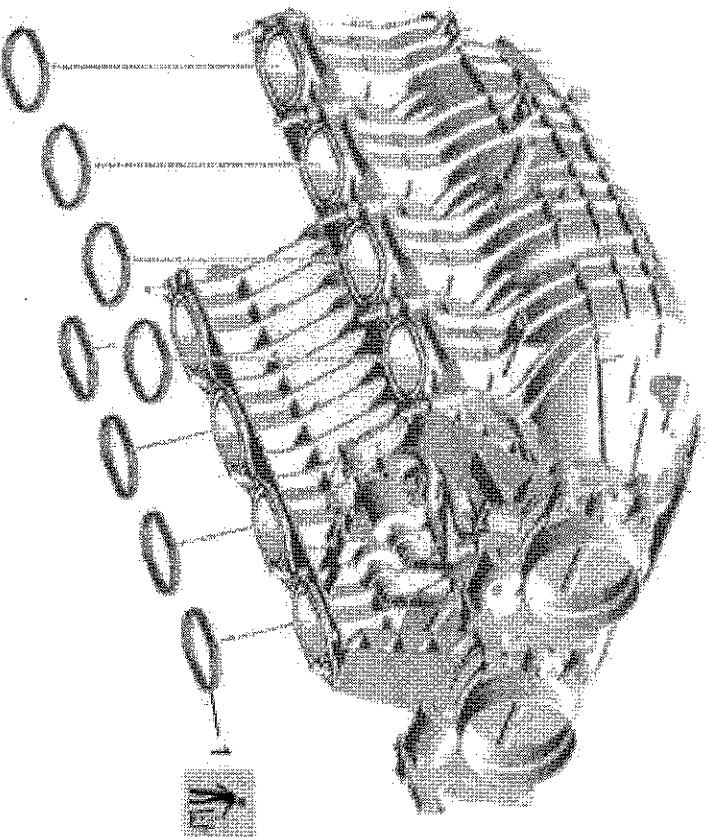
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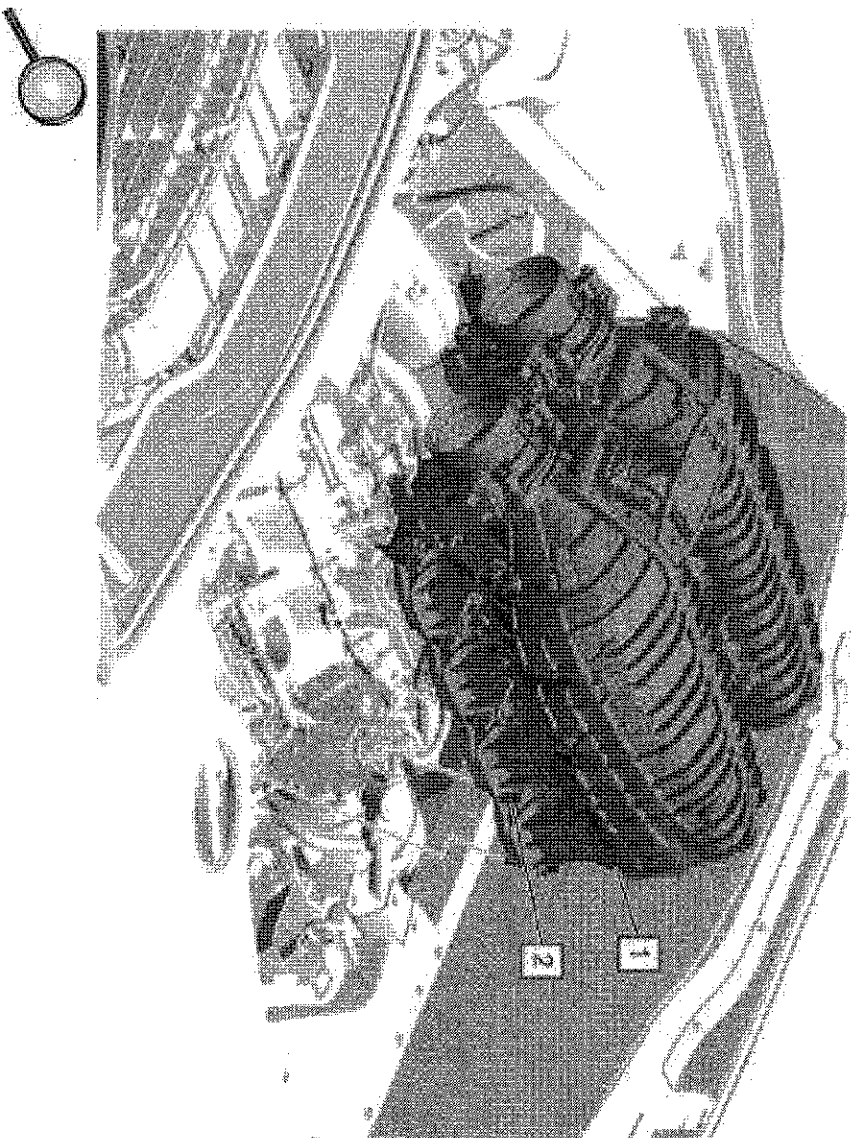
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- 16. Manifold Absolute Pressure Sensor (2) » Install [2x]
- 17. Manifold Absolute Pressure Sensor Bolt (1) » Install and tighten [2x]
  - Manifold Absolute Pressure Sensor Replacement - Bank 1
  - Manifold Absolute Pressure Sensor Replacement - Bank 2



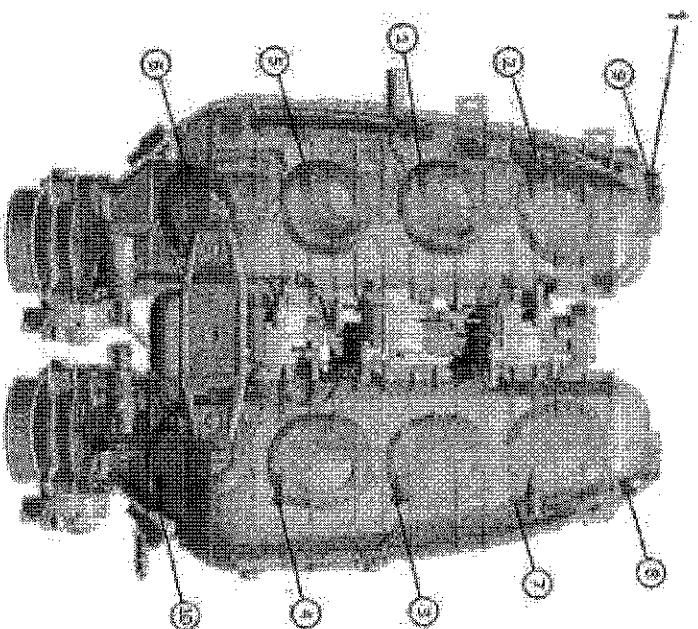
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18. Intake Manifold Gasket (1) » Install NEW [8X]
19. If NEW threaded components are being installed, loosen the adhesive using a metal pick or similar tool before proceeding. If threaded components are reused, prepare the threaded components using the following steps:
  - 19.1. Remove any loose cured adhesive from the external threads of the components using a lint free cloth.
  - 19.2. Thread the cleaned components into the internal mating threads and remove to loosen trapped cured adhesive.
  - 19.3. Apply thread locking adhesive to the external threads of the components. Adhesives, Fluids, Lubricants, and Sealers
  - 19.4. Ensure there are no gaps in the thread locking adhesive once applied to the component.
20. Uncover the cylinder head passages.



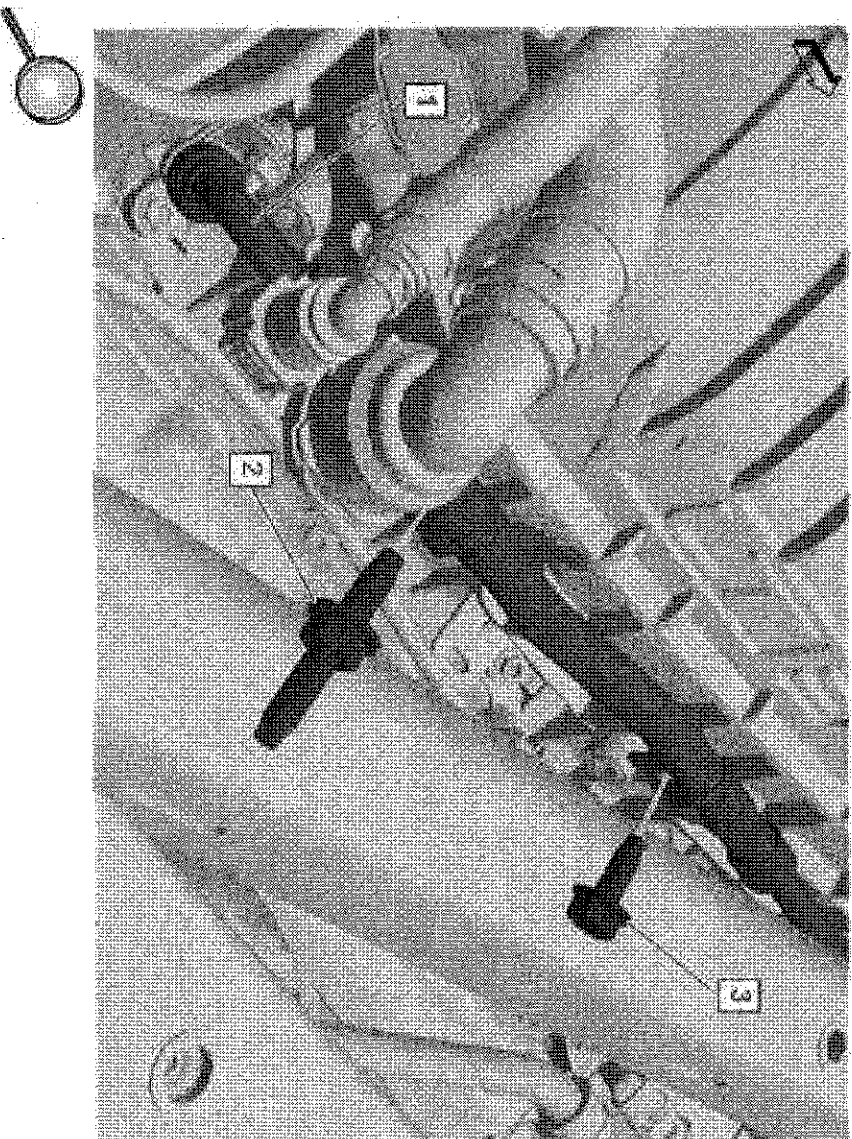
21. Intake Manifold (1) » Install

22. Intake Manifold Bolt (2) » Hand tighten [10x]



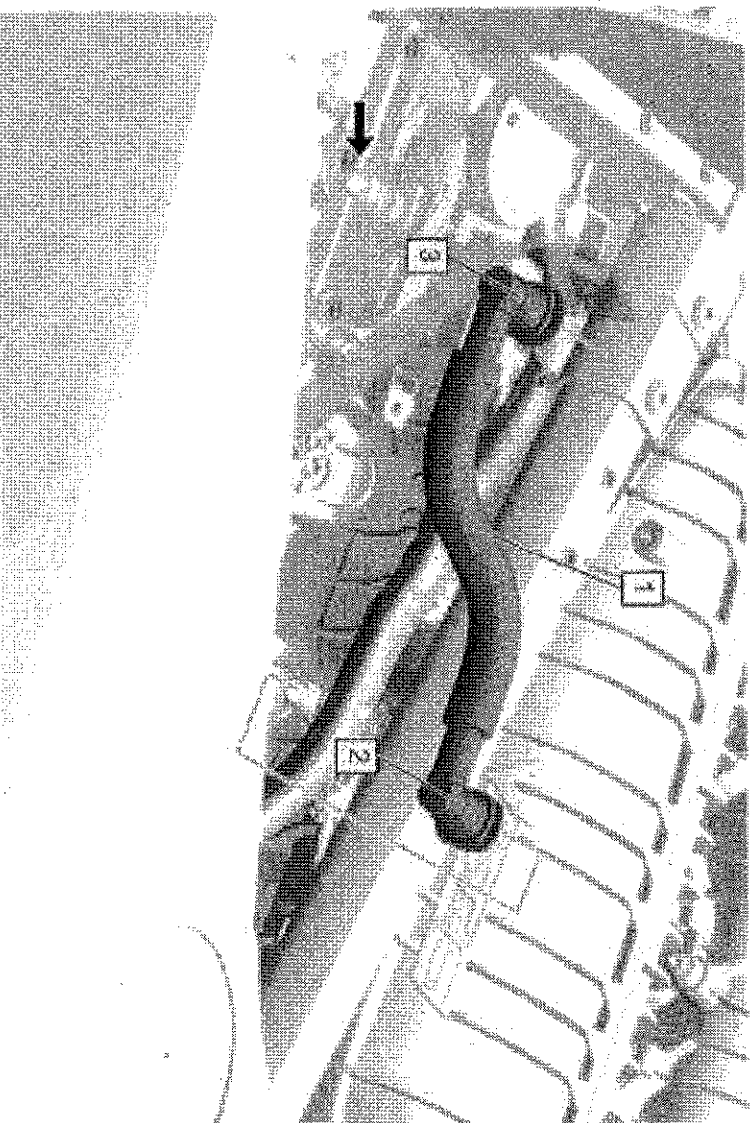
**Caution:** Refer to Fastener Caution.

- 23. Intake Manifold Bolt (1) » Tighten in sequence [10X] **15 Y (11 lb ft)**
- 24. Connect the electrical connectors and install the wiring harness retainers as necessary.



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- 25. Evaporative Emission Canister Purge Front Pipe (1) @ Evaporative Emission Canister Purge Front Pipe » Install — Evaporative Emission Canister Purge Front Pipe Replacement

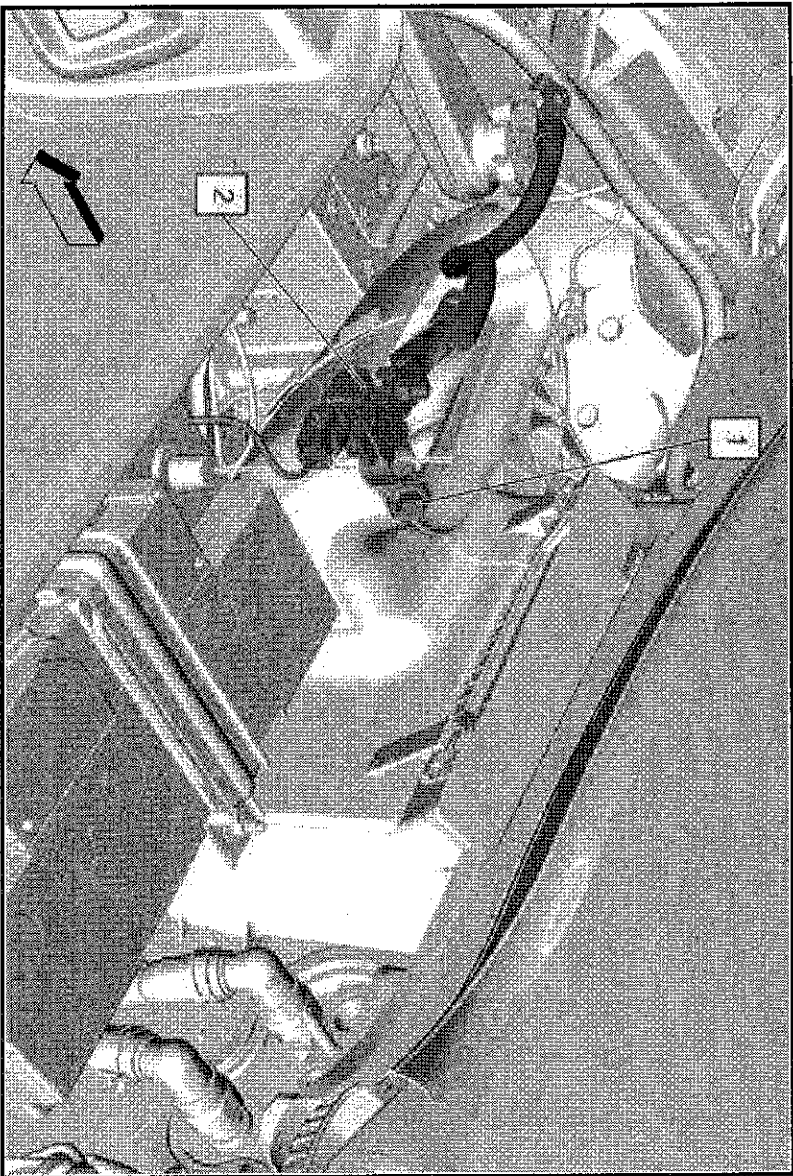


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**Note:** The arrow shows location if entire positive crankcase ventilation tube is to be removed.  
26. Positive Crankcase Ventilation Tube (1) @ Intake Manifold (2) » Connect — [Plastic Collar Quick Connect Fitting Service](#)

27. Load Floor Panel Rear Cross Bar » Install [2X]

- [Load Floor Panel Rear Cross Bar Replacement - Left Side](#)
- [Load Floor Panel Rear Cross Bar Replacement - Right Side](#)

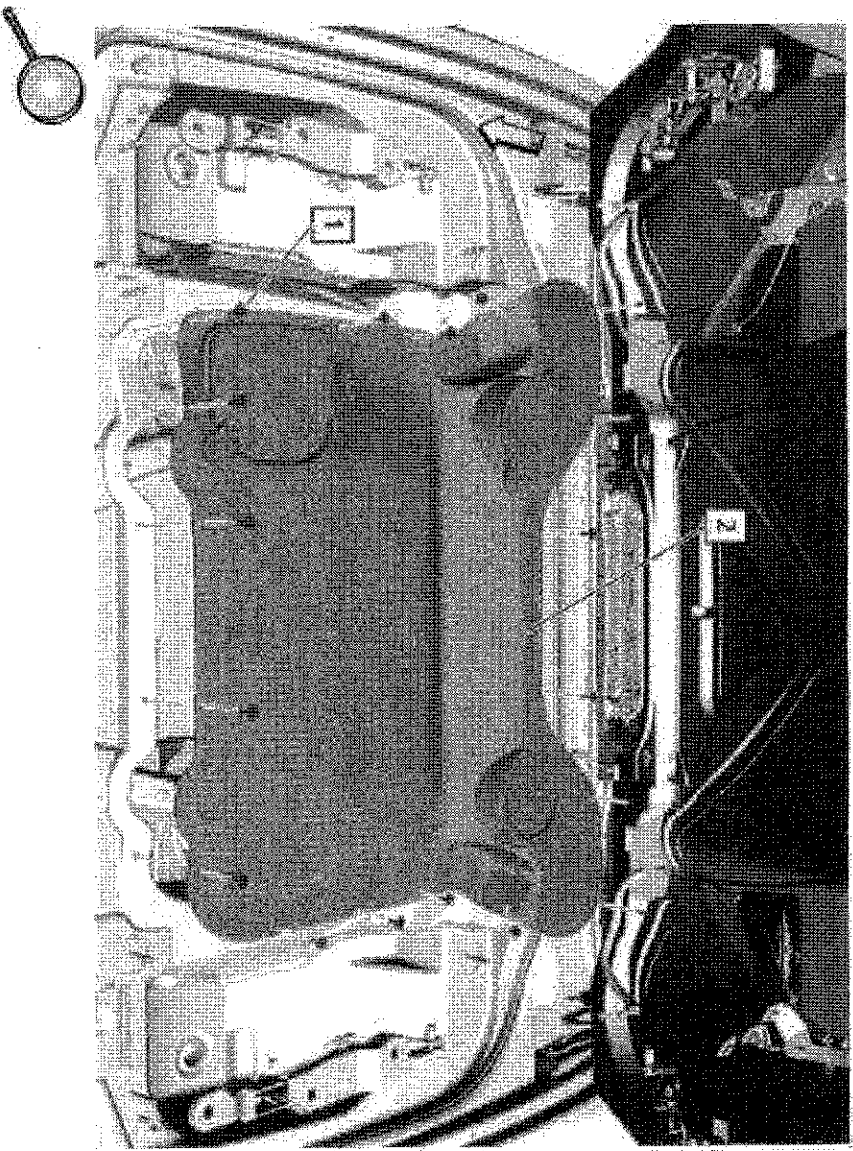


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28. Battery Monitor Module (2) » Connect — Battery Negative Cable Disconnection and Connection

29. Air Cleaner Outlet Duct » Install [2x]

- Air Cleaner Outlet Duct Replacement - Left Side
- Air Cleaner Outlet Duct Replacement - Right Side



30. Rear Window Panel (2) » Install — Rear Window Panel Replacement

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# 4060470 Intake Manifold Gasket Replacement

Effective Date: Jan 1, 2024

**LABOR CODE:** 4060470

Coverage Code: Powertrain P

|                         |                    |     |
|-------------------------|--------------------|-----|
| Base                    | <b>LABOR TIME:</b> | ST  |
| Convertible without NCL | <b>LABOR TIME:</b> | 3.0 |
| Coupe without NCL       | <b>LABOR TIME:</b> | 3.1 |