

## INSTALLATION

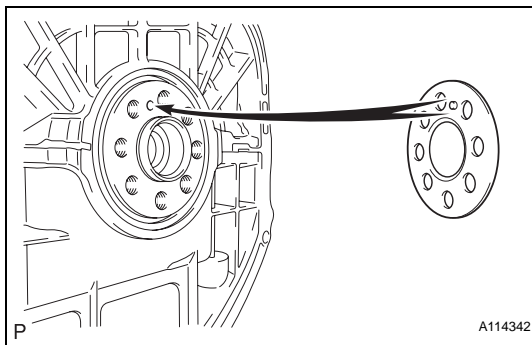
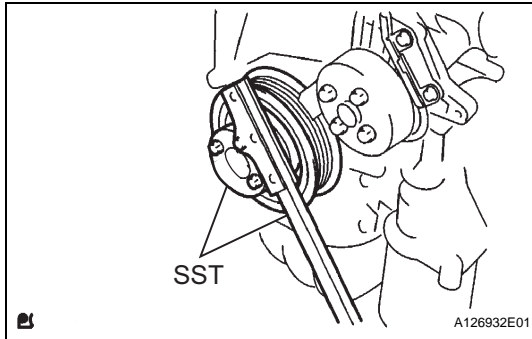
### 1. INSTALL DRIVE PLATE SUB-ASSEMBLY

- (a) Clean the 8 bolts and 8 bolt holes.
- (b) Apply adhesive to 2 or 3 threads of the 8 bolts.

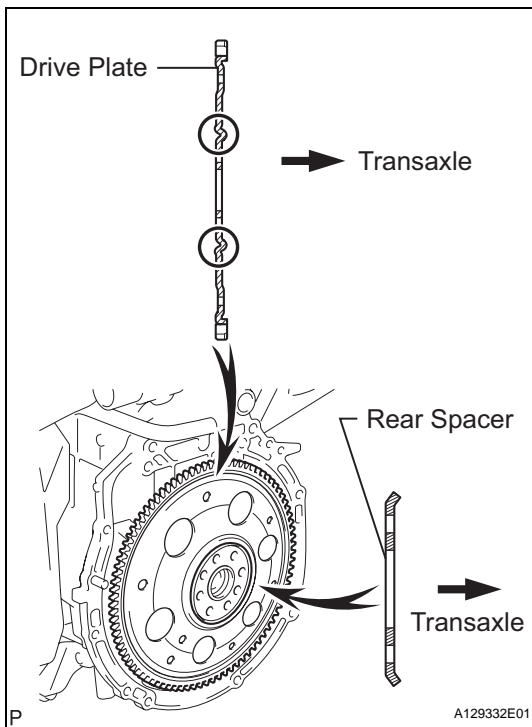
**Adhesive:**

**Toyota Genuine Adhesive 1342, Three Bond 1342 or Equivalent**

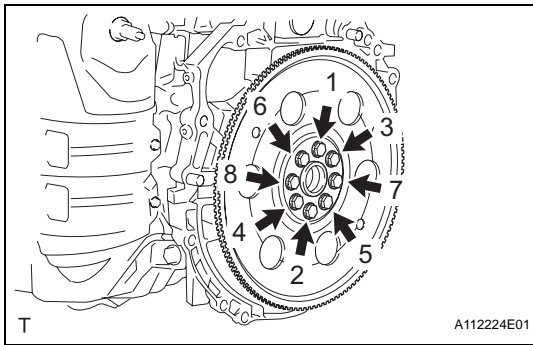
- (c) Using SST, hold the crankshaft.  
**SST 09213-54015 (91651-60855), 09330-00021**



- (d) Install the front spacer.  
**HINT:**  
Align the pin of the front spacer with the pin hole of the crankshaft.



- (e) Install the drive plate and rear spacer onto the crankshaft.



- (f) Using several steps, uniformly install and tighten the 8 bolts in the sequence shown in the illustration.  
**Torque: 98 N\*m (1,000 kgf\*cm, 72 ft.\*lbf)**

**2. INSTALL TORQUE CONVERTER CLUTCH ASSEMBLY**

- (a) Install the torque converter clutch for U241E (2WD) (see page [AX-148](#)).
- (b) Install the torque converter clutch for U140F (4WD) (see page [AX-149](#)).

**3. INSTALL AUTOMATIC TRANSAXLE ASSEMBLY**

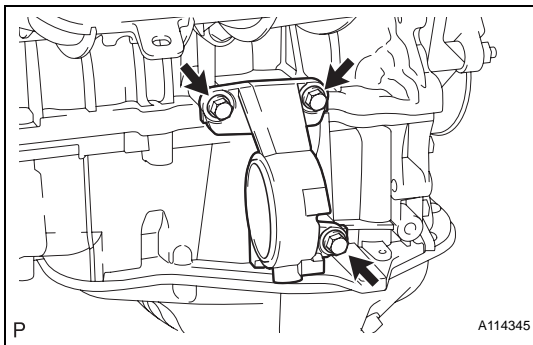
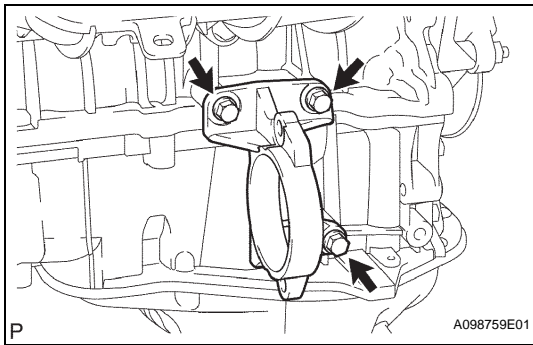
- (a) Install the automatic transaxle for U241E (2WD) (see page [AX-149](#)).
- (b) Install the automatic transaxle for U140F (4WD) (see page [AX-150](#)).

**4. INSTALL STARTER ASSEMBLY (See page [ST-14](#))**

**5. INSTALL TRANSFER ASSEMBLY (for 4WD) (See page [TF-75](#))**

**6. INSTALL DRIVE SHAFT BEARING BRACKET (for 2WD)**

- (a) Install the bracket with the 3 bolts.  
**Torque: 64 N\*m (653 kgf\*cm, 47 ft.\*lbf)**

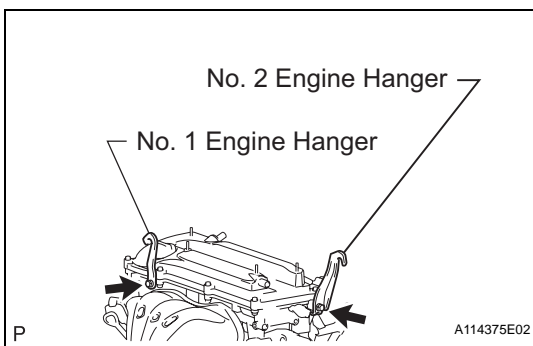


**7. INSTALL DRIVE SHAFT BEARING BRACKET (for 4WD)**

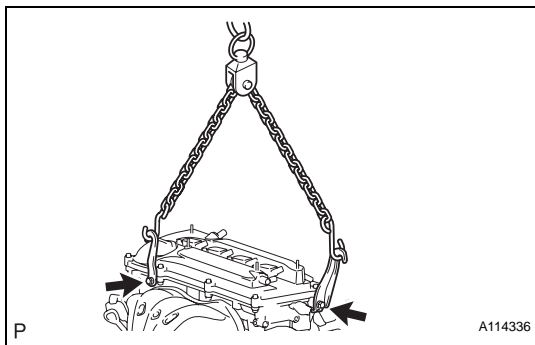
- (a) Install the bracket with the 3 bolts.  
**Torque: 64 N\*m (653 kgf\*cm, 47 ft.\*lbf)**

**8. INSTALL ENGINE HANGER**

- (a) Install the No. 1 and No. 2 engine hangers.  
**Torque: 38 N\*m (387 kgf\*cm, 28 ft.\*lbf)**  
**Part No.**



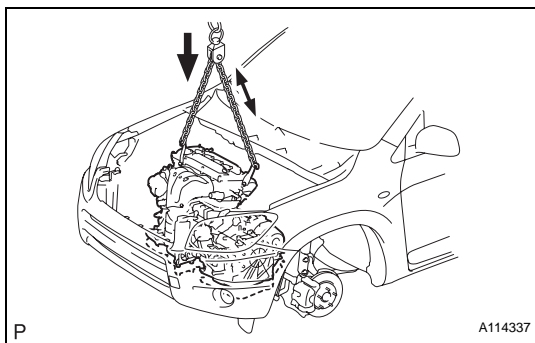
ITEM	Part No.
No. 1 engine hanger	12281-28010
No. 2 engine hanger	12282-28010
Bolt	91512-61020



- (b) Attach the sling device and the engine with the chain block.

### 9. INSTALL ENGINE ASSEMBLY WITH TRANSAXLE

- (a) Lift the engine assembly (with transaxle) with the chain block.



- (b) Lower the engine out of the vehicle slowly and carefully.

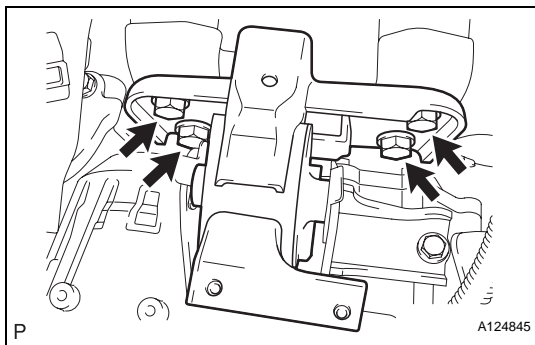
**NOTICE:**

**Make sure the engine is clear of all wiring, hoses and cables.**

### 10. INSTALL ENGINE MOUNTING INSULATOR LH

- (a) Install the engine mounting insulator LH with the 4 bolts.

**Torque: 95 N\*m (969 kgf\*cm, 70 ft.\*lbf)**

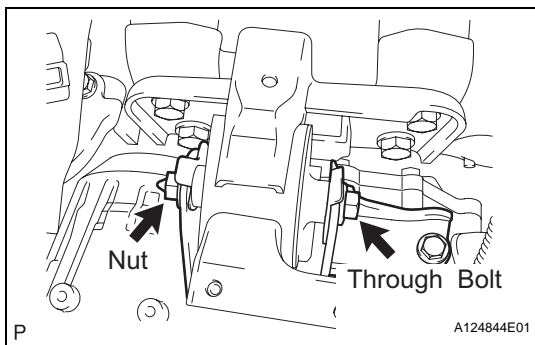


- (b) Install the engine mounting insulator LH with the through bolt and nut.

**HINT:**

Install the through bolt by tightening the nut.

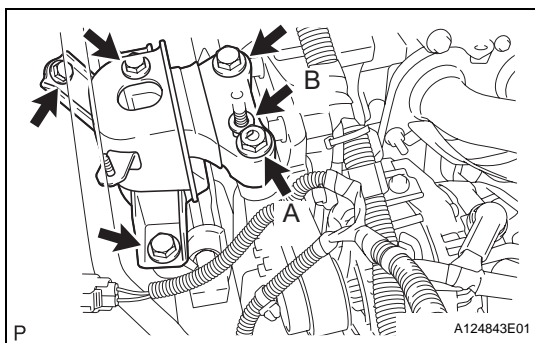
**Torque: 56 N\*m (571 kgf\*cm, 41 ft.\*lbf)**

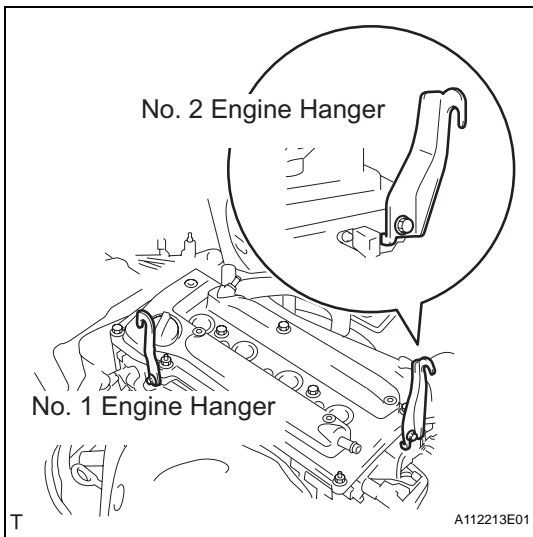


### 11. INSTALL ENGINE MOUNTING INSULATOR RH

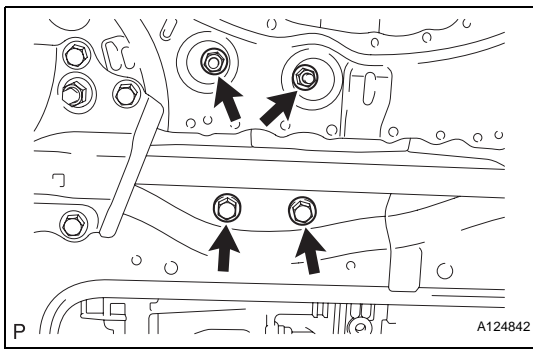
- (a) Install the engine mounting insulator RH with the 2 bolts and 2 nuts.

**Torque: 95 N\*m (969 kgf\*cm, 70 ft.\*lbf) for bolt**  
**95 N\*m (969 kgf\*cm, 70 ft.\*lbf) for nut A**  
**52 N\*m (530 kgf\*cm, 38 ft.\*lbf) for nut B**



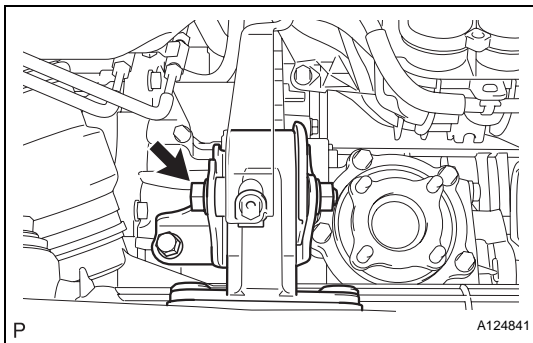
**12. REMOVE ENGINE HANGER**

- (a) Remove the No. 1 and No. 2 engine hangers.

**13. INSTALL ENGINE MOUNTING INSULATOR RR**

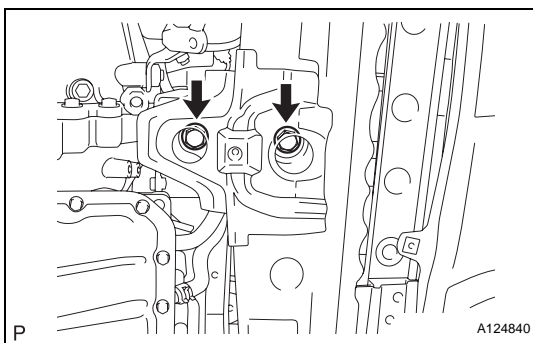
- (a) Install the engine mounting insulator RR with the 2 nuts and 2 bolts.

**Torque: 95 N\*m (969 kgf\*cm, 70 ft.\*lbf)**



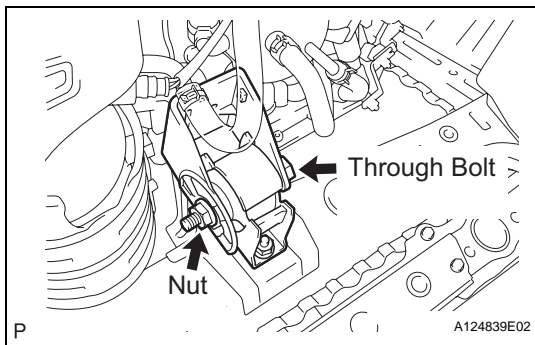
- (b) Install the through bolt which is used to secure the rear engine mounting insulator, into the rear engine mounting bracket.

**Torque: 95 N\*m (969 kgf\*cm, 70 ft.\*lbf)**

**14. INSTALL ENGINE MOUNTING INSULATOR FR**

- (a) Install the engine mounting insulator FR with the 2 bolts.

**Torque: 95 N\*m (969 kgf\*cm, 70 ft.\*lbf)**



- (b) Install the through bolt and nut which is used to secure the front engine mounting bracket FR.  
**HINT:**  
 Install the through bolt by tightening the nut.  
**Torque: 145 N\*m (1,479 kgf\*cm, 107 ft.\*lbf)**

**15. INSTALL PROPELLER SHAFT ASSEMBLY (for 4WD)**

- (a) Install the propeller shaft (see page [PR-5](#)).

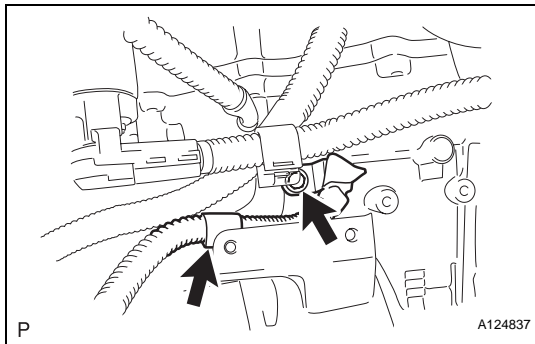
**16. INSTALL FRONT DRIVE SHAFT ASSEMBLY**

- (a) Install the front drive shaft RH (for 2WD) (see page [DS-32](#)).  
 (b) Install the front drive shaft RH (for 4WD) (see page [DS-65](#)).

**17. INSTALL FRONT EXHAUST PIPE (See page [EX-4](#))**

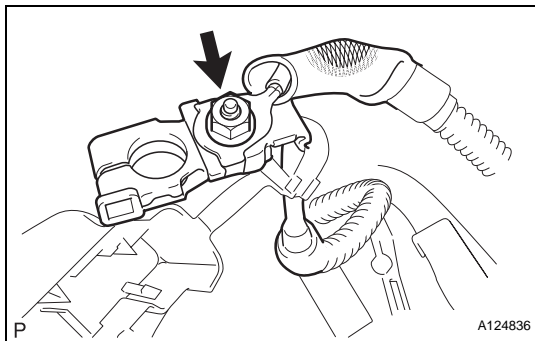
**18. CONNECT ENGINE WIRE**

- (a) Install the ground cable with the bolt located near the starter.  
**Torque: 13 N\*m (133 kgf\*cm, 10 ft.\*lbf)**  
 (b) Connect the ground cable to the clamp located near the starter.

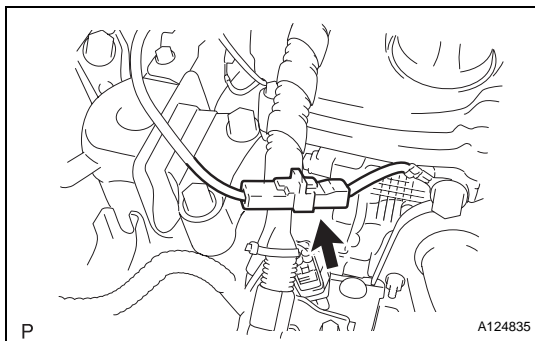


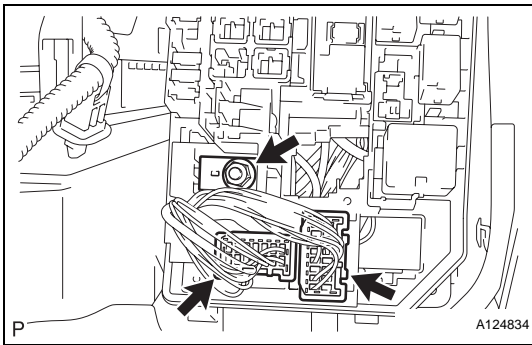
- (c) Connect the engine wire to the positive (+) battery terminal with the nut.

**Torque: 13 N\*m (133 kgf\*cm, 10 ft.\*lbf)**

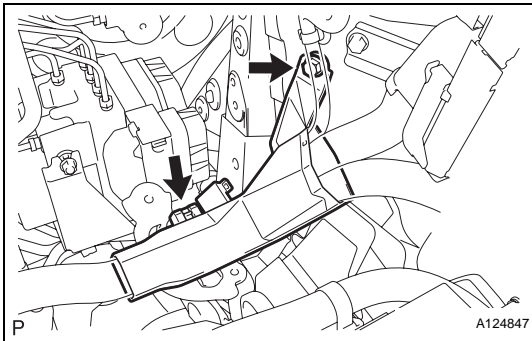


- (d) Connect the ground cable connector.



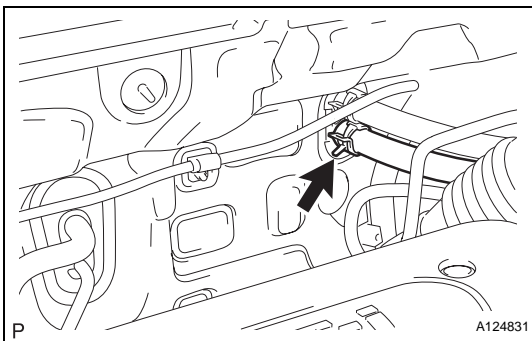


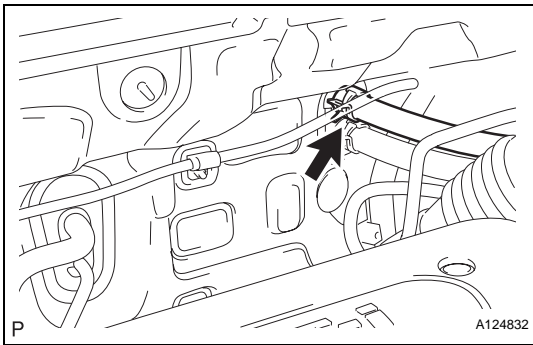
- (e) Connect the 2 engine wire connectors and install the nut.
- (f) Install the engine room relay block cover.



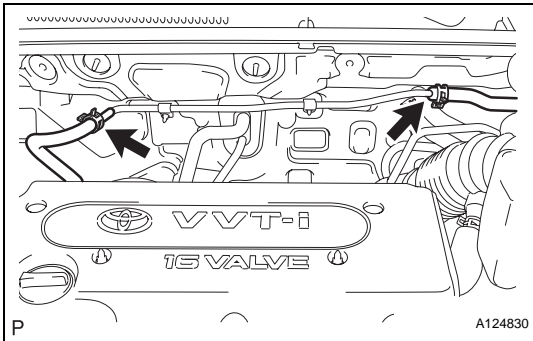
- (g) Attach the clamp of the engine wire cover.
- (h) Install the engine wire cover to with the bolt.

19. **INSTALL ECM** (See page [ES-430](#))
20. **INSTALL COOLER COMPRESSOR ASSEMBLY** (See page [AC-217](#))
21. **INSTALL GENERATOR ASSEMBLY** (See page [CH-15](#))
22. **INSTALL FAN AND GENERATOR V BELT** (See page [EM-7](#))
23. **INSTALL FRONT SUSPENSION MEMBER REINFORCEMENT RH** (See page [EM-7](#))
24. **INSTALL TRANSAXLE CONTROL CABLE ASSEMBLY**
  - (a) Install the transaxle control cable for U241E (see page [AX-130](#)).
  - (b) Install the transaxle control cable for U140F (see page [AX-130](#)).
25. **INSTALL INTAKE MANIFOLD INSULATOR** (See page [ES-421](#))
26. **INSTALL INTAKE MANIFOLD** (See page [ES-421](#))
27. **INSTALL FUEL DELIVERY PIPE SUB-ASSEMBLY** (See page [FU-13](#))
28. **CONNECT NO. 2 VENTILATION HOSE** (See page [FU-14](#))
29. **INSTALL THROTTLE BODY ASSEMBLY** (See page [ES-413](#))
30. **CONNECT FUEL TUBE** (See page [FU-14](#))
31. **CONNECT HEATER WATER OUTLET HOSE**
  - (a) Connect the heater water outlet hose to the air conditioner tube.

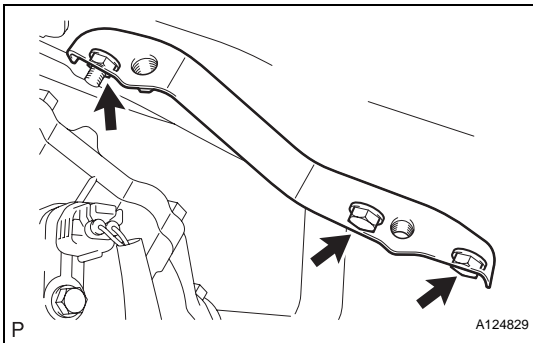


**32. CONNECT HEATER WATER INLET HOSE**

- (a) Connect the heater water inlet hose to the air conditioner tube.

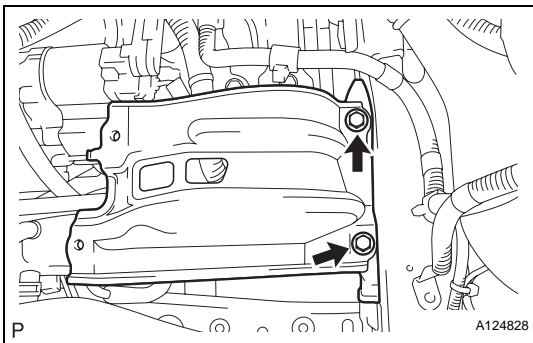
**33. CONNECT UNION TO CONNECTOR TUBE HOSE**

- (a) Connect the 2 union to connector tube hoses to the booster vacuum tube.

**34. INSTALL BATTERY CARRIER BRACKET**

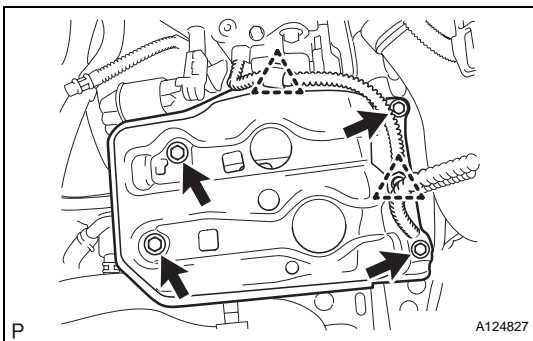
- (a) Install the battery carrier bracket with the nut and 2 bolts.

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

**35. INSTALL BATTERY BRACKET REINFORCEMENT**

- (a) Install the battery bracket reinforcement with the 2 bolts.

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

**36. INSTALL FRONT BATTERY CARRIER**

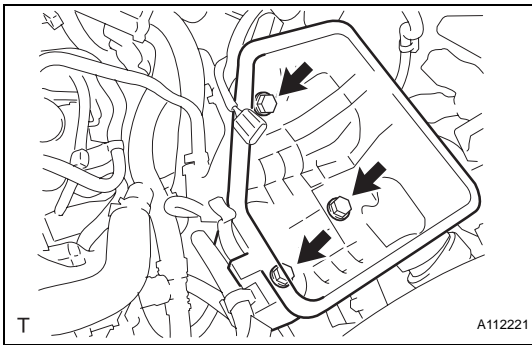
- (a) Install the front battery carrier with the 4 bolts.

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

- (b) Connect the 2 clamps of the engine wire.

**37. INSTALL AIR CLEANER CASE SUB-ASSEMBLY**

- (a) Connect the air cleaner case to the No. 1 air cleaner inlet.

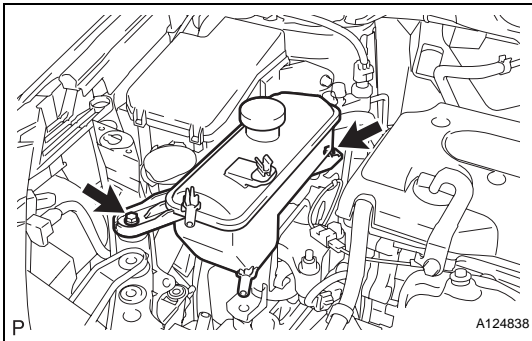


- (b) Install the air cleaner case with the 3 bolts.  
**Torque: 5.0 N\*m (51 kgf\*cm, 44 in.\*lbf)**

**38. INSTALL AIR CLEANER FILTER ELEMENT SUB-ASSEMBLY**

**39. INSTALL AIR CLEANER CAP (See page [ES-413](#))**

**40. INSTALL PURGE VSV (See page [EC-16](#))**



**41. INSTALL RADIATOR RESERVOIR**

- (a) Install the reservoir with the 2 bolts.  
**Torque: 5.0 N\*m (51 kgf\*cm, 44 in.\*lbf)**

**42. INSTALL RADIATOR ASSEMBLY**

- (a) Install the radiator (see page [CO-32](#)).

**43. INSTALL BATTERY TRAY**

**44. INSTALL BATTERY**

- (a) Install the battery.  
 (b) Install the battery clamp with the bolt and nut.  
**Torque: 8.5 N\*m (87 kgf\*cm, 75 in.\*lbf) for bolt**  
**5.0 N\*m (51 kgf\*cm, 44 in.\*lbf) for nut**

**45. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**

**46. ADD AUTOMATIC TRANSAXLE FLUID**

- (a) Add automatic transaxle fluid for U241E (2WD) (see page [AX-151](#)).  
 (b) Add automatic transaxle fluid for U140F (4WD) (see page [AX-152](#)).

**47. CHECK FOR FUEL LEAKS (See page [FU-14](#))**

**48. ADD ENGINE COOLANT (See page [CO-6](#))**

**49. CHECK FOR ENGINE COOLANT LEAKS**

- (a) Check for engine coolant leaks (see page [CO-1](#)).

**50. CHECK FOR AUTOMATIC TRANSAXLE FLUID LEAKS**

**51. ADJUST SHIFT LEVER POSITION**

- (a) Adjust the shift lever position for U241E (2WD) (see page [AX-138](#)).  
 (b) Adjust the shift lever position for U140F (4WD) (see page [AX-138](#)).

**52. INSTALL NO. 1 ENGINE COVER (See page [EM-43](#))**

**53. INSTALL FRONT FENDER APRON RH**

**54. INSTALL NO. 2 ENGINE UNDER COVER**

**55. INSTALL NO. 1 ENGINE UNDER COVER**

**56. INSTALL FRONT WHEEL**

**57. INSTALL RADIATOR SUPPORT OPENING COVER**



**58. INSTALL HOOD SUB-ASSEMBLY**

- (a) Install the hood (see page [ED-7](#)).
- (b) Adjust the hood (see page [ED-5](#)).

**59. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT**

- (a) Inspect and adjust the front wheel alignment (see page [SP-3](#)).

**60. PERFORM REGISTRATION**

- (a) When replacing the engine assembly, perform vehicle stability control system recognition in ECM (see page [CC-12](#)).

**61. RESET MEMORY (for Automatic Transaxle)**

- (a) When replacing the engine assembly, perform the RESET MEMORY procedure (A/T initialization) for U241E (2WD) (see page [AX-18](#)) and for U140F (4WD) (see page [AX-18](#)).