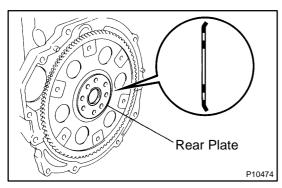
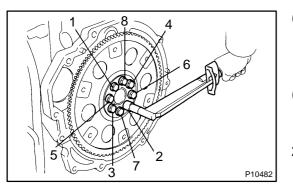
1.





INSTALLATION

A/T:

INSTALL DRIVE PLATE

- (a) Install the front spacer, drive plate and rear plate on the crankshaft.
- (b) Apply adhesive to 2 or 3 threads of the mounting bolt end. Adhesive:

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

(c) Install the uniformly tighten the 8 mounting bolts in several passes, in the sequence shown.

Torque: 83 N-m (850 kgf-cm, 61 ft-lbf)

2. M/T:

INSTALL CLUTCH DISC AND COVER (See page CL-18)

3. A/T:

INSTALL TORQUE CONVERTER CLUTCH INSTALLA-TION (See page AT-35)

- Y A13982
- 4. INSTALL TRANSMISSION TO ENGINE
- (a) Attach the transmission to the engine.
- (b) Install the ground wire and 5 bolts. Torque: 72 N·m (730 kgf·cm, 53 ft·lbf)
 5. A/T:

CONNECT ENGINE WIRE TO TRANSMISSION

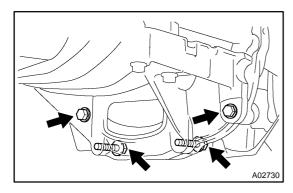
- (a) Connect the VSS connector.
- (b) Connect the PNP switch connector.
- (c) Connect the solenoid connector.
- (d) Connect the direct clutch speed sensor connector.
- (e) Connect the engine wire to the 3 wire clamps.6. M/T:

CONNECT ENGINE WIRE TO TRANSMISSION

- (a) Connect the VSS connector.
- (b) Connect the back-up light switch connector.
- 7. INSTALL STARTER
- (a) Install the starter and clamp bracket with the 2 bolts. Torque: 37 N-m (380 kgf-cm, 27 ft-lbf)
- (b) Connect the starter connector.

EM1JC-03

8.



Dark Green

INSTALL 4 BOLTS HOLDING NO. 1 OIL PAN TO TRANSMISSION

Torque: 37 N-m (380 kgf-cm, 27 ft-lbf)

9. A/T:

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.

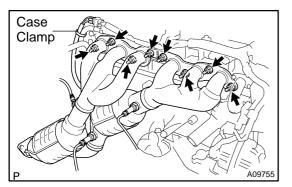
Torque: 48 N·m (490 kgf·cm, 35 ft·lbf)

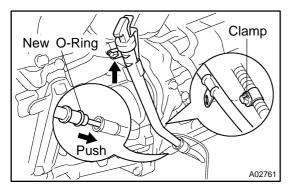
HINT:

First install the dark green colored bolt, install the other bolts.

- (c) Install the hole plug.
- 10. A/T:

INSTALL OIL COOLER PIPE





11. INSTALL EXHAUST MANIFOLD

- (a) Install 2 new gaskets to the cylinder head.
- (b) Using a 14 mm deep socket wrench, install the exhaust manifold with the 8 nuts. Uniformly tighten the nuts in several passes.

Torque: 40 N·m (408 kgf·cm, 30 ft-lbf)

- (c) Connect the heated oxygen sensor (bank 2 sensor 1) connector.
- (d) Install the case clamp.

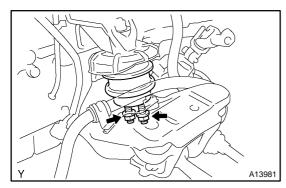
12. A/T:

INSTALL OIL DIPSTICK GUIDE AND DIPSTICK

- (a) Install a new O-ring to the dipstick guide.
- (b) Push in the dipstick guide end to the dipstick tube of the oil pan.
- (c) Install the dipstick guide with the bolt.
- (d) Connect the engine wire clamp to the dipstick guide.
- (e) Install the dipstick.

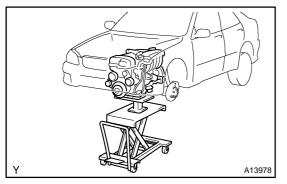
Date :

nuts.



13. INSTALL SUSPENSION MEMBER TO ENGINE Install the suspension member and to the engine with the 4

Torque: 70 N·m (714 kgf·cm, 52 ft·lbf)



14. SET ENGINE JACK

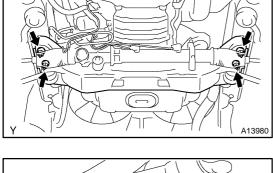
NOTICE:

Using a chain, hold the engine tightly.

- 15. INSTALL ENGINE AND TRANSMISSION ASSEMBLY IN VEHICLE
- (a) Raise the engine into the engine compartment.
- (b) Keep the engine level, and align RH and LH mountings with the insulator.

16. CONNECT SUSPENSION MEMBER

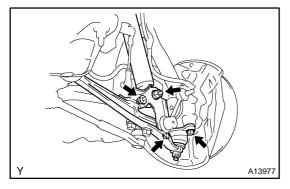
Connect the suspension member with the 4 bolts to the body. Torque: 70 N·m (714 kgf·cm, 52 ft·lbf)



17. CONNECT REAR ENGINE MOUNTING MEMBER Install the rear engine mounting member with the 4 bolts. Torque: 25.5 N·m (260 kgf·cm, 19 ft·lbf) for bolt

13.5 N·m (135 kgf·cm 10 ft·lbf) for nut

18. REMOVE ENGINE JACK



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19. CONNECT LOWER ARM

(a) Connect the lower arm with the 2 bolts to the steering knuckle.

Torque: 245 N·m (2,500 kgf·cm, 181 ft·lbf)

- (b) Connect the height level sensor to the lower arm.
- 20. CONNECT SHOCK ABSORBER

Connect the shock absorber with the bolt and nut.

Torque: 64 N·m (650 kgf·cm, 47 ft·lbf)

ENGINE MECHANICAL - ENGINE UNIT

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21. **INSTALL STABILIZER BAR**

- (a) Install the 2 bushings and 2 stabilizer bar brackets to the stabilizer bar.
- Install the stabilizer bar with the 4 bolts and 2 nuts. (b) Torque:

18 N·m (180 kgf·cm, 13 ft·lbf) for bolt 49 N·m (500 kgf·cm, 36 ft·lbf) for nut

22. **CONNECT SLIDING YOKE**

- (a) Align the matchmarks and connect the sliding yoke to the steering intermediate shaft.
- (b) Install the bolt holding the sliding yoke to the steering intermediate shaft.

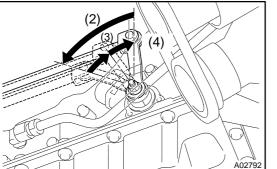
Torque: 35 N·m (360 kgf·cm, 26 ft·lbf)

- Connect the PS pressure switch and wire clamp. (c)
- **INSTALL FRONT AND CENTER EXHAUST PIPE** 23. Torque: 43 N·m (438 kgf·cm, 32 ft·lbf)

24.

INSTALL TRANSMISSION CONTROL ROD Install the control rod with the 2 nuts.

Torque: 16 N·m (163 kgf·cm, 12 ft·lbf)



If the indicator is not aligned with the correct position, carry out the following adjustment procedures.

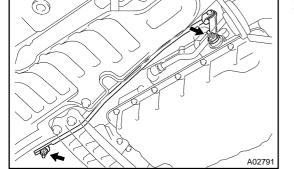
- Loosen the nut on the shift lever. (1)
- (2) Push the control shaft lever fully rearward.
- (3) Return the control shaft lever 2 notches to the N position.
- (4) Set the shift lever to the N position.
- While holding the shift lever lightly toward the R (5) position side, tighten the nut.

Torque: 13 N·m (130 kgf·cm, 9 ft·lbf)

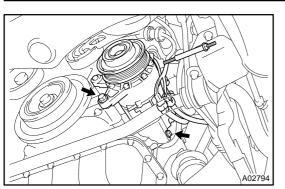
25. M/T:

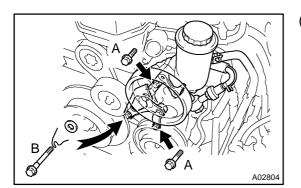
INSTALL CLUTCH RELEASE CYLINDER TO TRANS-MISSION

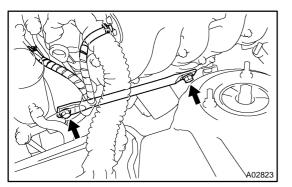
A/T:

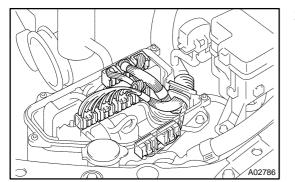


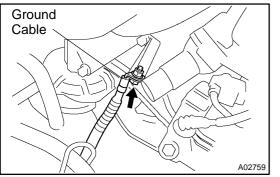












26. INSTALL A/C COMPRESSOR AND PS PUMP

- (a) Temporarily install the compressor with the 2 bolts.
- (b) Using a torx socket (E10), install the stud bolt.
- Torque: 26 N·m (265 kgf·cm, 19 ft·lbf)(c) Tighten the nut and 2 bolts.

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

- (d) Connect the compressor connector.
- (e) Connect the PPS solenoid valve connector.
- (f) Install the vane pump assembly with the 3 bolts and plate washer.

Torque:

58 N·m (590 kgf·cm, 43 ft·lbf) for bolt A

52 N·m (530 kgf·cm, 38 ft·lbf) for bolt B

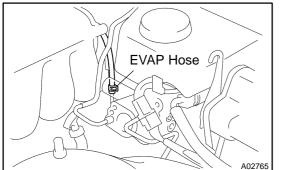
- (g) Install the pump rear stay with the 2 bolts. Torque: 39.2 N-m (400 kgf-cm, 29 ft-lbf)
- (h) Connect the PS air hose to the No. 4 timing belt cover.
- (i) Connect the PS air hose to the air intake chamber.27. M/T:
 - INSTALL TRANSMISSION SHIFT LEVER
- (a) Install the shift lever with the 4 bolts.Torque: 8 N·m (82 kgf·cm, 71 in.·lbf)

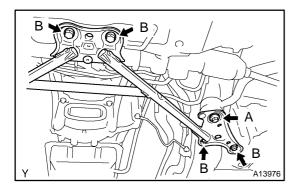
28. CONNECT ENGINE WIRE TO ECM BOX

- (a) Install the engine wire grommet to the ECM box.
- (b) Connect the 3 ECM connectors.
- (c) Connect the 4 wire harness connectors.
- (d) Connect the 2 junction connectors.
- (e) Install the ECM cover and hood.
- 29. CONNECT CLAMPS, WIRES, CONNECTORS, HOSES, CABLE AND STRAP
- (a) Connect the 2 engine wire clamps to the clamp brackets.
- (b) Connect the igniter connector.
- (c) Connect the ground cable to the bracket on the cylinder block.
- (d) Connect the engine wire clamp to the wire clip of the generator.
- (e) Connect the generator wire.

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- (f) Connect the heated oxygen sensor (bank 1 sensor 1) connector.
- (g) Connect the heated oxygen sensor (bank 1 sensor 2) connector.





- (h) Connect the EVAP hose to the pipe (from charcoal canister).
- (i) Connect the heater hose to the heater pipe.
- (j) Connect the heater hose to the water bypass pipe.
- (k) Connect the ground strap to the dash panel.
- (I) Connect the fuel inlet hose to the fuel pipe support.Torque: 29 N·m (300 kgf·cm, 22 ft·lbf)
- (m) Connect the starter wire to the terminal and manifold stay.
- (n) Connect the ground wire to the floor.

30. INSTALL FRONT SUSPENSION MEMBER BRACE

Install the brace with the 8 bolts.

Torque:

Bolt A: 119 N·m (1,210 kgf·cm, 88 ft·lbf)

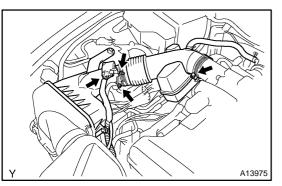
Bolt B: 58 N·m (590 kgf·cm, 43 ft·lbf)

- 31. INSTALL DRIVE BELT (See page CH-1)
- 32. M/T:

INSTALL DRIVE BELT TENSIONER ABSORBER Install the absorber with the 2 nuts.

Torque: 20 N·m (200 kgf·cm, 14 ft·lbf)

33. CONNECT ACCELERATOR CABLE TO ENGINE



34. INSTALL INTAKE AIR RESONATOR

- (a) Connect the intake air resonator to the throttle body.
- (b) Tighten the hose clamp bolt holding the intake air resonator to the throttle body.
- (c) Connect the MAF meter connector.
- (d) Connect the engine wire clamp to the air cleaner case.
- (e) Connect the PCV hose to the No.2 cylinder head cover.
- 35. CONNECT RADIATOR UPPER AND LOWER HOSES

36. CONNECT BRAKE BOOSTER VACUUM HOSE

37. INSTALL AIR CLEANER INLET

2005 LEXUS IS300 (RM1140U)

38. INSTALL ENGINE COVER

Install the engine cover with the 4 nuts.

- 39. FILL WITH ENGINE COOLANT
- 40. FILL WITH ENGINE OIL
- 41. START ENGINE AND CHECK FOR LEAKS
- 42. INSTALL ENGINE UNDER COVER

NOTICE:

Be careful not to damage the body or glass with the hood end.

43. PERFORM ROAD TEST

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

44. RECHECK ENGINE COOLANT AND OIL LEVELS