EGR PIPE SUB–ASSY NO.1 (1KD–FTV)(From August, 2004)

120HA–01

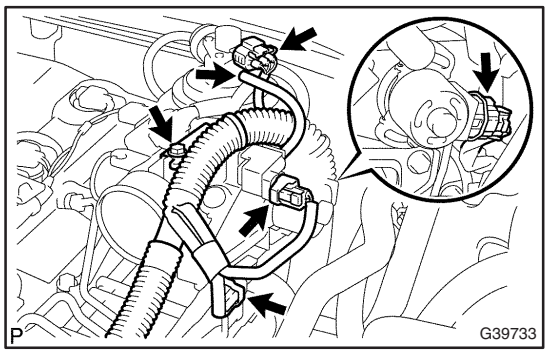
REPLACEMENT

1. **DRAIN ENGINE COOLANT (See Pub. No. RM990E, Page 16–50)**
2. **REMOVE INTERCOOLER PROTECTOR (See page 13–18)**
3. **REMOVE INTERCOOLER ASSY (See page 13–18)**
4. **REMOVE AIR HOSE NO.1**
5. **SEPARATE VANE PUMP OIL RESERVOIR ASSY**

(a) Remove the 3 bolts and vane pump oil reservoir assy.

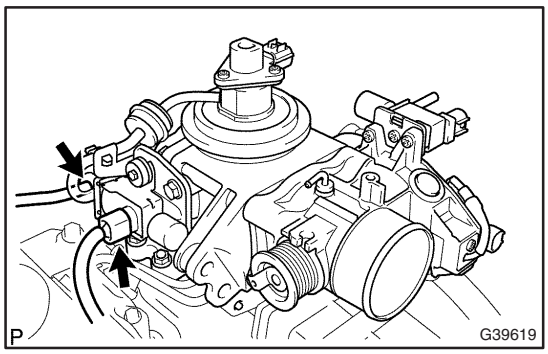
HINT:

It is not necessary to remove the hose from the vane pump oil reservoir assy when you remove that assembly. Also, for the following removal process, put and hang the removed oil reservoir assy with a rope to an appropriate location of the vehicle.

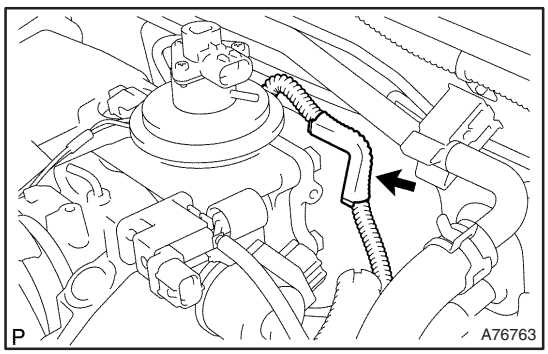


6. **REMOVE EGR PIPE SUB–ASSY NO.1**

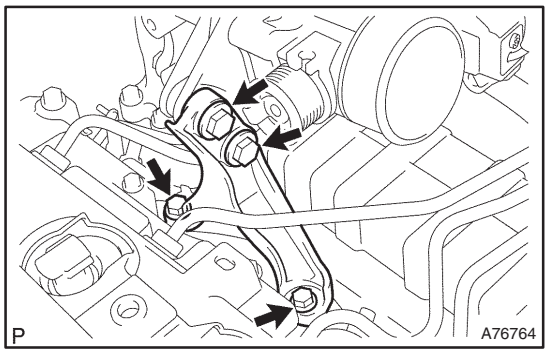
(a) Disconnect the 4 connector as shown in the illustartion.
(b) Separate the vacuum hose.
(c) Remove the bolt and wire harness from the diesel throttle body.



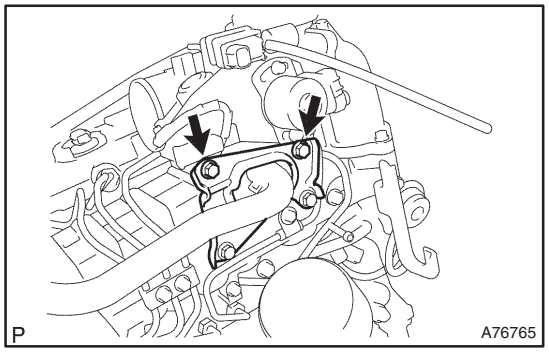
(d) Remove the connector from the E–VRV.
(e) Remove the vacuum hose from the E–VRV.



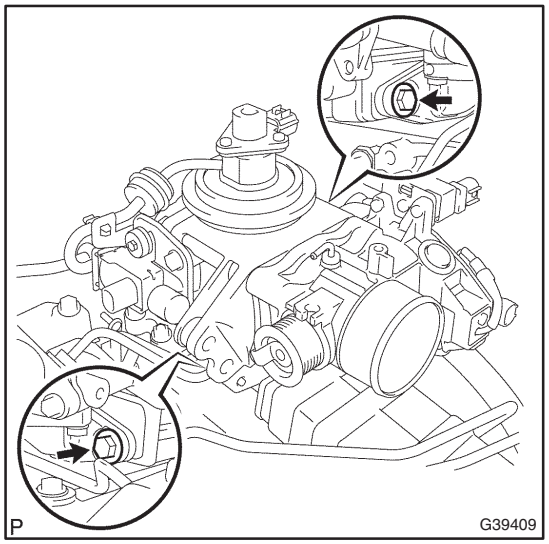
(f) Disconnect the wire harness from the intake air connector as shown in the illustration.



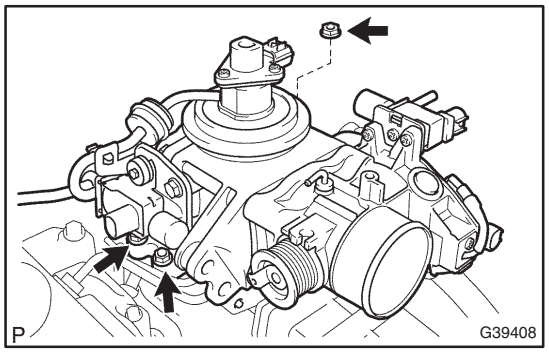
(g) Remove the 4 bolts and EGR valve bracket.



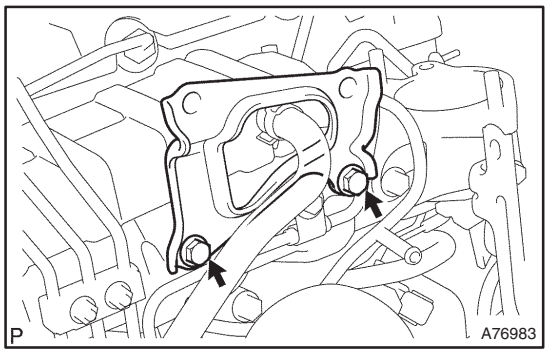
(h) Remove the 2 bolts, and separate the throttle body bracket from the diesel throttle body assy.



(i) Remove the 2 bolts, and separate the EGR pipe No.1 and electric EGR valve assy.

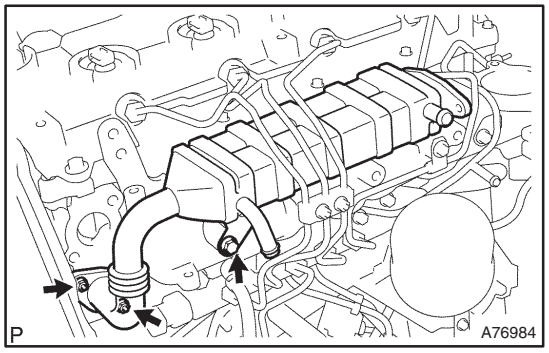


(j) Remove the bolt, 2 nuts, and diesel throttle body assy.

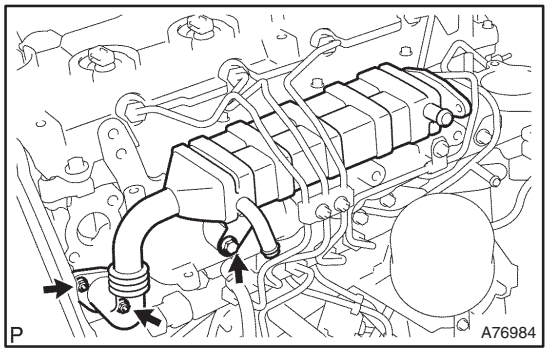


(k) Remove the 2 bolts and throttle body bracket.

(l) Separate the water by–pass hose No.3 and water by–pass hose No.4 from the EGR pipe sub–assy No.1.

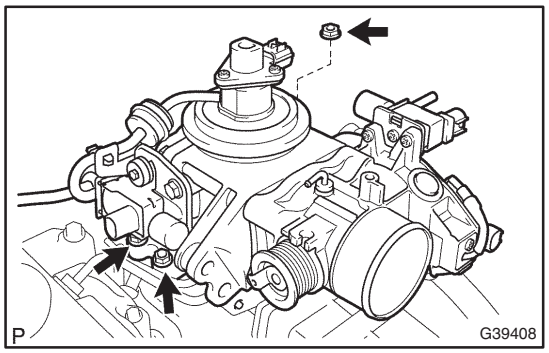


(m) Remove the bolt, 2 nuts, EGR pipe sub–assy No.1 and gasket.

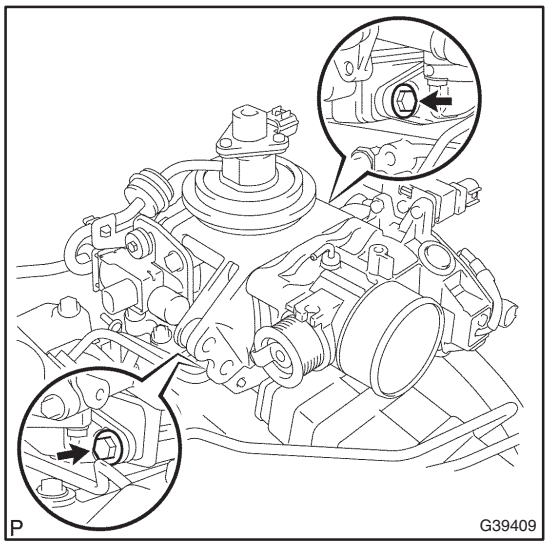


7. INSTALL EGR PIPE SUB–ASSY NO.1

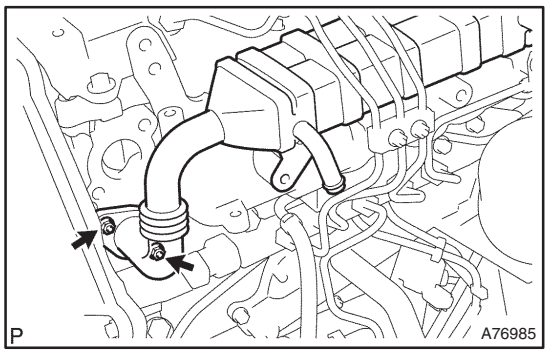
(a) Install a new gasket, and temporarily install the EGR pipe sub–assy No.1 with the 2 nuts and bolt.



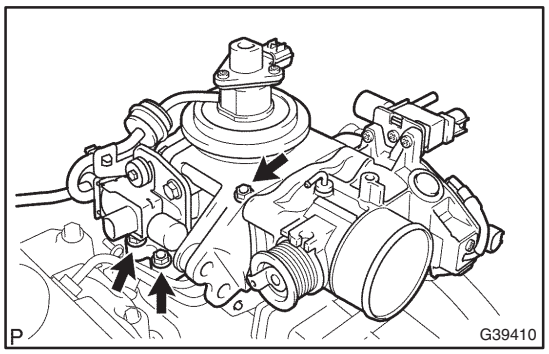
(b) Install a new gasket, and temporarily install the diesel throttle body assy with the bolt and 2 nuts.



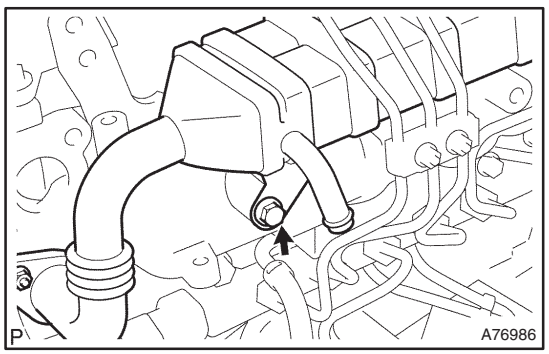
(c) Install a new gasket, EGR pipe No.1 and electric EGR valve assy with the 2 bolts.
Torque: 20 N·m (204 kgf·cm, 15 ft·lbf)



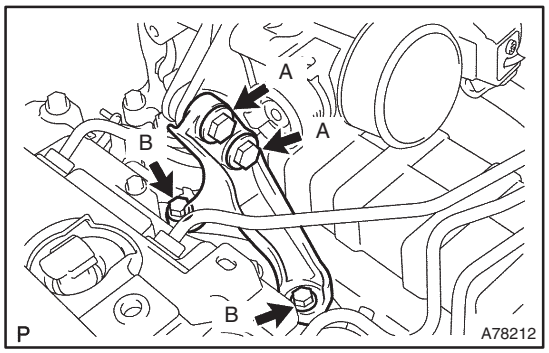
(d) Tighten the 2 nuts.
Torque: 13 N·m (133 kgf·cm, 10 ft·lbf)



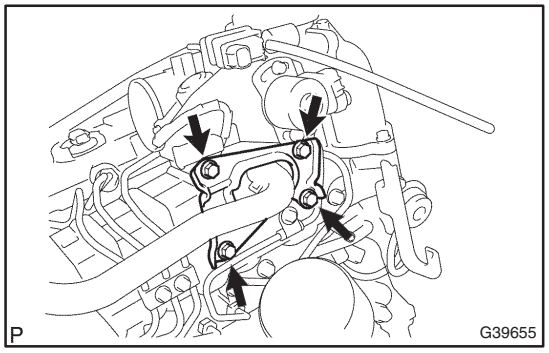
(e) Tighten the bolt and 2 nuts.
Torque: 20 N·m (204 kgf·cm, 15 ft·lbf)



(f) Tighten the bolt.
Torque: 19 N·m (194 kgf·cm, 14 ft·lbf)



(g) Temporarily install the EGR valve bracket with the 4 bolts.
(h) Tighten the 4 bolts.
Torque: 41 N·m (418 kgf·cm, 30 ft·lbf) (A)
20 N·m (204 kgf·cm, 15 ft·lbf) (B)



(i) Install the throttle body bracket with the 4 bolts.
Torque: 20 N·m (204 kgf·cm, 15 ft·lbf)
(j) Connect the water by–pass hose No.3 and water by–pass hose No.4 to the EGR pipe No.1.

8. INSTALL VANE PUMP OIL RESERVOIR ASSY
(a) Install the vane pump oil reservoir assy with the 3 bolts.
Torque: 18 N·m (184 kgf·cm, 13 ft·lbf)
9. INSTALL AIR HOSE NO.1
10. INSTALL INTERCOOLER ASSY (See page 13–18)
11. INSTALL INTERCOOLER PROTECTOR
(a) Install the intercooler protector with the 5 bolts.
Torque: 7.0 N·m (71 kgf·cm, 62 in.·lbf)
12. ADD ENGINE COOLANT (See pub No. RM990E, Page 16–50)
13. CHECK FOR ENGINE COOLANT LEAKS (See Pub. No. RM990E, Page 16–38)