

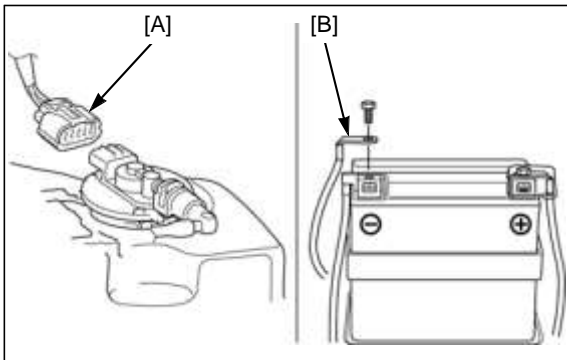


# FUEL SYSTEM (PGM-FI) GENERAL

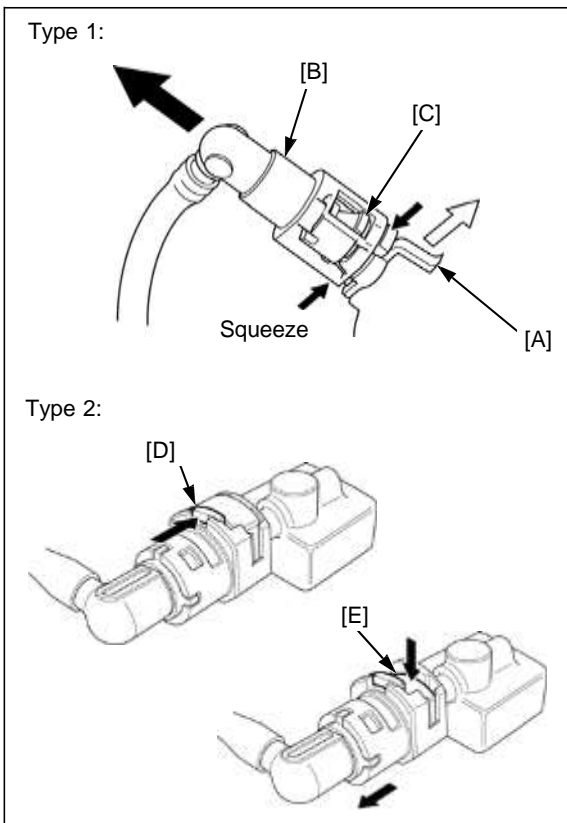
- Work in a well ventilated area. Smoking or allowing flames or sparks in the work area or where gasoline is stored can cause a fire or explosion.
- When disassembling fuel system parts, note the locations of the O-rings. Replace them with new ones on reassembly.
- Before disconnecting the fuel feed hose, relieve fuel pressure from the system.
- Do not snap the throttle valve from full open to full close after the throttle cable has been removed. It may cause incorrect idle operation.
- Seal the intake ports with tape or a clean cloth to keep dirt and debris from entering the engine after the throttle body has been removed.
- Prevent dirt and debris from entering the throttle bore and air passages after the throttle body has been removed. Clean them using a compressed air if necessary.
- Do not loosen or tighten the white painted nut and screw of the throttle body. Loosening or tightening them can cause throttle valve and idle control failure.

## QUICK CONNECTOR REMOVAL

### Removal Preparation:



- Fuel pump connector [A]
- Let it idle until the engine stalls.
- Battery negative (–) cable [B]



- Clean around the quick connector.
- If the connector does not move, alternately pull and push the connector until it comes off easily.
- Place a shop towel over the quick connect fitting.
- Resin is used for the part of materials in the fuel feed hose. Do not bend or twist the fuel feed hose.



### Type 1:

- Pull and release the joint rubber [A] from the retainer.
- Hold the connector [B] with one hand and squeeze the retainer tabs with the other hand to release the locking pawls [C]. Pull the connector off and remove the retainer.

### Type 2:

- Push the retainer tab [D] forward.
- Press down the retainer [E] and disconnect the connector from the fuel pump joint/injector joint.

### NOTE:

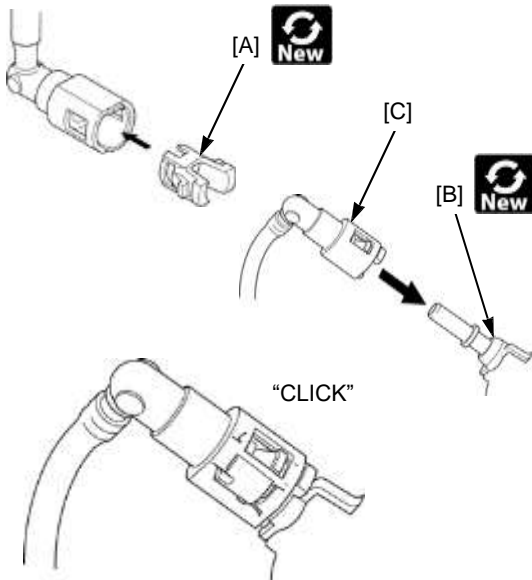
- To prevent damage and keep foreign matter out, cover the disconnected connector and pipe end with the plastic bags.
- Check the retainer condition and replace it if necessary.



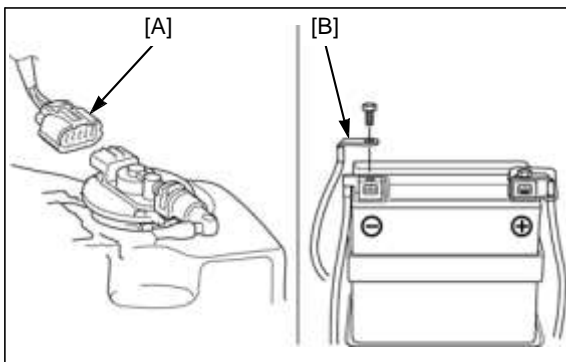
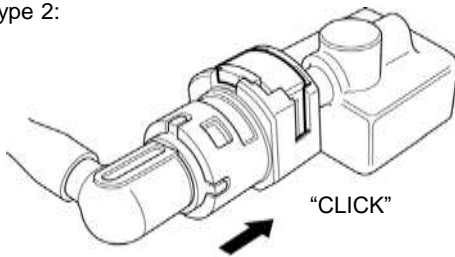


## QUICK CONNECTOR INSTALLATION

Type 1:



Type 2:



### NOTE:

- Resin is used for the part of materials in the fuel feed hose. Do not bend or twist the fuel feed hose.



### Type 1:

- When replacing the retainer, use the genuine parts as the removed one (The several manufacturers feature different retainer specifications).
- New retainer [A] New
- joint rubber [B] Quick
- connect fitting [C]

### Type 2:

- Press the connector onto the fuel pump joint/injector joint until the retainer locks with a "CLICK". If it is hard to connect, put a small amount of engine oil on the pipe end.
- Make sure the connection is secure; check visually and by pulling the connector.
- Connection is secure; Check visually and by pulling the connector.
- Lock pawls are firmly locked into place
- Joint rubber firmly locked



- Fuel pump connector [A]
- Battery negative (-) cable [B]

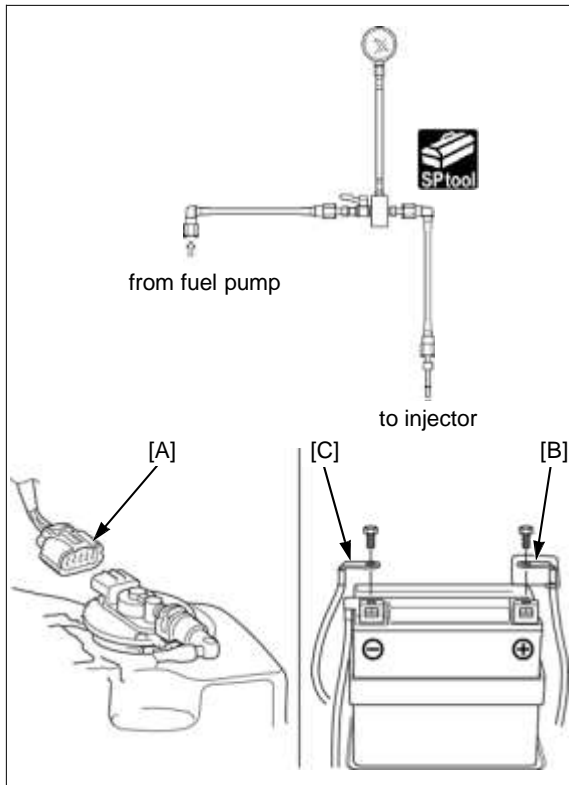
- After installing the removed parts, turn the ignition switch ON. (Do not start the engine.) The fuel pump will run for about 2 seconds, and fuel pressure will rise. Repeat 2 or 3 times, and check that there is no leakage in the fuel supply system.



## FUEL PRESSURE TEST



- Refer to Spec (Specific) Service Manual for instruction and specification.



- Quick connect fitting (either fuel pump side or injector side)



- Connect the special tools to the fuel line.
  - Fuel pressure gauge
  - Attachments



- Temporarily connect the following:
  - Fuel pump connector [A]
  - Battery positive (+) cable [B]
  - Battery negative (-) cable [C]



- Fuel pressure at idle

- If the fuel pressure is higher than specified
  - Replace the fuel pump assembly.
- If the fuel pressure is lower than specified, inspect the following:
  - Fuel line leaking
  - Fuel pump unit
  - Clogged fuel filter

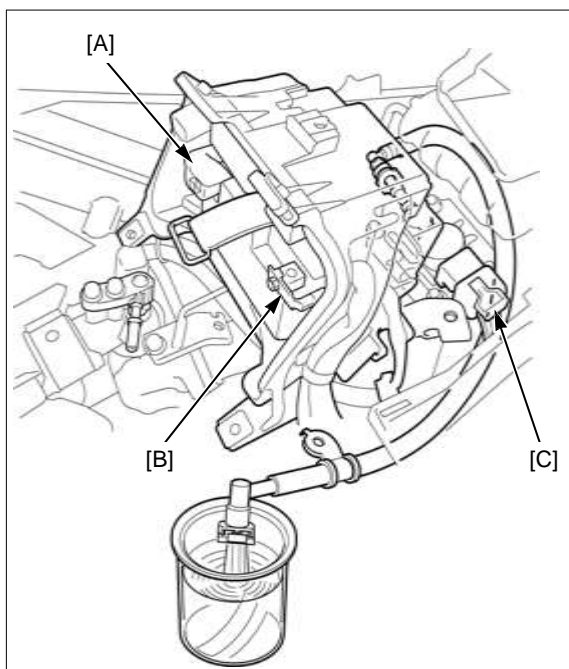


- Quick connect fitting (either fuel pump side or injector side)

## FUEL FLOW INSPECTION



- Refer to Spec (Specific) Service Manual for instruction and specification.



- Quick connect fitting (either fuel pump side or injector side)
- Wipe off spilled out gasoline.



- Temporarily connect the following:
  - Battery positive (+) cable [A]
  - Battery negative (-) cable [B]
  - Fuel pump connector [C]



- Amount of fuel flow
  - The fuel pump operates for 2 seconds. Repeat 5 times to meet the total measuring time.
  - Return fuel to the fuel tank when the first fuel is flowed.



- If equipped with a fuel pump relay:
  - Short the fuel pump relay power ground line and measure the amount of fuel flow at 10 seconds.

- If fuel flow is less than specified, inspect the following:
  - Clogged fuel hose
  - Fuel pump unit
  - Clogged fuel filter

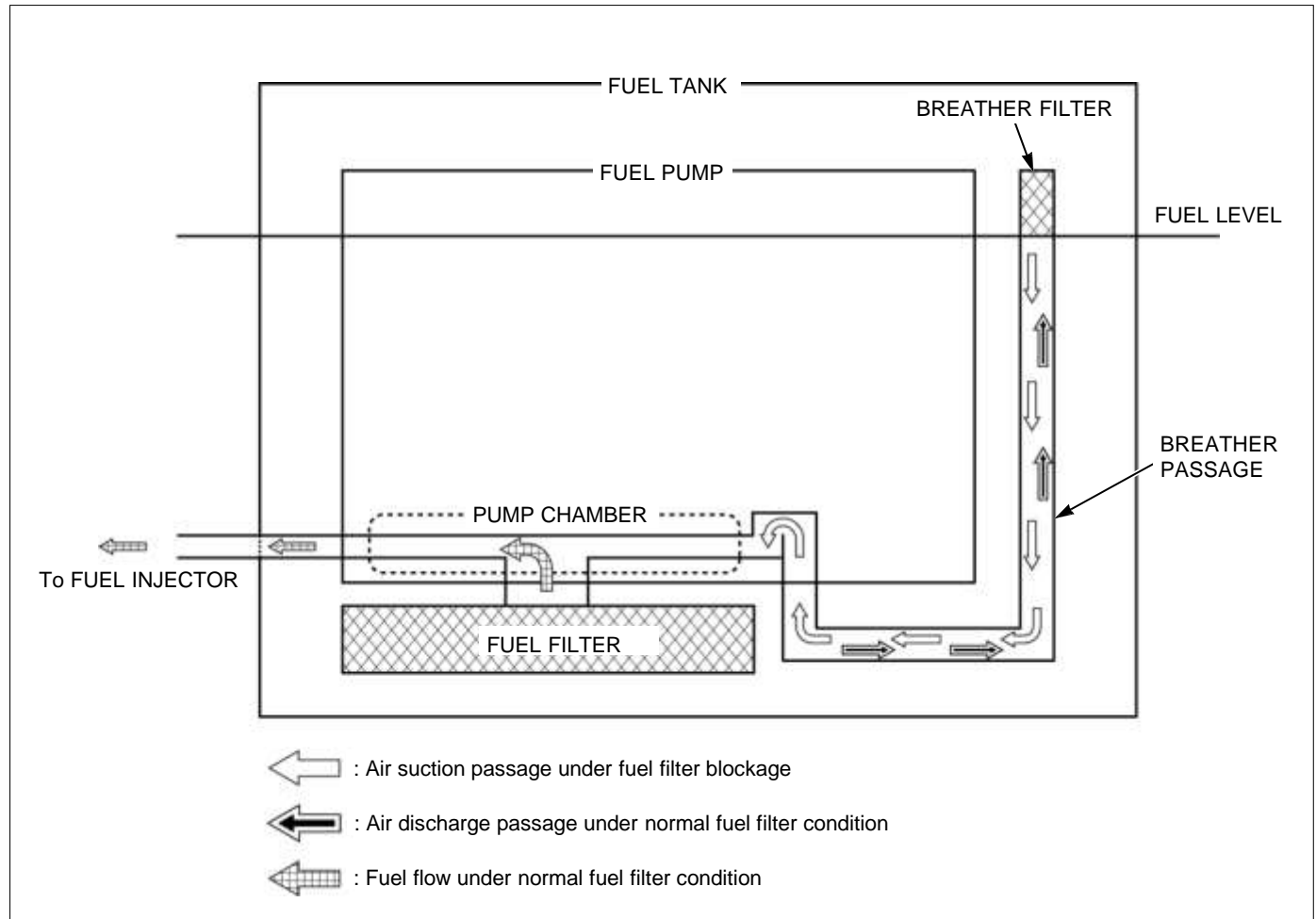


- Quick connect fitting (either fuel pump side or injector side)



# FUEL PUMP SYSTEM WITH A FUEL FILTER BLOCKAGE REMINDER FUNCTION

## SYSTEM DESCRIPTION



The fuel pump system of this model consists of the following components:

- Fuel pump chamber
- Fuel filter
- Breather passage
- Breather filter

Under normal condition, the fuel pump chamber sucks fuel through the fuel filter and then supplies it to the injector.

When the fuel filter is clogged, the fuel is sucked into the pump chamber through the breather passage in order to keep the vehicle running. The breather filter is located in the upper inner side of fuel tank. When the fuel is consumed to the point where the breather filter is exposed above the fuel level, a certain amount of air will be drawn into the pump chamber via the breather filter and breather passage. This incoming air produces "a lack of fuel", which impairs engine performance in order to notify the rider of the fuel filter blockage. This symptom works as a reminder for the filter replacement.

This system eliminates the need of fuel filter replacement according to a fixed interval, as the rider will experience the symptom and notice the filter blockage during vehicle usage.

The driveability remains normal as long as the fuel level in tank is maintained above the breather filter because no air will be drawn into the pump chamber, even when the fuel filter is clogged.

If the fuel in tank is sufficient but such symptom as poor engine performance, lack of fuel, or engine start failure exist, perform the fuel supply test.



## FUEL&ENGINE

### FUEL SUPPLY TEST

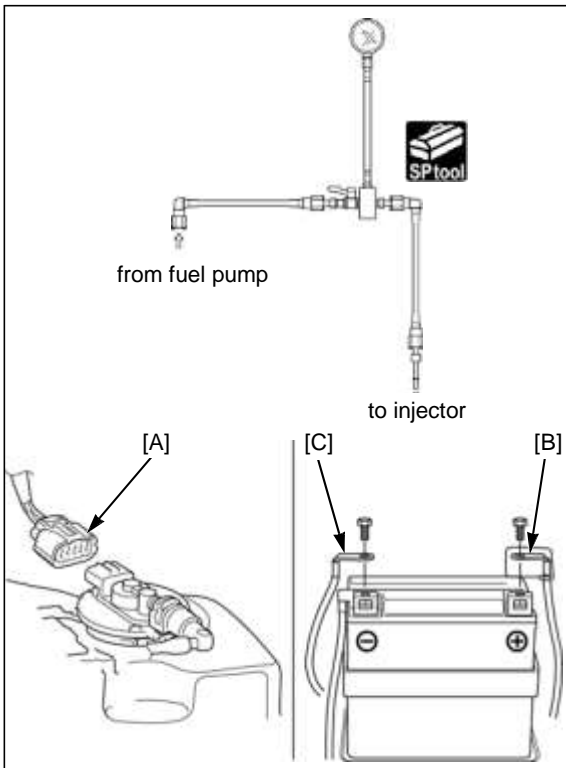


- If the fuel in tank is sufficient but such symptom as poor engine performance, lack of fuel, or engine start failure exist, perform the following.
- Perform the fuel pressure test. ★3-6
- If the fuel pressure is within specification, perform the fuel flow inspection. ★3-7
- Perform the fuel flow inspection in the specified fuel quantity. ★3-7

### FUEL PRESSURE TEST



- Refer to Spec (Specific) Service Manual for instruction and specification.



- Quick connect fitting (either fuel pump side or injector side)



- Connect the special tools to the fuel line.
  - Fuel pressure gauge
  - Attachments



- Temporarily connect the following:
  - Fuel pump connector [A]
  - Battery positive (+) cable [B]
  - Battery negative (–) cable [C]



- Fuel pressure at idle



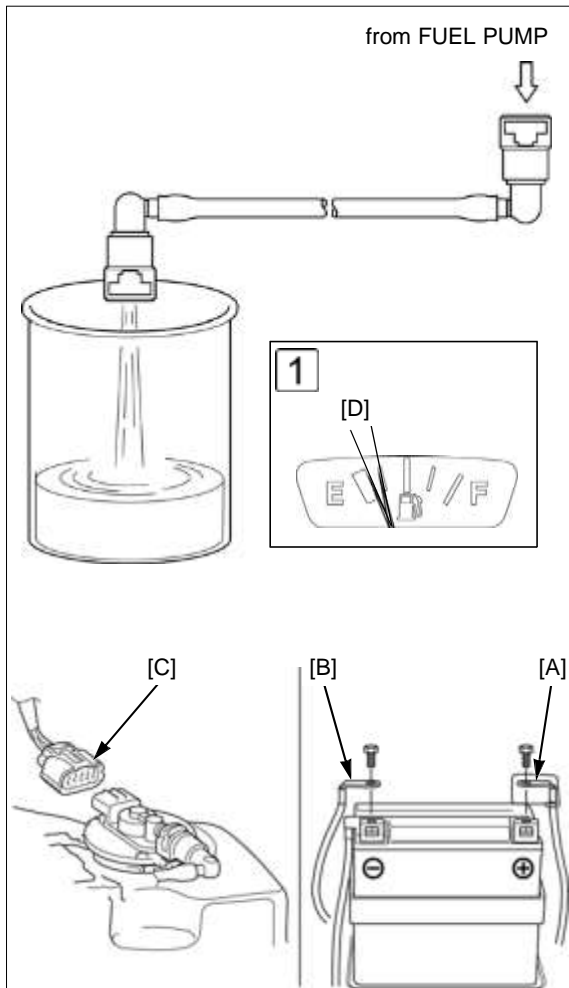
- If the fuel pressure is higher than specified, replace the fuel pump assembly.
- If the fuel pressure is lower than specified, inspect the following.
  - Fuel line leaking
  - Any erratic swing or vibration of the gauge needle in the pressure gauge reading.
- If the needle swings or vibrates, replace the fuel filter. ★2-3
- If the needle does not swing or vibrate, replace the fuel pump unit.



## FUEL FLOW INSPECTION



- Refer to Spec (Specific) Service Manual for instruction and specification.



- Quick connect fitting (either fuel pump side or injector side)
- Wipe off spilled out gasoline.



- Temporarily connect the following:
  - Battery positive (+) cable [A]
  - Battery negative (–) cable [B]
  - Fuel pump connector [C]



- Amount of fuel flow
  - The fuel pump operates for 2 seconds. Repeat 5 times to meet the total measuring time.
  - Return fuel to the fuel tank when the first fuel is flowed.
- If equipped with a fuel pump relay:
  - Short the fuel pump relay power ground line and measure the amount of fuel flow at 10 seconds.
- If fuel flow is less than specified, inspect the following:
  - Clogged fuel hose
  - Fuel pump unit
- 1 Adjust the fuel in the tank so that the fuel gauge needle is positioned between the specified range [D], and inspect the fuel flow.
- If the fuel flow is above specification, check for other malfunctioning parts.
- If the fuel flow is under specification, replace the fuel filter. ★2-3



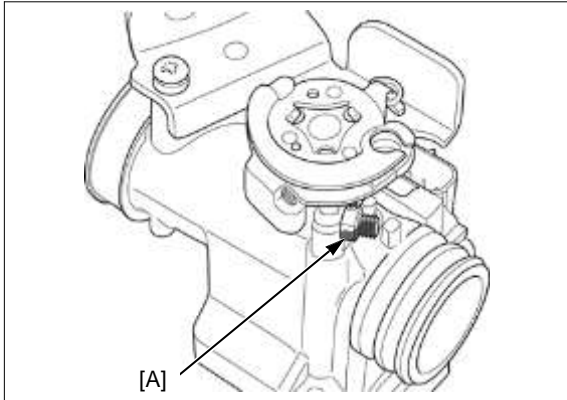


### THROTTLE BODY



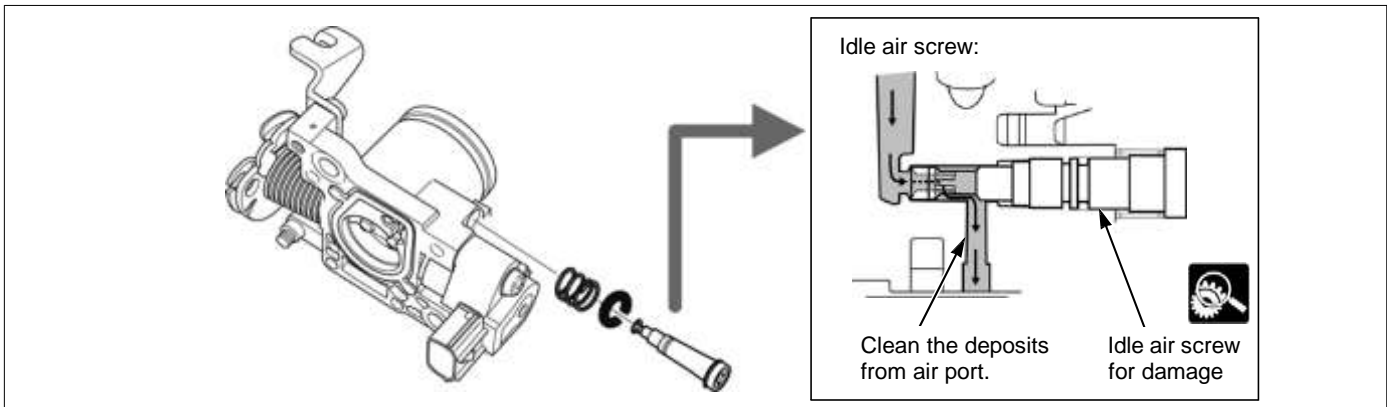
- IACV type  
If the sensor unit has been removed, perform the TP sensor reset procedure.
- Idle air screw type  
If the sensor unit has been removed, perform the throttle valve fully closed position reset procedure.

#### DISASSEMBLY



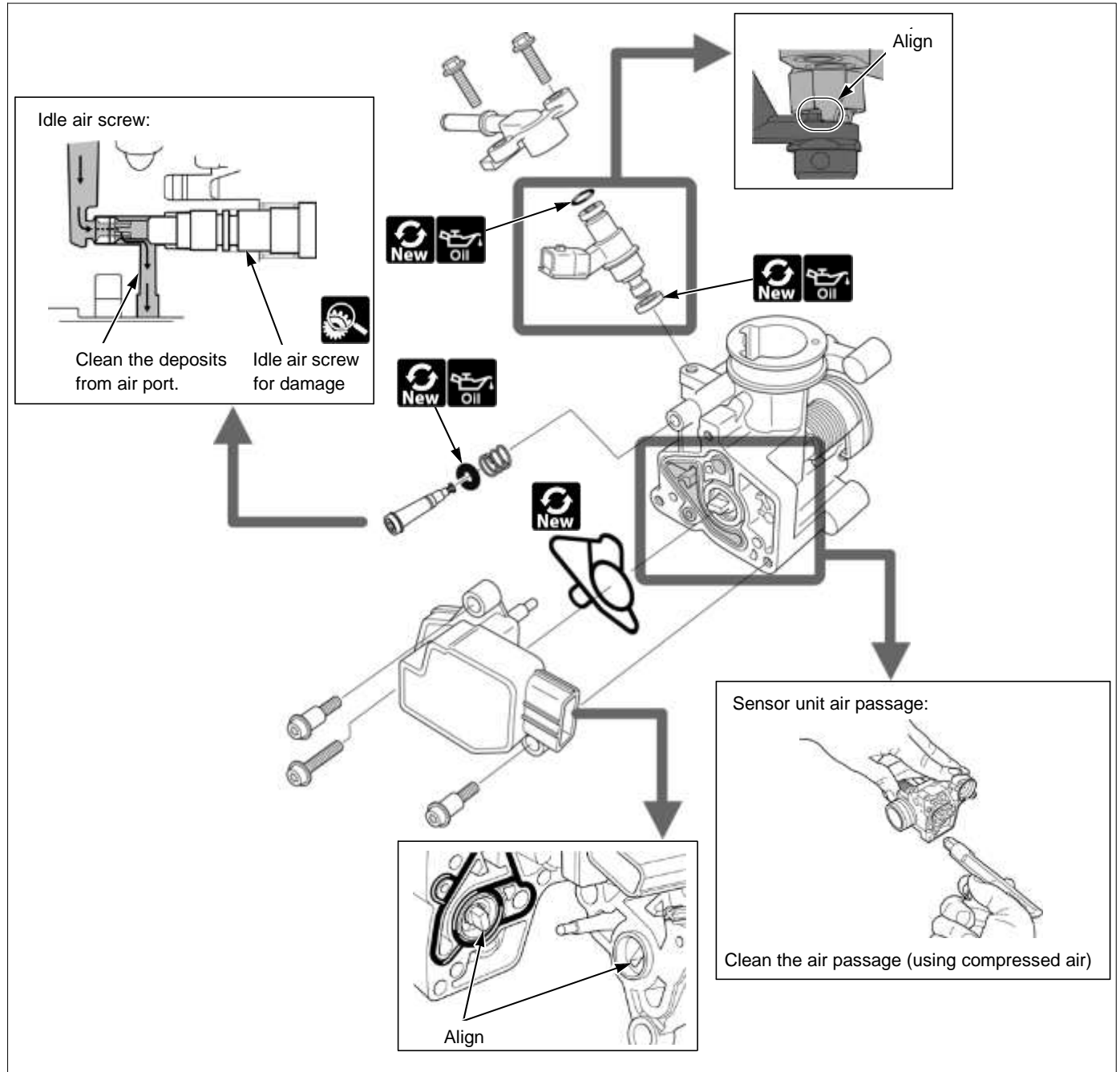
- The throttle body is factory pre-set. Do not disassemble in a way other than specified.
- Do not snap the throttle valve from full open to full close after the throttle cable has been removed. It may cause incorrect idle operation.
- Do not damage the throttle body. It may cause incorrect throttle valve operation.
- Do not loosen or tighten the white painted nut [A] of the throttle drum. Loosening or tightening it can cause throttle body malfunction.

#### Idle Air Screw Type:

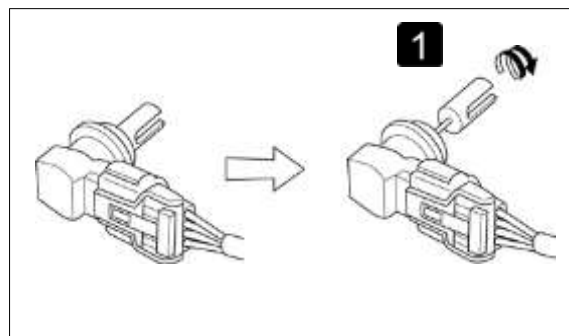




### Sensor Unit And Idle Air Screw Type:



### IACV inspection

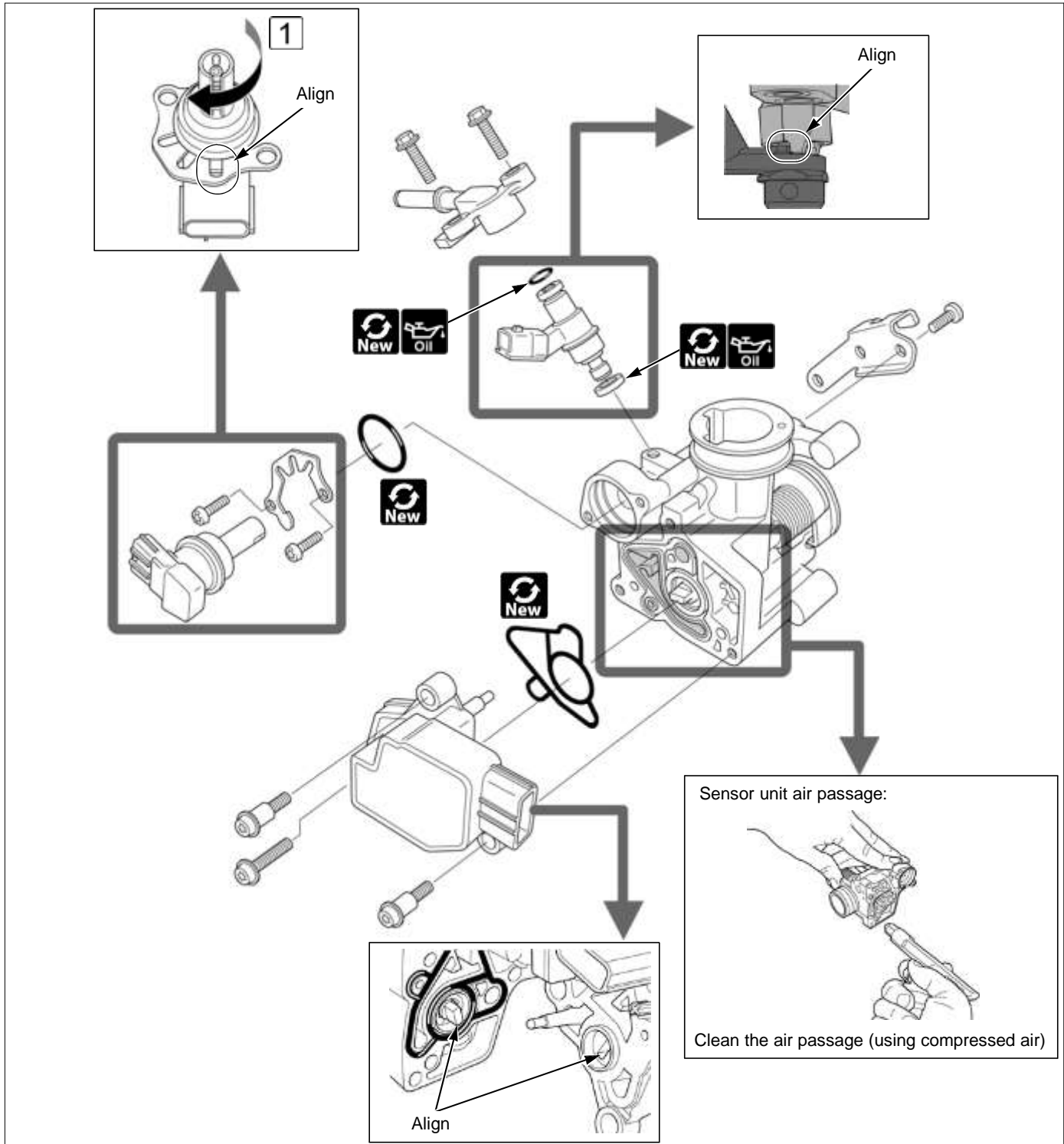


- The IACV is installed on the throttle body and is operated by the step motor. When the ignition switch is turned ON, the IACV operates for a few seconds.





IACV Type:



- **1** Turn the slide valve clockwise until lightly seated on IACV.