55190–01

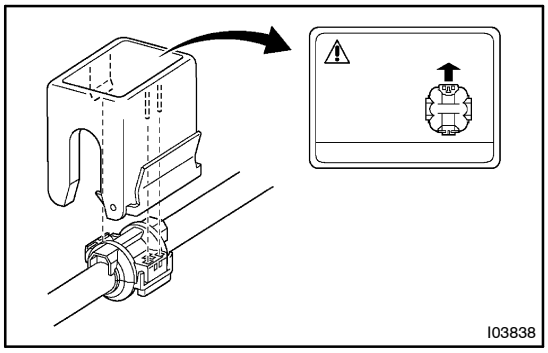
OVERHAUL

HINT:

- Installation is in the reverse order of removal.
- COMPONENTS for instrument panel safety pad: See page 71–1.
- COMPONENTS for air conditioner radiator assy: See page 55–16.

1. DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM (SEE PAGE 55–12)

SST 07110–58060 (07117–58080, 07117–58090, 07117–78050, 07117–88060, 07117–88070, 07117–88080)



2. DISCONNECT SUCTION HOSE SUB–ASSY

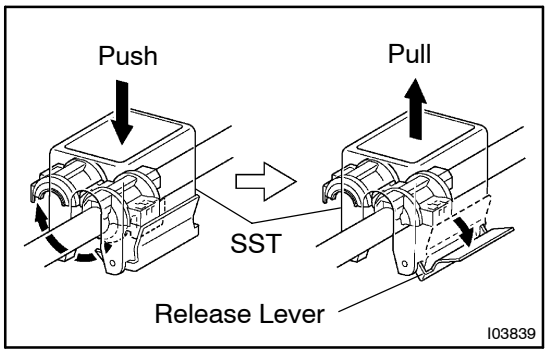
(a) Check the SST installation direction.

SST 09870–00015

HINT:

Set the SST so that the stopper side is on the piping clamp lock side.

(b) Install the SST on the piping clamp.



(c) Push down on the SST with your thumb while holding the pipe with both hands.

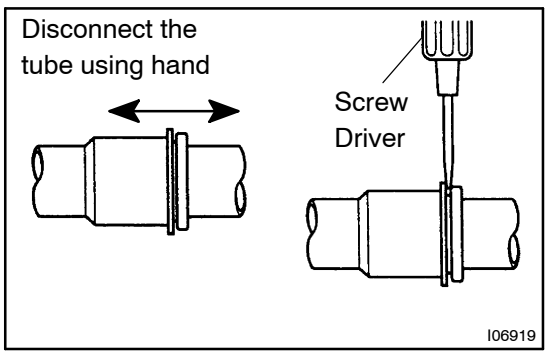
NOTICE:

Be careful not to bend the pipe.

(d) Pull the SST until the stopper touches the pipe.

(e) Raise the SST stopper and remove the piping clamp with the SST from the pipe.

(f) Remove the piping clamp from the SST.



(g) Disconnect the suction hose.

(h) Remove the 2 O–rings from the suction hose.

NOTICE:

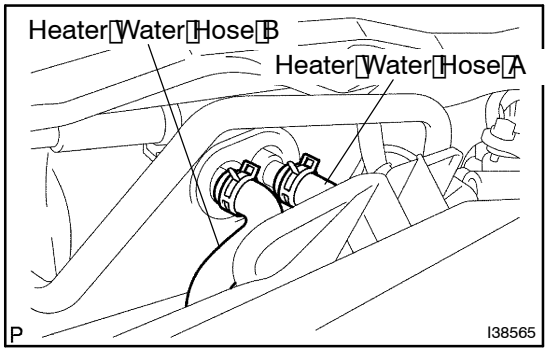
- **Do not apply excessive force to the suction hose.**
- **Seal the opening of the disconnected part using vinyl tape to prevent moisture and foreign matter from entering.**

3. DISCONNECT COOLER REFRIGERANT LIQUID PIPE E (TO COOLER UNIT)

SST 09870–00025

HINT:

Disconnect the cooler refrigerant liquid pipe E following the same procedures as for the suction hose.



4. DISCONNECT HEATER WATER HOSE B

(a) Slide the clip and disconnect the heater water hose B.

NOTICE:

- **Do not apply excessive force to the water hose B.**
- **Prepare a drain pan or cloth for when the cooling water leaks.**

5. DISCONNECT HEATER WATER HOSE A

(a) Slide the clip and disconnect the heater water hose A.

NOTICE:

- **Do not apply excessive force to the water hose A.**
- **Prepare a drain pan or cloth for when the cooling water leaks.**

6. REMOVE INSTRUMENT PANEL SUB–ASSY W/PASSENGER AIRBAG ASSY (SEE PAGE 71–7)

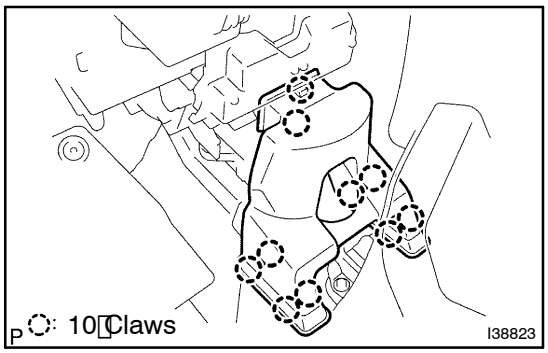
HINT:

Refer to the removal procedures for the instrument panel with the passenger airbag assy.

7. REMOVE INSTRUMENT PANEL SUB–ASSY LOWER (SEE PAGE 71–13)

HINT:

Refer to the removal procedures for the instrument panel lower.



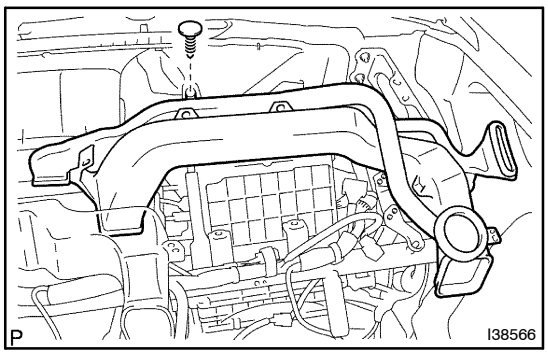
8. REMOVE AIR DUCT REAR NO.3

(a) Fold back the floor carpet.

HINT:

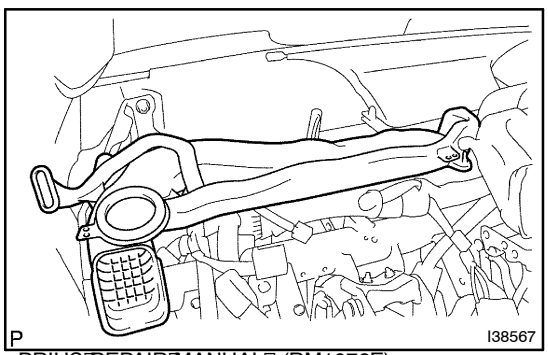
Fold back the floor carpet so that the air duct rear No.3 can be removed.

(b) Disengage the 10 claws and then remove the air duct rear No.3.



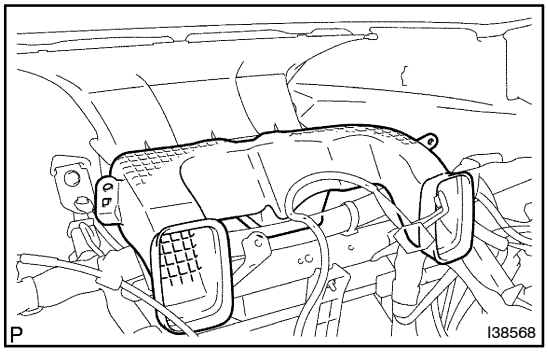
9. REMOVE HEATER TO REGISTER DUCT NO.3

(a) Remove the clip and then the heater to register duct No.3 with the side defroster nozzle duct No.2.



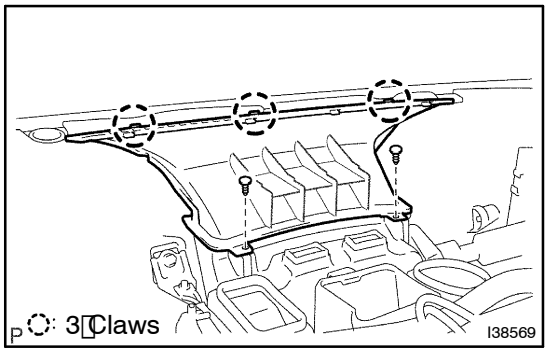
10. REMOVE HEATER TO REGISTER DUCT NO.1

(a) Remove the heater to register duct No.1 with the side defroster nozzle duct No.1.



11. REMOVE HEATER TO REGISTER DUCT NO.2

(a) Remove the heater to register duct No.2.



12. REMOVE DEFROSTER NOZZLE ASSY

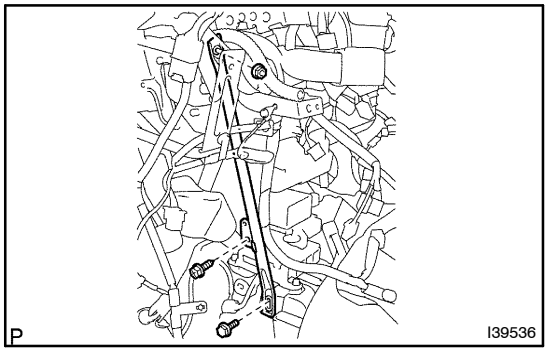
(a) Remove the 2 clips.

(b) Disengage the 3 claws and then remove the defroster nozzle assy.

13. REMOVE TRANSMISSION CONTROL ECU ASSY

14. REMOVE ECM (SEE PAGE 10–24)

15. REMOVE NETWORK GATEWAY ECU (SEE PAGE 67–26)



16. REMOVE INSTRUMENT PANEL BRACE SUB–ASSY NO.1

(a) Remove the clamp and disconnect the harness.

(b) Remove the 2 bolts and the nut and then the instrument panel brace sub–assy No.1.

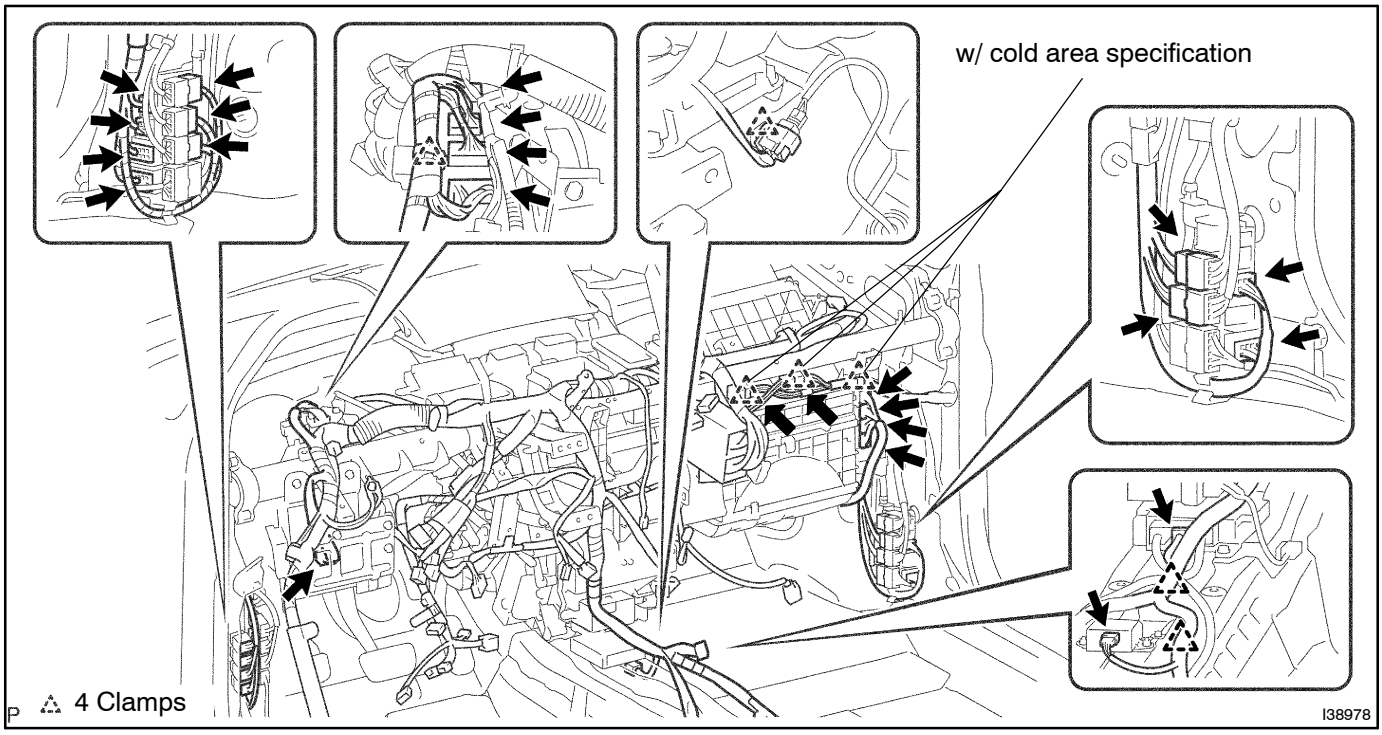
17. REMOVE AIR CONDITIONING AMPLIFIER ASSY (SEE PAGE 55–52)

18. REMOVE STEERING COLUMN ASSY (SEE PAGE 50–8)

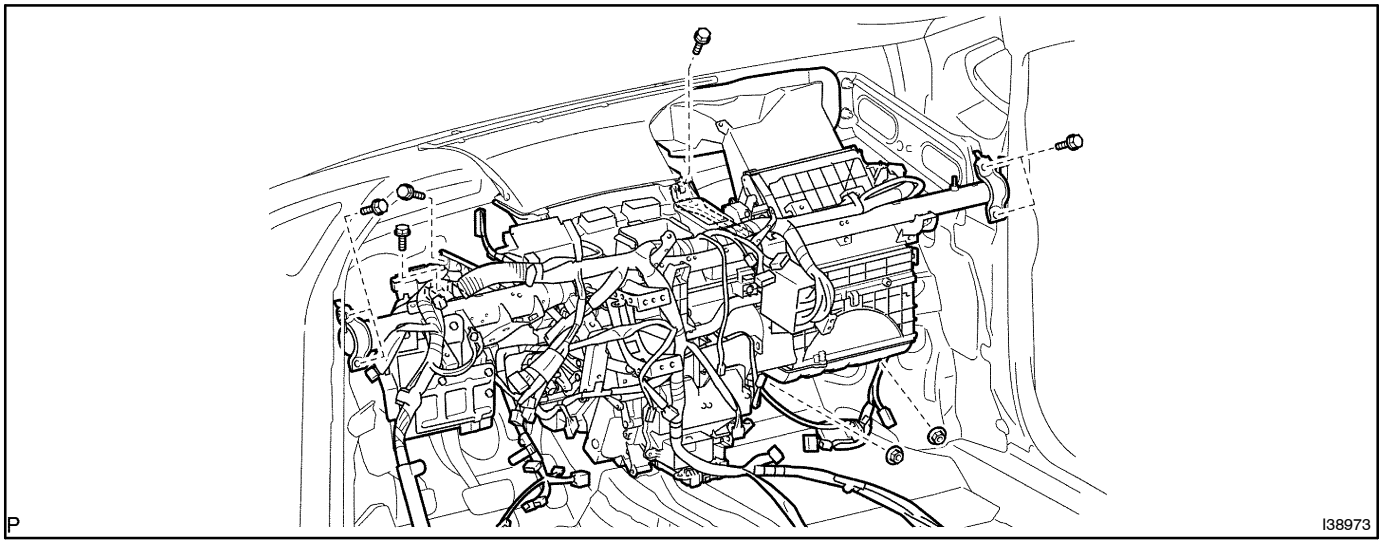
19. REMOVE INSTRUMENT PANEL REINFORCEMENT ASSY

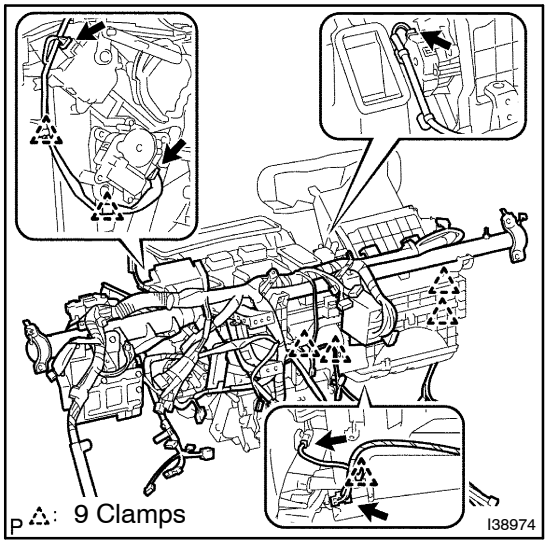
(a) Disconnect each connector and remove each clamp. Disconnect the wire harness.

(b) Disconnect the 2 connector and remove 3 clamps.(w/cold area specification)



(c) Remove the 7 bolts and the 2 nuts and then the instrument panel reinforcement assy with the air conditioner unit assy.

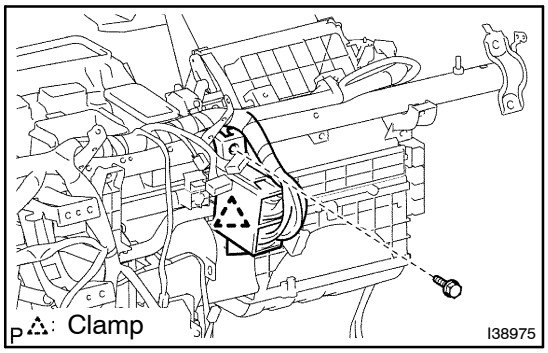




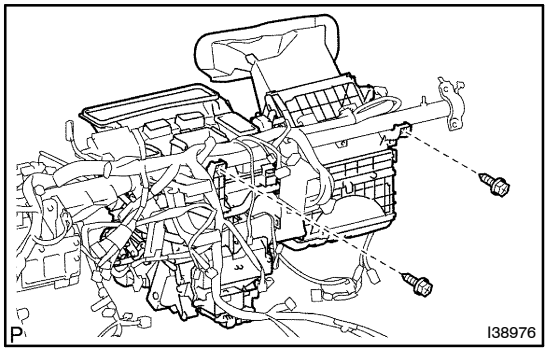
20. REMOVE AIR CONDITIONER UNIT ASSY

(a) LHD:

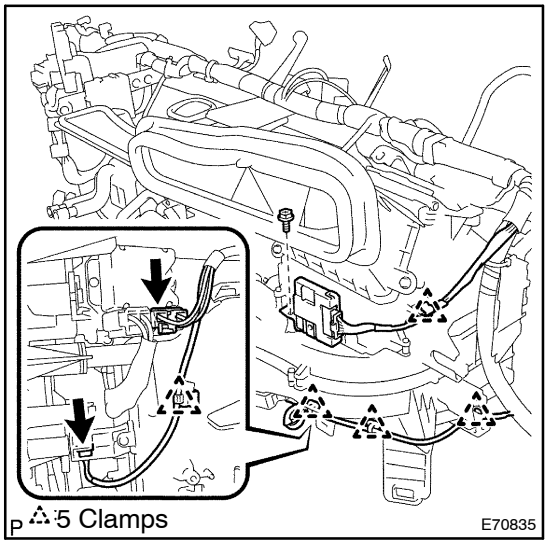
(1) Disconnect the 5 connectors and remove the 9 clamps. Disconnect the wire harness.



(2) Remove the bolt and the clamp and then disconnect the junction connector.



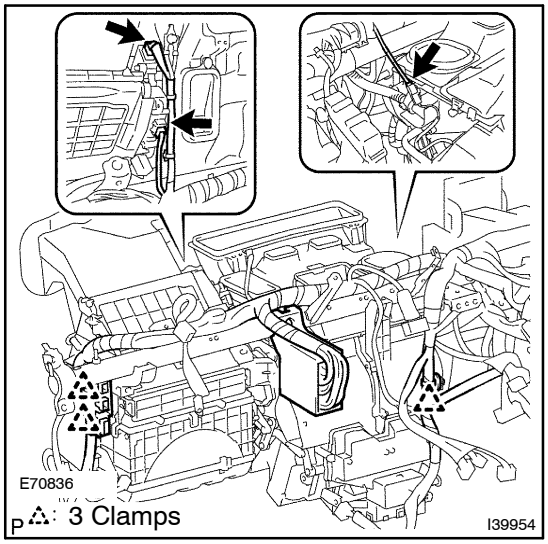
(3) Remove the 2 screws and the air conditioner unit assy from the instrument panel reinforcement assy.



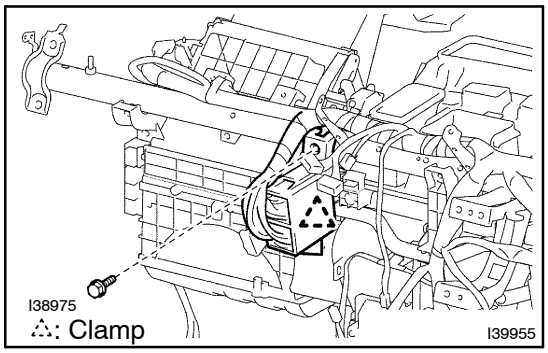
(b) RHD:

(1) Disconnect the 2 connectors and remove the 5 clamps. Disconnect the wire harness.

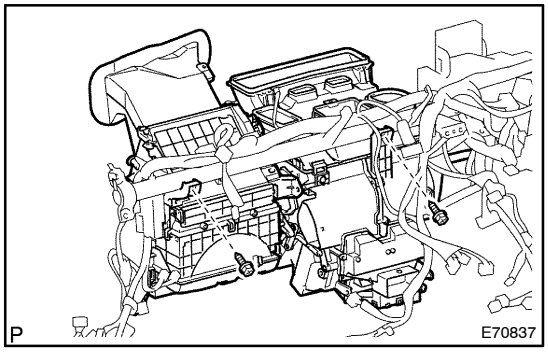
(2) Remove the screw and the ECU.



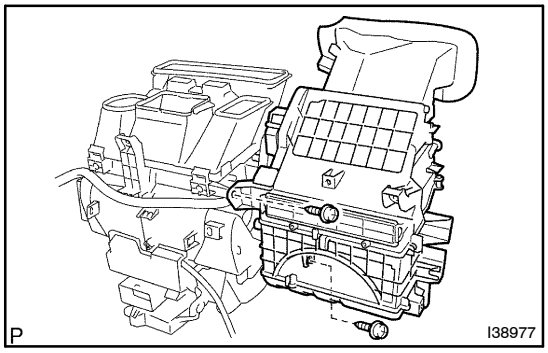
(3) Disconnect the 3 connectors and remove the 3 clamps. Disconnect the wire harness.



(4) Remove the bolt and the clamp and then disconnect the junction connector.



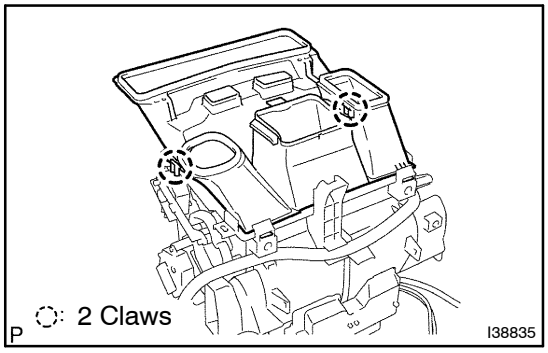
(5) Remove the 2 screws and the air conditioner unit assy from the instrument panel reinforcement assy.



21. REMOVE BLOWER ASSY

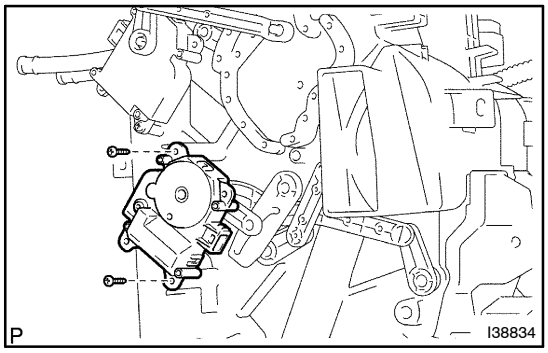
(a) Remove the 2 screws.

(b) Disengage the fittings with the air conditioner assy and then remove the blower assy.



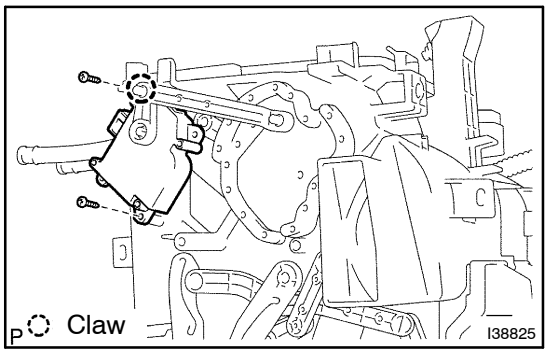
22. REMOVE DEFROSTER NOZZLE ASSY LWR

(a) Disengage the 2 claws and then remove the defroster lower nozzle assy.



23. REMOVE AIR MIX CONTROL SERVOMOTER

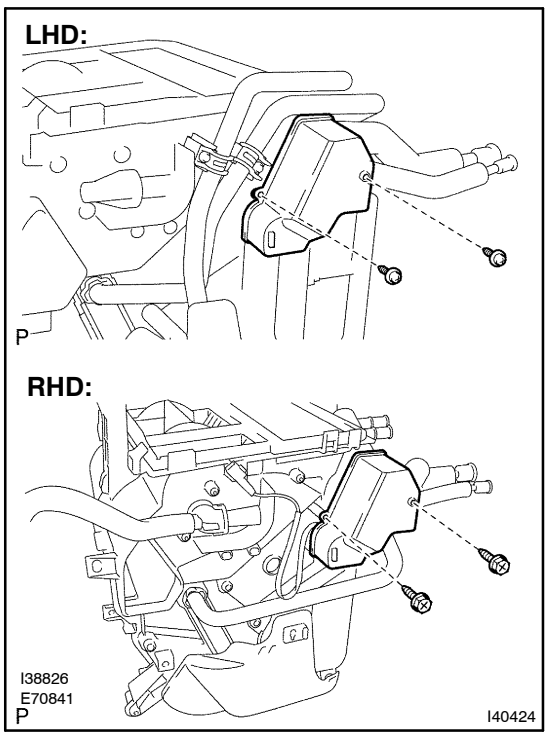
(a) Remove the 2 screws and then the air mix control servomoter.



24. AIR OUTLET CONTROL SERVOMOTER

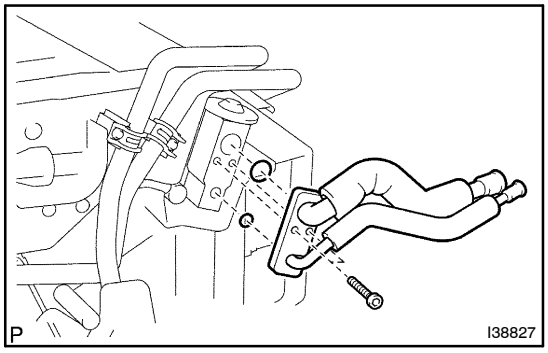
(a) Remove the 2 screws and disengage the claw.

(b) Remove the air outlet control servomoter.

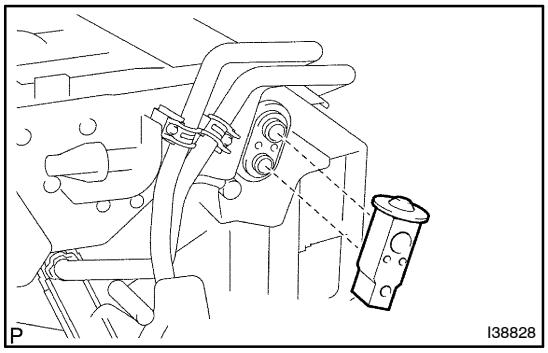


25. REMOVE AIR CONDITIONING TUBE & ACCESSORY ASSY

(a) Remove the 2 screws and then the expansion valve cover.

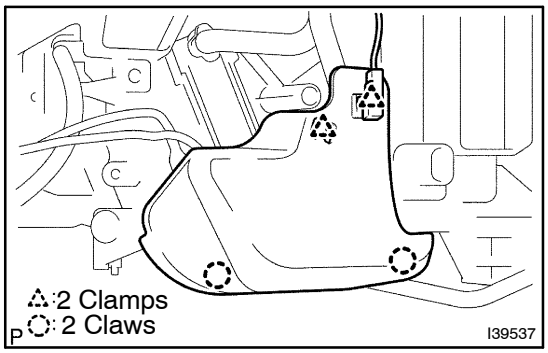


(b) Using a hexagon wrench 4 mm (0.16 in.),remove the 2 hexagon bolts.
(c) Remove the 2 O–rings from the air conditioner tube assy.



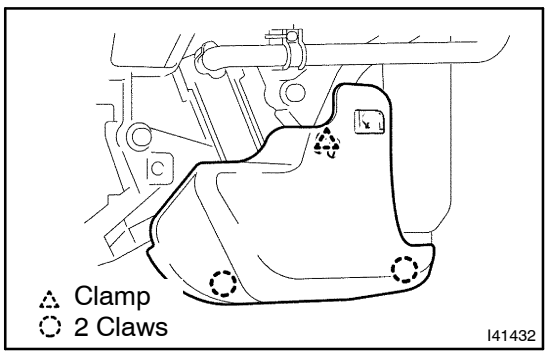
26. REMOVE COOLER EXPANSION VALVE

(a) Remove the cooler expansion valve from the cooler evaporator No.1.

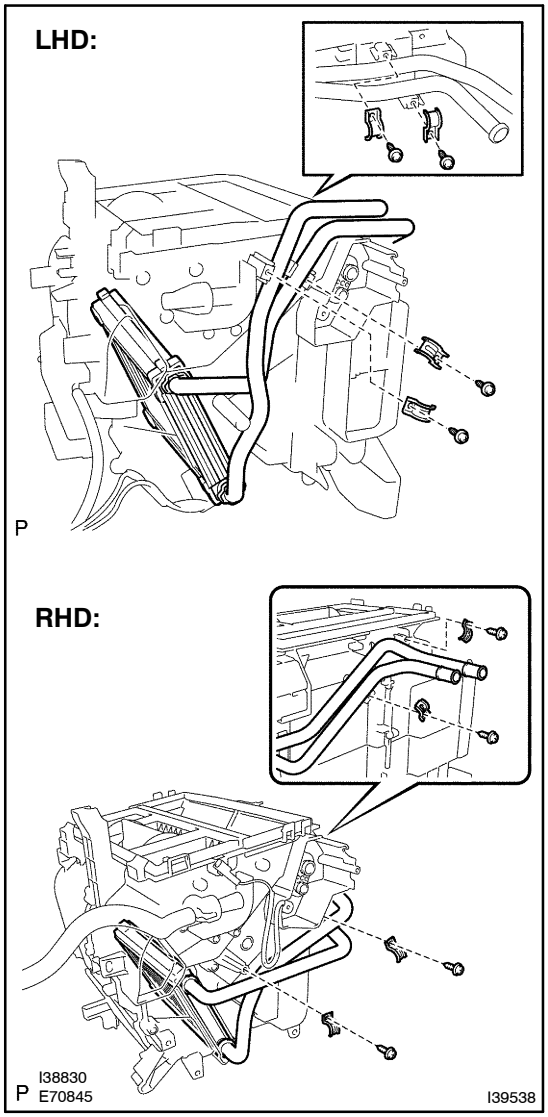


27. REMOVE HEATER RADIATOR UNIT SUB–ASSY

(a) LHD:
(1) Remove the clamp and then disconnect the evaporator temperature sensor connector.
(2) Remove the clamp and disengage the 2 claws. Remove the heater piping cover.



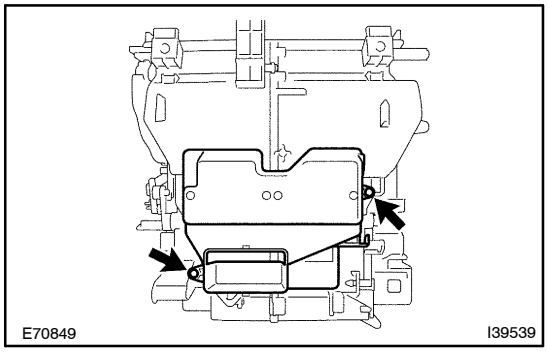
(b) RHD:
(1) Remove the clamp and disengage the 2 claws. Remove the heater piping cover.



(c) Remove the 4 screws and the 4 clamps.
(d) Remove the radiator heater unit from the air conditioner radiator assy.

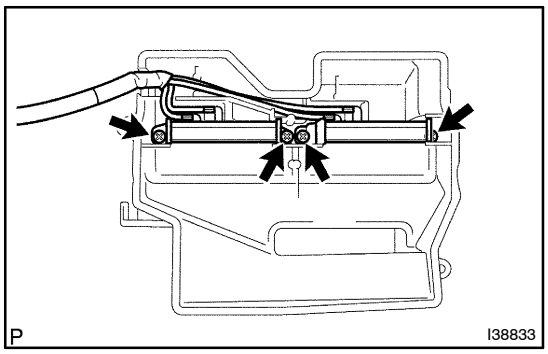
NOTICE:

Prepare a drain pan or cloth for when the cooling water leaks.



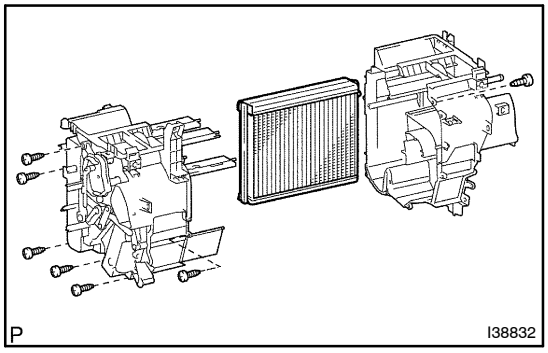
28. REMOVE AIR DUCT NO.1

(a) Remove the 2 screws and then the air duct No.1.



29. REMOVE QUICK HEATER ASSY (W/ COLD AREA)

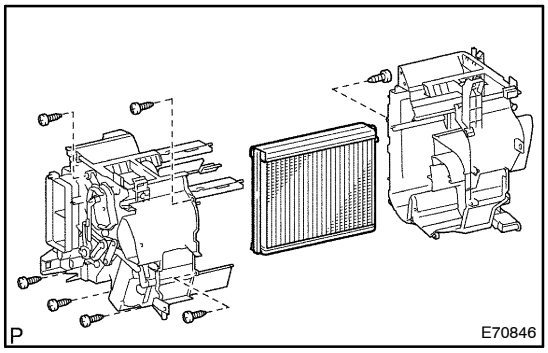
(a) Remove the 4 screws and then the quick heater assy.



30. REMOVE COOLER EVAPORATOR SUB–ASSY NO.1

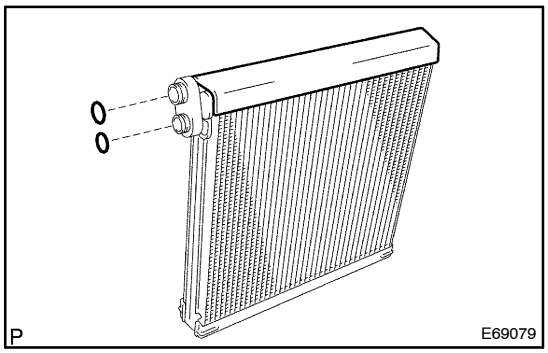
(a) LHD:

(1) Remove the 7 screws and then the cooler evaporator No.1 from the heater case.

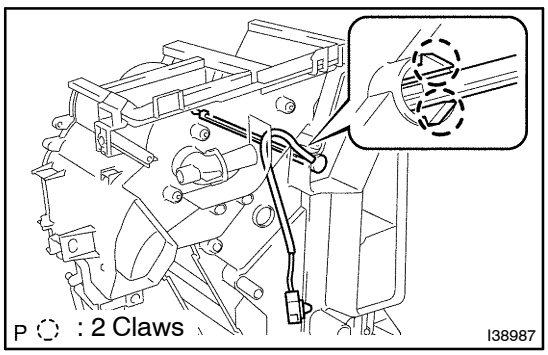


(b) RHD:

(1) Remove the 7 screws and the cooler evaporator No.1 from the heater case.



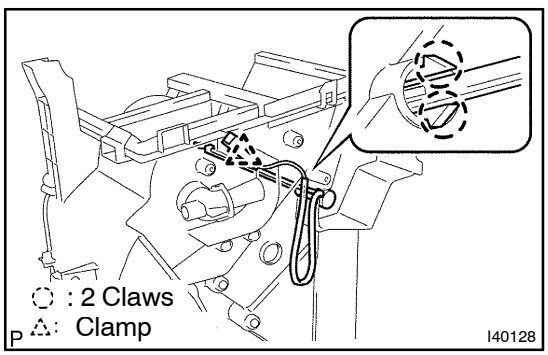
(c) Remove the 2 O–rings from the cooler evaporator No.1.



31. REMOVE EVAPORATOR TEMPERAURE SENSOR

(a) LHD:

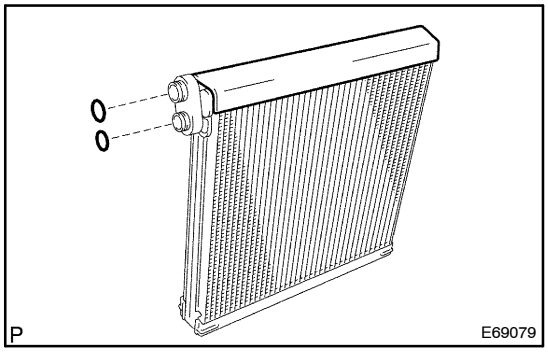
(1) Disengage the 2 claws and then remove the evaporator temperature sensor.



(b) RHD:

(1) Remove the clamp and disconnect the connector.

(2) disengage the 2 claws and then remove the evaporator temperature sensor.



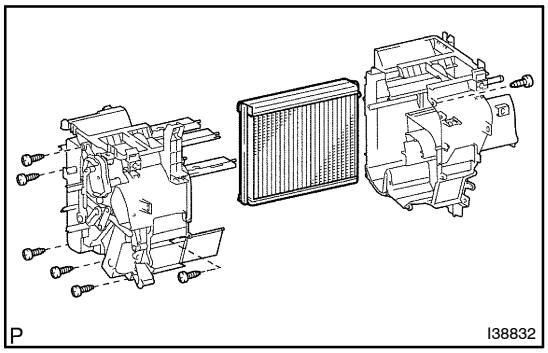
32. INSTALL COOLER EVAPORATOR SUB–ASSY NO.1

(a) Sufficiently apply compressor oil (ND–OIL11) to 2 new O–rings and fitting surface. Install the 2 O–rings to the cooler evaporator No.1.

Compressor oil: ND–OIL 11 or equivalent

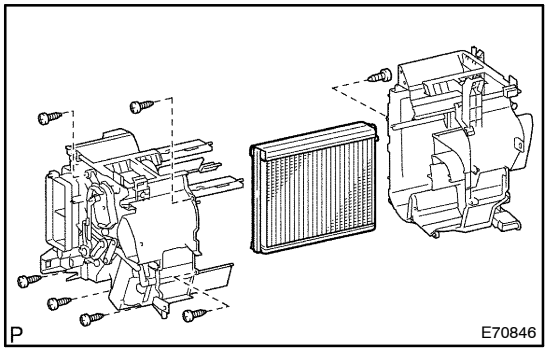
NOTICE:

- **Do not use any compressor oil other than ND–OIL11 (see page 55–1).**
- **If any compressor oil other than ND–OIL11 is used, compressor motor insulation performance may decrease, resulting in a leakage of electric power.**



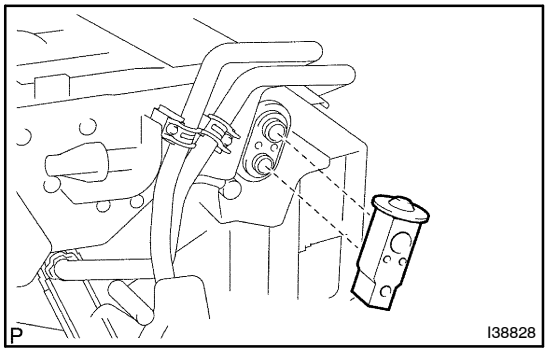
(b) LHD:

(1) Install the cooler evaporator No.1 with the 7 screws.



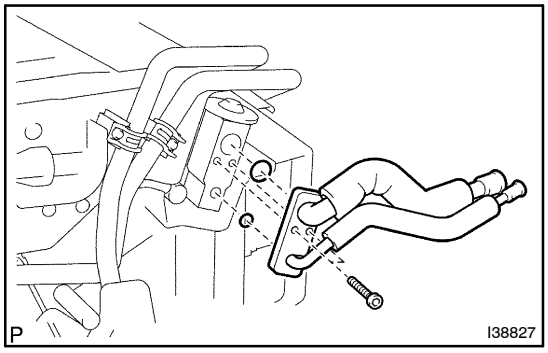
(c) RHD:

(1) Install the cooler evaporator No.1 with the 7 screws.



33. INSTALL COOLER EXPANSION VALVE

(a) Install the cooler expansion valve to the cooler evaporator No.1.



34. INSTALL AIR CONDITIONING TUBE & ACCESSORY ASSY

(a) Sufficiently apply compressor oil (ND–OIL11) to 2 new O–rings and fitting surface. Install the 2 O–rings to the conditioner tube assy.

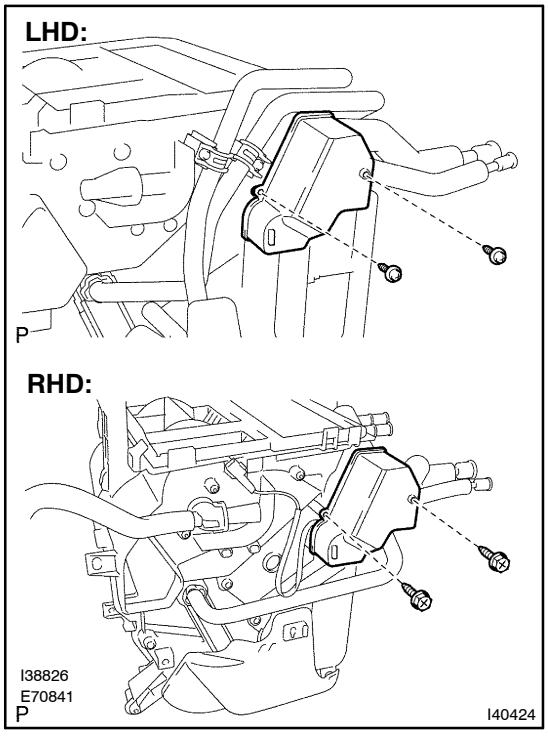
Compressor oil: ND–OIL 11 or equivalent

NOTICE:

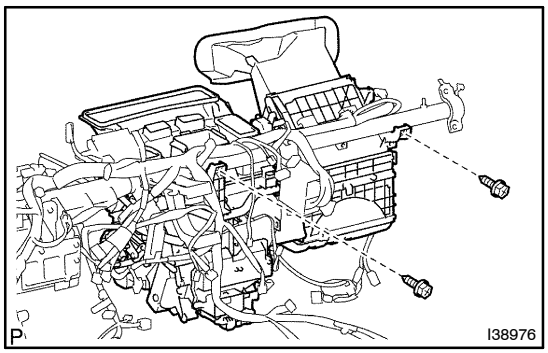
- **Do not use any compressor oil other than ND–OIL11 (see page 55–1).**
- **If any compressor oil other than ND–OIL11 is used, compressor motor insulation performance may decrease, resulting in a leakage of electric power.**

(b) Install the air conditioner tube assy to the cooler evaporator No.1, placing the cooler expansion valve between them,using a hexagon wrench 4 mm (0.16 in.),install the 2 hexagon bolts.

Torque: 3.5 N·m (35 kgf·cm, 30 in.·lbf)



(c) Install the expansion cover with the 2 screws.



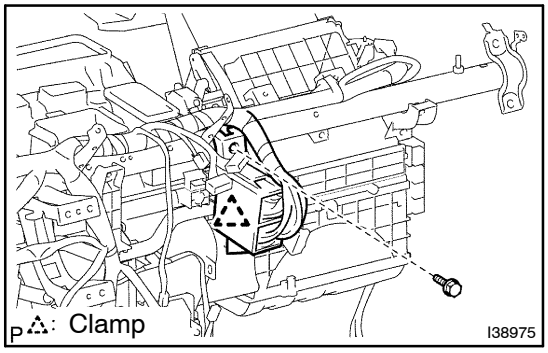
35. INSTALL AIR CONDITIONER UNIT ASSY

(a) LHD:

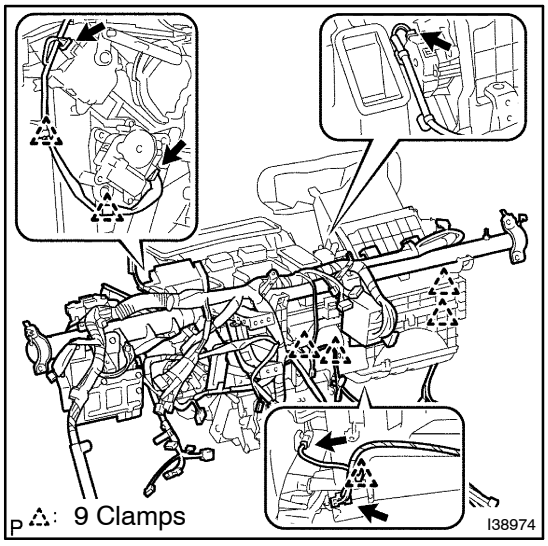
(1) Install the air conditioner unit assy to the instrument panel reinforcement assy with the 2 screws.

HINT:

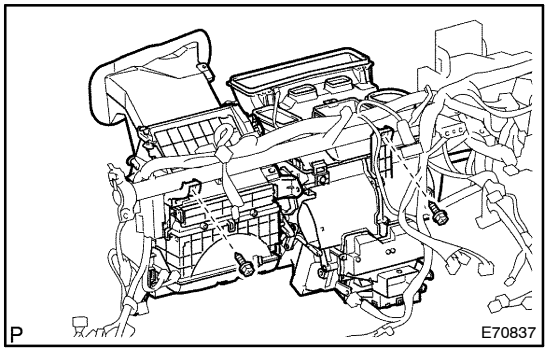
Use repair screws (parts No. 90159–70003) if the screws removed before cannot be tightened.



(2) Connect the junction connector with the bolt and the clamp.



(3) Install the instrument panel wire harness with the 5 connectors and the 9 clamps.

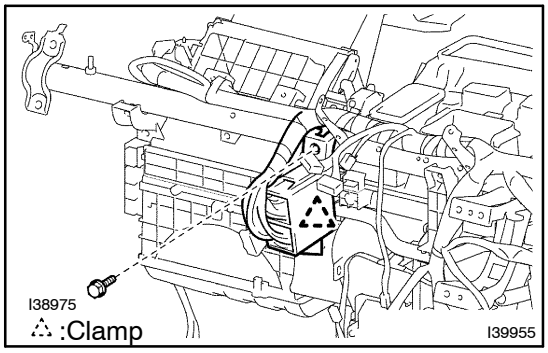


(b) RHD:

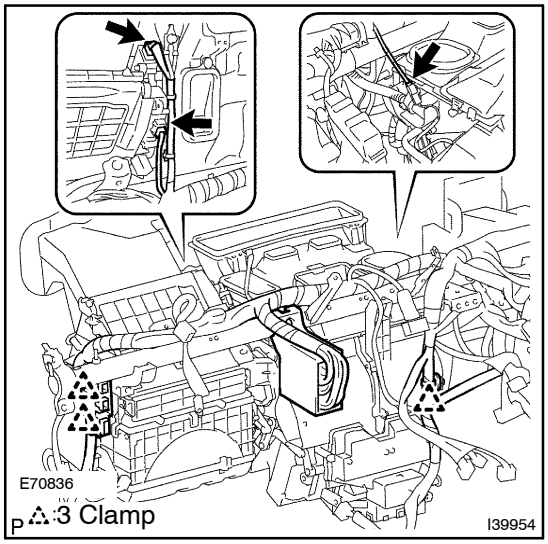
(1) Install the air conditioner unit assy with the 2 screws.

HINT:

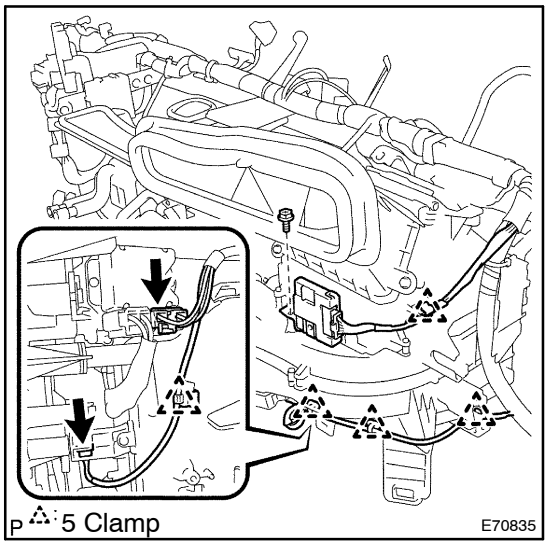
Use repair screws (parts No. 90159–70003) if the screws removed before cannot be tightened.



(2) Connect the junction connector with the bolt and the clamp.



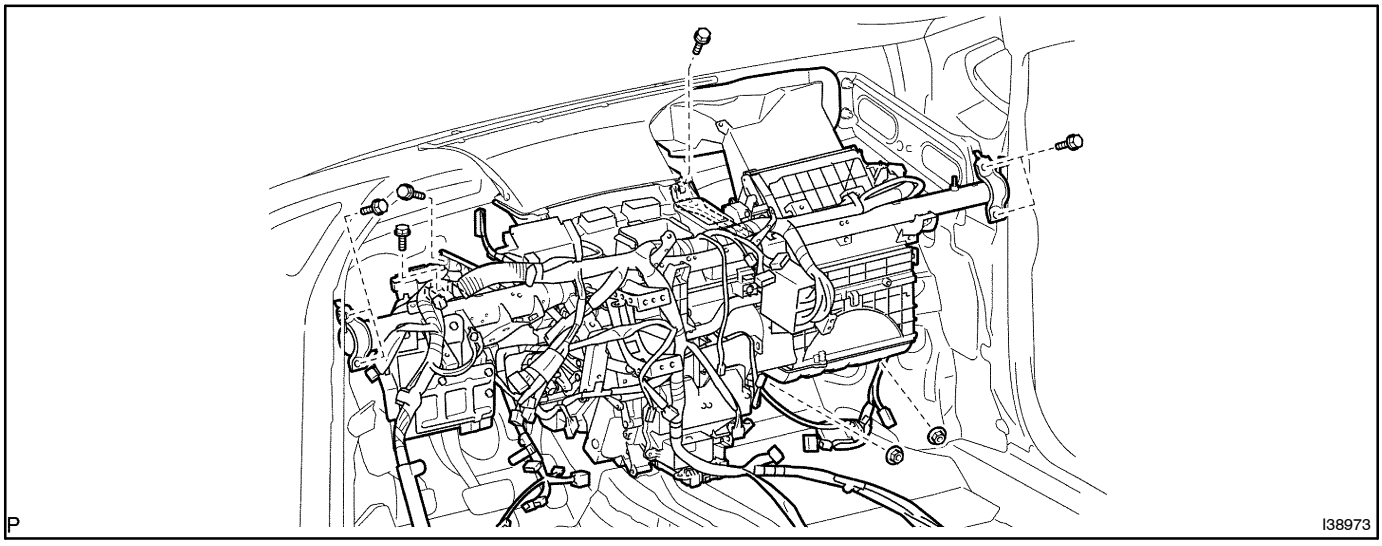
(3) Connect the wire harness with the 3 connectors and the 3 clamps.

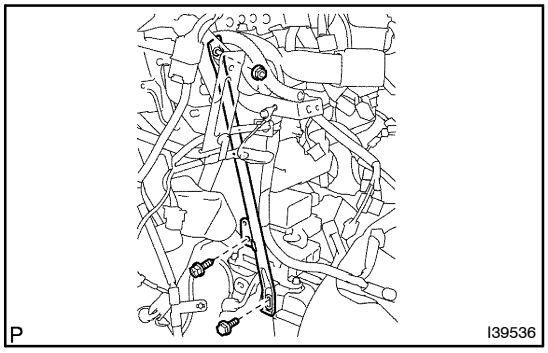


(4) Install the ECU with the screw and the clamp.
(5) Connect the wire harness with the 2 connectors and the 5 clamps.

36. INSTALL INSTRUMENT PANEL REINFORCEMENT ASSY

(a) Install the instrument panel reinforcement assy with the 7 bolts.
(b) Install the 2 nuts to the air conditioner unit assy and temporarily tighten them.

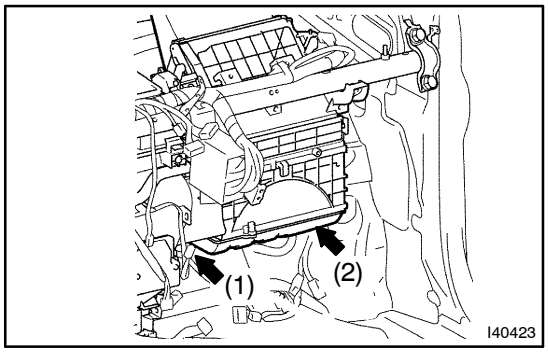




37. INSTALL INSTRUMENT PANEL BRACE SUB–ASSY NO.1

(a) Install the instrument panel brace sub–assy No.1 with the 2 bolts and nut.

(b) Install the harness with a clamp.



38. FULLY TIGHTEN AIR CONDITIONER UNIT ASSY

(a) Fully tighten the air conditioner unit assy with the 2 nuts.

NOTICE:

Tighten the nuts in the order indicated in the illustration.

39. INSTALL STEERING COLUMN ASSY (SEE PAGE 50–8)

40. INSTALL INSTRUMENT PANEL SUB–ASSY LOWER (SEE PAGE 71–13)

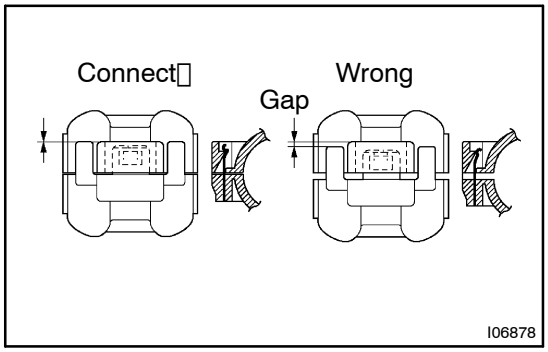
HINT:

Refer to the installation procedures for the instrument panel sub–assy lower.

41. INSTALL INSTRUMENT PANEL SUB–ASSY W/PASSENGER AIRBAG ASSY (SEE PAGE 71–7)

HINT:

Refer to the installation procedures for the instrument panel with the passenger airbag assy.



42. INSTALL COOLER REFRIGERANT LIQUID PIPE E (TO COOLER UNIT)

(a) Remove the attached vinyl tape from the pipe disconnected part.

(b) Sufficiently apply compressor oil (ND–OIL11) to 2 new O–rings and pipe connecting part.

NOTICE:

- **Do not use any compressor oil other than ND–OIL11 (see page 55–1).**
- **If any compressor oil other than ND–OIL11 is used, compressor motor insulation performance may decrease, resulting in a leakage of electric power.**

(c) Install the O–rings to the pipe.

(d) Insert the pipe joint into the cooler unit fitting hole securely.

(e) Using the piping clamp, install the cooler unit refrigerant liquid pipe E.

NOTICE:

Ensure that the piping clamp is securely engaged.

43. INSTALL SUCTION HOSE SUB–ASSY

HINT:

Install the suction hose sub–assy following the same procedures as for the cooler unit refrigerant liquid pipe E.

44. INSPECT LEAKAGE OF REFRIGERANT (SEE PAGE 55–12)

45. ADD ENGINE COOLANT (SEE PAGE 16–11)

46. CHARGE REFRIGERANT (SEE PAGE 55–12)

SST 07110–58060 (07117–58060, 07117–58070, 07117–58080, 07117–58090, 07117–78050, 07117–88060, 07117–88070, 07117–88080)

Specified amount: 450 ± 30 g (15.87 ± 1.05 oz.)

47. CHECK FOR ENGINE COOLANT LEAKS (SEE PAGE 16–11)

48. WARM UP COMPRESSOR (SEE PAGE 55–12)

49. INSPECT LEAKAGE OF REFRIGERANT (SEE PAGE 55–12)

50. PERFORM CALIBRATION OF TORQUE SENSOR ZERO POINT (SEE PAGE 05–981)