# SECTION EX
# EXHAUST SYSTEM



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# PRECAUTION

## PRECAUTIONS

### Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

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The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

**WARNING:**

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper repair, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

#### PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

**WARNING:**

- **When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.**
- **When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery or batteries, and wait at least three minutes before performing any service.**

### High Voltage Precautions

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**DANGER:**

**Since hybrid vehicles and electric vehicles contain a high voltage battery, there is the risk of electric shock, electric leakage, or similar accidents resulting in death or severe injury, if high voltage components and vehicle are mishandled. When performing an inspection or maintenance, be sure to comply with the instructions below to perform correct work procedures.**

**WARNING:**

- **Be sure to remove the service plug in order to disconnect the high voltage circuits before performing inspection or maintenance of high voltage system harnesses and parts.**
- **The removed service plug must always be carried in a pocket of the responsible worker or placed in the tool box during the procedure to prevent the plug from being connected by mistake.**
- **Be sure to wear insulated protective equipment before beginning work on the high voltage system.**
- **Never allow workers other than the responsible person to touch the vehicle containing high voltage parts. To keep others from touching the high voltage parts, these parts must be covered with an insulating sheet except when using them.**

**CAUTION:**

- **Be sure to install the high voltage harness clips to the original positions to prevent damage to high voltage harness. If the clips are damaged, replace them with new ones before installing the high voltage harness.**
- **To prevent damage to parts, never allow coolant to splash on the high voltage harness connector. If coolant splashes on the high voltage harness connector, immediately remove moisture from the high voltage harness connector by using an air blow gun.**
- **Never bring the vehicle into the READY status with the service plug removed unless otherwise instructed in the Service Manual. A malfunction may occur if this is not observed.**

#### HIGH VOLTAGE HARNESS AND EQUIPMENT IDENTIFICATION

All the high voltage harnesses and connectors are orange. The Li-ion battery and other high voltage devices include an orange high voltage label. Never touch these harnesses and high voltage parts.

## HANDLING OF HIGH VOLTAGE HARNESS AND TERMINALS

Immediately insulate disconnected high voltage connectors and terminals with insulating tape.

## GUIDELINES ON WORKERS WITH MEDICAL ELECTRONICS

**WARNING:**

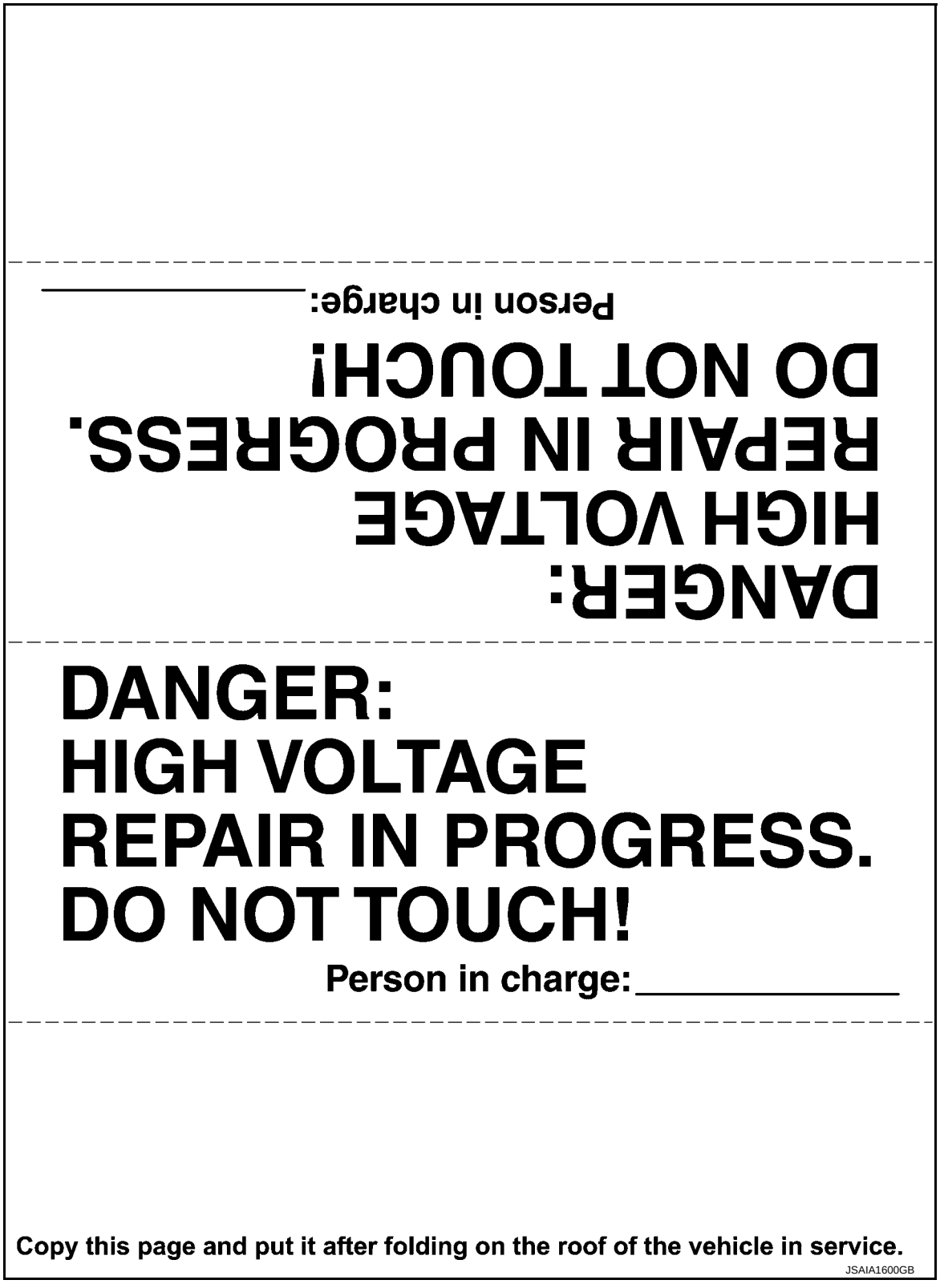
**The vehicle contains parts that contain powerful magnets. If a person who is wearing a heart pacemaker or other medical device is close to these parts, the medical device may be affected by the magnets. Such persons must not perform work on the vehicle.**

## PROHIBITED ITEMS TO CARRY DURING THE WORK

Hybrid vehicles and electric vehicles contain parts with high voltage and intense magnetic force. Never carry metal products and magnetic recording media (e.g. credit card, debit card) to repair/inspect high voltage parts. If this is not observed, the metal products may create a risk of short circuit and the magnetic recording media may lose their magnetic recording.

## POST A SIGN OF “DANGER! HIGH VOLTAGE AREA. KEEP OUT”

Call the attention of other workers and indicate "High voltage work in progress." Do not touch vehicles where work is being performed on high voltage systems.



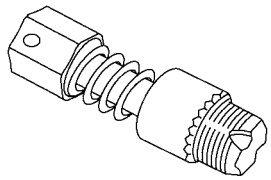
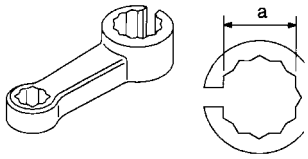
# PREPARATION

## PREPARATION

### Special Service Tool

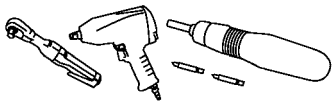
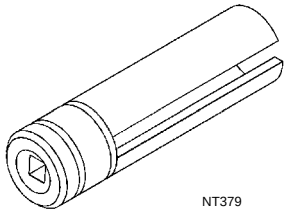
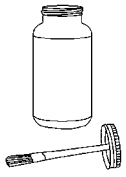
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The actual shape of the tools may differ from those illustrated here.

| Tool number<br>(TechMate No.)<br>Tool name | Description |
|---|---|
| —<br>(J-43897-18)<br>Oxygen sensor thread cutter<br><br>AWBIA1764ZZ | Reconditioning the exhaust system threads before installing a new oxygen sensor (Use with anti-seize lubricant)<br>**M18 x 1.5 threads** |
| KV10114400<br>(J-38365)<br>Heated oxygen sensor wrench<br><br>S-NT636 | Loosening or tightening heated oxygen sensors:<br>**a: 22 mm (0.87 in)** |

### Commercial Service Tools

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| Tool name | Description |
|---|---|
| Power tool<br><br>PIIB1407E | Loosening nuts, screws and bolts |
| Heated oxygen sensor wrench<br><br>NT379 | Loosening or tightening heated oxygen sensor<br>**For 22 mm (0.87 in) hexagon nut** |
| Anti-seize lubricant (Permatex 133AR or equivalent meeting MIL specification MIL-A-907)<br><br>AEM489 | Lubricating oxygen sensor thread cleaning tool when reconditioning exhaust system threads |

# PERIODIC MAINTENANCE

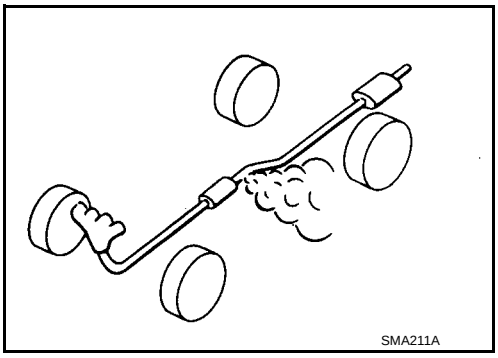
## EXHAUST SYSTEM

### Inspection

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

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

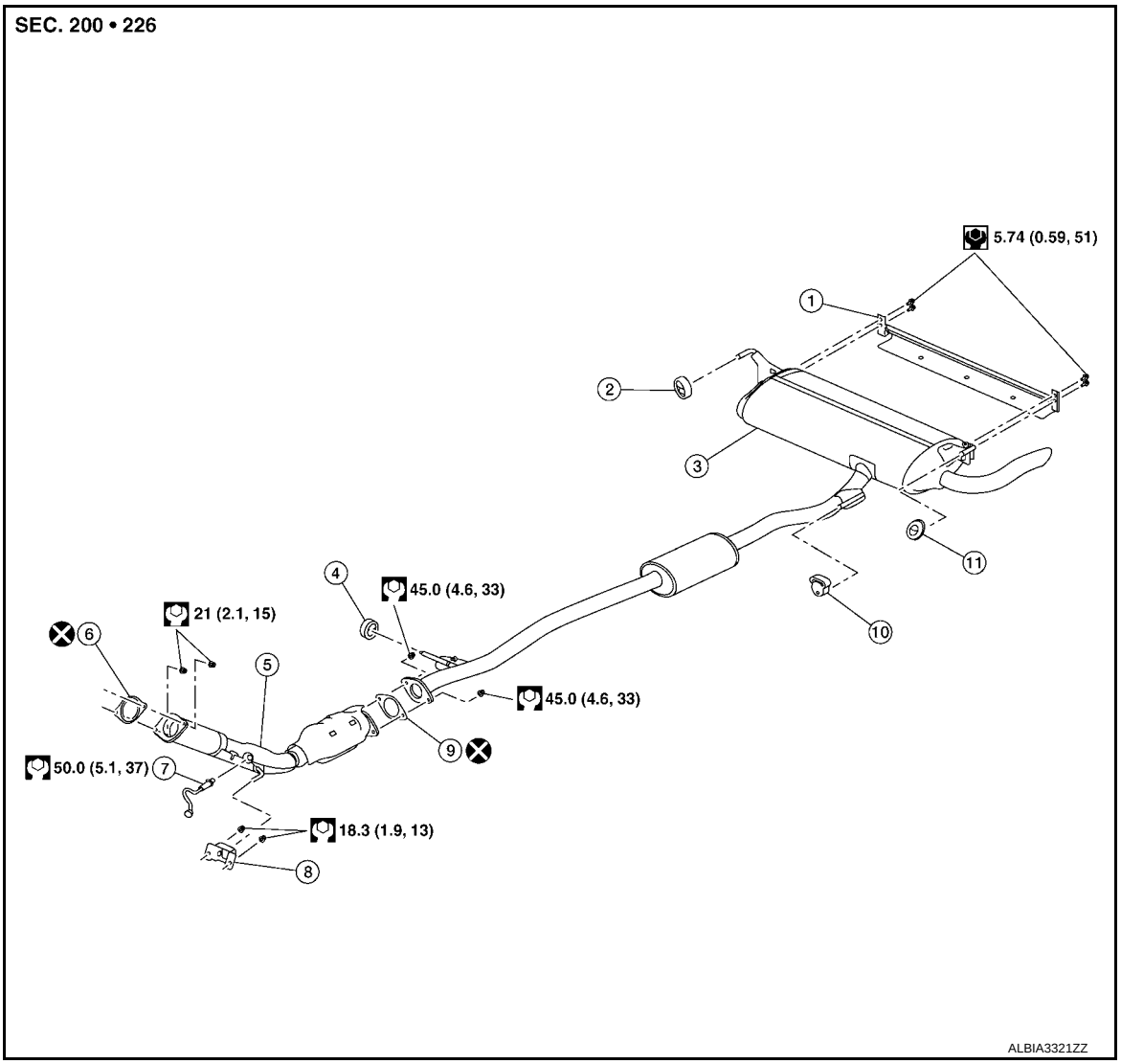


# REMOVAL AND INSTALLATION

## EXHAUST SYSTEM

### Exploded View

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1. Exhaust diffuser
2. Mounting rubber
3. Muffler assembly
4. Mounting rubber
5. Front exhaust tube
6. Exhaust gasket
7. Heated oxygen sensor 2
8. Mounting rubber
9. Exhaust gasket
10. Mounting rubber
11. Mounting rubber

### Removal and Installation

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**WARNING:**

- **Perform the procedures with the exhaust system fully cooled down to avoid injury from the hot exhaust system.**
- **Be careful not to cut your hand on the catalyst shroud edge.**

**CAUTION:**

**Use genuine NISSAN exhaust system parts or equivalent, which are specifically designed for heat resistance, corrosion resistance, and shape.**

REMOVAL

1. Remove exhaust system components using power tool.
2. Remove heated oxygen sensor 2 (1) using tool.

**Tool number : KV10114400 (J-38365)**

## INSTALLATION

Installation is in the reverse order of removal.

**CAUTION:**

- **Do not reuse exhaust gasket.**
- **Do not reuse nuts securing front exhaust tube to exhaust manifold and three way catalyst.**
- **Do not allow foreign substances to contact new exhaust gasket.**
- **Be sure to install ring gasket to prevent catching when tightening.**
- **Do not reuse ring gasket.**
- **Ensure flexible portion of front exhaust tube is free from deformation.**
- **During installation, take care not to deform mounting rubbers. After installing, the mounting rubbers shall show no excessive movement, twisting, or elongation. To facilitate installation, a neutral detergent may be used.**
- **Mounting rubbers installed at either side of muffler are to be installed in accordance with paint marks. Mounting rubber at LH side is installed with white paint mark facing forward. Mounting rubber at RH side is installed with white paint mark facing rearward.**
- **Apply anti-seize lubricant to heated oxygen sensor 2 before installing.**
- **Do not spray exhaust tubes, muffler, heated oxygen sensor 2, or catalyst shroud with anti-corrosive wax.**
- **If catalyst shroud is badly deformed, repair or replace it. If deposits, such as mud, pile up on the catalyst shroud, remove them.**
- **When installing catalyst shroud, avoid large gaps or interference between catalyst shroud and exhaust pipe.**
- **Temporarily tighten fasteners and check each part for interference with other components, and then tighten fasteners to specification.**
- **Discard any heated oxygen sensor 2 which has been dropped.**
- **Before installing a new heated oxygen sensor 2, clean exhaust system threads using Tool.**

**Tool number : — (J-43897-18)**

- **Tighten heated oxygen sensor 2 using suitable tool. Do not use impact wrench.**
- **Do not over tighten heated oxygen sensor 2. Doing so may cause damage to the heated oxygen sensor 2, resulting in the “MIL” coming on.**
- **Remove deposits from the sealing surface of each connection. Connect them securely to avoid exhaust gas leaks.**

## 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.