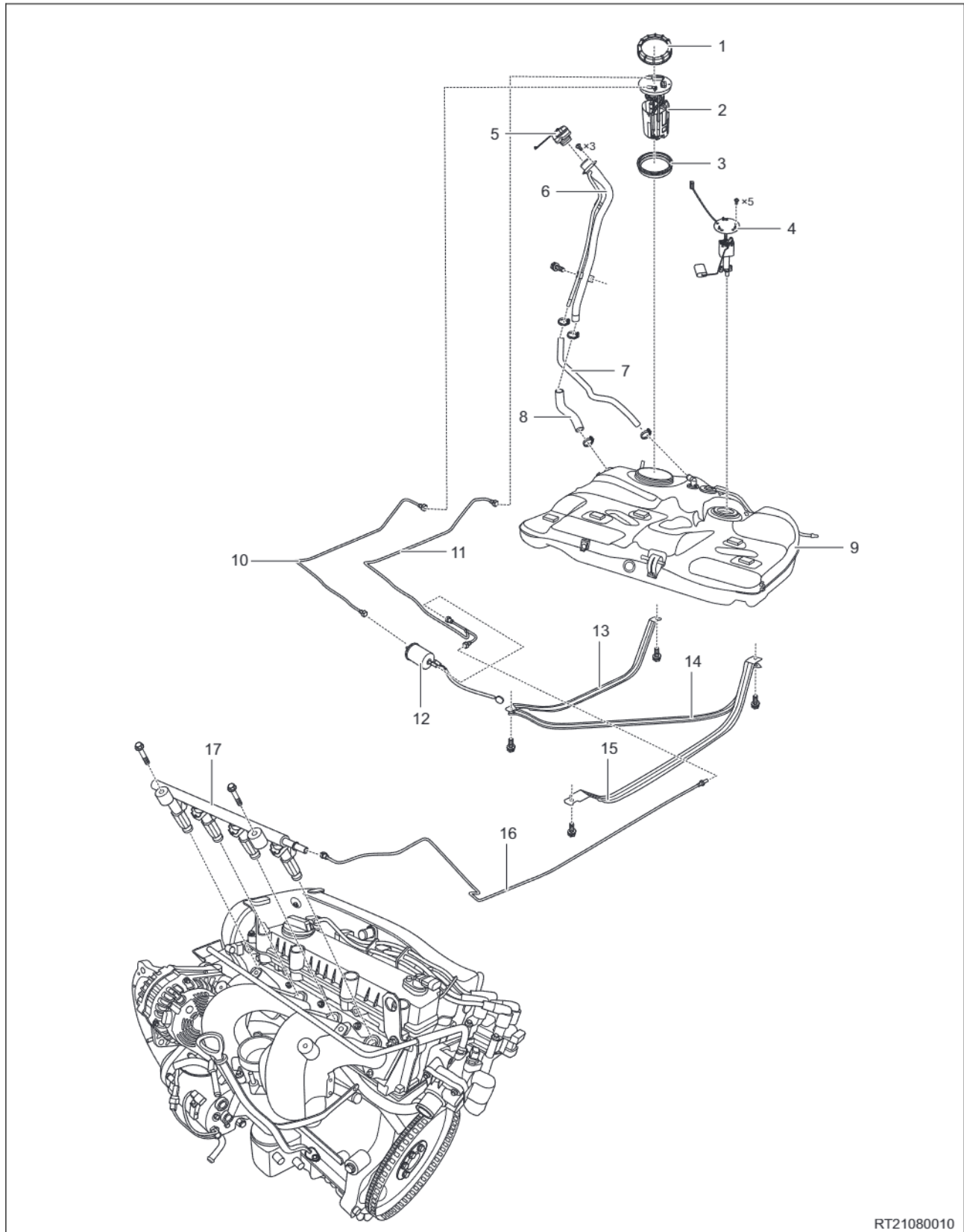

SQR484F FUEL SUPPLY SYSTEM

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GENERAL INFORMATION

Description



08

RT21080010

1 - Fuel Pump Pressure Cap	2 - Electric Fuel Pump Assembly
3 - Fuel Tank Seal Ring	4 - Fuel Level Sensor
5 - Fuel Tank Cap Assembly	6 - Filler Tube Assembly
7 - Fuel Breather Hose	8 - Fuel Filler Hose
9 - Fuel Tank	10 - Inlet Pipe I
11 - Inlet and Return Pipe Assembly	12 - Fuel Filter Assembly
13 - Fuel Tank Fixing Strap I	14 - Fuel Tank Fixing Strap II
15 - Fuel Tank Fixing Strap III	16 - Inlet Pipe II
17 - Fuel Rail Injector Assembly	

Engine fuel supply system provides a certain amount and concentration of combustible air-fuel mixture and supplies it to cylinders according to the requirements under various operating conditions of engine. Fuel supply system consists of fuel tank assembly, electric fuel pump assembly, fuel filter assembly, delivery pipe, fuel rail and injectors, and is used for fuel storage, filtration, delivery and injection.

08

Function of fuel supply system is to provide gasoline with sufficient pressure to fuel injectors by using electric fuel pump assembly, and the injector injects a certain amount of gasoline to the top of intake valve in intake manifold in accordance with control signals from ECM.

Specifications

Torque Specifications

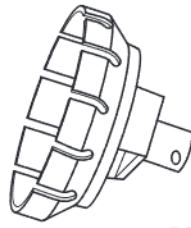
Description	Torque (N·m)
Fuel Filter Ground Wire Fixing Nut	7 ± 1
Fuel Filter Bracket Fixing Screw	3.5 ± 0.5
Fuel Tank Pressure Cap	75 ± 5
Coupling Bolt Between Filler Tube Assembly and Body	22 ± 2
Filler Tube Assembly Fixing Nut	7 ± 1
Fuel Tank Fixing Strap Fixing Bolt	25 ± 3
Fuel Level Sensor Fixing Screw	5 ± 1
Fuel Rail Fixing Bolt	8 + 3
Worm Clamp	3.5 ± 0.5

Fuel Pressure Specifications

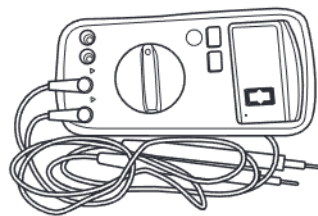
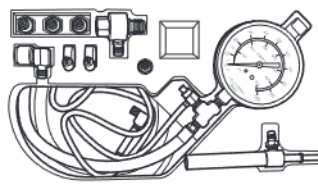
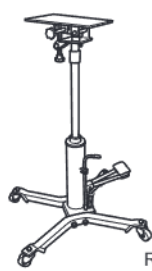
SQR484F	Pressure (kPa)
Fuel Pressure on Fuel Rail - Key (ON)	400
Fuel Pressure on Fuel Rail - Engine Idling	400
Fuel Pressure on Fuel Rail - Key (LOCK)	400

Tools

Special Tool

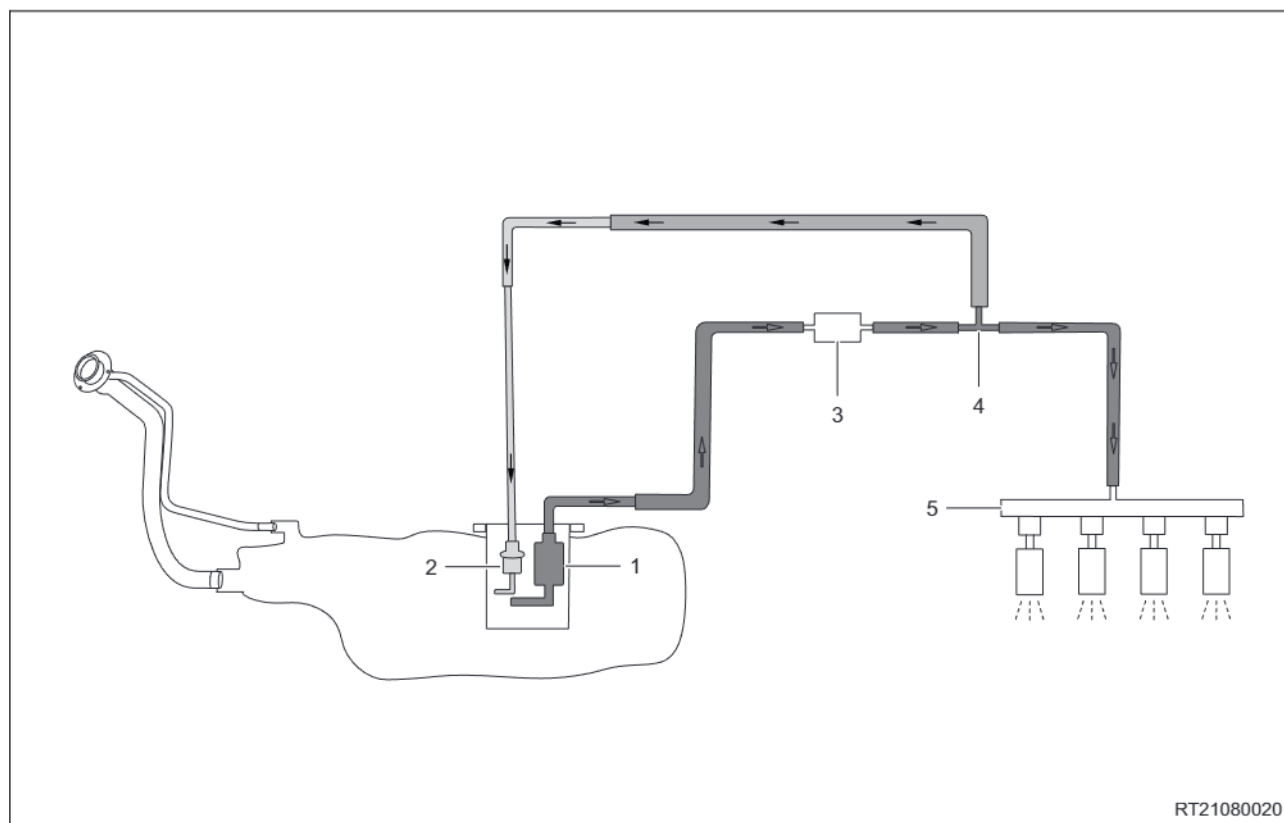
Fuel Tank Pressure Cap Remover	 RCH0000004
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General Tools

Digital Multimeter	 RCH0000002
Fuel System Pressure Tester	 RCH0000048
Transmission Carrier	 RCH0000005

08

Fuel Supply System Line Connection Diagram



1 - Electric Fuel Pump Assembly

2 - Electric Fuel Pump Assembly Pressure Regulator

3 - Fuel Filter Assembly

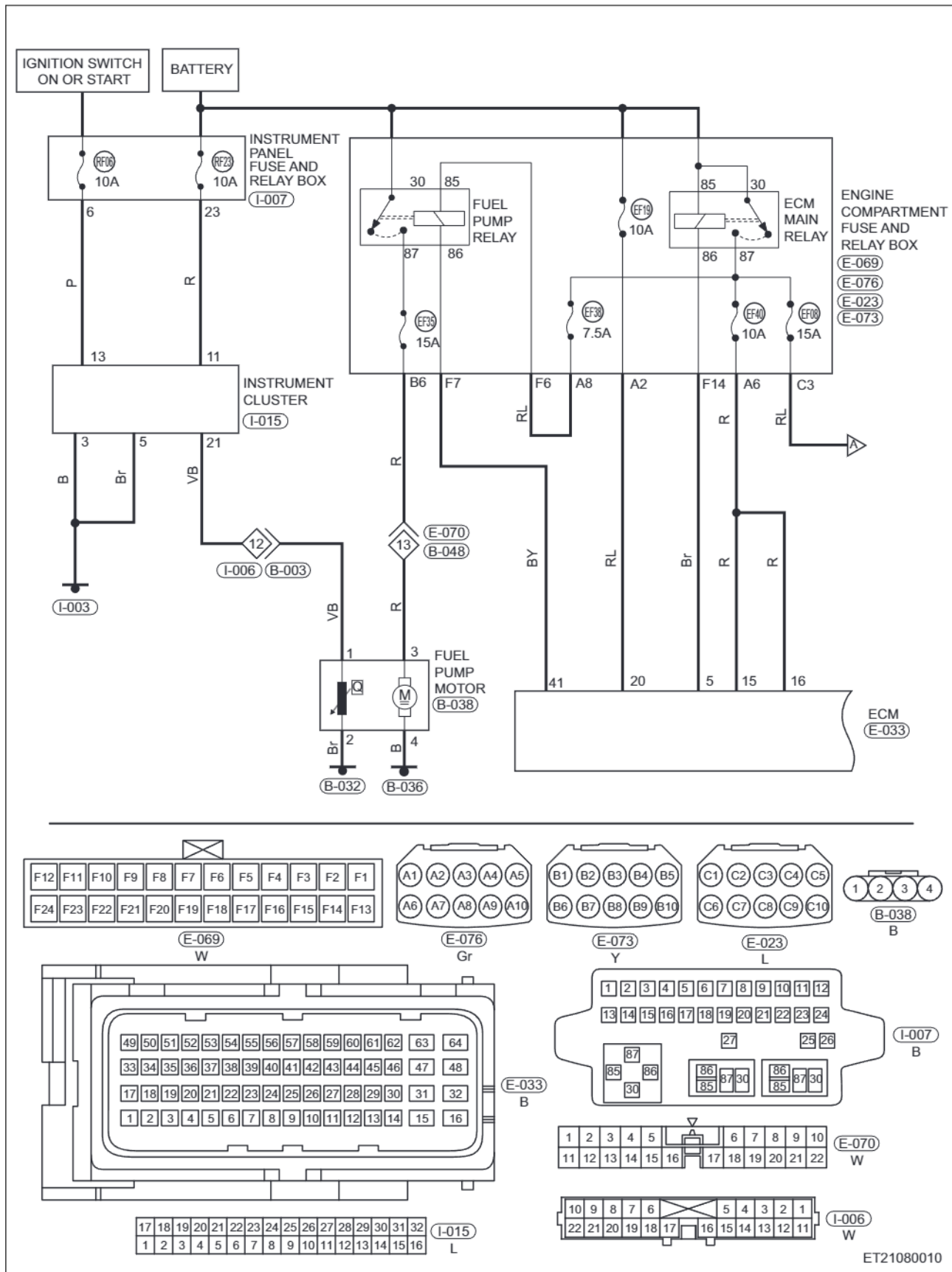
4 - Inlet and Return Pipe Assembly

5 - Fuel Rail Injector Assembly

When engine operates properly, electric fuel pump assembly (1) sucks fuel from fuel tank and filters it through fuel filter assembly (3), and then deliveries it to inlet and return pipe assembly (4). Some fuel enters fuel rail (5) and is supplied to injector. Some fuel flows back to electric fuel pump assembly pressure regulator (2) directly. When fuel supply system pressure is high, diaphragm spring in the regulator is jacked up by pressure, then valve opens and fuel flows out from the regulator. When pressure reaches normal value, the regulator shuts off and fuel stops flowing out. Finally, system pressure reaches a steady state.

Circuit Diagram

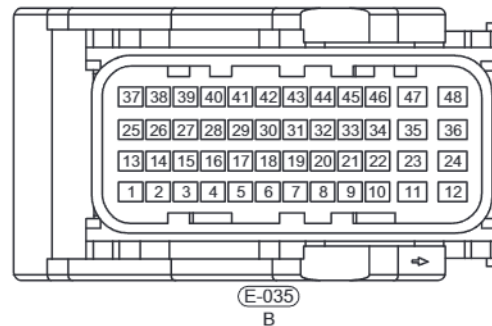
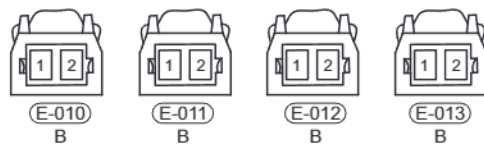
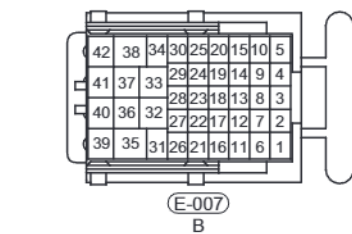
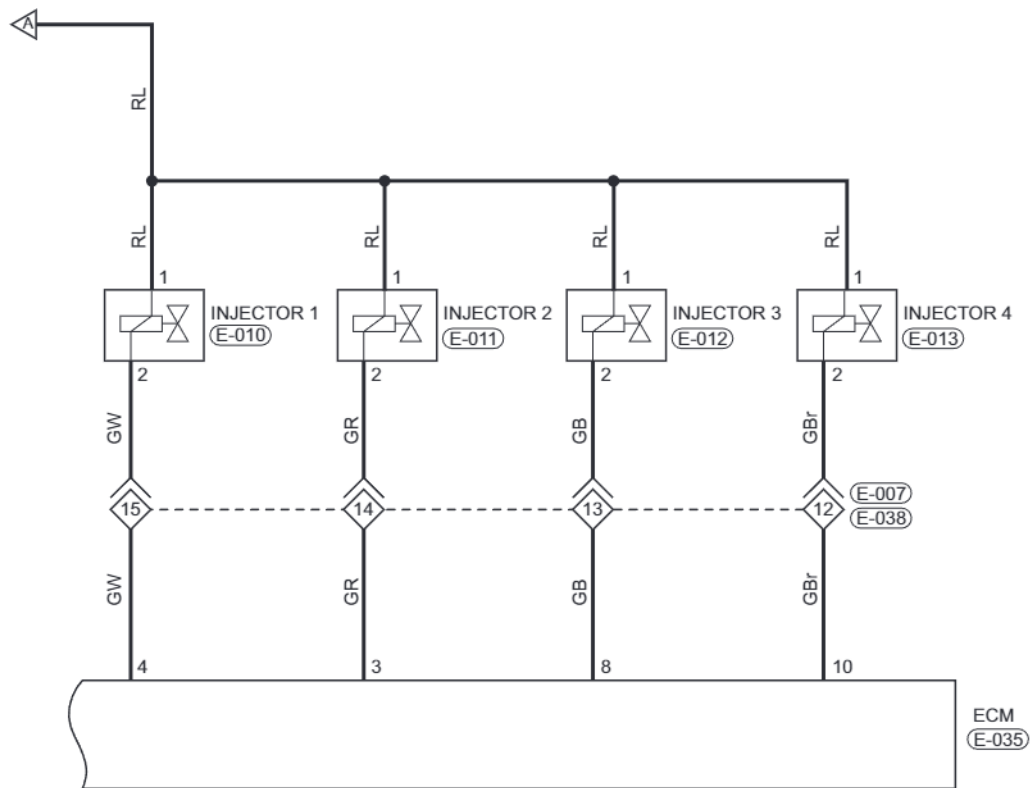
Fuel Supply System (Page 1 of 2)



08

Fuel Supply System (Page 2 of 2)

08



ET21080020

DIAGNOSIS & TESTING

Problem Symptoms Table

HINT:

Use the table below to help determine the cause of problem symptoms. Check each suspected area in sequence. Repair or replace the faulty components, or adjust as necessary.

Symptom	Suspected Area	See page
Fuel pressure in fuel supply system is too low	Fuel filter assembly (blocked)	08-12
	Electric fuel pump assembly (strainer blocked)	08-14
Fuel pressure in fuel supply system is too high	Fuel injector (clogged)	08-26
	Electric fuel pump assembly	08-14
Electric fuel pump assembly has loud operating noise and operates delay	Low fuel level	-
	Electric fuel pump assembly relay	-
	Electric fuel pump assembly	08-14
Injector is clogged and leaks	Fuel filter assembly (blocked)	08-12
	Fuel injector	08-26
	Poor fuel quality	-
	Excessive foreign matter in fuel tank	-
Injector does not work	Fuel supply system line (broken)	-
	Fuel injector (short in coil)	08-26
	Electric fuel pump assembly (damaged)	08-14
	Wire harness	-

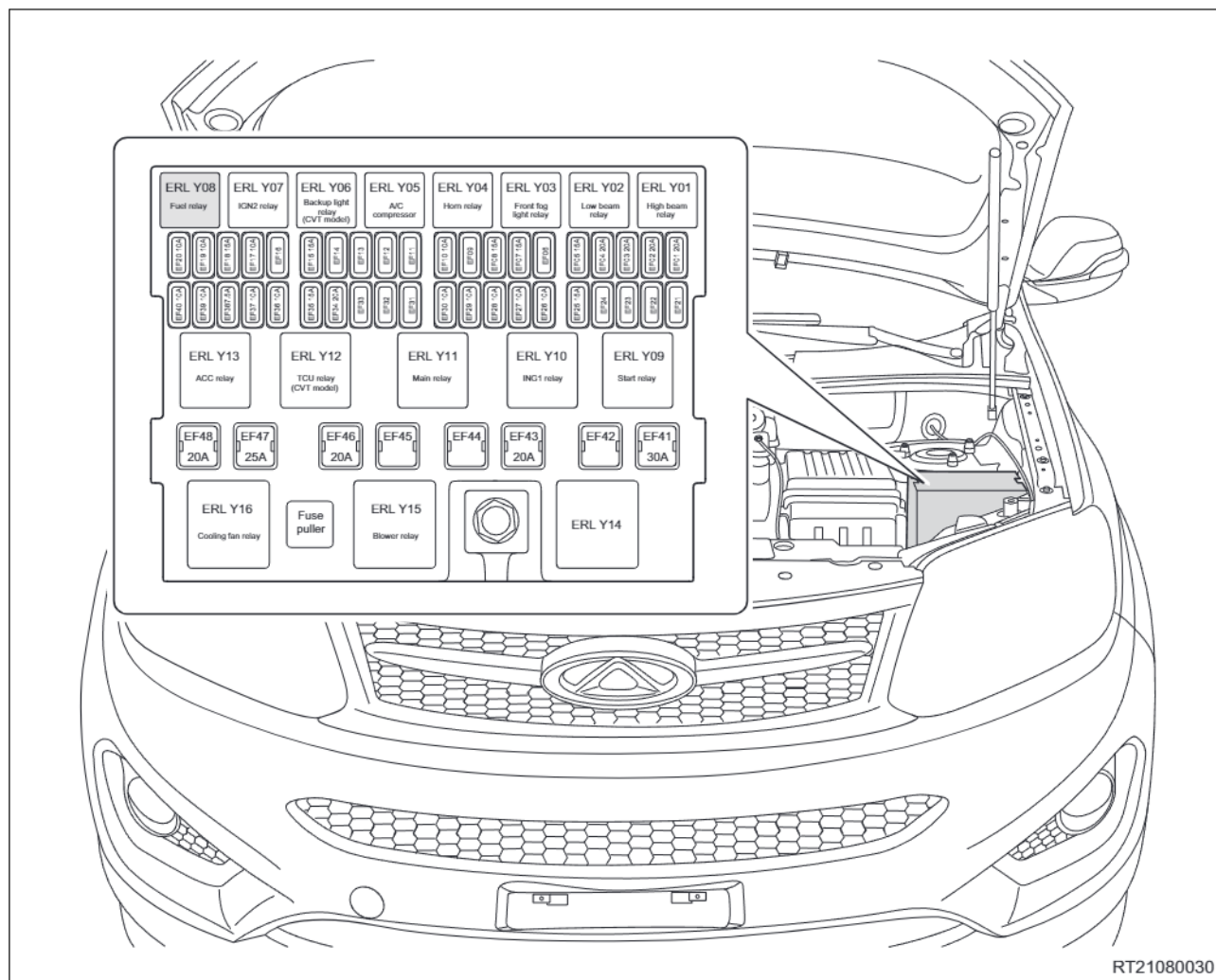
Fuel System Pressure Release

⚠ WARNING

- When engine is not operating, fuel pressure in fuel supply system is still high. Before repairing or disconnecting fuel line or fuel supply system components, it is necessary to release the fuel supply system pressure to prevent fuel from spraying out accidentally. Failure to follow these instructions may result in serious personal injury or death.

Perform the following procedures to release fuel pressure in fuel supply system:

1. Recognize and remove electric fuel pump assembly relay from engine compartment fuse and relay box.



RT21080030

2. Start and run engine until it stalls.
3. Restart engine until it does not run.
4. Turn ignition switch to LOCK.
5. Disconnect the negative battery cable.
6. Insert the electric fuel pump assembly relay into the original place.

Fuel Supply System Pressure Test

Fuel Pressure Specifications

SQR484F	Pressure (kPa)
Fuel Pressure on Fuel Rail - Key (ON)	400
Fuel Pressure on Fuel Rail - Engine Idling	400
Fuel Pressure on Fuel Rail - Key (LOCK)	400

WARNING

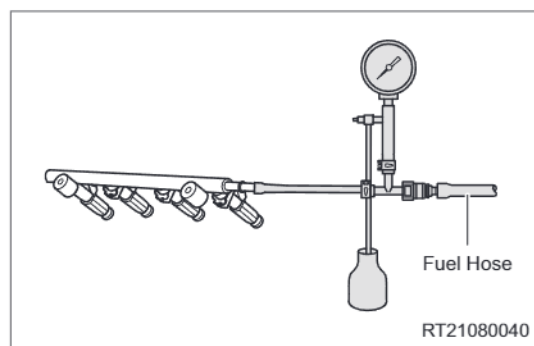
- When operating fuel supply system, work area should be in good ventilation and keep fire sources or open flames away from the work area, in which the fire extinguisher should be equipped.
- Before operating fuel supply system, please touch vehicle body to discharge static electricity; failure to do so will cause a fire, even result in an explosion.
- Before removing and installing fuel pipes, release fuel supply system pressure.

08

CAUTION

- Make sure battery voltage is 11 - 12 V.
- Service life of fuel filter assembly should be within 30,000 km.
- Make sure fuel supply system lines are securely connected, preventing fuel supply system from leaking.

1. Release fuel system pressure ([See page 08-10](#)).
2. Remove the engine trim cover assembly ([See page 10-10](#)).
3. Disconnect the inlet hose connector and connect the fuel supply system pressure tester to a position between inlet hose and fuel rail.



4. Start engine and run it at idle, and then read the value on pressure tester.

Start engine and read the value while idling:

- Standard pressure at idle should be higher than 400 kPa.
- If measured pressure value is lower than 400 kPa, check fuel filter assembly for blockage. Replace fuel filter assembly if necessary ([See page 08-12](#)).
- If measured pressure value is lower than 400 kPa and fuel filter assembly operates properly, check electric fuel pump assembly. Replace as necessary.
- If measured pressure value is too high, it indicates that injector may be clogged or electric fuel pump assembly pressure modulating valve may be malfunctioning. Replace injector ([See page 08-26](#)) or electric fuel pump assembly ([See page 08-14](#)) if necessary.

ON-VEHICLE SERVICE

Fuel Filter Assembly

Removal

⚠ WARNING

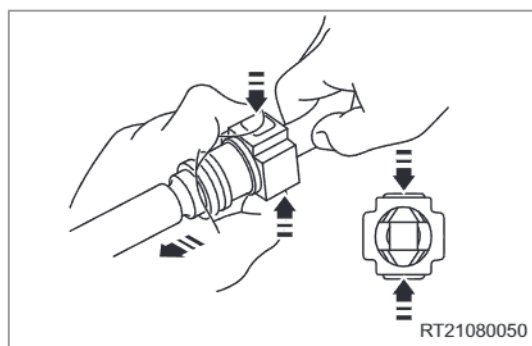
- Before operating fuel supply system, please touch vehicle body to discharge static electricity; failure to do so will cause a fire, even result in an explosion.
- When operating fuel supply system, work area should be in good ventilation and keep fire sources or open flames away from the work area, in which the fire extinguisher should be equipped.
- After performing procedures for fuel system pressure release, there still remains some pressure in fuel line. When disconnecting fuel line, cover the joint with a piece of cloth or equivalent to prevent fuel from spraying out.
- If fuel leakage occurs when operating fuel supply system, please handle the leaked fuel in time.

08

👁 CAUTION

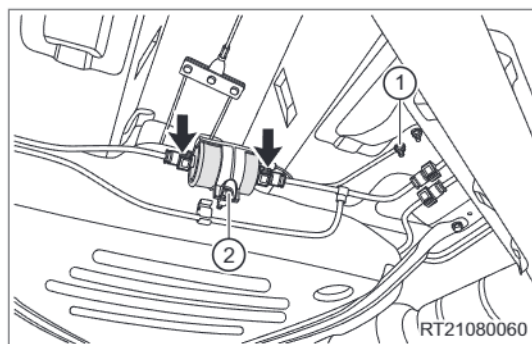
- DO NOT damage disconnected fuel system line or connectors. Cover line joints or connectors with plastic bags or equivalent, preventing foreign matter from entering.
- Be sure to wear necessary safety equipment when repairing to prevent accidents.
- Try to prevent body paint surface from being scratched during removal and installation.

Disconnection way for all fuel pipe coupling joints in following procedures is shown in the illustration.



1. Release fuel pressure in fuel supply system ([See page 08-10](#)).
2. Turn off all the electrical equipment and ignition switch.
3. Disconnect the negative battery cable.
4. Raise the vehicle to a proper height.

5. Remove the fuel filter assembly.
 - a. Remove the fuel filter ground wire fixing nut (1).
(Tightening torque: $7 \pm 1 \text{ N}\cdot\text{m}$)
 - b. Disconnect the connecting joints (arrow) on both ends of the fuel filter assembly.
 - c. Loosen the fuel filter bracket fixing screw (2).
(Tightening torque: $3.5 \pm 0.5 \text{ N}\cdot\text{m}$)



- d. Remove the fuel filter assembly from fuel filter bracket.

CAUTION

- Cover both ends of fuel filter with plastic bags or equivalent to prevent foreign matter from entering.

08

ENVIRONMENTAL PROTECTION

- Removed fuel filter should be handled by the specialized department according to local laws and regulations. Never discard it at will.

Installation

Installation is in the reverse order of removal.

CAUTION

- Before connecting hose, check if there is any damage or foreign matter on the hose or joint.
- When installing, push in fuel pipe joint clip until a click sound is heard from coupling joint, then check that fuel pipe joint clip is on the collar of fuel pipe joint. After installing pipe joint clip, check that fuel pipe joint cannot be pulled out. Be careful not to damage the joint. If the clip is damaged, replace it.
- Turn ignition switch ON (without starting engine) to apply fuel pressure to fuel supply system, and then check connections for leakage.

Electric Fuel Pump Assembly

On-vehicle Inspection

1. Check electric fuel pump assembly fuel level sensor.
 - a. Using a flat tip screwdriver, pry up electric fuel pump assembly protective cap, and disconnect electric fuel pump assembly connector.
 - b. Using a digital multimeter, measure resistance of fuel level sensor based on the fuel volume in fuel tank.

Fuel Level Indicator	Multimeter Connection	Specification (Ω)
E	Terminal 1 - Terminal 2	283 ± 4
Low Fuel Warning	Terminal 1 - Terminal 2	189 ± 4
1/4	Terminal 1 - Terminal 2	137 ± 5
1/2	Terminal 1 - Terminal 2	89 ± 4
3/4	Terminal 1 - Terminal 2	62 ± 3
F	Terminal 1 - Terminal 2	40 ± 3

If result is not as specified, replace the fuel level sensor.

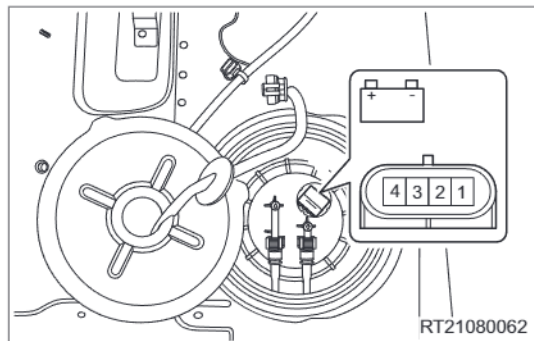
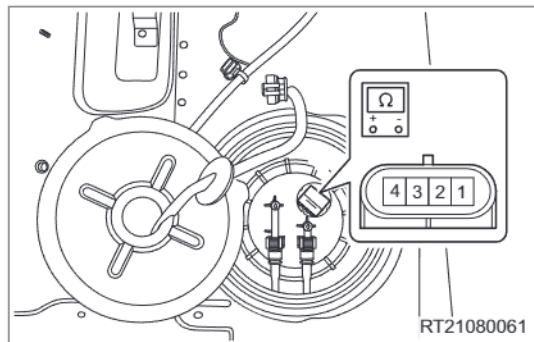
2. Check electric fuel pump assembly operation.
 - a. Using a flat tip screwdriver, pry up electric fuel pump assembly protective cap.
 - b. Apply battery voltage to terminals 3 and 4. Check if electric fuel pump assembly operates in 10 seconds.

HINT:

- These tests must be finished within 10 seconds to prevent coils from being burnt.
- Leave electric fuel pump assembly as far as possible from the battery.
- Always switch voltage on and off on battery side, rather than electric fuel pump assembly side.

Multimeter Connection	Specification
Battery positive (+) - Terminal 3	Fuel pump operates
Battery negative (-) - Terminal 4	

If electric fuel pump assembly does not operate, replace it.



Removal

⚠ WARNING

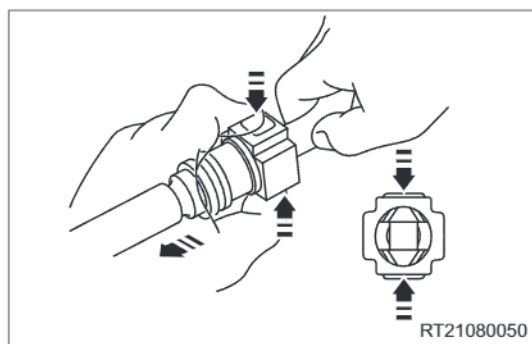
- Before operating fuel supply system, please touch vehicle body to discharge static electricity; failure to do so will cause a fire, even result in an explosion.
- When operating fuel supply system, work area should be in good ventilation and keep fire sources or open flames away from the work area, in which the fire extinguisher should be equipped.
- After performing procedures for fuel system pressure release, there still remains some pressure in fuel line. When disconnecting fuel line, cover the joint with a piece of cloth or equivalent to prevent fuel from spraying out.
- If fuel leakage occurs when operating fuel supply system, please handle the leaked fuel in time.

👁 CAUTION

- Be sure to wear necessary safety equipment when repairing to prevent accidents.
- Try to prevent body paint surface from being scratched during removal and installation.
- Operation staff should wear protective glasses and rubber gloves and avoid inhaling much fuel gas.
- Only use parts approved by Chery Automobile Co., Ltd. to replace electric fuel pump assembly.
- As electric fuel pump assembly radiates through fuel, low fuel level in fuel tank will directly shorten the service life of electric fuel pump assembly.
- Keep electric fuel pump assembly and work area clean when replacing electric fuel pump assembly, otherwise the electric fuel pump assembly element will be clogged.
- DO NOT damage disconnected fuel system line or connectors. Cover line joints or connectors with plastic bags or equivalent, preventing foreign matter from entering.
- Keep fuel tank and line clean, and replace fuel filter assembly if electric fuel pump assembly has been replaced.

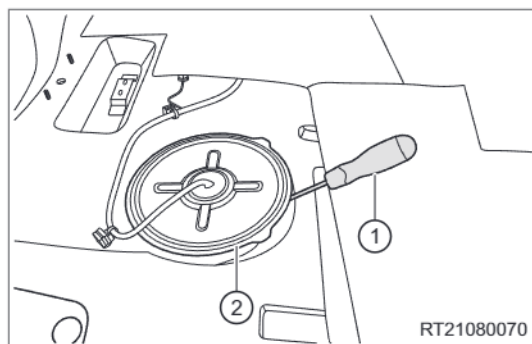
08

Disconnection way for all coupling joints in the following procedures is as shown in the illustration.

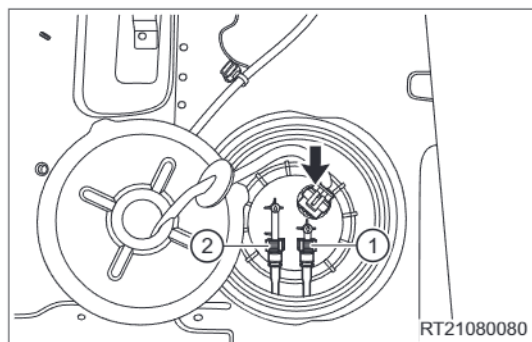


1. Release fuel system pressure ([See page 08-10](#)).
2. Turn off all the electrical equipment and ignition switch.
3. Disconnect the negative battery cable.
4. Open the fuel tank cap assembly and release fuel vapor from fuel tank.
5. Remove the rear right seat ([See page 46-25](#)).

6. Remove the electric fuel pump assembly.
- Using a flat tip screwdriver (1), pry up the electric fuel pump assembly protective cap (2).



- Disconnect the electric fuel pump assembly connector (arrow).
- Disconnect the coupling joint (1) between electric fuel pump assembly and inlet pipe I assembly.
- Disconnect the coupling joint (2) between electric fuel pump assembly and inlet and return pipe assembly.

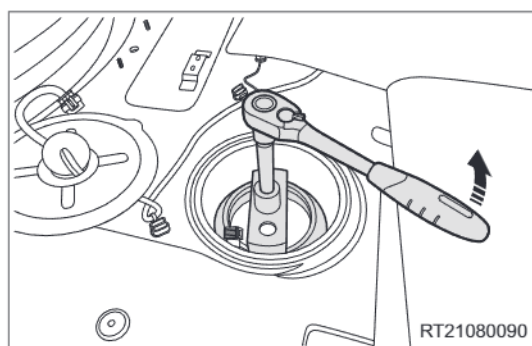


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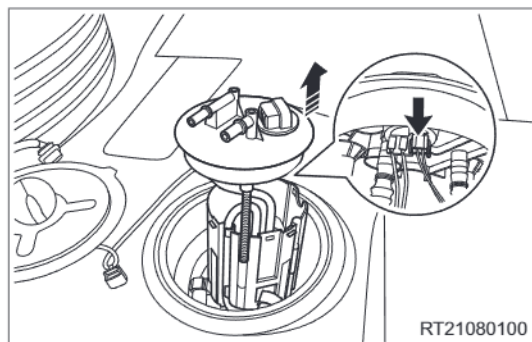
CAUTION

- Before disconnecting the joint, remove all dirt and foreign matter from electric fuel pump assembly pressure cap.
- DO NOT forcefully bend or twist delivery pipe.

- Using special tool (fuel tank pressure cap remover), remove the fuel tank pressure cap as shown in the illustration.
(Tightening torque: $75 \pm 5 \text{ N}\cdot\text{m}$)



- Pull up the electric fuel pump assembly from fuel tank and disconnect the fuel level sensor connector (arrow).



CAUTION

- Operate carefully when pulling the electric fuel pump assembly out of fuel tank, preventing damaging lines, wire harnesses and fuel level sensor.
- To keep fuel tank portion clean, cover it completely with a plastic bag or equivalent to prevent foreign matter from entering.
- The electric fuel pump assembly can be put into a container and taken out of the cabin, thus preventing fuel in the pump from dropping into the cabin.

g. Take the electric fuel pump assembly out of fuel tank.

7. Drain the fuel in the electric fuel pump assembly.

CAUTION

- Cover electric fuel pump assembly completely with a plastic bag or equivalent to prevent foreign matter from entering.
- It is not allowed to perform running test for electric fuel pump assembly under dry or water condition. Otherwise it will reduce its service life. In addition, DO NOT connect battery positive and negative poles inversely.

08**Installation**

Installation is in the reverse order of removal.

CAUTION

- DO NOT connect the negative battery cable during installation. Work area should be in good ventilation and keep fire sources or open flames away.
- To avoid damaging electric fuel pump assembly, align electric fuel pump assembly with installation position of fuel tank and DO NOT run the electric fuel pump assembly without fuel in fuel tank.
- Before connecting hose, check if there is any damage or foreign matter on hose or joint.
- During installation, push in fuel pipe connector until a click sound is heard, then check that fuel pipe joint clip is on the collar of fuel pipe joint. After installing the pipe joint clip, check that fuel pipe joint cannot be pulled out. Be careful not to damage the joint. If the clip is damaged, replace it.
- Turn ignition switch ON (without starting engine) to apply fuel pressure to fuel supply system, and then check connections for leakage.

Filler Tube Assembly

Removal

⚠ WARNING

- Before operating fuel supply system, please touch vehicle body to discharge static electricity; failure to do so will cause a fire, even result in an explosion.
- When operating fuel supply system, work area should be in good ventilation and keep fire sources or open flames away from the work area, in which the fire extinguisher should be equipped.
- If fuel leakage occurs when operating fuel supply system, please handle the leaked fuel in time.

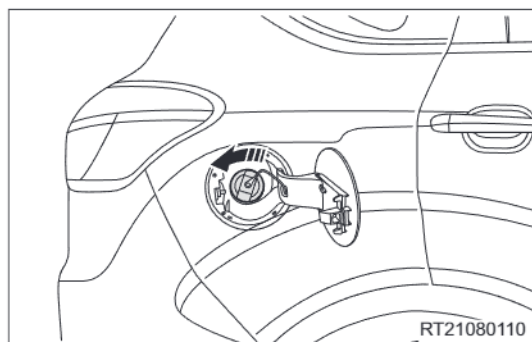
👁 CAUTION

- Be sure to wear necessary safety equipment when repairing to prevent accidents.
- Try to prevent body paint surface from being scratched during removal and installation.

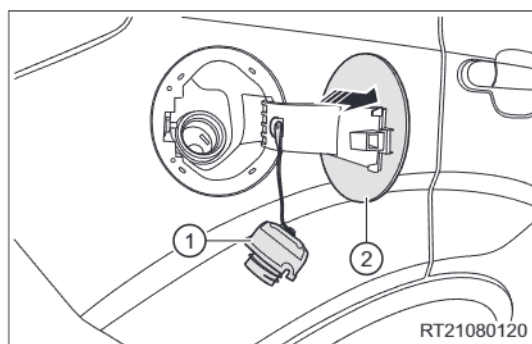
08

1. Turn off all the electrical equipment and ignition switch.
2. Disconnect the negative battery cable.
3. Remove the C-pillar lower right protector assembly ([See page 49-23](#)).
4. Remove the fuel filler door assembly.

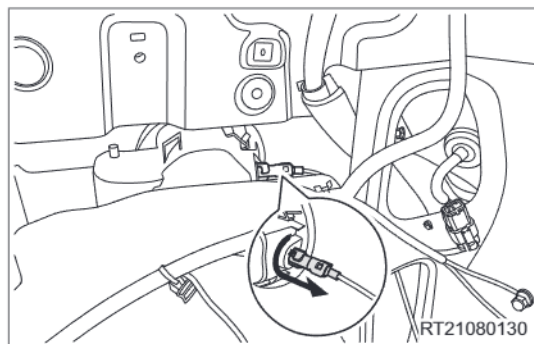
- a. Open the fuel filler door, turn the fuel tank cap in the direction of arrow as shown in the illustration.



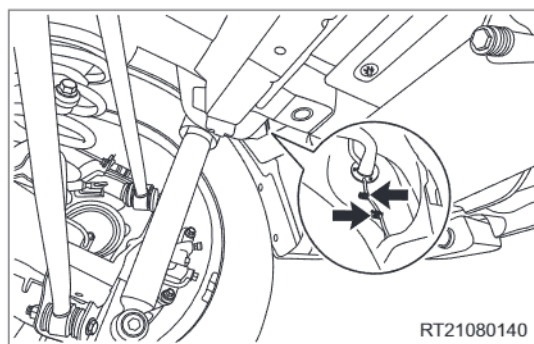
- b. Remove the fuel tank cap assembly (1) from fuel filler door hinge assembly.
- c. Remove the fuel filler door outer cover plate (2) from fuel filler door hinge assembly in the direction of arrow as shown in the illustration.



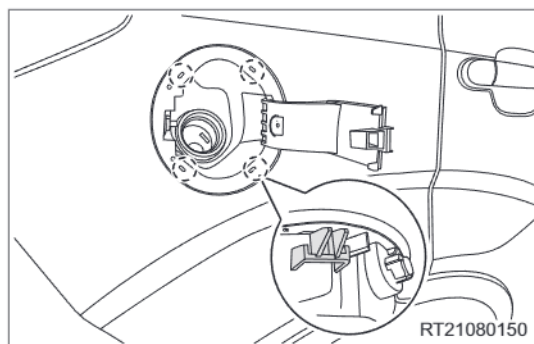
- d. Remove the fuel filler door cable from fuel filler door hinge assembly in the direction of arrow as shown in the illustration.



- e. Remove the water-guide pipe from clamp slot (arrow) under the wheel house.



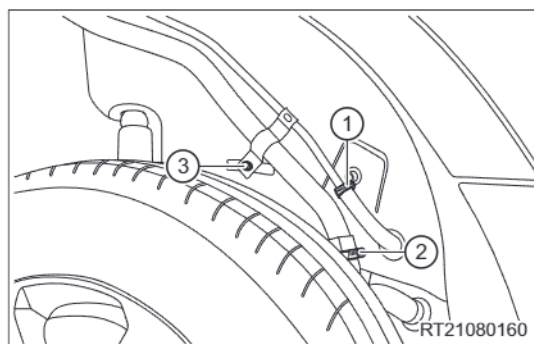
- f. Disengage the clips from fuel filler door hinge assembly and remove the fuel filler door hinge assembly.



08

5. Remove the filler tube assembly.

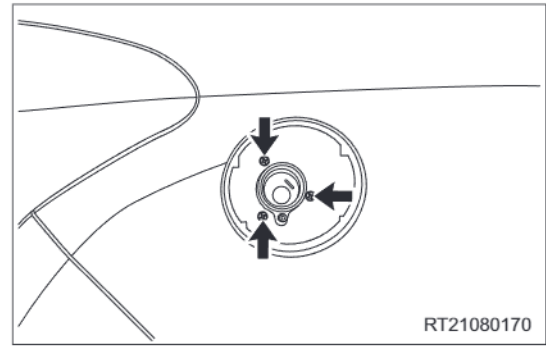
- Loosen the worm clamp (1) and disconnect the connection between fuel breather hose and filler tube assembly.
(Tightening torque: $3.5 \pm 0.5 \text{ N}\cdot\text{m}$)
- Loosen the worm clamp (2) and disconnect the connection between fuel filler hose and filler tube assembly.
(Tightening torque: $3.5 \pm 0.5 \text{ N}\cdot\text{m}$)
- Remove the coupling bolt (3) between filler tube assembly and body.
(Tightening torque: $22 \pm 2 \text{ N}\cdot\text{m}$)



CAUTION

- Cover the joint with a plastic bag after disconnecting fuel breather hose and fuel filler hose, in order to prevent foreign matter from entering fuel tank and fuel from evaporating or leaking.

- d. Remove 3 fixing screws (arrow) from filler tube assembly.
(Tightening torque: 7 ± 1 N·m)



- e. Remove the filler tube assembly.

Installation

Installation is in the reverse order of removal.

Fuel Tank

Removal

⚠ WARNING

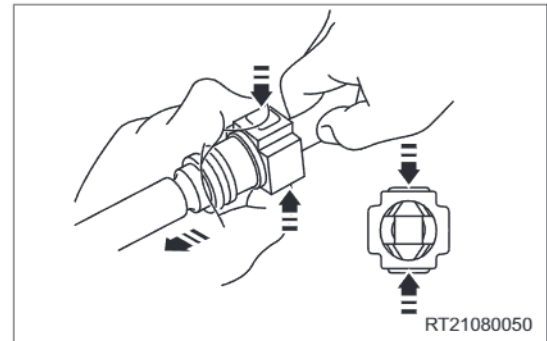
- Before operating fuel supply system, please touch vehicle body to discharge static electricity; failure to do so will cause a fire, even result in an explosion.
- When operating fuel supply system, work area should be in good ventilation and keep fire sources or open flames away from the work area, in which the fire extinguisher should be equipped.
- After performing procedures for fuel system pressure release, there still remains some pressure in fuel line. When disconnecting fuel line, cover the joint with a piece of cloth or equivalent to prevent fuel from spraying out.
- If fuel leakage occurs when operating fuel supply system, please handle the leaked fuel in time.

👁 CAUTION

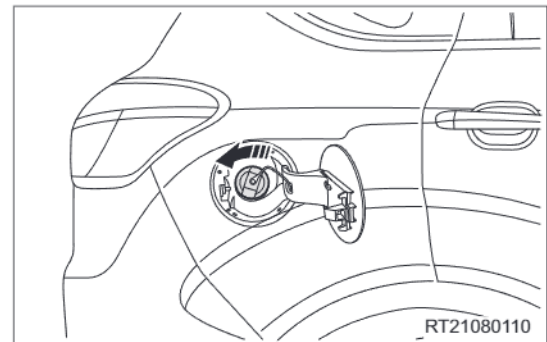
- DO NOT damage disconnected fuel system line or connectors. Cover line joints or connectors with plastic bags or equivalent, preventing foreign matter from entering.
- Be sure to wear necessary safety equipment when repairing to prevent accidents.
- Try to prevent body paint surface from being scratched during removal and installation.

08

Disconnection way for all fuel pipe coupling joints in following procedures is shown in the illustration.

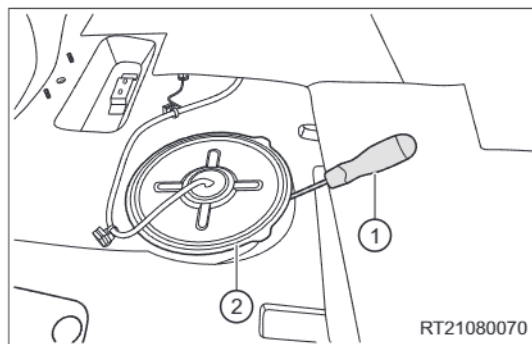


1. Release fuel system pressure ([See page 08-10](#)).
2. Turn off all the electrical equipment and ignition switch.
3. Disconnect the negative battery cable.
4. Open the fuel filler door, rotate the fuel tank cap assembly in the direction of arrow as shown in the illustration and discharge fuel vapor in fuel tank.

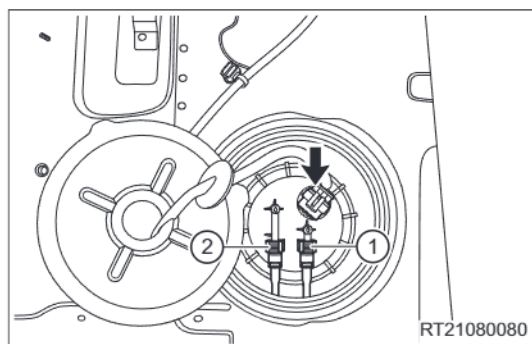


5. Disconnect line and wire harness connections on electric fuel pump assembly side.

- a. Remove the rear right seat (See page 46-25).
- b. Using a flat tip screwdriver (1), pry up the electric fuel pump assembly protective cap (2).



- c. Disconnect the electric fuel pump assembly connector (arrow).
- d. Disconnect the coupling joint (1) between electric fuel pump assembly and inlet pipe I assembly.
- e. Disconnect the coupling joint (2) between electric fuel pump assembly and inlet and return pipe assembly.



08

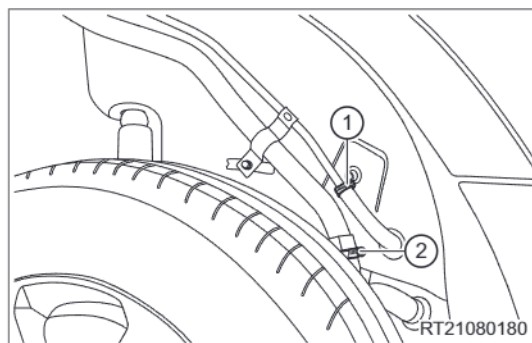
CAUTION

- Before disconnecting the joint, remove all dirt and foreign matter from electric fuel pump assembly pressure cap.
- DO NOT forcefully bend or twist delivery pipe.

6. Remove the fuel filter assembly (See page 08-12).

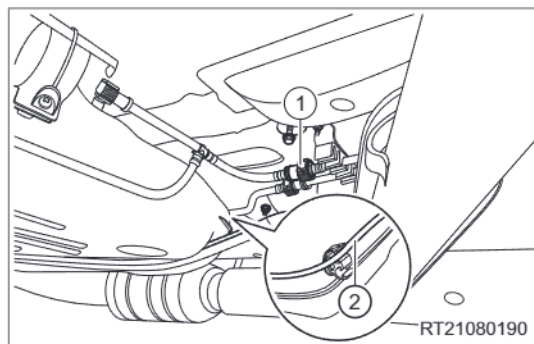
7. Remove the fuel tank.

- a. Loosen the worm clamp (1) and disconnect the connection between fuel breather hose and filler tube assembly.
(Tightening torque: $3.5 \pm 0.5 \text{ N}\cdot\text{m}$)
- b. Loosen the worm clamp (2) and disconnect the connection between fuel filler hose and filler tube assembly.
(Tightening torque: $3.5 \pm 0.5 \text{ N}\cdot\text{m}$)

**CAUTION**

- Cover the joint with a plastic bag after disconnecting fuel breather hose and fuel filler hose, in order to prevent foreign matter from entering fuel tank and fuel from evaporating or leaking.

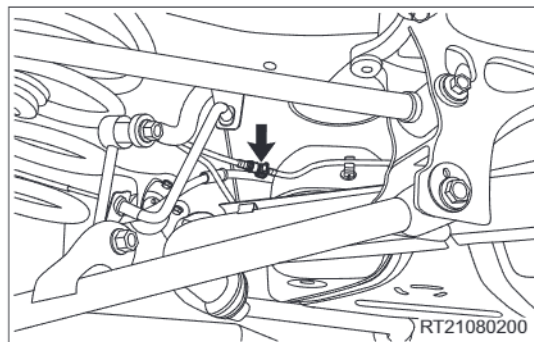
- c. Pull out the fuel breather hose from the body installation hole.
- d. Disconnect the coupling joint (1) between inlet and return pipe assembly and inlet pipe II assembly.
- e. Move away the fuel vapor pipe III assembly (2) from the pipe clamp on fuel tank.



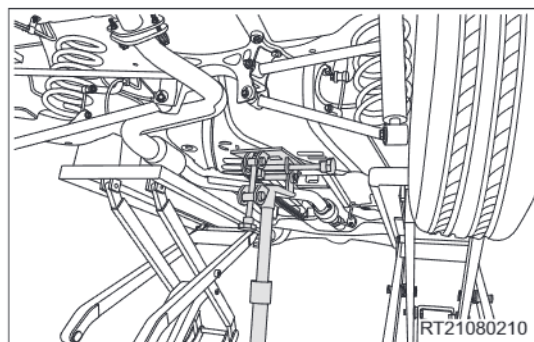
CAUTION

- Before disconnecting the joint, remove any dirt and foreign matter from the retainer.
- DO NOT forcefully bend or twist delivery pipe.

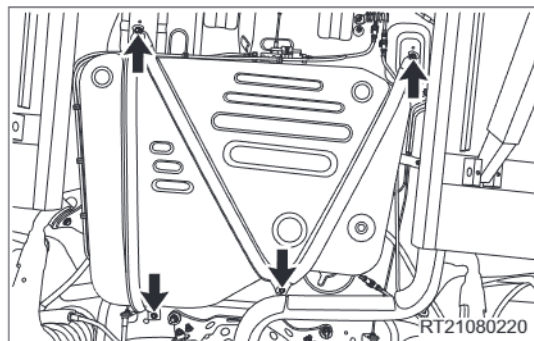
- f. Disconnect the coupling joint (arrow) between fuel vapor pipe I assembly and fuel vapor pipe of fuel tank.



- g. Support the fuel tank with a transmission carrier.

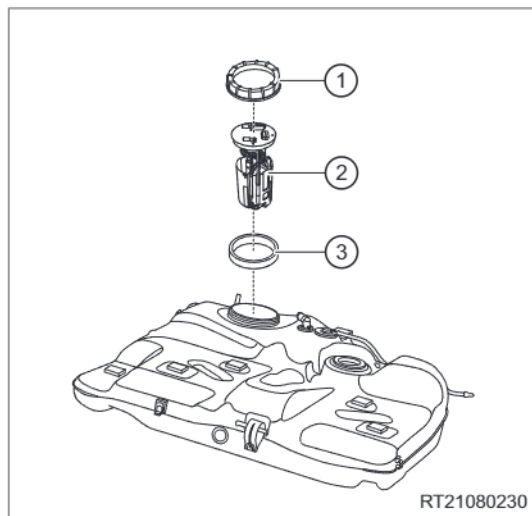


- h. Remove 4 fixing bolts (arrow) from fuel tank fixing strips and remove the fuel tank fixing strips. (Tightening torque: 25 ± 3 N·m)

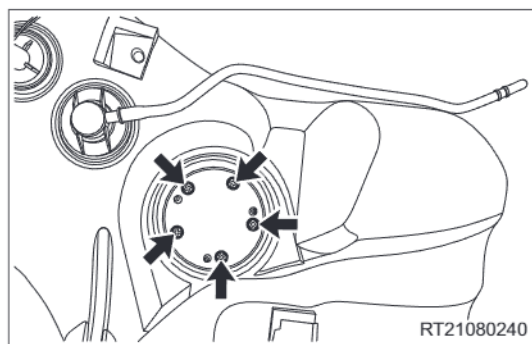


- i. Slowly lower the transmission carrier to remove the fuel tank.

8. Remove the fuel pump pressure cap (1), electric fuel pump assembly (2) and fuel tank seal ring (3) from fuel tank.



9. Remove the fuel level sensor.
 - a. Remove 5 fixing screws (arrow) from fuel level sensor. (Tightening torque: 5 ± 1 N·m)



- b. Remove the fuel level sensor from fuel tank.

CAUTION

- DO NOT damage the float when taking out the fuel level sensor.

Fuel Tank Accessories Description

1. Fuel Vapor Valve

Function of Fuel Vapor Valve:

When fuel vapor is produced in fuel tank, the vapor will enter charcoal canister through fuel vapor valve (1) by fuel vapor pipe (2). When vehicle body bumps or overturns, fuel vapor valve will automatically lock to prevent fuel overflow.

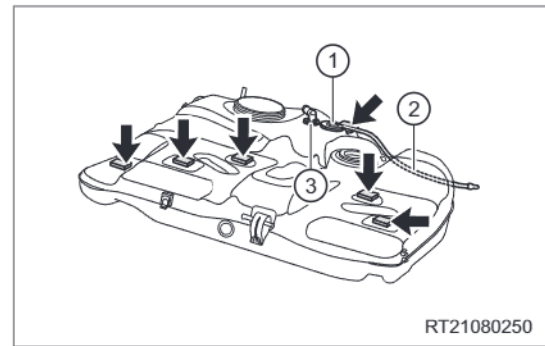
2. Fuel Breather Pipe

Function of fuel breather pipe:

When filling fuel tank through fuel filler, fuel vapor will get out of fuel tank through fuel breather pipe (3).

3. Fuel Tank Cushion

Pay attention to installation positions of fuel tank cushions (arrow). Incorrect installation will damage the fuel tank or fuel pipe due to friction between fuel tank and body.



Installation

1. Install the fuel level sensor.

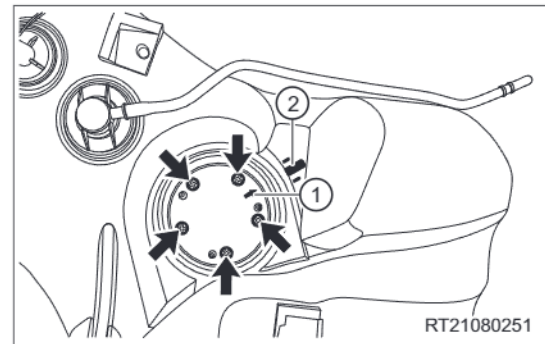
- a. Install the fuel level sensor into the fuel tank.

CAUTION

- DO NOT break the float when installing the fuel level sensor.

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- b. Align mark (1) on the fuel level sensor and mark (2) on the fuel tank.
- c. Install 5 fixing bolts (arrow) to the fuel level sensor. (Tightening torque: 13 ± 2 N·m)



2. Other installation procedures are in the reverse order of removal.

CAUTION

- Fuel lines and ventilation pipes must be reinstalled to the original positions on fuel tank. Otherwise the friction caused by body vibration will damage fuel lines and lead to fuel leakage.
- Before connecting hose, check if there is any damage or foreign matter on hose or joint.
- During installation, push in fuel pipe connector until a click sound is heard, then check that fuel pipe joint clip is on the collar of fuel pipe joint. After installing the pipe joint clip, check that fuel pipe joint cannot be pulled out. Be careful not to damage the joint. If the clip is damaged, replace it.
- Turn ignition switch ON (without starting engine) to apply fuel pressure to fuel supply system, and then check connections for leakage.

Fuel Rail Injector Assembly

Removal

WARNING

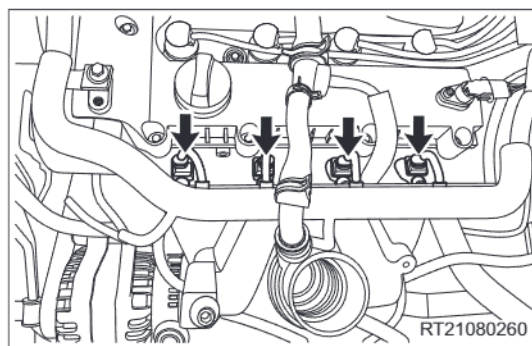
- Before operating fuel supply system, please touch vehicle body to discharge static electricity; failure to do so will cause a fire, even result in an explosion.
- When operating fuel supply system, work area should be in good ventilation and keep fire sources or open flames away from the work area, in which the fire extinguisher should be equipped.
- After performing procedures for fuel system pressure release, there still remains some pressure in fuel line. When disconnecting fuel line, cover the joint with a piece of cloth or equivalent to prevent fuel from spraying out.
- If fuel leakage occurs when operating fuel supply system, please handle the leaked fuel in time.

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CAUTION

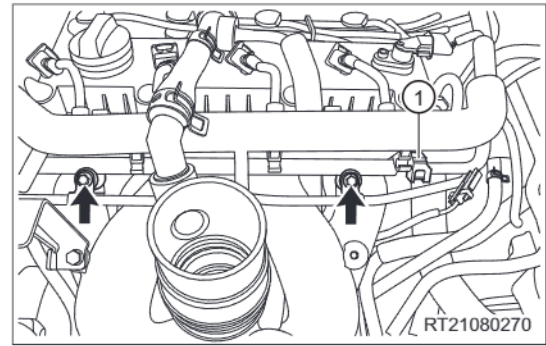
- Be sure to wear necessary safety equipment when repairing to prevent accidents.
- Try to prevent body paint surface from being scratched during removal and installation.
- DO NOT damage the disconnected fuel system line or connectors. Cover line joints or connectors with plastic bags or equivalent, preventing foreign matter from entering.
- Injector is a part of high accuracy, featuring good anti-clogging, anti-pollution and atomization, so be careful not to damage the injector during removal of fuel rail.

1. Release fuel pressure in fuel supply system ([See page 08-10](#)).
2. Turn off all the electrical equipment and ignition switch.
3. Disconnect the negative battery cable.
4. Remove the engine trim cover assembly ([See page 10-10](#)).
5. Remove the fuel rail injector assembly.
 - a. Disconnect the connectors (arrow) of 4 injectors separately.

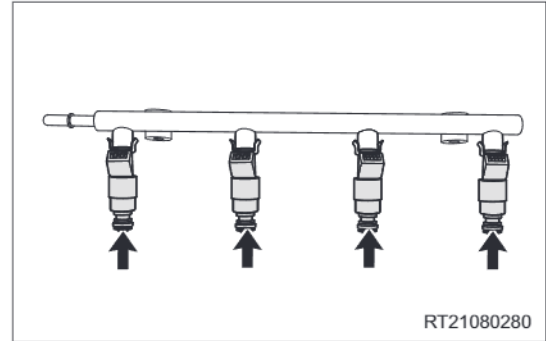


- b. Move away the engine wire harness clips from fuel rail.

- c. Disconnect the coupling joint (1) between delivery pipe and fuel rail.
- d. Loosen and remove 2 fixing bolts (arrow) from fuel rail.
(Tightening torque: $8 + 3 \text{ N}\cdot\text{m}$)



- e. Remove the fuel rail and fuel rail injectors.
6. Remove the injector clamps and remove the injectors (arrow) from fuel rail.

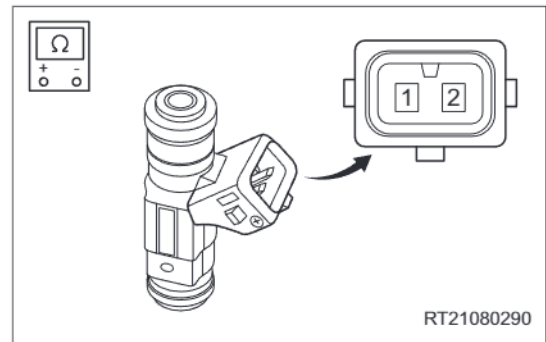


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Inspection

1. Disconnect the injector connectors.
2. Measure resistance between 2 terminals (injector side) of injector with a digital multimeter.

Multimeter Connection	Measurement Temperature	Specification (Ω)
Terminal 1 - Terminal 2	20°C	12



Installation

Installation is in the reverse order of removal.

CAUTION

- Install a new seal to the injector sealing surface.
- Before installing the injector, apply clean grease or gasoline to the O-ring sealing surface for easy installation, preventing damage to the O-ring.

