

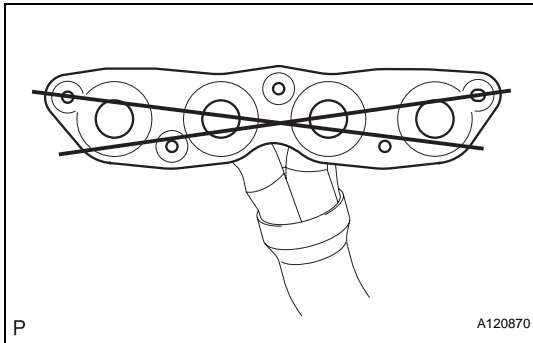
INSPECTION

1. INSPECT INTAKE MANIFOLD

- (a) Using a precision straightedge and feeler gauge, measure the surface contacting the cylinder head for warpage.

**Maximum warpage:
0.10 mm (0.004 in.)**

If the warpage is greater than the maximum, replace the manifold.



2. INSPECT EXHAUST MANIFOLD

- (a) Using a precision straightedge and feeler gauge, measure the surface contacting the cylinder head for warpage.

**Maximum warpage:
0.70 mm (0.028 in.)**

If the warpage is greater than the maximum, replace the manifold.

INSTALLATION

1. **INSTALL OIL PRESSURE SWITCH** (See page [LU-1](#))

2. **INSTALL KNOCK SENSOR** (See page [ES-358](#))

3. **INSTALL ENGINE COOLANT TEMPERATURE SENSOR**

- (a) Install a new gasket onto the sensor.
- (b) Using SST, install the temperature sensor in place.

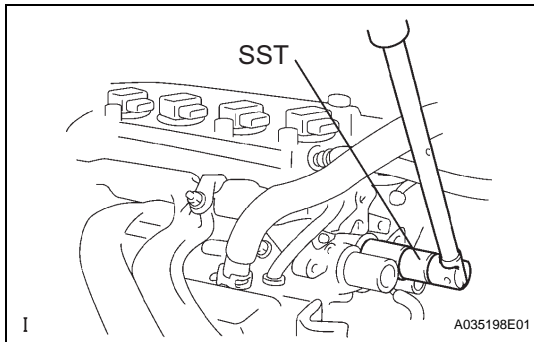
SST 09817-33190

Torque: 20 N*m (204 kgf*cm, 15 ft.*lbf)

4. **INSTALL NO. 1 WATER BY-PASS PIPE**

- (a) Install a new gasket and the water by-pass pipe with the 2 bolts and 2 nuts.

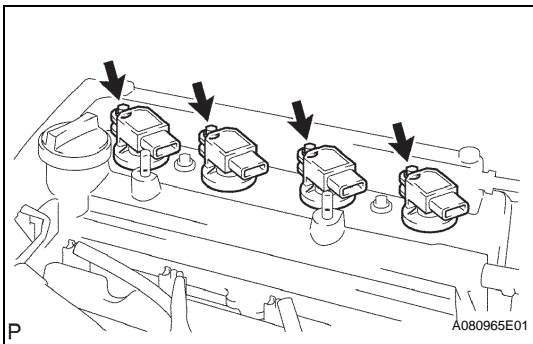
Torque: 9.0 N*m (92 kgf*cm, 80 in.*lbf)



5. **INSTALL IGNITION COIL**

- (a) Install the 4 ignition coils with the 4 bolts.

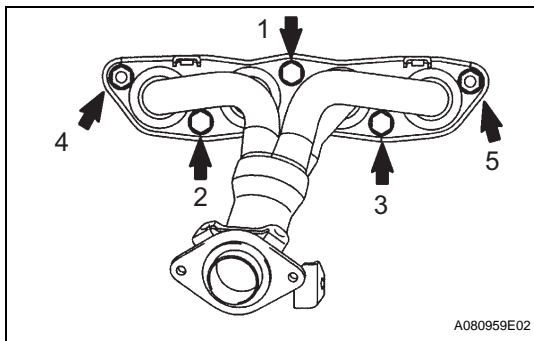
Torque: 9.0 N*m (92 kgf*cm, 80 in.*lbf)



6. **INSTALL EXHAUST MANIFOLD**

- (a) Using several steps, install a new exhaust manifold gasket and the exhaust manifold with the 3 bolts and 2 nuts in the sequence shown in the illustration.

Torque: 27 N*m (275 kgf*cm, 20 ft.*lbf)



7. **INSTALL NO. 1 EXHAUST MANIFOLD HEAT INSULATOR**

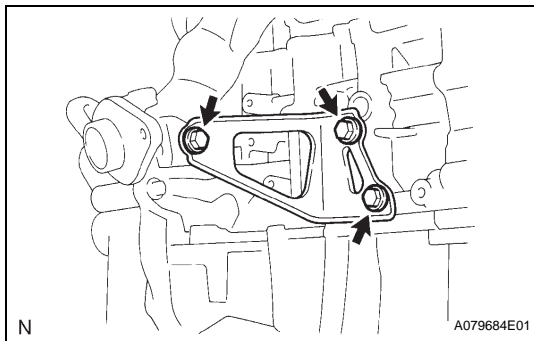
- (a) Install the exhaust manifold heat insulator with the 4 bolts.

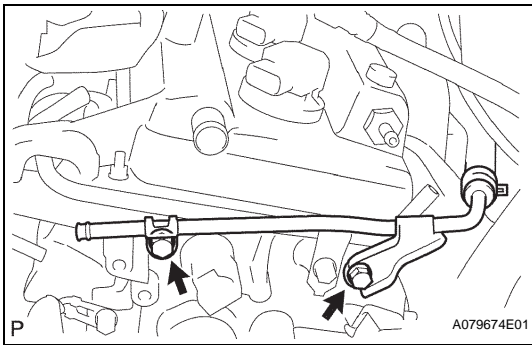
Torque: 8.0 N*m (82 kgf*cm, 71 in.*lbf)

8. **INSTALL MANIFOLD SUPPORT BRACKET**

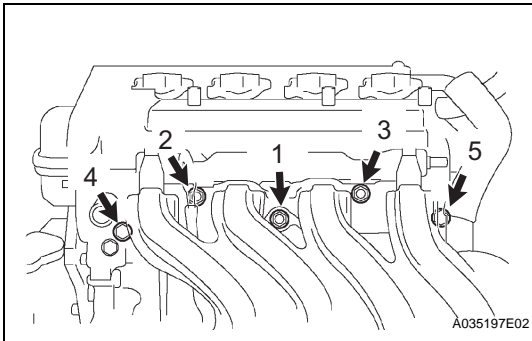
- (a) Install the manifold support bracket with the 3 bolts.

Torque: 44 N*m (449 kgf*cm, 32 ft.*lbf)



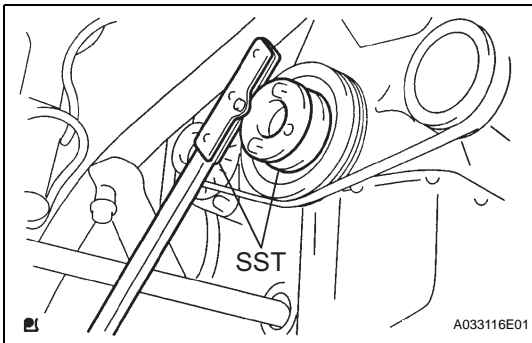
**9. INSTALL BOOSTER VACUUM TUBE**

- (a) Install the booster vacuum tube with the 2 bolts.
Torque: 9.0 N*m (92 kgf*cm, 80 in.*lbf)

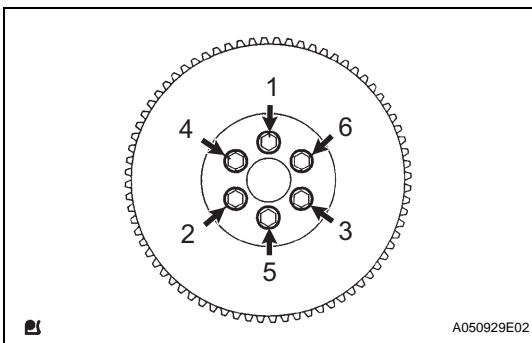
**10. INSTALL INTAKE MANIFOLD**

- (a) Install a new gasket onto the intake manifold.
 (b) Install the intake manifold with the 3 bolts and 2 nuts. Using several steps, uniformly tighten the bolts and nuts in the sequence shown in the illustration.
Torque: 30 N*m (306 kgf*cm, 22 ft.*lbf)

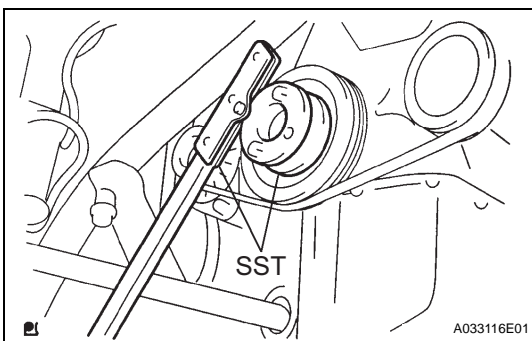
EM

11. CONNECT NO. 2 VENTILATION HOSE (See page EM-31)**12. CONNECT VENTILATION HOSE (See page EM-31)****13. INSTALL DRIVE PLATE (for Automatic Transaxle)**

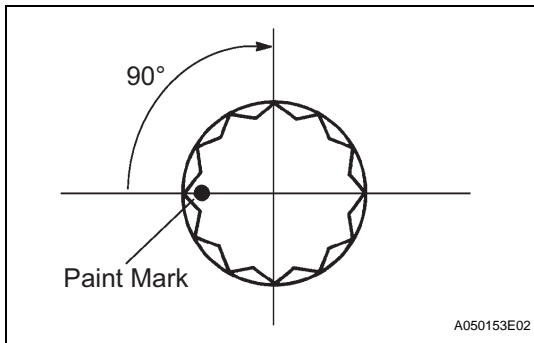
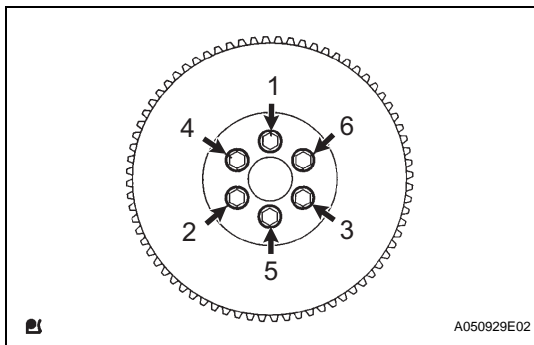
- (a) Hold the crankshaft pulley with SST.
SST 09213-58012 (91111-50845), 09330-00021



- (b) Install the drive plate.
 (1) Clean the bolt and bolt hole.
 (2) Apply adhesive to the bolts.
Adhesive:
Part No. 0933-00070, THREE BOND or equivalent
 (3) Using several steps, uniformly install and tighten the 6 bolts in the sequence shown in the illustration.
Torque: 88 N*m (900 kgf*cm, 65 ft.*lbf)

**14. INSTALL FLYWHEEL (for Manual Transaxle)**

- (a) Hold the crankshaft pulley with SST.
SST 09213-58012 (91111-50845), 09330-00021
 (b) Install the flywheel.
 (1) Clean the bolt hole.
 (2) Apply adhesive to the bolts.
Adhesive:
Part No. 0933-00070, THREE BOND or equivalent



- (3) Using several steps, uniformly install and tighten the 6 bolts in the sequence shown in the illustration.

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

NOTICE:

Do not reuse the flywheel bolt. It may cause breakage of the flywheel bolt.

- (4) Mark the flywheel bolt with paint.
 (5) Retighten the flywheel bolts by an additional 90°.
 (6) Check that the paint mark is at a 90° position from the original location.

15. INSTALL CLUTCH DISC (for Manual Transaxle) (See page CL-18)

16. INSTALL CLUTCH COVER (for Manual Transaxle) (See page CL-18)

17. INSTALL MANUAL TRANSAXLE (for Manual Transaxle) (See page MX-23)

18. INSTALL AUTOMATIC TRANSAXLE (for Automatic Transaxle) (See page AX-142)

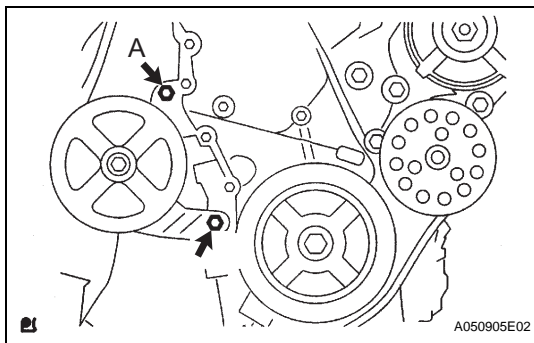
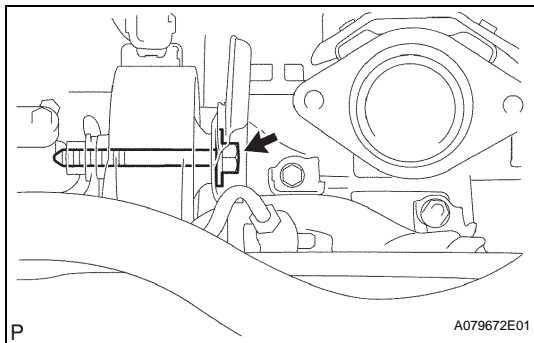
19. INSTALL GENERATOR (See page CH-15)

20. INSTALL STARTER (See page ST-14)

21. INSTALL FRONT SUSPENSION CROSSMEMBER

- (a) Fasten the bolt to secure the engine and transaxle assembly to the suspension crossmember.

Torque: 64 N*m (653 kgf*cm, 47 ft.*lbf)



22. INSTALL VANE PUMP

- (a) Install the vane pump assembly with the 2 bolts.

Torque: 44 N*m (449 kgf*cm, 33 ft.*lbf)

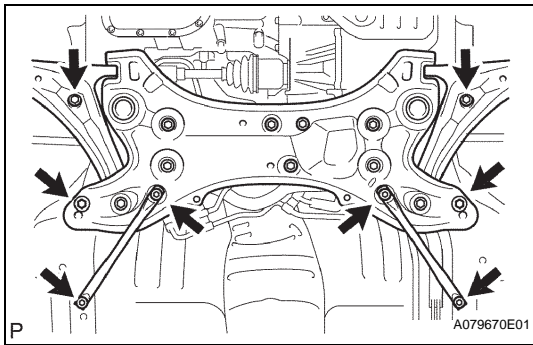
HINT:

Temporarily tighten bolt A so that the V belt can be adjusted in a later step.

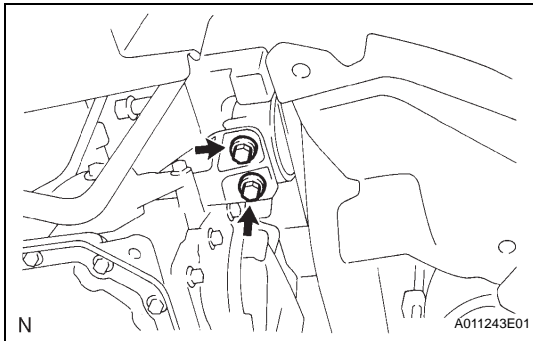
23. INSTALL VANE PUMP V BELT

- (a) Temporarily install the V belt on each pulley.

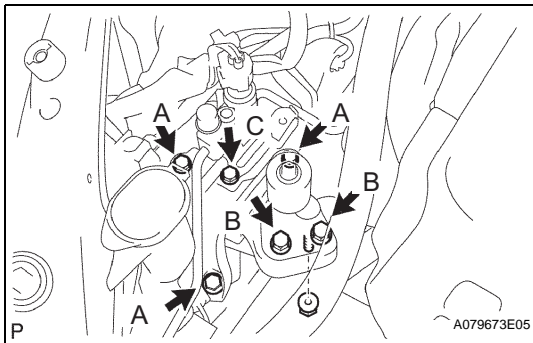
24. ADJUST VANE PUMP V BELT (See page EM-7)

**25. INSTALL ENGINE AND TRANSAXLE ASSEMBLY**

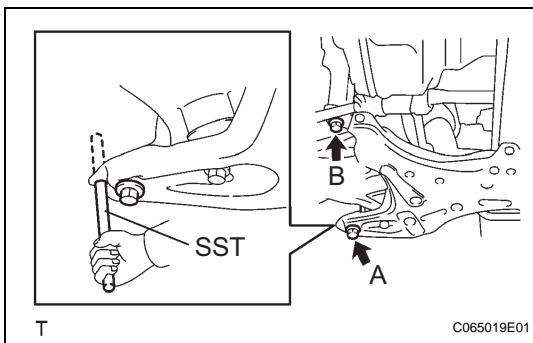
- (a) Set the engine together with the transaxle on the engine lifter.
- (b) Install the engine together with the transaxle onto the engine compartment.
- (c) Temporarily install the suspension crossmember with the 8 bolts.



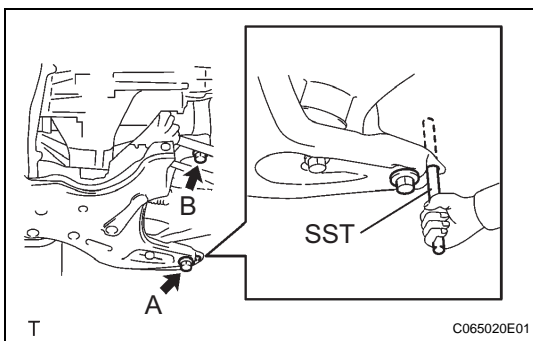
- (d) Install the engine mounting bracket LH onto the engine mounting insulator LH with the 2 bolts.
Torque: 49 N*m (500 kgf*cm, 36 ft.*lbf)



- (e) Install the engine mounting insulator RH with the 5 bolts and nut.
Torque: 45 N*m (459 kgf*cm, 33 ft.*lbf) for bolt A
52 N*m (530 kgf*cm, 38 ft.*lbf) for bolt B
52 N*m (530 kgf*cm, 38 ft.*lbf) for nut
- (f) Install the liquid tube with the bolt.
Torque: 9.8 N*m (100 kgf*cm, 7.2 in.*lbf) for bolt C



- (g) Insert SST to the positioning holes on the right-hand crossmember and on the right-hand of the vehicle.
SST 09670-00010
- (h) Temporarily tighten bolt A, and then tighten bolt B.



- (i) Insert SST into the positioning holes on the left-hand crossmember and on the left-hand of the vehicle.
SST 09670-00010
- (j) Temporarily tighten bolt A, and then tighten bolt B.
- (k) Insert SST into the positioning holes on the right-hand crossmember and the right-hand of the vehicle, and then tighten the bolts to the specified torque.
SST 09670-00010

Torque: 116 N*m (1,183 kgf*cm, 86 ft.*lbf) for bolt A

70 N*m (714 kgf*cm, 52 ft.*lbf) for bolt B

- (l) Insert SST into the positioning holes on the left-hand crossmember and the left-hand of the vehicle, and then tighten the bolts to the specified torque.

SST 09670-00010

Torque: 116 N*m (1,183 kgf*cm, 86 ft.*lbf) for bolt A

70 N*m (714 kgf*cm, 52 ft.*lbf) for bolt B

- (m) Tighten the 4 bolts shown in the illustration.

Torque: 47 N*m (479 kgf*cm, 35 ft.*lbf)

26. INSTALL FRONT SUSPENSION ARM LOWER LH

- (a) Install the front suspension arm lower to the steering knuckle with the nut.

Torque: 98 N*m (999 kgf*cm, 72 ft.*lbf)

- (b) Install a new clip.

HINT:

Perform the same procedure as above on the opposite side.

27. INSTALL TIE ROD END LH

- (a) Connect the tie rod end to the steering knuckle with the nut.

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

- (b) Install a new cotter pin.

NOTICE:

- **Be careful of the threads and taper portions of the tie rod end to prevent contact with oils.**
- **After tightening the castle nut, turn it clockwise less than 60° to align the pin holes for the cotter pin.**

HINT:

Perform the same procedure as above on the opposite side.

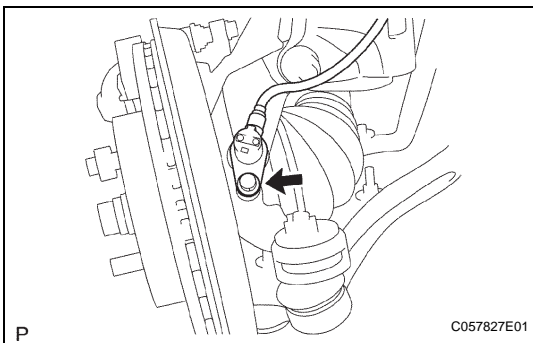
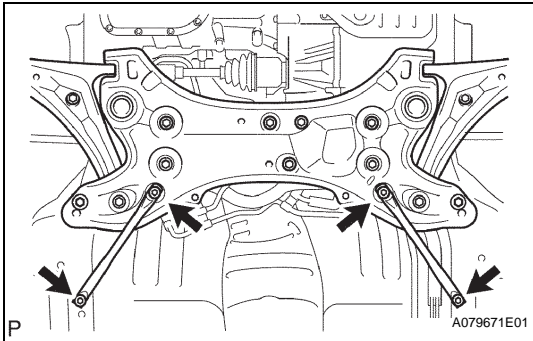
28. CONNECT SPEED SENSOR FRONT LH (w/ ABS)

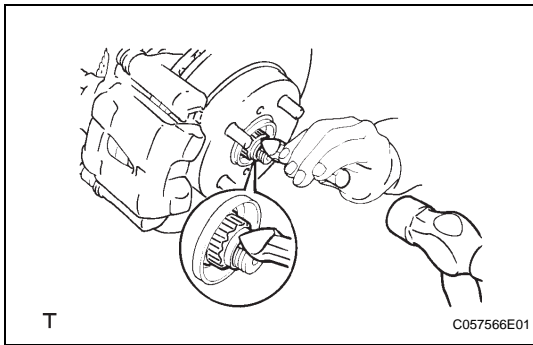
- (a) Install the speed sensor with the bolt.

Torque: 8.0 N*m (82 kgf*cm, 71 in.*lbf)

HINT:

Perform the same procedure as above on the opposite side.



**29. INSTALL FRONT AXLE HUB LH NUT**

- (a) Using a 30 mm socket wrench, install the new hub nut.

Torque: 216 N*m (2,203 kgf*cm, 160 ft.*lbf)

- (b) Using a chisel and hammer, stake the hub nut.

HINT:

Perform the same procedure as above on the opposite side.

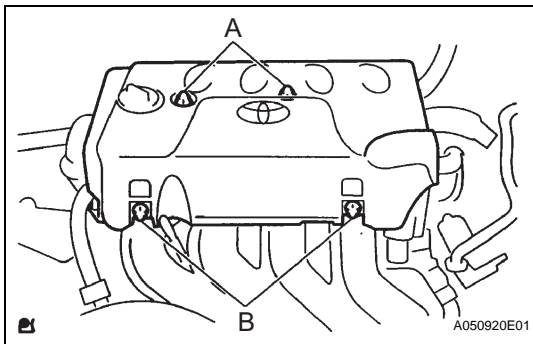
30. INSTALL STEERING INTERMEDIATE SHAFT (See page [SR-12](#))**31. INSTALL FRONT EXHAUST PIPE (See page [EX-5](#))****32. INSTALL FRONT FLOOR PANEL BRACE (See page [EX-7](#))****33. INSTALL COOLER COMPRESSOR (See page [AC-80](#))****34. INSTALL GENERATOR V BELT**

- (a) Temporarily install the V belt on each pulley.

35. ADJUST GENERATOR V BELT (See page [EM-7](#))**36. INSTALL CLUTCH RELEASE CYLINDER (for Automatic Transaxle) (See page [CL-14](#))****37. CONNECT TRANSMISSION CONTROL CABLE (for Automatic Transaxle) (See page [AX-145](#))****38. CONNECT TRANSMISSION CONTROL CABLE (for Manual Transaxle) (See page [MX-25](#))****39. CONNECT FUEL TUBE (See page [FU-15](#))****40. INSTALL AIR CLEANER (See page [ES-348](#))****41. INSTALL BATTERY****42. INSTALL NO. 2 CYLINDER HEAD COVER**

- (a) First tighten the nuts labeled A, and then tighten the nuts labeled B.

Torque: 7.0 N*m (71 kgf*cm, 62 in.*lbf)

43. INSTALL RADIATOR (See page [CO-20](#))**44. INSTALL UPPER RADIATOR SUPPORT (See page [CO-21](#))****45. INSTALL RADIATOR SUPPORT OPENING COVER****46. INSTALL HOOD LOCK SUPPORT BRACE (See page [CO-21](#))****47. CONNECT HOOD LOCK (See page [CO-21](#))****48. INSTALL FRONT BUMPER COVER (See page [ET-4](#))****49. INSTALL RADIATOR GRILLE (See page [ET-4](#))****50. CONNECT OIL COOLER OUTLET HOSE (for Automatic Transaxle)****51. CONNECT OIL COOLER INLET HOSE (for Automatic Transaxle)****52. CONNECT RADIATOR HOSE OUTLET**

53. REMOVE RADIATOR HOSE INLET
54. ADD ENGINE OIL (See page [LU-3](#))
55. ADD ENGINE COOLANT (See page [CO-5](#))
56. CHECK FOR ENGINE OIL LEAKS
57. CHECK FOR ENGINE COOLANT LEAKS (See page [CO-1](#))
58. CHECK FOR FUEL LEAKAGE (See page [FU-8](#))
59. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT
HINT:
Inspect and adjust front wheel alignment (see page [SP-2](#)).
60. INSPECT IGNITION TIMING (See page [EM-1](#))
61. INSPECT ENGINE IDLE SPEED (See page [EM-2](#))
62. INSPECT CO/HC (See page [EM-3](#))
63. INSPECT ABS SPEED SENSOR SIGNAL
64. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL