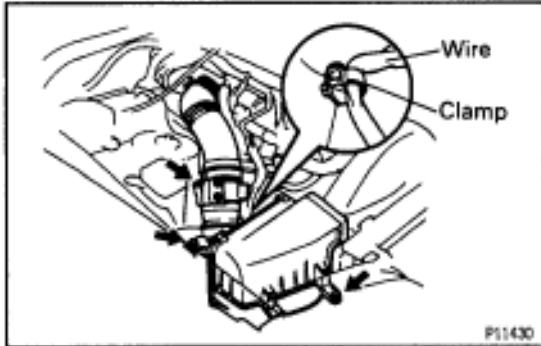


## ENGINE REMOVAL (2JZ-GTE)

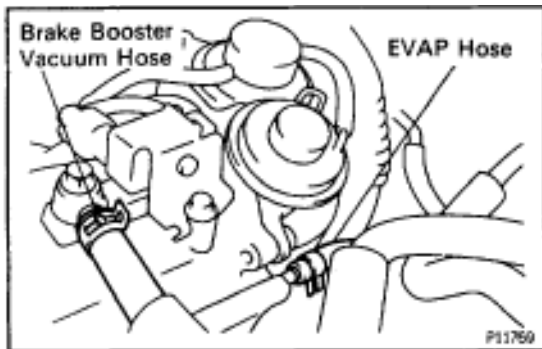
1. REMOVE HOOD
2. REMOVE RADIATOR ASSEMBLY  
(See radiator removal in Cooling System)
3. DRAIN ENGINE OIL
4. DRAIN FUEL FROM FUEL TANK
5. REMOVE NO.1 AIR HOSE
6. DISCONNECT CONTROL CABLES FROM THROTTLE BODY

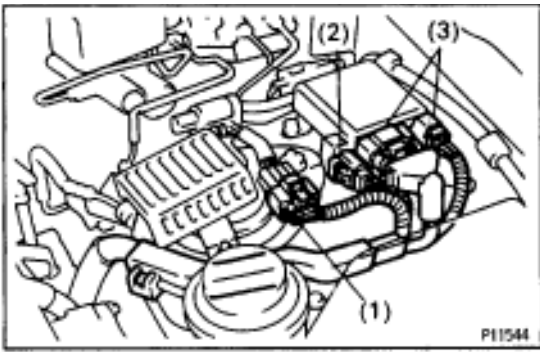


Disconnect these cables:

- Accelerator cable
- Cruise control actuator cable

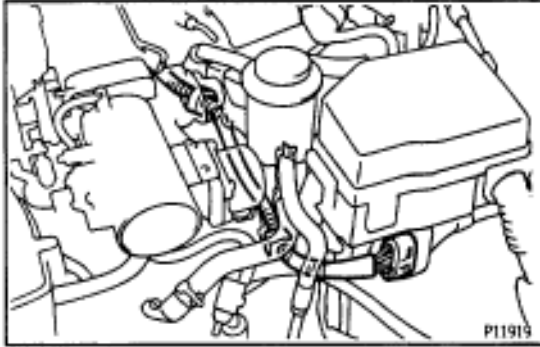
7. REMOVE AIR CLEANER AND MAF METER ASSEMBLY
  - (a) Remove the 3 bolts.
  - (b) Loosen the hose clamp, disconnect the air hose from the intake air connector.
  - (c) Disconnect the MAF meter wire from the clamp on the air cleaner case.
  - (d) Disconnect the MAF meter connector, and remove the air cleaner and MAF meter assembly.
8. M/T:  
REMOVE DRIVE BELT TENSIONER DAMPER  
(See step 2 in timing belt removal)
9. REMOVE DRIVE BELT, FAN, FLUID COUPLING ASSEMBLY AND WATER PUMP PULLEY  
(See step 6 in water pump removal in Cooling System)
10. REMOVE CHARCOAL CANISTER
11. DISCONNECT HEATER WATER HOSES
12. DISCONNECT BRAKE BOOSTER VACUUM HOSE
13. DISCONNECT EVAP HOSE



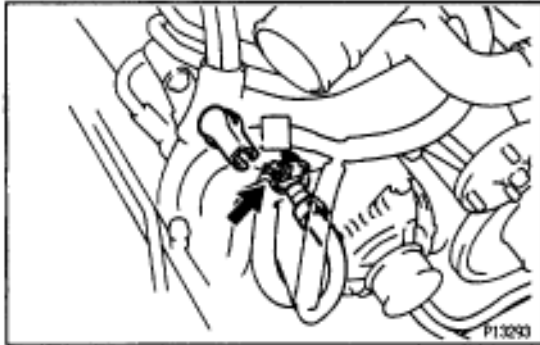


#### 14. DISCONNECT WIRES AND CONNECTORS

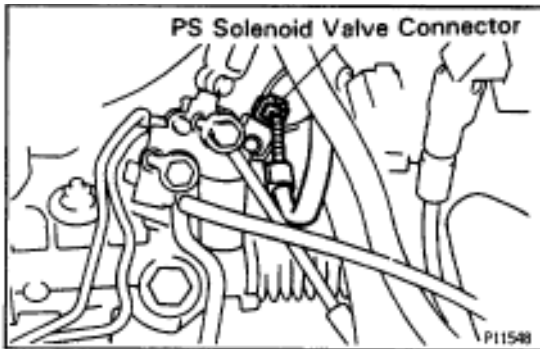
- (a) Disconnect these connectors:
  - (1) Solenoid resistor connector
  - (2) Noise filter connector
  - (3) Igniter connectors
- (b) Disconnect the engine wire from the PS reservoir tank protector.



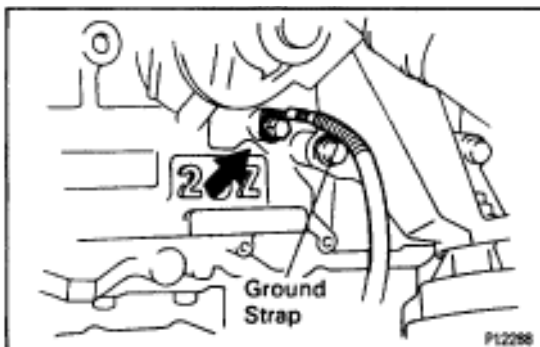
- (c) Disconnect the connector from the engine room main wire.
- (d) Disconnect the engine wire from the 2 wire clamps.



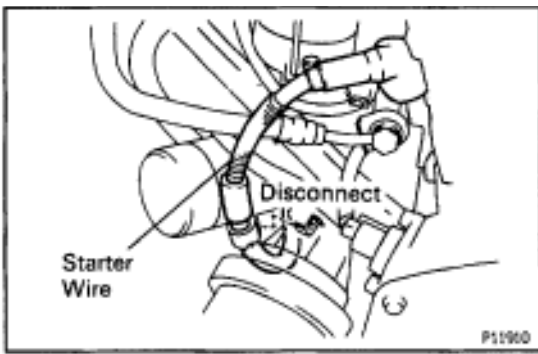
- (e) Remove the rubber cap and nut, and disconnect the generator wire.



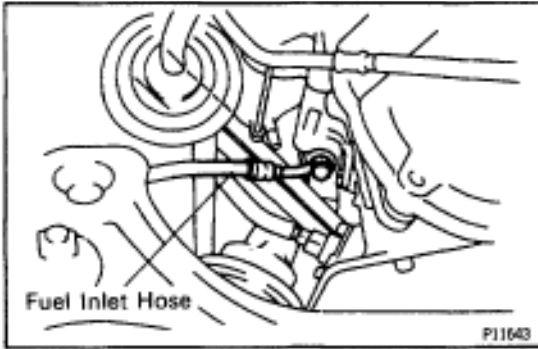
- (f) Disconnect the wire clamp and PS solenoid valve connector.



- (g) Remove the bolt and disconnect the ground strap from the cylinder block.



- (h) Disconnect the starter wire from the LH engine mounting bracket.
- (i) Remove the rubber cap and nut, and disconnect the starter wire.



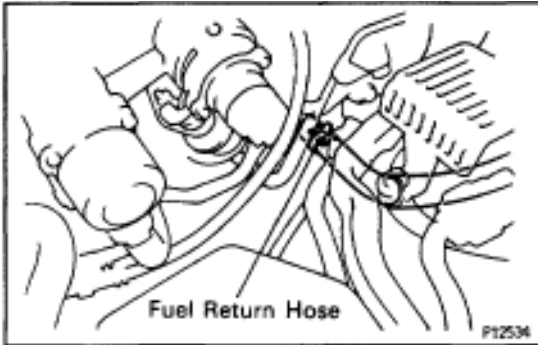
**15. DISCONNECT FUEL HOSES**

- (a) Remove the union bolt and 2 gaskets, and disconnect the fuel inlet hose.

HINT:

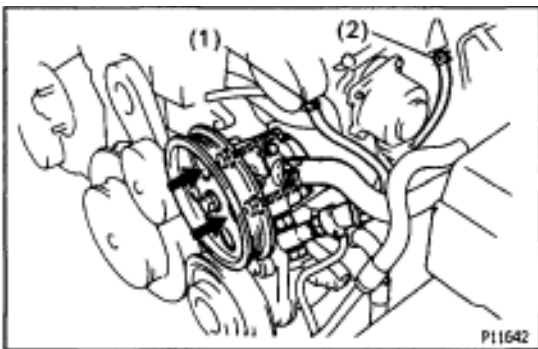
- Put a suitable container or shop rag under the fuel pipe support.
- Slowly loosen the union bolt.

- (b) Suspend the hose union end upward.



- (c) Disconnect the fuel return hose from the clamp of the dipstick guide.

- (d) Disconnect the fuel return hose from the fuel return pipe. Plug the hose end.



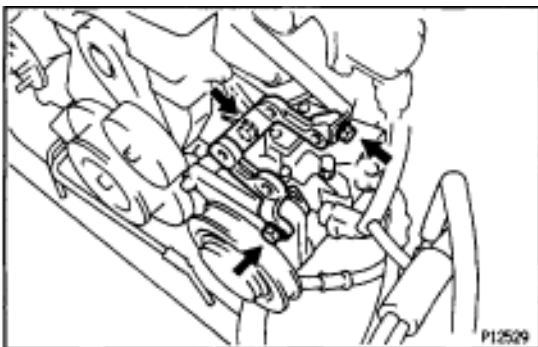
**16. DISCONNECT PS PUMP WITHOUT DISCONNECTING HOSES**

- (a) Disconnect these hoses:

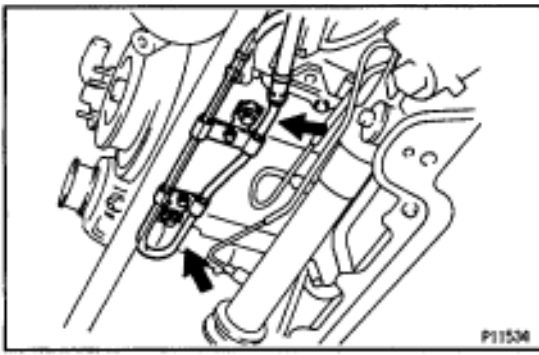
- (1) Air hose from throttle body
- (2) Air hose from air intake chamber

- (b) Remove the 2 bolts, and disconnect the pump housing from the pump bracket.

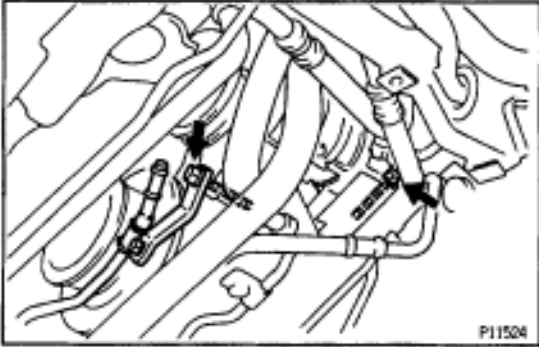
HINT: Put aside the pump housing, and suspend it securely.



- (c) Remove the 3 bolts and pump bracket.

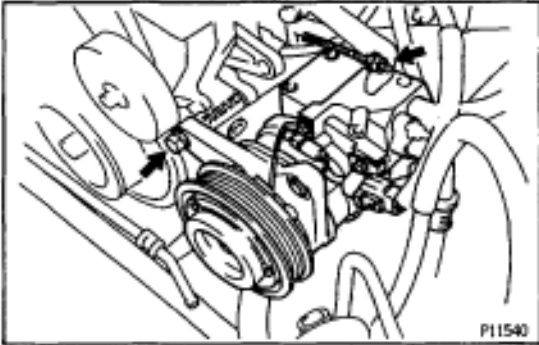


- 17. DISCONNECT PS PRESSURE TUBE FROM ENGINE**  
Remove the 2 clamp bolts and disconnect the pressure tube.



- 18. DISCONNECT A/C COMPRESSOR WITHOUT DISCONNECTING HOSES**

(a) Remove the 2 bolts.

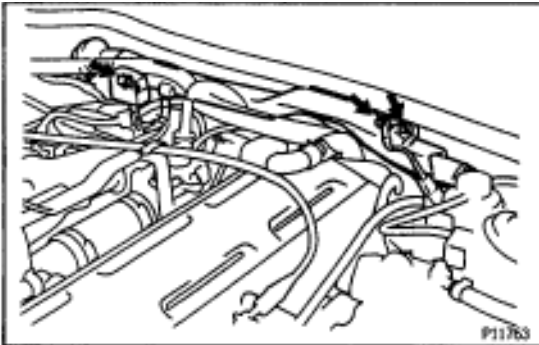


(b) Disconnect the compressor connector.

(c) Remove the bolt and nut.

(d) Using a torx socket (E10), remove the stud bolt, and disconnect the compressor from the engine.

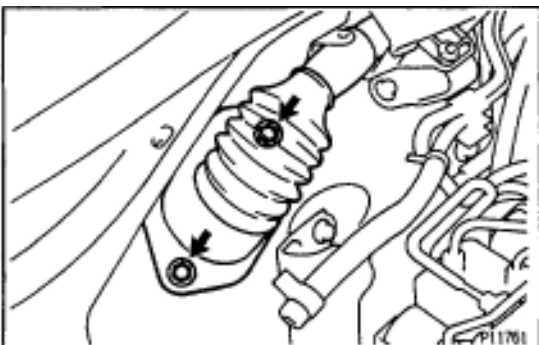
HINT: Put aside the compressor, and suspend it securely.



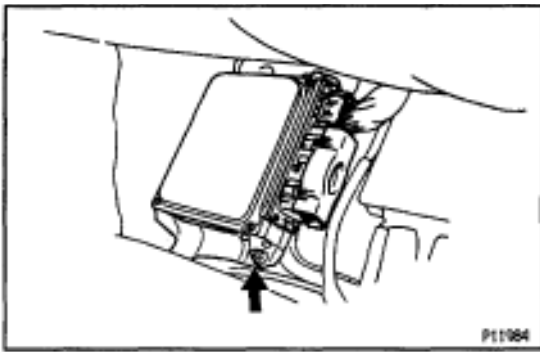
- 19. DISCONNECT ENGINE WIRE FROM COWL PANEL**

(a) Remove the bolt, and disconnect the ground strap.

(b) Remove the 2 bolts, and disconnect the engine wire protector.

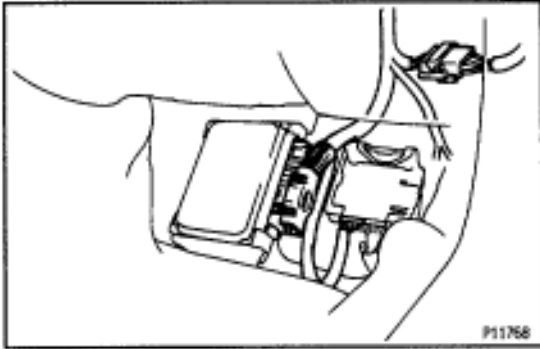


(c) Remove the 2 bolts holding the engine wire retainer to the cowl panel.

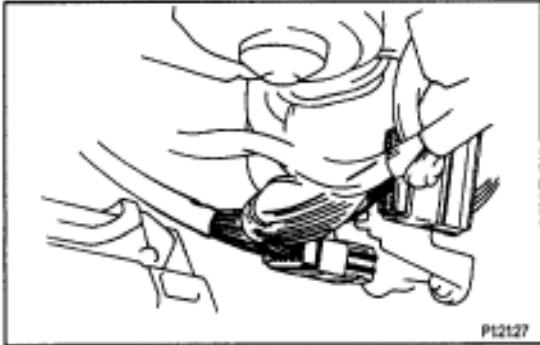


## 20. DISCONNECT ENGINE WIRE FROM CABIN

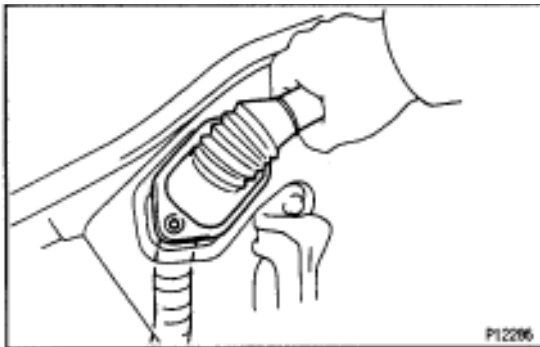
- (a) Remove the scuff plate.
- (b) Take out the front side of the floor carpet.
- (c) Remove the 2 nuts and ECM protector.
- (d) Remove the nut, and disconnect the ECM from the floor panel.



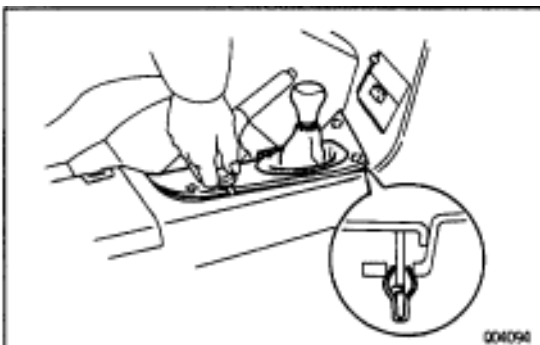
- (e) Disconnect the 2 connectors from the ECM.
- (f) Disconnect the connector from the TRAC ECU.
- (g) Disconnect the connector from the instrument panel wire.



- (h) Disconnect the connectors from the connector cassette.



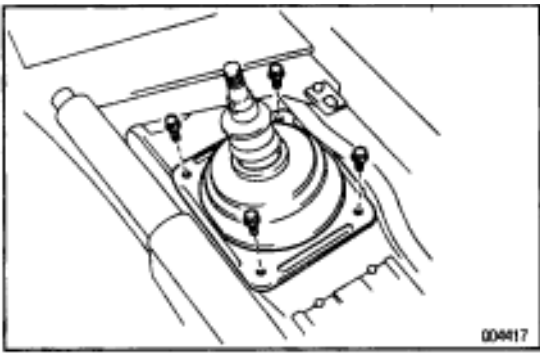
- (i) Pull out the engine wire from the cabin.



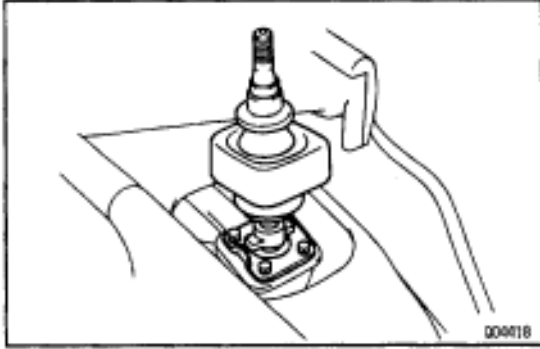
## 21. M/T:

### REMOVE UPPER CONSOLE PANEL, SHIFT LEVER BOOTS AND HOLDING BOLTS

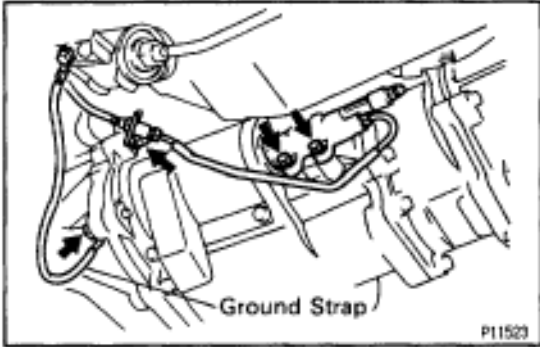
- (a) Remove the shift lever knob.
- (b) Using a screwdriver, pry out the upper console panel.



- (c) Remove the 4 bolts holding the lever boot to the transmission cover.
- (d) Remove the shift & select lever boots.

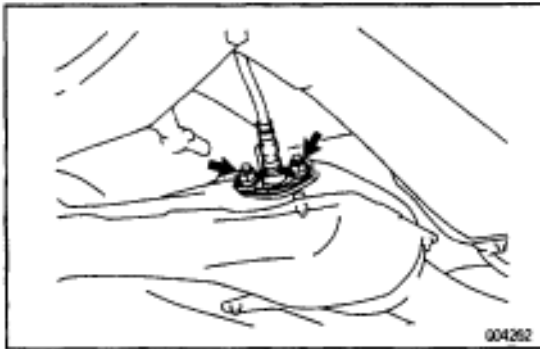


- (e) Remove the 4 bolts holding the shift lever to the shift lever retainer.



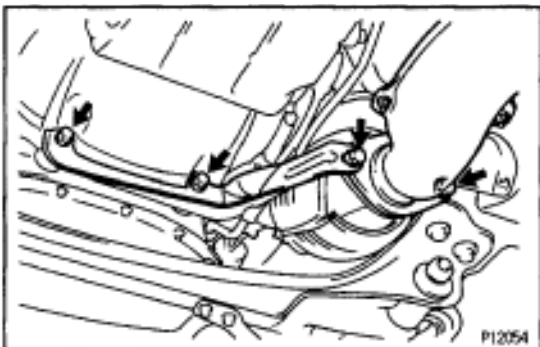
**22. M/T:  
DISCONNECT CLUTCH RELEASE CYLINDER AND  
GROUND STRAP FROM TRANSMISSION**

- (a) Remove the 2 bolts, and disconnect clutch release cylinder.
- (b) Remove the bolt, and disconnect the clutch line tube.
- (c) Remove the bolt, and disconnect ground strap.



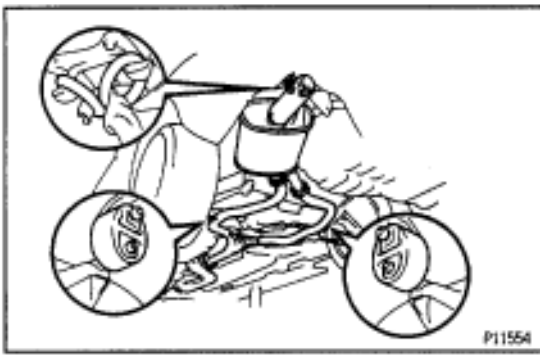
**23. DISCONNECT SUB HEATED OXYGEN SENSOR FROM  
FRONT EXHAUST PIPE**

Remove the 2 nuts and sensor cover, and disconnect oxygen sensor and gasket.



**24. REMOVE EXHAUST PIPE ASSEMBLY**

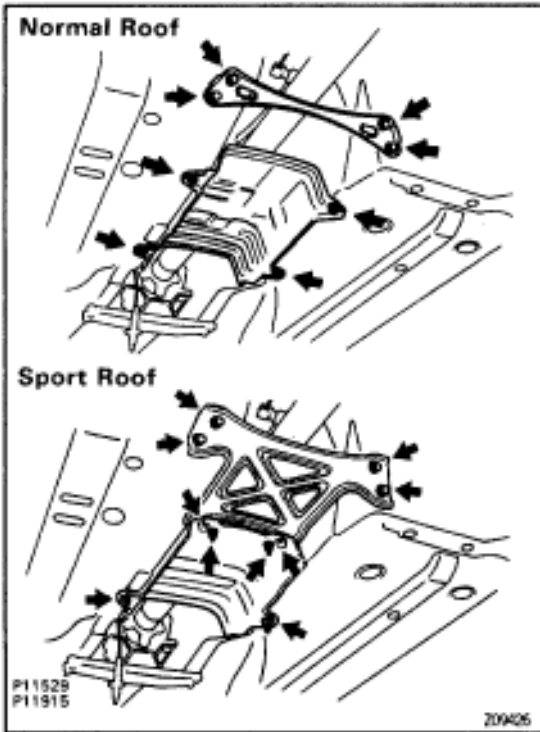
- (a) Remove the 2 bolts and nuts holding the front exhaust pipe to the No.2 front exhaust pipe.
- (b) Remove the 2 bolts and pipe support bracket.
- (c) Remove the gasket, and disconnect the front exhaust pipe.



- (d) Disconnect the hook of the tailpipe from the 2 rings.
- (e) Disconnect the 2 rings on the exhaust pipe from the exhaust pipe brackets, and remove the exhaust pipe assembly.



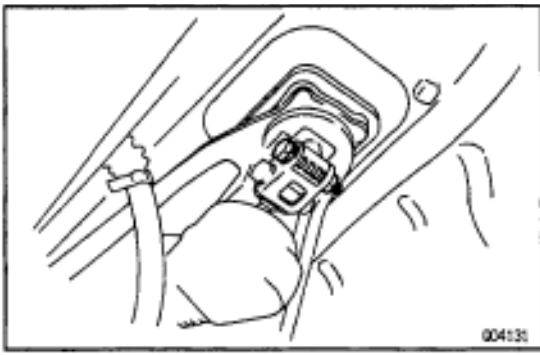
- 25. REMOVE NO.2 FRONT EXHAUST PIPE**  
Remove the 3 nuts, front exhaust pipe and gasket.



- 26. REMOVE EXHAUST PIPE HEAT INSULATOR**  
Remove the 4 nuts and heat insulator.
- 27. REMOVE REAR CENTER FLOOR CROSSMEMBER BRACE**  
Remove the 4 bolts (Normal roof) or 6 bolts (Sport Roof) and crossmember brace.
- 28. REMOVE PROPELLER SHAFT**  
(See propeller shaft removal in Propeller Shaft)



- 29. A/T:**  
**DISCONNECT TRANSMISSION CONTROL ROD**  
Remove the nut, and disconnect the control rod from the shift lever.

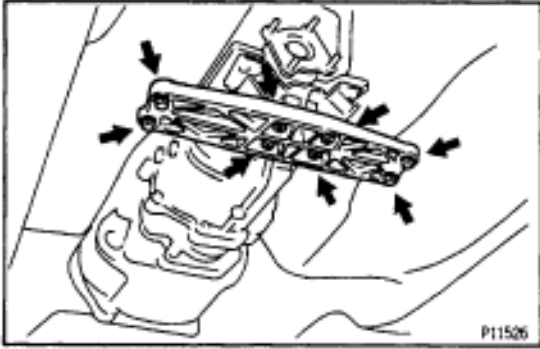


**30. M/T:  
REMOVE TRANSMISSION SHIFT LEVER**

- (a) Remove the bolt and nut.
- (b) Remove the transmission shift lever, inside of vehicle.

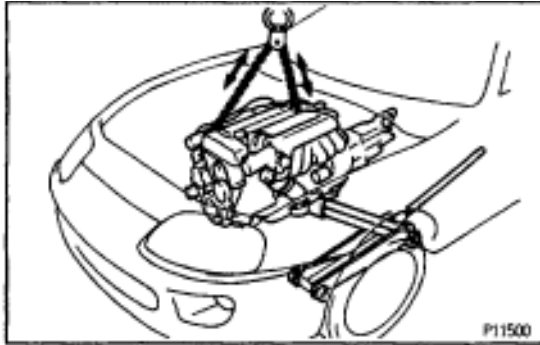
**31. PLACE JACK UNDER TRANSMISSION**

**NOTICE (A/T):** Be sure to put a wooden block between the jack and the transmission oil pan to prevent damage.



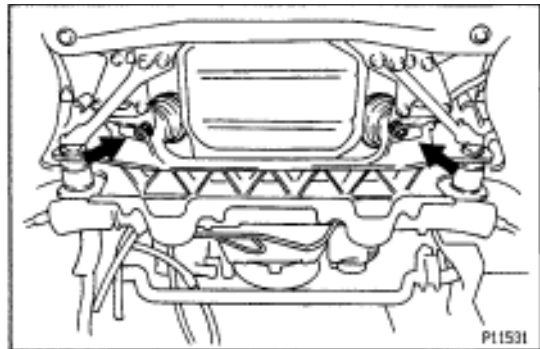
**32. REMOVE REAR SUPPORT MEMBER**

- (a) Remove the 4 nuts holding the member to the engine rear mounting insulator.
- (b) Remove the 4 bolts and rear support member.

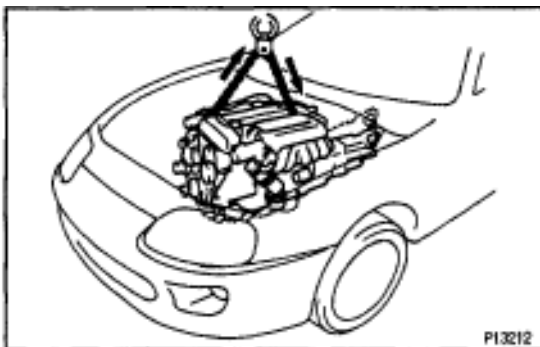


**33. REMOVE ENGINE AND TRANSMISSION ASSEMBLY FROM VEHICLE**

- (a) Attach the engine hoist chain to the 2 engine hangers.



- (b) Remove the 2 nuts holding the engine front mounting insulators to the front suspension crossmember.

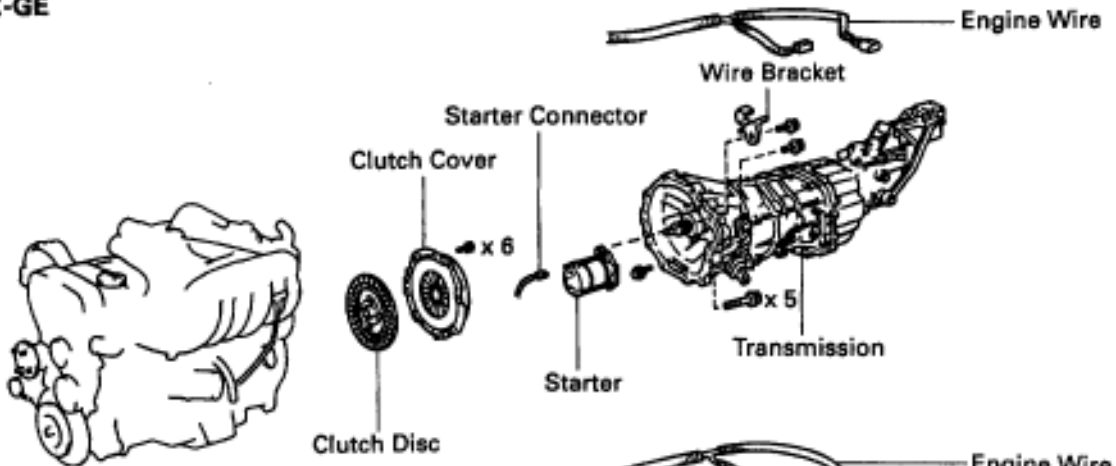


- (c) Lift the engine out of the vehicle slowly and carefully.  
**NOTICE:** Remove the engine and transmission assembly carefully without damaging the shift lever retainer (M/ T), A/C compressor or PS solenoid valve
- (d) Make sure the engine is clear of all wiring, hoses and cables.
- (e) Place the engine and transmission assembly onto the stand.

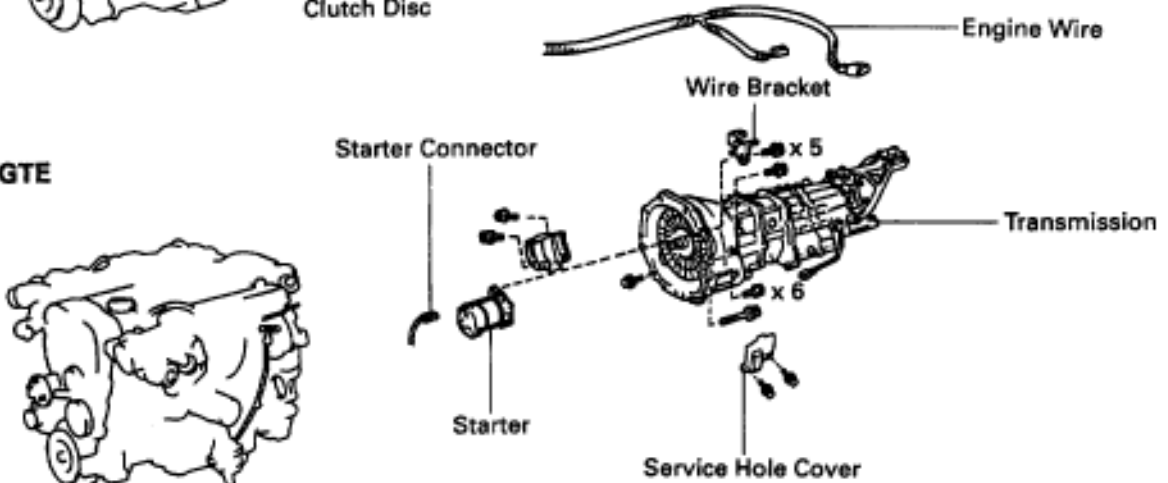


# COMPONENTS FOR ENGINE & TRANSMISSION SEPERATION AND ASSEMBLY

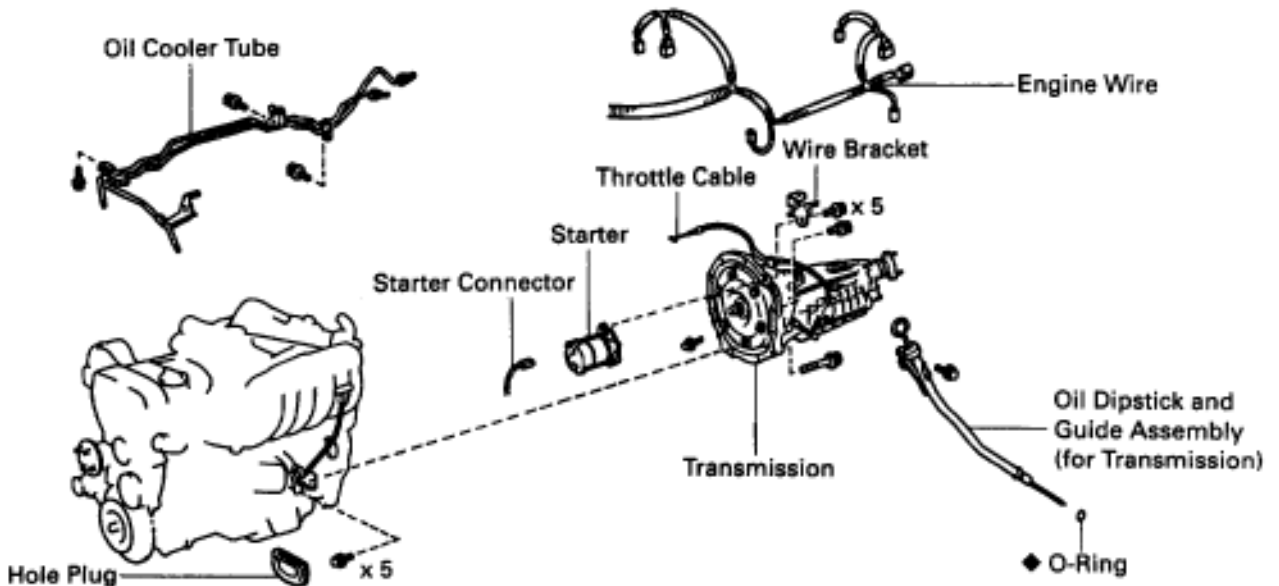
## M/T 2JZ-GE



## M/T 2JZ-GTE

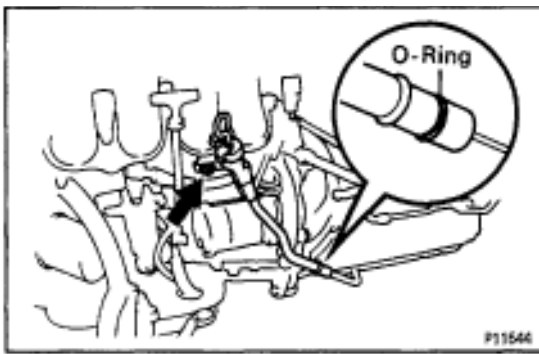


## A/T



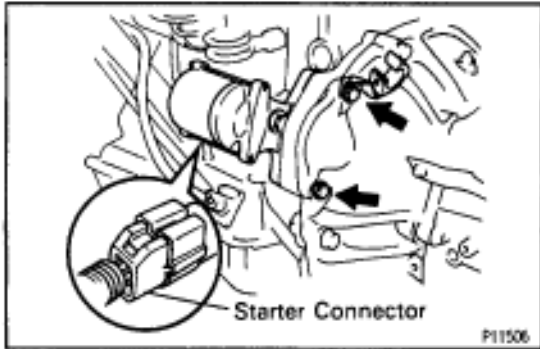
◆ Non-reusable part

# ENGINE & TRANSMISSION SEPARATION



## 1. A/T: REMOVE OIL DIPSTICK GUIDE FOR TRANSMISSION

- (a) Remove the bolt.
- (b) Pull out the dipstick and guide from the transmission.
- (c) Remove the O-ring from the dipstick guide.

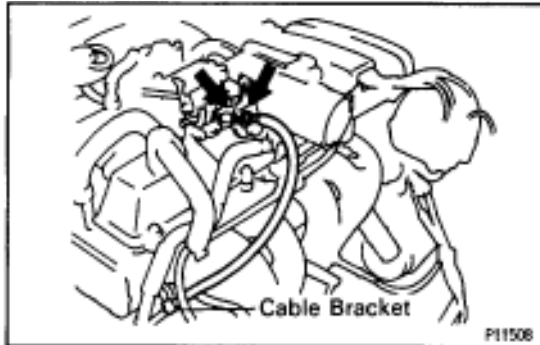


## 2. DISCONNECT ENGINE WIRE FROM TRANSMISSION

- (a) Disconnect the connectors.
- (b) Disconnect the wire clamps from the brackets.

## 3. REMOVE STARTER

- (a) Disconnect the starter connector.
- (b) Remove the 2 bolts, engine wire bracket and starter.



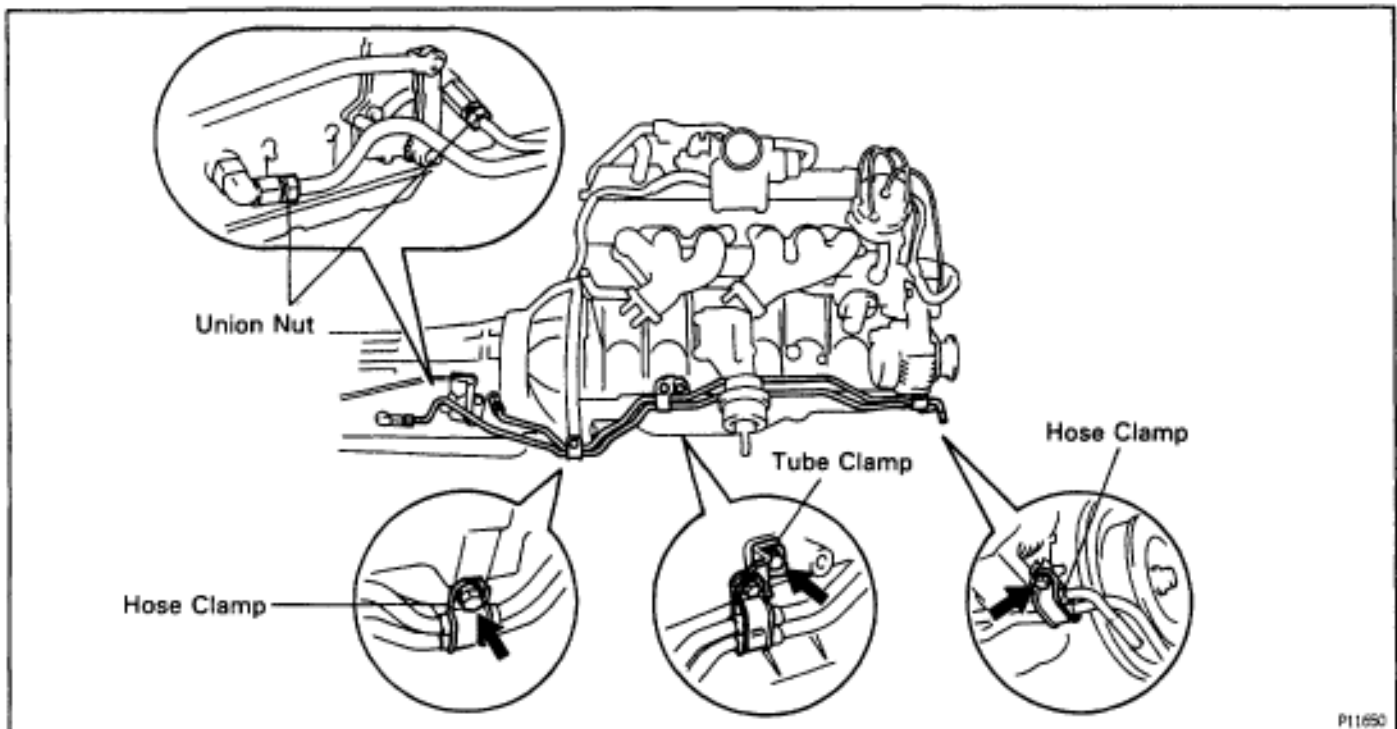
## 4. 2JZ-GE A/T: DISCONNECT THROTTLE CABLE

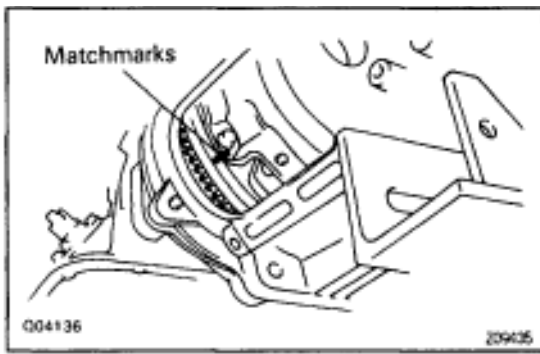
- (a) Disconnect the throttle cable from the throttle body.
- (b) Disconnect the throttle cable from the cable bracket on the cylinder head.

## 5. A/T:

### REMOVE OIL COOLER TUBES FOR TRANSMISSION

- (a) Remove the 2 hose clamp bolts and tube clamp bolt.
- (b) Loosen the 2 union nuts, and remove the oil cooler tubes.

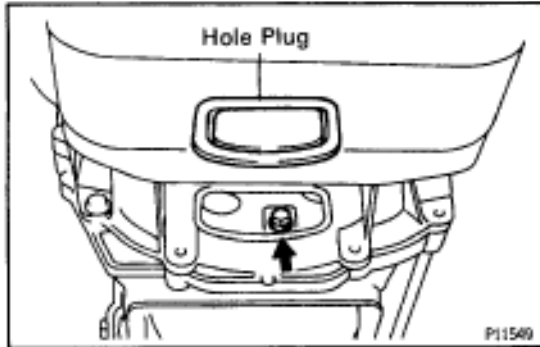




## 6. 2JZ-GTE M/T:

### REMOVE CLUTCH COVER SET BOLTS

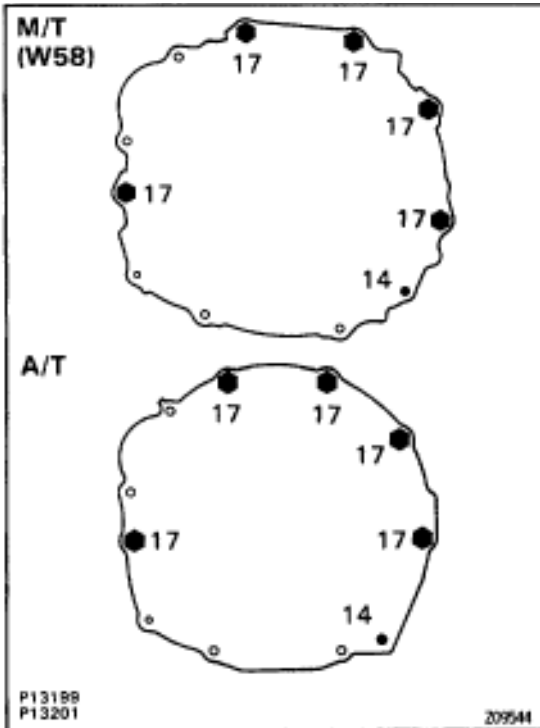
- Remove the 2 bolts and service hole cover.
- Place the matchmarks on the flywheel and clutch cover.
- Remove the 6 bolts.



## 7. A/T:

### REMOVE TORQUE CONVERTER CLUTCH MOUNTING BOLTS

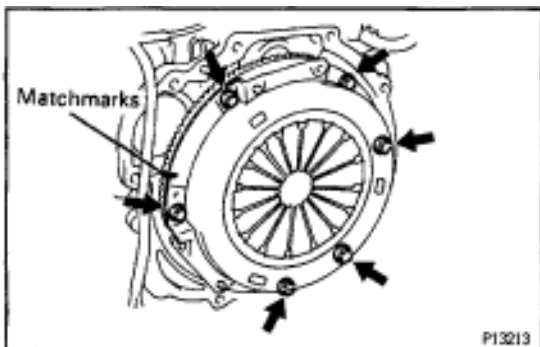
- Remove the hole plug.
- Turn the crankshaft to gain access to each bolt. Remove the 6 bolts.



## 8. SEPARATE ENGINE AND TRANSMISSION

Remove the 6 bolts and transmission.

HINT: The "17" is 17 mm head bolt, and "14" is 14 mm head bolt.



## 9. 2JZ-GE M/T:

### REMOVE CLUTCH COVER AND DISC

- Place matchmarks on the flywheel and clutch cover.
- Loosen each bolt one turn at a time until spring tension is released.
- Remove the bolts, and pull off the clutch cover with the clutch disc.

**NOTICE:** Do not drop the clutch disc.