

ACCELERATOR CONTROL, FUEL & EXHAUST SYSTEMS

SECTION FE

GI
MA
EM
LC
EC
FE
AT
AX
SU
BR
ST
RS
BT
HA
SC
EL
IDX

CONTENTS

PREPARATION	2	Fuel Tank	5
Special Service Tool	2	REMOVAL.....	5
Commercial Service Tools	2	INSTALLATION.....	5
ACCELERATOR CONTROL SYSTEM	3	Fuel Pump, Fuel Level Sensor Unit and Fuel	
Removal and Installation	3	Filter	6
REMOVAL.....	3	REMOVAL.....	6
INSTALLATION.....	3	INSTALLATION.....	8
INSPECTION AFTER INSTALLATION	3	EXHAUST SYSTEM	9
FUEL SYSTEM	4	Removal and Installation	9
Removal and Installation	4		

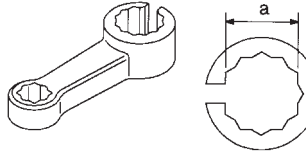
PREPARATION

Special Service Tool

Special Service Tool

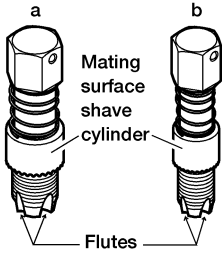
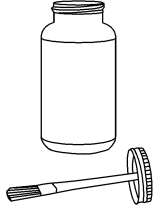
NHFE0001

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	 <p data-bbox="1031 331 1421 415">Loosening or tightening front and rear heated oxygen sensors a: 22 mm (0.87 in)</p> <p data-bbox="418 506 479 527">NT636</p>

Commercial Service Tools

NHFE0008

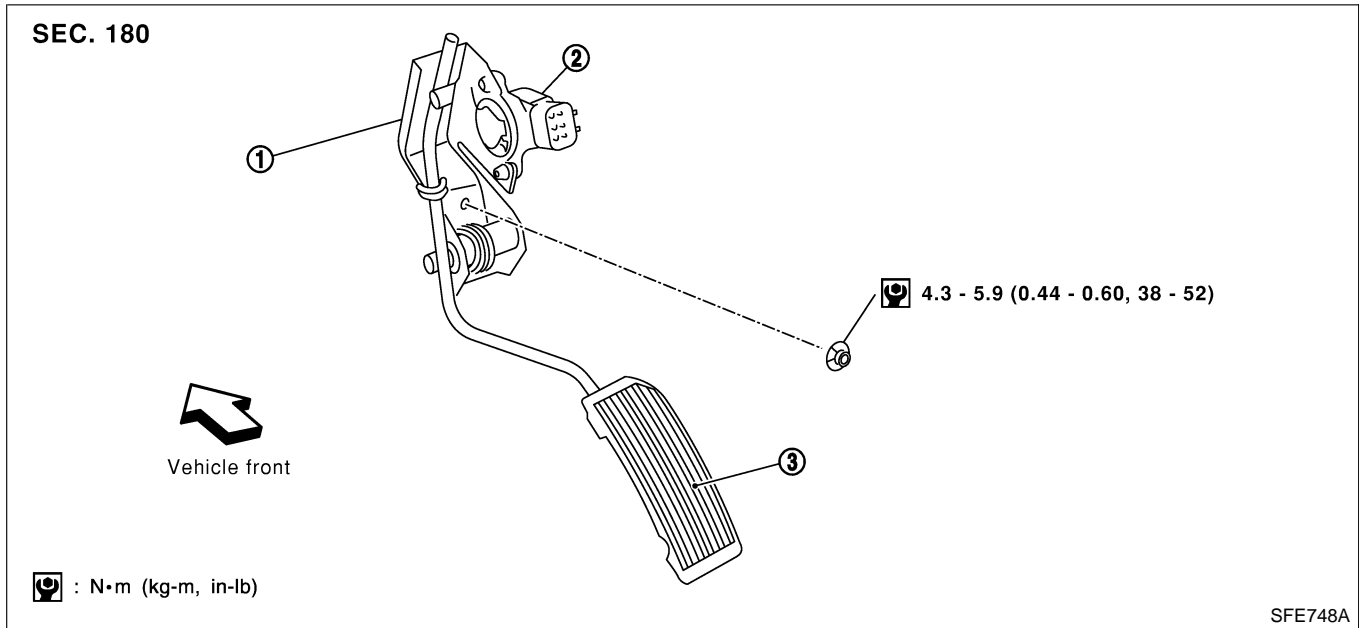
Tool number (Kent-Moore No.) Tool name	Description
(J-43897-18) (J-43897-12) Oxygen sensor thread cleaner	 <p data-bbox="1031 1050 1469 1249">Reconditioning the exhaust system threads before installing a new oxygen sensor (Use with anti-seize lubricant shown below.) a: J-43897-18 (18 mm dia.) for zirconia oxygen sensor b: J-43897-12 (12 mm dia.) for titania oxygen sensor</p> <p data-bbox="402 1327 479 1348">AEM488</p>
Anti-seize lubricant (Permatex 133AR or equivalent meeting MIL specification MIL-A-907)	 <p data-bbox="1031 1365 1469 1449">Lubricating oxygen sensor thread cleaning tool when reconditioning exhaust system threads</p> <p data-bbox="402 1642 479 1663">AEM489</p>

Removal and Installation

NHFE0002

CAUTION:

- Check that throttle valve opens when accelerator pedal is fully depressed. Also check that it returns to idle position when pedal is released when ignition switch is in "ON" position.
- Check accelerator control parts for improper contact with any adjacent parts.



1. Accelerator pedal assembly 2. Accelerator pedal position sensor 3. Accelerator pedal

REMOVAL

1. Remove harness connector.
2. Remove mounting nut then remove accelerator pedal assembly.

CAUTION:

- Do not disassemble accelerator pedal or remove/install accelerator pedal position sensor.
- Do not drop or shock accelerator pedal assembly.
- Keep accelerator pedal assembly from getting wet.

INSTALLATION

Install in reverse order of removal.

INSPECTION AFTER INSTALLATION

- Check if accelerator pedal moves smoothly within its range.
- Check if accelerator pedal returns securely to its original position.
- Perform "Accelerator Pedal Released Position Learning" when removing the accelerator pedal position sensor harness connector. Refer to EC-71, "BASIC SERVICE PROCEDURE".

GI
MA
EM
LC
EC
FE
AT
AX
SU
BR
ST
RS
BT
HA
SC
EL
IDX

FUEL SYSTEM

Removal and Installation

Removal and Installation

NHFE0004

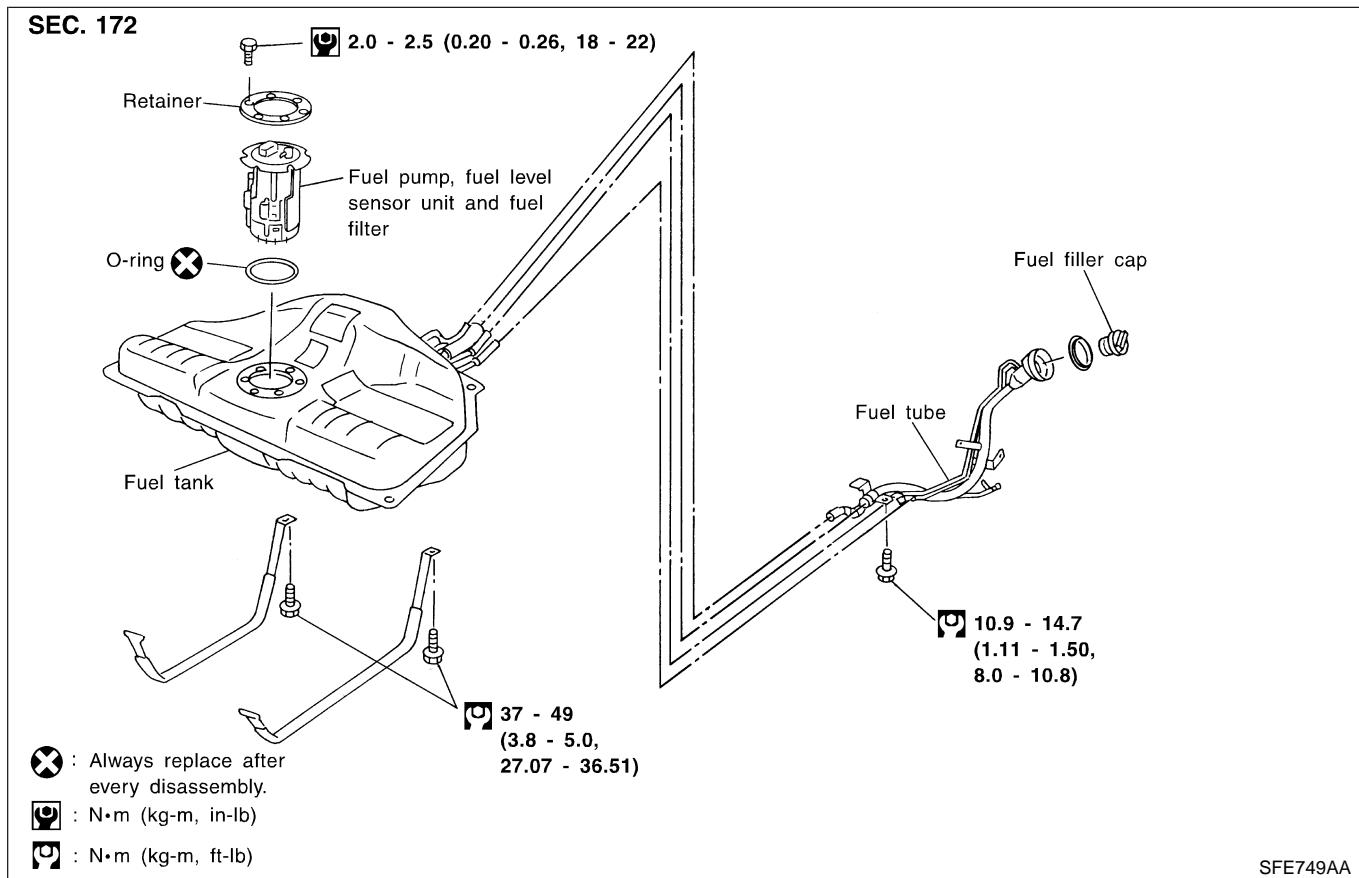
WARNING:

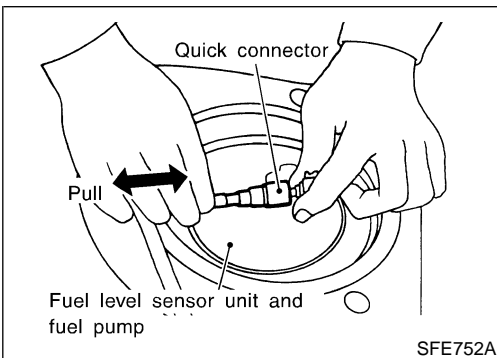
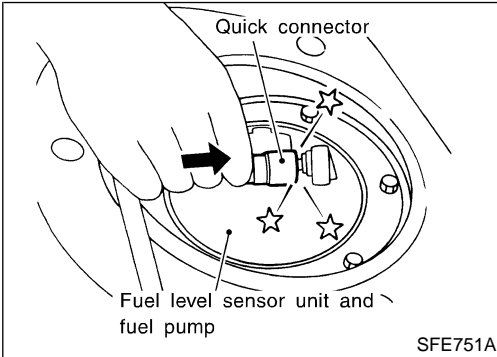
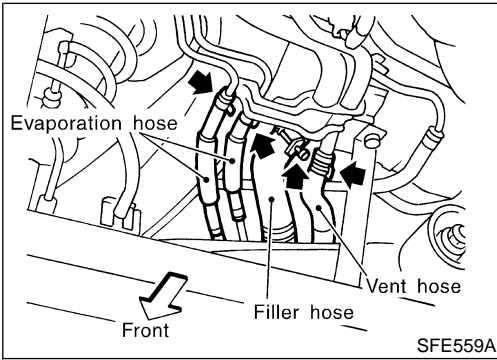
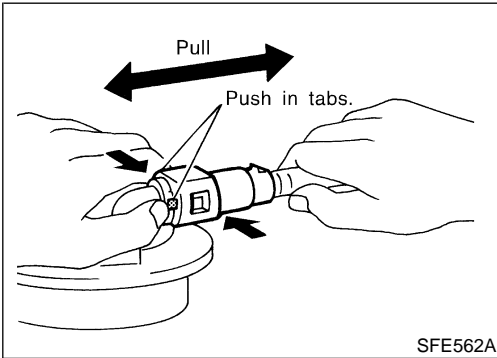
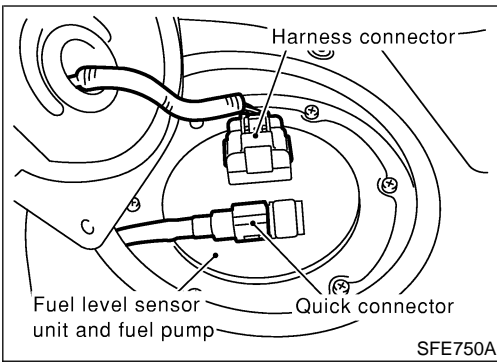
When replacing fuel line parts, be sure to observe the following.

- Put a “CAUTION: INFLAMMABLE” sign in workshop.
- Be sure to work in a well ventilated area and furnish workshop with a CO₂ fire extinguisher.
- Do not smoke while servicing fuel system. Keep open flames and sparks away from work area.

CAUTION:

- Before removing fuel line parts, carry out the following procedures:
 - a) Put drained fuel in an explosion-proof container and put the lid on securely. Keep the container in safe area.
 - b) Release fuel pressure from fuel line. Refer to EC-56, “Fuel Pressure Release”.
 - c) Disconnect battery ground cable.
- Always replace O-ring and clamps with new ones.
- Do not kink or twist tubes when they are being installed.
- Do not tighten hose clamps excessively to avoid damaging hoses.
- After installation, check for fuel leaks at connections in the following steps.
 - a) Apply fuel pressure to fuel lines with turning ignition switch ON (with engine stopped). Then check for fuel leaks at connections.
 - b) Start the engine and rev it up and check for fuel leaks at connections.
- Use only a genuine NISSAN fuel filler cap as a replacement. If an incorrect fuel filler cap is used, the MIL may come on.
- For inspection and installation of EVAP system parts, refer to EC-36, “Evaporative Emission System”.
- For inspection and installation of ORVR system parts, refer to EC-42, “On Board Refueling Vapor Recovery (ORVR)”.





Fuel Tank

REMOVAL

1. Release fuel pressure from fuel line. Refer to EC-56, "Fuel Pressure Release".
2. Disconnect battery ground cable.
3. Drain fuel from fuel tank.
4. Disconnect electrical connector.
5. Remove the quick connector as follows.
 - a. Put mating marks on tubes and connectors for correct installation.
 - b. Hold the sides of the connector, push in tabs, and pull out the tube inserted in the retainer.

CAUTION:

- The tube can be removed when the push in tabs are completely depressed. Do not twist it more than necessary.
- Do not use any tools to remove the quick connector.
- Keep clean the connecting portion of the tube and the quick connector.

6. Disconnect filler hose, vent hose and evaporation hose at fuel tank side.
7. Remove fuel tank mounting band bolts while supporting fuel tank.
8. Remove fuel tank.

INSTALLATION

To install, reverse the removal procedure. Connect the quick connector as follows:

- Align mating marks on tubes and connectors for correct installation.
- Be sure that the connecting portion of the tube and the quick connectors is clean and smooth.
- Align push in tabs with retainer openings.
- Insert tube into the center of the connector until you hear a click.

After connecting quick connector, make sure the connection is firmly made using the following method.

- Pull on the fuel tube and connector to make sure they are firmly connected.
- Start the engine, increase engine speed and verify that there are no leaks.

GI

MA

EM

LC

EC

FE

AT

AX

SU

BR

ST

RS

BT

HA

SC

EL

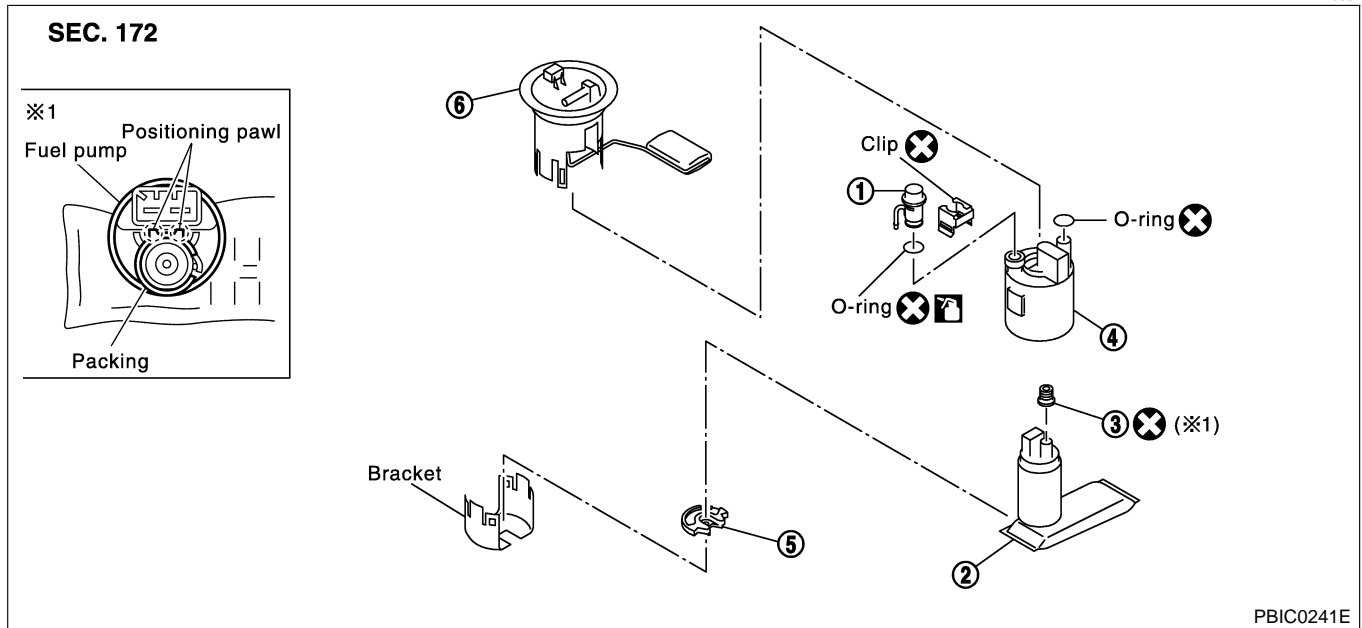
IDX

FUEL SYSTEM

Fuel Pump, Fuel Level Sensor Unit and Fuel Filter

Fuel Pump, Fuel Level Sensor Unit and Fuel Filter

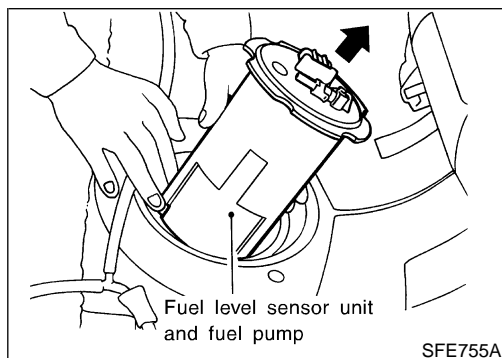
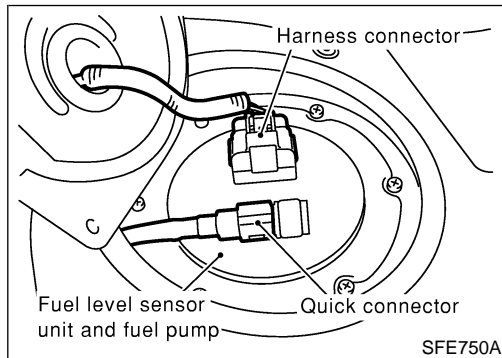
NHFE0007



1. Pressure regulator
2. Fuel pump

3. Packing
4. Fuel filter

5. Rubber
6. Fuel level sensor unit



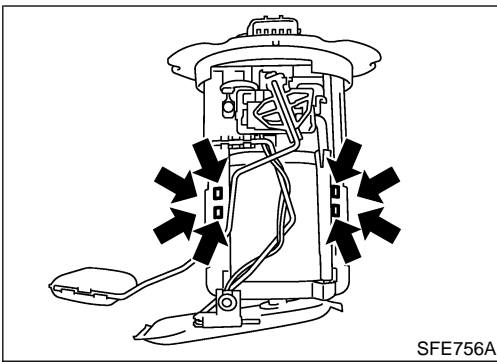
REMOVAL

NHFE0007S01

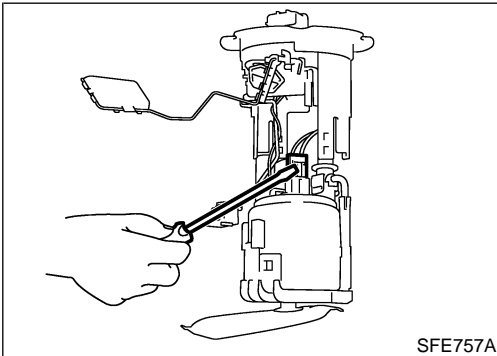
1. Release fuel pressure from fuel line.
Refer to EC-56, "Fuel Pressure Release".
2. Remove rear seat bottom. Refer to BT-50, "Removal and Installation".
3. Remove inspection hole cover located under the rear seat.
4. Disconnect electrical connector.
5. Remove the quick connectors.
 - For removal of quick connectors, refer to step 5. of "Fuel Tank Removal".
6. Remove the six screws.
7. Pull out the fuel level sensor unit and fuel pump.
 - **Do not damage the arm of the fuel level sensor and fuel tank temperature sensor.**

FUEL SYSTEM

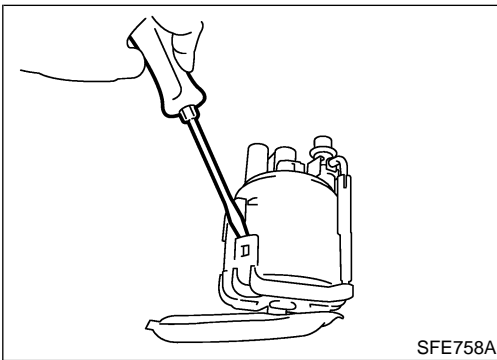
Fuel Pump, Fuel Level Sensor Unit and Fuel Filter (Cont'd)



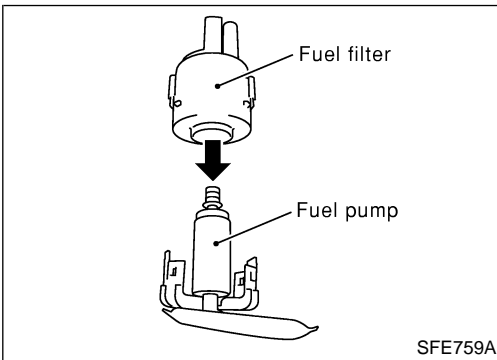
8. Remove flange of fuel level sensor unit and fuel pump.
 - Using a screwdriver, remove the snap fit portion as shown in the figure.



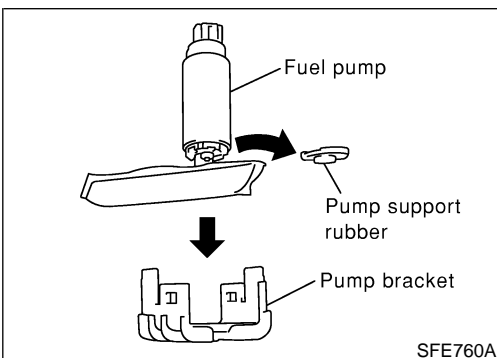
9. Push fuel level sensor flange.
 - Using a screwdriver, remove the snap fit portion as shown in the figure.
10. Pull up the fuel level sensor.



11. Remove fuel filter from chamber.
 - Using a screwdriver, remove the snap fit portion as shown in the figure.



12. Remove fuel pump, then push down the fuel pump as shown in the figure.



13. Remove the pump support rubber from the fuel pump.

GI

MA

EM

LC

EC

FE

AT

AX

SU

BR

ST

RS

BT

HA

SC

EL

IDX

FUEL SYSTEM

Fuel Pump, Fuel Level Sensor Unit and Fuel Filter (Cont'd)

INSTALLATION

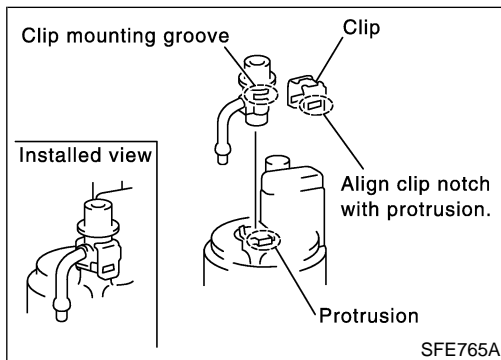
NHFE0007S02

Install in the reverse order of removal paying attention to the following.

- Install the fuel filter and fuel pump with the tabs aligned, make sure a click sound of secure engagement is heard.
- Securely connect the harness connector of the fuel pump.
- Install the pressure regulator O-ring as follows.

CAUTION:

- **When replacing, always use a new O-ring.**
- **Handle it with bare hands. (Do not use gloves.)**
- **Visually check the O-ring, mounting parts and mating parts for foreign materials and flaws.**
- **Before installing, apply new engine oil.**
- **To avoid damage, do not apply an excessive force (pulling or starching).**



- Install the pressure regulator as follows.
 1. Insert the clip to the groove of the regulator.
 2. With the clip installed, insert the regulator straight by matching the fuel filter protrusion and the clip notch.
 3. Make sure that the fuel filter protrusion and clip notch are securely engaged.

EXHAUST SYSTEM

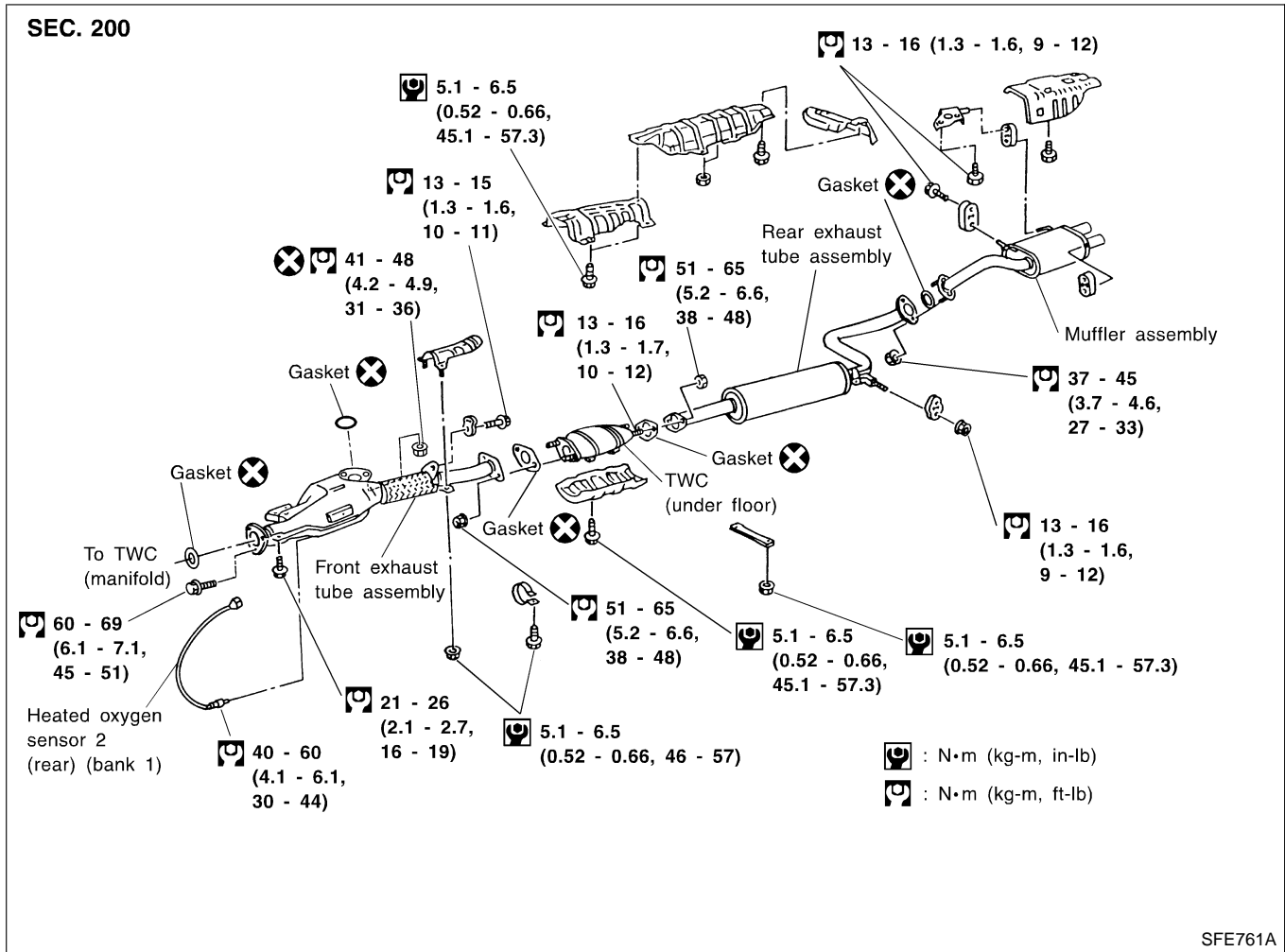
Removal and Installation

Removal and Installation

NHFE0005

CAUTION:

- Always replace exhaust gaskets with new ones when reassembling.
- With engine running, check all tube connections for exhaust gas leaks, and entire system for unusual noises.
- Check to ensure that mounting brackets and mounting insulators are installed properly and free from undue stress. Improper installation could result in excessive noise or vibration.
- Discard any heated oxygen 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.
- Before installing a new oxygen sensor, clean exhaust system threads using oxygen sensor thread cleaner tool, J-43897-18 or J-43897-12, and apply anti-seize lubricant.
- Do not overtorque the oxygen sensor. Doing so may cause damage to the oxygen sensor, resulting in the MIL coming on.



NOTES