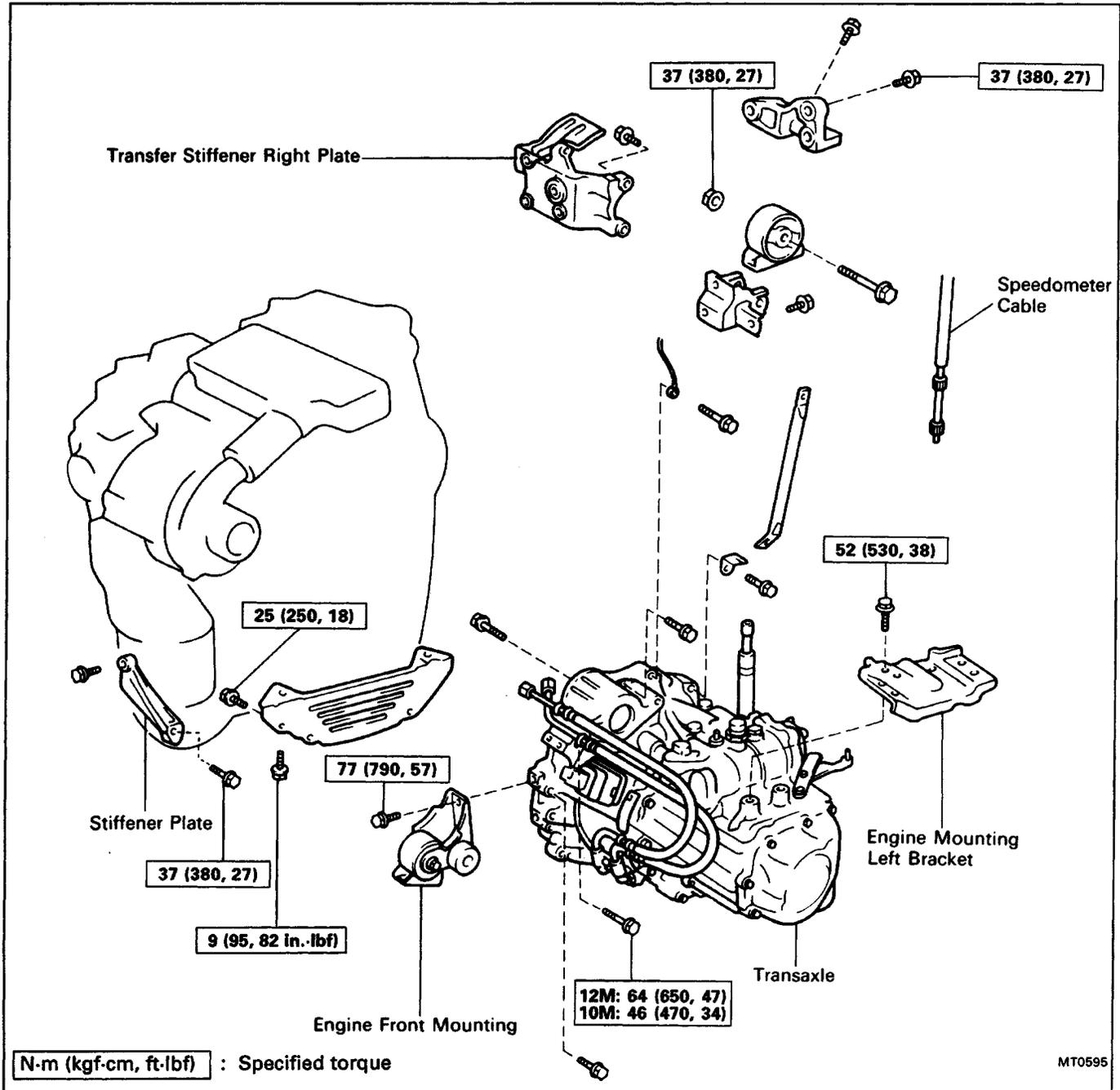


REMOVAL AND INSTALLATION OF TRANSAXLE (4WD)

REMOVAL AND INSTALLATION OF TRANSAXLE

REMOVE AND INSTALL TRANSAXLE AS SHOWN



REMOVAL OF TRANSAXLE

1. DISCONNECT CABLE FROM NEGATIVE TERMINAL OF BATTERY

CAUTION: Work must be started after approx. 20 seconds or longer from the time the ignition switch is turned to the "LOCK" position and the negative (-) terminal cable is disconnected from the battery.

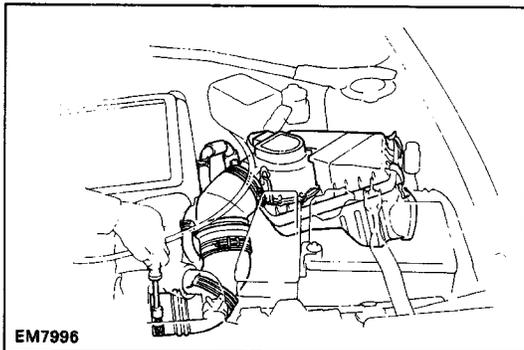
2. REMOVE HOOD

3. REMOVE ENGINE UNDER COVERS

4. DRAIN ENGINE COOLANT

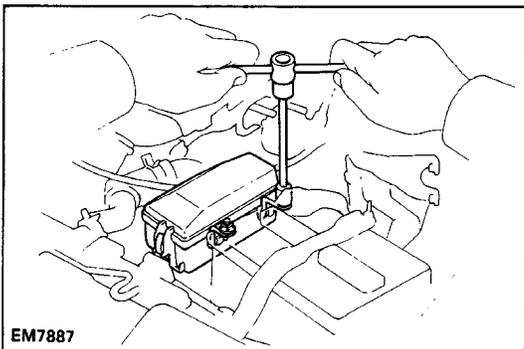
5. DRAIN ENGINE OIL

6. DRAIN TRANSAXLE OIL



7. REMOVE AIR CLEANER ASSEMBLY

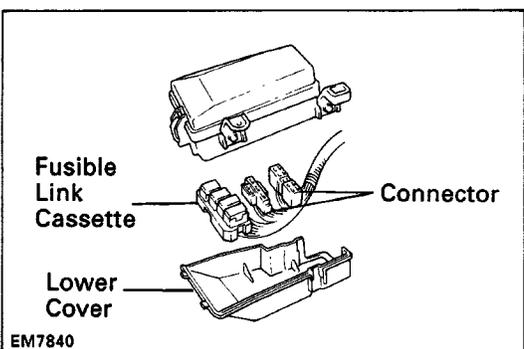
- (a) Disconnect the air flow meter connector.
- (b) Disconnect the four air cleaner cap clips.
- (c) Disconnect the following hoses:
 - (1) Air cleaner hose from turbocharger
 - (2) PCV hose from cylinder head cover
 - (3) Air hose from air tube
- (d) Remove the air cleaner cap, air flow meter assembly and element.
- (e) Remove the three bolts and air cleaner case.



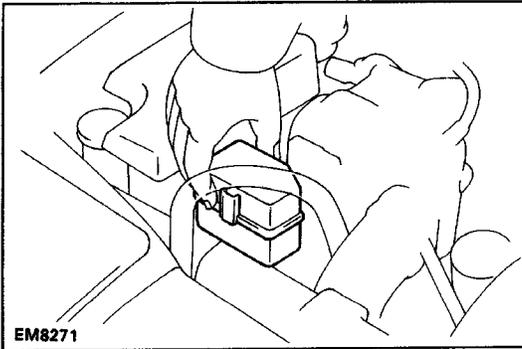
8. DISCONNECT ACCELERATOR CABLE FROM THROTTLE BODY

9. REMOVE ENGINE RELAY BOX, AND DISCONNECT ENGINE WIRE CONNECTORS

- (a) Remove the two nuts, and disconnect the relay box from the battery.



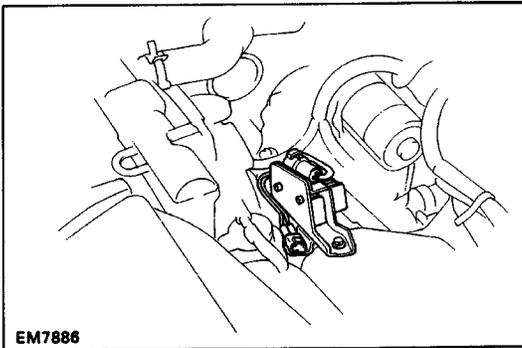
- (b) Remove the lower cover from the relay box.
- (c) Disconnect the fusible link cassette and two connectors of the engine wire from the relay box.



10. REMOVE A/C RELAY BOX FROM BRACKET

Remove the A/C relay box from the bracket.

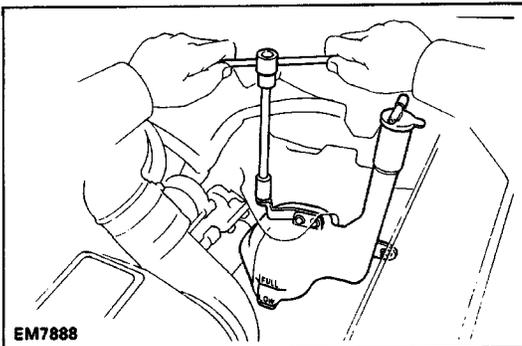
11. REMOVE BATTERY



12. REMOVE INJECTOR SOLENOID RESISTOR AND FUEL PUMP RESISTOR

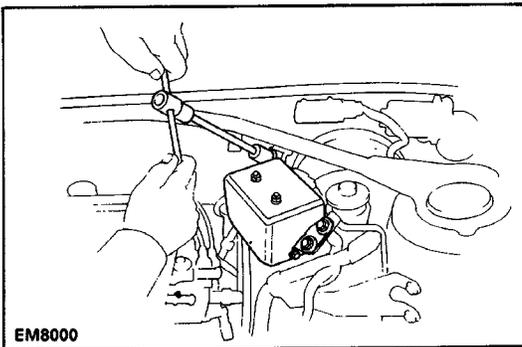
- (a) Disconnect the two connectors.
- (b) Remove the bolt, the solenoid resistor and fuel pump resistor assembly.

13. REMOVE RADIATOR



14. REMOVE RADIATOR RESERVOIR TANK

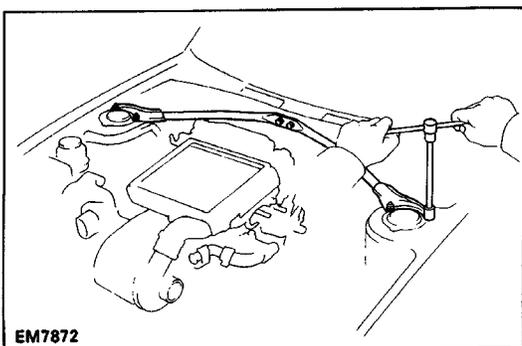
Remove the two nuts and reservoir tank.



15. (w/ CRUISE CONTROL SYSTEM)

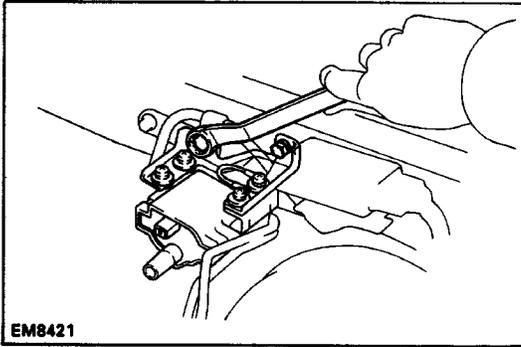
REMOVE CRUISE CONTROL ACTUATOR

- (a) Remove the two nuts and actuator cover.
- (b) Remove the three bolts, and disconnect the actuator.
- (c) Disconnect the actuator connector.
- (d) Disconnect the cable from the actuator.



16. REMOVE SUSPENSION UPPER BRACE

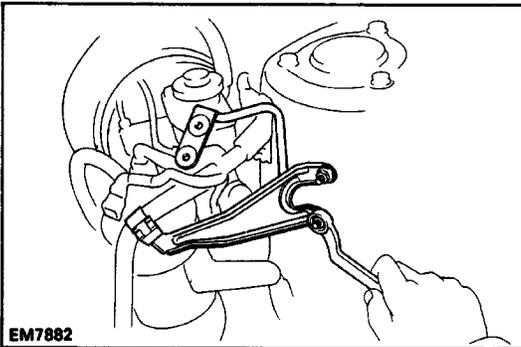
- (a) Remove the two wiper arms.
- (b) Remove the outside lower windshield moulding.
- (c) Remove the two bolts, four nuts and upper brace.

**17. REMOVE IGNITION COIL**

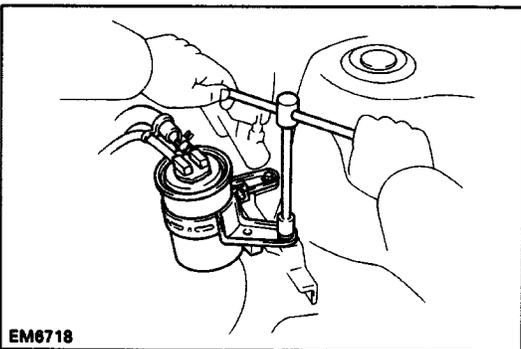
- (a) Disconnect the ignition coil connector.
- (b) Disconnect the high-tension cord.
- (c) Remove the two bolts and ignition coil.

18. DISCONNECT WIRES AND CONNECTORS

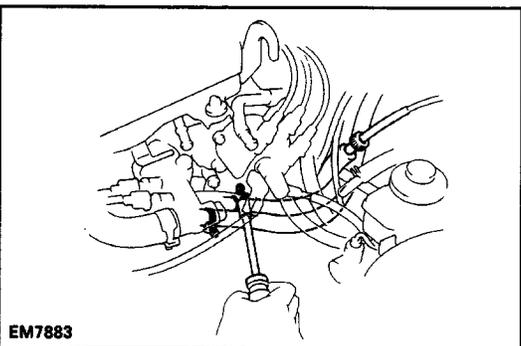
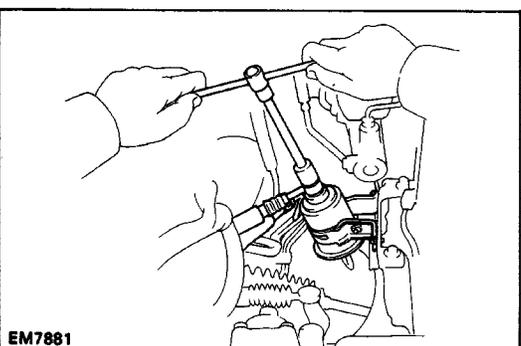
- (a) Check connector.
- (b) Igniter connector.
- (c) Ground strap from LH fender apron.

**19. REMOVE ENGINE WIRE BRACKET**

- (a) Disconnect the wire clamp from the wire bracket.
- (b) Remove the two bolts and wire bracket.

**20. REMOVE CHARCOAL CANISTER**

- (a) Disconnect the two vacuum hoses from the charcoal canister.
- (b) Remove the two bolts and charcoal canister.

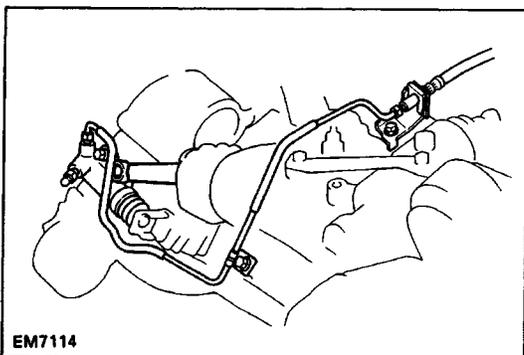
**21. DISCONNECT HEATER HOSES****22. DISCONNECT SPEEDOMETER CABLE****23. DISCONNECT FUEL HOSES**

CAUTION: Catch leaking fuel in a container.

24. DISCONNECT CONNECTORS

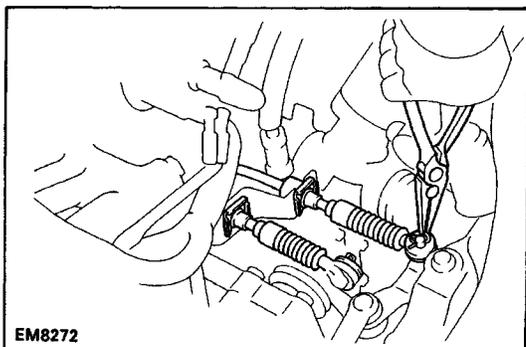
- (a) Engine room wire connector.
- (b) Noise filter connector.

25. REMOVE STARTER

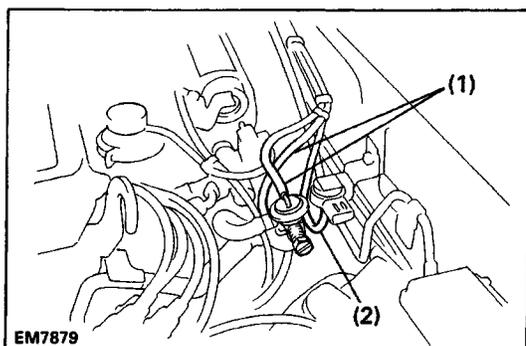


26. REMOVE CLUTCH RELEASE CYLINDER WITHOUT DISCONNECTING TUBE

Remove the four bolts, release cylinder and tube from the transaxle.

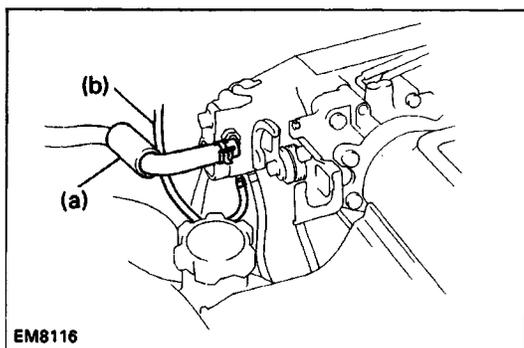


27. DISCONNECT TRANSAXLE CONTROL CABLES FROM TRANSAXLE



28. DISCONNECT TURBOCHARGING PRESSURE SENSOR AND A/C ASV FROM BODY

- (a) Disconnect the turbocharging pressure sensor.
- (b) Disconnect the following hoses:
 - (1) Two vacuum hoses from A/C ASV
 - (2) Vacuum hose from turbocharging pressure sensor
- (c) Remove the bolt, and disconnect the turbocharging pressure sensor and A/C ASV from the body. 1



29. DISCONNECT HOSES

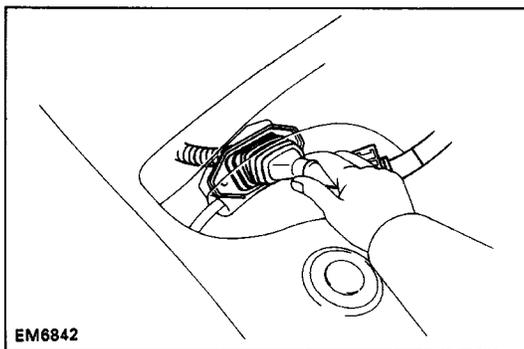
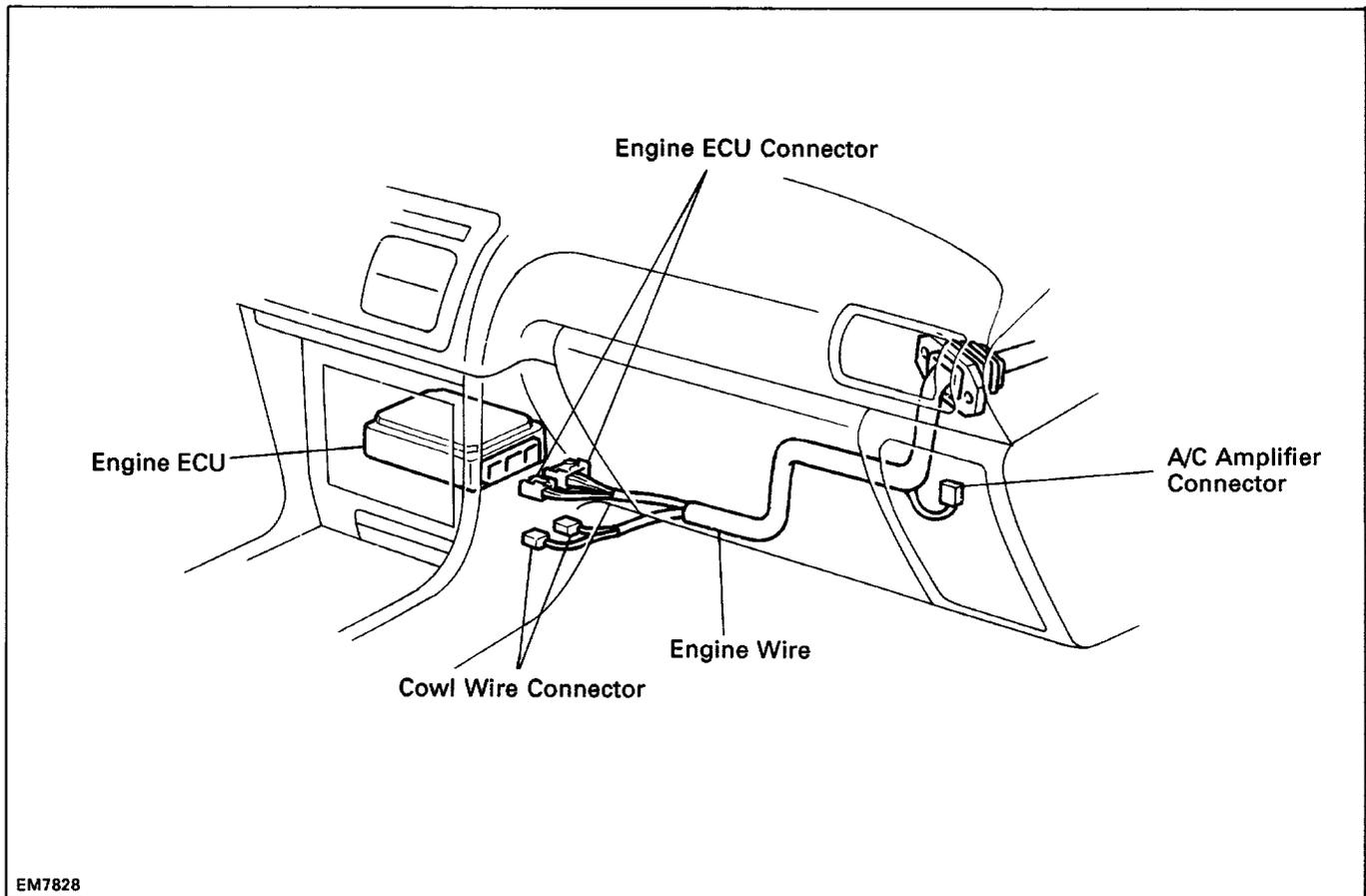
- (a) Brake booster vacuum hose from intake manifold.
- (b) Turbocharging pressure sensor hose from intake manifold.

30. DISCONNECT ENGINE WIRE

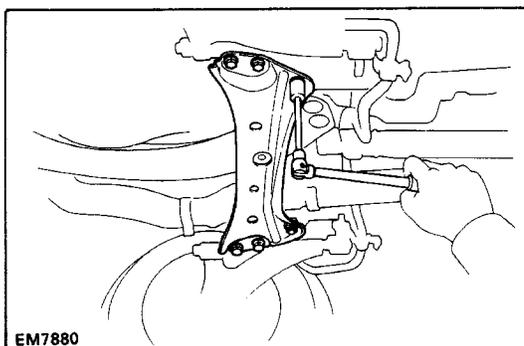
- (a) Engine wire clamp from wire bracket on RH fender apron.
- (b) Two cowl wire connectors.

31. DISCONNECT ENGINE WIRE FROM CABIN

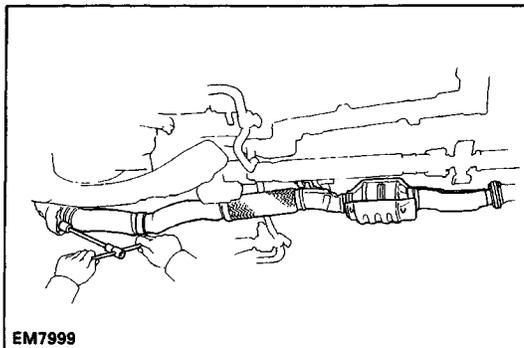
- (a) Disconnect the following connectors:
- (1) Two engine ECU connectors
 - (2) Two cowl wire connectors
 - (3) A/C amplifier connector



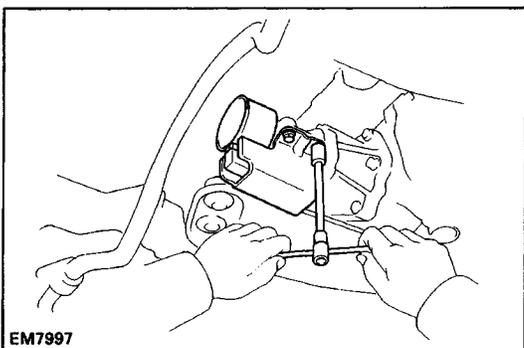
- (b) Remove the two nuts, and pull out the engine wire from the cowl panel.

**32. REMOVE SUSPENSION LOWER CROSSMEMBER**

Remove the four bolts, two nuts and lower cross-member.

**33. REMOVE FRONT EXHAUST PIPE**

- (a) Loosen the bolt, and disconnect the clamp from the bracket.
- (b) Remove the two bolts and nuts holding the front exhaust pipe to the center exhaust pipe.
- (c) Using a 14 mm deep socket wrench, remove the three nuts holding the front exhaust pipe to the catalytic converter.
- (d) Disconnect the support hook on the front exhaust pipe from the support bracket, and remove the front exhaust pipe and two gaskets.

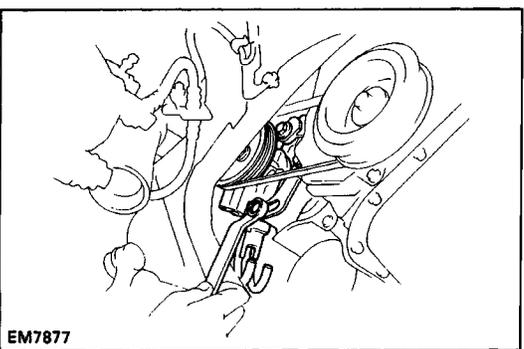
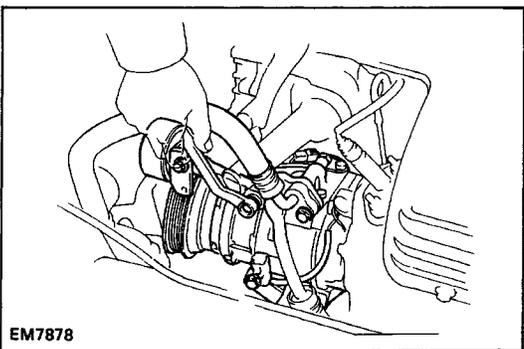
**34. REMOVE DRIVE SHAFTS (See page SA-33)****35. REMOVE FRONT PROPELLER SHAFT**

(See page PR-3)

36. REMOVE DEFLECTOR FROM TRANSFER EXTENSION HOUSING**37. REMOVE DYNAMIC DAMPER FROM TRANSFER EXTENSION HOUSING****38. REMOVE ALTERNATOR****39. REMOVE IDLER PULLEY BRACKET AND A/C****COMPRESSOR WITHOUT DISCONNECTING HOSES**

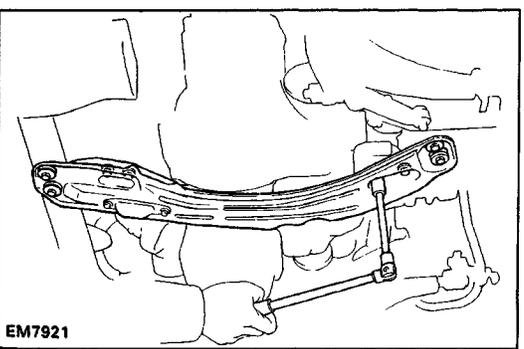
- (a) Disconnect the A/C compressor connector.
- (b) Remove the four bolts and idler pulley bracket, and disconnect the A/C compressor.

HINT: Put aside the compressor, and suspend it to the radiator support with a string.

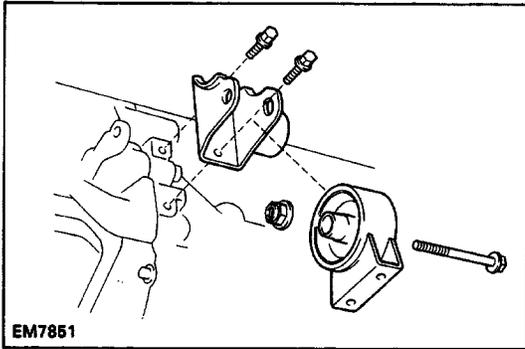
**40. REMOVE PS PUMP WITHOUT DISCONNECTING HOSES**

- (a) Disconnect the two air hoses from the air pipe.
- (b) Remove the PS drive belt.
- (c) Remove the four bolts, and disconnect the PS pump from the engine.

HINT: Put aside the pump and suspend it to the cowl with a string.

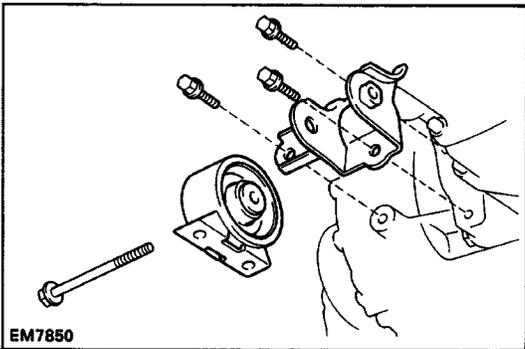
**41. REMOVE ENGINE MOUNTING CENTER MEMBER**

Remove the eight bolts and center-member.



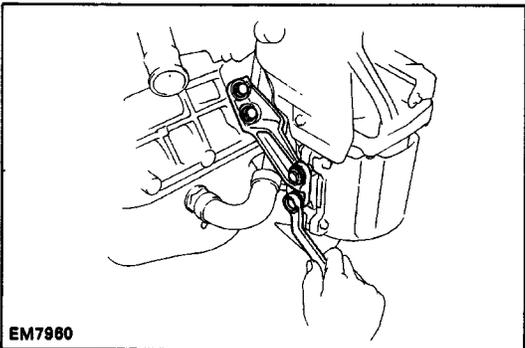
42. REMOVE FRONT ENGINE MOUNTING INSULATOR AND BRACKET

- (a) Remove the through bolt, nut and mounting insulator.
- (b) Remove the two bolts and mounting bracket.



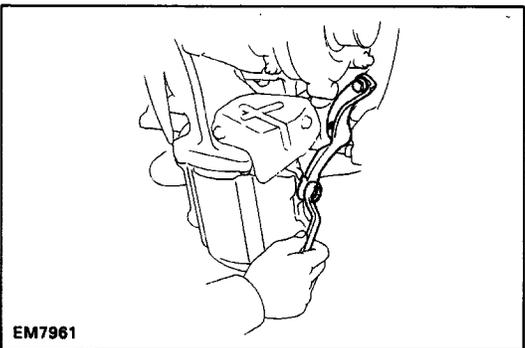
43. REMOVE REAR ENGINE MOUNTING INSULATOR AND BRACKET

- (a) Remove the through bolt and mounting insulator.
- (b) Remove the three bolts and mounting bracket.

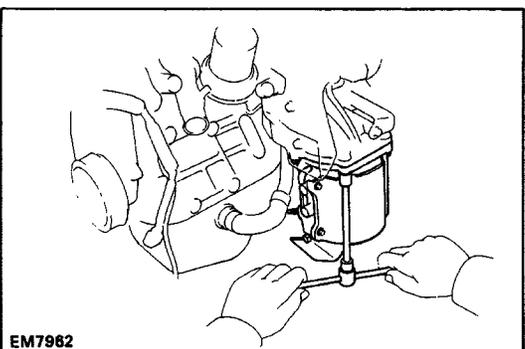


44. REMOVE CATALYTIC CONVERTER

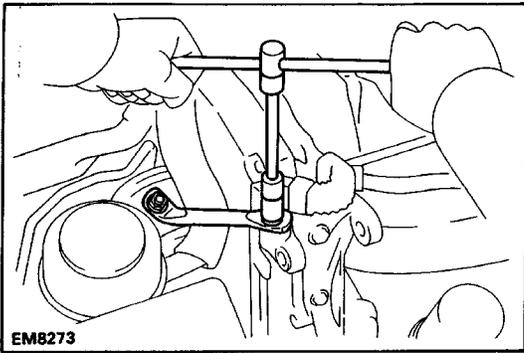
- (a) Remove the four bolts and RH converter stay.



- (b) Remove the three bolts and LH converter stay.

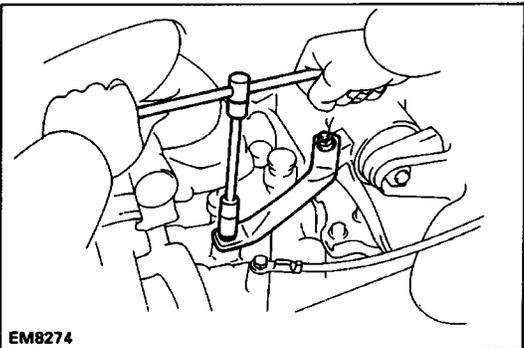


- (c) Remove the three bolts, two nuts, catalytic converter, cushion, retainer and gasket.



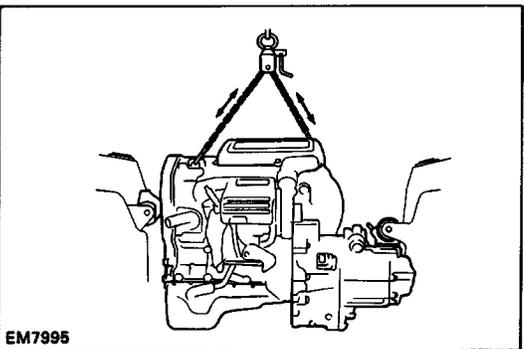
45. REMOVE RH ENGINE MOUNTING STAY

Remove the bolt, nut and mounting stay.



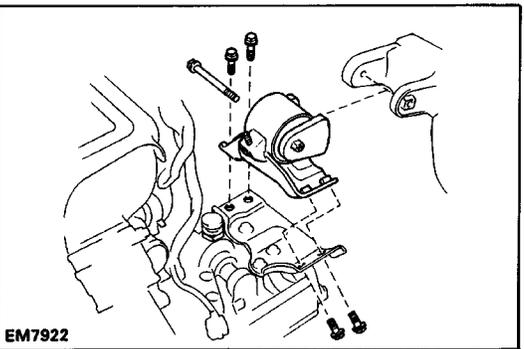
46. REMOVE LH ENGINE MOUNTING STAY

- (a) Remove the bolt, nut and mounting stay.
- (b) Remove the bolt, and disconnect the ground strap.

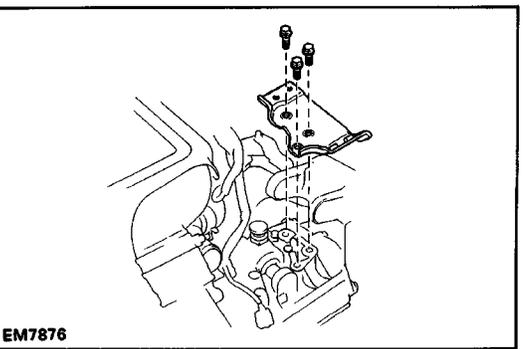


47. REMOVE ENGINE AND TRANSAXLE ASSEMBLY FROM VEHICLE

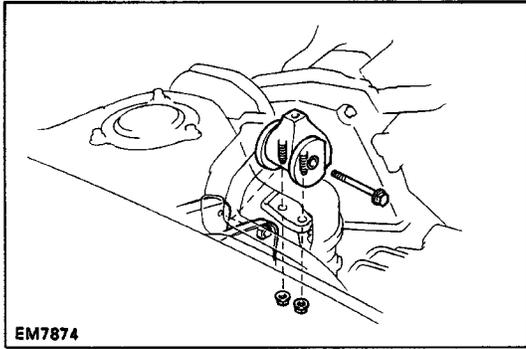
- (a) Attach the engine chain hoist to the engine hangers.



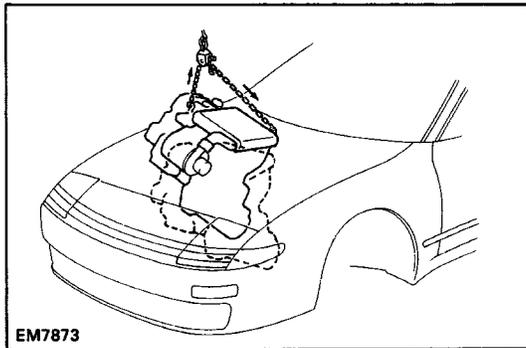
- (b) Remove the through bolt, four bolts and LH mounting insulator.



- (c) Remove the three bolts and LH mounting bracket.



(d) Remove the through bolt, two nuts and RH mounting insulator.

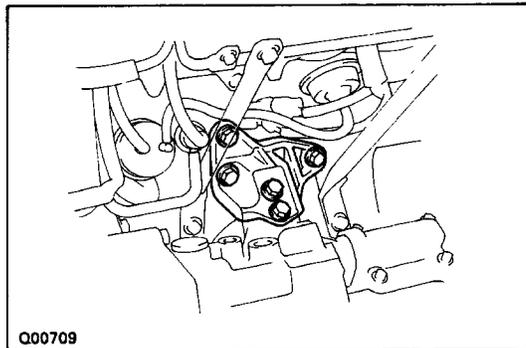


(e) Lift the engine out of the vehicle slowly and carefully.

NOTICE: Be careful not to hit the PS gear housing.

(f) Make sure the engine is clear of all wiring, hoses and cables.

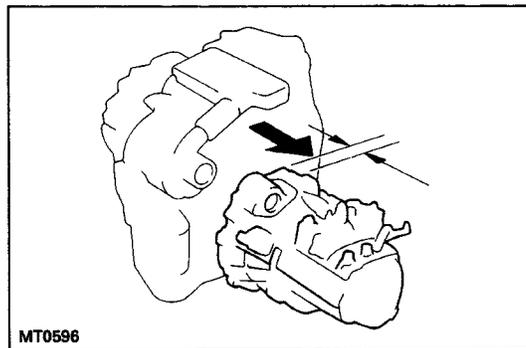
(g) Place the engine and transaxle assembly onto the stand.



48. REMOVE TRANSFER STIFFENER RIGHT PLATE

49. REMOVE TRANSFER STIFFENER PLATE

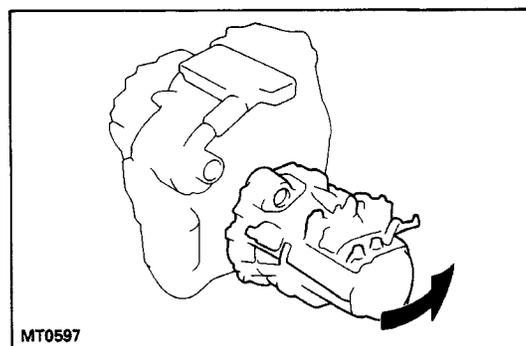
50. REMOVE STIFFENER PLATE



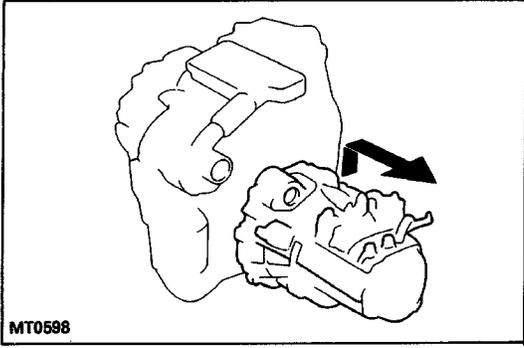
51. REMOVE TRANSAXLE ASSEMBLY

(a) Remove the transaxle mounting bolts from the engine.

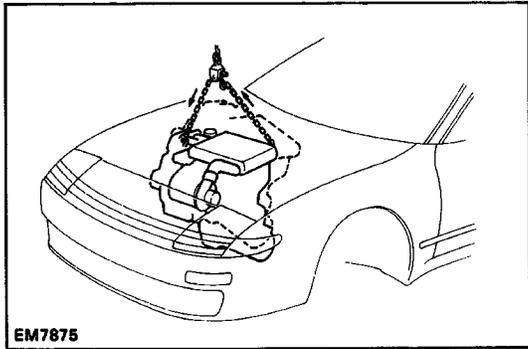
(b) Pull straight until there are space of 60–80 mm (2–3 in.) between engine and transaxle case.



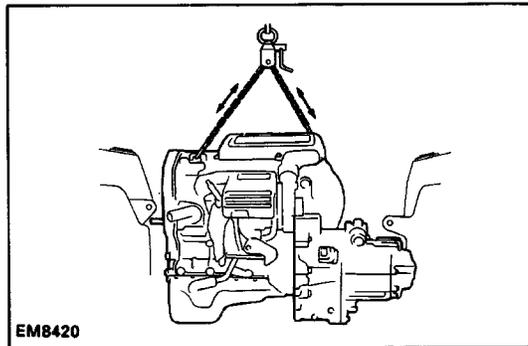
(c) Move the transmission case cover to the arrow in the illustration.



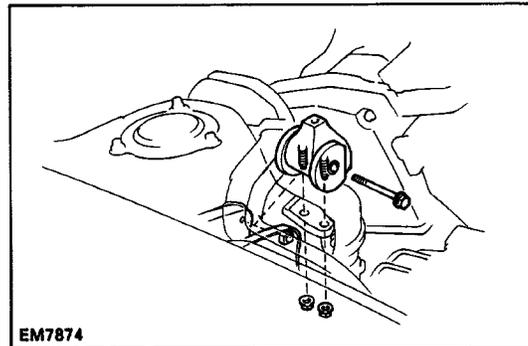
(d) While holding transfer output slightly, pull out whole transaxle.



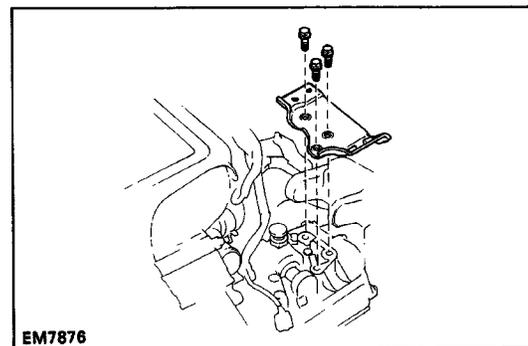
EM7875



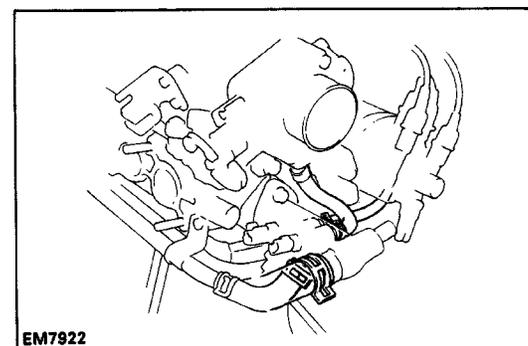
EM8420



EM7874



EM7876



EM7922

INSTALLATION OF TRANSAXLE

1. INSTALL TRANSAXLE ASSEMBLY FOLLOWING REMOVAL SEQUENCE IN REVERSE

(See page [MT-112](#))

2. INSTALL ENGINE AND TRANSAXLE ASSEMBLY IN VEHICLE

- (a) Attach the engine chain hoist to the engine hangers.
 - (b) Lower the engine into the engine compartment.
Tilt the transaxle downward, lower the engine and clear the LH mounting.
- NOTICE: Be careful not to hit the PS gear housing.**
- (c) Keep the engine level, and align RH and LH mounting with the body bracket.

(d) Attach the RH mounting insulator to the mounting bracket and body, and temporarily install the through bolt and two nuts.

(e) Install the LH mounting bracket to the transaxle case with the three bolts.

Torque: 52 N-m (530 kgf-cm, 38 ft-lbf)

(f) Attach the LH mounting insulator to the mounting bracket and body with the through bolt and four bolts. Tighten the bolts.

Torque:

Bolt 63 N-m (650 kgf-cm, 47 ft-lbf)

Through bolt 87 N-m (890 kgf-cm, 64 ft-lbf)

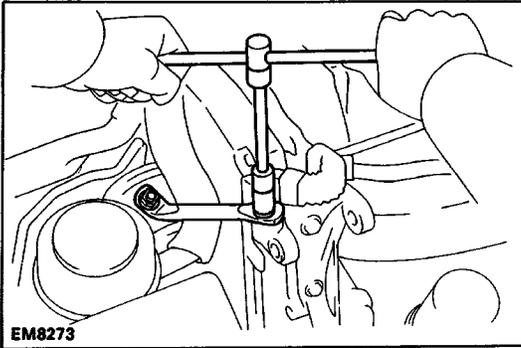
(g) Tighten the through bolt and two nuts of the RH mounting insulator.

Torque:

Nut 52 N-m (530 kgf.cm, 38 ft-lbf)

Through bolt 87 N-m (890 kgf-cm, 64 ft-lbf)

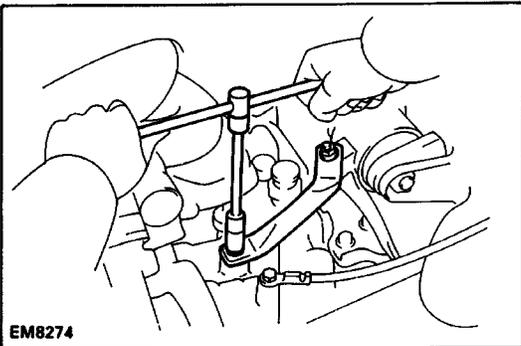
(h) Remove the engine chain hoist from the engine.



3. INSTALL RH ENGINE MOUNTING STAY

Install the mounting stay with the bolt and nut.

Torque: 73 N-m (740 kgf-cm, 54 ft-lbf)



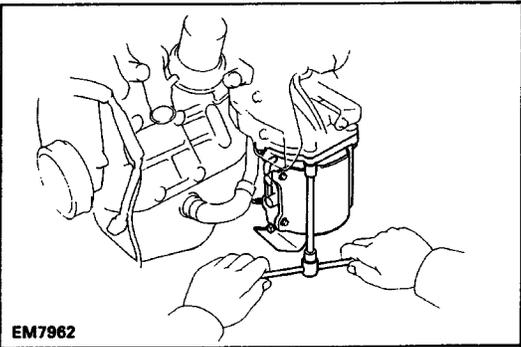
4. INSTALL LH ENGINE MOUNTING STAY

Install the mounting stay with the bolt and nut.

Torque: 21 N-m (210 kgf-cm, 15 ft-lbf)

5. CONNECT GROUND STRAP

Connect the ground strap to the transaxle with the bolt.

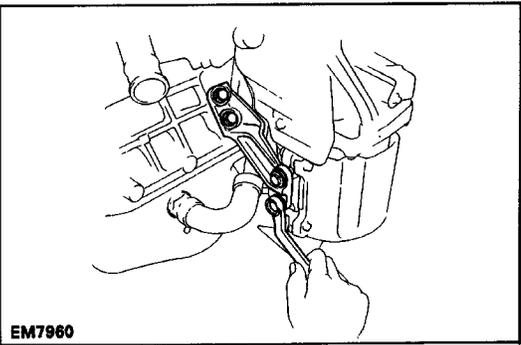


6. INSTALL CATALYTIC CONVERTER

(a) Place new cushion, retainer and gasket on the catalytic converter.

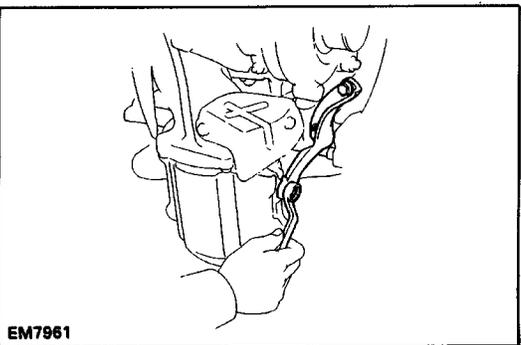
(b) Install the catalytic converter with the three bolts and two nuts.

Torque: 29 N-m (300 kgf-cm, 22 ft.lbf)



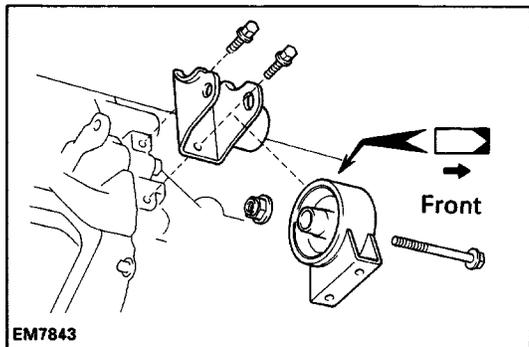
(c) Install the RH converter stay with the four bolts.

Torque: 59 N-m (600 kgf-cm, 43 ft-lbf)



(d) Install the LH converter stay with the three bolts.

Torque: 59 N-m (600 kgf-cm, 43 ft-lbf)

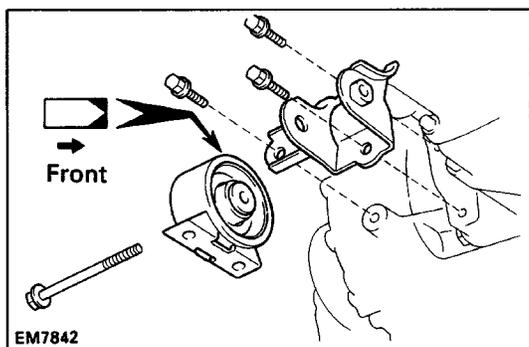


7. INSTALL FRONT ENGINE MOUNTING BRACKET AND INSULATOR

(a) Install the mounting bracket with the two bolts.

Torque: 77 N-m (790 kgf-cm, 57 ft.lbf)

(b) Temporarily install the mounting insulator with the through bolt and nut.

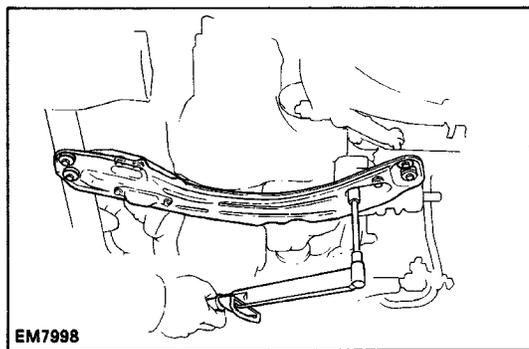


8. INSTALL REAR ENGINE MOUNTING BRACKET AND INSULATOR

(a) Install the mounting bracket with the three bolts.

Torque: 77 N-m (790 kgf-cm, 57 ft-lbf)

(b) Temporarily install the mounting insulator with the through bolt.



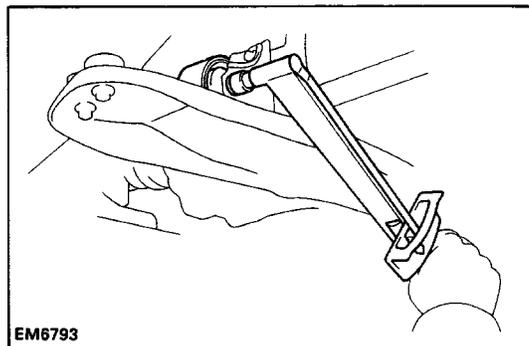
9. INSTALL ENGINE MOUNTING CENTER MEMBER

(a) Install the engine mounting center member with the four bolts.

Torque: 52 N-m (530 kgf-cm, 38 ft-lbf)

(b) Install and torque the four bolts holding the insulators to the center member.

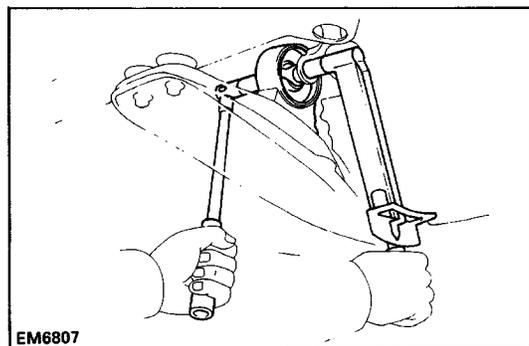
Torque: 73 N-m (740 kgf-cm, 54 ft-lbf)



10. TIGHTEN FRONT AND REAR ENGINE MOUNTING THROUGH BOLTS

(a) Tighten the rear through bolt.

Torque: 87 N-m (890 kgf-cm, 64 ft.lbf)



(b) Tighten the front through bolt.

Torque: 87 N-m (890 kgf-cm, 64 ft.lbf)

**11. INSTALL PS PUMP**

(a) Install the PS pump with the four bolts.

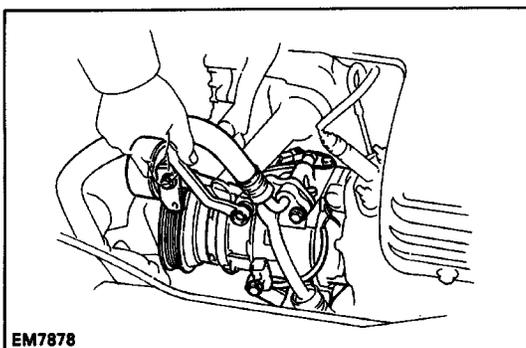
Torque:

Adjusting bolt 39 N-m (400 kgf-cm, 29 ft-lbf)

Others 43 N-m (440 kgf-cm, 32 ft-lbf)

(b) Install the drive belt.

(c) Connect the two air hoses to the air pipe.

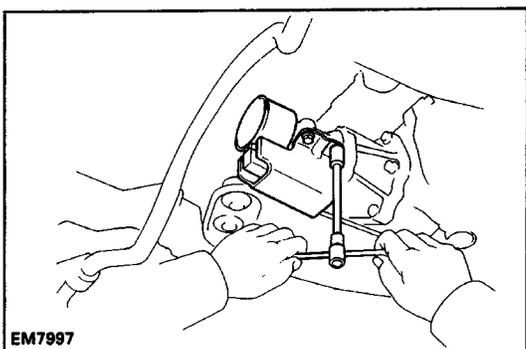
**12. INSTALL A/C COMPRESSOR AND IDLER PULLEY BRACKET**

(a) Install the compressor and idler pulley bracket with the four-bolts.

Torque: 27 N-m (280 kgf-cm, 20 ft-lbf)

(b) Connect the two connectors.

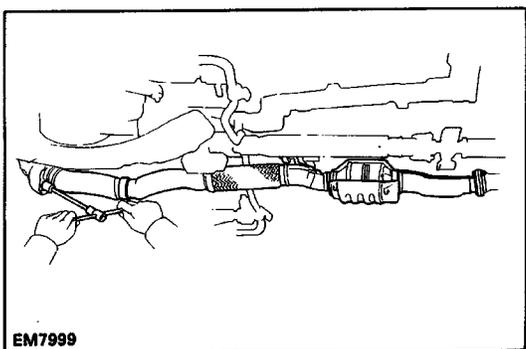
(c) Connect the A/C compressor connector.

13. INSTALL ALTERNATOR**14. INSTALL DEFLECTOR TO TRANSFER EXTENSION HOUSING****15. INSTALL DYNAMIC DAMPER TO TRANSFER EXTENSION HOUSING****16. INSTALL FRONT PROPELLER SHAFT**

(See page [PR-3](#))

17. INSTALL DRIVE SHAFTS

(See page [SA-33](#))

**18. INSTALL FRONT EXHAUST PIPE**

(a) Install the support hook on the front exhaust pipe to the support bracket.

(b) Place two new gaskets on the front and rear of the front exhaust pipe.

(c) Temporarily install the two bolts and new nuts holding the exhaust pipe to the center exhaust pipe.

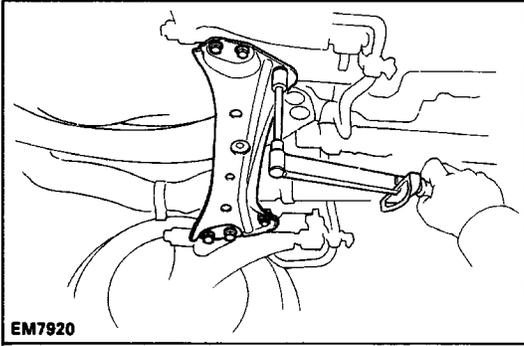
(d) Using a 14 mm deep socket wrench, install the three new nuts holding the exhaust pipe to the catalytic converter-.

Torque: 62 N-m (630 kgf-cm, 46 ft-lbf)

(e) Tighten the two bolts and nuts holding the exhaust pipe to the center exhaust pipe.

Torque: 43 N-m (440 kgf-cm, 32 ft-lbf)

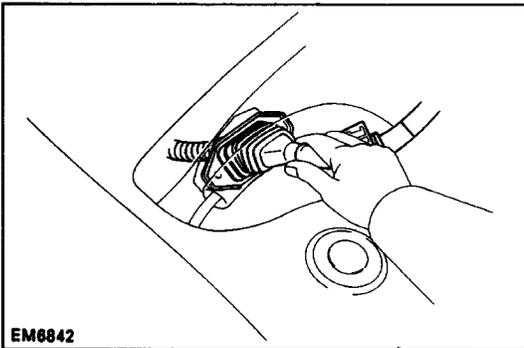
(f) Install the clamp with the bolt.



19. INSTALL SUSPENSION LOWER CROSSMEMBER

Install the lower crossmember with the four bolts and two nuts.

Torque: 152 N-m (1,550 kgf-cm, 112 ft-lbf)

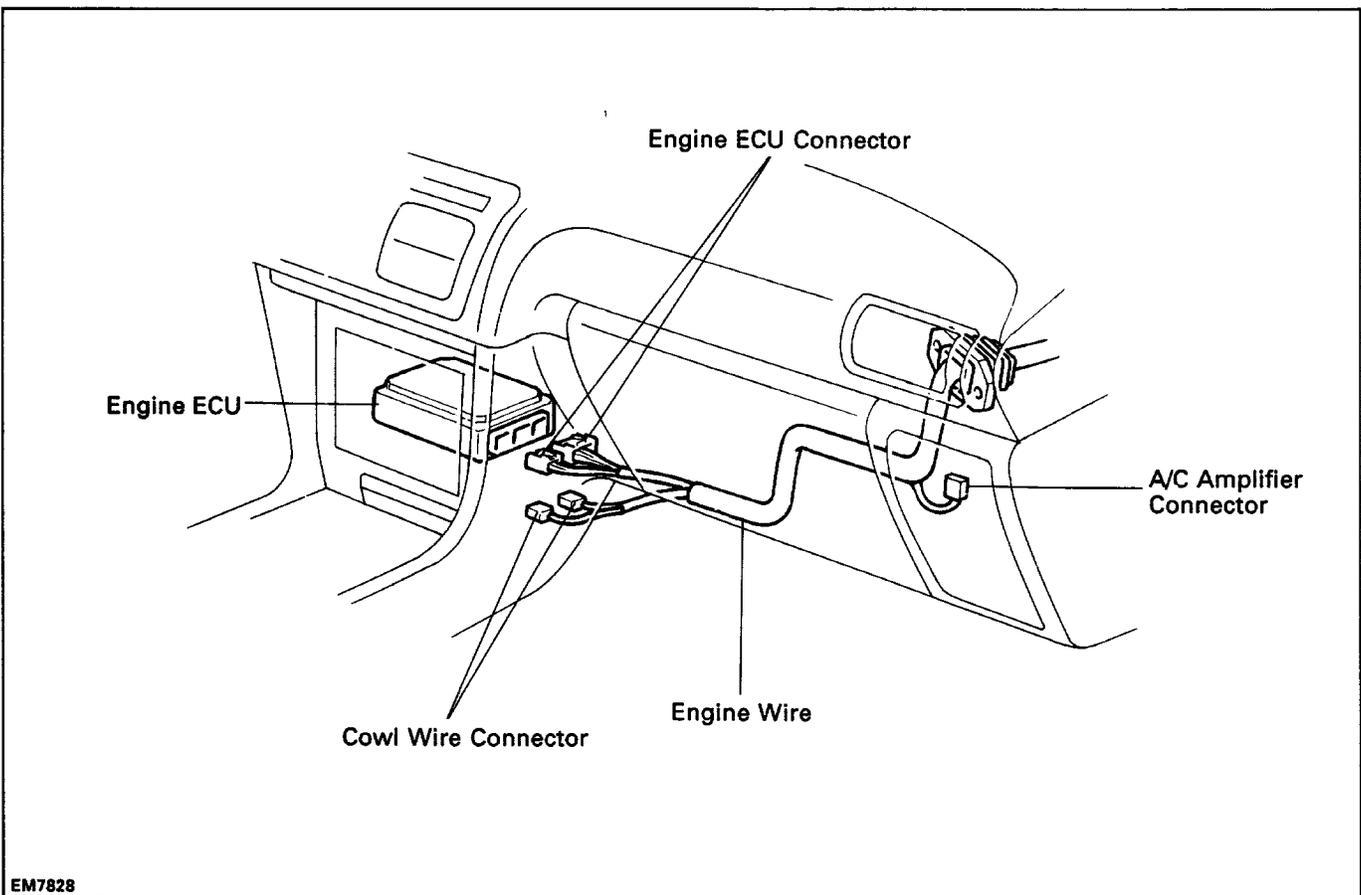


20. CONNECT ENGINE WIRE TO CABIN

(a) Push in the engine wire through the cowl panel.
Install the two nuts

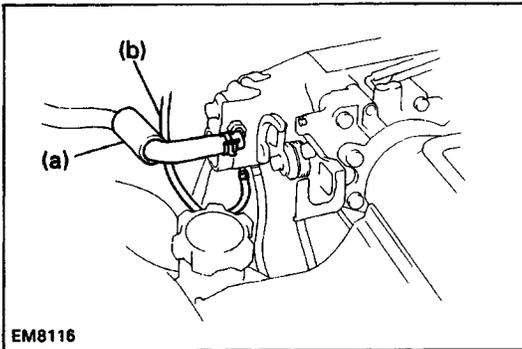
(b) Connect the following connectors.

- (1) Two engine ECU connectors
- (2) Two cowl wire connectors
- (3) A/C amplifier connector



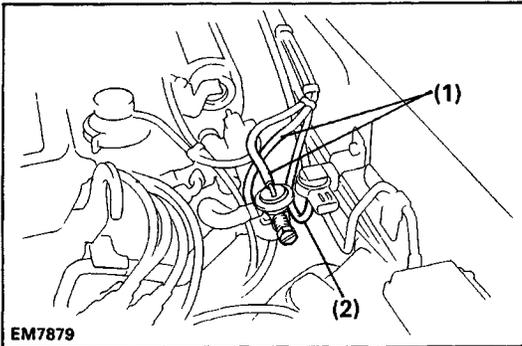
21. CONNECT ENGINE WIRE

- (a) Engine wire clamp to wire bracket on RH fender apron.
- (b) Two cowl wire connectors.



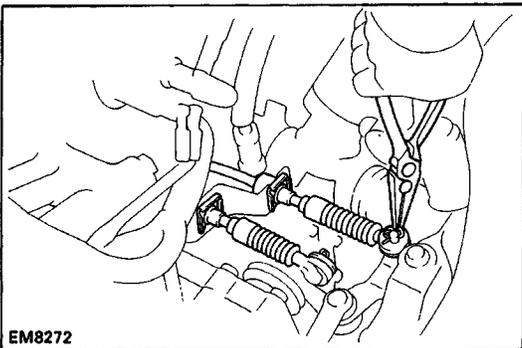
22. CONNECT HOSES

- (a) Brake booster vacuum hose from intake manifold.
- (b) Turbocharging pressure sensor hose from intake manifold.



23. INSTALL TURBOCHARGING PRESSURE SENSOR AND A/C ASV

- (a) Install the turbocharging pressure sensor and A/C ASV with the bolt.
- (b) Connect the following hoses:
 - (1) Two vacuum hoses to ASV from A/C ASV
 - (2) Vacuum hose to ASV from turbocharging pressure sensor
- (c) Connect turbocharging pressure sensor connector.



24. CONNECT TRANSAXLE CONTROL CABLES TO TRANSAXLE

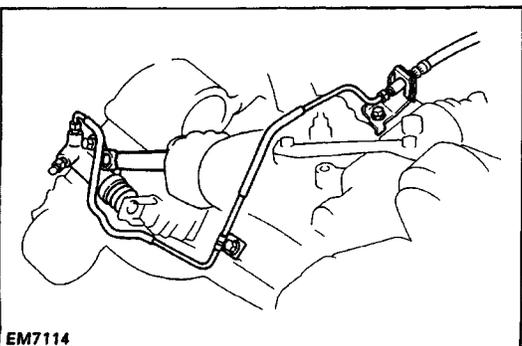
25. INSTALL CLUTCH RELEASE CYLINDER

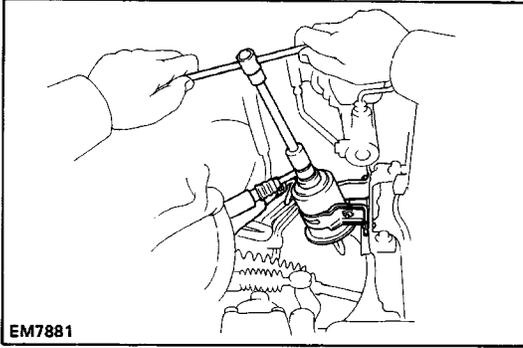
Install the release cylinder and tube with the four bolts.

26. INSTALL STARTER

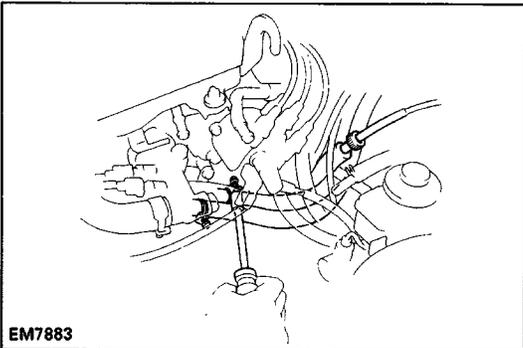
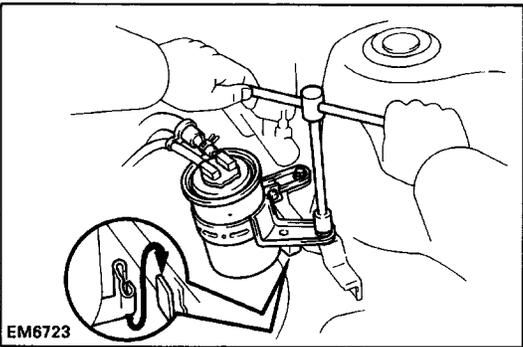
27. CONNECT CONNECTORS

- (1) Engine room wire connector
- (2) Noise filter connector

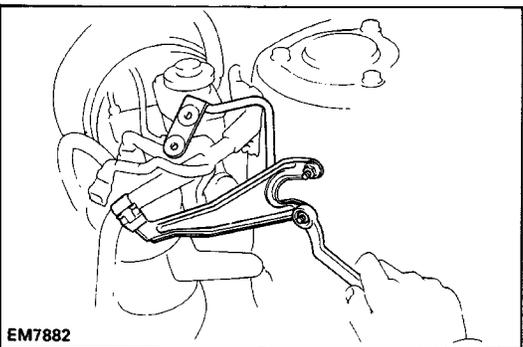


**28. CONNECT FUEL HOSES**

Torque (Union Bolt): 29 N.m (300 kgf-cm, 22 ft-lbf)

**29. CONNECT SPEEDOMETER CABLE****30. CONNECT HEATER HOSES****31. INSTALL CHARCOAL CANISTER**

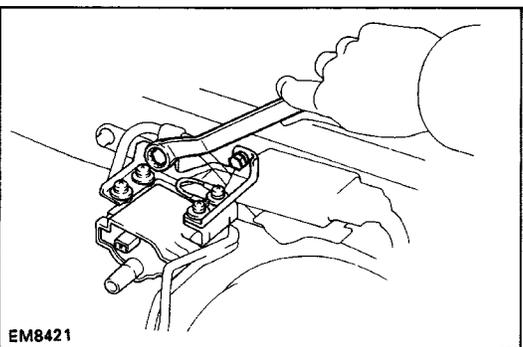
- (a) Install the charcoal canister with the two bolts.
- (b) Connect the two vacuum hoses.

**32. INSTALL ENGINE WIRE BRACKET**

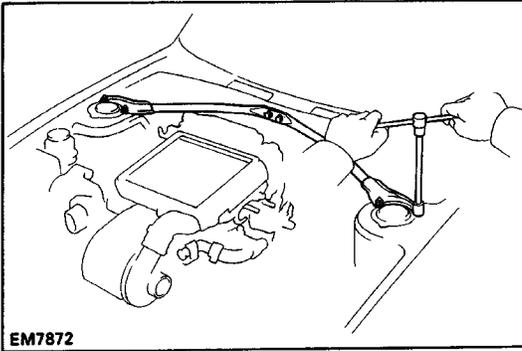
- (a) Install the wire bracket with the two bolts. Install the noise filter.
- (b) Install the wire clamp to the wire bracket.

33. CONNECT WIRES AND CONNECTORS

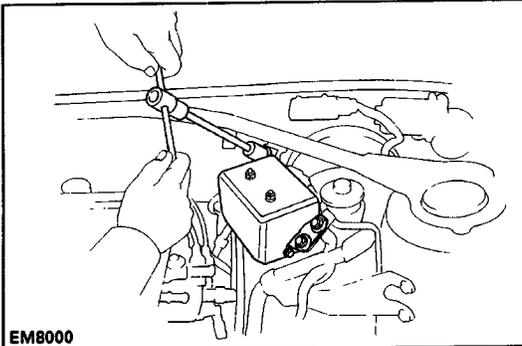
- (a) Check connector.
- (b) Igniter connector.
- (c) Ground strap from LH fender apron.

**34. INSTALL IGNITION COIL**

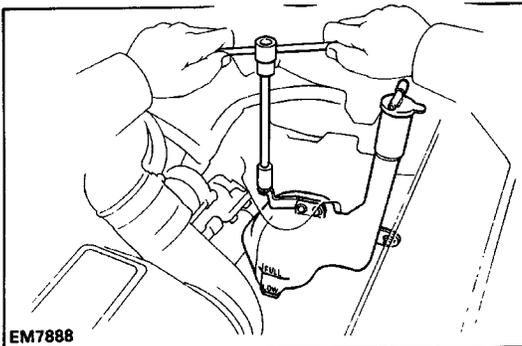
- (a) Install the ignition coil with the two bolts.
- (b) Connect the high-tension cord.
- (c) Connect the ignition coil connector.



- 35. INSTALL SUSPENSION UPPER BRACE**
- (a) Install the suspension upper brace with the two bolts and four nuts.
- Torque: Bolt 21 N-m (210 kgf-cm, 15 ft-lbf)**
Nut 64 N-m (650 kgf-cm, 47 ft-lbf)
- (b) Install the outside lower windshield moulding.
 - (c) Install the two wiper arms.



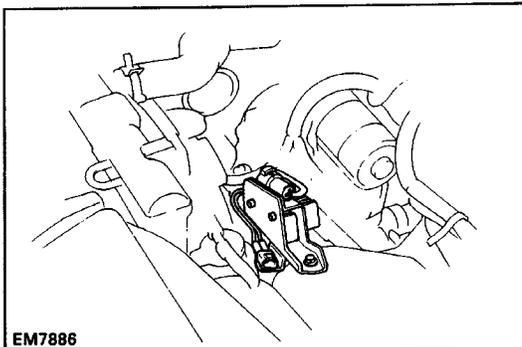
- 36. (w/ CRUISE CONTROL SYSTEM)**
INSTALL CRUISE CONTROL ACTUATOR
- (a) Connect the cable to the actuator.
 - (b) Connect the actuator connector.
 - (c) Install the actuator with the three bolts.
 - (d) Install the actuator cover with the two nuts.



37. INSTALL RADIATOR RESERVOIR TANK

Install the reservoir tank with the two nuts.

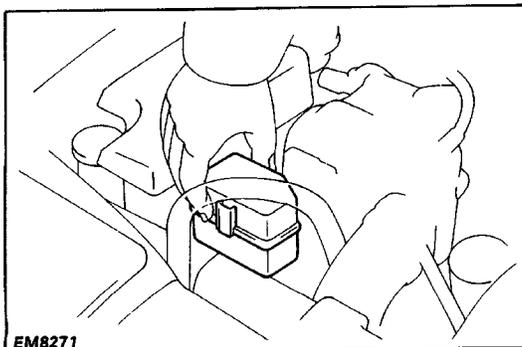
38. INSTALL RADIATOR



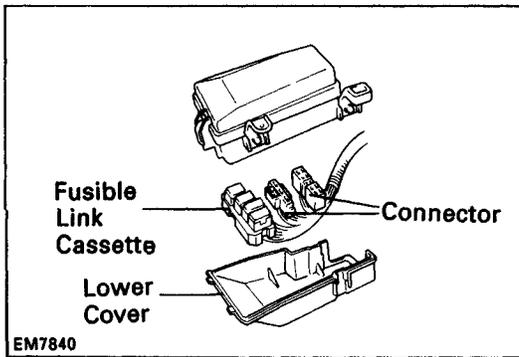
39. INSTALL INJECTOR SOLENOID RESISTOR AND FUEL PUMP RESISTOR

- (a) Install the solenoid resistor and fuel pump resistor with the bolt.
- (b) Connect the two connectors.

40. INSTALL BATTERY

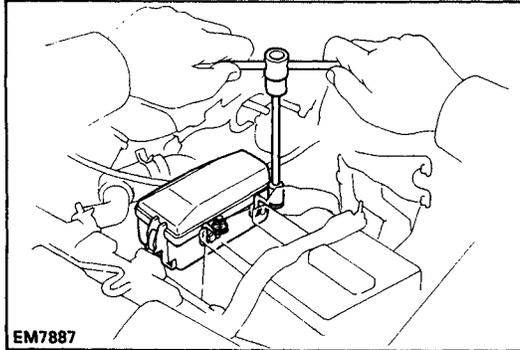


41. INSTALL A/C RELAY BOX



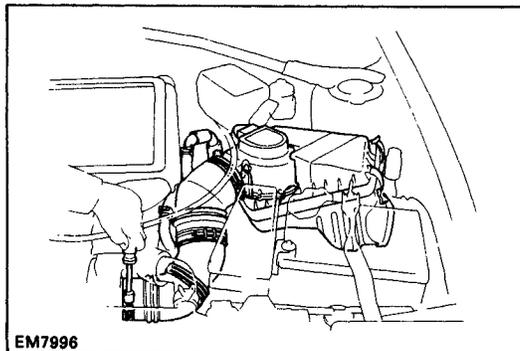
42. CONNECT ENGINE WIRE, AND INSTALL ENGINE RELAY BOX

- (a) Connect the fusible link cassette and two connectors of the engine wire to the relay box.
- (b) Install the lower cover to the relay box.



- (c) Install the relay box with the two nuts.

43. INSTALL ACCELERATOR CABLE, AND ADJUST IT



44. INSTALL AIR CLEANER ASSEMBLY

- (a) Install the air cleaner case with the three bolts.
- (b) Install the air cleaner element.
- (c) Connect the following hoses:
 - (1) Air cleaner hose from turbocharger
 - (2) PCV hose from cylinder head cover
 - (3) Air hose from air pipe
- (d) Install the air cleaner cap and air flow meter.
- (e) Connect the air flow meter connector.

45. FILL WITH TRANSAXLE OIL

Capacity: 4.8 liters (5.1 US qts, 4.2 Imp. qts)

46. CONNECT CABLE TO NEGATIVE TERMINAL OF BATTERY

47. FILL WITH ENGINE COOLANT

Capacity (w/ Heater):

6.4 liters (6.8 US qts, 5.6 Imp. qts)

48. FILL WITH ENGINE OIL

Capacity:

Drain and refill

w/ Oil filter change

3.9 liters (4.1 US qts, 3.4 Imp. qts)

w/o Oil filter change

3.6 liters (3.8 US qts, 3.2 Imp. qts)

Dry fill 4.3 liters (4.5 US qts, 3.8 Imp. qts)