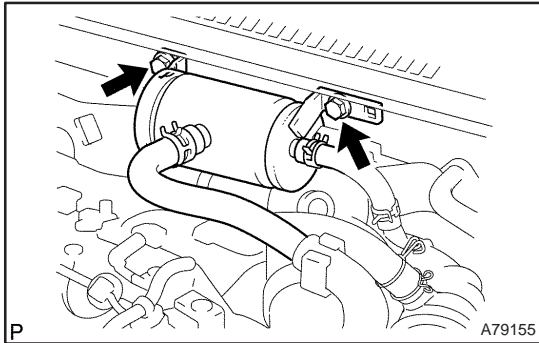


## REPLACEMENT

1. REMOVE ENGINE UNDER COVER SUB-ASSY NO.1
2. DRAIN ENGINE COOLANT ([See page 16-44](#))
3. REMOVE RADIATOR SUPPORT OPENING COVER
4. REMOVE ENGINE COVER NO.1
  - (a) Remove the 5 nuts and the engine cover.

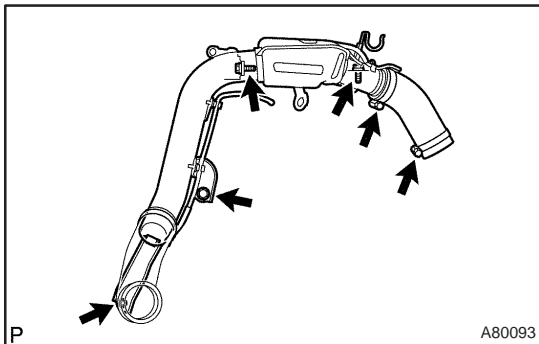


### 5. REMOVE VACUUM RESERVOIR SUB-ASSY

- (a) Disconnect the 2 vacuum hoses and the connector.
- (b) Remove the 2 bolts and the vacuum reservoir.

### 6. REMOVE AIR CLEANER ASSY

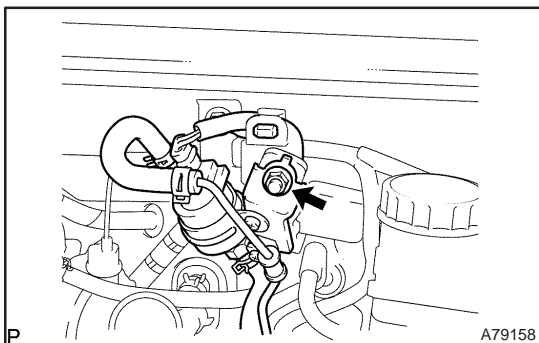
- (a) Disconnect the PCV hose and the connector.
- (b) Remove the air cleaner cap with the air cleaner hose.
- (c) Remove the air cleaner filter element.
- (d) Remove the 3 bolts and the air cleaner case.



### 7. REMOVE INTERCOOLER AIR HOSE

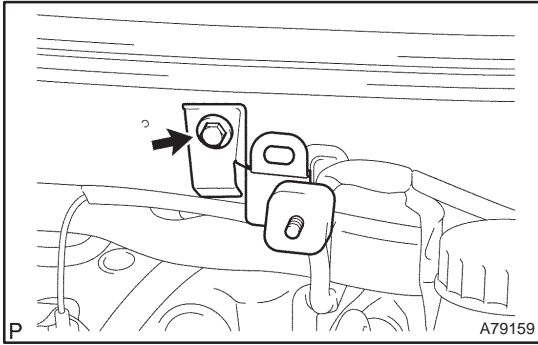
- (a) Remove the 3 bolts and nut, separate the air tube No.1.
- (b) Loosen the hose clamp bolts and remove the air hose No.1.

### 8. REMOVE FUEL FILTER ASSY ([See page 11-82](#))

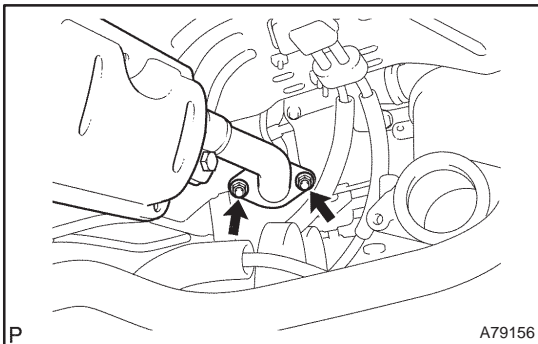


### 9. SEPARATE HEATER PUMP ASSY (W/ COLD AREA)

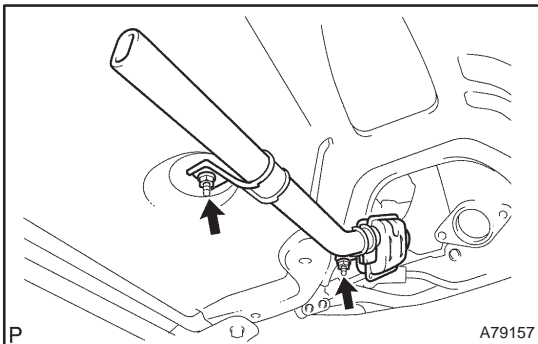
- (a) Remove the nut and disconnect the connector.
- (b) Separate the heater pump.

**10. REMOVE HEATER BRACKET (W/ COLD AREA)**

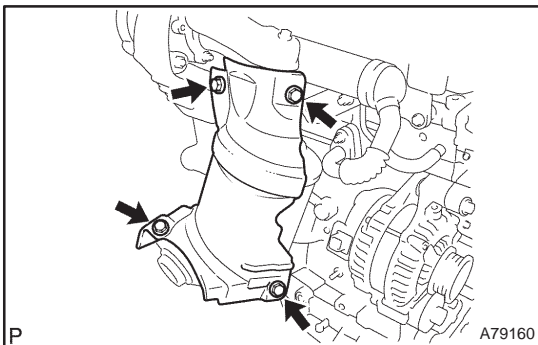
- (a) Remove the bolt and the heater bracket.

**11. REMOVE FLOOR PANEL BRACE FRONT (See page 15-10)****12. REMOVE EXHAUST PIPE ASSY FRONT (See page 15-10)****13. REMOVE EXHAUST PIPE ASSY (W/ COLD AREA)**

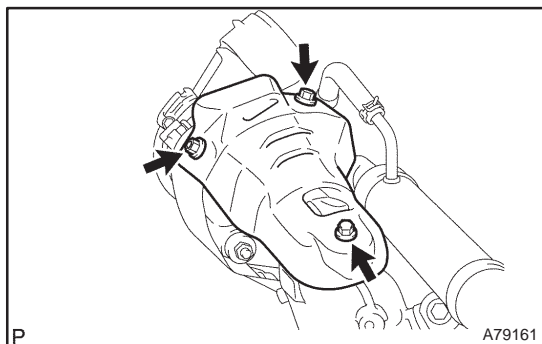
- (a) Remove the 2 nuts.



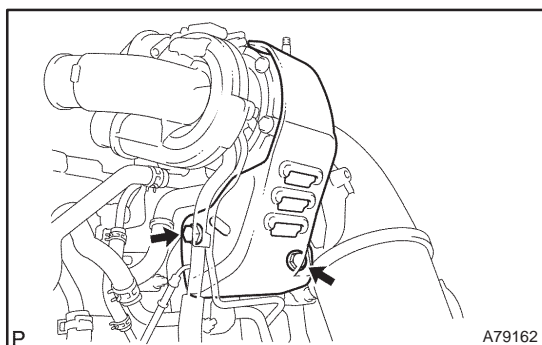
- (b) Remove the 2 nuts and the exhaust pipe sub-assy.

**14. REMOVE TURBO INSULATOR NO.2**

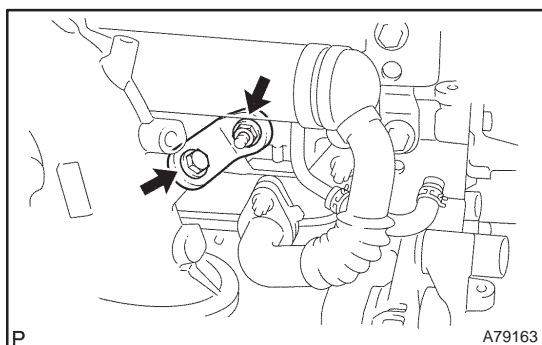
- (a) Remove the 4 bolts and the turbo insulator.

**15. REMOVE TURBO INSULATOR NO.1**

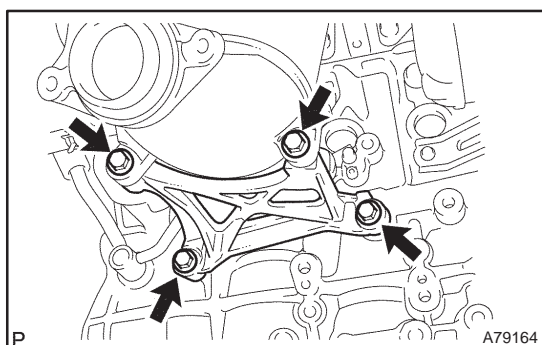
- (a) Remove the 2 bolts and nut, and then remove the turbo insulator.

**16. REMOVE EXHAUST MANIFOLD HEAT INSULATOR NO.2**

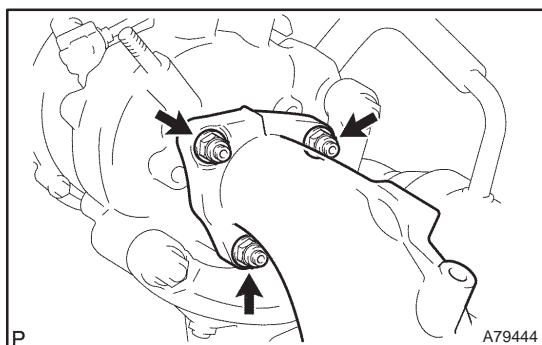
- (a) Remove the 2 bolts and the exhaust manifold heat insulator.

**17. REMOVE MANIFOLD STAY NO.2**

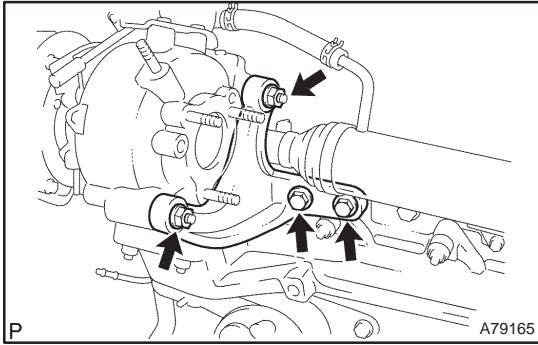
- (a) Remove the bolt and nut and then remove the manifold stay.

**18. REMOVE MANIFOLD STAY**

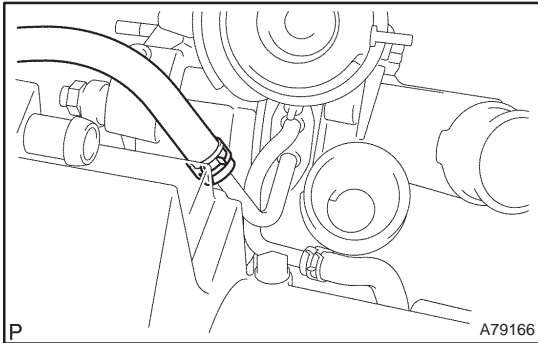
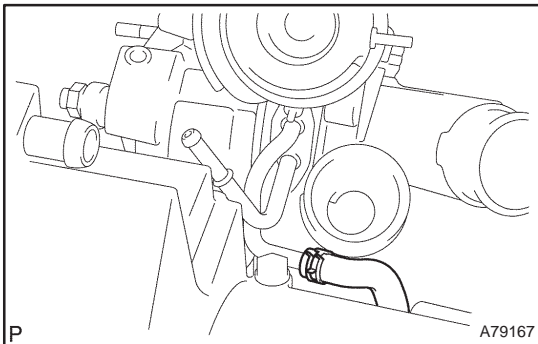
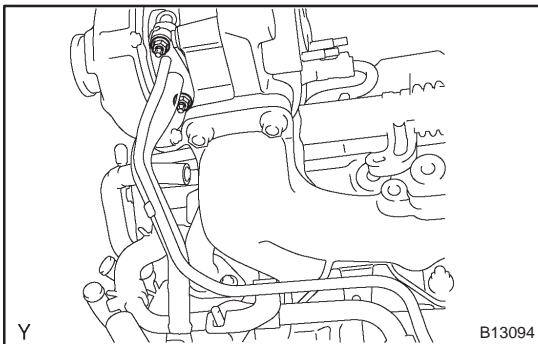
- (a) Remove the 4 bolts and the manifold stay.

**19. REMOVE EXHAUST MANIFOLD CONVERTER SUB-ASSY**

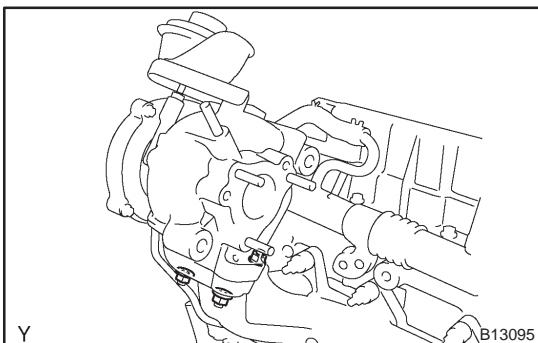
- (a) Remove the 3 nuts, the manifold converter and the gasket.

**20. REMOVE TURBOCHARGER STAY**

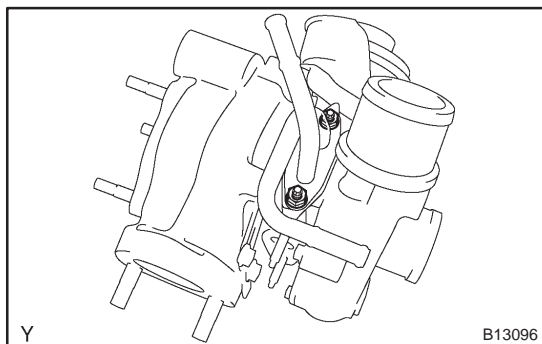
- (a) Remove the 2 bolts and 2 nuts, and then remove the turbocharger stay.

**21. DISCONNECT TURBO WATER HOSE NO.1****22. DISCONNECT TURBO WATER HOSE NO.2****23. SEPARATE TURBO OIL INLET PIPE SUB-ASSY**

- (a) Remove the 2 nuts, the turbo oil pipe and the gasket.

**24. REMOVE TURBOCHARGER SUB-ASSY**

- (a) Remove the 3 nuts, the turbocharger and the gasket.

**25. REMOVE TURBO WATER PIPE SUB-ASSY NO.1**

- (a) Remove the 2 nuts, the turbo water pipe and the gasket.

**26. INSTALL TURBO WATER PIPE SUB-ASSY NO.1**

- (a) Install a new gasket and the turbo water pipe with the 2 nuts.

**Torque: 13 N·m (135 kgf·cm, 9.7 ft·lbf)**

**27. INSTALL TURBOCHARGER SUB-ASSY**

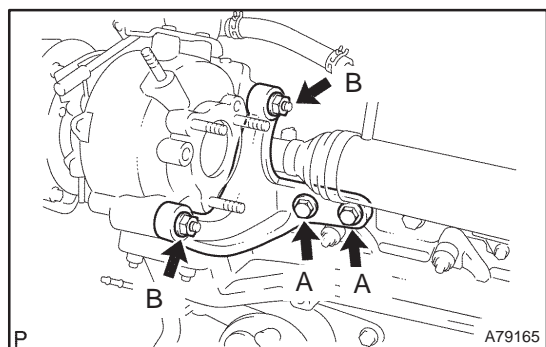
- (a) Install a new gasket and the turbocharger with the 3 nuts.

**Torque: 53 N·m (540 kgf·cm, 39 ft·lbf)**

**28. INSTALL TURBO OIL INLET PIPE SUB-ASSY**

- (a) Install a new gasket and the oil pipe with the 2 nuts.

**Torque: 13 N·m (135 kgf·cm, 9.7 ft·lbf)**

**29. INSTALL TURBOCHARGER STAY**

- (a) Install the turbocharger stay, and temporarily tighten bolt A.

- (b) Temporarily tighten nut B while pushing the cylinder head toward the turbocharger stay.

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

- (c) Tighten bolt A.

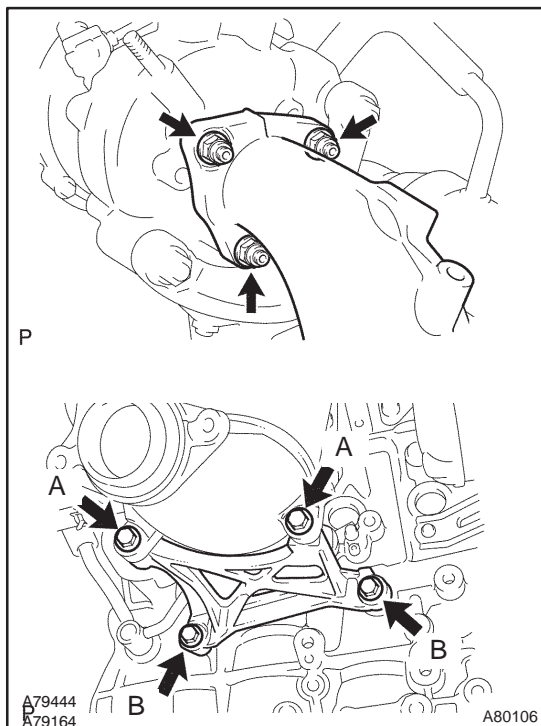
**Torque: 56 N·m (571 kgf·cm, 41 ft·lbf)**

- (d) Tighten nut B.

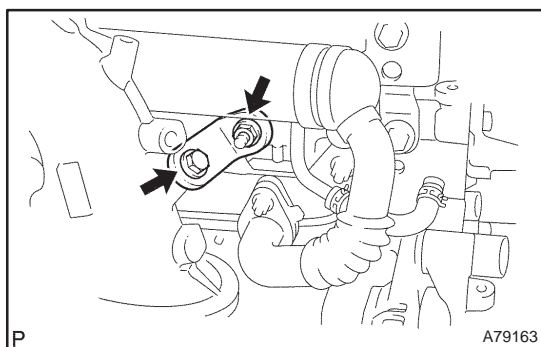
**Torque: 56 N·m (571 kgf·cm, 41 ft·lbf)**

**30. INSTALL EXHAUST MANIFOLD CONVERTER SUB-ASSY**

- (a) Install the manifold stay, and temporarily tighten the cylinder block side of the manifold stay.



- (b) Install a new gasket and the manifold converter, and temporarily tighten bolts A and bolts B while pushing the upper portion of the converter toward the turbocharger.  
**Torque: 8.0 N·m (82 kgf·cm, 71 in·lbf)**
- (c) Tighten the 3 nuts.  
**Torque: 25 N·m (255 kgf·cm, 18 ft·lbf)**
- (d) Tighten bolts A.  
**Torque: 61 N·m (622 kgf·cm, 45 ft·lbf)**
- (e) Tighten bolts B.  
**Torque: 61 N·m (622 kgf·cm, 45 ft·lbf)**



### 31. INSTALL MANIFOLD STAY NO.2

- (a) Install the manifold stay No. 2, and temporarily tighten the bolt.
- (b) Temporarily tighten the nut while pushing the manifold stay No. 2 toward the cylinder head.  
**Torque: 8.0 N·m (82 kgf·cm, 71 in·lbf)**

#### HINT:

No clearance between the stay and the cylinder head should be confirmed.

- (c) Tighten the bolt.  
**Torque: 56 N·m (571 kgf·cm, 41 ft·lbf)**
- (d) Tighten the nut.  
**Torque: 56 N·m (571 kgf·cm, 41 ft·lbf)**

### 32. INSTALL EXHAUST MANIFOLD HEAT INSULATOR NO.2

**Torque: 12 N·m (122 kgf·cm, 8.9 ft·lbf)**

### 33. INSTALL TURBO INSULATOR NO.1

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

### 34. INSTALL TURBO INSULATOR NO.2

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

### 35. INSTALL EXHAUST PIPE ASSY (W/ COLD AREA)

**Torque: 7.5 N·m (76 kgf·cm, 66 in·lbf)**

### 36. INSTALL EXHAUST PIPE ASSY FRONT (See page 15-10)

### 37. INSTALL FLOOR PANEL BRACE FRONT (See page 15-10)

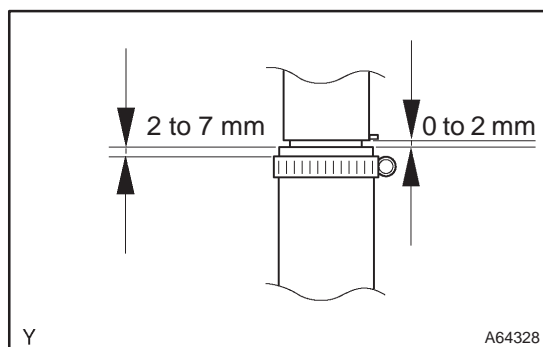
### 38. INSTALL HEATER BRACKET (W/ COLD AREA)

**Torque: 7.5 N·m (76 kgf·cm, 66 in·lbf)**

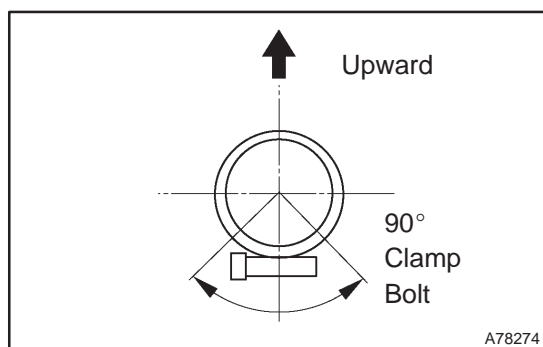
### 39. INSTALL HEATER PUMP ASSY (W/ COLD AREA)

**Torque: 7.5 N·m (76 kgf·cm, 66 in·lbf)**

### 40. INSTALL FUEL FILTER ASSY (See page 11-82)

**41. INSTALL INTERCOOLER AIR HOSE**

- (a) Install the air hose and hose clamps as shown in the illustration.



- (b) Tighten the hose clamps as shown in the illustration.

**Torque: 6.0 N·m (61 kgf·cm, 53 in·lbf)**

- (c) Install the air tube No. 1 with the 3 bolts and nut.

**Torque: 25 N·m (255 kgf·cm, 18 ft·lbf)**

**42. INSTALL AIR CLEANER ASSY**

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

**43. INSTALL VACUUM RESERVOIR SUB-ASSY**

**Torque: 8.3 N·m (85 kgf·cm, 73 in·lbf)**

**44. INSTALL ENGINE COVER NO.1**

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

**45. ADD ENGINE COOLANT (See page 16-44)****46. CHECK ENGINE OIL LEVEL****47. CHECK FOR ENGINE COOLANT LEAKS (See page 16-44)****48. CHECK FOR ENGINE OIL LEAKS****49. CHECK FOR FUEL LEAKS (See page 11-60)****50. CHECK FOR EXHAUST GAS LEAKS**