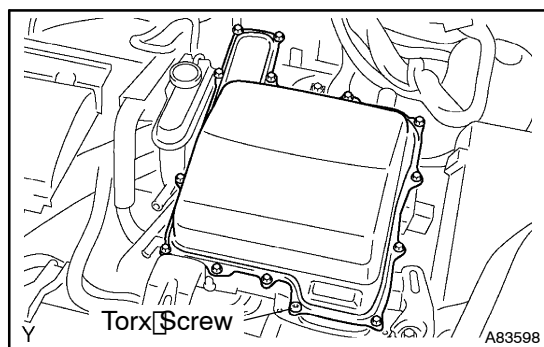


REPLACEMENT

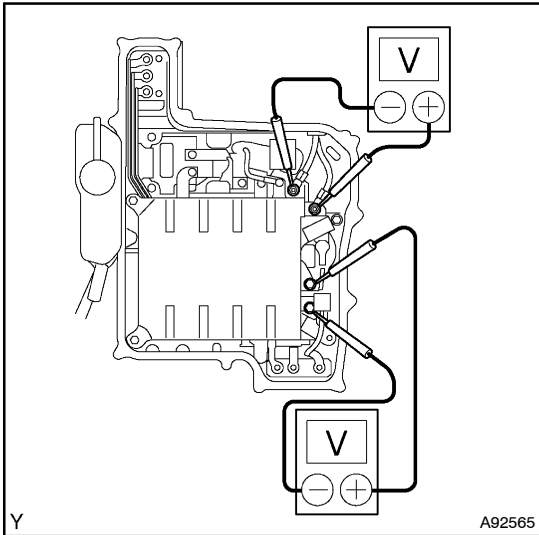
NOTICE:

- When working on the high voltage systems, always wear insulating gloves.
 - After removing the service plug grip, do not operate the power switch as it may damage the hybrid vehicle control ECU.
 - Keep the removed service plug in your pocket to prevent other technicians from reconnecting it while you are servicing the vehicle.
 - After removing the service plug grip, do not touch the high voltage connectors and terminals for 5 minutes.
1. PRECAUTION (See page 21-8)
 2. REMOVE ENGINE UNDER COVER LH
 3. REMOVE ENGINE UNDER COVER RH
 4. DRAIN HV COOLANT (See page 22-4)
 5. REMOVE REAR FLOOR BOARD NO.2 (See page 21-120)
 6. REMOVE DECK FLOOR BOX REAR (See page 21-120)
 7. REMOVE REAR FLOOR BOARD NO.3 (See page 21-120)
 8. DISCONNECT BATTERY NEGATIVE TERMINAL (See page 21-120)
 9. REMOVE SERVICE PLUG GRIP (See page 21-120)
 10. REMOVE FRONT WIPER ARM HEAD CAP (See page 66-16)
 11. REMOVE FRONT WIPER ARM (DRIVER SIDE POSITION) (See page 66-16)
 12. REMOVE FRONT WIPER ARM (PASSENGER SIDE POSITION) (See page 66-16)
 13. REMOVE HOOD TO COWL TOP SEAL (See page 66-16)
 14. REMOVE COWL TOP VENTILATOR LOUVER LH (See page 66-16)
 15. REMOVE COWL TOP VENTILATOR LOUVER RH (See page 66-16)
 16. REMOVE WINDSHIELD WIPER MOTOR & LINK ASSY (See page 66-16)
 17. REMOVE COWL TOP PANEL SUB-ASSY OUTER FRONT (See page 11-16)
 18. REMOVE RADIATOR SUPPORT OPENING COVER



19. REMOVE INVERTER COVER

- (a) Using a T30 Torx socket wrench, remove the Torx screw.
- (b) Remove the 12 bolts and inverter cover.



20. VERIFY THAT VOLTAGE OF W/CONVERTER INVERTER ASSY IS 0V

NOTICE:

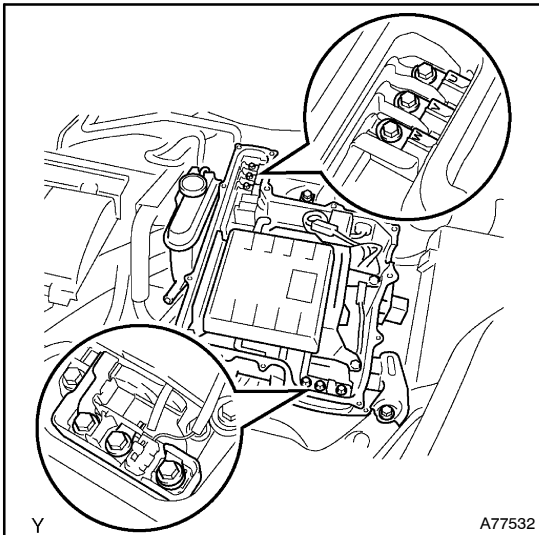
Wear insulating gloves.

- (a) Using a voltmeter, measure the voltage of the high voltage DC line.

Standard: 0 V

HINT:

Use measuring range of DC 400 V or more on the voltmeter.

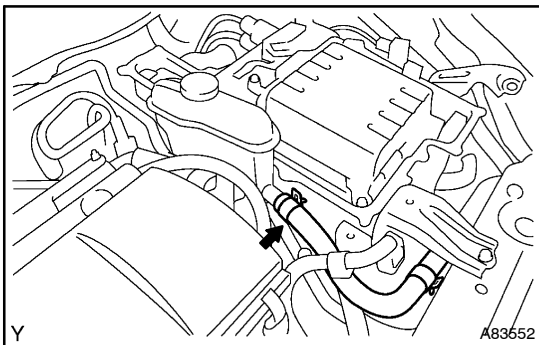


- (b) Using the voltmeter, measure the voltage between the terminals of the three phase connector (U – V, V – W, U – W).

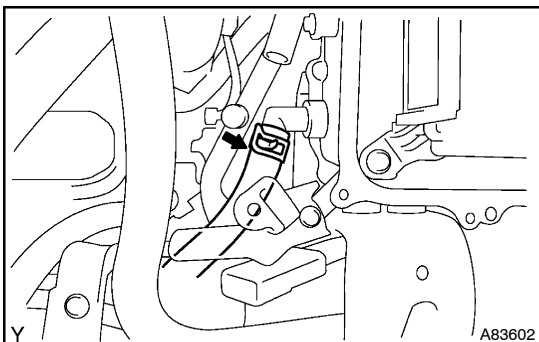
Standard: 0 V

HINT:

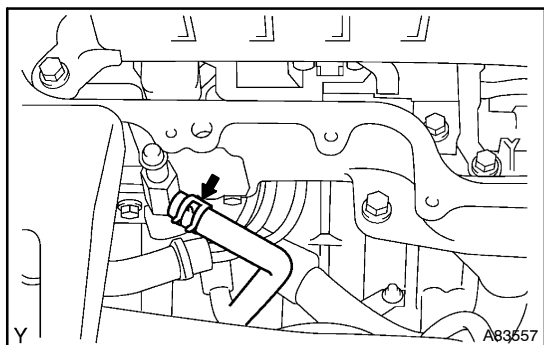
Use measuring range of DC 400 V or more on the voltmeter.



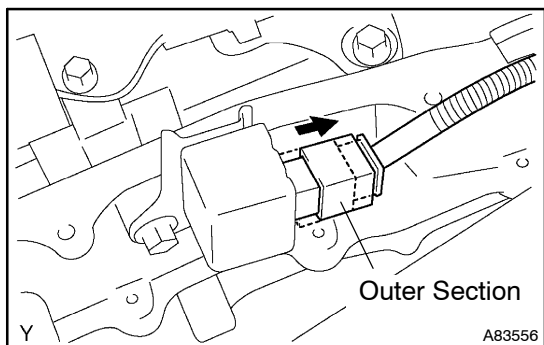
21. DISCONNECT INVERTER COOLING HOSE NO.2



22. DISCONNECT INVERTER COOLING HOSE NO.1

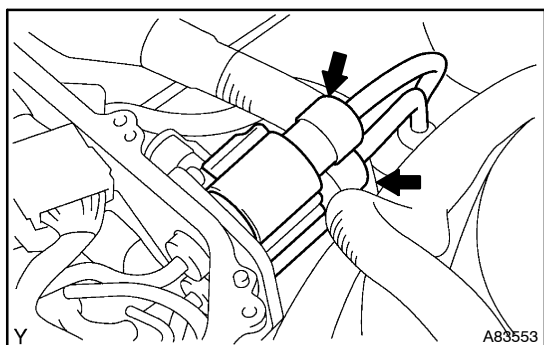


23. DISCONNECT INVERTER COOLING HOSE NO.6



24. SEPARATE CIRCUIT BREAKER SENSOR NO.1

- (a) Move the outer section to the wire harness side as illustrated, then disconnect the circuit breaker sensor No. 1.

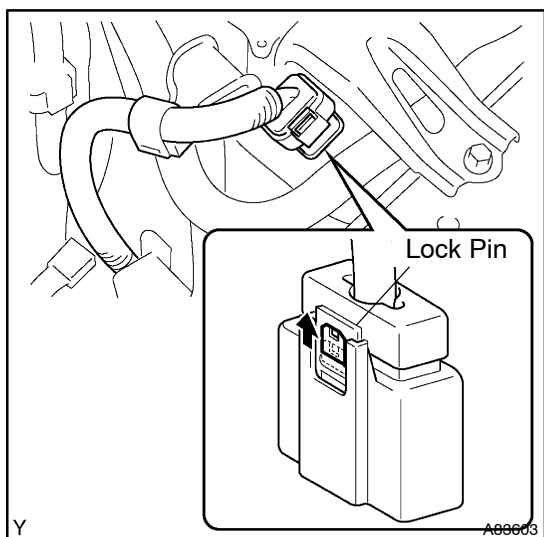


25. DISCONNECT FRAME WIRE

NOTICE:

- Wear insulating gloves.
- After removing the service plug grip, be sure to wait for at least 5 minutes before performing any work.
- Insulate the electrode and connector parts with insulating tape.

- (a) Remove the 2 frame wire connectors from the with converter inverter assembly.



26. REMOVE W/CONVERTER INVERTER ASSY

- (a) Using a small screwdriver, lift up the lock pin (green) as illustrated to unlock.

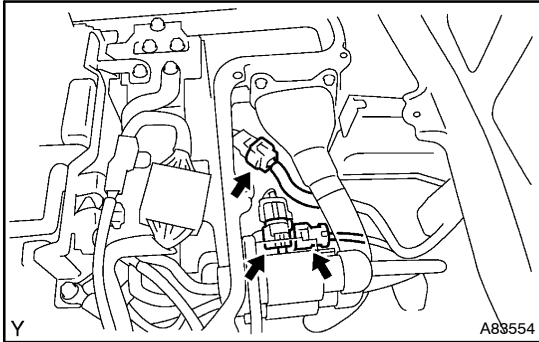
NOTICE:

Wear insulating gloves.

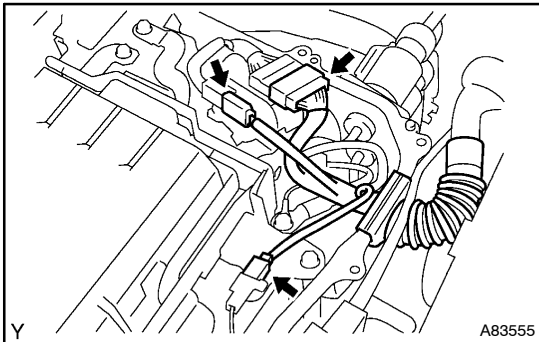
- (b) Disconnect the connector for the air conditioner inverter.

NOTICE:

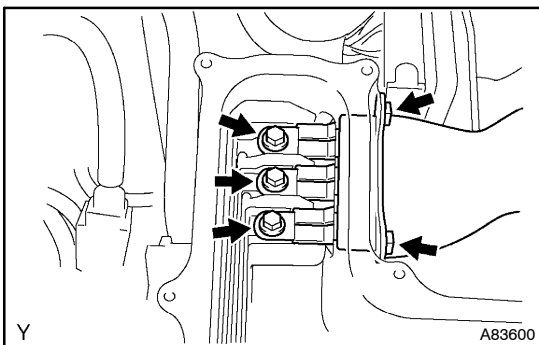
Wear insulating gloves.



(c) Disconnect the 3 connectors shown in the illustration.



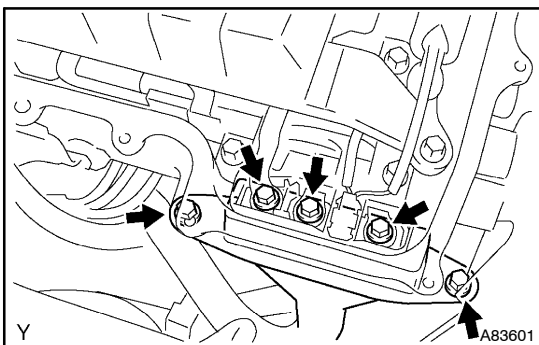
(d) Disconnect the 3 connectors shown in the illustration and the engine main wire harness.



(e) Remove the 5 bolts, then disconnect the MG2 power cable.

NOTICE:

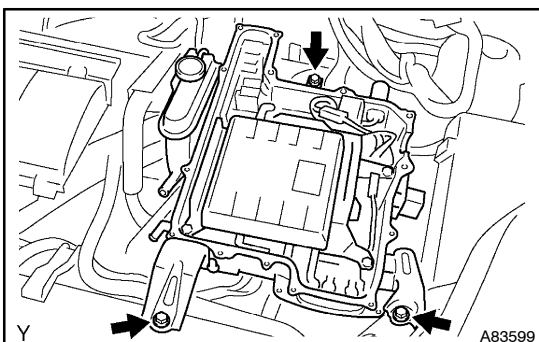
- **Wear insulating gloves.**
- **Insulate the connector parts with insulating tape.**



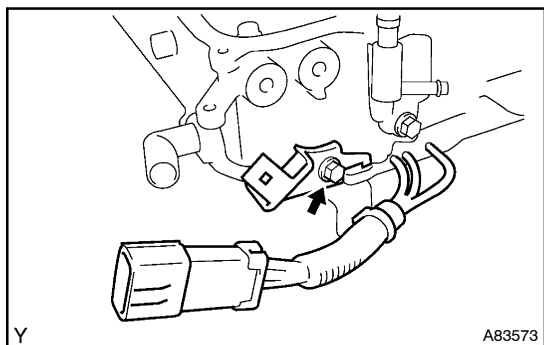
(f) Remove the 5 bolts, then disconnect the MG1 power cable.

NOTICE:

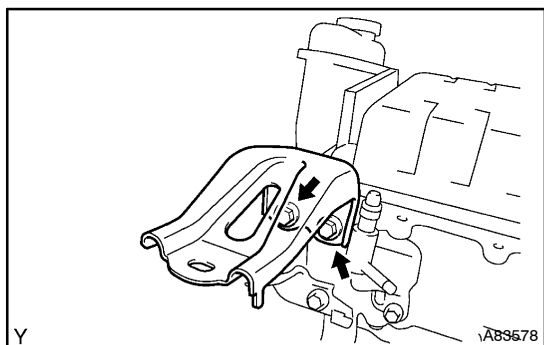
- **Wear insulating gloves.**
- **Insulate the connector parts with insulating tape.**



(g) Remove the 3 bolts and the with converter inverter assembly.

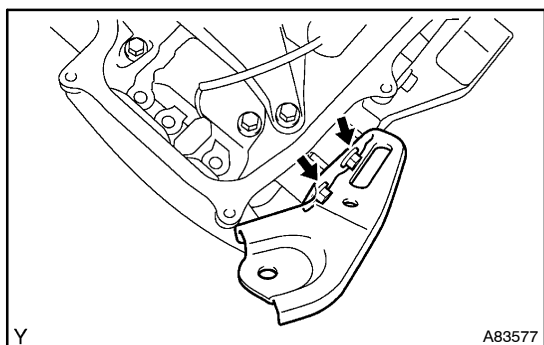


- (h) Disconnect the connector for the air conditioner inverter from the bracket.
- (i) Remove the bolt and connector bracket for the air conditioner inverter.



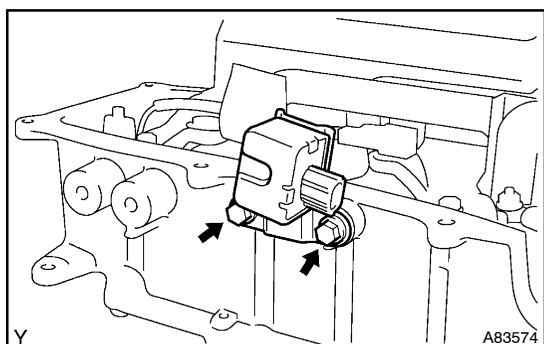
27. REMOVE INVERTER BRACKET NO.1

- (a) Remove the 2 bolts and inverter bracket No. 1.



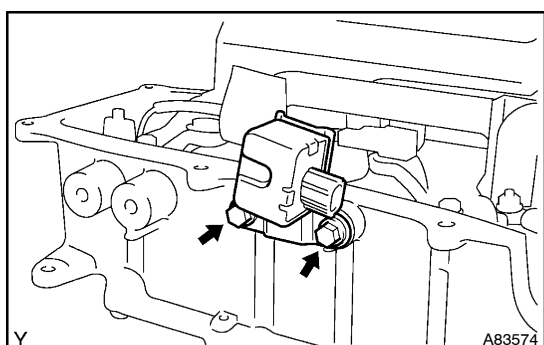
28. REMOVE INVERTER BRACKET NO.2

- (a) Remove the 2 bolts and inverter bracket No. 2.



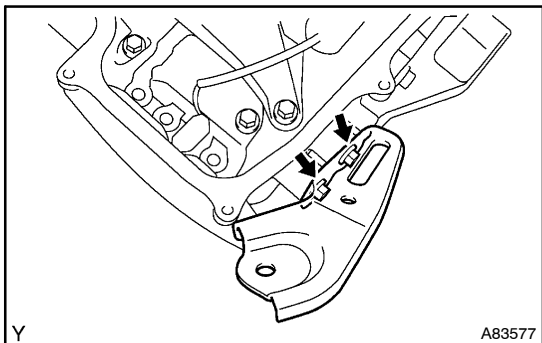
29. REMOVE CIRCUIT BREAKER SENSOR NO.1

- (a) Remove the 2 bolts and circuit breaker sensor No. 1.

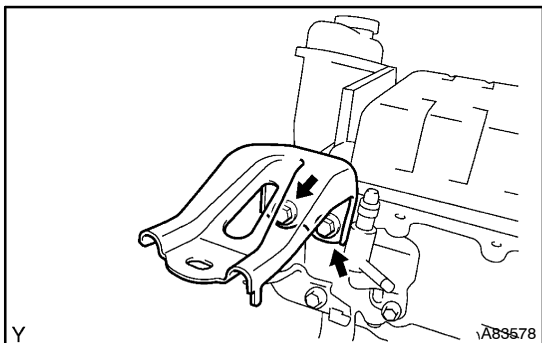


30. INSTALL CIRCUIT BREAKER SENSOR NO.1

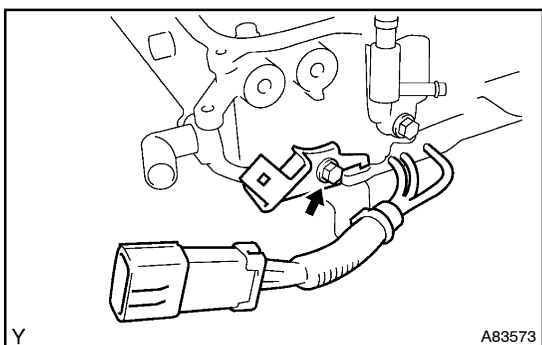
- (a) Install the circuit breaker sensor No. 1 with the 2 bolts.
Torque: 8.0 N·m (82 kgf·cm, 71 in·lbf)

**31. INSTALL INVERTER BRACKET NO.2**

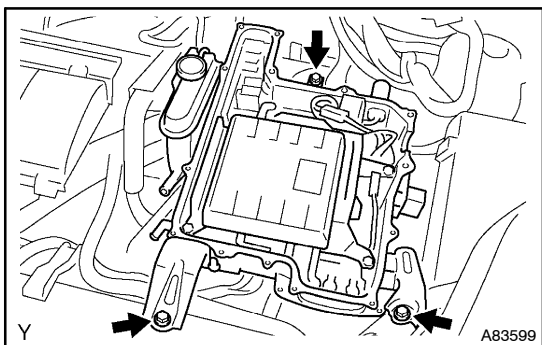
- (a) Install the inverter bracket No. 2 with the 2 bolts.
Torque: 25 N·m (255 kgf·cm, 18 ft·lbf)

**32. INSTALL INVERTER BRACKET NO.1**

- (a) Install the inverter bracket No. 1 with the 2 bolts.
Torque: 25 N·m (255 kgf·cm, 18 ft·lbf)

**33. INSTALL W/CONVERTER INVERTER ASSY**

- (a) Install the connector bracket for the air conditioner inverter with the bolt.
Torque: 8.0 N·m (82 kgf·cm, 71 in·lbf)
- (b) Install the connector for the air conditioner inverter on the bracket.

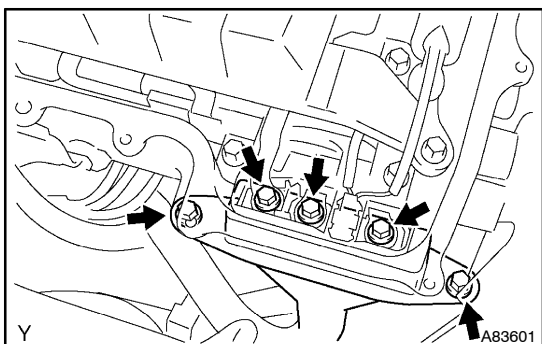


- (c) Install the with converter inverter assembly with the 3 bolts.

NOTICE:

Wear insulating gloves.

Torque: 21 N·m (214 kgf·cm, 16 ft·lbf)

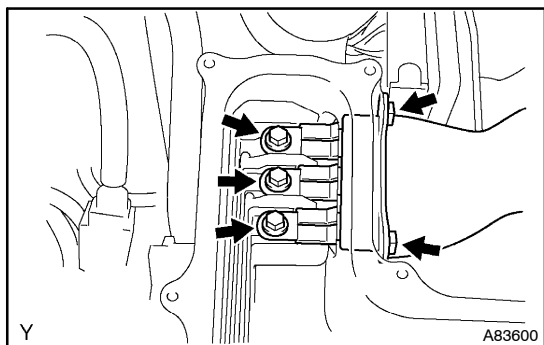


- (d) Install the MG1 power cable to the MG1 power cable terminal with the 5 bolts.

NOTICE:

Wear insulating gloves.

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

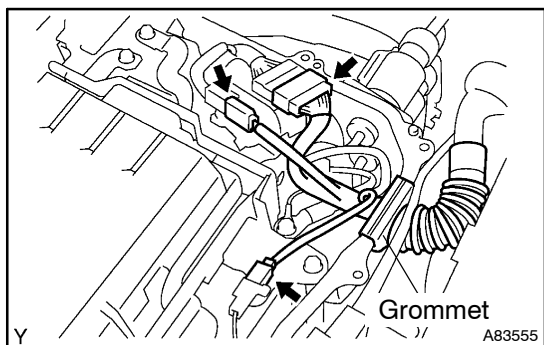


- (e) Install the MG2 power cable to the MG2 power cable terminal with the 3 bolts.

NOTICE:

Wear insulating gloves.

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



- (f) Connect the 3 connectors shown in the illustration.

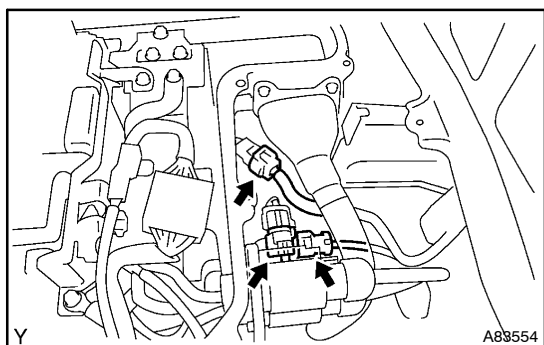
NOTICE:

Wear insulating gloves.

- (g) Insert the grommet of the engine main wire harness into the U-shaped groove of the inverter case.

NOTICE:

Wear insulating gloves.



- (h) Connect the 3 connectors shown in the illustration.

NOTICE:

Wear insulating gloves.

- (i) Connect the connector for the air conditioner inverter, then lock the connector with the lock pin.

NOTICE:

Wear insulating gloves.

34. CONNECT FRAME WIRE

NOTICE:

Wear insulating gloves.

35. CONNECT CIRCUIT BREAKER SENSOR NO.1

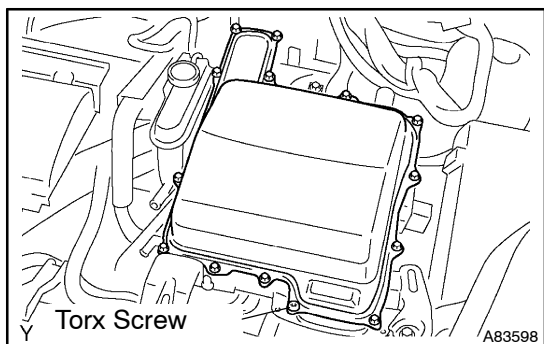
NOTICE:

Wear insulating gloves.

36. CONNECT INVERTER COOLING HOSE NO.6

37. CONNECT INVERTER COOLING HOSE NO.1

38. CONNECT INVERTER COOLING HOSE NO.2



39. INSTALL INVERTER COVER

- (a) Temporarily fasten the inverter cover with the 12 bolts and Torx screw.

- (b) Tighten the 12 bolts.

Torque: 11 N·m (112 kgf·cm, 8.1 ft·lbf)

- (c) Using a T30 Torx socket wrench, tighten the Torx screw.

Torque: 11 N·m (112 kgf·cm, 8.1 ft·lbf)

- 40. INSTALL RADIATOR SUPPORT OPENING COVER
- 41. INSTALL COWL TOP PANEL SUB-ASSY OUTER FRONT
- 42. INSTALL WINDSHIELD WIPER MOTOR & LINK ASSY (See page 66-16)
- 43. INSTALL COWL TOP VENTILATOR LOUVER RH
- 44. INSTALL COWL TOP VENTILATOR LOUVER LH
- 45. INSTALL HOOD TO COWL TOP SEAL
- 46. INSTALL FRONT WIPER ARM (DRIVER SIDE POSITION) (See page 66-16)
- 47. INSTALL FRONT WIPER ARM (PASSENGER SIDE POSITION) (See page 66-16)
- 48. INSTALL FRONT WIPER ARM HEAD CAP
- 49. INSTALL SERVICE PLUG GRIP (See page 21-120)

NOTICE:

Wear insulating gloves.

- 50. CONNECT BATTERY NEGATIVE TERMINAL
Torque: 6.0 N·m (61 kgf·cm, 53 in·lbf)
- 51. INSTALL REAR FLOOR BOARD NO.3
- 52. INSTALL DECK FLOOR BOX REAR
- 53. INSTALL REAR FLOOR BOARD NO.2
- 54. ADD HV COOLANT (See page 22-4)
- 55. CHECK FOR ENGINE COOLANT LEAKS (See page 16-2)
- 56. INSTALL ENGINE UNDER COVER RH
- 57. INSTALL ENGINE UNDER COVER LH
- 58. POWER WINDOW CONTROL SYSTEM INITIALIZE (See page 01-29)