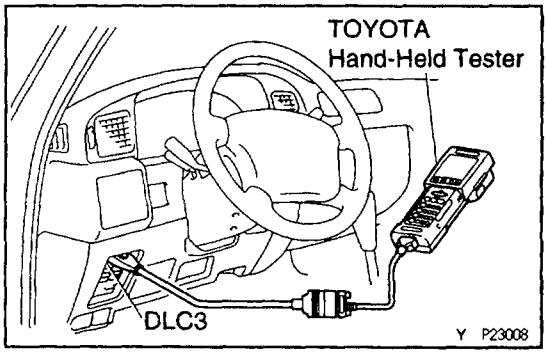
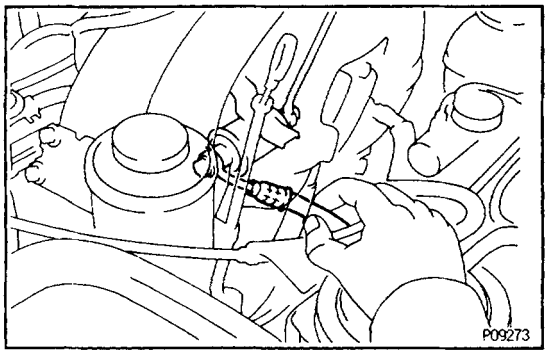
# EQUIPMENT

| | |
|---|---|
| Carburetor cleaner | Throttle body |
| Graduated cylinder | Injector |
| OBD II scan tool | Engine speed |
| Soft brush | Throttle body |
| Sound scope | Injector |
| Torque wrench | |




# FUEL PUMP
# ON−VEHICLE INSPECTION

**1. CHECK FUEL PUMP OPERATION**

(a) Remove the fuse cover on the instrument panel.

(b) Connect the TOYOTA hand−held tester to the DLC3.

(c) Turn the ignition switch ON and TOYOTA hand−held tester main switch ON.

**NOTICE: Do not start the engine.**

(d) Select the active test mode on the TOYOTA handheld tester.

(e) Please refer to the TOYOTA hand−held tester operator's manual for further details.

(f) If you have no TOYOTA hand−held tester, connect the positive (+) and negative (−) leads from the battery to the fuel pump connector.

(See step 3 in fuel pump inspection)

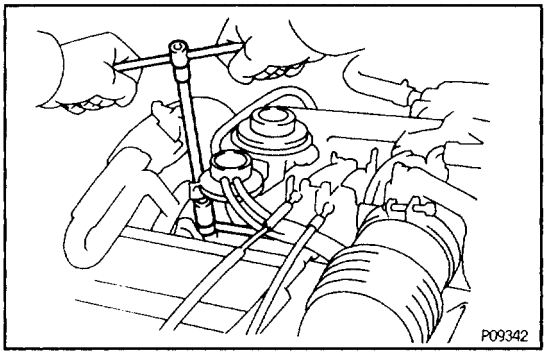
(g) Check that there is pressure in the fuel inlet hose from the fuel filter.

HINT: If there is fuel pressure, you will hear the sound of fuel flowing.

If there is no pressure, check these parts:

- Fusible links (MAIN 2.OL, AM2 0.3P)
- Fuses (EFI 15A, IGN 7.5A)
- EFI main relay
- Fuel pump
- ECM
- Wiring connections

(h) Turn the ignition switch to LOCK.



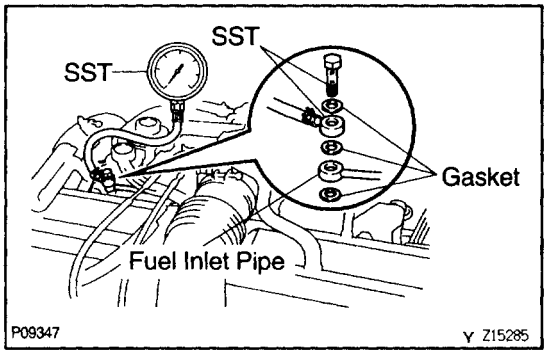

(i) Disconnect the TOYOTA hand−held tester from the DLC3.
(j) Reinstall the fuse cover on the instrument panel.

**2. CHECK FUEL PRESSURE**

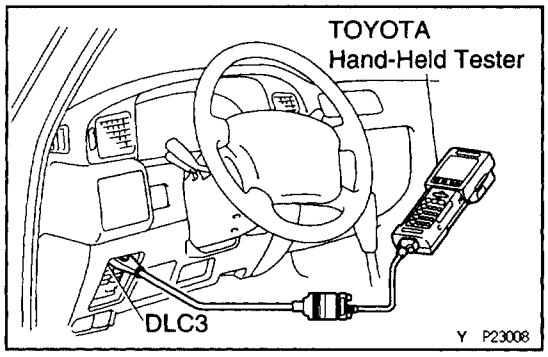
(a) Check the battery voltage is above 12 V.
(b) Disconnect the negative (−) terminal cable from the battery.
(c) Remove the union bolt and 2 gaskets, and disconnect the fuel inlet pipe from the delivery pipe.

**CAUTION:**

- **Put a shop towel under the delivery pipe.**
- **Slowly loosen the union bolt.**

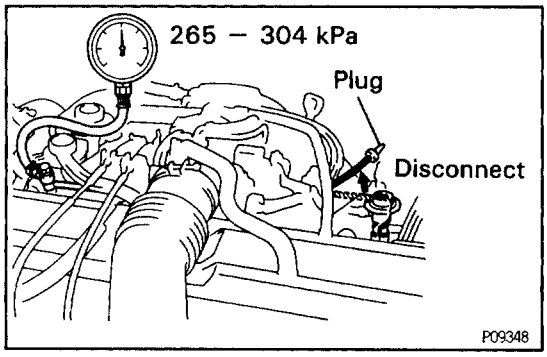



(d) Install the fuel inlet pipe and SST (pressure gauge) to the delivery pipe with the 3 gaskets and SST (union bolt).
SST 09268−45012
**Torque: 29 N·m (300 kgf·cm, 22 ft·lbf)**
(e) Wipe off any splattered gasoline.




(f) Connect the TOYOTA hand−held tester to the DLC3.
(See step 1. check fuel pump operation (a) to (f))
(g) Reconnect the negative (−) terminal cable to the battery.
(h) Turn the ignition switch ON.
(i) Measure the fuel pressure.
**Fuel pressure:**
**265−304 kPa (2.7−3.1 kgf/cm$^2$, 38−44 psi)**
If pressure is high, replace the fuel pressure regulator.
If pressure is low, check these parts:

- Fuel hoses and connections
- Fuel pump
- Fuel filter
- Fuel pressure regulator




(j) Remove the TOYOTA hand−held tester from the DLC3.
(k) Reinstall the fuse cover on the instrument panel.
(l) Start the engine.
(m) Disconnect the vacuum sensing hose from the fuel pressure regulator, and plug the hose end.
(n) Measure the fuel pressure at idle.
**Fuel pressure:**
**265−304 kPa (2.7−3.1 kgf/cm$^2$, 38−44 psi)**
(o) Reconnect the vacuum sensing hose to the fuel pressure regulator.
(p) Measure the fuel pressure at idle.
**Fuel pressure:**
**206−255 kPa (2.1−2.6 kgf/cm$^2$, 31−37 psi)**

If pressure is not as specified, check the vacuum sensing hose and fuel pressure regulator.

(q) Stop the engine.

(r) Check that the fuel pressure remains as specified for 5 minutes after the engine has stopped.

**Fuel pressure:**

**147 kPa (1.5 kgf/cm$^2$, 21 psi) or more**

If pressure is not as specified, check the fuel pump, pressure regulator and/or injectors.

(s) After checking fuel pressure, disconnect the negative (−) terminal cable from the battery and carefully remove the SST to prevent gasoline from splashing.

SST 09268−45012

(t) Reconnect the fuel inlet pipe to the delivery pipe with 2 new gaskets and the union bolt.

**Torque: 29 N·m (300 kgf·cm, 22 ft·lbf)**

(u) Reconnect the negative (−) terminal cable to the battery.

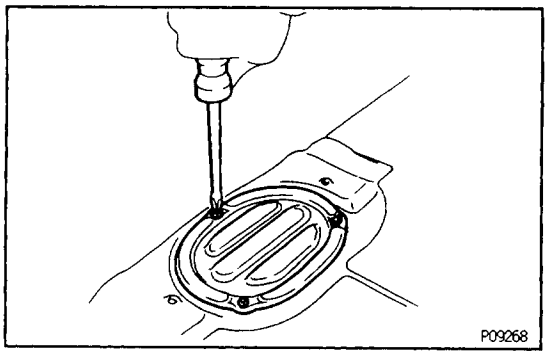
(v) Check for fuel leakage.

(See fuel system in precaution)

## FUEL PUMP INSPECTION

**(See Components for Fuel Pump Removal and Installation)**

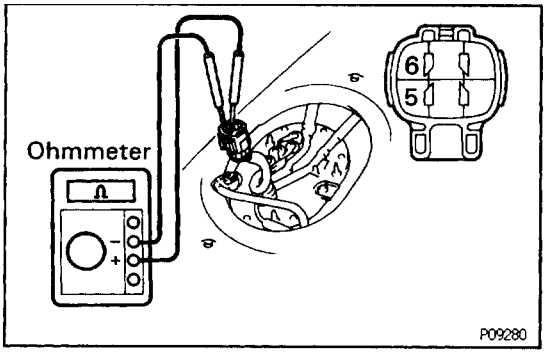
1. **REMOVE SECOND SEATS**
2. **REMOVE SCUFF PLATE**
3. **REMOVE SIDE GARNISH**
4. **REMOVE STEP PLATE**
5. **DISCONNECT FLOOR MATS**




6. **REMOVE FLOOR SERVICE HOLE COVER**

Remove the 3 screws and service hole cover.

7. **DISCONNECT FUEL PUMP & SENDER GAUGE CONNECTOR**




**8. INSPECT FUEL PUMP**

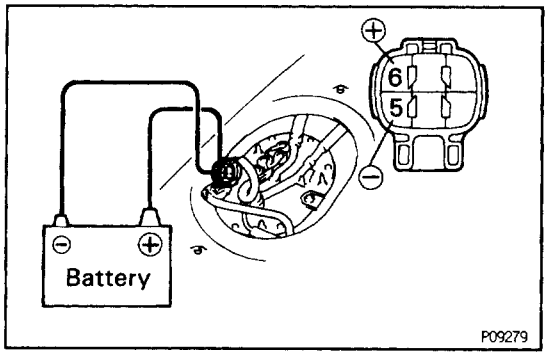
**A. Inspect fuel pump resistance**

Using an ohmmeter, measure the resistance between the terminals 5 and 6.

**Resistance:**

**At 20°C (68°F): 0.2−3.0 Ω**

If the resistance is not as specified, replace the fuel pump.




**B. Inspect fuel pump operation**

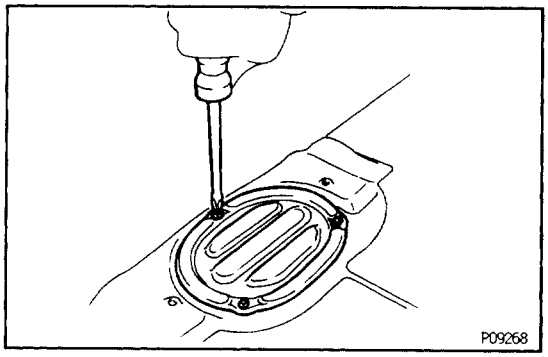
Connect the positive (+) lead from the battery to terminal 6 of the connector, and the negative (−) lead to terminal 5. Check that the fuel pump operates.

**NOTICE:**

- **These tests must be performed quickly (within 10 seconds) to prevent the coil from burning out.**
- **Keep the fuel pump as far away from the battery as possible.**
- **Always perform switching at the battery side.**

If operation is not as specified, replace the fuel pump.

**9. RECONNECT FUEL PUMP & SENDER GAUGE CONNECTOR**




**10. REINSTALL FLOOR SERVICE HOLE COVER**

Install the service hole cover with the 3 screws.

**11. REINSTALL FLOOR MATS**

**12. REINSTALL STEP PLATE**

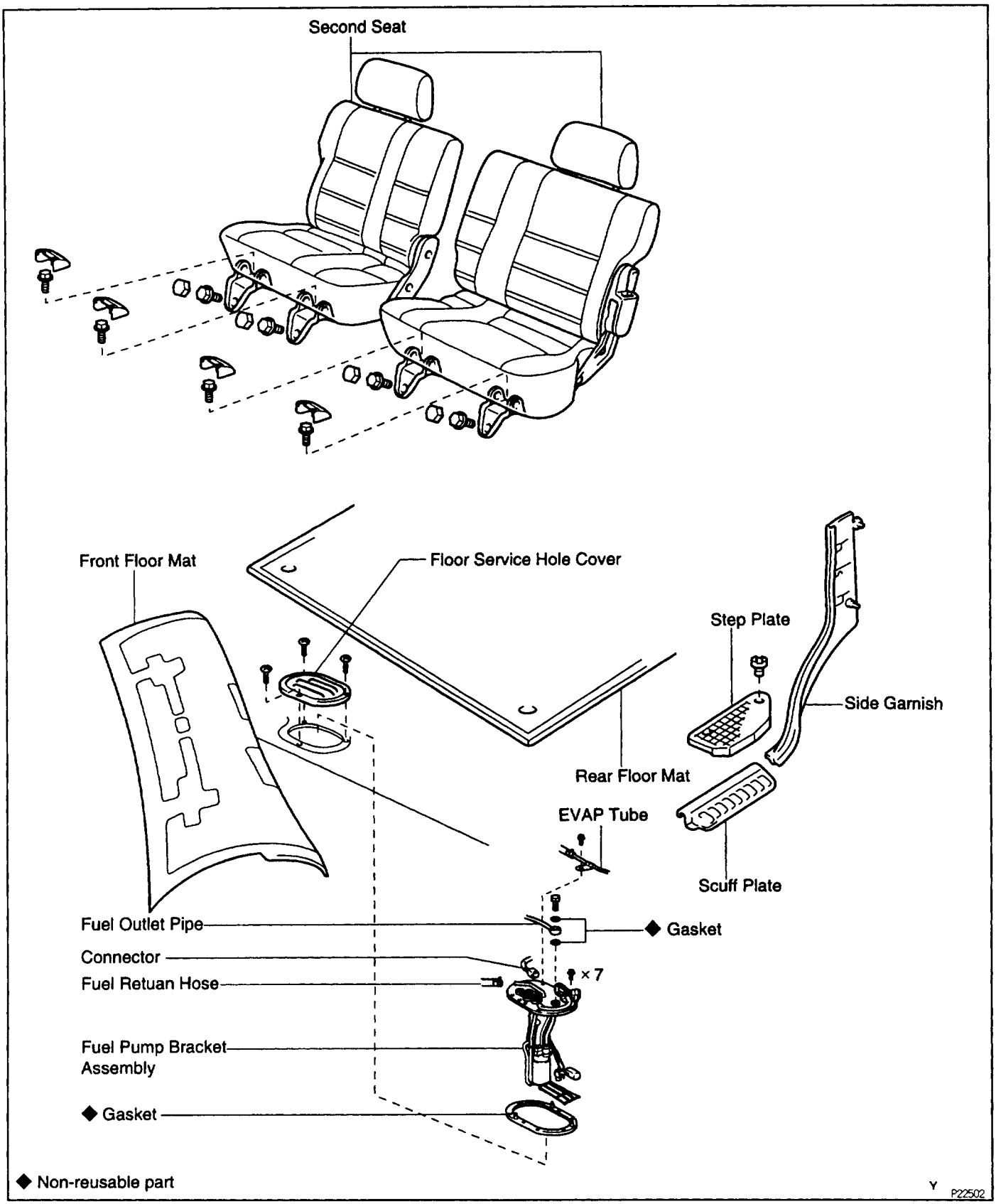
**13. REINSTALL SIDE GARNISH**

**14. REINSTALL SCUFF PLATE**

**15. REINSTALL SECOND SEATS**

**Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)**

# COMPONENTS FOR REMOVAL AND INSTALLATION



# FUEL PUMP REMOVAL

**Installation is in the reverse order of removal.**

**CAUTION: Do not smoke or work near an open flame when working on the fuel pump.**

**1. REMOVE SECOND SEATS**

**Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)**

**2. REMOVE SCUFF PLATE**

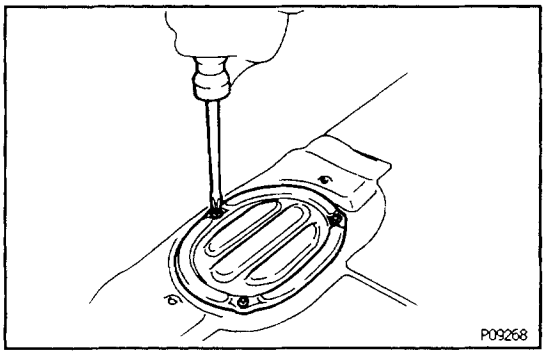
**3. REMOVE SIDE GARNISH**

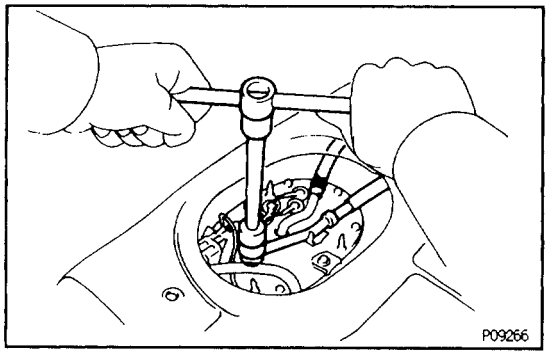
**4. REMOVE STEP PLATE**

**5. DISCONNECT FLOOR MATS**

**6. REMOVE FLOOR SERVICE HOLE COVER**

Remove the 3 screws and service hole cover.




**7. DISCONNECT FUEL PIPE AND HOSE FROM FUEL PUMP BRACKET**

**CAUTION: Remove the fuel filter cap to prevent the fuel from flowing out.**

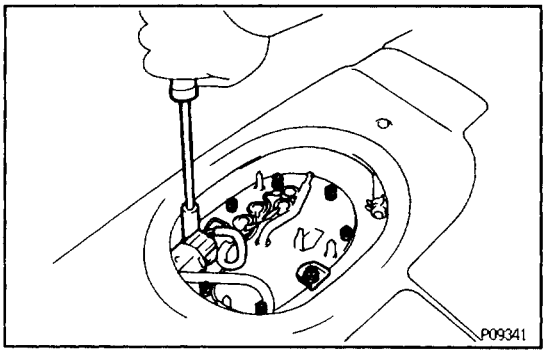
(a) Disconnect the fuel pump & sender gauge connector.

INSTALLATION HINT: Check fuel leaks.

(b) Remove the union bolt and gaskets, and disconnect the outlet pipe from the pump bracket.

**Torque: 29 N·m (300 kgf·cm, 22 ft·lbf)**

(c) Disconnect the return hose from the pump bracket.




**8. REMOVE FUEL PUMP BRACKET ASSEMBLY FROM FUEL TANK**

(a) Remove the 8 bolts.

**Torque: 3.9 N·m (40 kgf·cm, 35 in.·lbf)**

(b) Pull out the pump bracket assembly.

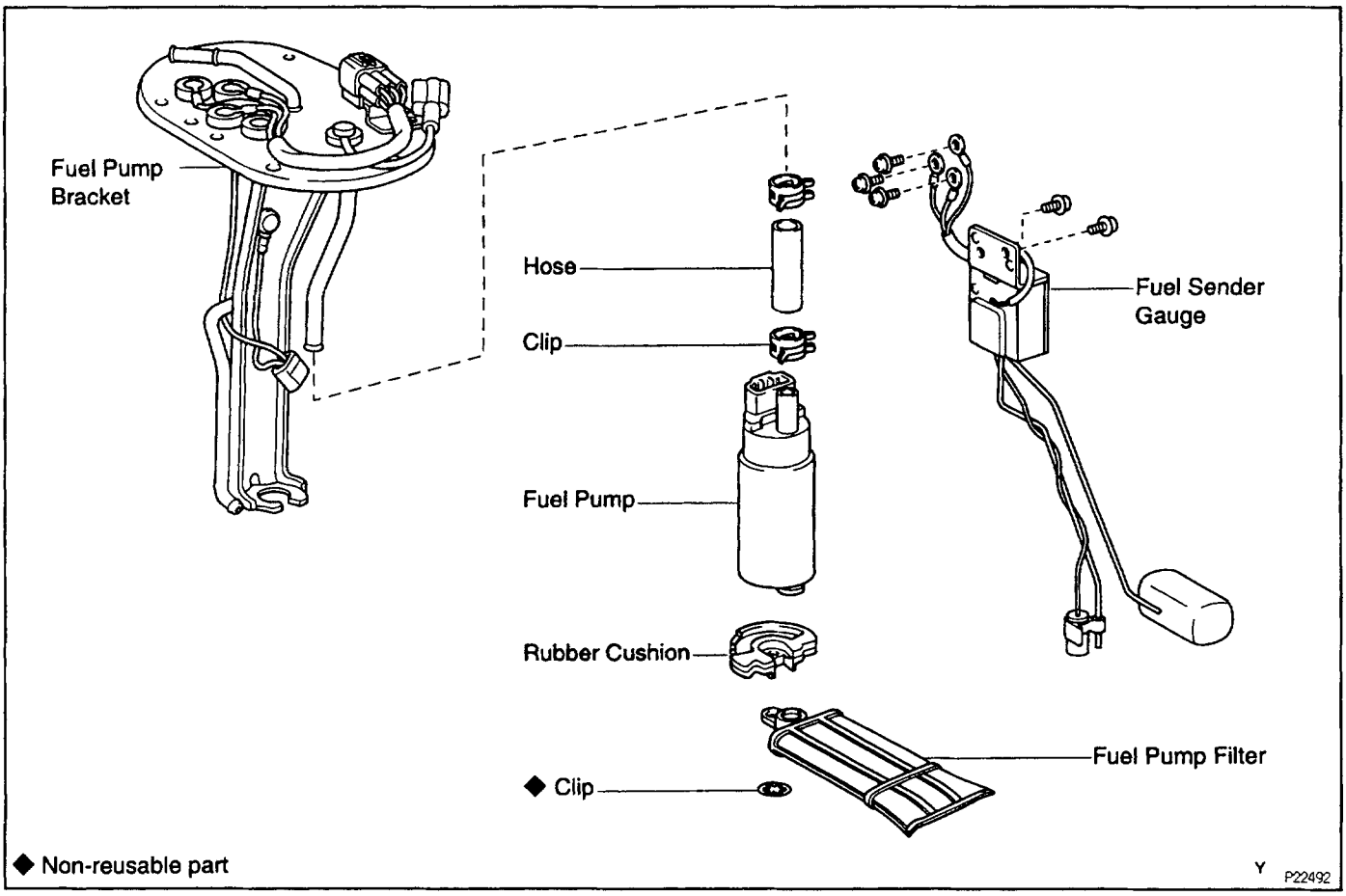
**NOTICE:**

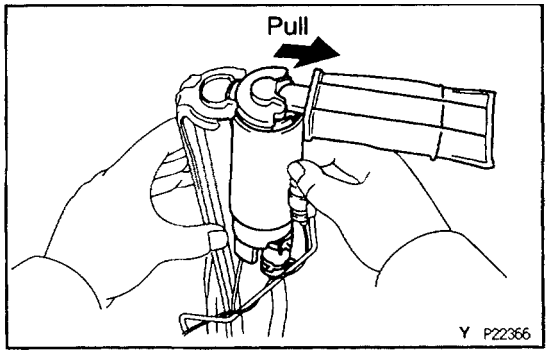
- **Do not damage the fuel pump filter.**
- **Be careful that the arm of the sender gauge should not bent.**

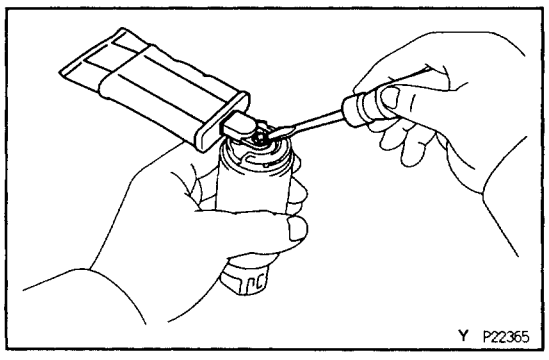
(c) Remove the gasket from the pump bracket.

INSTALLATION HINT: Install a new gasket to the pump bracket.

# COMPONENTS FOR DISASSEMBLY AND ASSEMBLY




## FUEL PUMP DISASSEMBLY

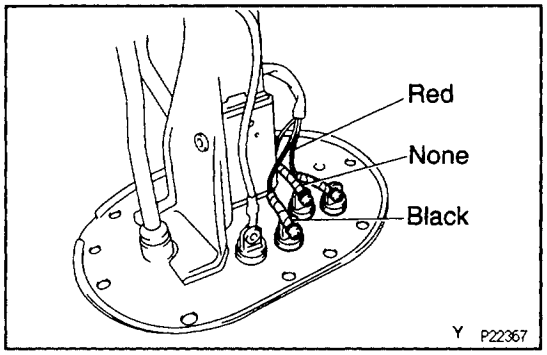
**Assembly is in the reverse order of disassembly.**

**1. REMOVE FUEL PUMP FROM FUEL PUMP BRACKET**

(a) Pull off the lower side of the fuel pump from the pump bracket.
(b) Disconnect the fuel pump connector.
(c) Disconnect the fuel hose from the fuel pump, and remove the fuel pump.
(d) Remove the rubber cushion from the fuel pump.

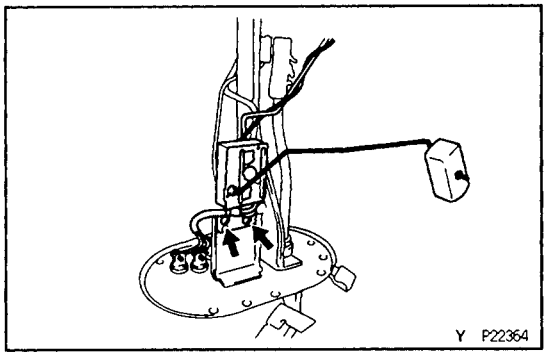
**2. REMOVE FUEL PUMP FILTER FROM FUEL PUMP**

(a) Using a small screwdriver, remove the clip.
INSTALLATION HINT: Install the pump filter with a new clip.
(b) Pull out the pump filter.




**3. REMOVE FUEL SENDER GAUGE FROM FUEL PUMP BRACKET**

(a) Remove the 3 screws and disconnect the lead wires from the pump bracket.




(b) Remove the 2 screws and sender gauge.

# FUEL FILTER

## COMPONENTS FOR REMOVAL AND INSTALLATION

