550SN–01

OVERHAUL

HINT:

COMPONENTS: See page 55–53

1. DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM (See page 55–26)

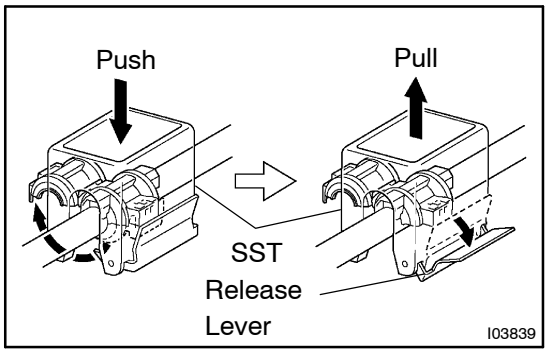
SST 07110–58060 (07117–58080, 07117–58090, 07117–78050, 07117–88060, 07117–88070, 07117–88080)

2. DISCONNECT SUCTION HOSE SUB–ASSY

(a) Quick joint model:
Install SST on piping clamp.
SST 09870–00015

HINT:

Make sure the direction of the piping clamp claw and SST by seeing the illustration shown on the caution label.



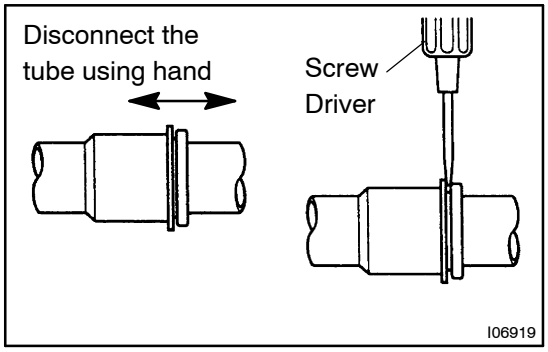
(b) Quick joint model:
Push down SST and release the clamp lock.

NOTICE:

Be careful not to deform the tube when pushing SST.

(c) Quick joint model:
Pull SST slightly and push the release lever, and then remove the piping clamp with SST.

(d) Bolt joint model:
Remove the bolt.



(e) Disconnect the suction hose sub–assy.

(f) Remove the bolt and disconnect the suction hose sub–assy.

NOTICE:

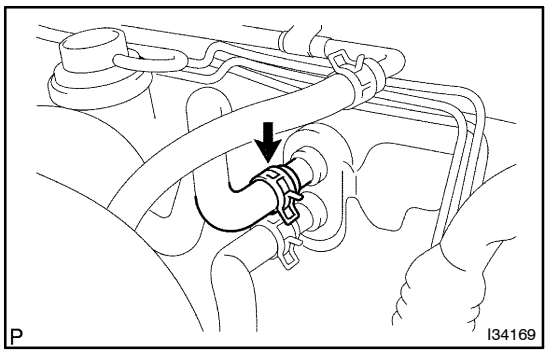
- **Do not use tools like screwdriver to remove the tube.**
- **Seal the opening of the disconnected parts using vinyl tape to prevent moisture and foreign matter from entering.**

3. DISCONNECT LIQUID TUBE

HINT:

Disconnect of the liquid tube is same the suction hose sub–assy.

SST 09870–00025



4. DISCONNECT HEATER WATER OUTLET HOSE A(FROM HEATER UNIT)

(a) Using pliers, grip the claws of clip and slide the clip and disconnect the heater water outlet hose A (from heater unit).

5. DISCONNECT HEATER WATER INLET HOSE A

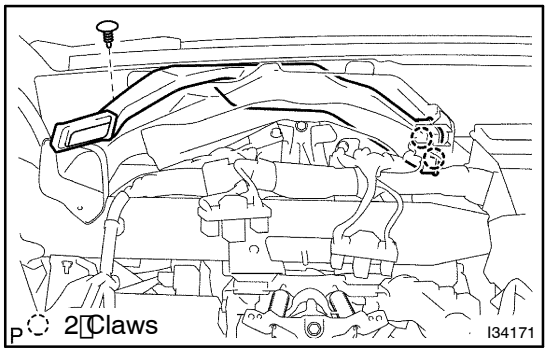
HINT:

Disconnection of the heater water inlet hose A is same the heater water outlet hose A (from heater unit).

6. REMOVE INSTRUMENT PANEL SAFETY PAD SUB–ASSY W/DEFROSTER NOZZLE DUCT (See page 71–13)

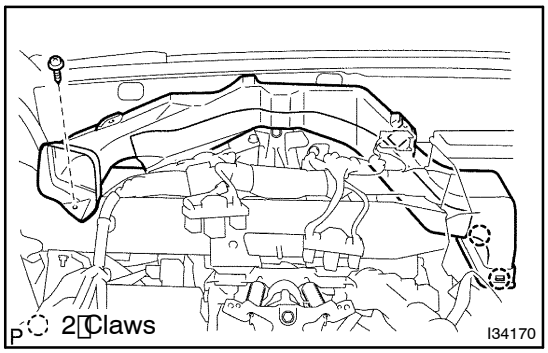
HINT:

Refer to the instructions for removal of the instrument panel safety pad sub–assy w/ defroster nozzle duct.



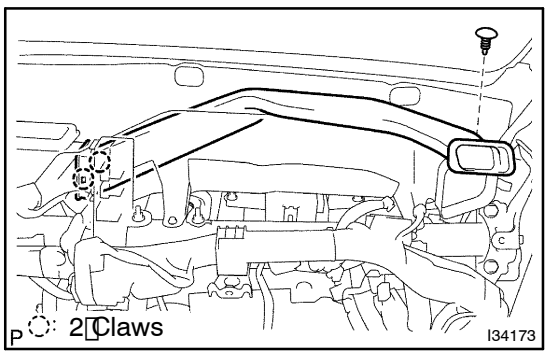
7. REMOVE SIDE DEFROSTER NOZZLE DUCT NO.1

(a) Release the 2 claw fittings and remove the clip and side defroster nozzle duct No. 1.



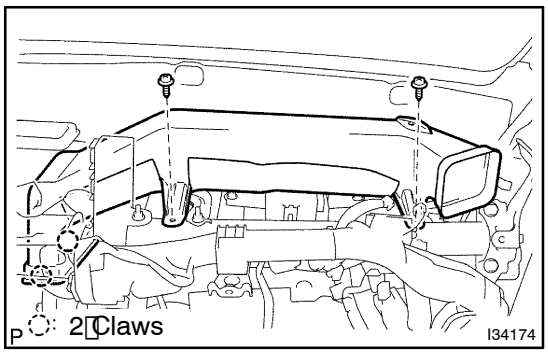
8. REMOVE SIDE DEFROSTER NOZZLE DUCT NO.2

(a) Release the 2 claw fittings and remove the clip and side defroster nozzle duct No, 2.



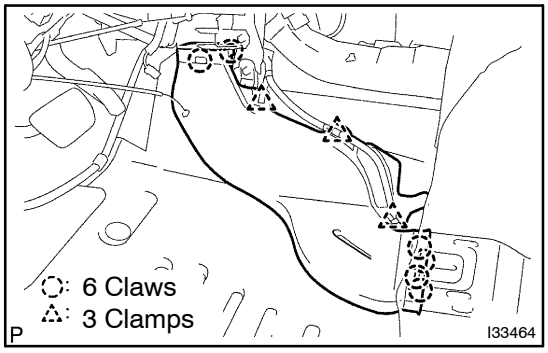
9. REMOVE HEATER TO REGISTER DUCT NO.1

(a) Release the 2 claw fittings and remove the screw and heater to register duct No. 1.



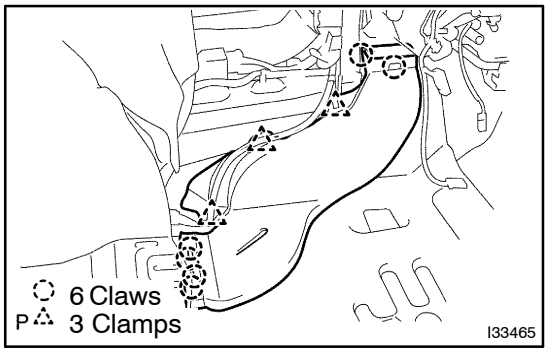
10. REMOVE HEATER TO REGISTER DUCT NO.2

(a) Release the 2 claw fittings and remove the 2 screws, and heater to register duct No. 2.



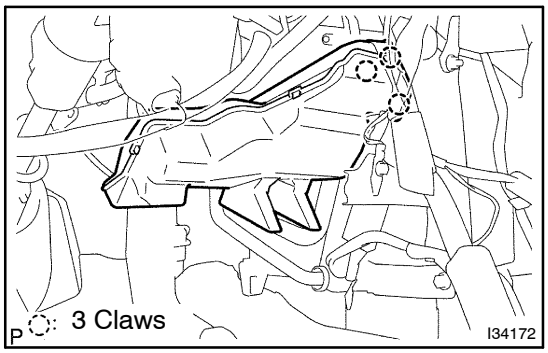
11. REMOVE AIR DUCT REAR NO.2

(a) Release the 6 claw fittings and 3 clamps and remove the air duct rear No.2.



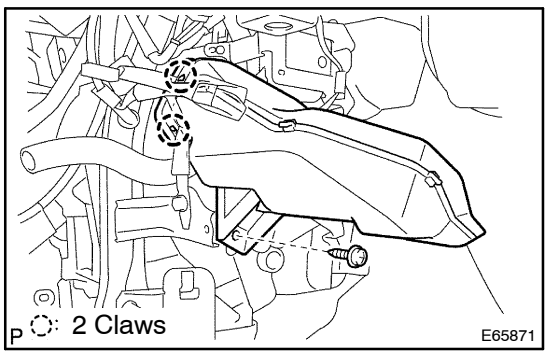
12. REMOVE AIR DUCT REAR NO.1

(a) Release the 6 claw fittings and 3 clamps and remove the air duct rear No.1.

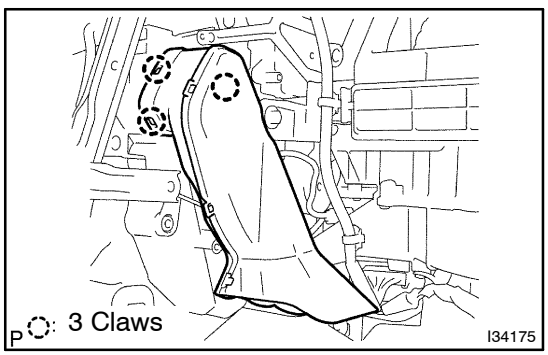


13. REMOVE AIR DUCT NO.1

(a) LHD:
Release the 3 claw fittings and remove the air duct No.1.

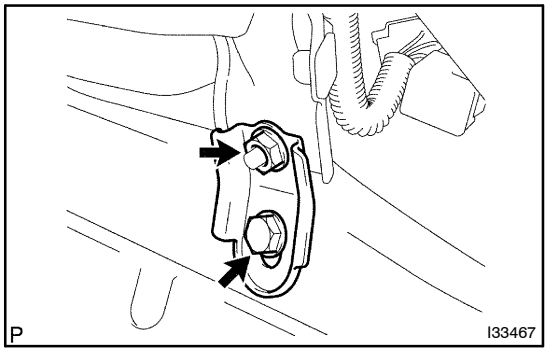


(b) RHD:
Release the 2 claw fittings and remove the screw and air duct No. 1.



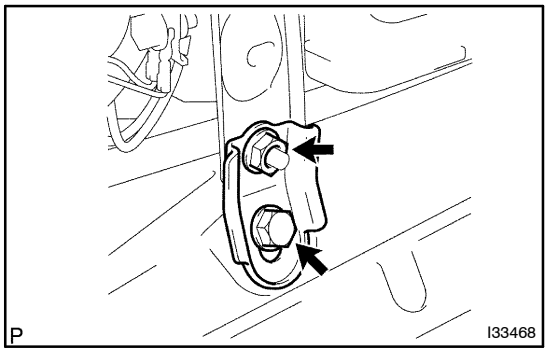
14. REMOVE AIR DUCT NO.2

(a) Release the 3 claw fittings and remove the air duct No. 2.

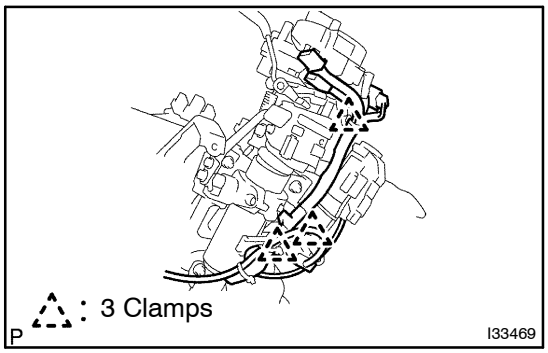


15. REMOVE INSTRUMENT PANEL BRACE MOUNTING BRACKET NO.1

(a) Remove the bolt, nut and instrument panel brace mounting bracket No.1.

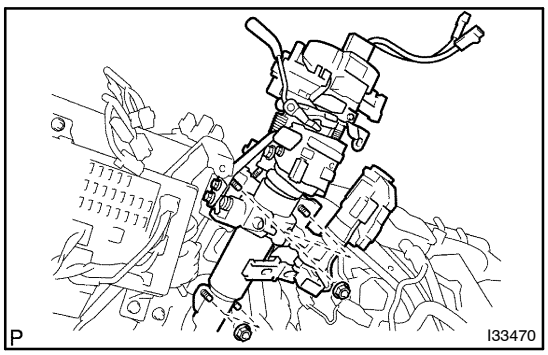


(b) Remove the bolt, nut and instrument panel brace mounting bracket No.1.



16. DISCONNECT STEERING COLUMN ASSY

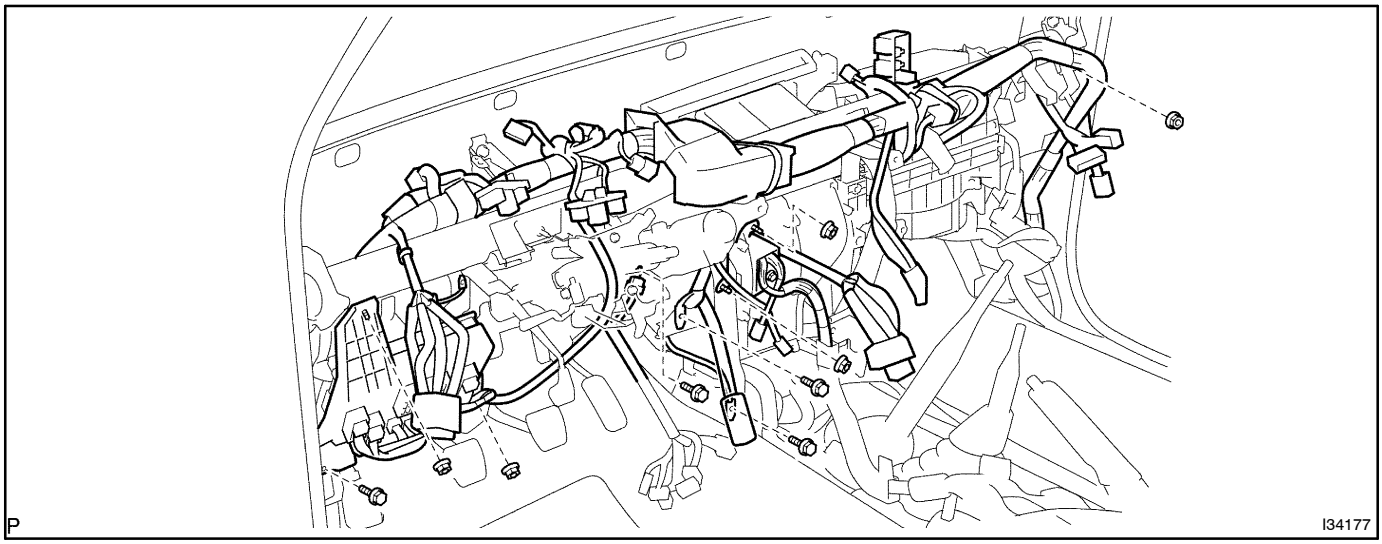
(a) Release the 3 clamps and disconnect the connector.



(b) Remove the 4 nuts and disconnect the steering column assy.

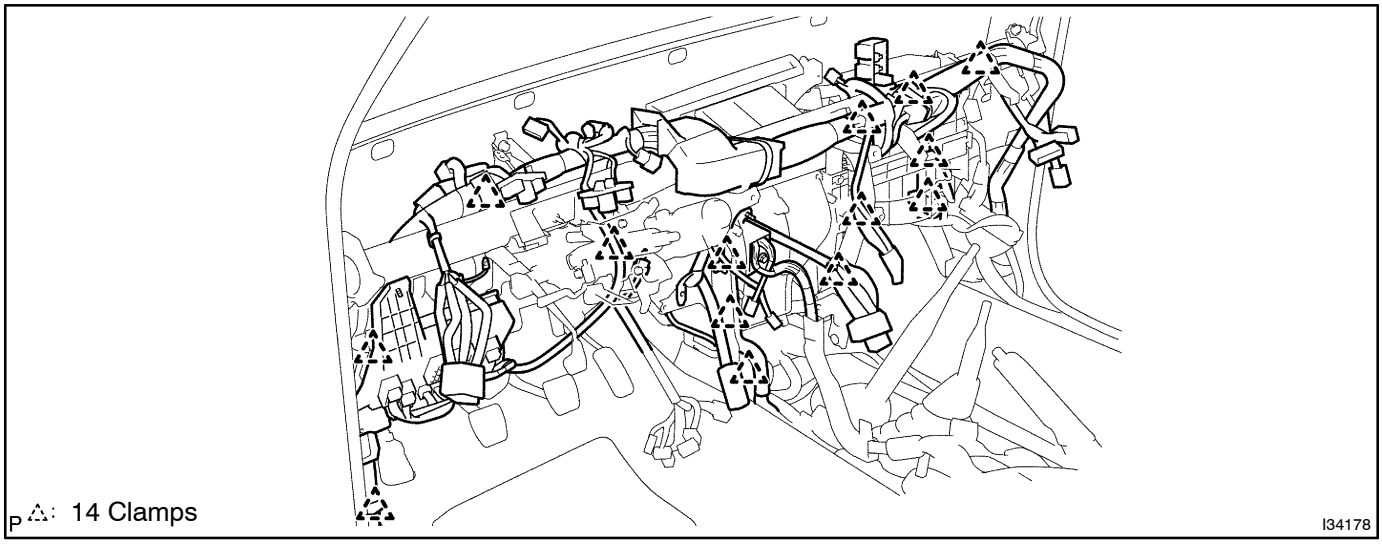
17. REMOVE INSTRUMENT PANEL REINFORCEMENT

(a) Remove the 4 bolts and 5 nuts.

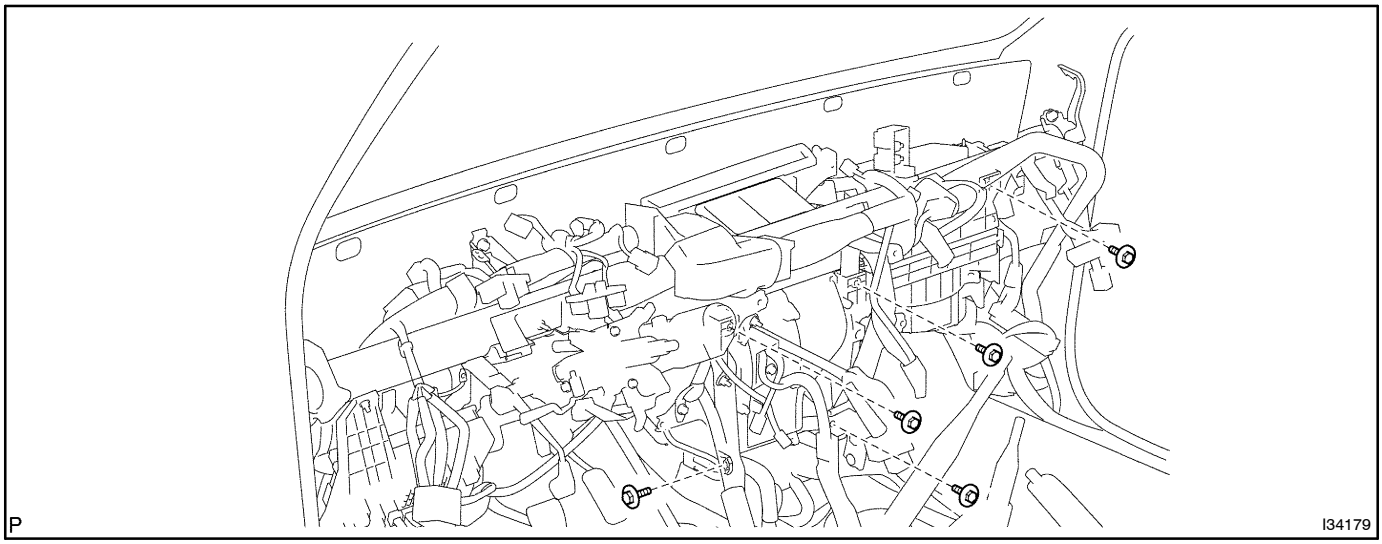


(b) Release the 14 clamps.

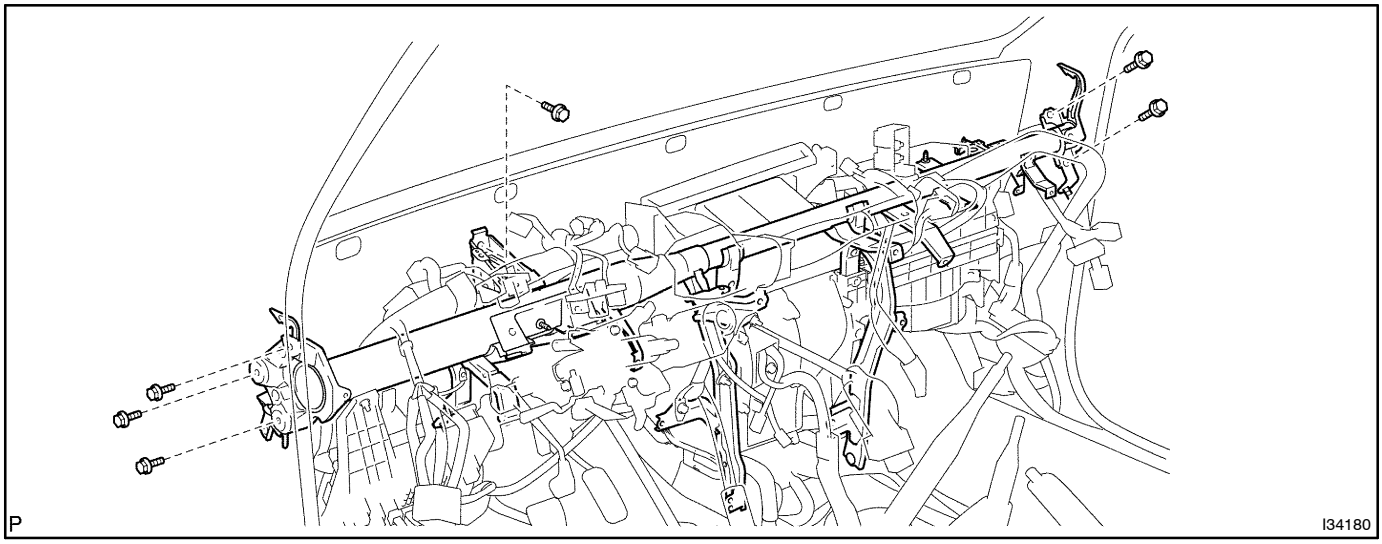
(c) Disconnect the connectors.

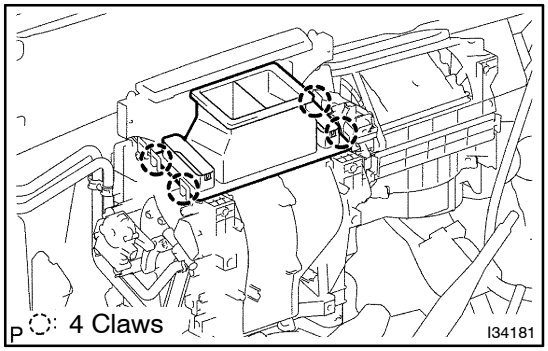


(d) Remove the 5 bolts.



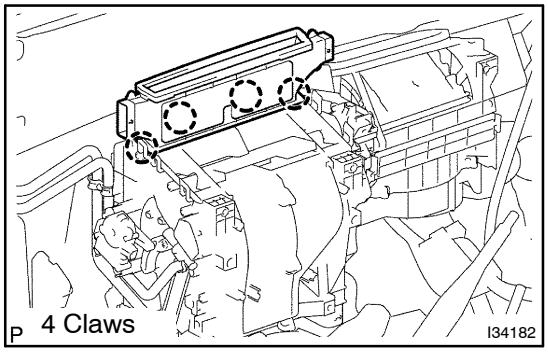
(e) Remove the 7 bolts and instrument panel reinforcement.





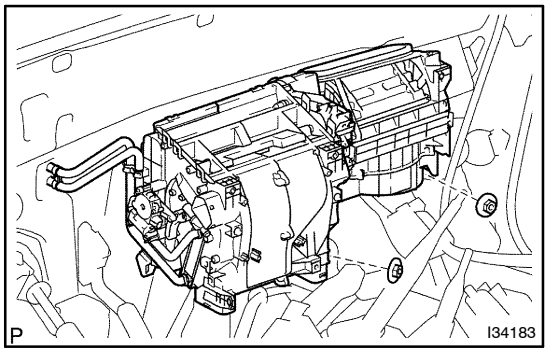
18. REMOVE HEATER TO REGISTER DUCT ASSY

(a) Release the 4 claw fittings and remove the heater to register duct assy.



19. REMOVE DEFROSTER NOZZLE ASSY LOWER

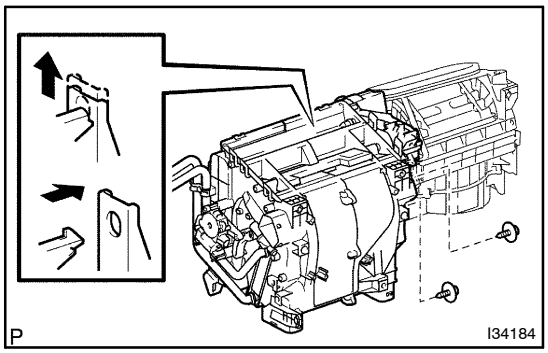
(a) Release the 4 claw fittings and remove the defroster nozzle assy lower.



20. REMOVE AIR CONDITIONER UNIT ASSY

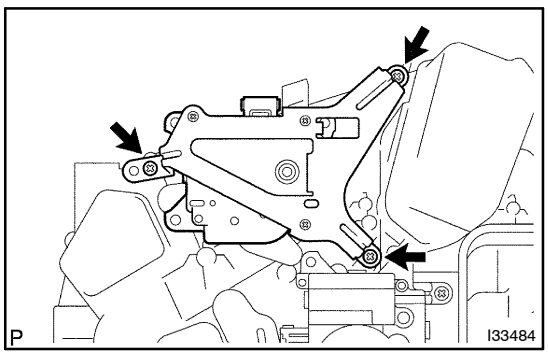
(a) Disconnect the connectors.

(b) Remove the 2 nuts and air conditioner unit assy.



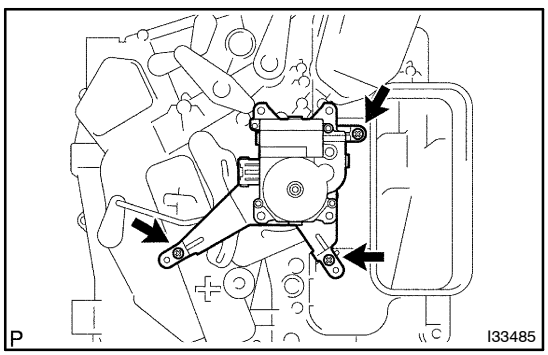
21. REMOVE AIR CONDITIONING RADIATOR ASSY

(a) Remove the 2 screws and air conditioning radiator assy.



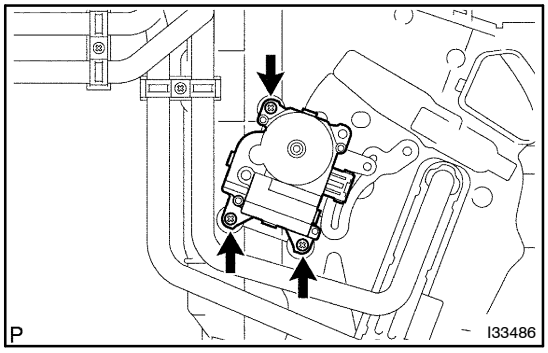
22. REMOVE MODE DAMPER SERVO SUB–ASSY (AUTO AIR CONDITIONING)

(a) Remove the 3 screws and mode damper servo sub–assy.



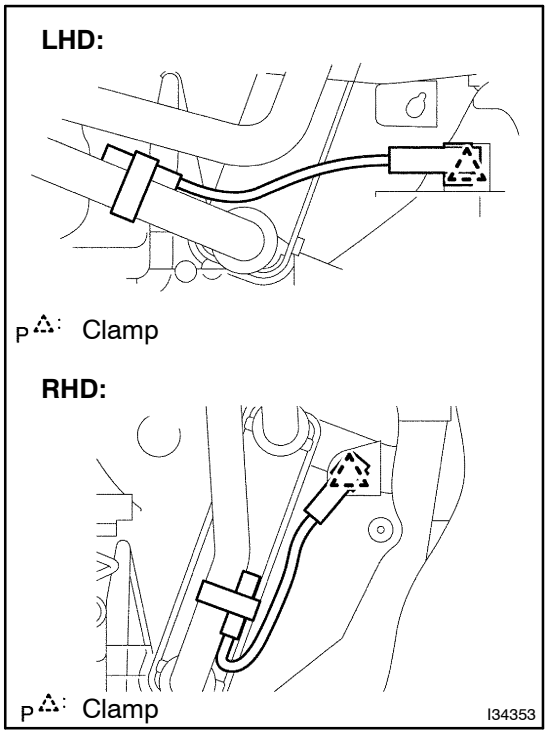
23. REMOVE AIRMIX DAMPER SERVO SUB–ASSY (AUTO AIR CONDITIONING)

(a) Remove the 3 screws and airmix damper servo sub–assy.



24. REMOVE BLOWER DAMPER SERVO SUB–ASSY (AUTO AIR CONDITIONING)

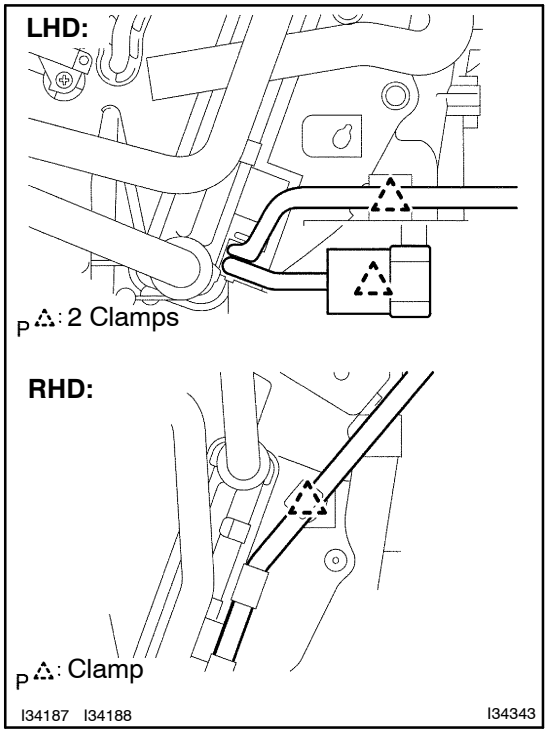
(a) Remove the 3 screws and blower damper servo sub–assy.



25. REMOVE THERMISTOR ASSY

(a) Remove the clamp.

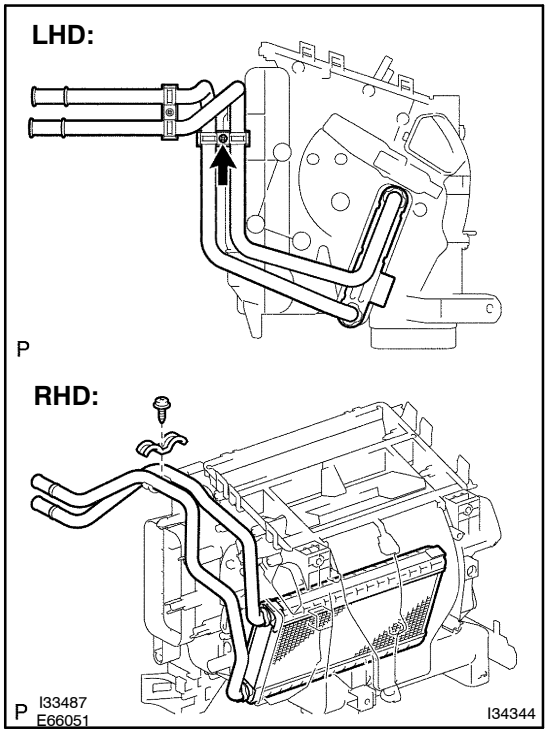
(b) Release the clamp and remove the thermistor assy.



26. REMOVE HEATER RADIATOR UNIT SUB–ASSY

(a) LHD: w/ PTC heater:
Remove the 2 clamps.

(b) RHD w/ PTC heater:
Remove the clamp.

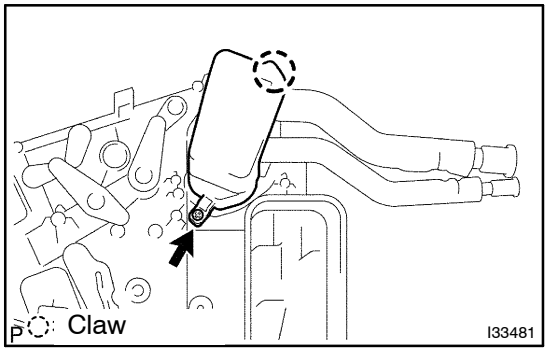


(c) Remove the screw, clamp and heater radiator unit sub–assy.

27. REMOVE COOLER COVER NO.1

28. REMOVE COOLER THERMISTOR NO.1

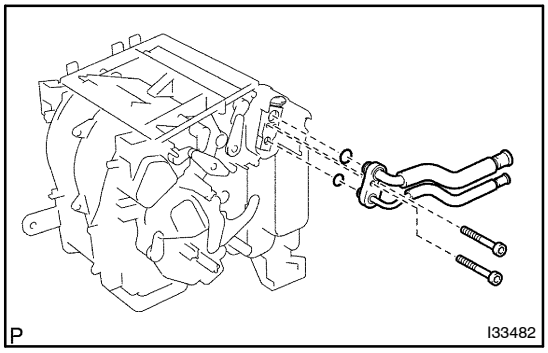
29. REMOVE COOLER UNIT DRAIN HOSE NO.1



30. REMOVE COVER PLATE

(a) Remove the screw.

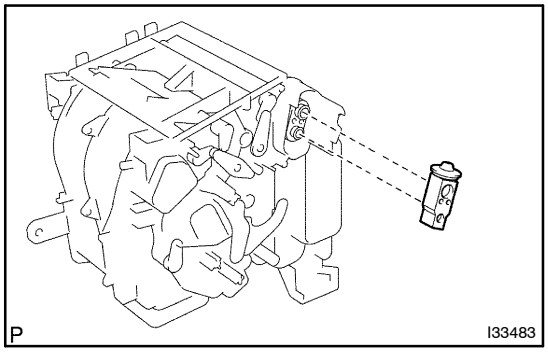
(b) Release the claw fitting and remove the cover plate.



31. REMOVE AIR CONDITIONING TUBE & ACCESSORY ASSY

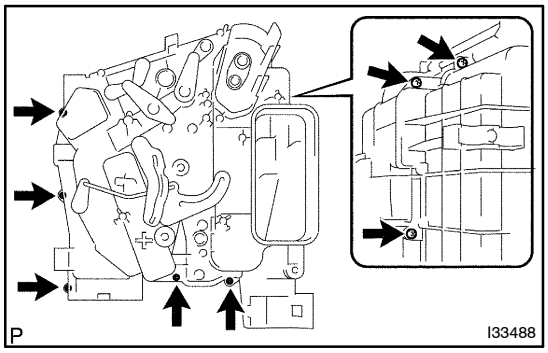
(a) Using a hexagon wrench 4.0 mm (0.15 in.), remove the 2 hexagon bolts and air conditioning tube assy.

(b) Remove the 2 O–rings from the air conditioning tube assy.



32. REMOVE COOLER EXPANSION VALVE

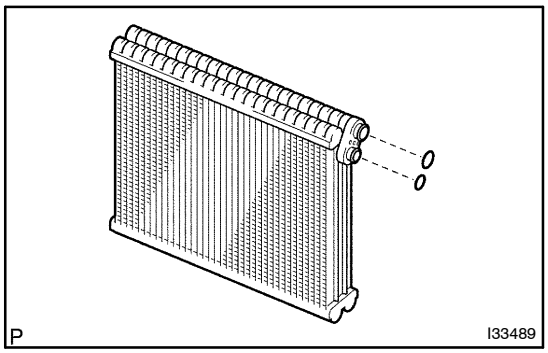
(a) Remove the cooler expansion valve from the cooler evaporator sub–assy No.1.



33. REMOVE COOLER EVAPORATOR SUB–ASSY NO.1

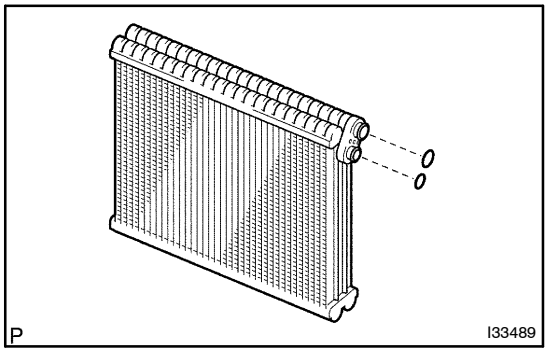
(a) Remove the 8 screws and separate the heater case.

(b) Remove the cooler evaporator sub–assy No.1.



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

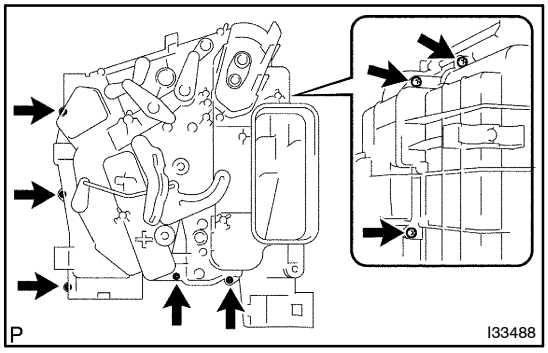
34. REMOVE COVER PLATE



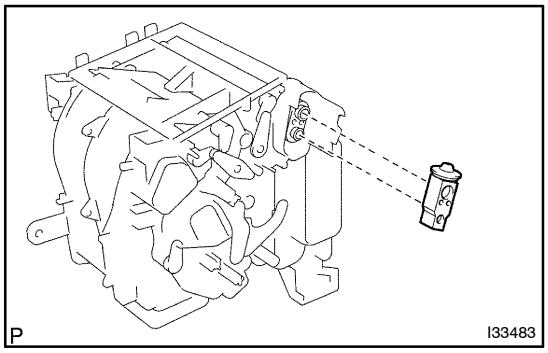
35. INSTALL COOLER EVAPORATOR SUB–ASSY NO.1

(a) Sufficiently apply compressor oil to the 2 new O–rings and fitting surface of the cooler expansion valve.
Compressor oil: ND–OIL8 or equivalent

(b) Install the 2 O–rings on the cooler evaporator sub–assy No.1.

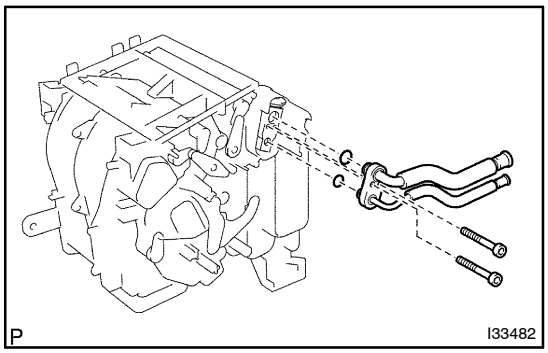


(c) Install the cooler evaporator sub–assy No.1 on the heater case.
(d) Install the heater case with the 8 screws.



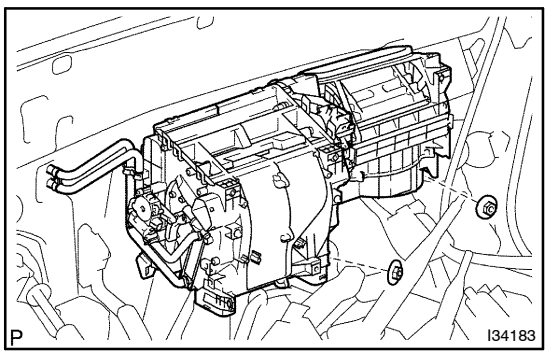
36. INSTALL COOLER EXPANSION VALVE

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



37. INSTALL AIR CONDITIONING TUBE & ACCESSORY ASSY

(a) Sufficiently apply compressor oil on the 2 new O–rings and fitting surface of the air conditioning tube assy.
Compressor oil: ND–OIL8 or equivalent
(b) Install the 2 O–rings on the air conditioning tube assy.
(c) Using a hexagon wrench 4.0 mm (0.15 in.), install the air conditioning tube assy with the 2 hexagon bolts.
Torque: 3.5 N·m (35 kgf·cm, 30 in.·lbf)

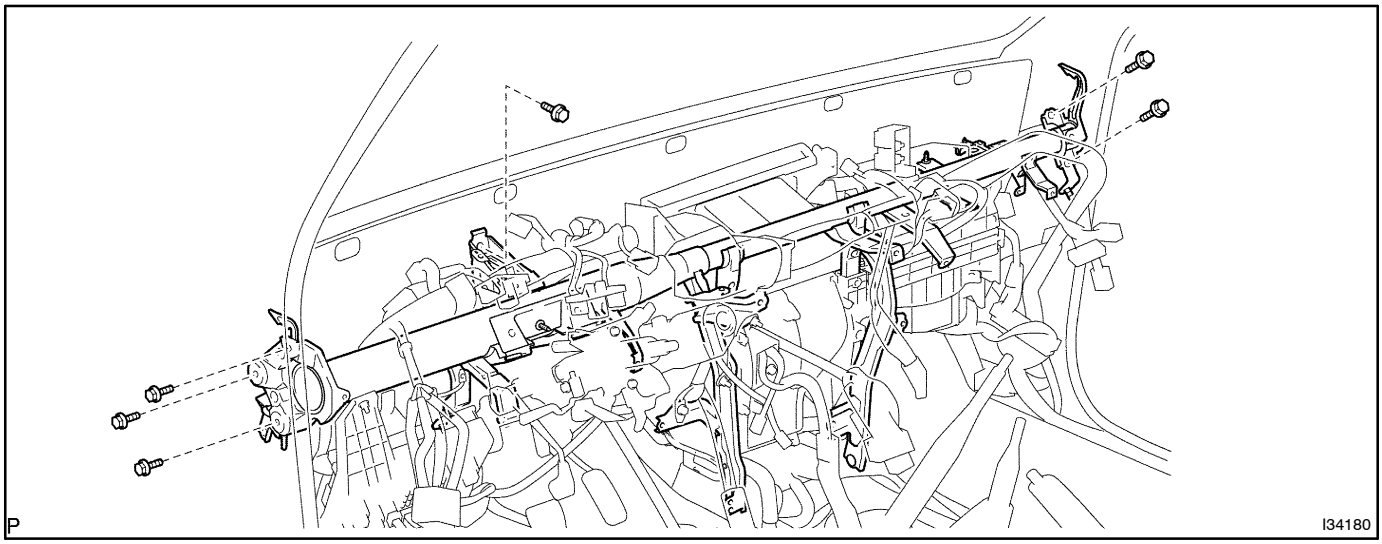


38. INSTALL AIR CONDITIONER UNIT ASSY

(a) Install the air conditioner unit assy with the 2 nuts.
Torque: 5.4 N·m (55 kgf·cm, 48 in.·lbf)
(b) Connect the connectors.

39. INSTALL INSTRUMENT PANEL REINFORCEMENT

(a) Install the instrument panel reinforcement with the 7 bolts.

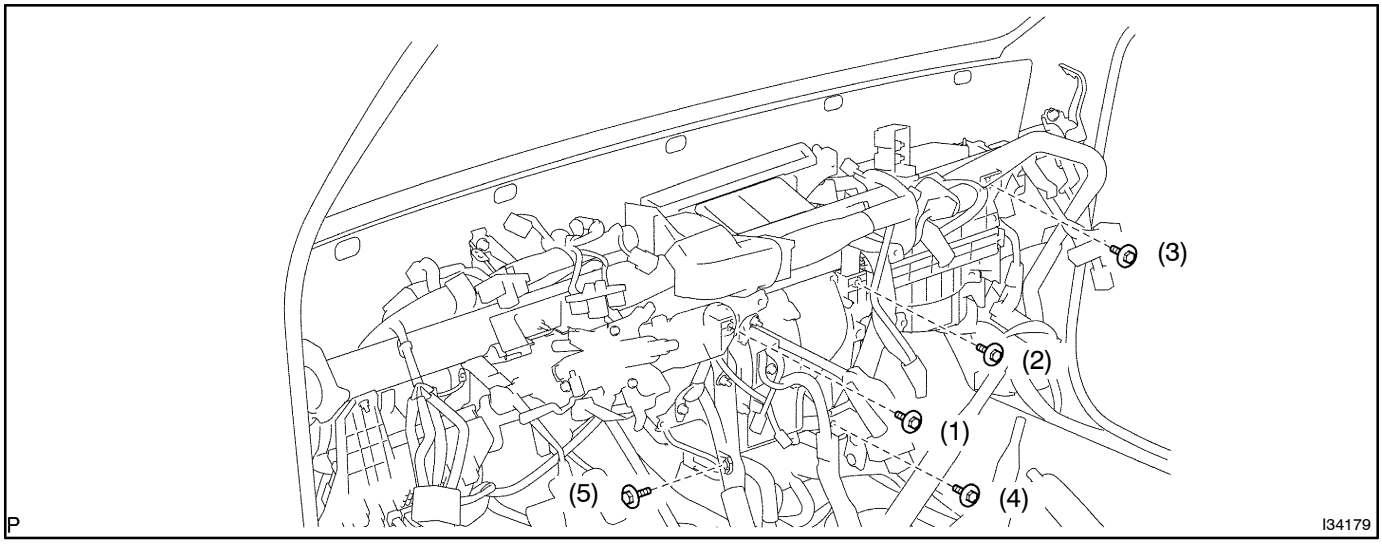


(b) Install the 5 bolts.

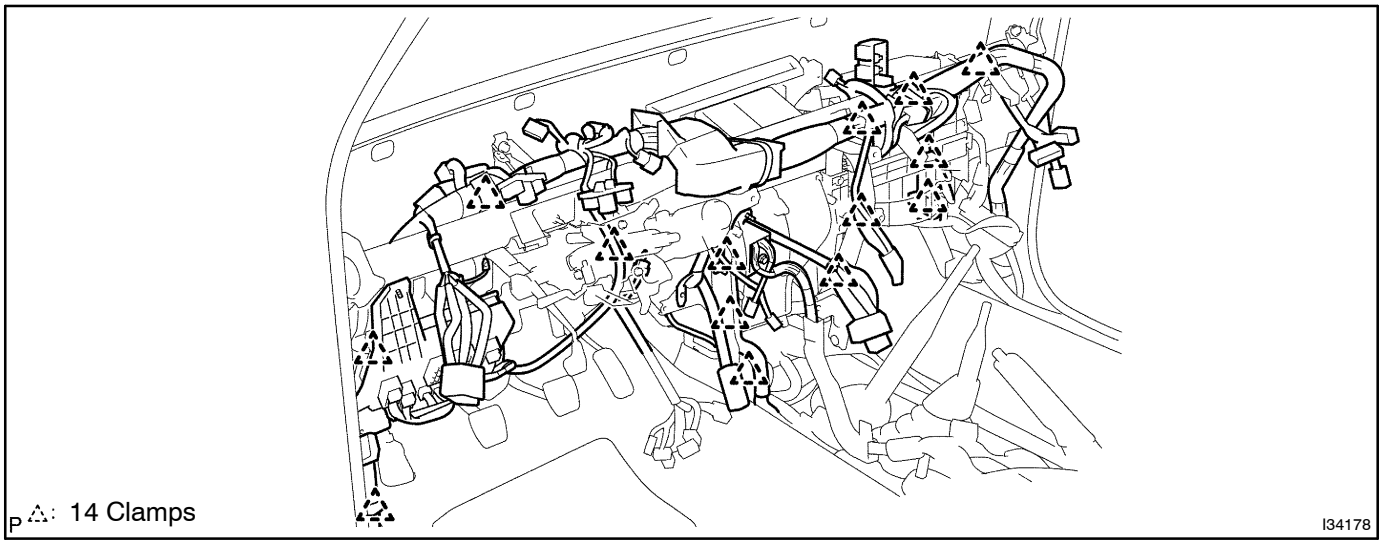
Torque: 9.8 N·m (100 kgf·cm, 87 in.·lbf)

NOTICE:

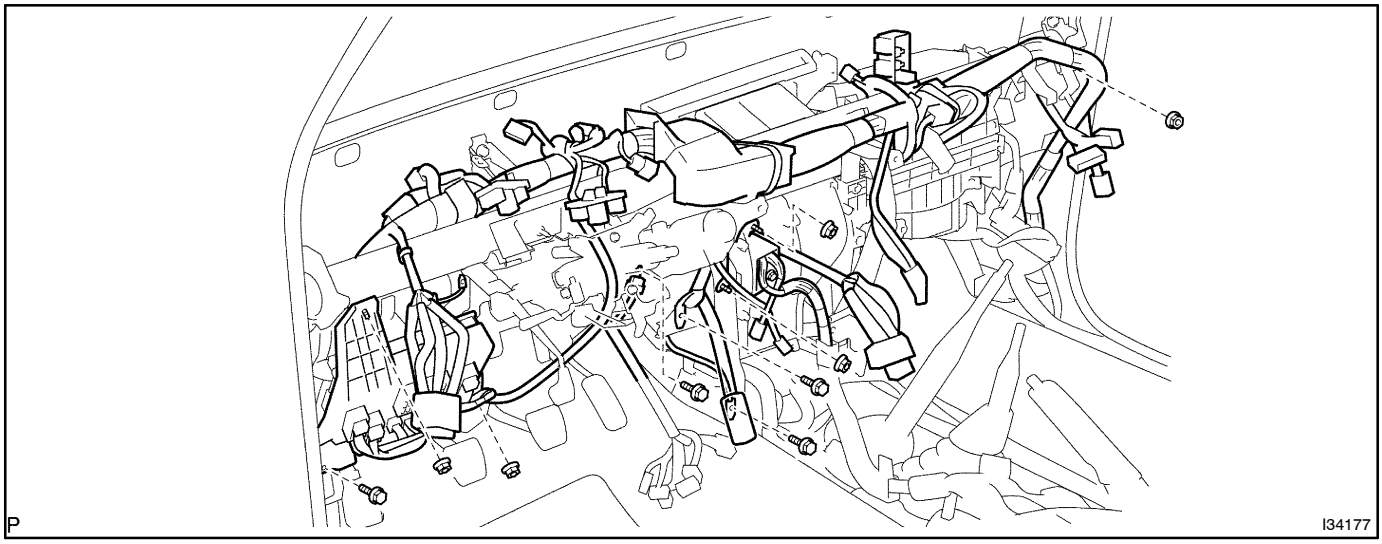
Tighten the bolts in following order shown in the illustration to install the air conditioner unit assy.

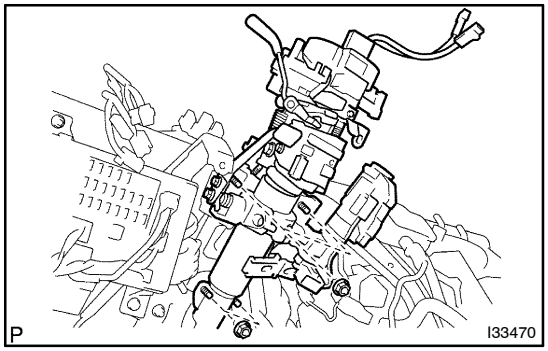


(c) Install the 14 clamps.
(d) Connect the connectors.

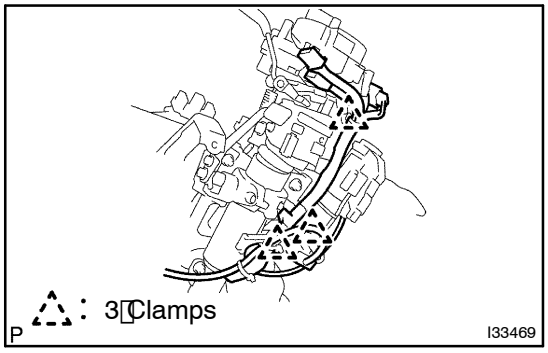


(e) Install the 4 bolts and 5 nuts.
Torque: 8.3 N·m (85 kgf·cm, 73 in.·lbf)



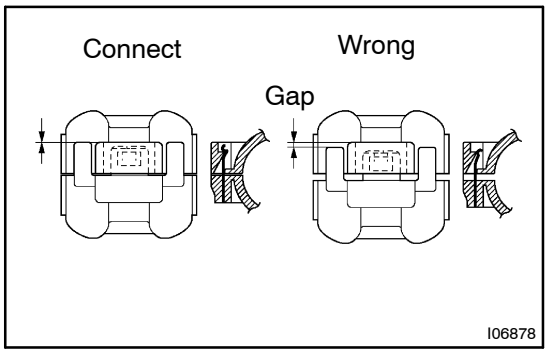


40. INSTALL STEERING COLUMN ASSY
(a) Install the steering column assy with the 4 nuts.
Torque: 26 N·m (265 kgf·cm, 19 ft·lbf)



(b) Install the 3 clamps and connect the connectors.

41. INSTALL INSTRUMENT PANEL SAFETY PAD SUB–ASSY W/DEFROSTER NOZZLE DUCT (See page 71–13)



42. INSTALL LIQUID TUBE

(a) Lubricate new O–ring with compressor oil and install them on the hose.
Compressor oil: ND–OIL 8 or equivalent

(b) Quick joint model:
Install the liquid tube and piping clamp.

HINT:
After connection, check the fitting for claw of the piping clamp.

(c) Bolt joint model:
Install the bolt.
Torque: 5.4 N·m (55 kgf·cm, 47 in.·lbf)

43. INSTALL SUCTION HOSE SUB–ASSY

HINT:
Connect of the suction hose sub–assy is same the liquid tube.

44. ADD ENGINE COOLANT
3RZ–FE: (See page 16–7)
5L–E: (See page 16–18)
1KZ–TE: (See page 16–34)
1KD–FTV: (See page 16–50)

45. CHARGE REFRIGERANT (See page 55–26)
SST 07110–58060 (07117–58060, 07117–58070, 07117–58080, 07117–58090, 07117–78050, 07117–88060, 07117–88070, 07117–88080)
Specified amount:
Single A/C: 650 ± 30 g (22.92 ± 1.06 oz.)
Single A/C + Cool box: 750 ± 30 g (26.45 ± 1.06 oz.)
Dual A/C: 800 ± 30 g (28.21 ± 1.06 oz.)
Dual A/C + Cool box: 900 ± 30 g (31.74 ± 1.06oz.)

46. WARM UP ENGINE (See page 55–26)

47. CHECK FOR ENGINE COOLANT LEAKS

3RZ–FE: (See page 16–1)

5L–E: (See page 16–12)

1KZ–TE: (See page 16–22)

1KD–FTV: (See page 16–38)

48. INSPECT LEAKAGE OF REFRIGERANT (See page 55–26)