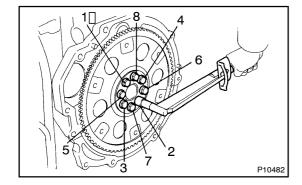


INSTALLATION

1. ☐ INSTALL DRIVE PLATE

(a) Install[he[front[spacer,[drive[plate[and[rear[plate[on[]he crankshaft.



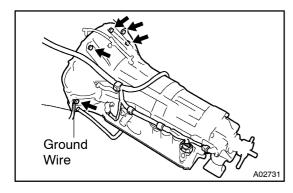
 $\begin{tabular}{ll} (b) & Apply & dhe sive & \end{tabular} \begin{tabular}{ll} & & \end{tabular} \begin{ta$

Adhesive:

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

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

Torque: [83[N·m[850[kgf·cm, 61[ft·lbf)



2. INSTALL TRANSMISSION TO ENGINE

- (a) Check the torque converter clutch installation. (See page AT 34)
- (b) Attach the transmission to the engine.
- (c) Install the ground wire and 5 bolts.

Torque:[72[N·m[730[kgf·cm,[53[ft·lbf)

3. CONNECT ENGINE WIRE TO TRANSMISSION

Connect[these[connectors[and[wire:

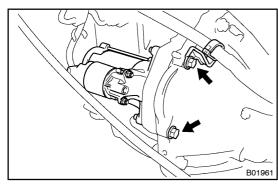
- Vehicle speed sensor connector
- •□ Neutral[\$tart[\$witch[connector
- •□ Solenoid connector
- □ Direct@lutch@speed@sensor@connector
- □ Engine [wire [to]3 [wire clamps

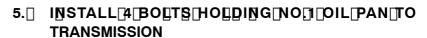


(a) Install the starter and clamp bracket with the 2 bolts.

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

(b) ☐ Connect The Starter Connector.

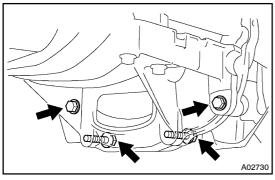


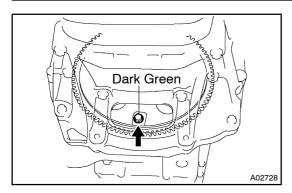


Torque:[37[N·m[380[kgf·cm,[27[ft·lbf)

- 6. INSTALL TORQUE CONVERTER CLUTCH BOLTS

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





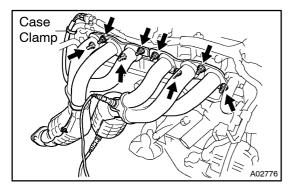
(b) Hold the crankshaft pulley bolt with a wrench, and install the 6 bolts evenly.

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.
- 7. INSTALL OIL COOLER PIPE FOR A/T



8. 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.

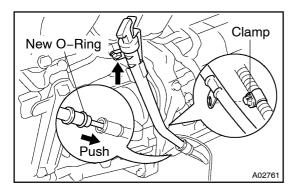
Torque: 40 N·m (408 kgf·cm, 30 ft·lbf)

(c) w/ TWC:

Connect the oxygen sensor (bank 2 sensor 1) connector.

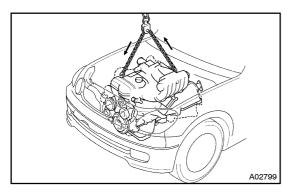
(d) w/ TWC:

Install the case clamp.



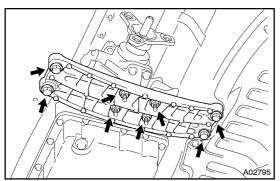
9. INSTALL OIL DIPSTICK GUIDE AND DIPSTICK FOR A/T

- (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.



10. 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.
- (d) Keep the engine level.



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

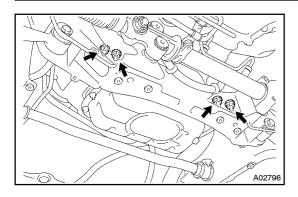
Torque:

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.

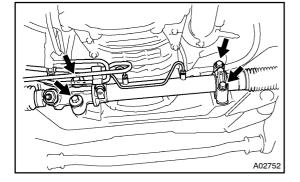
LEXUS GS300 (RM588E)



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

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

- (g) Install the 2 hole plugs.
- (h) Remove the engine chain hoist.
- (i) Remove the bolt and No.1 engine hanger.

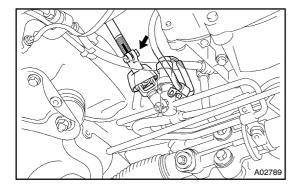


11. INSTALL PS GEAR HOUSING

- (a) Align the matchmarks and 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)

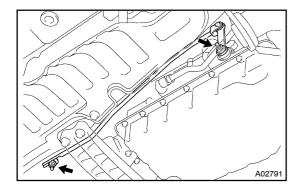
(c) Install the 2 PS oil tube with the bolt.



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

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

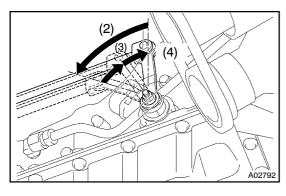
(e) Connect the PS pressure switch and wire clamp.



12. INSTALL TRANSMISSION CONTROL ROD

Install the control rod with the 2 nuts.

Torque: 13 N·m (130 kgf·cm, 9 ft·lbf)

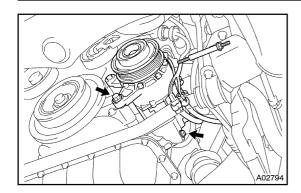


If the indicator is not aligned with the correct position, carry out the following adjustment procedures.

- (1) Loosen the nut on the shift lever.
- (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.
- (5) While holding the shift lever lightly toward the R position side, tighten the nut.

Torque: 13 N·m (130 kgf·cm, 9 ft·lbf)

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13. INSTALL A/C COMPRESSOR AND PS PUMP

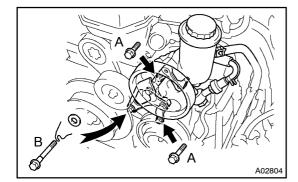
- (a) Temporarily install the compressor with the 2 bolts.
- (b) Using a torx socket (E10), install the stud bolt.

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)

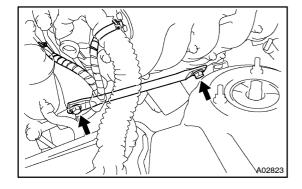
- (d) Connect the compressor connector.
- (e) Connect the PPS solenoid valve connector.



(f) Install the vane pump assembly with the 3 bolts and plate washer.

Torque:

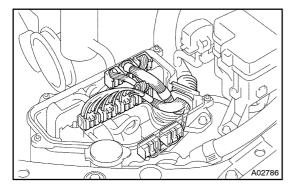
57.9 N·m (590 kgf·cm, 43 ft·lbf) for A bolts 52 N·m (530 kgf·cm, 38 ft·lbf) for B bolt



(g) Install the pump rear stay with the 2 bolts.

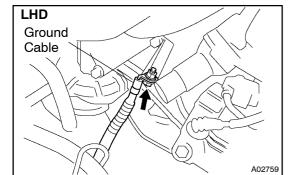
Torque: 39.2 N·m (400 kgf·cm, 29 ft·lbf)

- (h) Connect these hoses:
 - PS air hose to No.4 timing belt cover
 - PS air hose to air intake chamber



14. CONNECT ENGINE WIRE TO ECU BOX

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



CABLE AND STRAP

- 2 engine wire clamps to clamp brackets
- Check connector
- Igniter connector
- LHD:

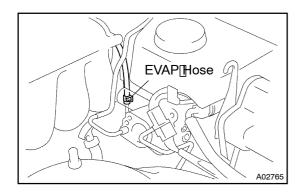
15.

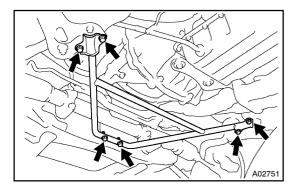
Ground cable to bracket on cylinder block

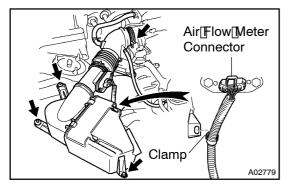
CONNECT CLAMPS, WIRES, CONNECTORS, HOSES,

- Engine wire clamp to wire clip of alternator
- Alternator wire

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- •□ w/[TWC: Oxygen[\$ensor[[bank 1[\$ensor 1)][\$onnector
- •□ w/[TWC: Oxygen[\$ensor[[bank 1[\$ensor[2])]connector
- EVAP[hose[lo[pipe[from[charcoal[canister]
- Heater[hose][lo[heater[pipe]
- •□ Heater[hose[]o[water[bypass[pipe
- Ground[strap[lo@dash[panel
- •□ Australia@and@.C.C.@ountries: Ground@able@o@manifold@stay
- •□ Fuel[inlet[hose[toffuel[pipe[\$upport

Torque: 29[N·m[300[kgf·cm, 22[ft·lbf)]

- •□ Starter[wire]]o[]erminal[B[and[manifold[\$tay]
- •□ Ground wire to body

16. INSTALL FRONT FRAME BRACE

Install the Thrace with the To Tholts.

Torque: 58 N·m 590 kgf·cm, 43 ft·lbf)

- 17. | INSTALL DRIVE BELT (See page CH-16)
- 18. INSTALL RADIATOR ASSEMBLY (See page CO-21)
- 19. CONNECT ACCELERATOR CABLE TO ENGINE
- 20. INSTALL AIR CLEANER, AIR FLOW METER AND INTAKE AIR RESONATOR ASSEMBLY
- (a) Connect the intake air resonator to the throttle body.
- (b) Install the air cleaner case with the 3 bolts.
- (c) Tighten the hose clamp bolt holding the intake air resonator to the throttle body.
- (d) Connect the connector, clamp and hoses:
 - Air flow meter connector
 - Engine wire clamp to air cleaner case
 - PS air hose to No.4 timing belt cover
 - PCV hose to No.2 cylinder head cover
- 21. INSTALL AIR CLEANER INLET
- 22. FILL WITH ENGINE COOLANT
- 23. FILL WITH ENGINE OIL
- 24. START ENGINE AND CHECK FOR LEAKS
- 25. INSTALL ENGINE UNDER COVER
- 26. Europe and G.C.C. Countries: INSTALL NO.2 ENGINE UNDER COVER
- 27. INSTALL HOOD

NOTICE:

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

28. PERFORM ROAD TEST

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

29. RECHECK ENGINE COOLANT AND OIL LEVELS