

SECTION **EX**  
EXHAUST SYSTEM



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## PRECAUTIONS

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### PRECAUTION

#### PRECAUTIONS

##### Removal and Installation

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**CAUTION:**

- Be sure to use genuine exhaust system parts or equivalents which are specially designed for heat resistance, corrosion resistance, and shape.
- Perform the operation with the exhaust system fully cooled down because the system will be hot just after engine stops.
- Be careful not to cut your hand on the heat insulator edge.

# PREPARATION

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## PREPARATION

### PREPARATION

#### Special Service Tool

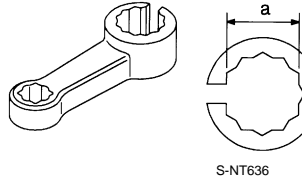
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The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name	Description
KV10114400 (J-38365) Heated oxygen sensor wrench	Loosening or tightening heated oxygen sensor 2 <b>For 22 mm (0.87 in) (a) width hexagon nut</b>



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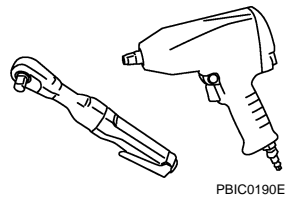
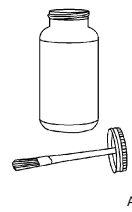
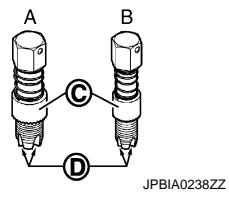
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#### Commercial Service Tool

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(Kent-Moore No.) Tool name	Description
A: (J-43897-18) B: (J-43897-12) Heated oxygen sensor thread cleaner	Reconditioning the exhaust system threads before installing a new heated oxygen sensor (Use with anti-seize lubricant shown below.) <b>A: J-43897-18 [18 mm (0.71 in) dia.] for zirconia heated oxygen sensor</b> <b>B: J-43897-12 [12 mm (0.47 in) dia.] for titania heated oxygen sensor</b> <b>C: Mating surface shave cylinder</b> <b>D: Flutes</b>
( — ) Anti-seize lubricant (Permatex 133AR or equivalent meeting MIL specification MIL-A-907)	Lubricating heated oxygen sensor thread cleaner when reconditioning exhaust system threads
( — ) Power tool	Loosening bolts and nuts



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# EXHAUST SYSTEM

< PERIODIC MAINTENANCE >

## PERIODIC MAINTENANCE

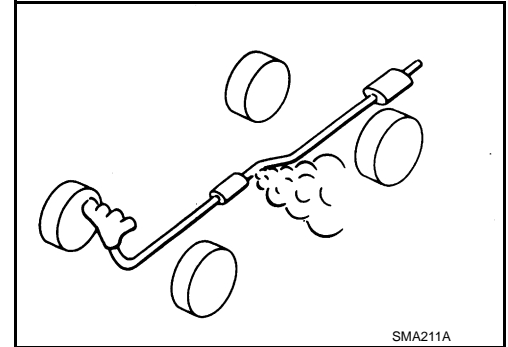
### EXHAUST SYSTEM

#### Inspection

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Check exhaust pipes, muffler and mounting for improper attachment, leaks, cracks, damage or deterioration.

- If anything is found, repair or replace damaged parts.



# EXHAUST SYSTEM

< REMOVAL AND INSTALLATION >

## REMOVAL AND INSTALLATION

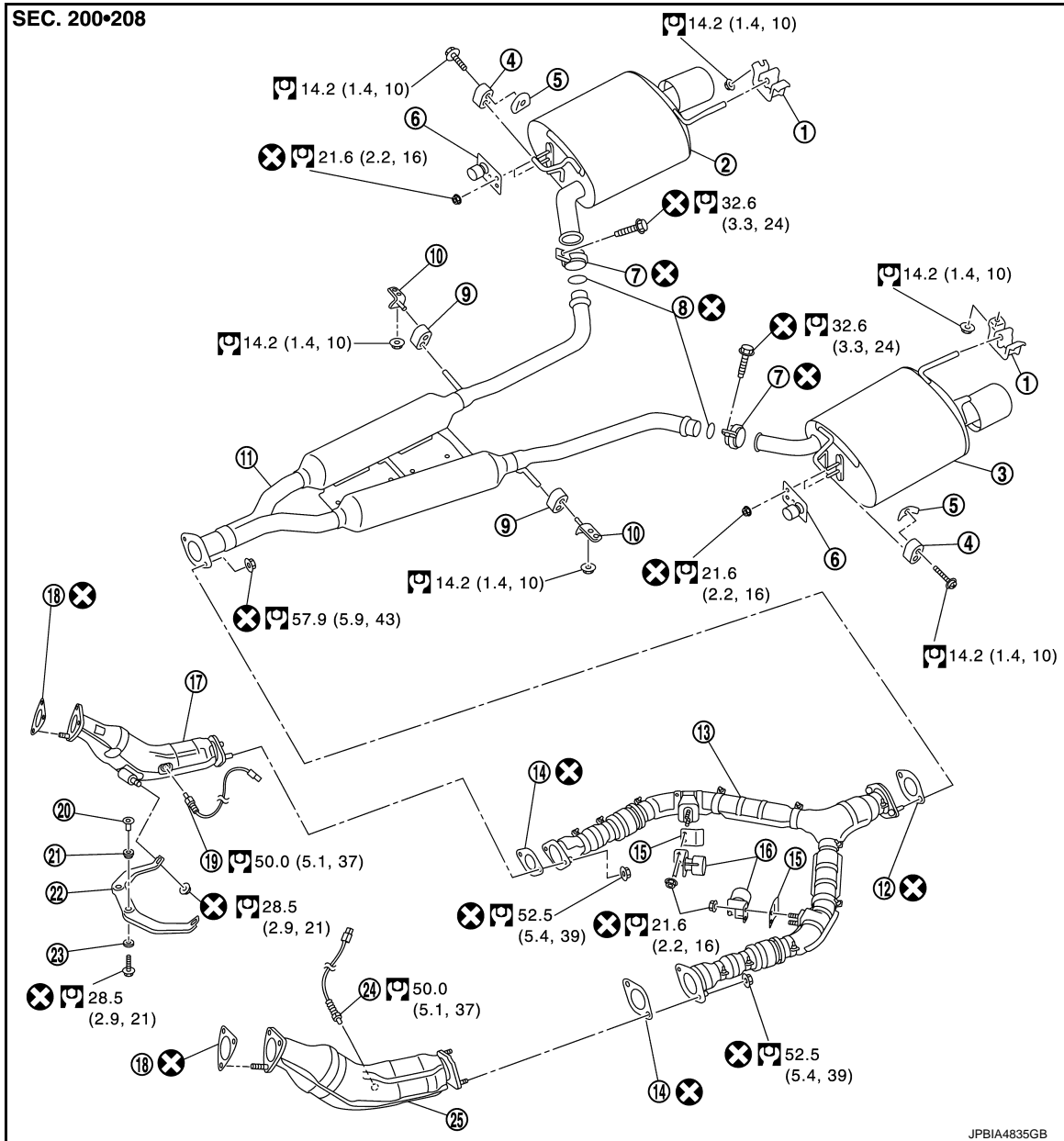
### EXHAUST SYSTEM

Exploded View

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- |                                     |                                 |                                     |
|-------------------------------------|---------------------------------|-------------------------------------|
| 1. Mounting rubber                  | 2. Main muffler (RH)            | 3. Main muffler (LH)                |
| 4. Mounting rubber                  | 5. Collar                       | 6. Dynamic damper                   |
| 7. Clamp                            | 8. Gasket                       | 9. Mounting rubber                  |
| 10. Mounting bracket                | 11. Center muffler              | 12. Gasket                          |
| 13. Exhaust front tube              | 14. Gasket                      | 15. Insulator                       |
| 16. Dynamic damper                  | 17. Three way catalyst (bank 1) | 18. Gasket                          |
| 19. Heated oxygen sensor 2 (bank 1) | 20. Collar                      | 21. Grommet                         |
| 22. Exhaust mounting bracket        | 23. Grommet                     | 24. Heated oxygen sensor 2 (bank 2) |
| 25. Three way catalyst (bank 2)     |                                 |                                     |

Refer to [GI-4. "Components"](#) for symbols in the figure.

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# EXHAUST SYSTEM

## < REMOVAL AND INSTALLATION >

### Removal and Installation

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#### REMOVAL

- Disconnect each joint and mounting using power tool.
- Remove heated oxygen sensor 2 as follows:
  - Using heated oxygen sensor wrench [SST: KV10114400 (J-38365)] (C), removal heated oxygen sensor 2.

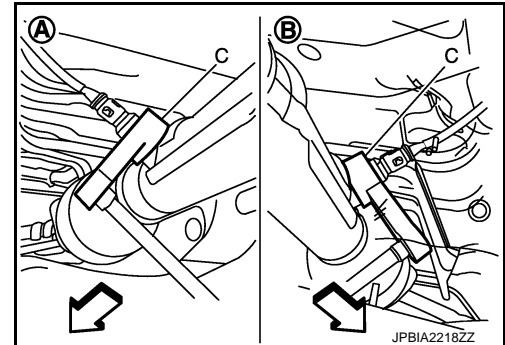
A : Bank 1

B : Bank 2

↔ : Vehicle front

#### CAUTION:

- **Never damage heated oxygen sensor 2.**
- **Discard any sensor which has been dropped from a height of more than 0.5 m (19.7 in) onto a hard surface such as a concrete floor; use a new one.**



#### INSTALLATION

Note the following, and install in the reverse order of removal.

- Check for deformation of the grommets (21 and 23 of Components).
- Insert the collar (20 of Components) vertically.
- Install the collar (5 of Components) with its lower surface horizontal.
- Temporarily tighten nuts and bolts when installing exhaust pipe assembly. Tighten them to the specified torque when connecting the vehicle rear to the vehicle front.

#### CAUTION:

- **Always replace exhaust tube gaskets with new ones when reassembling.**
- **Discard any heated oxygen sensor 2 which has been dropped onto a hard surface such as a concrete floor. Use a new one.**
- **Before installing a new heated oxygen sensor 2, clean exhaust system threads using the heated oxygen sensor thread cleaner (commercial service tool: J-43897-18 or J-43897-12), and apply the anti-seize lubricant (commercial service tool).**
- **Never over torque heated oxygen sensor 2. Doing so may cause damage to heated oxygen sensor 2, resulting in the "MIL" coming on.**
- **Prevent rust preventives from adhering to the sensor body.**
- **If heat insulator is badly deformed, repair or replace it. If deposits such as mud pile up on the heat insulator, remove them.**
- **When installing heat insulator avoid large gaps or interference between heat insulator and each exhaust pipe.**
- **Remove deposits from the sealing surface of each connection. Connect them securely to avoid gases leakage.**
- **Temporarily tighten mounting nuts on the exhaust manifold side and mounting bolts on the vehicle side. Check each part for unusual interference, and then tighten them to the specified torque.**
- **When installing each mounting rubber, avoid twisting or unusual extension in up/down and right/left directions.**

#### Inspection

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#### INSPECTION AFTER INSTALLATION

- Check clearance between tail tube and rear bumper is even.
- With engine running, check exhaust tube joints for gas leakage and unusual noises.
- Check to ensure that mounting brackets and mounting rubbers are installed properly and free from undue stress. Improper installation could result in excessive noise and vibration.