FUEL UPGRADE KIT
INSTALLATION MANUAL

Installation must be done by a professional.

Read this manual prior to the installation.

Always have access to this manual as well as a factory service manual.

※ Make sure the vehicle is applicable to this kit.

NAME OF PRODUCT	FUEL UPGRADE KIT
PART NUMBER	14007-AH004
APPLICATION	HONDA S660 DBA-JW5
ENGINE	S07A
YEAR	2015/04-
REMARKS	【Required Item】HONDA Fuel Sender Wrench (P/N 07AAA-S0XA100) ○ The adjustable fuel pressure regulator included in this kit is preset to 4.0K. When using the data for Flash Editor included in S660 GT100R Package (P/N 11004-AH001), do not change the fuel pressure. If neglected, it may cause damage to the engine.

REVISION OF MANUAL

Rev. Number	Date	Manual Number	Details
3-3.01	2016/8	E04280-H14010-00	1st Edition

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INDEX

NOTICE

This manual assumes that you have and know how to use the tools and equipment necessary to safely perform service operations on your vehicle. This manual assumes that you are familiar with typical automotive systems and basic service and repair procedures. Do not attempt to carry out the operations shown in this manual unless these assumptions are correct. Always have access to a factory service manual. To avoid injury, follow the safety precautions contained in the factory service manual.

ATTENTION

- This product was developed to improve engine output to a higher range, and for race use on a closed course, where this kit is highly effective. When the engine output is improved, water temperature and oil temperature will rise, and insufficient oil pressure will occur. Always maintain them for the optimal engine performance.
- This manual indicates items you need to pay attention to in order to install this product safely and lists precautions to avoid any possible damage and/or accidents.
- This product is an automobile part. Do not use for any other purposes.
- HKS will not be responsible for any damage caused by incorrect installation and/or use, or use after modification and/or dismantling of this product.
- This product was designed for installation on a specific factory vehicle. Installation to inapplicable vehicle shall not guarantee the safety, performance, and function of this product.
- The specifications of this product are subject to change without notice.
- The instructions are subject to change without notice. Make sure to refer to the most recent instructions.

SAFETY PRECAUTIONS

The following precautions for use of this product are to prevent possible accidents and/or injuries and for proper use.

WARNING: Indicates risk of serious injury and/or possible death.

CAUTION: Indicates risk of serious injury and/or possible property damage
(i.e. vehicle damage as from use of this product.).

PARTS LIST

NO.	DESCRIPTION	QT	REMARKS
1	Large Capacity Fuel Pump	1	
2	O-ring (Fuel Tank)	1	
3	Collar (Resin)	1	
4	Adjustable Fuel Pressure Regulator	1	Initial Press.400KPa
5	AN6 Fitting Elbow	2	
6	Fuel Regulator Bracket	1	
7	Fuel Return Adapter	1	
8	Flange Lock Nut M8	1	
9	Seal Washer	1	
10	Plug, Fuel Regulator	1	
11	8mm Hose Attachment	1	
12	3-way Joint Pipe 8mm	1	
13	Fuel Hose	1	L=2000mm
14	Hose Clip (TS124)	9	
15	Corrugated Tube	1	L=2000mm
16	Vacuum Hose 4mm	2	L=1000mm
17	3-way Joint Pipe 4mm	1	
18	In-tank Fuel Hose	1	L=200mm
19	Bolt M6 L=15	2	
20	Bolt M6 L=20	2	
21	Washer M6	2	
22	Major Dia. Washer M6	2	
23	Spring Washer M6	4	
24	Flange Nut M6	2	
25	Spacer	2	D=15 T=5
26	Tie Wrap (L)	10	
27	Tie Wrap (M)	10	
28	Installation Manual	1	

SPECIFICATIONS

- Large Capacity Fuel Pump

  Type : In-tank Factory Replacement Type
  Size : 30mm (Maximum Diameter)
  Length: 81mm (Intake inlet to injection outlet) / Maximum Length: 84mm
  Intake O.D.: 11mm / Outlet O.D.: 9mm

1. Fuel Pressure to Injection Quantity
   (The following numbers do not guarantee the actual quantity.)

Fuel Press. [kPa]		300	350	400	450	500
Injection Quantity [l/h]	12 (V)	95	80	65	50	40
	14 (V)	135	120	105	95	80

1. REMOVAL OF FACTORY PARTS

Use this instruction manual and the factory service manual as a reference.

⚠ WARNING

- Refer to the factory manual when replacing the fuel pump and/or injectors.
- Make sure fuel does not leak in order to prevent fire referring to the factory service manual. If neglected, fuel may leak and cause the fire and serious eye damage.
- Work on the vehicle in an inflammable area.

NOTE

When installing this product together with GTⅢ SPORT TURBINE KIT JW5 S07A (P/N 11004-AH002), remove the fuel tank before installation to facilitate installation work. Drain fuel to prevent fuel leakage when installing this kit. If neglected, fuel leakage may occur, and it is very dangerous.

(1) Disconnect the negative cable from the battery.

(2) Remove the fuel filler cap, and release the pressure in the fuel tank. Reinstall the fuel filler cap.

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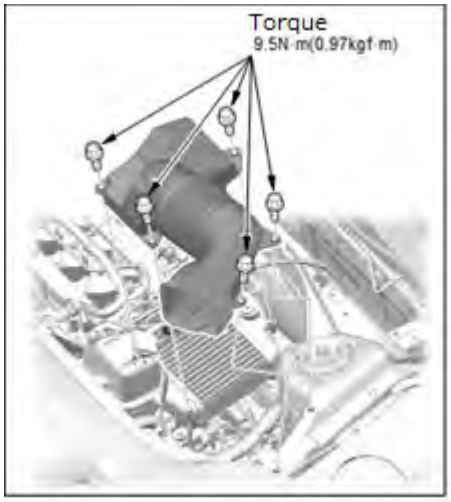
(3) Remove the intercooler guide assembly.



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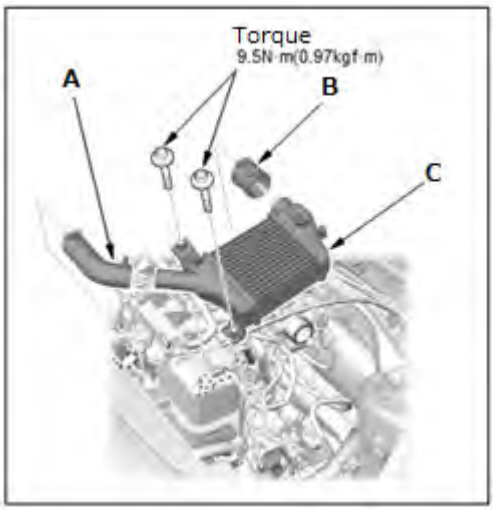
(4) Disconnect the intercooler hose “A” and “B”. Remove the intercooler “C”.



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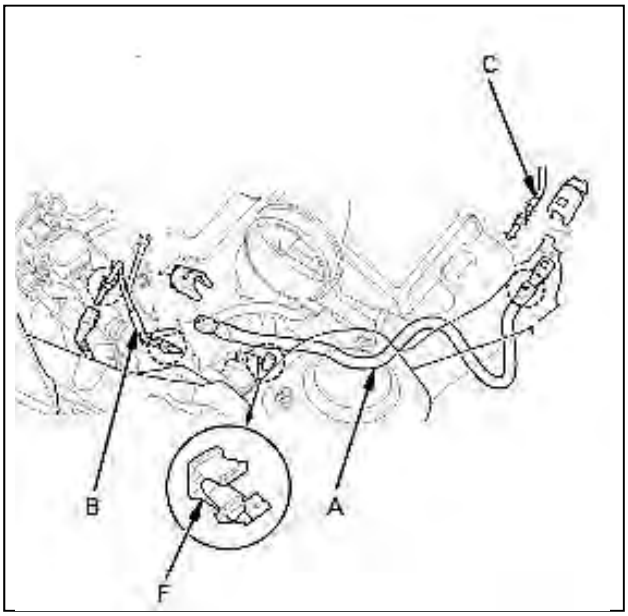
(5) Cut off the clamps indicated by circles.

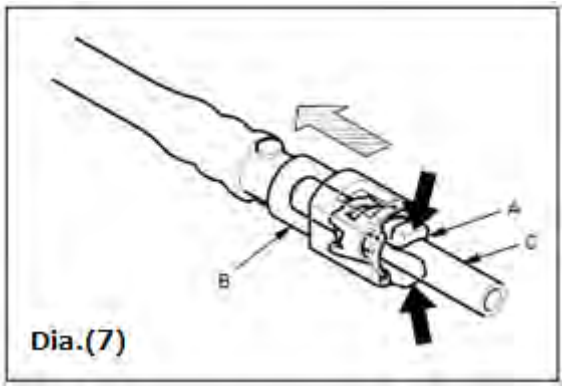
(6) Remove those brackets indicated by circles.

(7) Disconnect the fuel feed tube “A” from “B” and “C”.
Remove the clamp “F”.



NOTE

When disconnecting the fuel feed tube, hold the connector, take the retainer “A” indicated with black arrows in Dia.(7) between fingers, and pull out the connecter “B” shown in Dia.(7) to the direction indicated by the arrow.
Make sure not to damage the pipe.
If the connector is firmly adhered with the pipe “C”, pull and push the connector several times during holding the by hand. Pull out the connector when the connector becomes to move freely.
Do not remove the retainer on the pipe’s side.



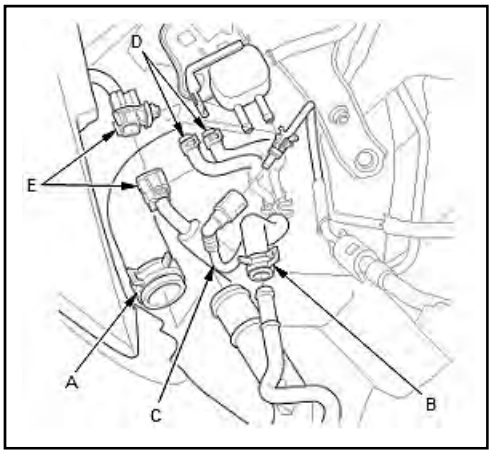
Dia.(7)

(8) Disconnect the fuel filler tube “A” and breather tube “B”.

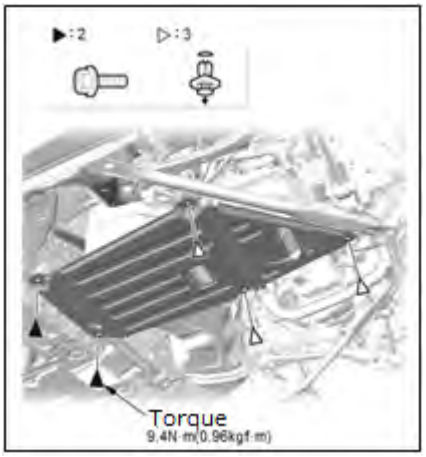
(9) Disconnect the quick connector fuel tube “C”.

(10) Disconnect the fuel bent tube “D”.

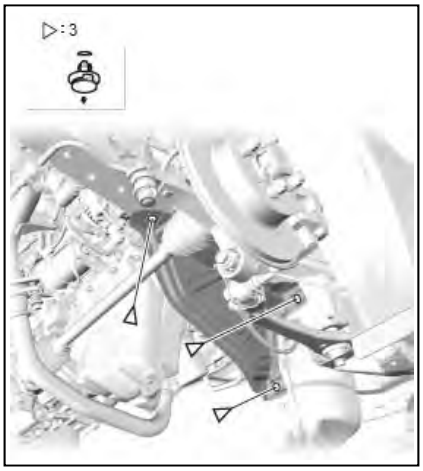
(11) Disconnect the fuel sub-code coupler “E”.



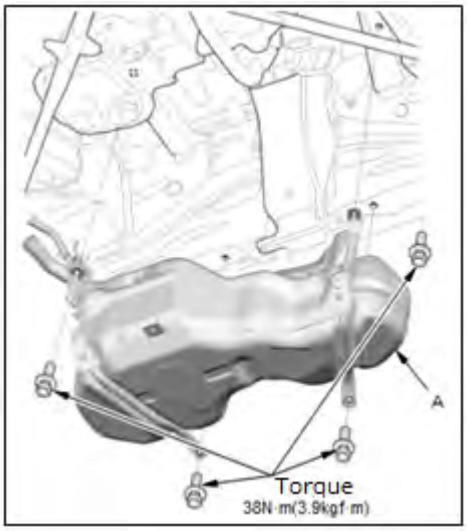
(12) Lift the vehicle, and remove the rear floor under cover.



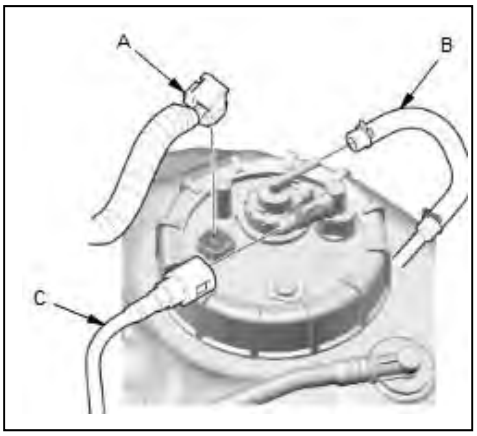
(13) Remove the rear splash shield.



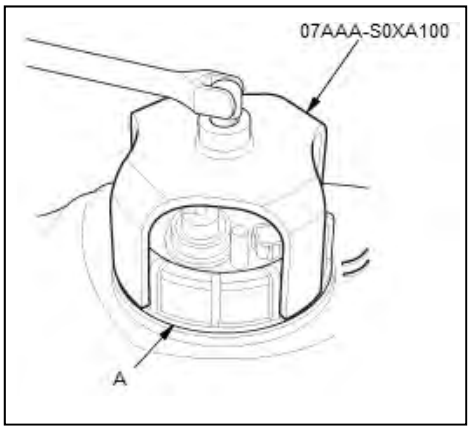
(14) Hold the fuel tank “A” with a transmission jack or a similar device. Remove the fuel tank.



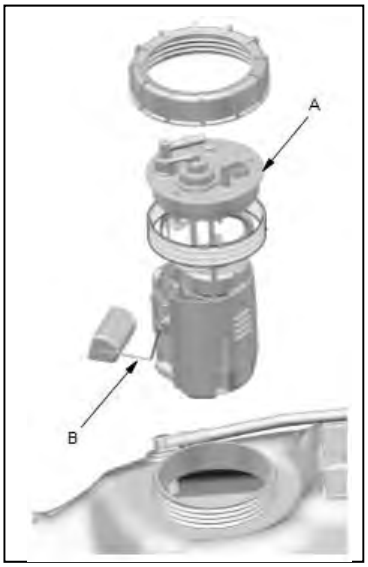
(15) Disconnect the coupler (A), breather tube (B), and quick connector fuel tube (C).



(16) Remove the fuel pump module's lock nut (A) using a special tool.



(17) Remove the fuel pump module (A) from the fuel tank.

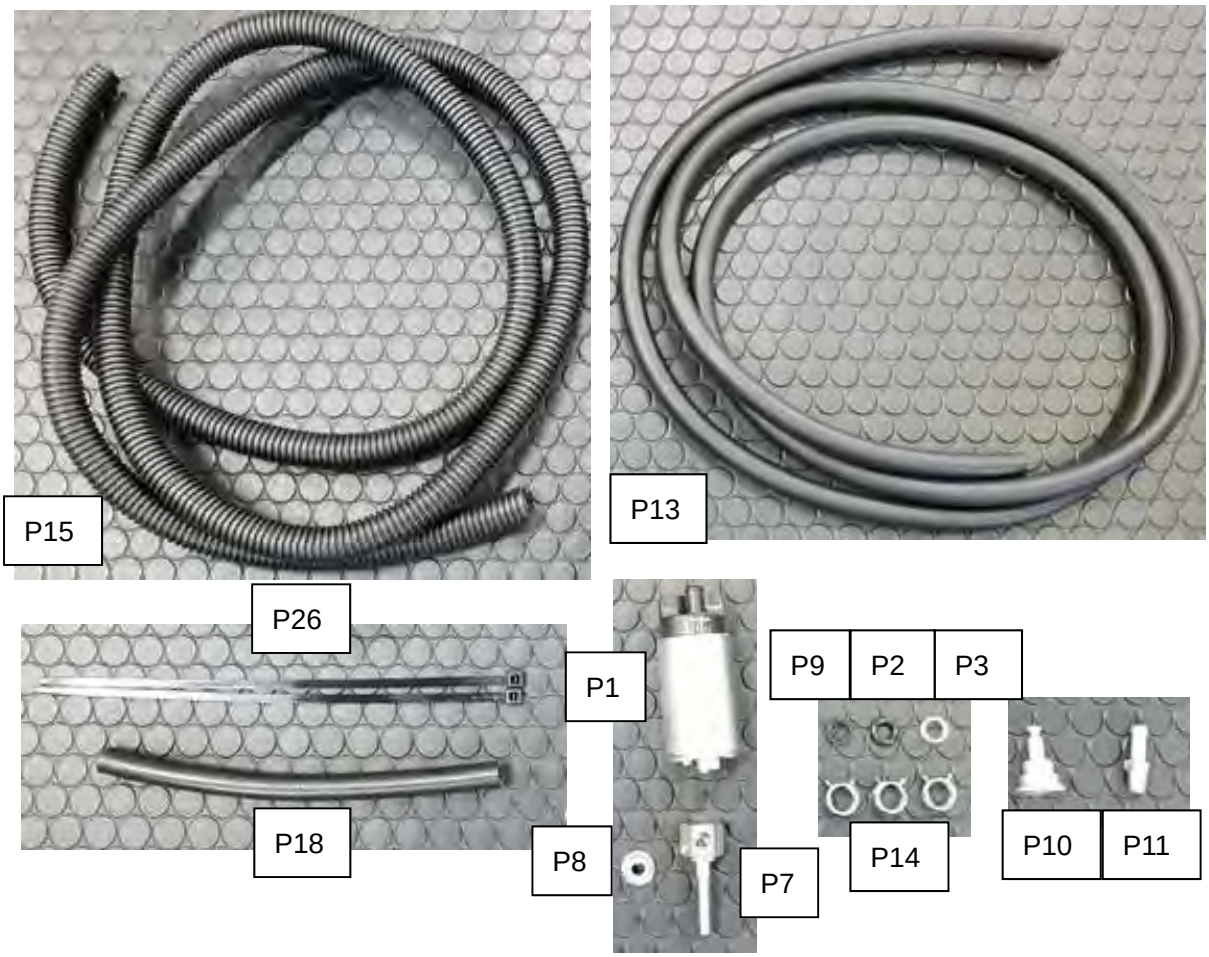


NOTE

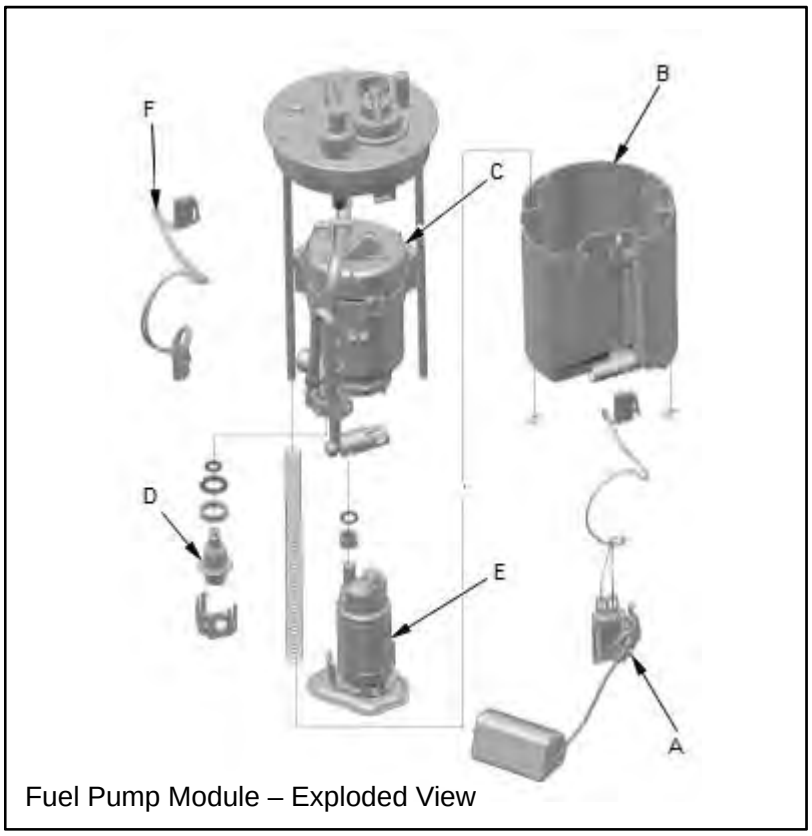
Make sure not to bend the float arm (B) of the fuel sender unit.

2. REPLACEMENT OF FUEL PUMP

PARTS LIST

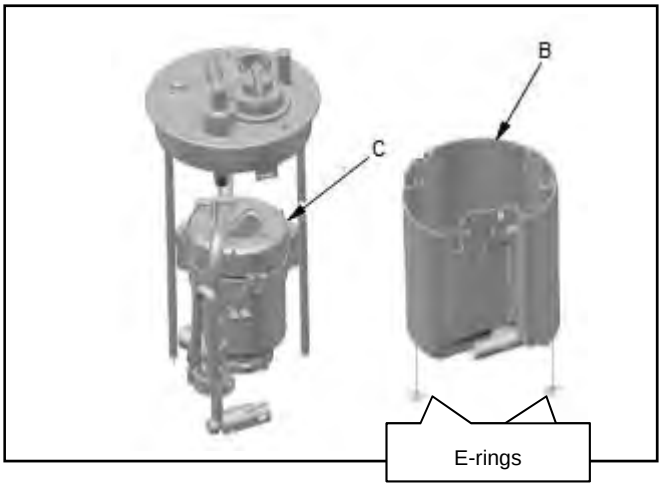


NO.	DESCRIPTION	QT
P1	Large Capacity Fuel Pump	1
P2	O-ring (Fuel Tank)	1
P3	Collar (Resin)	1
P7	Fuel Return Adapter	1
P8	Flange Lock Nut M8	1
P9	Seal Washer	1
P10	Plug, Fuel Regulator	1
P11	8mm Hose Attachment	1
P13	Fuel Hose	1
P14	Hose Clip (TS124)	3
P15	Corrugated Tube	1
P18	In-tank Fuel Hose	1
P26	Tie Wrap (L)	2



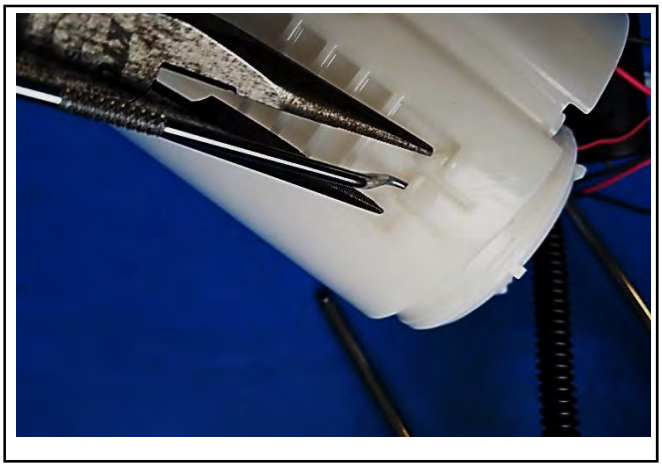
Fuel Pump Module – Exploded View

(1) Remove the E-ring and coupler. Separate the fuel sender unit (C) and reservoir (B).

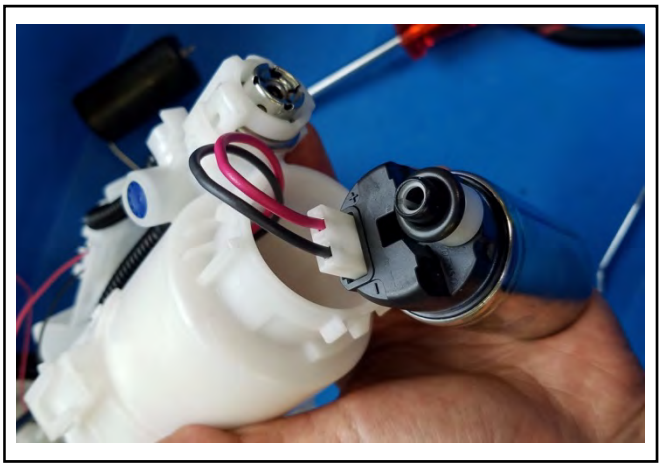


NOTE

- Lift the tab in the center of the unit, and pinch the tabs on the both sides to separate.



(2) Remove the fuel pump from the fuel sender unit.

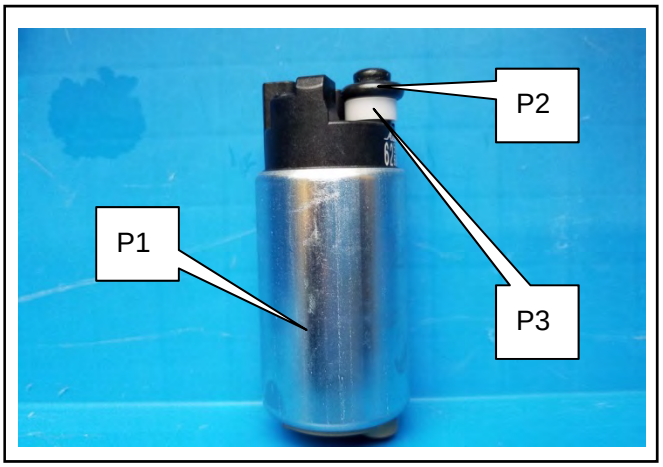


(3) Install the O-ring (P2) and Collar (P3) to the Large Capacity Fuel Pump (P1).

- Large Capacity Fuel Pump (P1)
- O-ring (P2)
- Collar (Resin) (P3)

NOTE

- Apply silicone grease to the O-ring.

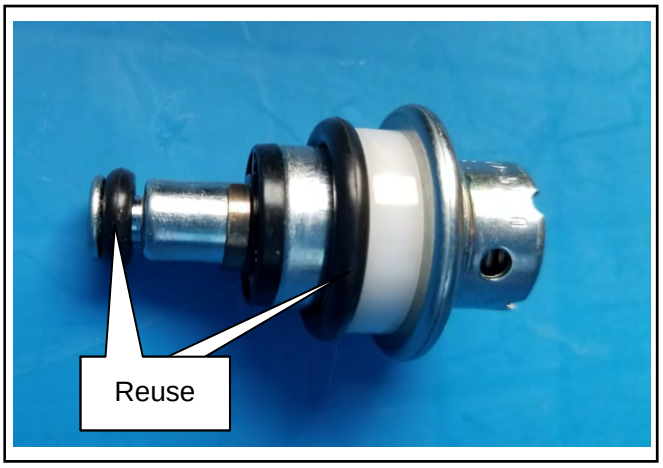


(4) Install the Large Capacity Fuel Pump to the fuel sender unit.

(5) Remove the pressure regulator from the fuel sender unit.

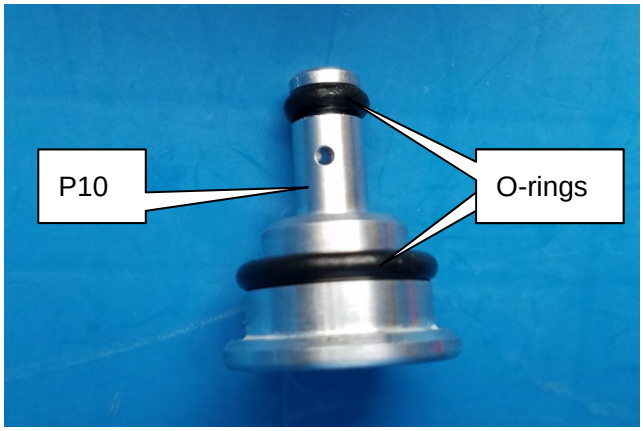
NOTE

- Those O-rings indicated in the diagram on the right will be reused later.



(6) Install those O-ring removed in (5) to the Plug, Fuel Regulator (P10).

- Plug, Fuel Regulator (P10)



NOTE

- Apply silicone grease to the O-ring.

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(7) Install the Plug, Fuel Regulator to the fuel sender unit.

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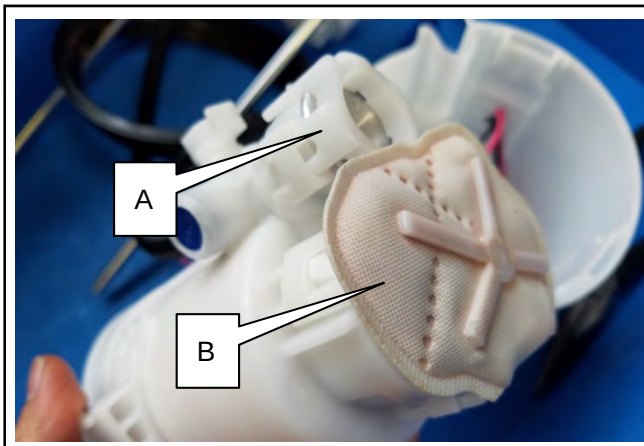
(8) Install the regulator bracket (A) and pump bracket (B) to the fuel sender unit.



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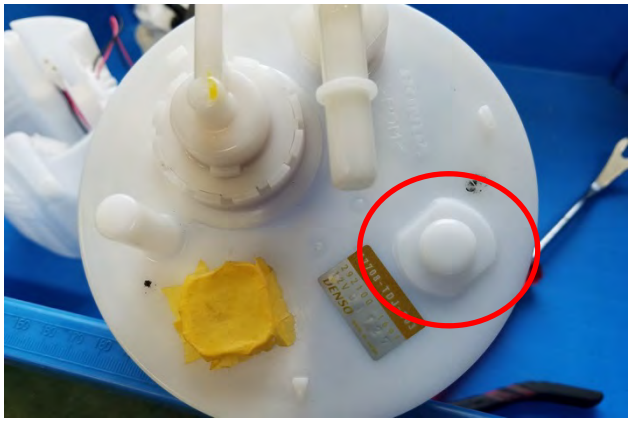
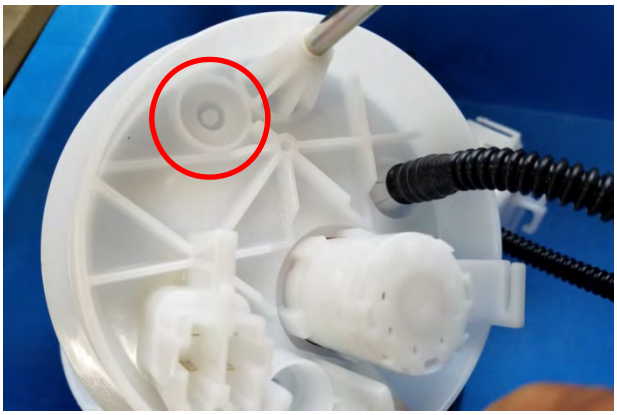
(9) Drill an 8.4mm hole in the center of the projection portion on the fuel sender unit indicated with a red circle in the diagrams on the right and below.



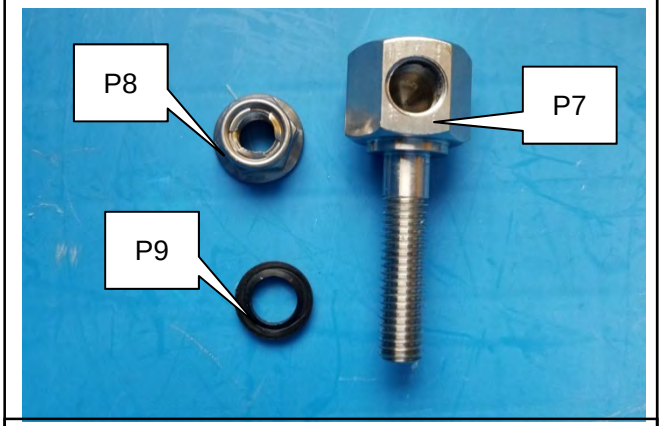


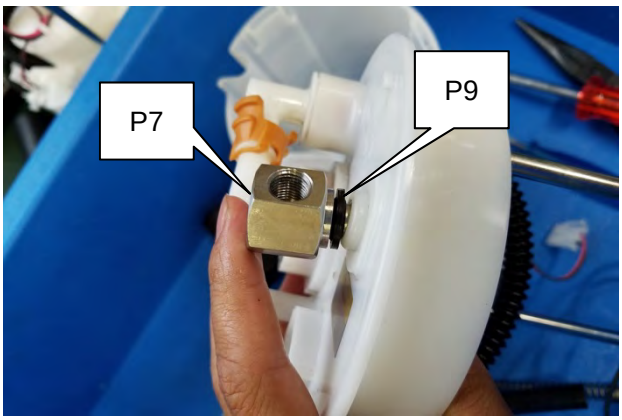
(10) Install the Fuel Return Adapter (P7), Flange Lock Nut M8 (P8), and Seal Washer (P9) to the hole made in (9).

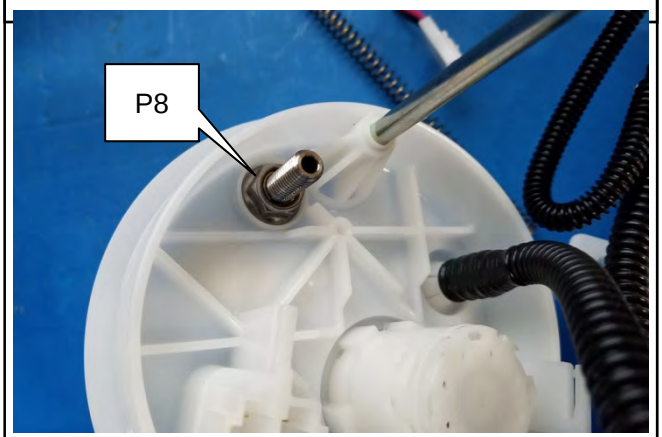
- Fuel Return Adapter (P7)
- Flange Lock Nut M8 (P8)
- Seal Washer (P9)

Tightening Torque N·m(kgf·m)

T=6.0～8.0(0.6～0.8)

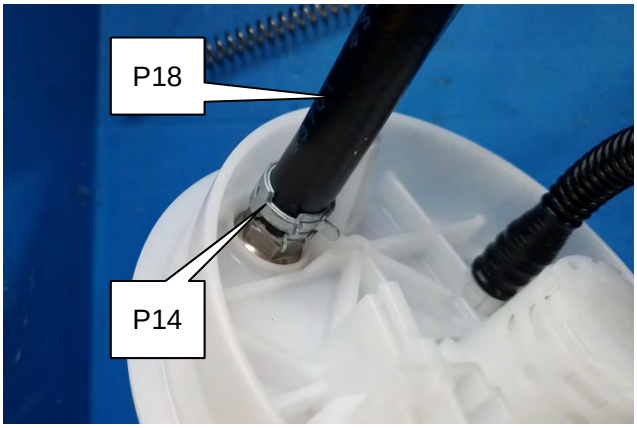




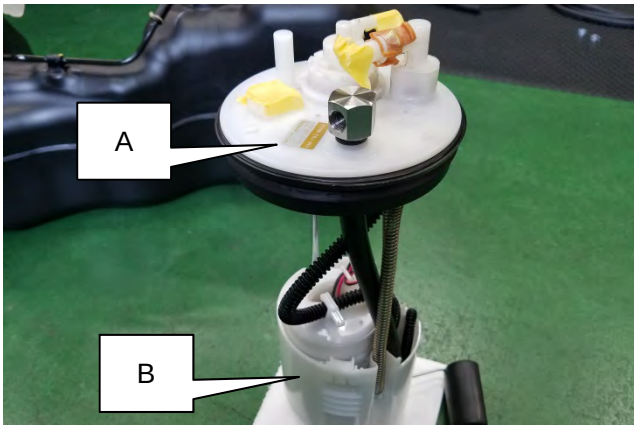


(11) Install the In-tank Fuel Hose (P18) to the fuel return adapter using the Hose Clip (TS124) (P14) as shown in the diagram on the right.

- In-tank Fuel Hose (P18)
- Hose Clip (TS124) (P14)

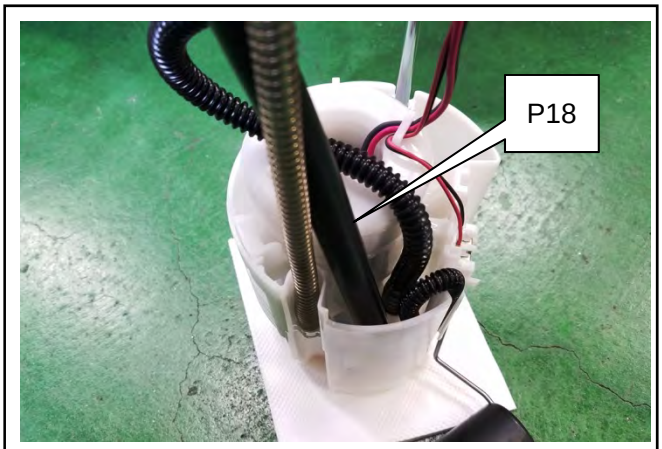


(12) Assemble the fuel sender unit (A) and reservoir (B).



NOTE

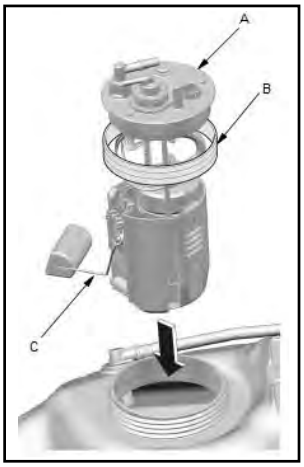
- Make sure to place the In-tank Fuel Hose (P18) inside the reservoir to prevent fuel from leaking out of the reservoir.



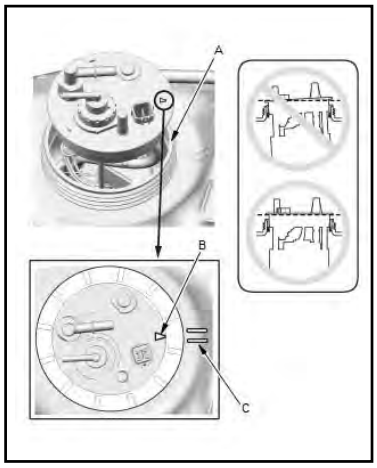
(13) Place the fuel pump packing (B) below the fuel pump module (A) as shown in the diagram on the right; then, place the fuel pump module inside the fuel tank.

NOTE

- Make sure not to damage the fuel pump packing when slipping the packing into the fuel pump module.
- Make sure not to bend the fuel sender unit's front arm (C).



(14) Align the mark “B” on the fuel pump module with the mark “C” on the fuel tank. Press the fuel pump module in the vertical direction until it adheres to the packing.

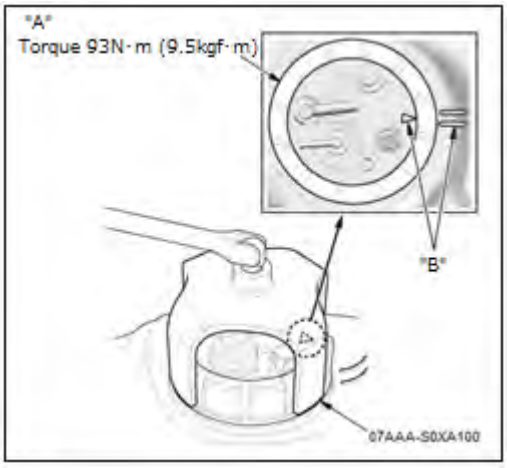


CAUTION

Make sure the fuel pump packing is not off the correct position or jammed by any other parts of the vehicle.

If neglected, it may cause the leakage of fuel.

(15) Tighten the fuel tank lock nut (A) using a dedicated tool.

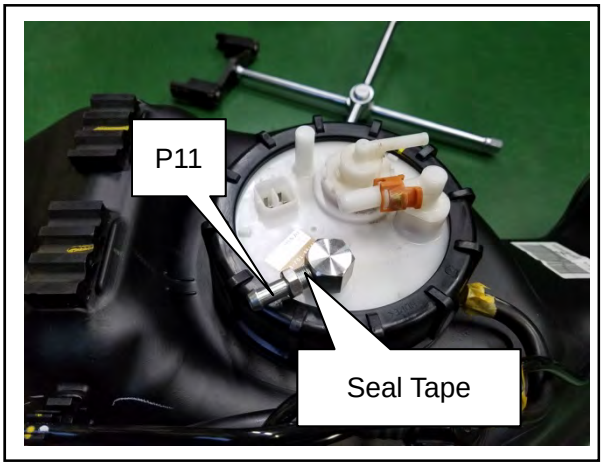


NOTE

After tightening the fuel tank lock nut, make sure the mark “B” on the fuel tank is aligned with the fuel pump module.

Tightening Torque N·m(kgf·m) T=93(9.5)

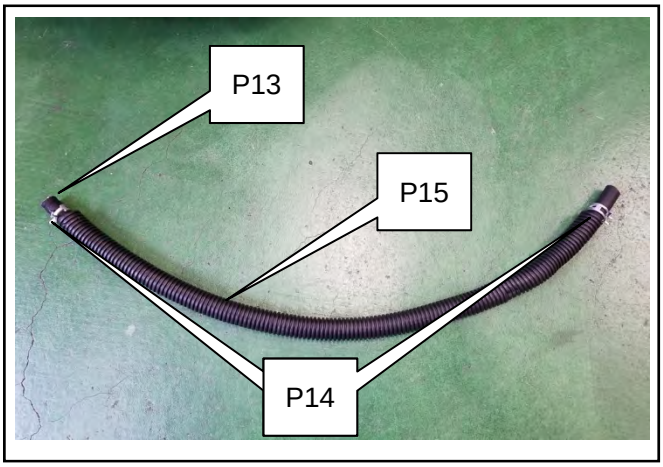
(16) Wrap the 8mm Hose Attachment (P11) with a seal tape, and install the attachment to the Fuel Return Adapter (P7).



・ 8mm Hose Adapter (P11)

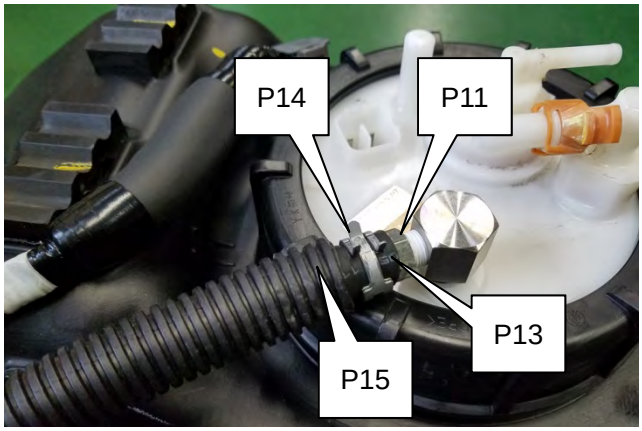
Tightening Torque N·m(kgf·m) T=7.0～9.0(0.7～0.9)

(17) Cut the Fuel Hose (P13) to 600mm. Cut the Corrugated Tube (P15) to an appropriate length. Wrap the Fuel Hose with the Corrugated Tube, and secure both ends with the Hose Clip (P14).



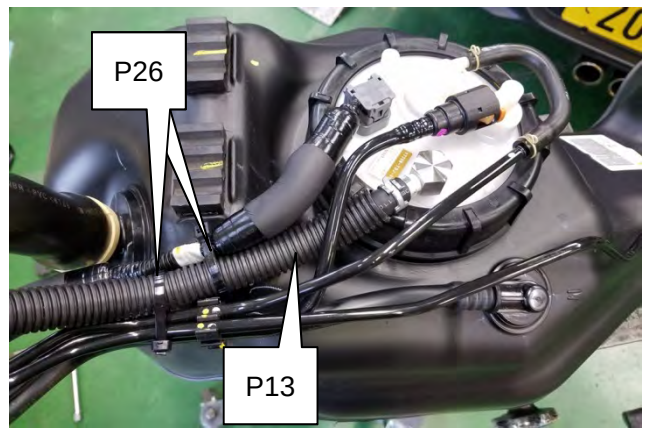
- Fuel Hose (P13)
- Corrugated Tube (P15)
- Hose Clip (TS124) (P14)

(18) Install the Fuel Hose assembled in (17) to the 8mm Hose Attachment (P11).



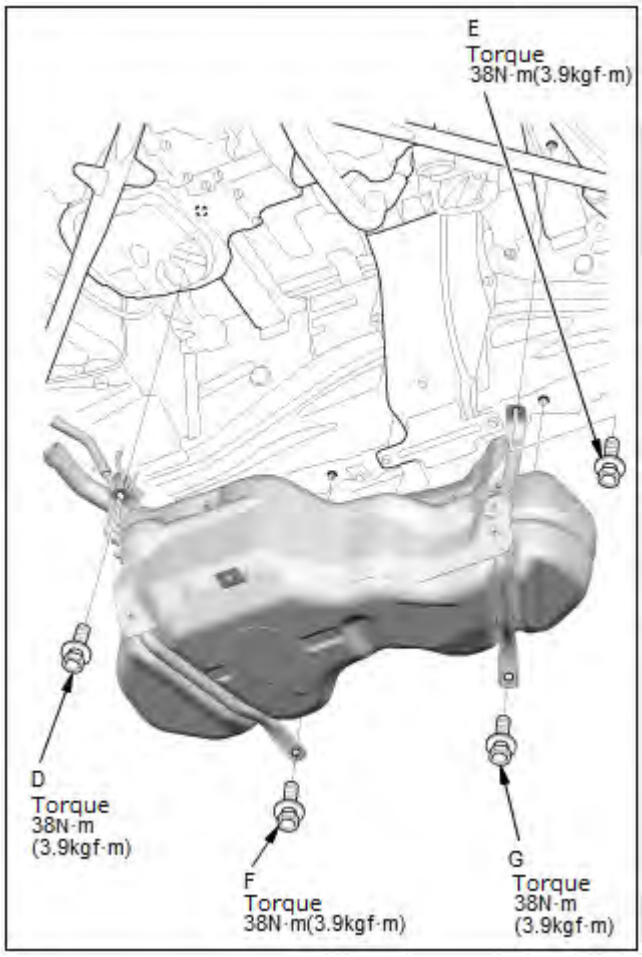
(19) Reinstall the coupler, breather tube, and quick connector fuel tube. Secure the Fuel Hose (P13) using the Tie Wraps (P26) as shown in the diagram on the right.

- Tie Wrap (L) (P26) x 2



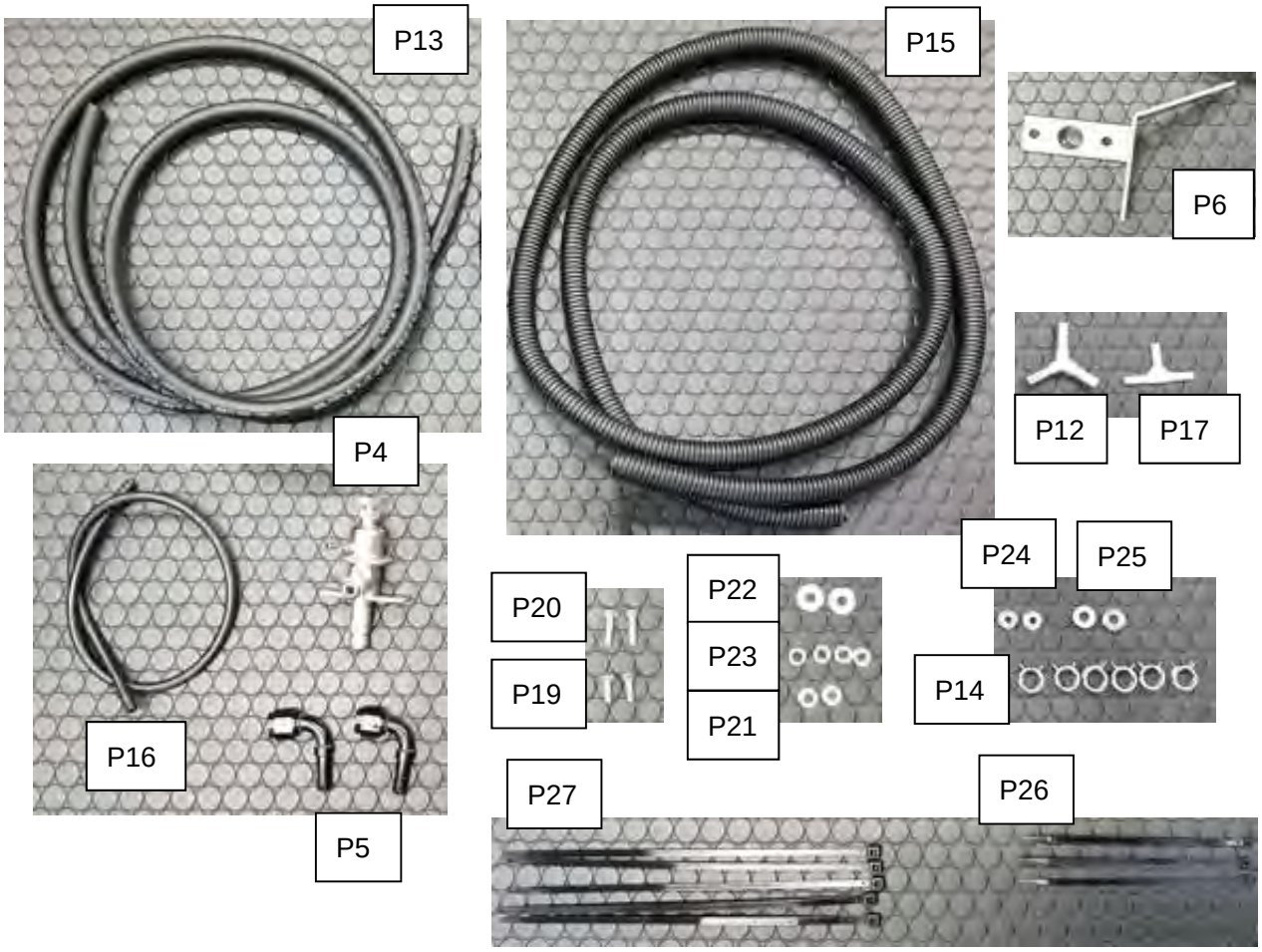
(20) Hold the fuel tank with a transmission jack and install the tank to the vehicle. Temporarily tighten the bold “D” and “E”; then tighten the bolt in the order of “F”, “G”, “D”, and “E”.

Tightening Torque N·m(kgf·m)	T=38(3.9)



3. INSTALLATION OF FUEL PRESSURE REGULATOR

PARTS LIST



NO.	DESCRIPTION	QT
P4	Adjustable Fuel Pressure Regulator	1
P5	AN6 Fitting Elbow	2
P6	Fuel Regulator Bracket	1
P12	3-way Joint Pipe 8mm	1
P13	Fuel Hose	1
P14	Hose Clip (TS124)	6
P15	Corrugated Tube	1
P16	Vacuum Hose 4mm	2
P17	3-wayJoint Pipe 4mm	1
P19	Bolt M6 L=15	2
P20	Bolt M6 L=20	2
P21	Washer M6	2
P22	Major Dia. Washer M6	2
P23	Spring Washer M6	4
P24	Flange Nut M6	2
P25	Spacer	2
P26	Tie Wrap (L)	8
P27	Tie Wrap (M)	10

(1) Make a cut into the fuel feed tube removed in 1. (7) with an utility knife referring to the diagrams below. Pull the quick connecter out from the tube.

NOTE

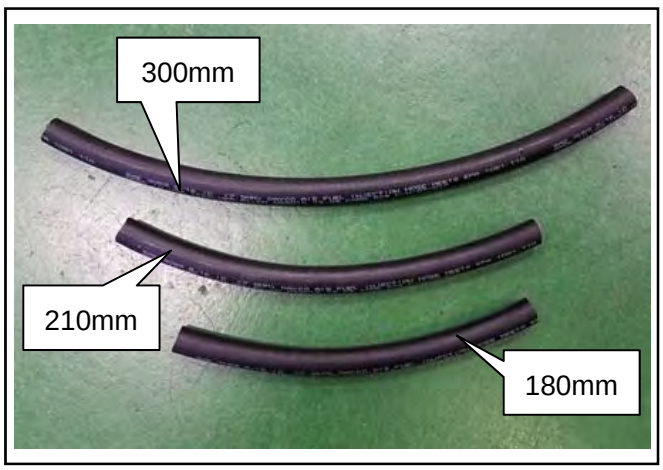
Make a cut little by little with a knife, and pull the tube by a needle-nose pliers or similar tool so the connector won't be damaged.

CAUTION

Make sure not to scratch the connector to avoid fuel leakage.

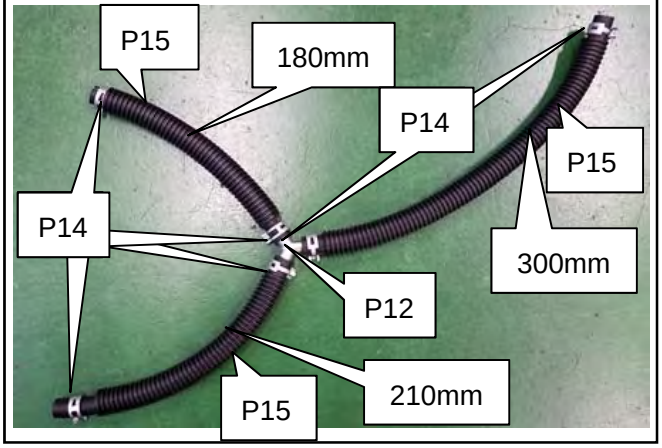
(2) Cut the Fuel Hose (P13) to 300mm, 210mm, and 180mm.

- Fuel Hose (P13)

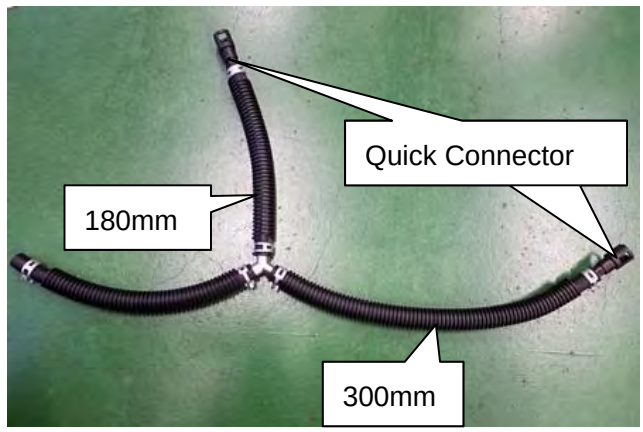


(3) Connect the Fuel Hoses cut in (2) to the 3-way Joint Pipe 8mm (P12) using the Hose Clips (P14). Cut the Corrugated Tube (P15) to an appropriate length, and wrap the hoses with the Corrugated Tubes as shown in the diagram on the right.

- 3-way Joint Pipe 8mm (P12)
- Hose Clip (TS124) (P14) x 6
- Corrugated Tube (P15)

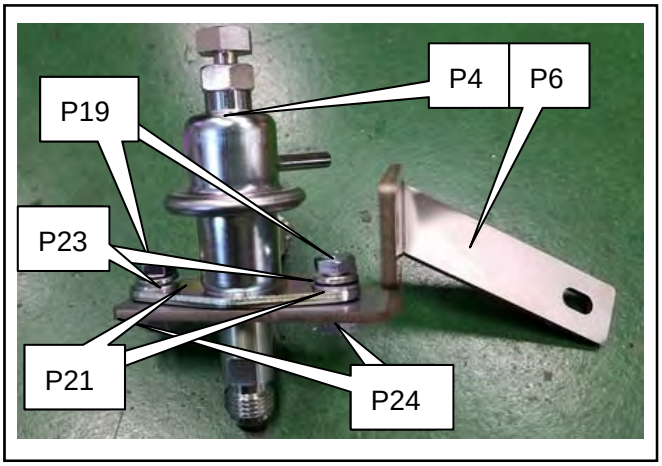


(4) Connect the quick connector to the Fuel Hose assembled in (3) using the provided Hose Clips.



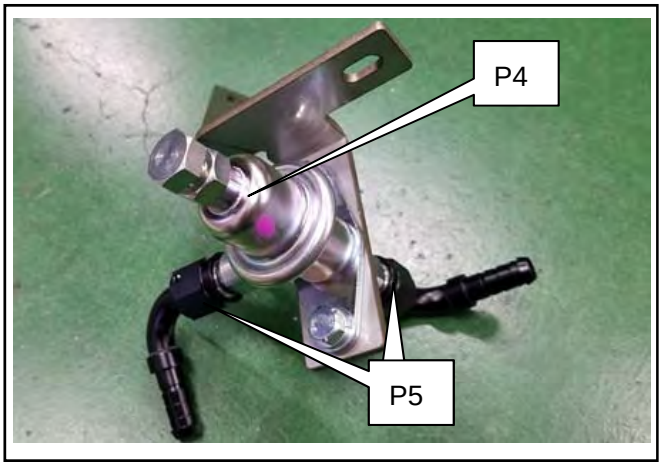
(5) Install the Fuel Regulator Bracket (P6) to the Adjustable Fuel Pressure Regulator (P4) using the following provided parts.

- Adjustable Fuel Pressure Regulator (P4)
- Fuel Regulator Bracket (P6)
- Bolt M6 L=15 (P19) x 2
- Spring Washer M6 (P23) x 2
- Washer M6 (P21) x 2
- Flange Nut M6 (P24) x 2



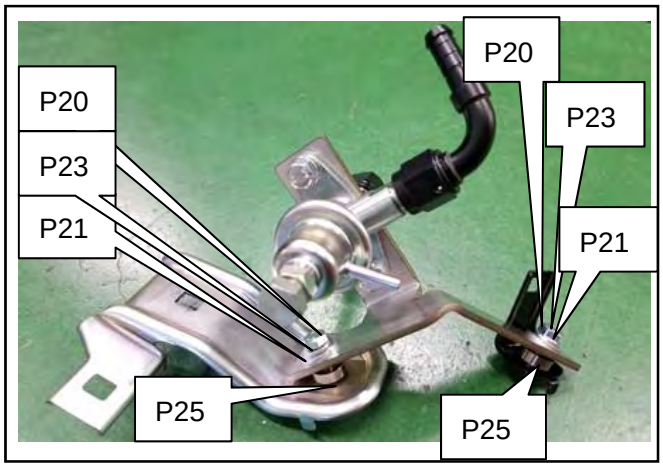
(6) Temporarily install the AN6 Fitting Elbows (P5) to the Adjustable Fuel Pressure Regulator (P4).

- AN6 Fitting Elbow (P5) x 2



(7) Assemble the stock bracket removed in 1.(6) with the Adjustable Fuel Pressure Regulator using the following provided parts.

- Bolt M6 L=20 (P20) x 2
- Spring Washer M6 (P23) x 2
- Major Dia. Washer M6 (P22) x 2
- Spacer (P25) x 2



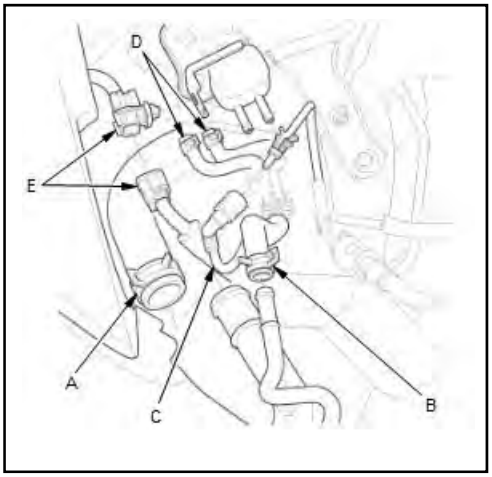
(8) Install the assembled Adjustable Fuel Pressure Regulator with the stock bracket to the position where the stock bracket was installed.

(9) Reconnect the fuel filler tube “A” and breather tube “B”.

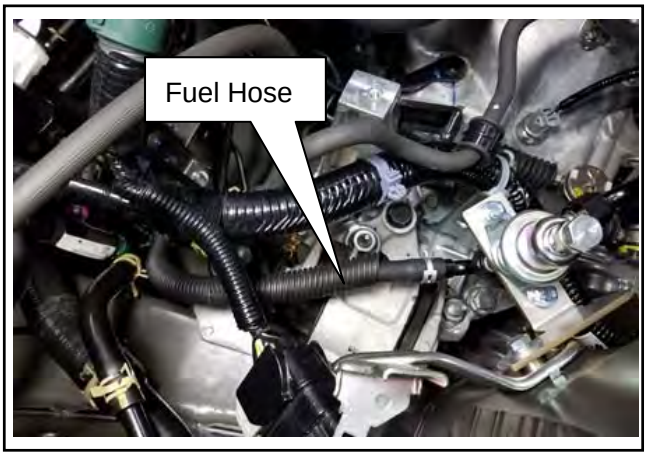
(10) Reconnect the quick connector fuel tube ”C”.

(11) Reconnect fuel bent tube “D”.

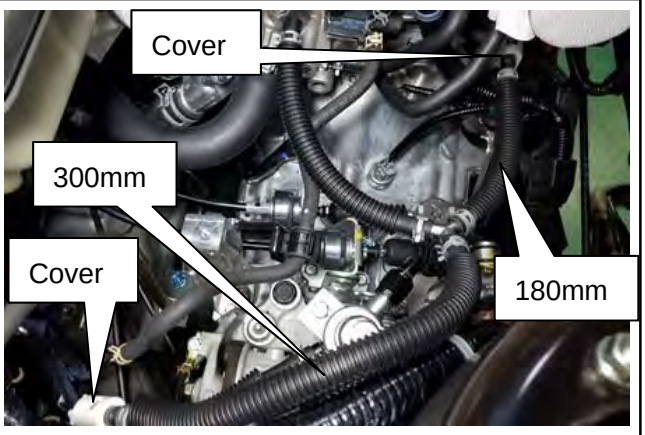
(12) Reconnect the fuel sub-code coupler “E”.



(13) Install the Fuel Hose installed in 2.(18) to the fitting on the Adjustable Fuel Pressure Regulator’s return side using the Hose Clip (TS124). Adjust the installation position and tighten the fitting on the return side.



(14) Install the Fuel Hose assembled in (4) to the position where the stock fuel feed tube was removed from. Install the covers.



(15) Secure the Fuel Hose using the provided Tie Wrap (P26). Pass the Tie Wrap (L) through the hole that the stock fuel feed tube was secured.

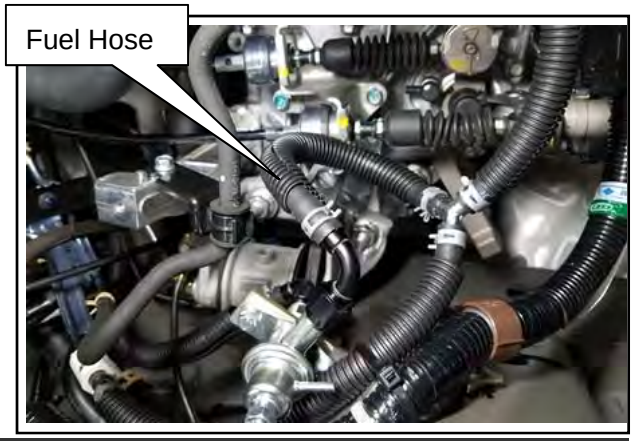
- Tie Wrap (L) (P26)

(16) Secure the harnesses cut off in 1.(5) indicated by circles using clamps.

(17) Secure the harnesses cut off in 1.(5) indicated by circles using clamps. Secure the Fuel Regulator Bracket, Fuel Hose, and harnesses together using the Tie Wrap (L) (P26).

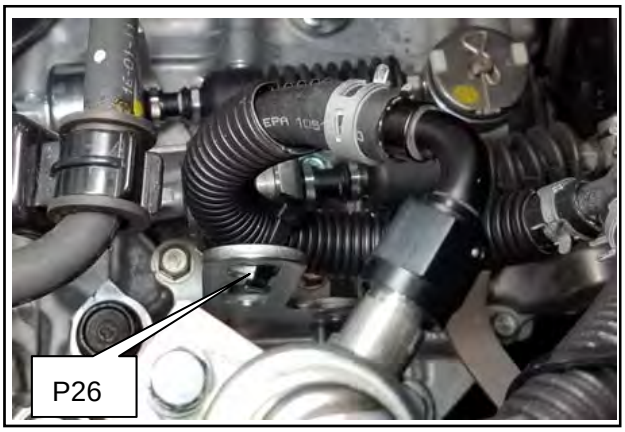
- Tie Wrap (L) (P26)

(18) Install the Fuel Hose to the fitting of the Fuel Pressure Regulator's feed side using the Hose Clip (TS124). Adjust the installation position and tighten the fitting.

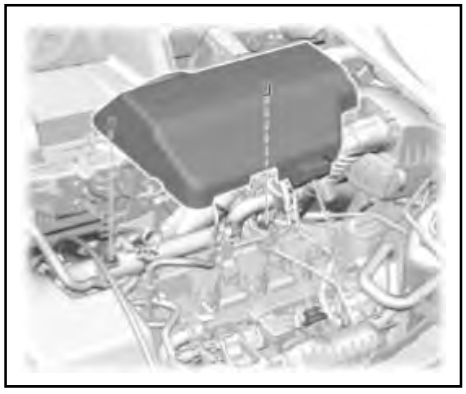


(19) Secure the Fuel Hose to the engine hanger bracket using the Tie Wrap (L) (P26).

- Tie Wrap (L) (P26)



(20) Remove the engine cover.

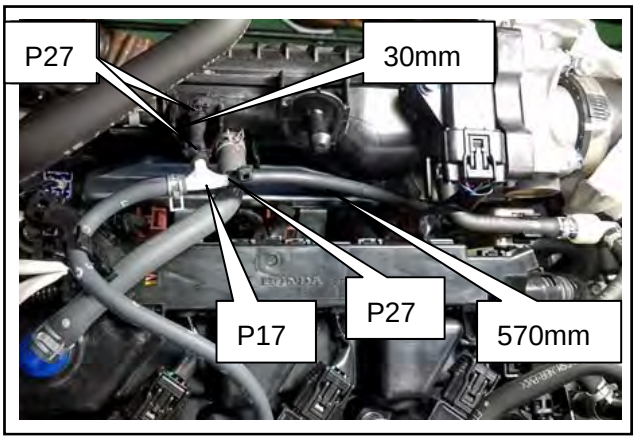


(21) Cut the Vacuum Hose 4mm to 30mm and 570mm in length.

- Vacuum Hose 4mm (P16)

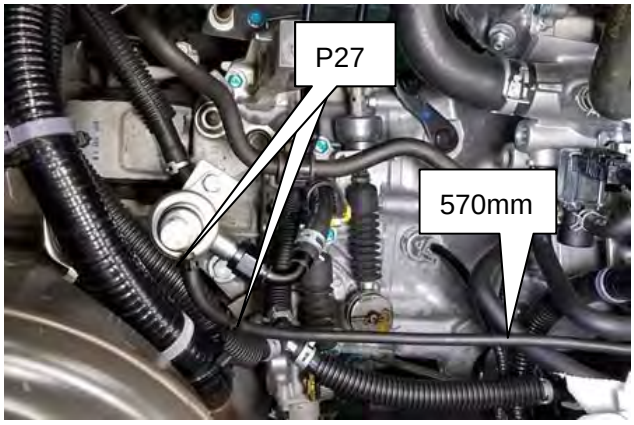
(22) Remove the vacuum hose from the intake manifold. Install the 3-way Joint Pipe 8mm (P17) and Vacuum Hose 4mm using Tie Wraps (M) (P27) as shown in the diagram on the right.

- 3-way Joint Pipe (P17)
- Tie Wrap (M) (P27) x 3



(23) Connect the Vacuum Hose 4mm to the vacuum pipe of the Fuel pressure Regulator. Secure the hose with a fuel hose using the Tie Wraps (M) (P27).

- Tie Wrap (M) (P27) x 2



(24) Reinstall the engine cover.

(25) Reinstall the intercooler and intercooler guide assembly.

(26) Reinstall the rear floor under cover.

(27) Reinstall the rear splash shield.

(28) Reconnect the negative cable to the battery.

4. CONFIRMATION AFTER INSTALLATION

(1) Make sure all fuel routing is correct.

(2) Reconnect the battery.

(3) Turn on the ignition to build fuel pressure and to make sure fuel is not leaking. Repeat this step a few times.

(4) If fuel is not leaking, start the engine. Stop the engine and make sure fuel is not leaking.

(5) Engine resetting is required since the fuel injection volume has been changed.

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