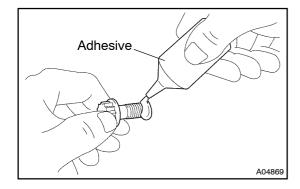
EM1L5-01

# INSTALLATION

# 1. INSTALL DRIVE PLATE

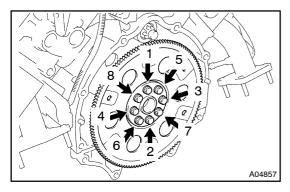
# HINT:

- The mounting bolts are tightened in 2 progressive steps (steps (c) and (e)).
- If any one of the mounting bolts is broken or deformed, replace it.



(a) Apply adhesive to 2 or 3 threads of the mounting bolt end. **Adhesive:** 

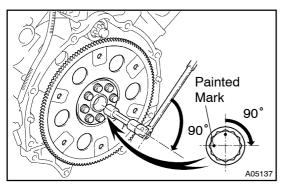
Part No. 08833-00070, THREE BOND 1324 or equivalent



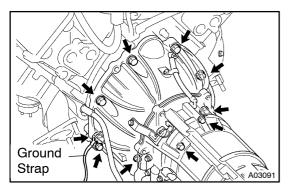
- (b) Install the front spacer, drive plate and rear spacer on the crankshaft.
- (c) Install and uniformly tighten the 8 mounting bolts in several passes, in the sequence shown.

Torque: 49 N·m (500 kgf·cm, 36 ft·lbf)

If any one of the mounting bolts does not meet the torque specification, replace the mounting bolt.



- (d) Mark the mounting bolt with paint.
- (e) Retighten the mounting bolts by 90° in the numerical order shown.
- (f) Check that the painted mark is now at a 90° angle to (e).



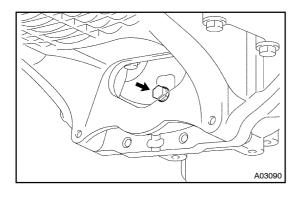
# 2. INSTALL TRANSMISSION TO ENGINE

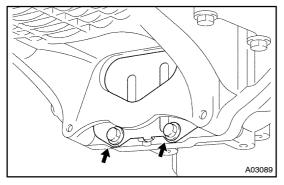
- (a) Check the torque converter clutch installation. (See page AT-26)
- (b) Attach the transmission to the engine.
- (c) Install the ground strap and 10 bolts.

# Torque:

37 N·m (380 kgf·cm, 27 ft·lbf) for 14 mm head 72 N·m (730 kgf·cm, 53 ft·lbf) for 17 mm head

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## 3. INSTALL TORQUE CONVERTER CLUTCH BOLTS

(a) Apply adhesive to 2 or 3 threads of the bolt end.

Adhesive:

Part No. 08833-00070, THREE BOND 1324 or equivalent

(b) Hold the crankshaft pulley bolt with a wrench, and install the 6 bolts evenly.

Torque: 48 N·m (490 kgf·cm, 35 ft·lbf)

HINT:

First install the black colored bolt, install the other bolts.

(c) Install the flywheel housing under cover with the 2 bolts.

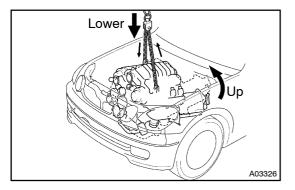
Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)

- 4. INSTALL OIL COOLER PIPE FOR TRANSMISSION
- 5. INSTALL OIL DIPSTICK GUIDE AND DIPSTICK FOR TRANSMISSION
- (a) Install a new O-ring to the dipstick guide.
- (b) Apply soapy water to the O-ring.
- (c) Connect the dipstick guide end to the dipstick tube of the oil pan.
- (d) Install the dipstick guide with the bolt.
- (e) Install the dipstick.

### 6. CONNECT ENGINE WIRE TO TRANSMISSION

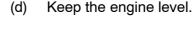
Connect the connectors and wire:

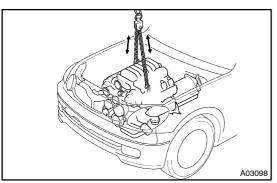
- Connect the VSV connector.
- Connect the PNP switch connector.
- Connect the solenoid connector.
- Connect the direct clutch speed sensor connector.
- Connect the engine wire to 3 wire clamps.



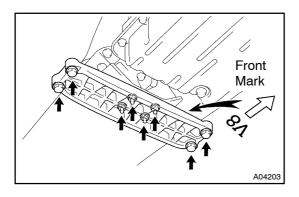
# 7. INSTALL ENGINE AND TRANSMISSION ASSEMBLY IN VEHICLE

- (a) Attach the engine chain hoist to the engine hangers.
- (b) Slowly lower the engine and transmission assembly into the engine compartment.
- (c) Insert the stud bolts of the front engine mounting brackets into the stud bolt holes of the front suspension crossmember.





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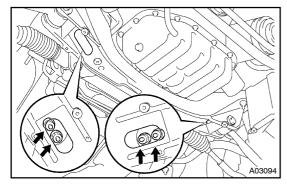
(e) Install the rear engine mounting member with the 4 bolts and 4 nuts.

# **Torque:**

25.5 N·m (260 kgf·cm, 19 ft·lbf) for bolts 13.5 N·m (135 kgf·cm, 10 ft·lbf) for nuts

### NOTICE:

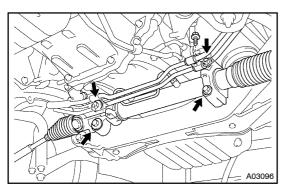
Be careful of installation direction.



(f) Install the 4 nuts holding the engine mounting brackets to the front suspension crossmember.

Torque: 68 N·m (700 kgf·cm, 50 ft·lbf)

- (g) Install the 2 hole plugs.
- (h) Remove the engine chain hoist.
- (i) Install the No.1 V-bank cover bracket to the No.2 engine hanger with the nut.
- 8. INSTALL HEAT INSULATORS FOR FRONT SIDE OF FRONT EXHAUST PIPE

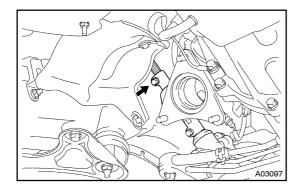


# 9. INSTALL PS GEAR HOUSING

- (a) Connect the sliding yoke to the steering intermediate shaft.
- (b) Install the PS gear housing with the 4 bolts.

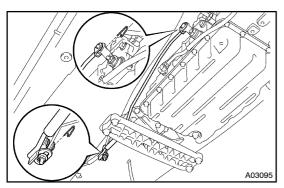
Torque: 65 N·m (660 kgf·cm, 48 ft·lbf)

(c) Install the 2 PS oil tube with the bolt.



(d) Install the bolt holding the sliding yoke to the steering intermediate shaft.

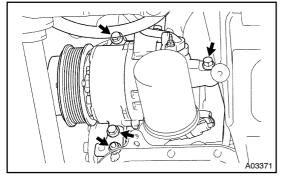
Torque: 35 N·m (360 kgf·cm, 26 ft·lbf)



# 10. INSTALL TRANSMISSION CONTROL ROD

Install the control rod with the 2 clips.

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### 11. INSTALL A/C COMPRESSOR

(a) Install the A/C compressor, compressor stay and wire bracket with the 3 bolts and nut.

### **Torque:**

49 N·m (500 kgf·cm, 36 ft·lbf) for bolt 29 N·m (300 kgf·cm, 21 ft·lbf) for nut

- (b) Connect the A/C compressor connector.
- (c) Install the wire clamp.

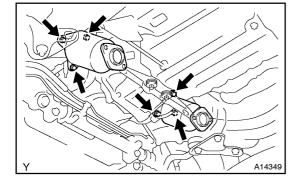
# 12. INSTALL PS PUMP

(a) Install the PS pump with the 2 bolts and nut. Alternately tighten the bolts and nut.

# **Torque:**

39.2 N·m (400 kgf·cm, 29 ft·lbf) for bolts 43.1 N·m (440 kgf·cm, 32 ft·lbf) for nut

- (b) Connect the PS oil pressure switch connector.
- (c) Install the RH engine under cover with the 2 screws.
- 13. INSTALL PROPELLER SHAFT (See Pub. No. RM588E on page PR-10)
- 14. INSTALL CENTER FRONT FLOOR BRACE Torque: 13 N·m (130 kgf·cm, 9 ft·lbf)
- 15. INSTALL HEAT INSULATORS



### 16. INSTALL TWC

Install a new gasket and the TWC with 3 new nuts. Install the 2 TWC.

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

- 17. INSTALL CENTER AND FRONT EXHAUST PIPE
- 18. INSTALL HEATED OXYGEN SENSORS

Install the 2 oxygen sensors to the front exhaust pipe.

Torque: 44 N·m (450 kgf·cm, 32 ft·lbf)

# HINT:

- Before installing the oxygen sensor, twist the sensor wire counterclockwise 3 and 1/2 turns.
- After installing the oxygen sensor, check that the sensor wire is not twisted. If it is twisted, remove the oxygen sensor and reinstall it.

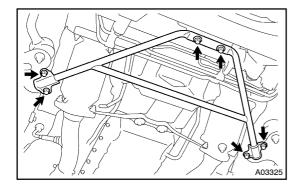
### 19. CONNECT ENGINE WIRE TO ECU BOX

- (a) Install the engine wire grommet to the ECU box.
- (b) Connect these connectors:
  - Connect the 3 engine ECU connectors.
  - Connect the 4 wire harness connectors.
  - Connect the 2 junction connectors.

- (c) Install these parts:
  - Install the ECU hood.
  - Install the ECU cover.

# 20. CONNECT CONNECTORS, WIRE, STRAPS, CLAMPS AND HOSES

- Connect the alternator wire to alternator.
- Connect the wire for alternator wire to wire clamp on alternator
- Connect the ground cable to stay on alternator.
- Connect the PS oil hose to No. 1 oil pan.
- Connect the 2 PS air hoses to hose clamp on No. 3 RH timing belt cover.
- Connect the hose clamp for PS air hose.
- Connect the PS air hose to upper intake manifold.
- Connect the starter cable to battery.
- Connect the ground strap to body.
- Connect the 2 heater hoses.
- Connect the fuel inlet hose (rear fuel pipe) to fuel main tube.



### 21. INSTALL FRONT SUSPENSION MEMBER BRACE

Install the brace with the 6 bolts.

Torque: 58 N·m (590 kgf·cm, 43 ft·lbf)

- 22. INSTALL[DRIVE[BELT[[See[page[CH-15]]
- 23. INSTALL RADIATOR ASSEMBLY (See page CO-24)
- 24. INSTALL INTAKE AIR CONNECTOR PIPE
- 25. INSTALL AIR CLEANER ASSEMBLY
- 26. INSTALL AIR CLEANER INLET
- 27. FILL WITH ENGINE COOLANT
- 28. FILL WITH ENGINE OIL
- 29. START ENGINE AND CHECK FOR LEAKS
- 30. INSTALL V-BANK COVER
- 31. INSTALL ENGINE UNDER COVER
- 32. INSTALL HOOD
- 33. PERFORM ROAD TEST

Check for abnormal noise, shock, slippage, correct shift points and smooth operation.

34. RECHECK ENGINE COOLANT AND OIL LEVELS