

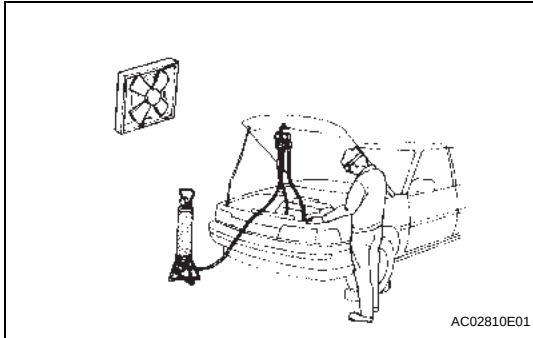
AIR CONDITIONING SYSTEM

PRECAUTION

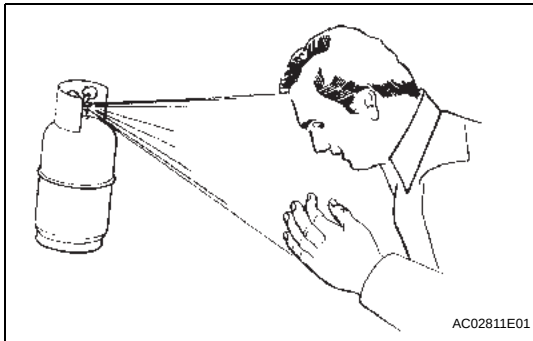
1. **CONNECT THE BATTERY NEGATIVE TERMINAL TO THE CABLE AND RUN THE ENGINE AT NO LESS THAN 2,000 RPM FOR 1 MINUTE**

NOTICE:

If the engine exceeds 2,000 rpm, the clutch is automatically disengaged by the compressor protection control system.



2. **DO NOT HANDLE REFRIGERANT IN ENCLOSED AREAS OR NEAR OPEN FLAMES**
3. **ALWAYS WEAR EYE PROTECTION**



4. **BE CAREFUL NOT TO GET LIQUID REFRIGERANT IN YOUR EYES OR ON YOUR SKIN**

if liquid refrigerant gets in your eyes or on your skin:

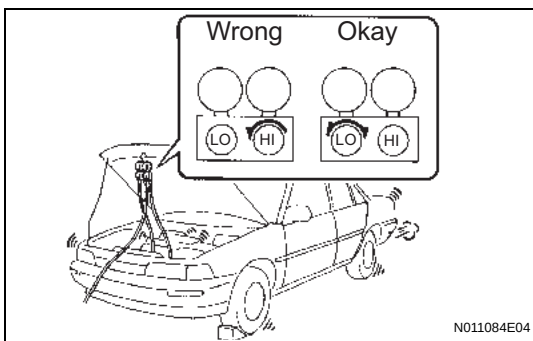
- (a) Wash the area with lots of cold water.

CAUTION:

Do not rub your eyes or skin.

- (b) Apply clean petroleum jelly to the skin.
- (c) Go immediately to a hospital or a physician for professional treatment.

5. **NEVER HEAT CONTAINER OR EXPOSE IT TO NAKED FLAME**
6. **BE CAREFUL NOT TO DROP CONTAINER OR APPLY ANY PHYSICAL SHOCKS TO IT**



7. **DO NOT OPERATE COMPRESSOR WITHOUT ENOUGH REFRIGERANT IN REFRIGERANT SYSTEM**

If there is not enough refrigerant in the refrigerant system, oil lubrication will be insufficient and compressor burnout may occur. Necessary care should be taken to avoid this.

8. **DO NOT OPEN HIGH PRESSURE MANIFOLD VALVE WHILE COMPRESSOR IS OPERATING**

Open and close only the low pressure valve. If the high pressure valve is open, refrigerant flows in the reverse direction. This could cause the charging cylinder to rupture.

9. **BE CAREFUL NOT TO OVERCHARGE SYSTEM WITH REFRIGERANT**

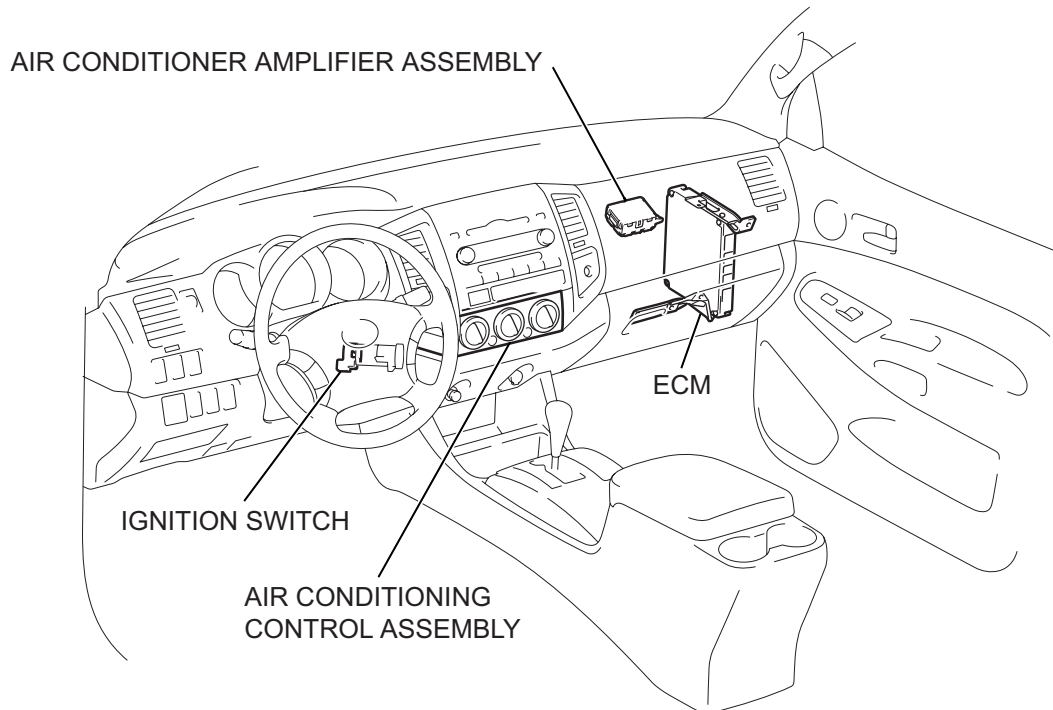
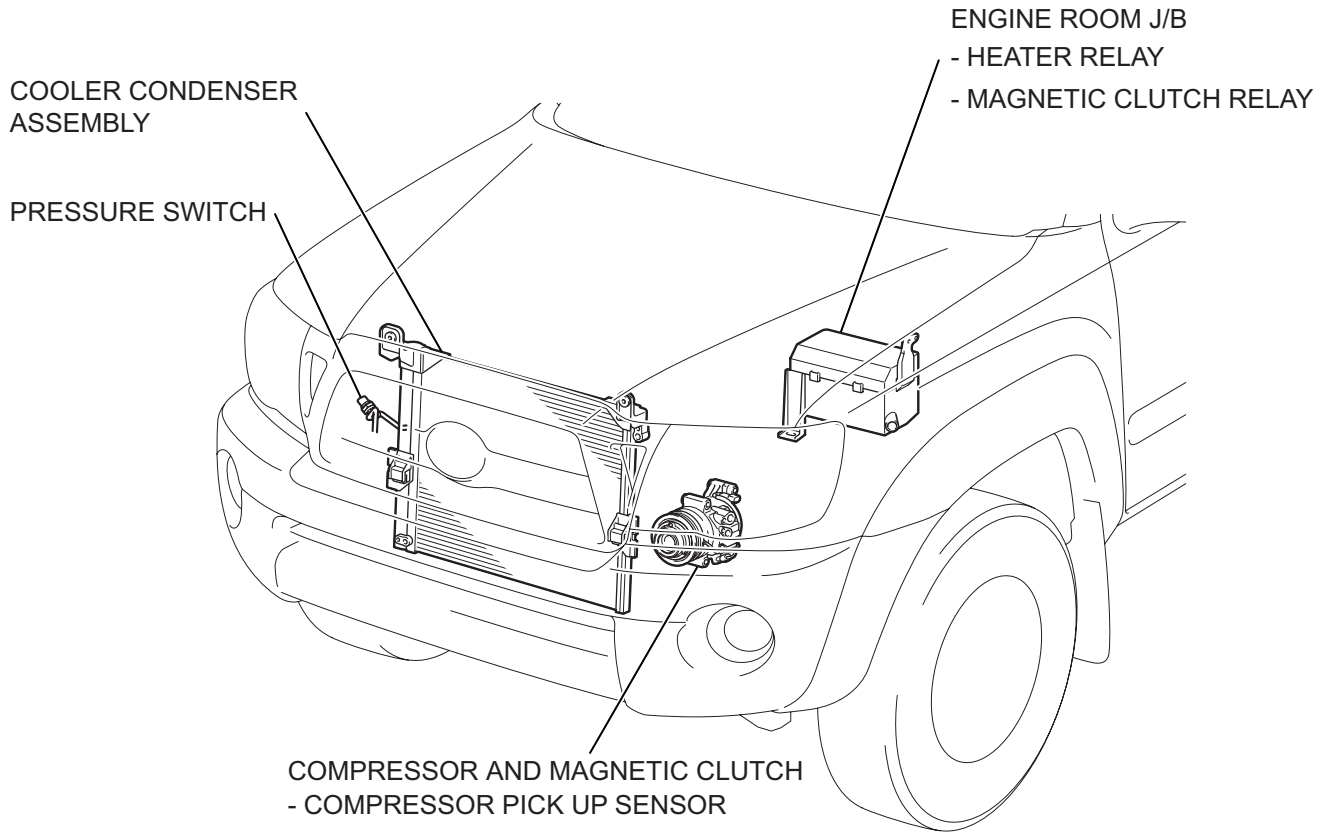
If the refrigerant is overcharged, it causes problems such as insufficient cooling, poor fuel economy and engine overheating.

10. **DO NOT OPERATE ENGINE AND COMPRESSOR WITH NO REFRIGERANT**

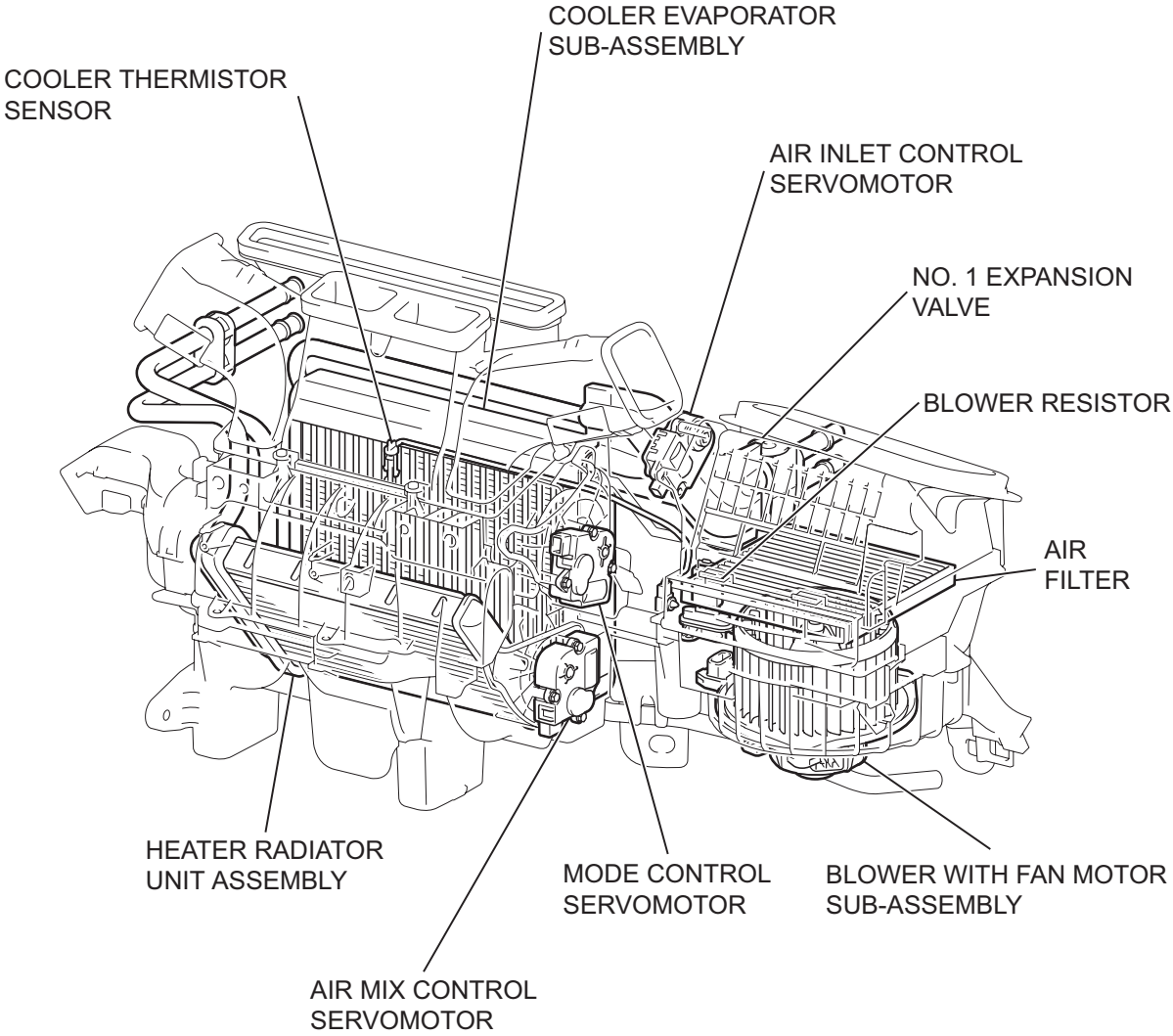
CAUTION:

This may damage the inside of the compressor.

PARTS LOCATION

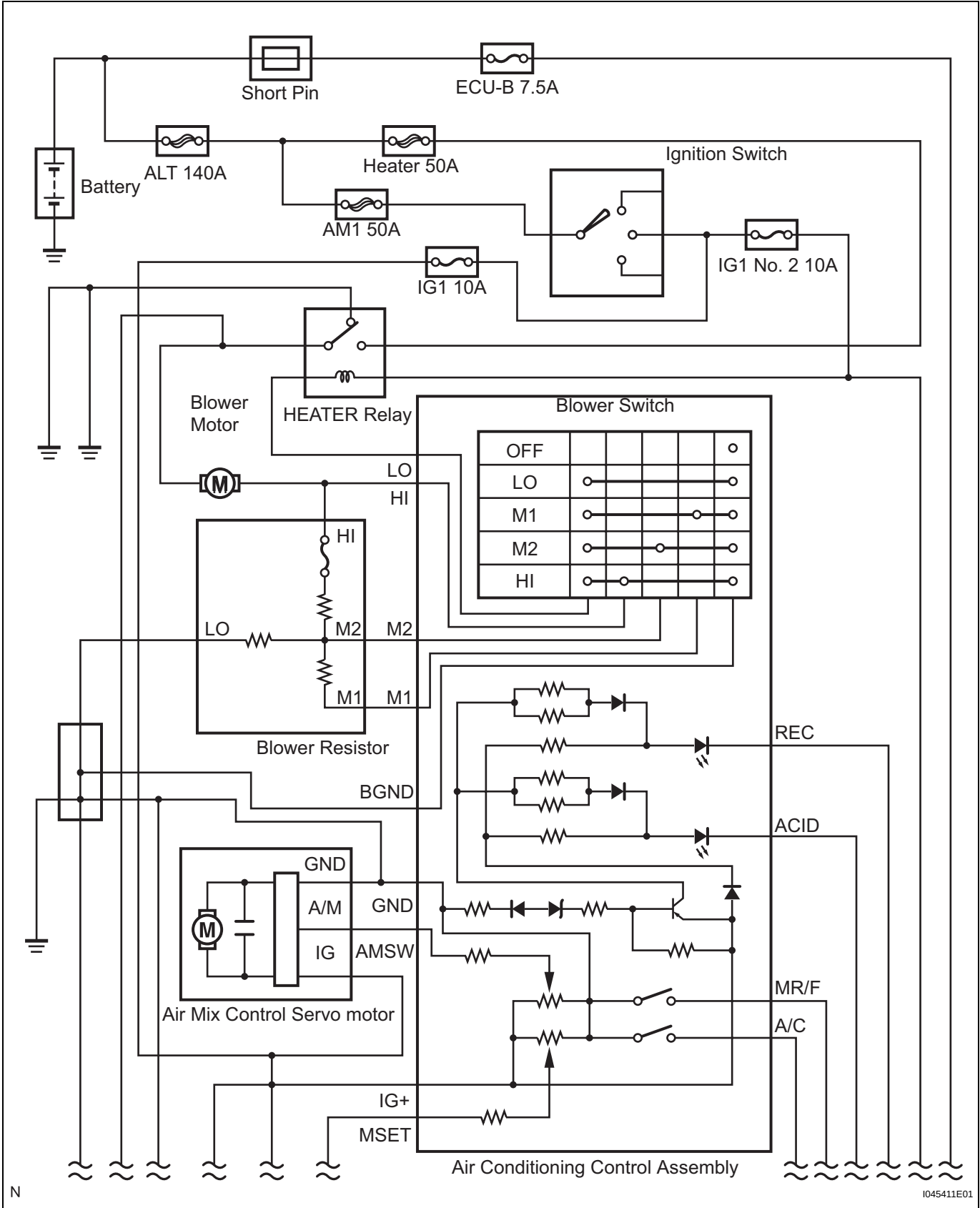


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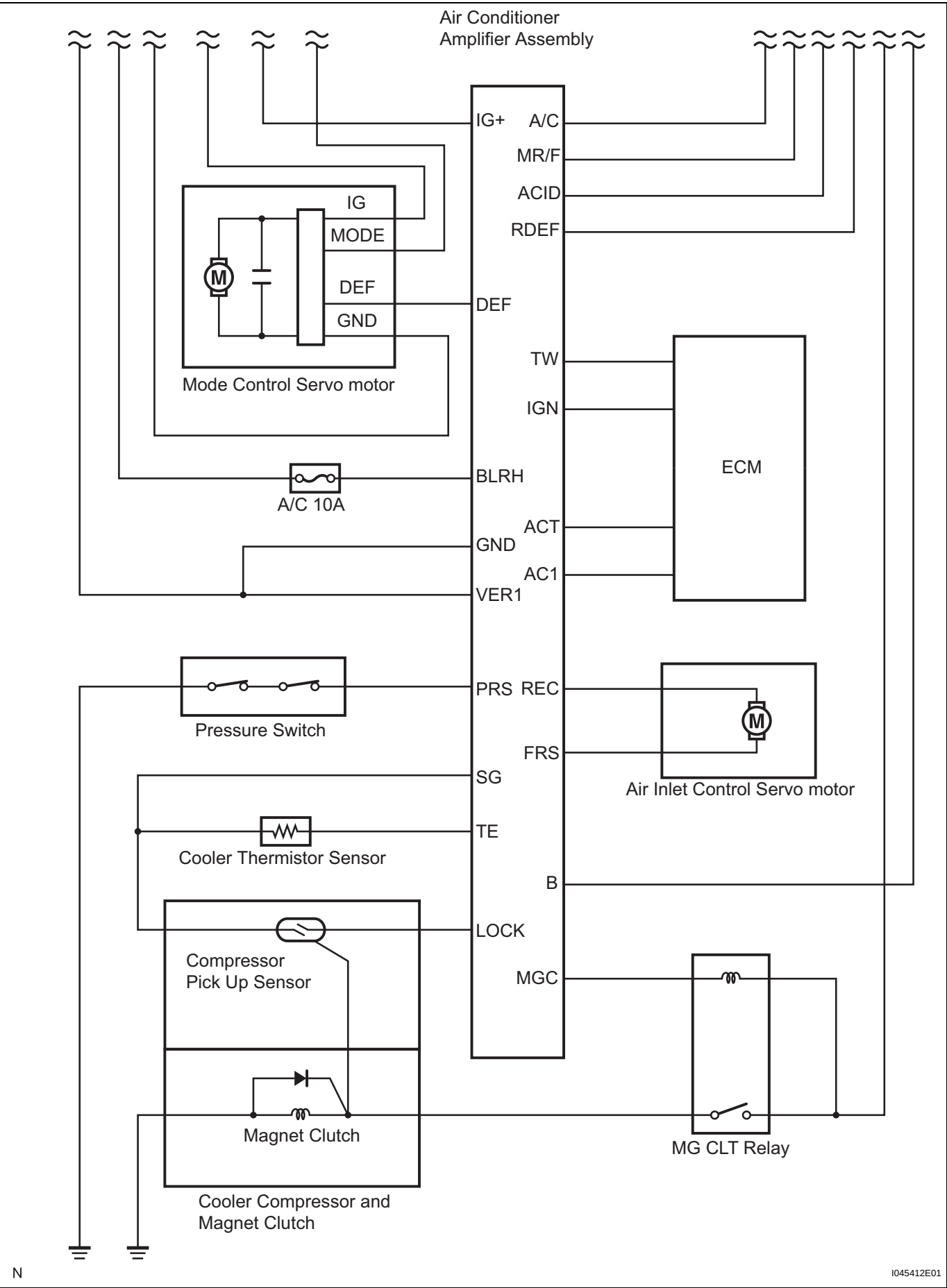


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SYSTEM DIAGRAM



AC



PROBLEM SYMPTOMS TABLE

Check the suspected areas for each problem symptom in the order given in the table below and proceed to the relevant troubleshooting page.

HINT:

Inspect the fuses and relays before inspecting the suspected areas shown in the table below.

If the malfunction still exists even after checking and confirming that all the suspected areas are normal, replace the A/C amplifier.

Symptom	Suspected area	See page
No Cool Air Comes Out: • Compressor Not Operating	A/C fuse	-
	Volume of refrigerant	AC-14
	Pressure switch	AC-85
	Magnetic clutch	AC-70
	Cooler thermistor sensor	AC-84
	Air conditioner amplifier assembly	AC-9
	Compressor pick up sensor	AC-70
	Cooler compressor	AC-67
	Cooler compressor	AC-73
	Wire harness or connector	-
No Cool Air Comes Out: • Blower Not Operating	HTR fuse	-
	Heater relay	AC-88
	Blower resistor	AC-63
	Blower motor	AC-62
	Blower speed control switch	AC-91
	Air conditioning control assembly	AC-91
	Wire harness or connector	-
No Cool Air Comes Out: • Air Mix Damper Servo Not Operating	Air mix damper fuse	-
	Air mix control servo motor	AC-82
	Air conditioning control assembly	AC-91
	Wire harness or connector	-
No Cool Air Comes Out: • Insufficient Cooling	Volume of refrigerant	AC-14
	Blower motor performance check	-
	Air mix damper servo full travel check	-
	Recirculation damper servo operation check	-
No Engine Idle-up when A/C Switch ON	Air conditioner amplifier assembly	AC-9
	Idling control system (2TR-FE)	ES-252
	Idling control system (1GR-FE)	ES-246
	Wire harness or connector	-
No Warm Air Comes Out: • Blower Not Operating	HTR fuse	-
	Heater relay	AC-88
	Blower resistor	AC-63
	Blower motor	AC-62
	Blower speed control switch	AC-91
	Air conditioning control assembly	AC-91
	Wire harness or connector	-

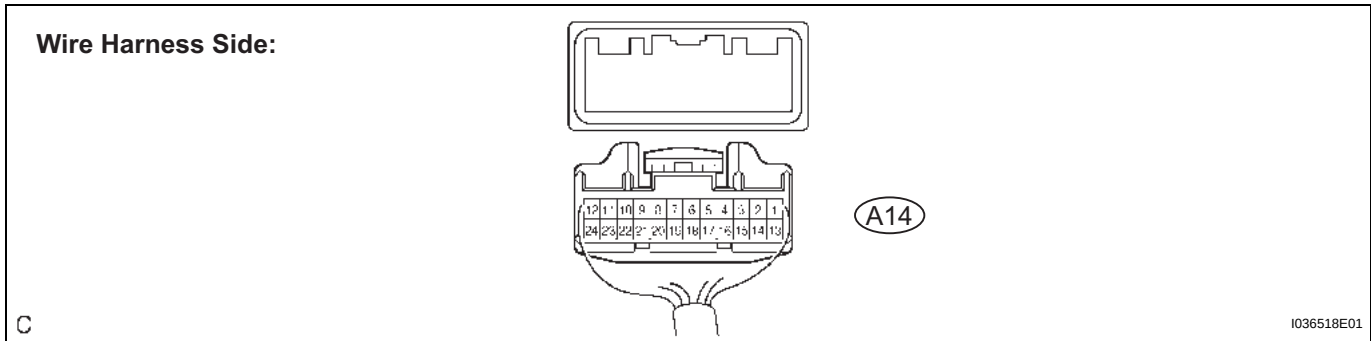
Symptom	Suspected area	See page
No Warm Air Comes Out: • Air Mix Damper Servo Not Operating	Air mix damper fuse	-
	Air mix control servo motor	AC-82
	Air conditioning control assembly	AC-91
	Wire harness or connector	-
No Warm Air Comes Out: • Insufficient Cooling	Volume of engine coolant	-
	Air conditioning control assembly	AC-91
	Blower motor performance check	-
	Air mix damper servo full travel check	-
	Recirculation damper servo operation check	-
	Heater radiator	-
Air Not Coming From Desired Outlets: • Blower Not Operating	HTR fuse	-
	Heater relay	AC-88
	Blower resistor	AC-63
	Blower motor	AC-62
	Blower speed control switch	AC-91
	Air conditioning control assembly	AC-91
	Wire harness or connector	-
Air Not Coming From Desired Outlets: • Air Mix Damper Servo Not Operating	Air mix damper fuse	-
	Air mix control servo motor	AC-82
	Air conditioning control assembly	AC-91
	Wire harness or connector	-
Windshield Fogging: • Compressor Not Operating	A/C fuse	-
	Volume of refrigerant	AC-14
	Pressure switch	AC-85
	Magnetic clutch	AC-70
	Cooler thermistor sensor	AC-84
	Air conditioner amplifier assembly	AC-9
	Compressor pick up sensor	AC-70
	Cooler compressor	AC-67
	Cooler compressor	AC-73
	Wire harness or connector	-
Windshield Fogging: • Blower Not Operating	HTR fuse	-
	Heater relay	AC-88
	Blower resistor	AC-63
	Blower motor	AC-62
	Blower speed control switch	AC-91
	Air conditioning control assembly	AC-91
	Wire harness or connector	-
Windshield Fogging: • Air Mix Damper Servo Not Operating	Air mix damper fuse	-
	Air mix control servo motor	AC-82
	Air conditioning control assembly	AC-91
	Wire harness or connector	-
Windshield Fogging: • Insufficient Cooling	Volume of refrigerant	AC-14
	Blower motor performance check	-
	Air mix damper servo full travel check	-
	Recirculation damper servo operation check	-

Symptom	Suspected area	See page
Defrosting Insufficient: Air flow from def outlet insufficient (Check airflow when engine is running, blower MAX and DEF mode)	Blower motor	AC-62
	Mode doors: Check cooling, heating & door operation	-
	Mode control servo motor: Hot air not coming, Go to no hot air comes out	-
	Mode control servo motor: Cold air not coming, Go to no cold air comes out	-
Noise: Blower noise (Check noise when ignition switch ON and blower ON)	Blower motor: Inspect blower motor for debris/cracks	-
	Fresh air intake area: Inspect fresh air intake area for debris	-
Noise: A/C system (Engine is running, A/C switch is ON. Detect noise source using soundscope and moving around the refrigerant system.)	Cooler compressor: Cooler compressor incorrectly fitted	AC-73
	Magnetic clutch	AC-70
	Refrigerant charge amount	AC-18
	Compressor mounting bracket: Compressor mounting bracket incorrectly fitted (2TR-FE)	ES-447
	Compressor mounting bracket: Compressor mounting bracket incorrectly fitted (1GR-FE (2WD))	EM-26
	Compressor mounting bracket: Compressor mounting bracket incorrectly fitted (1GR-FE (PRE RUNNER/4WD))	EM-48
	A/C lines secure & not grounded	-
Odor (Cycle through blower speed, mode, temperature to define odor type when engine is running and A/C switch is ON. (Musty smell, coolant oil smell))	Wet carpet: Inspect water, engine coolant or oil leaks	-
	A/C drain tube: Inspect water, engine coolant or oil leaks	-
	Fresh air intake area: Inspect water, engine coolant or oil leaks	-
	Heater hose: Inspect water, engine coolant or oil leaks	-
	Evaporator: Inspect water, engine coolant or oil leaks	-
	Evapo case: Inspect water, engine coolant or oil leaks	-
Air Not Coming from Desired Outlets (Cycle the mode lever and check airflow for outlets when engine is running, A/C switch is ON.)	Blower motor	AC-62
	Mode control servo motor	AC-82
	Mode doors: Check cooling, heating & door operation	-
	Wire harness or connector	-
	Air conditioning control assembly	AC-91

TERMINALS OF ECU

1. INSPECT AIR CONDITIONER AMPLIFIER ASSEMBLY

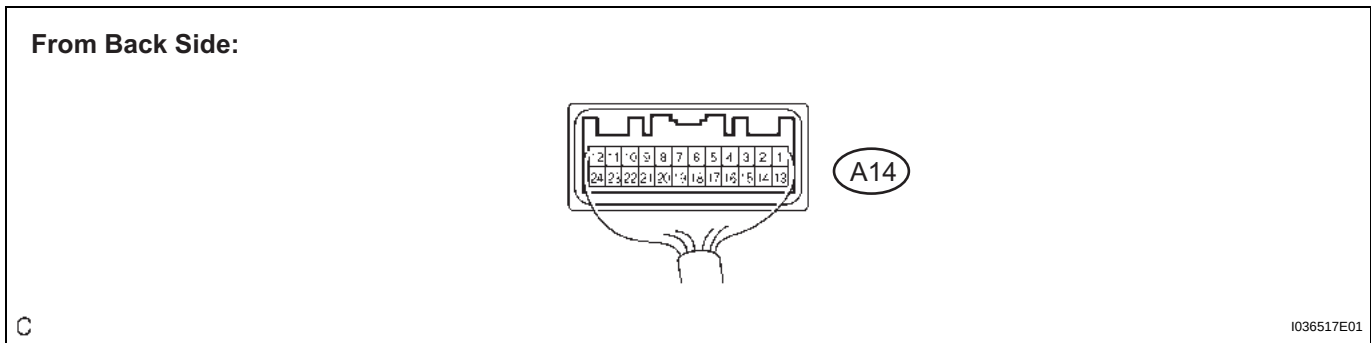
- (a) Disconnect the connector from the air conditioner amplifier assembly and inspect the connector on the wire harness side, as shown in the table below.



Symbols (Terminals No.)	Wiring Colors	Terminal Descriptions	Conditions	STD Voltages
IG+ (A14-12) - GND (A14-1)	P - W-B	Power source (IG)	Ignition switch: OFF → ON	Below 1.0 → 10 to 14 V
+B (A14-24) - GND (A14-1)	P - W-B	Power source (Back-up)	Always	10 to 14 V
GND (A14-1) - Body ground	W-B - Body ground	Ground for main power supply	Always	Below 1.0 Ω

If the results are not as specified, inspect the circuits connected to the other parts.

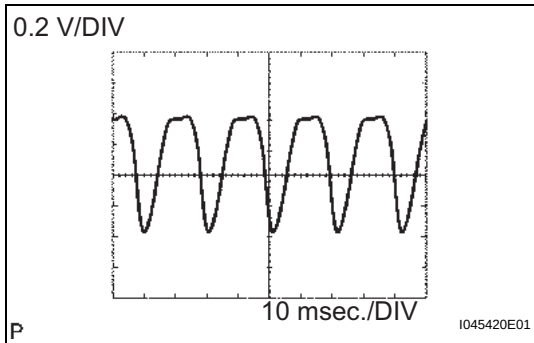
- (b) Connect the connector to the air conditioning amplifier assembly and inspect the wire harness side connector from the back side, as shown in the table below.



Symbols (Terminals No.)	Wiring Colors	Terminal Descriptions	Conditions	STD Voltages
DEF (A14-2) - GND (A14-1)	LG - W-B	Mode switch signal	Ignition switch: ON Mode select switch: Except DEF → DEF	1.0 to 14 → Below 1.0 V
LOCK (A14-6) - SG (A14-3)	R-W - W	Magnet clutch signal	Start engine Operate A/C system Magnet clutch: ON	Pulse generation (See waveform 1)
ACI (A14-9) - GND (A14-1)	G-W - W-B	Idle up request signal	Engine idling Operate A/C system Magnet clutch: OFF → ON	10 to 14 → Below 1.0 V
FRS (A14-10) - GND (A14-1)	V-W - W-B	Recirculation/Fresh switch signal	Ignition switch: ON Recirculation/Fresh switch: RECIRCULATION → FRESH	Below 1.0 → 10 to 14 V

Symbols (Terminals No.)	Wiring Colors	Terminal Descriptions	Conditions	STD Voltages
REC (A14-11) - GND (A14-1)	P-B - W-B	Recirculation/Fresh switch signal	Ignition switch: ON Recirculation/Fresh switch: FRESH → RECIRCULATION	Below 1.0 → 10 to 14 V
MGC (A14-21) - GND (A14-1)	G - W-B	Magnet clutch relay signal	Engine idling Operate A/C system Magnet clutch: OFF → ON	10 to 14 → Below 1.0 V
PRS (A14-5) - GND (A14-1)	O - W-B	A/C pressure sensor signal	Start engine Operate A/C system Refrigerant pressure: Abnormal (More than 3,030 kPa (31.0 kgf/cm ² , 440 psi))	4.7 V or higher
PRS (A14-5) - GND (A14-1)	O - W-B	A/C pressure sensor signal	Start engine Operate A/C system Refrigerant pressure: Abnormal (Less than 186 kPa (1.9 kgf/cm ² , 27 psi))	Below 0.7 V
PRS (A14-5) - GND (A14-11)	O - W-B	A/C pressure sensor signal	Start engine Operate A/C system Refrigerant pressure: Normal (Less than 3,030 kPa (31.0 kgf/cm ² , 440 psi)) and more than 186 kPa (1.9 kgf/cm ² , 27 psi))	0.7 to 4.7 V
TE (A14-4) - GND (A14-1)	B - W-B	A/C evaporator temperature sensor signal	Ignition switch: ON Evaporator temperature: 0 → 15°C (32 → 59°F)	2.0 to 2.4 → 1.4 to 1.8 V
BLRH (A14-23) - GND (A14-1)	G-Y - W-B	Blower switch signal	Ignition switch: ON Blower switch: ON OFF → ON (LO, M1, M2, H1)	0 → 10 to 14 V
ACID (A14-15) - GND (A14-1)	Y - W-B	A/C switch LED signal	Ignition switch: ON Blower switch: ON A/C switch: OFF → ON	10 to 14 → Below 3.0 V
RDEF (A14-16) - GND (A14-1)	L-W - W-B	REC switch LED signal	Ignition switch: ON Blower switch: ON REC switch: OFF → ON	10 to 14 → Below 1.0 V
MR/F (A14-17) - GND (A14-1)	G-B - W-B	REC switch operation signal	Ignition switch: ON REC switch: OFF → ON	4 to 5 → Below 1.0 V
A/C (A14-18) - GND (A14-1)	GR - W-B	A/C switch operation signal	Ignition switch: ON A/C switch: OFF → ON	4 to 5 → Below 1.0 V
GND (A14-1) - Body ground	W-B - Body ground	Ground for main power supply	Always	Below 1.0 Ω
SG (A14-3) - Body ground	W - Body ground	Ground for A/C evaporator temperature sensor	Always	Below 1.0 Ω
IG (A14-12) - Body ground	P - Body ground	Power source (IG)	Ignition switch: OFF → ON	Below 1.0 → 10 to 14 V
+B (A14-24) - Body ground	R - Body ground	Power source (Back-up)	Always	10 to 14 V

If the results are not as specified, replace the air conditioning amplifier assembly with a new one. If the results are still not as specified after replacing the air conditioning control assembly, inspect the circuits connected to other parts.



(1) WAVEFORM 1:
Magnet clutch signal

ECM Terminal Names	Between LOCK and SG
Tester Ranges	0.2 V/DIV, 10 msec./DIV
Conditions	Idling

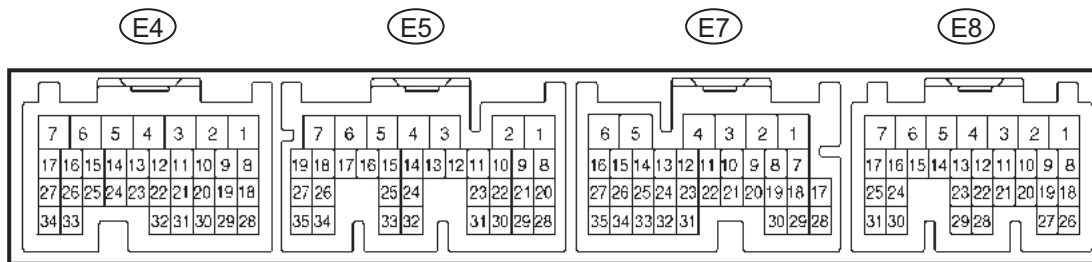
HINT:

The wavelength becomes shorter as the engine rpm increases.

2. Inspect ECM (2TR-FE)

- (a) Connect the connector to the ECM and inspect the wire harness side connector from the back side, as shown in the table below.

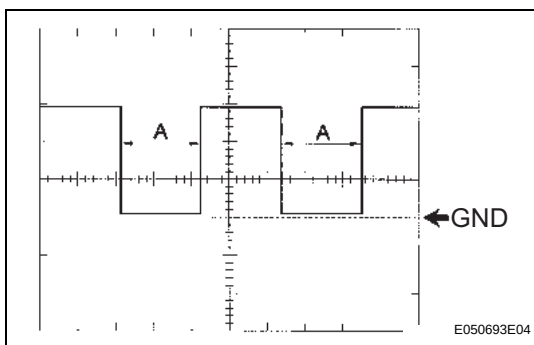
From Back Side:



A066714E08

Symbols (Terminals No.)	Wiring Colors	Terminal Descriptions	Conditions	STD Voltages
ACT (E7-25) - E1 (E4-3)	L - BR	Magnet clutch ON Permit signal	Start engine Operate A/C system Accelerator pedal: released → depressed	10 to 14 → Below 1.0 V
THWO (E7-14) - E2 (E4-28)	GR-B - BR	Engine coolant temperature sensor signal	Ignition switch: ON	Pulse generation (See waveform 1)
TACH (E7-1) - E1 (E4-3)	B-W - BR	Engine speed signal	Engine idling	Pulse generation (See waveform 2)

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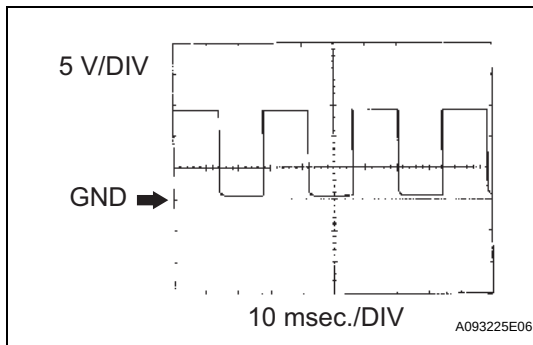


(1) WAVEFORM 1:
Engine coolant temperature sensor signal

ECM Terminal Names	Between THWO and E2
Tester Ranges	5 V/DIV, 0.1 sec./DIV
Conditions	Ignition switch ON

A changes in accordance with the engine coolant temperature.

Coolant Temperature	Below 30°	Approx. 75°C	Above 90°F
A	Approx. 16 ms	Approx. 204 ms	Approx. 262 ms



(2) WAVEFORM 2:
Engine speed signal

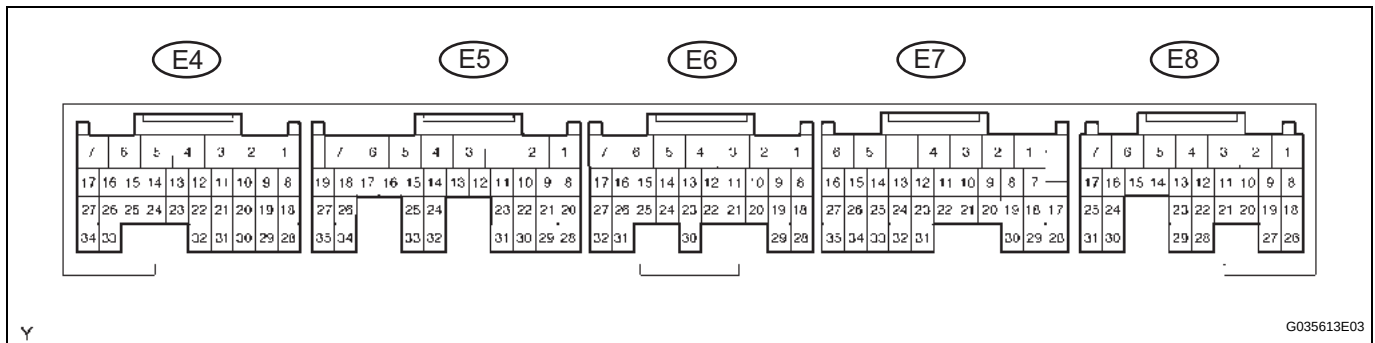
ECM Terminal Names	Between TACH and E1
Tester Ranges	5 V/DIV, 10 msec./DIV
Conditions	Idling

HINT:

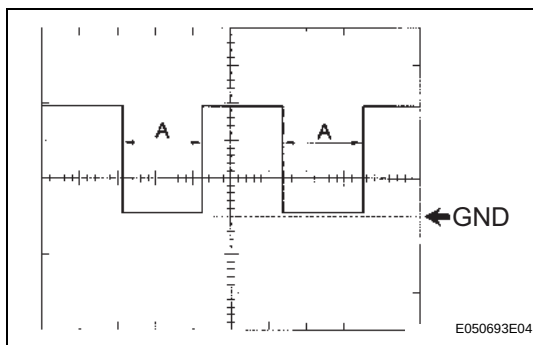
The wavelength becomes shorter as the engine rpm increases.

3. INSPECT ECM (1GR-FE)

- (a) Connect the connector to the ECM and inspect the wire harness side connector from the back side, as shown in the table below.



Symbols (Terminals No.)	Wiring Colors	Terminal Descriptions	Conditions	STD Voltages
ACT (E7-25) - E1 (E6-1)	L - BR	Magnet clutch ON permit signal	Start engine Operate A/C system Accelerator pedal: released → depressed	10 to 14 → Below 1.0 V
THWO (E7-14) - E2 (E4-28)	GR-B - BR	Engine coolant temperature sensor signal	Ignition switch: ON	Pulse generation (See waveform 1)
TACH (E7-1) - E1 (E6-1)	B-W - BR	Engine speed signal	Engine idling	Pulse generation (See waveform 2)

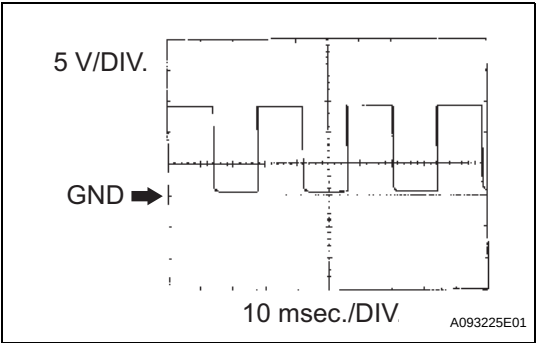


(1) WAVEFORM 1:
Engine coolant temperature sensor signal

ECM Terminal Names	Between THWO and E2
Tester Ranges	5 V/DIV, 0.1 sec./DIV
Conditions	Ignition switch ON

A changes in accordance with the engine coolant temperature.

Coolant Temperature	Below 30°	Approx. 75°	Above 90°
A	Approx. 16ms	Approx. 204ms	Approx. 262ms



(2) WAVEFORM 2:
Engine speed signal

ECM Terminal Names	Between TACH and E1
Tester Ranges	5 V/DIV, 10 msec./DIV
Conditions	Idling

HINT:
The wavelength becomes shorter as the engine rpm increases.

REFRIGERANT

ON-VEHICLE INSPECTION

1. INSPECT REFRIGERANT PRESSURE WITH MANIFOLD GAUGE SET

- (a) This is a method to specify trouble areas by using a manifold gauge set. Read the manifold gauge pressure when the following conditions are established.

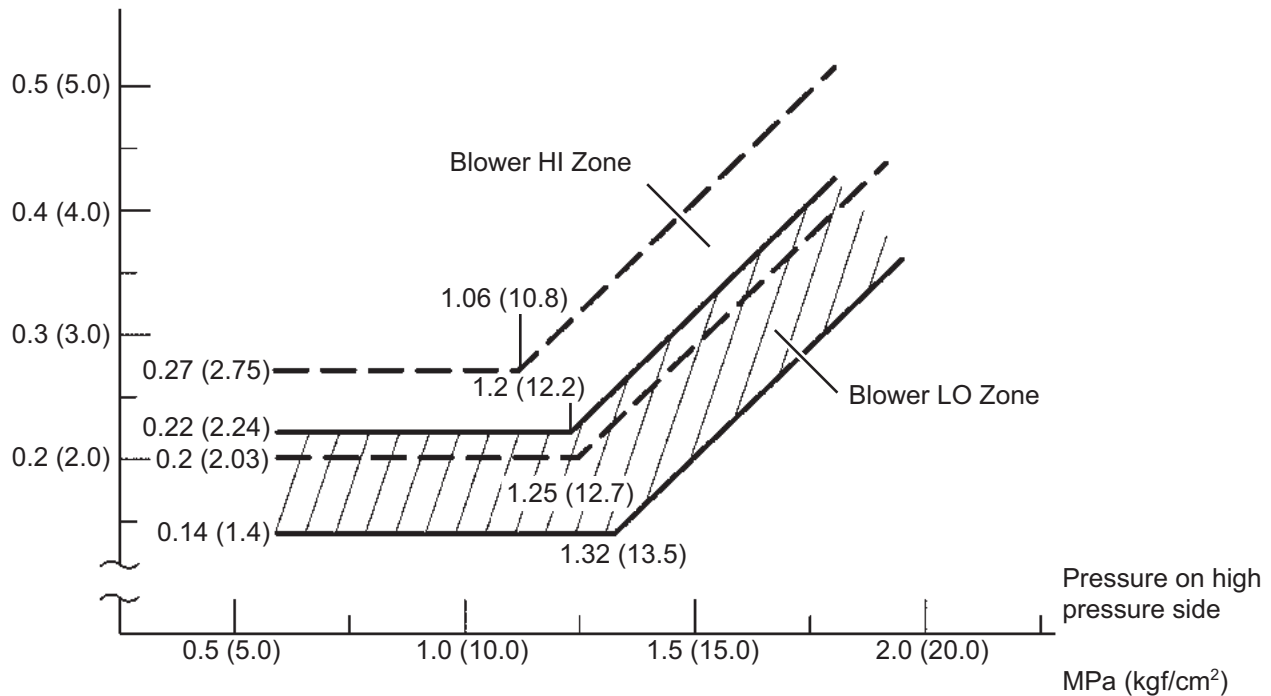
Test conditions:

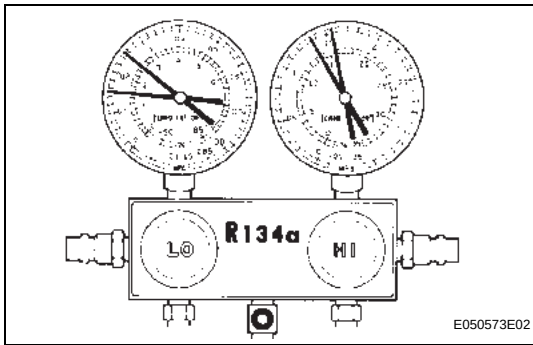
- Engine has been warmed up.
- All doors are fully open.
- A/C switch is ON.
- Engine is running at 1,500 rpm.
- Air inlet mode selector damper is set at recirculation.
- Temperature control switch is in MAX. COLD position.
- Blower speed control switch is in HI position.
- Air temperature at the air inlet is 30 to 35°C (86 to 95°F).

Gauge readings (Reference)

Pressure on low pressure side

MPa (kgf/cm²)





- (1) When the refrigerant volume is proper:

Gauge reading:

Low pressure side:

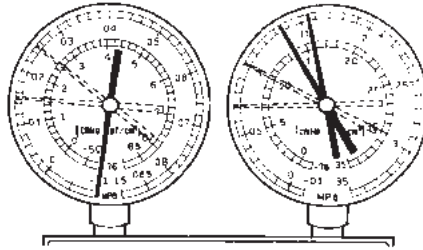
0.15 to 0.25 MPa (1.5 to 2.5 kgf/cm²)

High pressure side:

1.37 to 1.57 MPa (14 to 16 kgf/cm²)

- (2) When there is moisture in the refrigeration system:

Condition: Air conditioning system periodically repeats proper and improper function.

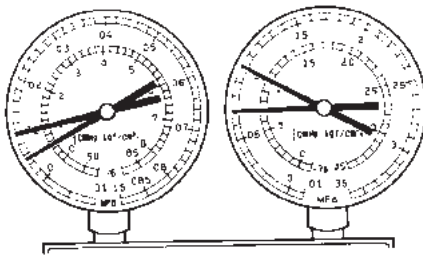


I022117E08

Symptoms	Probable Cause	Diagnosis	Corrective Actions
During operation, pressure on low pressure side cycles between normal and vacuum	Moisture in refrigeration system freezes at expansion valve orifice, causing temporary stop of cycle. However, when melted, normal state restored	- Drier overly saturated - Moisture in refrigeration system freezes at expansion valve orifice and blocks refrigerant circulation	- Replace cooler drier - Remove moisture from cycle by repeatedly evacuating air - Supply appropriate volume of new refrigerant

- (3) When cooling is insufficient:

Condition: Air conditioning system does not function effectively.



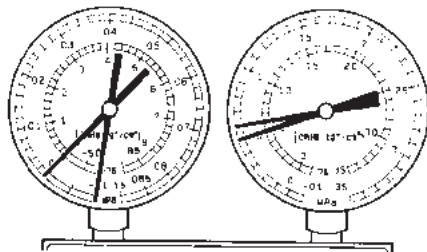
I022118E04

Symptoms	Probable Cause	Diagnosis	Corrective Actions
- Pressure low on both low and high pressure sides - Cooling performance insufficient	Gas leakage from refrigeration system	- Insufficient refrigerant - Refrigerant leakage	- Check for gas leakage and repair if necessary - Supply appropriate volume of new refrigerant - If indicated pressure value close to 0 when connected to gauge, create vacuum after inspecting and repairing the location of leakage

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(4) When the circulation of the refrigerant is poor:

Condition: Air conditioning system does not function effectively.

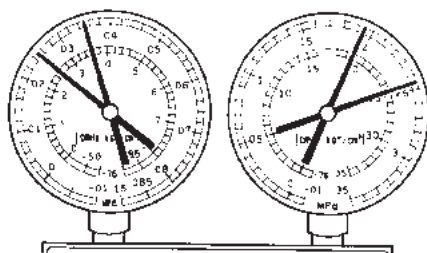


I022119E04

Symptoms	Probable Cause	Diagnosis	Corrective Action
- Pressure low on both low and high pressure sides - Frost exists on piping from condenser to A/C unit	Refrigerant flow obstructed by dirt in condenser	Condenser clogged	Replace condenser

(5) When the refrigerant does not circulate:

Condition: Air conditioning system does not function. (Sometimes it may function)



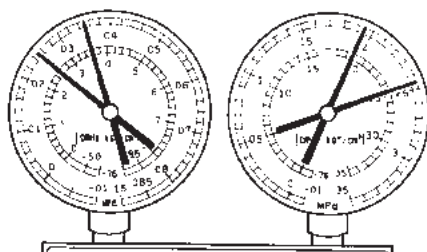
I022121E05

Symptoms	Probable Causes	Diagnosis	Corrective Actions
- Vacuum indicated on low pressure side, and extremely low pressure indicated on high pressure side - Frost or condensation seen on piping on both sides of condenser or expansion valve	- Refrigerant flow obstructed by moisture or dirt in refrigeration system - Refrigerant flow obstructed by gas leakage from expansion valve	Refrigerant does not circulate	- Check expansion valve - Clean expansion valve by blowing air - Replace condenser - Evacuate air and charge appropriate volume of new refrigerant - For gas leakage from expansion valve, replace expansion valve

AC

(6) When the refrigerant is overcharged or cooling of condenser is insufficient:

Condition: Air conditioning system does not function effectively.

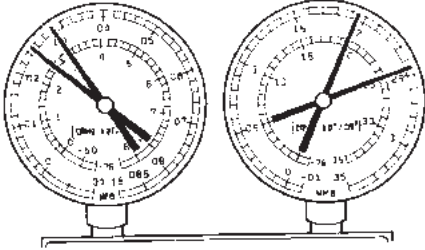


I022121E06

Symptoms	Probable Causes	Diagnosis	Corrective Actions
Pressure extremely high on both low and high pressure sides	- Excessive refrigerant - Cooling performance of condenser insufficient	- Excessive refrigerant - Cooling performance of condenser insufficient	- Clean condenser - Check condenser fan motor operation - If 1 and 2 normal, check the amount of refrigerant and supply appropriate volume of refrigerant

(7) When there is air in the refrigeration system:

Condition: Air conditioning system does not function.



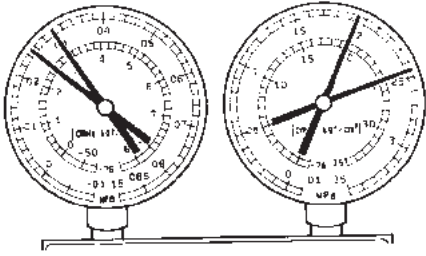
NOTE: These gauge indications occur when the refrigeration system opens and the refrigerant is charged without vacuum purging.

I022122E05

Symptoms	Probable Cause	Diagnosis	Corrective Actions
- Pressure extremely high on both low and high pressure sides - The low pressure piping too hot to touch	Air in refrigeration system	- Air in refrigeration system - Vacuum purging insufficient	- Check whether compressor oil dirty or insufficient - Evacuate air and charge new refrigerant

(8) When the expansion valve malfunctions:

Condition: Air conditioning system does not function effectively.

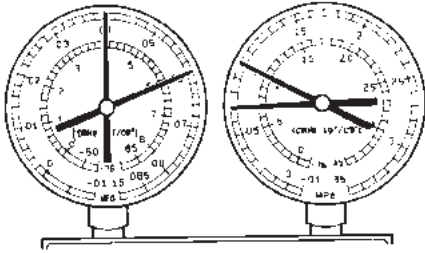


I022123E04

Symptoms	Probable Cause	Diagnosis	Corrective Action
- Pressure extremely high on both low and high pressure sides - Frost or condensation on piping on low pressure side	Trouble in expansion valve	- Excessive refrigerant in low pressure piping - Expansion valve too wide open	Replace expansion valve

(9) When the compressor is defective:

Condition: Air conditioning system does not function.



I022124E04

Symptoms	Probable Cause	Diagnosis	Corrective Action
- Pressure extremely high on both low and high pressure sides - Pressure extremely low on high pressure side	Internal leakage in compressor	- Compression failure - Leakage from damaged valve or broken sliding parts	Repair or replace compressor

REPLACEMENT

1. DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM

- (a) Start up the engine.
- (b) Turn the A/C switch to ON.
- (c) Operate the cooler compressor with an engine speed of approximately 1,000 rpm for 5 to 6 minutes to circulate the refrigerant and collect the compressor oil remaining in each component into the cooler compressor.
- (d) Stop the engine.
- (e) Using SST, let the refrigerant gas out.

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

2. CHARGE REFRIGERANT

- (a) Perform vacuum purging using a vacuum pump.
- (b) Charge refrigerant HFC-134a (R134a).

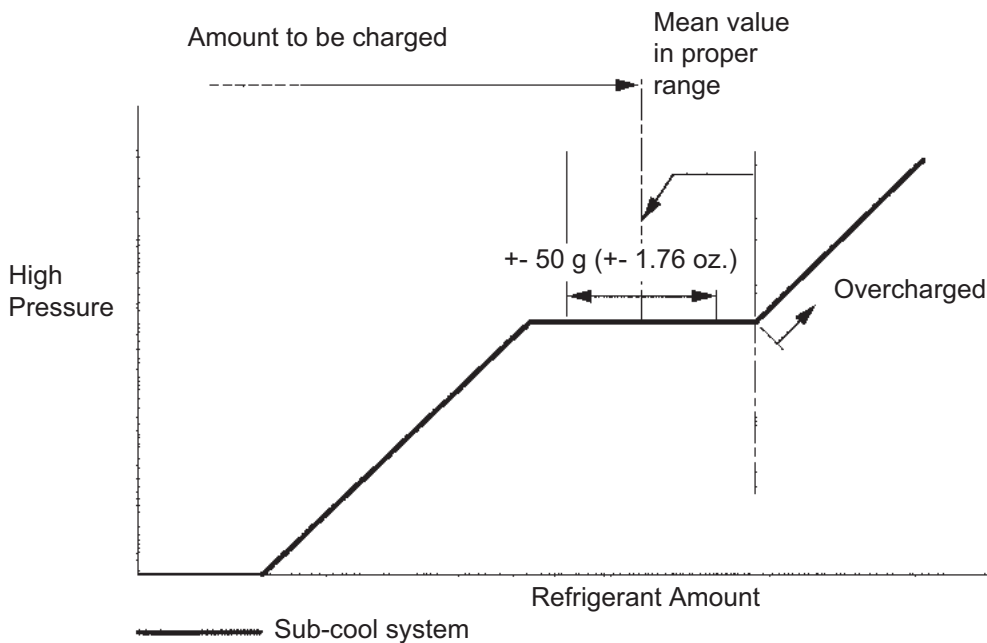
Standard:

570 to 630 g (20.10 to 22.22 oz.)

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

NOTICE:

Do not start the engine before charging it with refrigerant as the cooler compressor does not work properly without any refrigerant. This could cause the compressor to overheat.



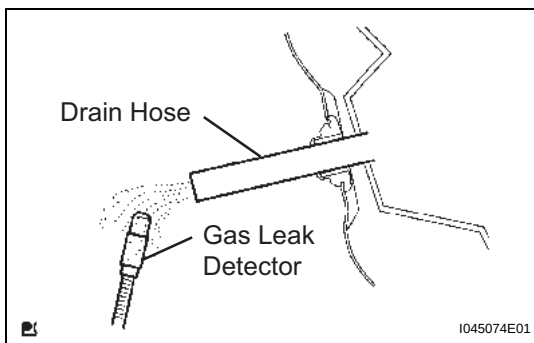
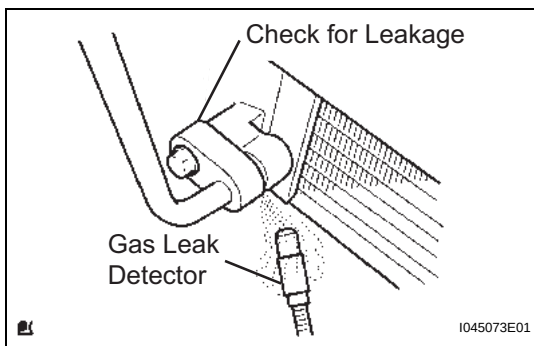
AC

3. WARM UP ENGINE**NOTICE:**

Warm up the engine at less than 2,000 rpm for 2 minutes or more after charging it with refrigerant.

4. CHECK FOR REFRIGERANT LEAKAGE

- (a) After recharging the refrigerant gas, check for refrigerant gas leakage using a halogen leak detector.
- (b) Perform the operation under these conditions:
- Stop the engine.
 - Secure good ventilation (the gas leak detector may react to volatile gases other than refrigerant, such as evaporated gasoline or exhaust gas).
 - Repeat the test 2 or 3 times.
 - Make sure that some refrigerant remains in the refrigeration system.
When compressor is off: approximately 392 to 588 kPa (4 to 6 kgf/cm², 57 to 85 psi)
- (c) Using a gas leak detector, check the refrigerant line for leakage.

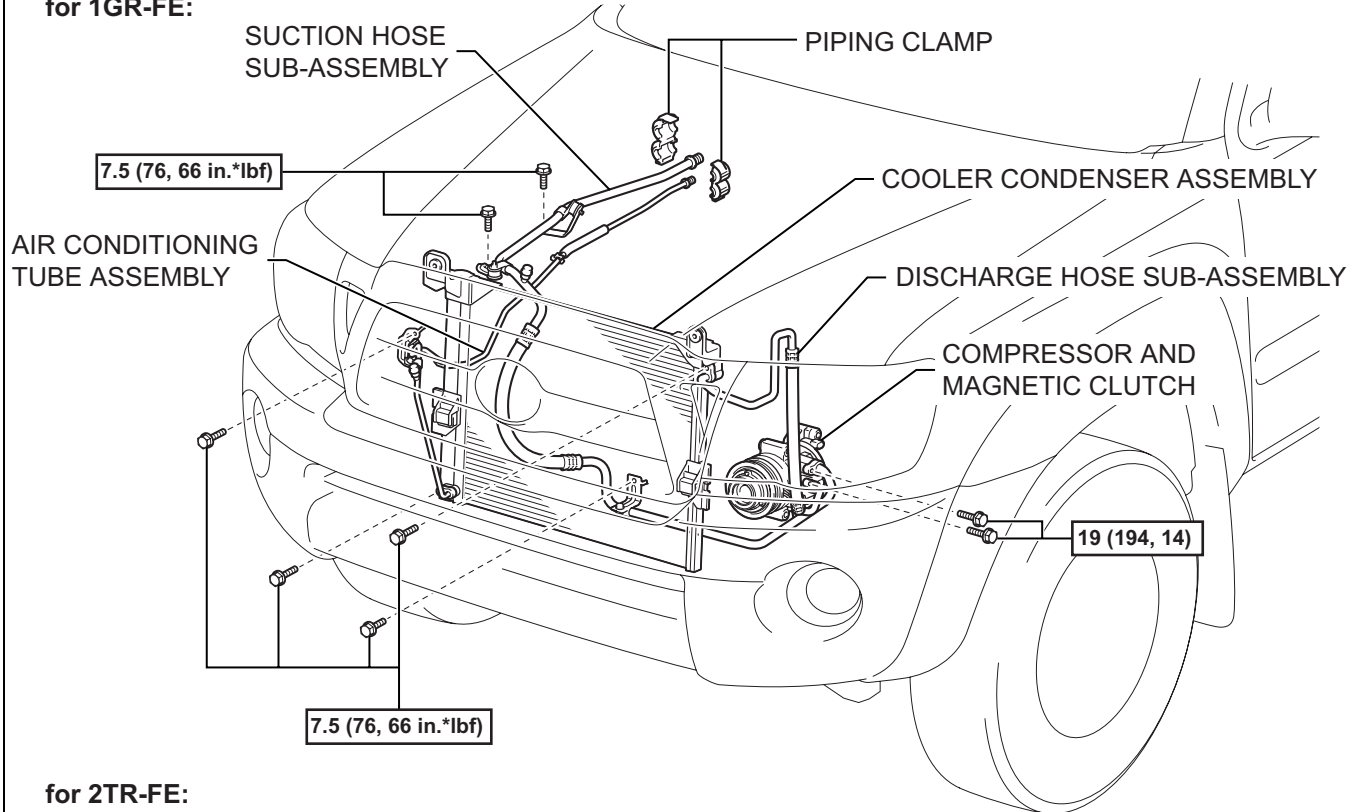


- (d) Bring the gas leak detector close to the drain hose with the detector power off.
- HINT:**
- After the blower motor has stopped, leave the cooling unit for more than 15 minutes.
 - Place the gas leak detector sensor under the drain hose.
 - When bringing the gas leak detector close to the drain hose, make sure that the gas leak detector does not react to the volatile gases.
- If such reaction is unavoidable, the vehicle must be lifted up.
- (e) If a gas leak is not detected from the drain hose, remove the blower motor control from the cooling unit. Insert the gas leak detector sensor into the unit and perform the test.
- (f) Disconnect the pressure switch connector and leave it for approximately 20 minutes. Bring the gas leak detector close to the pressure switch and perform the test.

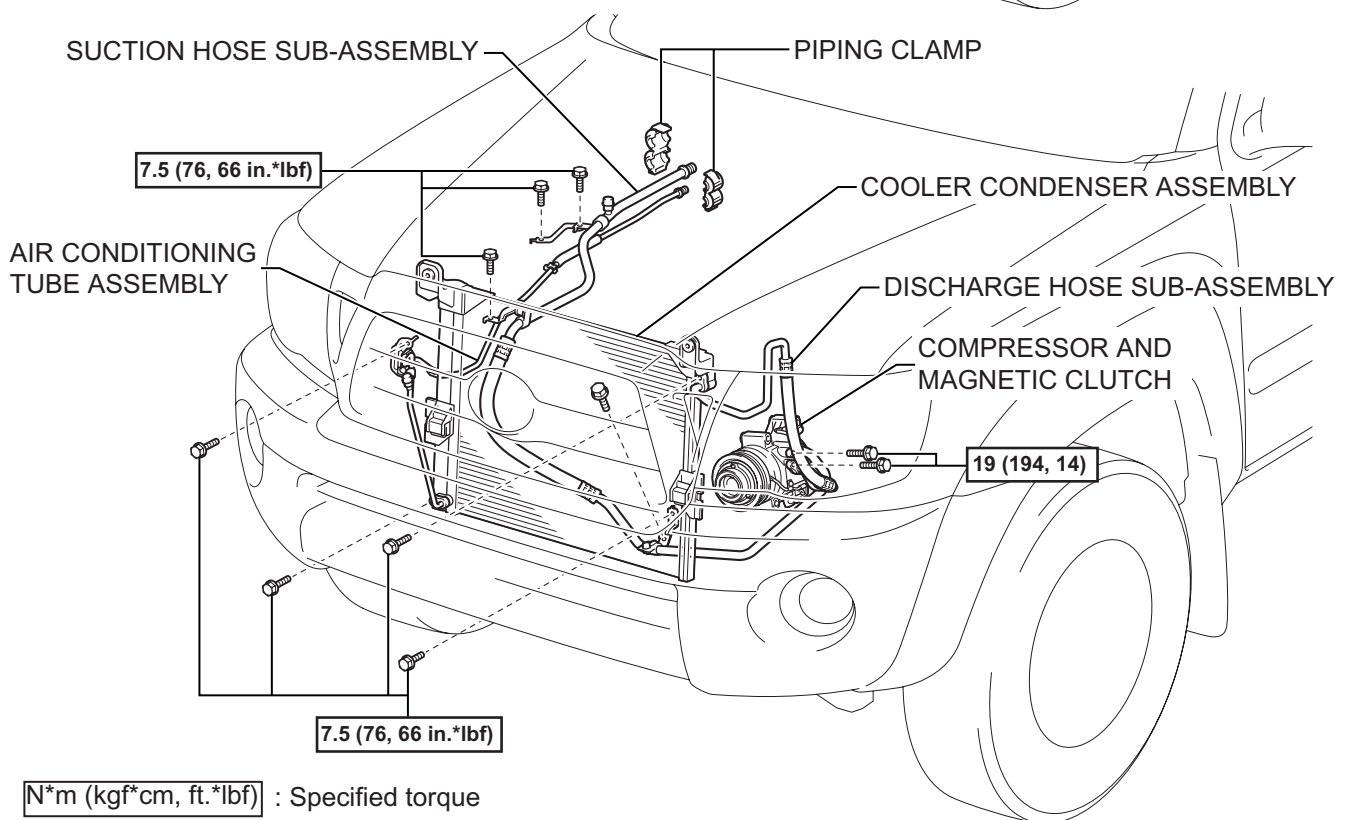
REFRIGERANT LINE

COMPONENTS

for 1GR-FE:



for 2TR-FE:

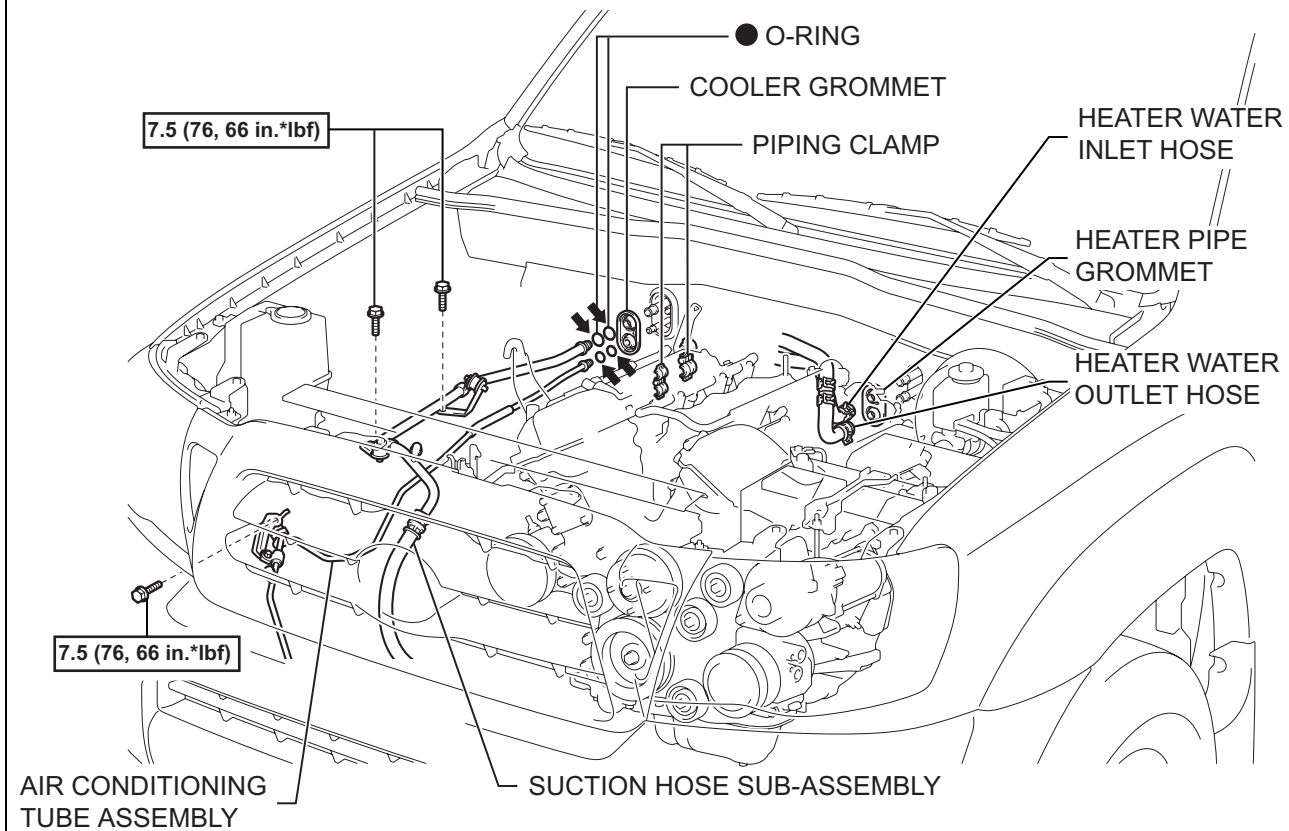


$N \cdot m$ (kgf*cm, ft.*lbf) : Specified torque

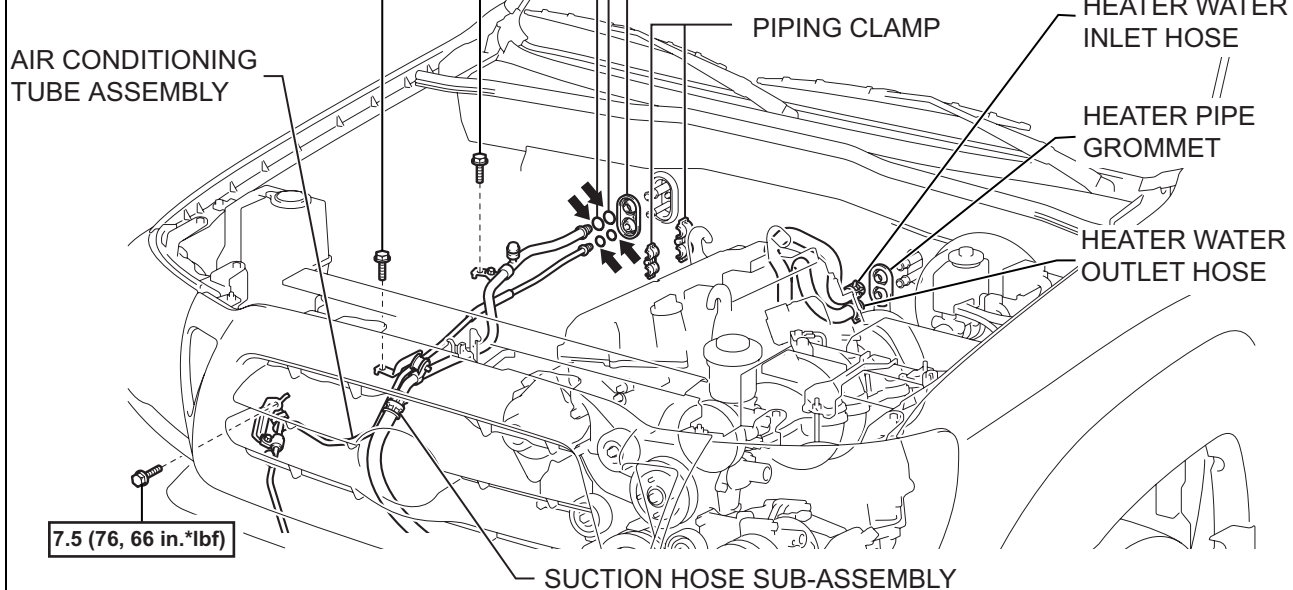
AIR CONDITIONING UNIT

COMPONENTS

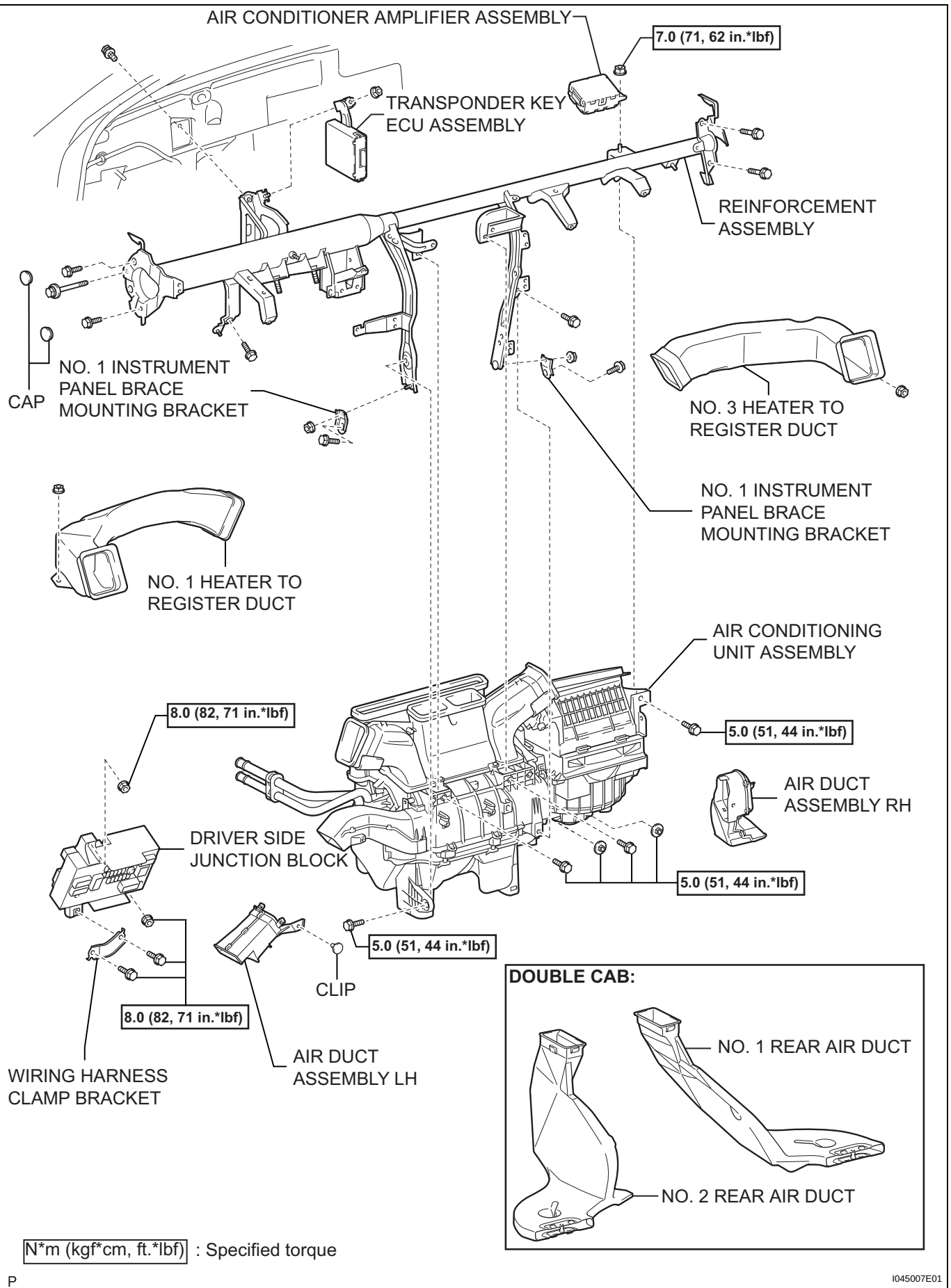
for 1GR-FE:

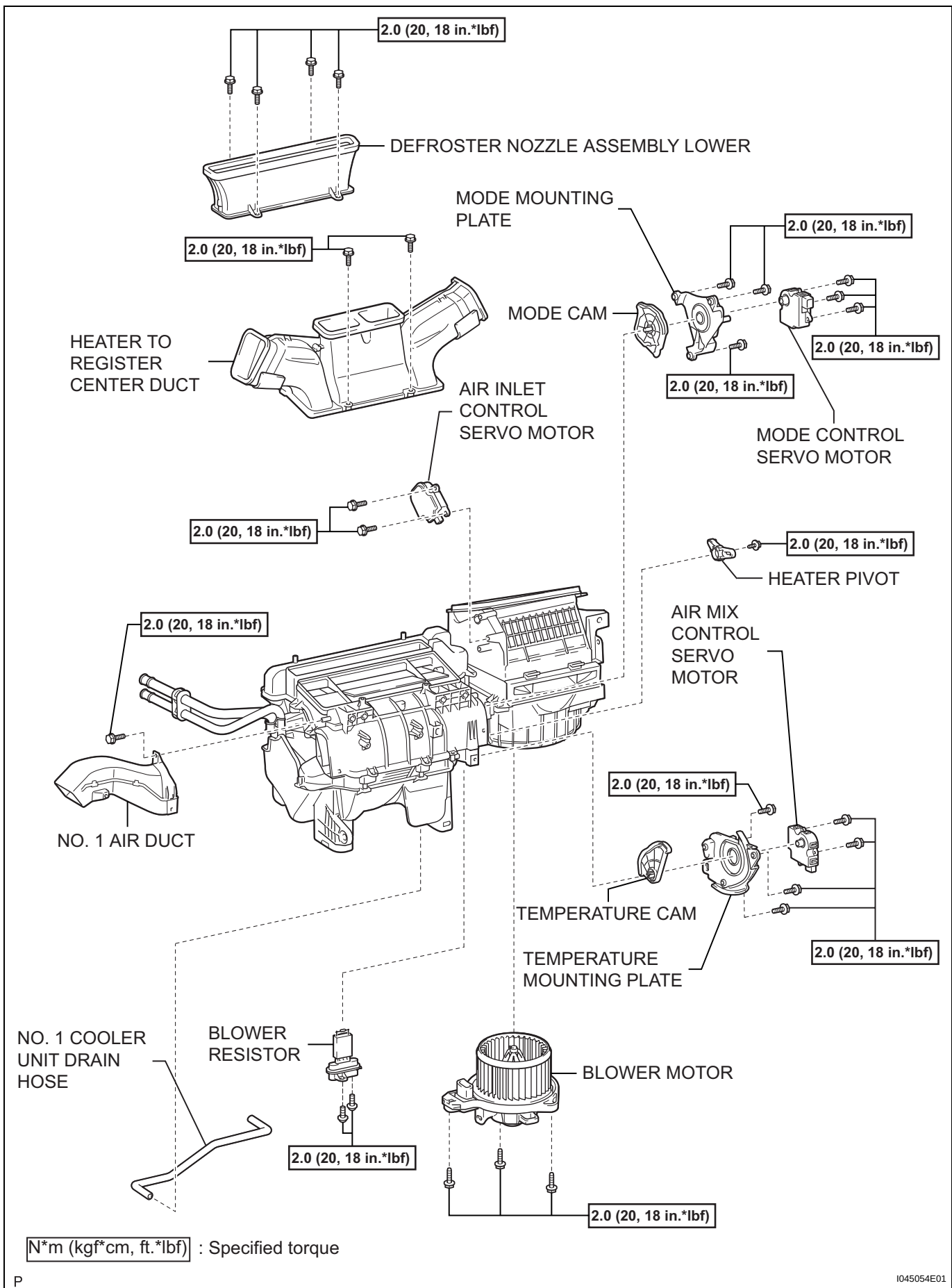


for 2TR-FE:

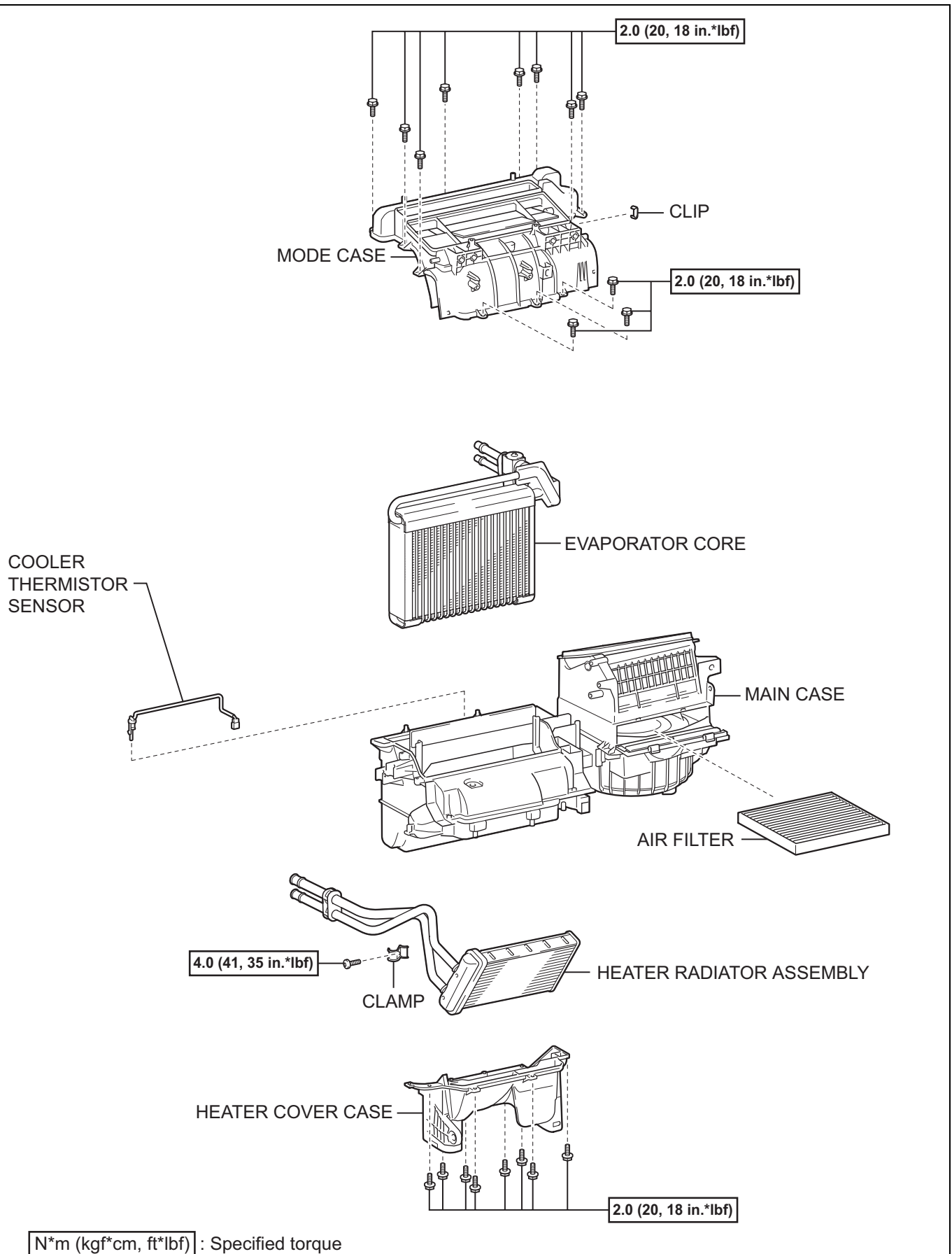


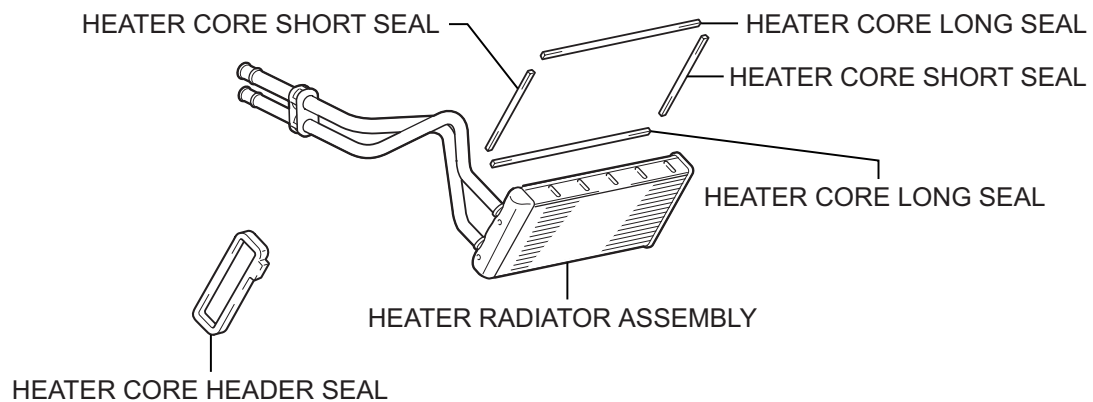
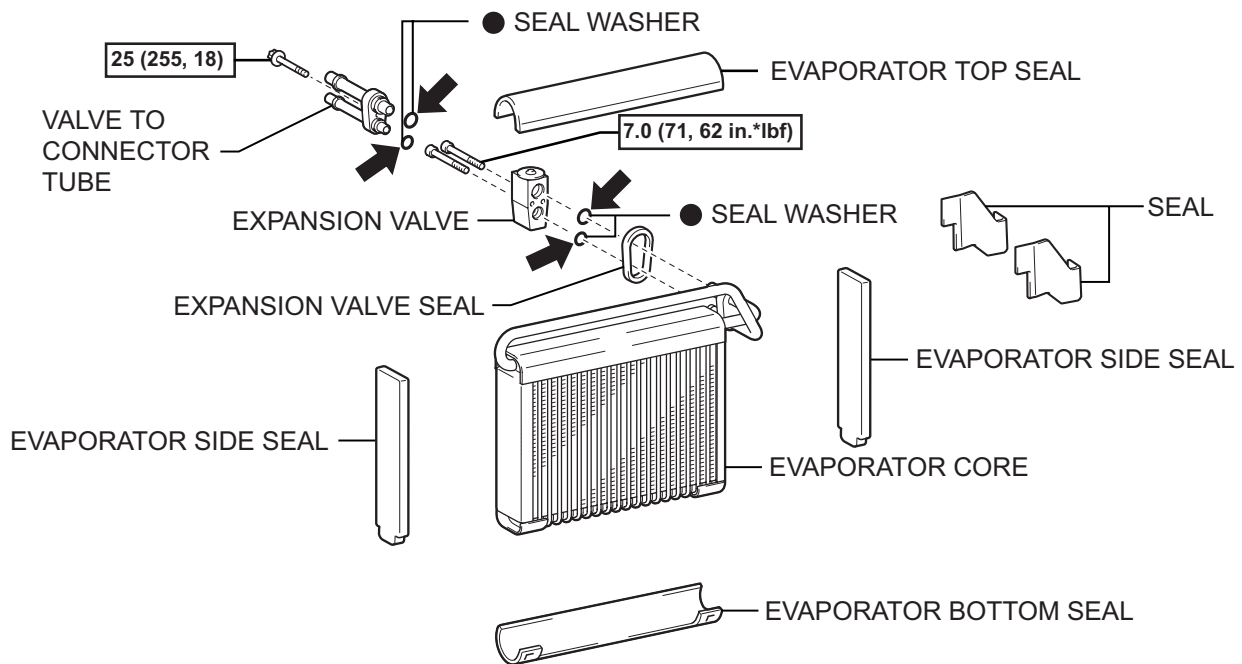
N*m (kgf*cm, ft.*lbf) : Specified torque ◀ Compressor Oil RL-897 or equivalent ● Non-reusable part





AC





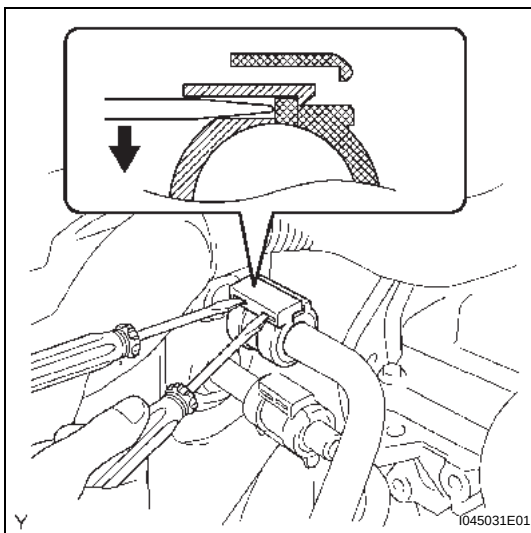
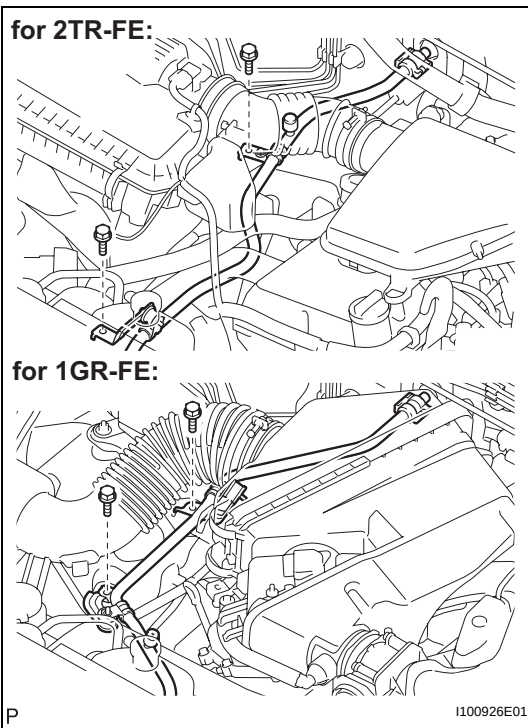
$\boxed{\text{N*m (kgf*cm, ft.*lbf)}}$: Specified torque

← Compressor Oil RL-897 or equivalent

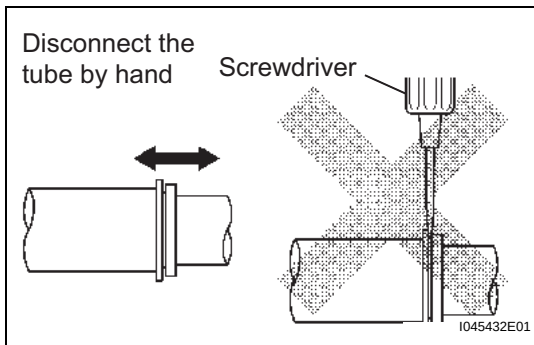
● Non-reusable part

REMOVAL

1. **PRECAUTION**
RS-1
2. **DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM** (See page **AC-18**)
3. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
Wait at least for 90 seconds after disconnecting the cable to prevent the airbag from working.
4. **DRAIN ENGINE COOLANT (for 2TR-FE)** (See page **CO-3**)
5. **DRAIN ENGINE COOLANT (for 1GR-FE)** (See page **CO-3**)
6. **DISCONNECT SUCTION HOSE SUB-ASSEMBLY**
(a) Remove the 2 bolts and separate the suction hose sub-assembly.



- (b) Insert 2 screwdrivers into the 2 piping clamp slots, and while holding them down, disengage the piping clamp claws and the piping clamp.



- (c) Disconnect the suction hose sub-assembly.

NOTICE:

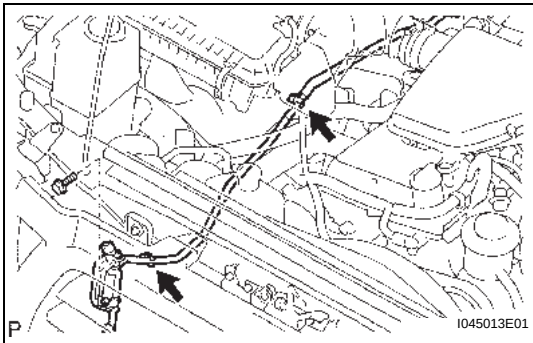
- Do not use a screwdriver or any other tool to disconnect the hose.
- Seal the openings of the disconnected parts using vinyl tape to prevent moisture and foreign matter from entering.

- (d) Remove the 2 O-rings from the suction hose sub-assembly.

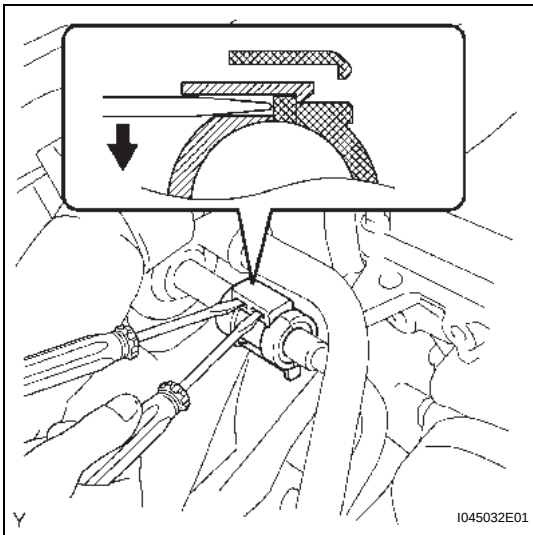
7. DISCONNECT AIR CONDITIONING TUBE ASSEMBLY

- (a) Remove the bolt.

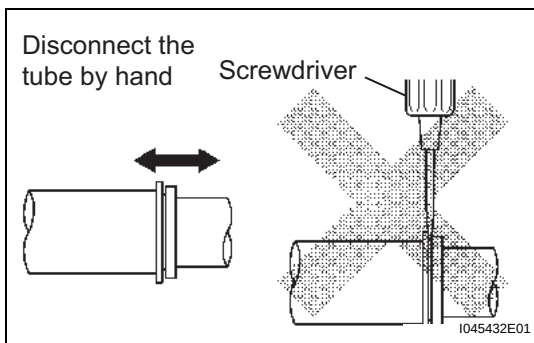
- (b) Disengage the 2 clamps and separate the air conditioning tube assembly.



- (c) Insert 2 screwdrivers into the 2 piping clamp slots, and while holding them down, disengage the piping clamp claws and the piping clamp.



AC



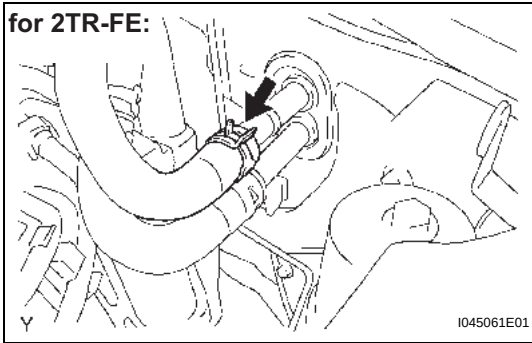
- (d) Disconnect the air conditioner tube.

NOTICE:

- Do not use a screwdriver or any other tool to disconnect the tube.
- Seal the openings of the disconnected parts using vinyl tape to prevent moisture and foreign matter from entering.

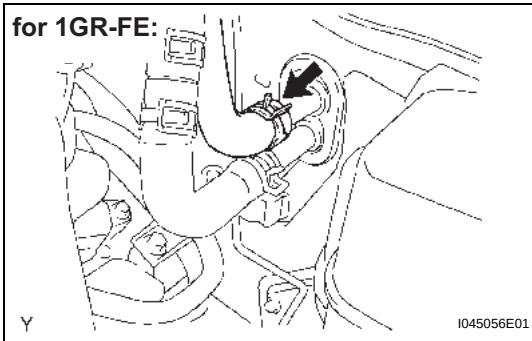
- (e) Remove the 2 O-rings from the air conditioner tube.

for 2TR-FE:

**8. DISCONNECT HEATER WATER INLET HOSE (for 2TR-FE)**

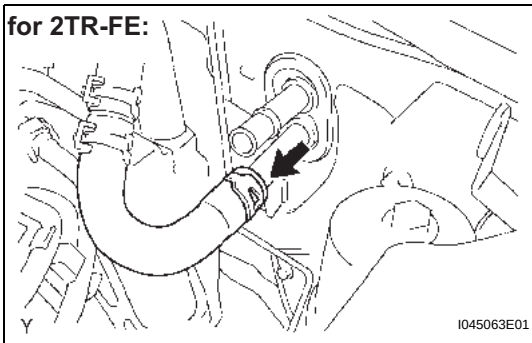
- (a) Using pliers, grip the claws of the clip, slide the clip and disconnect the heater water inlet hose from the heater unit.

for 1GR-FE:

**9. DISCONNECT HEATER WATER INLET HOSE (for 1GR-FE)**

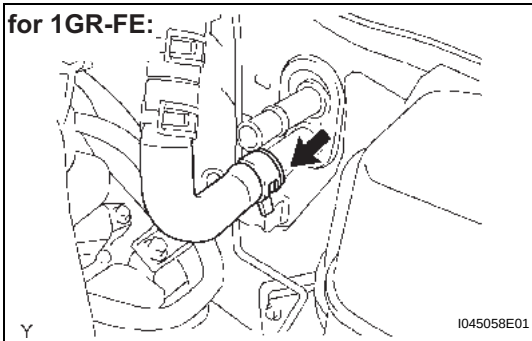
- (a) Using pliers, grip the claws of the clip, slide the clip and disconnect the heater water inlet hose from the heater unit.

for 2TR-FE:

**10. DISCONNECT HEATER WATER OUTLET HOSE (for 2TR-FE)**

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

for 1GR-FE:

**11. DISCONNECT HEATER WATER OUTLET HOSE (for 1GR-FE)**

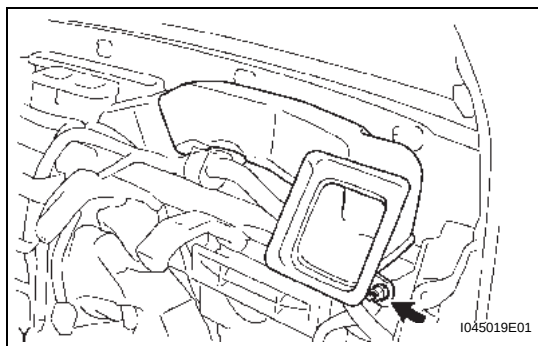
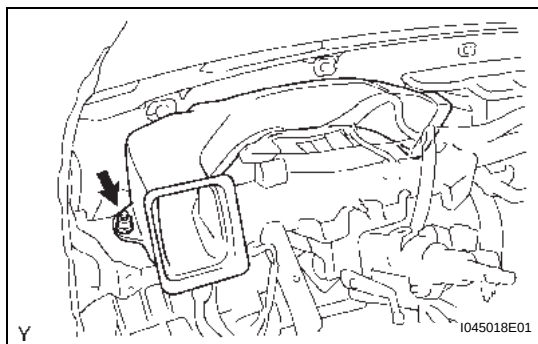
- (a) Using pliers, grip the claws of the clip, slide the clip and disconnect the heater water outlet hose from the heater unit.

12. REMOVE FRONT WIPER ARM HEAD CAP (See page [WW-7](#))**13. REMOVE FRONT WIPER ARM LH (See page [WW-8](#))****14. REMOVE FRONT WIPER ARM RH (See page [WW-8](#))****15. REMOVE FRONT FENDER TO COWL SIDE SEAL LH (See page [WW-8](#))****16. REMOVE FRONT FENDER TO COWL SIDE SEAL RH (See page [WW-8](#))****17. REMOVE COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY (See page [WW-8](#))****18. PLACE FRONT WHEELS FACING STRAIGHT AHEAD****19. REMOVE LOWER NO. 2 STEERING WHEEL COVER (See page [RS-558](#))**

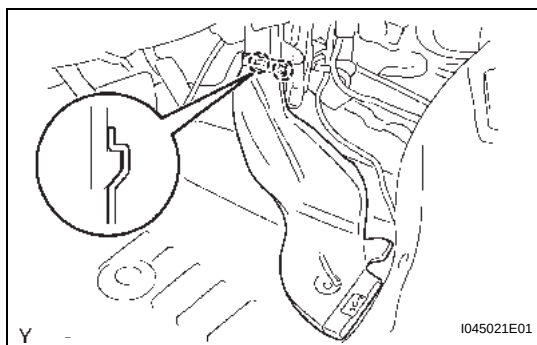
20. REMOVE LOWER NO. 3 STEERING WHEEL COVER
(See page [RS-558](#))
21. REMOVE HORN BUTTON ASSEMBLY (See page [RS-558](#))
22. REMOVE STEERING WHEEL ASSEMBLY (See page [SR-9](#))
23. REMOVE STEERING COLUMN COVER LOWER (See page [SR-9](#))
24. REMOVE STEERING COLUMN COVER UPPER (See page [SR-10](#))
25. REMOVE SPIRAL CABLE SUB-ASSEMBLY (See page [RS-566](#))
26. REMOVE WINDSHIELD WIPER SWITCH ASSEMBLY
(See page [WW-17](#))
27. REMOVE FRONT FLOOR FOOTREST (See page [IR-1](#))
28. REMOVE FRONT DOOR SCUFF PLATE LH (for Regular Cab) (See page [IR-40](#))
29. REMOVE FRONT DOOR SCUFF PLATE LH (for Access Cab) (See page [IR-61](#))
30. REMOVE FRONT DOOR SCUFF PLATE LH (for Double Cab) (See page [IR-12](#))
31. REMOVE FRONT DOOR SCUFF PLATE RH (for Regular Cab) (See page [IR-41](#))
32. REMOVE FRONT DOOR SCUFF PLATE RH (for Access Cab) (See page [IR-61](#))
33. REMOVE FRONT DOOR SCUFF PLATE RH (for Double Cab) (See page [IR-12](#))
34. REMOVE COWL SIDE TRIM BOARD LH (for Regular Cab) (See page [IR-40](#))
35. REMOVE COWL SIDE TRIM BOARD LH (for Access Cab) (See page [IR-61](#))
36. REMOVE COWL SIDE TRIM BOARD LH (for Double Cab) (See page [IR-12](#))
37. REMOVE COWL SIDE TRIM BOARD RH (for Regular Cab) (See page [IR-40](#))
38. REMOVE COWL SIDE TRIM BOARD RH (for Access Cab) (See page [IR-61](#))
39. REMOVE COWL SIDE TRIM BOARD RH (for Double Cab) (See page [IR-12](#))
40. SEPARATE FRONT DOOR OPENING TRIM WEATHERSTRIP LH
 - (a) Separate the front door opening trim weatherstrip LH.

41. **SEPARATE FRONT DOOR OPENING TRIM WEATHERSTRIP RH**
 - (a) Separate the front door opening trim weatherstrip RH.
42. **REMOVE FRONT PILLAR GARNISH LH (for Regular Cab) (See page [IR-41](#))**
43. **REMOVE FRONT PILLAR GARNISH LH (for Access Cab) (See page [IR-62](#))**
44. **REMOVE FRONT PILLAR GARNISH LH (for Double Cab) (See page [IR-13](#))**
45. **REMOVE FRONT PILLAR GARNISH RH (for Regular Cab) (See page [IR-41](#))**
46. **REMOVE FRONT PILLAR GARNISH RH (for Access Cab) (See page [IR-63](#))**
47. **REMOVE FRONT PILLAR GARNISH RH (for Double Cab) (See page [IR-14](#))**
48. **REMOVE INSTRUMENT PANEL UNDER TRAY (for Pedal Type Parking Brake) (See page [IP-9](#))**
49. **REMOVE INSTRUMENT PANEL HOLE COVER (for Lever Type Parking Brake) (See page [IP-9](#))**
50. **REMOVE CONSOLE UPPER REAR PANEL SUB-ASSEMBLY (for Automatic Transmission on Separate Seat Type) (See page [IP-9](#))**
51. **REMOVE CONSOLE UPPER REAR PANEL SUB-ASSEMBLY (for Manual Transmission on Separate Seat Type) (See page [IP-9](#))**
52. **REMOVE REAR CONSOLE BOX ASSEMBLY (for Separate Seat Type) (See page [IP-10](#))**
53. **REMOVE INSTRUMENT PANEL CUP HOLDER TRAY (for Automatic Transmission on Separate Seat Type) (See page [IP-10](#))**
54. **REMOVE FRONT CONSOLE BOX (for Automatic Transmission on Separate Seat Type) (See page [IP-10](#))**
55. **REMOVE FRONT CONSOLE BOX (for Manual Transmission on Separate Seat Type) (See page [IP-11](#))**
56. **REMOVE FRONT CONSOLE BOX (for Automatic Transmission on Bench Seat Type) (See page [IP-11](#))**
57. **REMOVE FRONT CONSOLE BOX (for Manual Transmission on Bench Seat Type) (See page [IP-11](#))**
58. **REMOVE AIR CONDITIONING CONTROL ASSEMBLY (See page [IP-12](#))**
59. **REMOVE RADIO RECEIVER ASSEMBLY (See page [AV-69](#))**

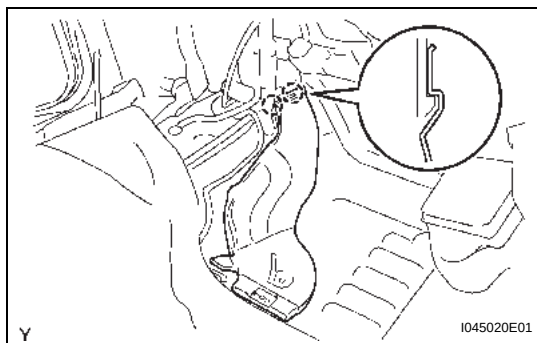
60. SEPARATE HOOD LOCK CONTROL LEVER SUB-ASSEMBLY (See page [ED-3](#))
61. REMOVE LOWER NO. 1 INSTRUMENT PANEL FINISH PANEL (See page [IP-12](#))
62. REMOVE INSTRUMENT CLUSTER FINISH PANEL SUB-ASSEMBLY (See page [IP-12](#))
63. REMOVE COMBINATION METER ASSEMBLY (See page [IP-13](#))
64. REMOVE INSTRUMENT CLUSTER CENTER FINISH PANEL SUB-ASSEMBLY (See page [IP-13](#))
65. REMOVE GLOVE COMPARTMENT DOOR ASSEMBLY (See page [IP-13](#))
66. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY RH (See page [IP-13](#))
67. REMOVE LOWER INSTRUMENT PANEL LH (See page [IP-14](#))
68. REMOVE INSTRUMENT LOWER COVER SUB-ASSEMBLY (See page [IP-14](#))
69. REMOVE INSTRUMENT SIDE PANEL RH (See page [IP-14](#))
70. DISCONNECT PASSENGER AIRBAG CONNECTOR (See page [RS-576](#))
71. REMOVE INSTRUMENT PANEL SUB-ASSEMBLY W/ PASSENGER AIRBAG ASSEMBLY (See page [IP-14](#))
72. REMOVE NO. 1 HEATER TO REGISTER DUCT
 - (a) Remove the nut and heater to register duct.



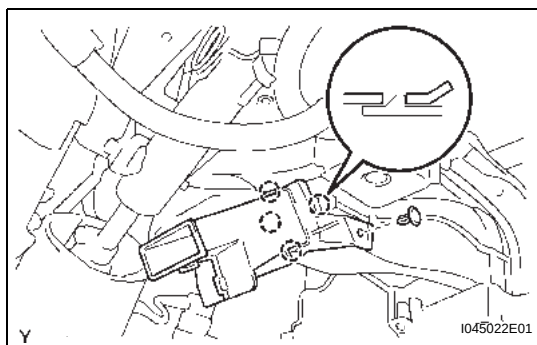
73. REMOVE NO. 3 HEATER TO REGISTER DUCT
 - (a) Remove the nut and heater to register duct.

**74. REMOVE NO. 2 REAR AIR DUCT (for Double Cab)**

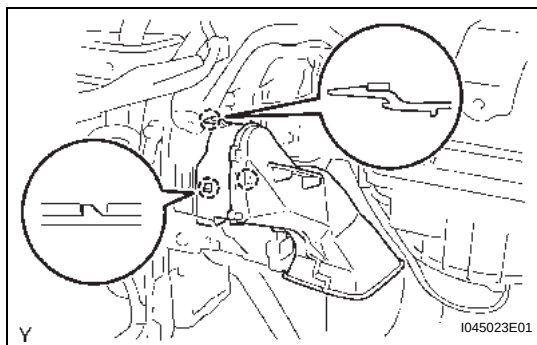
- (a) Fold back the floor carpet.
- (b) Disengage the 2 claws and remove the air duct rear.

**75. REMOVE NO. 1 REAR AIR DUCT (for Double Cab)**

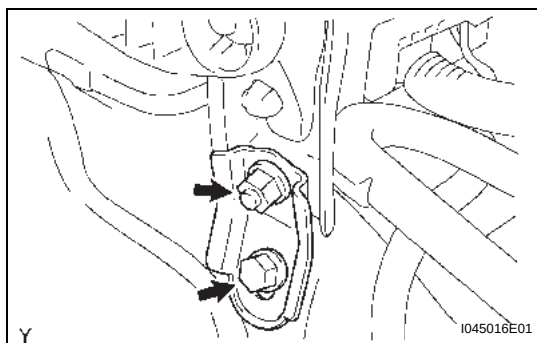
- (a) Fold back the floor carpet.
- (b) Disengage the 2 claws and remove the air duct rear.

**76. REMOVE AIR DUCT ASSEMBLY LH**

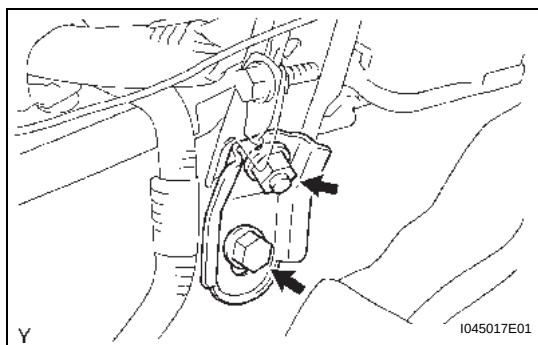
- (a) Remove the clip.
- (b) Disengage the 4 claws and remove the air duct assembly heater.

**77. REMOVE AIR DUCT ASSEMBLY RH**

- (a) Disengage the 3 claws and remove the air duct assembly.

**78. REMOVE NO. 1 INSTRUMENT PANEL BRACE MOUNTING BRACKET**

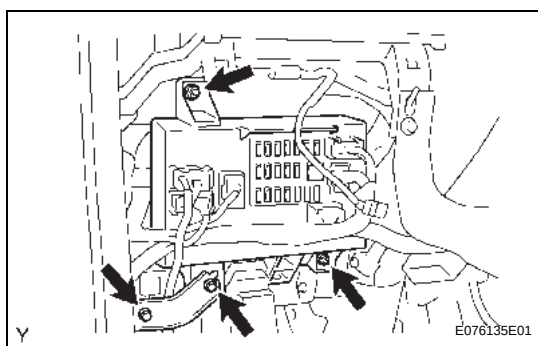
- (a) Remove the bolt, nut and instrument panel brace mounting bracket LH.



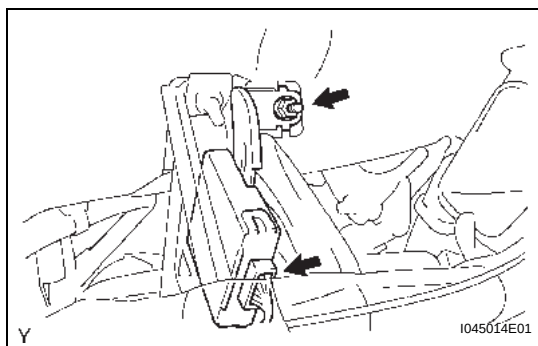
- (b) Remove the bolt, nut and instrument panel brace mounting bracket RH.

79. REMOVE STEERING COLUMN HOLE COVER (See page [SR-10](#))
80. SEPARATE STEERING SLIDING YOKE (See page [SR-11](#))
81. REMOVE STEERING COLUMN ASSEMBLY (See page [SR-11](#))
82. REMOVE PARKING BRAKE CONTROL LEVER ASSEMBLY (for Lever Type Parking Brake) (See page [PB-6](#))
83. REMOVE ECM (for 2TR-FE) (See page [ES-467](#))
84. REMOVE ECM (for 1GR-FE) (See page [ES-428](#))
85. SEPARATE DRIVER SIDE JUNCTION BLOCK

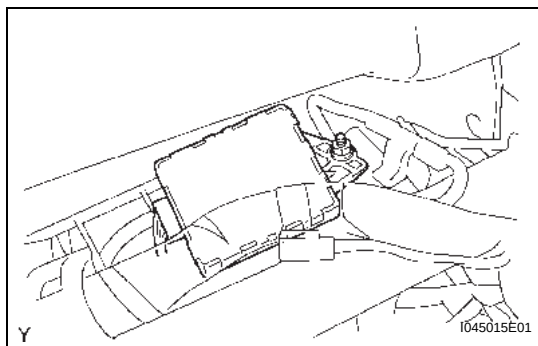
- (a) Remove the 2 bolts and bracket.
- (b) Remove the 2 nuts and separate the driver side junction block assembly.



86. REMOVE TRANSPONDER KEY ECU ASSEMBLY
- (a) Disconnect the connector.
- (b) Remove the nut and the transponder key ECU assembly.

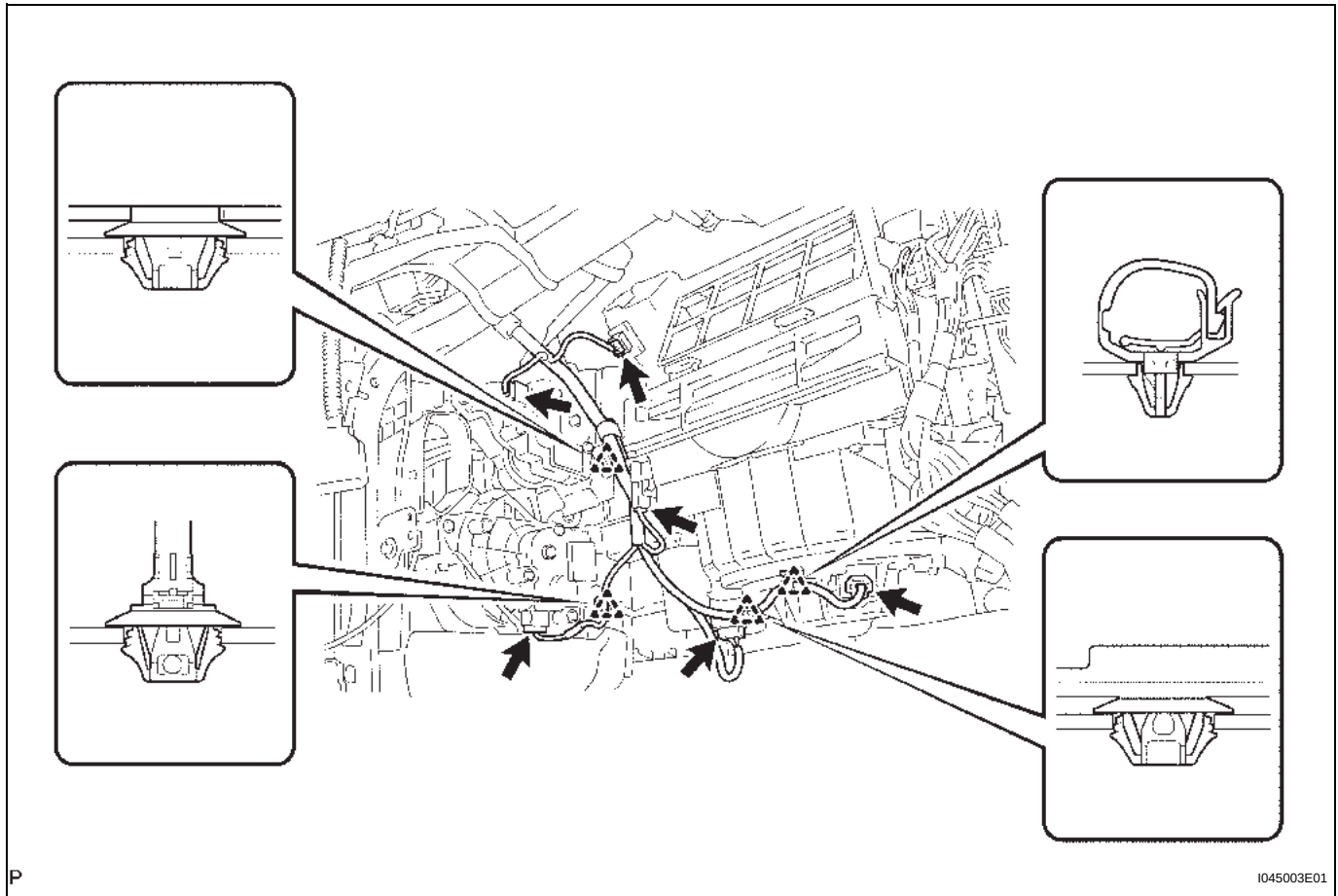


87. REMOVE AIR CONDITIONER AMPLIFIER ASSEMBLY
- (a) Disconnect the connector.
- (b) Remove the nut and the air conditioner amplifier assembly.



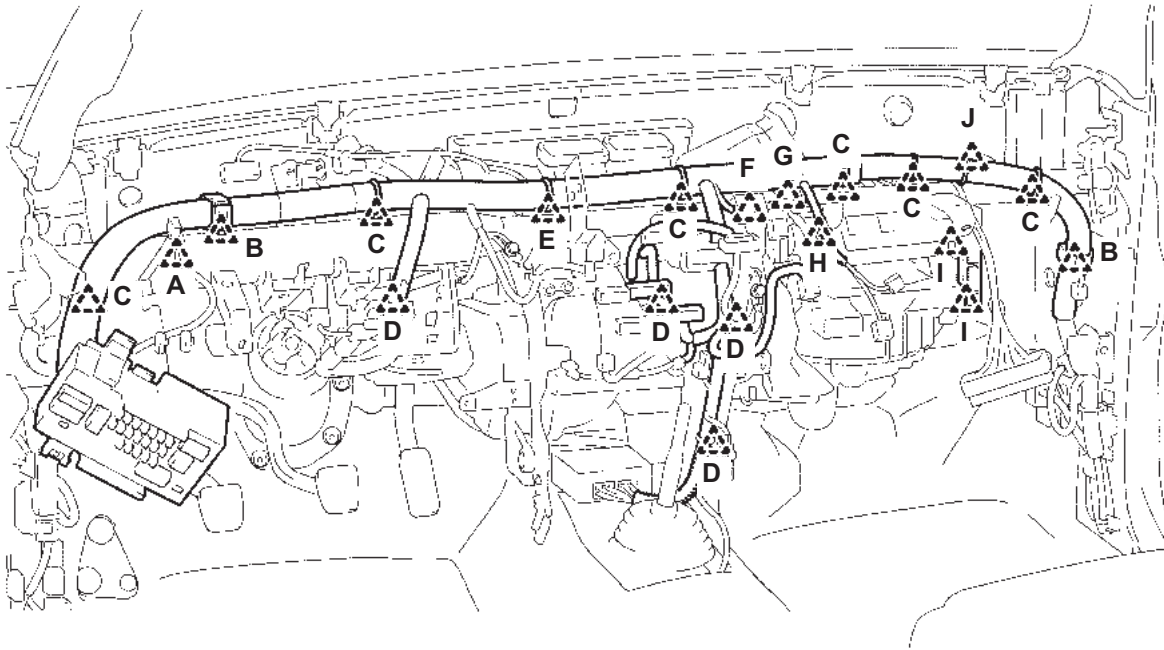
88. REMOVE AIR CONDITIONING UNIT ASSEMBLY

- (a) Disengage the 4 clamps and disconnect the 6 connectors from the air conditioning unit assembly.

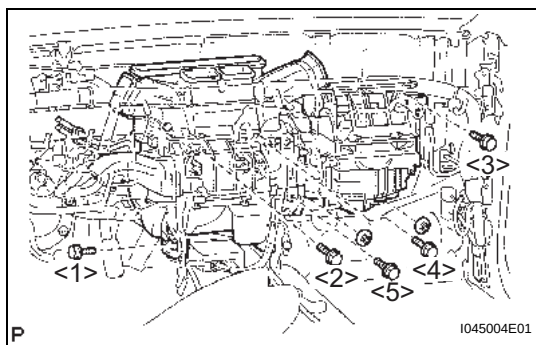


- (b) Remove the 3 bolts.
(c) Disconnect the connector.

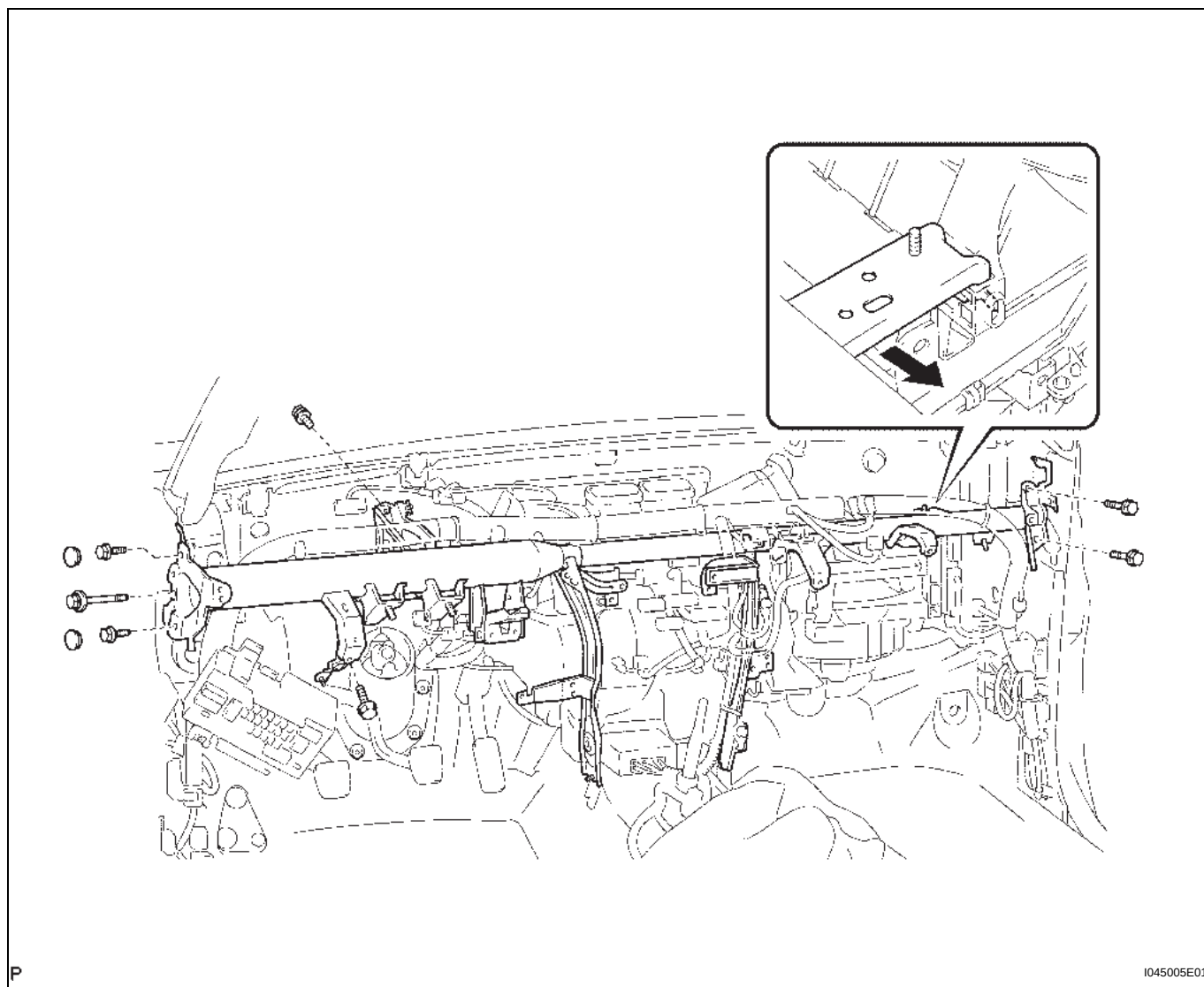
(e) Disengage the 20 clamps.



Type A: 	Type B: 	Type C: 	Type D:
Type E: 	Type F: 	Type G: 	Type H:
Type I: 	Type J: 		



- (f) Remove the 5 bolts and 2 nuts.
- (g) Remove the 2 caps and 7 bolts.
- (h) Disengage the reinforcement hook of the air conditioning unit, and remove the reinforcement.
- (i) Remove the air conditioner unit assembly.

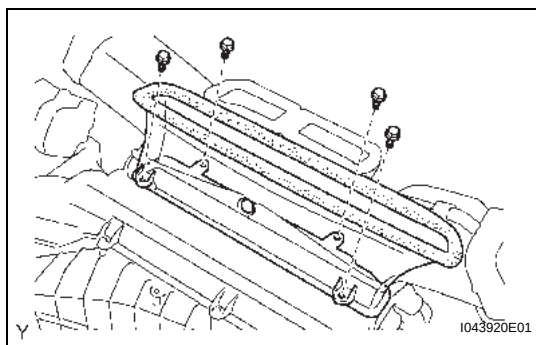


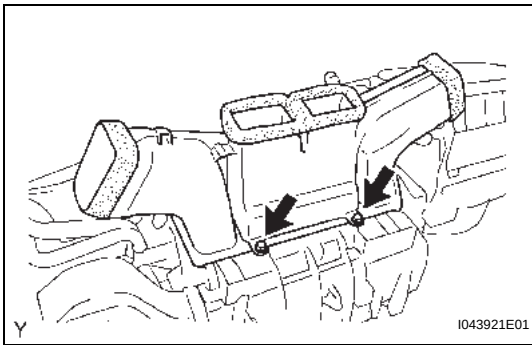
AC

DISASSEMBLY

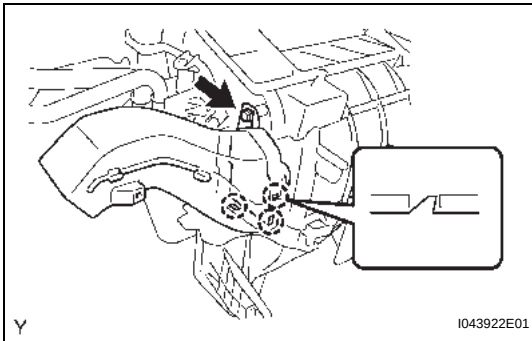
1. REMOVE DEFROSTER NOZZLE ASSEMBLY LOWER

- (a) Remove the 4 bolts and the defroster nozzle assembly lower.

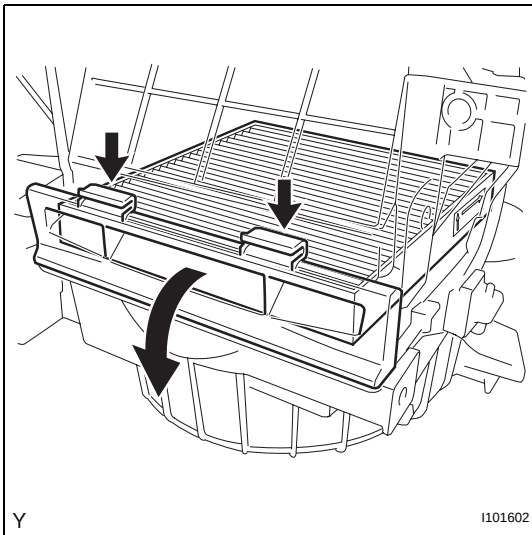


**2. REMOVE HEATER TO REGISTER CENTER DUCT**

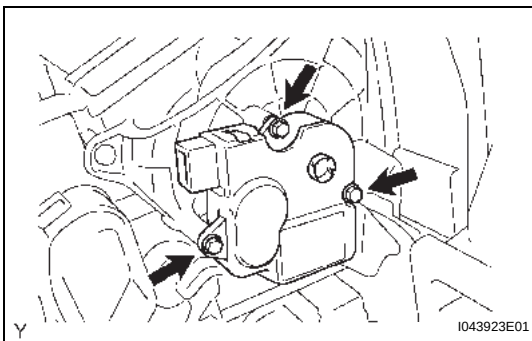
- (a) Remove the 2 bolts and heater to register duct center.

**3. REMOVE NO. 1 AIR DUCT**

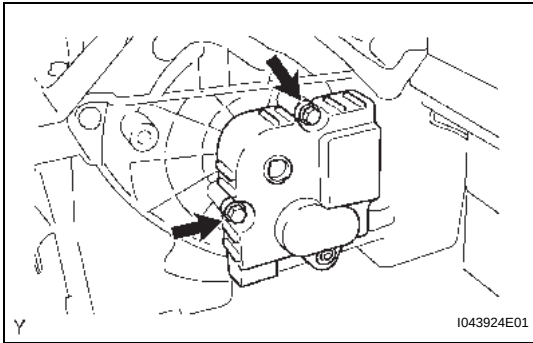
- (a) Remove the bolt.
(b) Disengage the 3 claws and remove the air duct.

**4. REMOVE AIR FILTER**

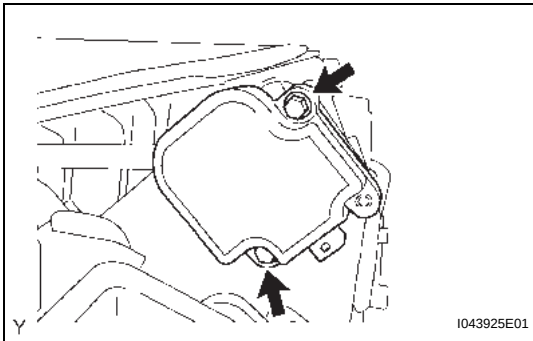
- (a) Push down on the 2 tabs and open the filter door.
(b) Remove the air filter.

**5. REMOVE MODE CONTROL SERVO MOTOR**

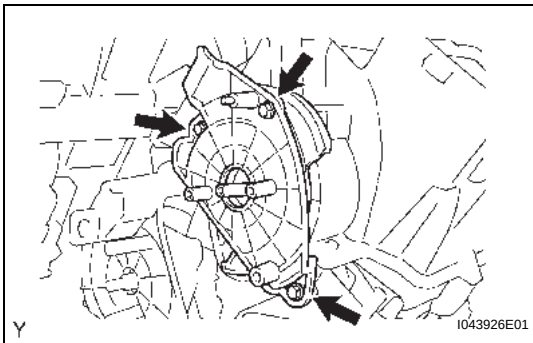
- (a) Remove the 3 bolts and mode control servo motor.

**6. REMOVE AIR MIX CONTROL SERVO MOTOR**

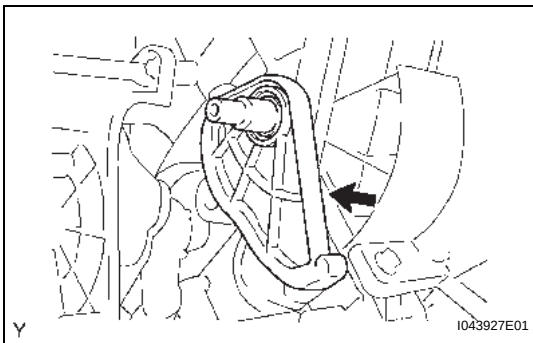
- (a) Remove the 2 bolts and air mix control servo motor.

**7. REMOVE AIR INLET CONTROL SERVO MOTOR**

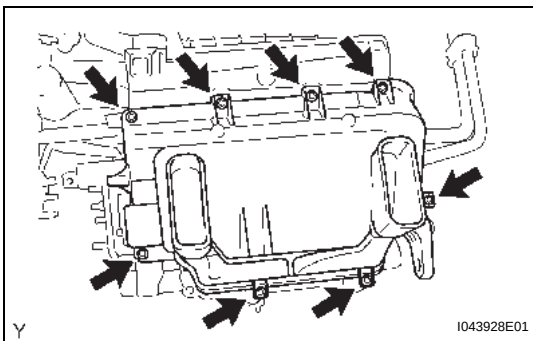
- (a) Remove the 2 bolts and air inlet control servo motor.

**8. REMOVE HEATER RADIATOR ASSEMBLY**

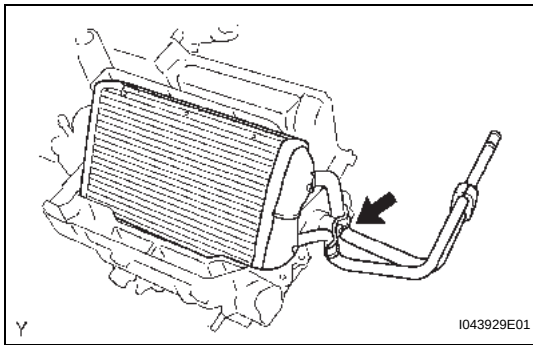
- (a) Remove the 3 bolts and temperature mounting plate.



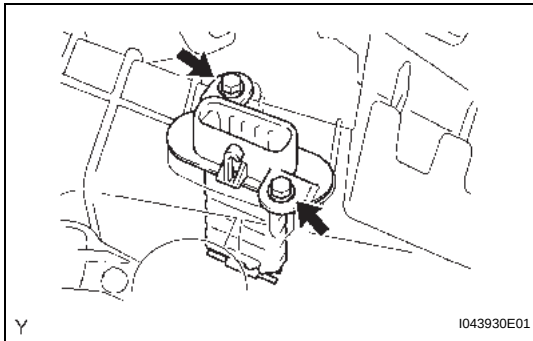
- (b) Remove the temperature cam.



- (c) Remove the 8 bolts and heater cover case.

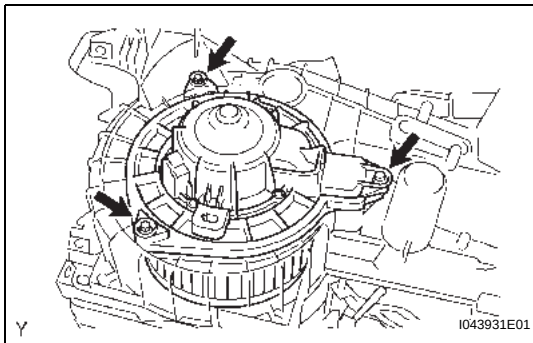


- (d) Using "Torx" socket wrench T30, remove the bolt, clamp and heater radiator assembly.



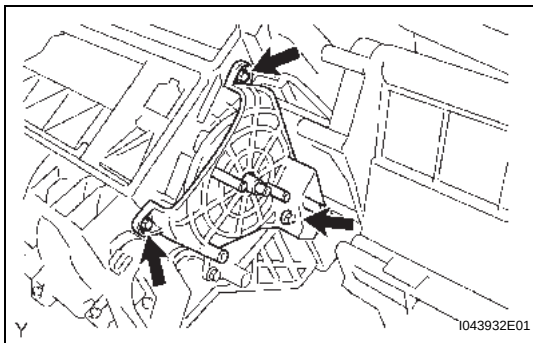
9. REMOVE BLOWER RESISTOR

- (a) Remove the 2 bolts and blower resistor.



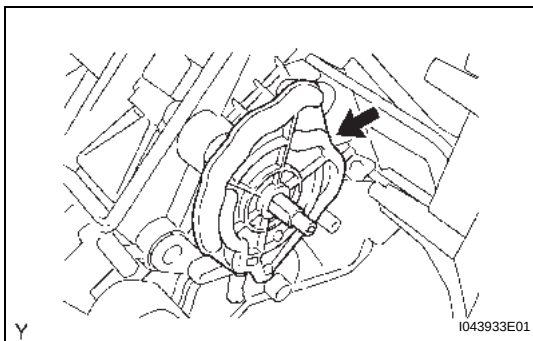
10. REMOVE BLOWER MOTOR

- (a) Remove the 3 bolts and blower motor.

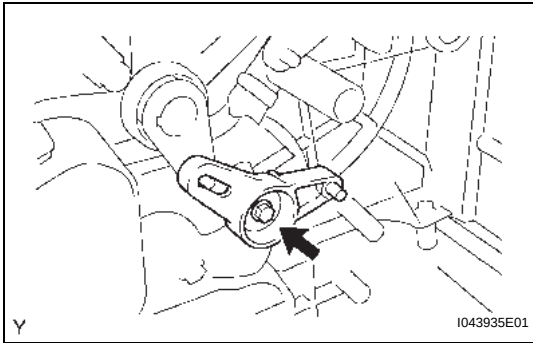


11. REMOVE EVAPORATOR CORE

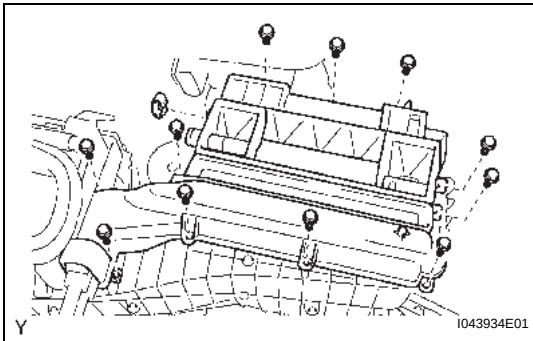
- (a) Remove the 3 bolts and mode mounting plate.



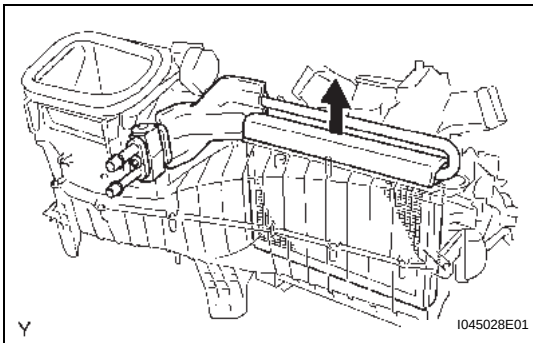
- (b) Remove the mode cam.



(c) Remove the bolt and heater pivot.



(d) Disengage the clip and remove the 11 bolts and mode case.



(e) Remove the evaporator core.

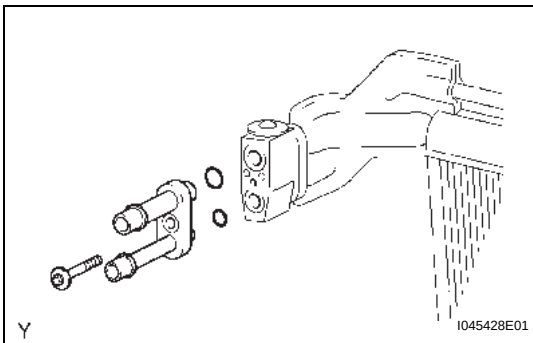
HINT:

If a new evaporator is installed, add compressor oil to the evaporator as follows.

Compressor oil:

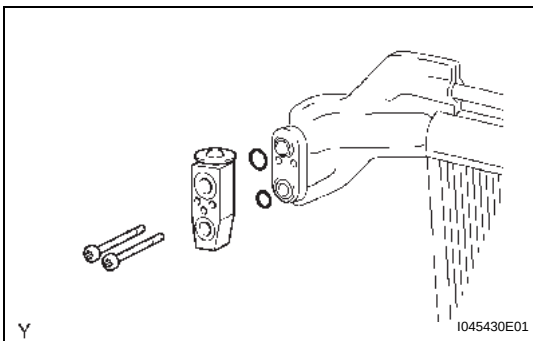
RL-897 or equivalent

Add 40 cc (1.4 fl.oz.)



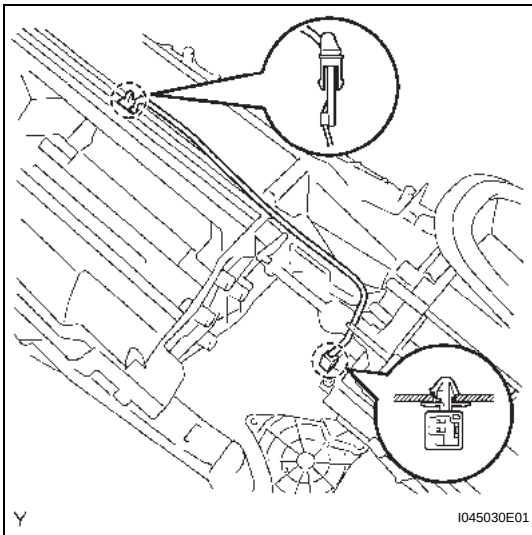
12. REMOVE VALVE TO CONNECTOR TUBE

- Using "Torx" socket wrench E10, remove the bolt and valve to connector tube.
- Remove the 2 seal washers from the air conditioning tube assembly.



13. REMOVE EXPANSION VALVE

- Using "Torx" socket wrench T25, remove the 2 bolts and expansion valve.
- Remove the 2 seal washers from the expansion valve.

**14. REMOVE COOLER THERMISTOR SENSOR**

- (a) Disengage the 2 clamps and remove the cooler thermistor sensor.

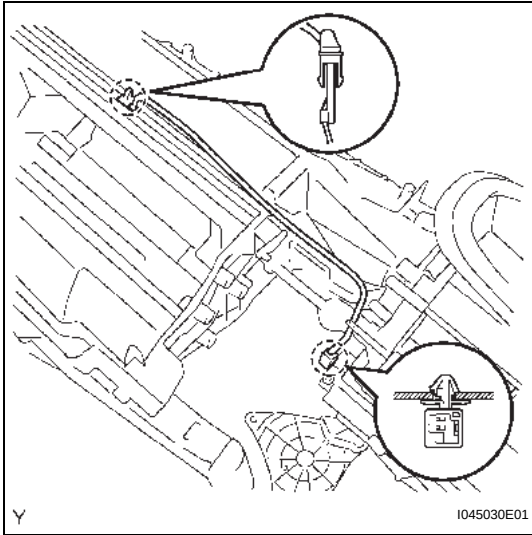
15. REMOVE NO. 1 COOLER UNIT DRAIN HOSE

REASSEMBLY

1. INSTALL NO. 1 COOLER UNIT DRAIN HOSE

2. INSTALL COOLER THERMISTOR SENSOR

- (a) Engage the 2 clamps and install the cooler thermistor sensor.



3. INSTALL EXPANSION VALVE

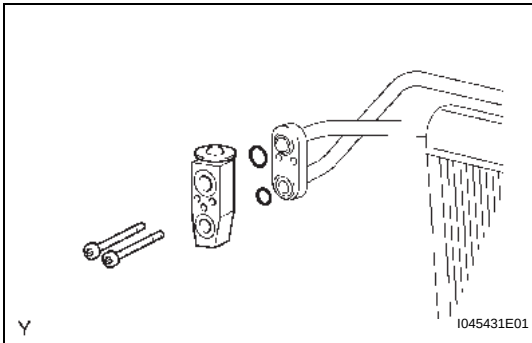
- (a) Apply sufficient compressor oil to 2 new seal washers and the fitting surface of the expansion valve.

Compressor oil:

RL-897 or equivalent

- (b) Install the 2 seal washers onto the expansion valve.
(c) Using "Torx" socket wrench T25, install the expansion valve with the 2 bolts.

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



4. INSTALL VALVE TO CONNECTOR TUBE

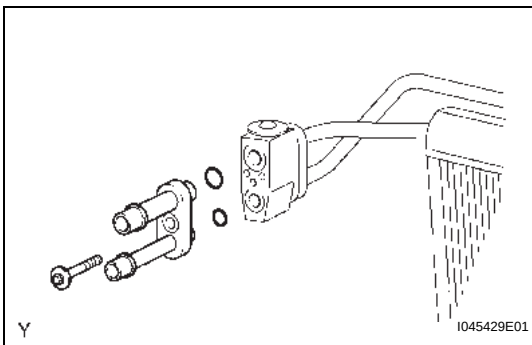
- (a) Apply sufficient compressor oil to 2 new seal washers and fitting surface of the valve to connector tube.

Compressor oil:

RL-897 or equivalent

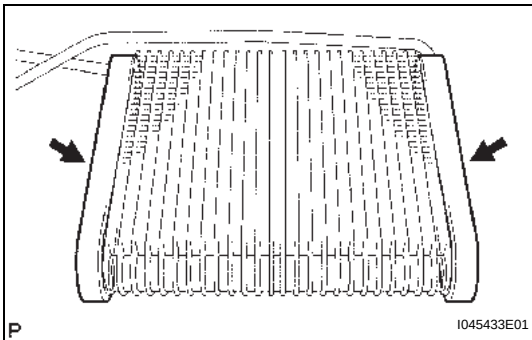
- (b) Install the 2 seal washers onto the valve to connector tube.
(c) Using "Torx" socket wrench E10, install the air conditioning tube assembly with the bolt.

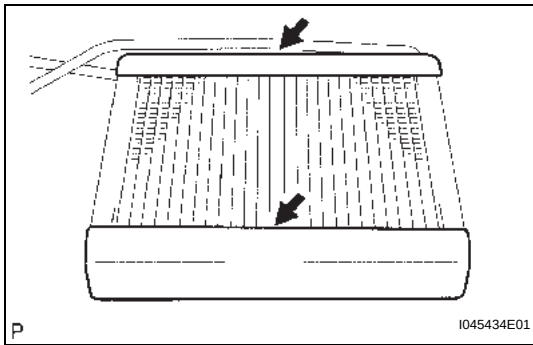
Torque: 25 N*m (255 kgf*cm, 18 ft.*lbf)



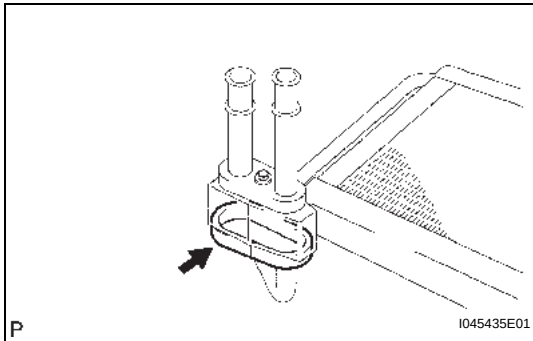
5. INSTALL EVAPORATOR CORE

- (a) Attach the evaporator side seal to both sides of the evaporator.

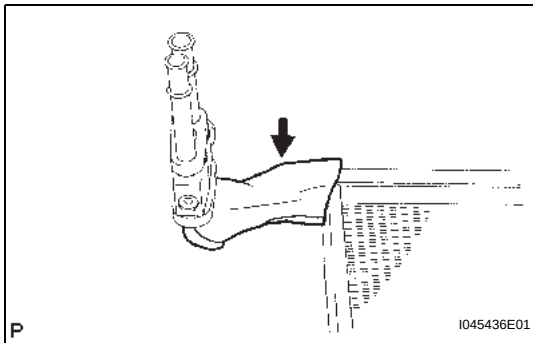




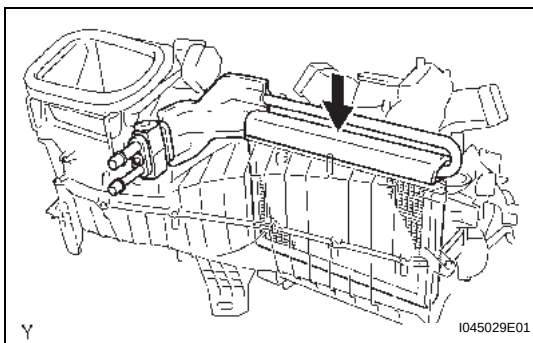
- (b) Attach the evaporator top seal to the upper side and the evaporator bottom seal to the lower side of the evaporator.



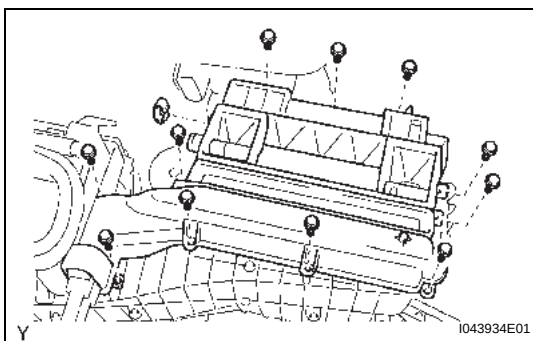
- (c) Align and apply the expansion valve seal to the periphery of the expansion valve protrusions on the back side of the expansion valve.



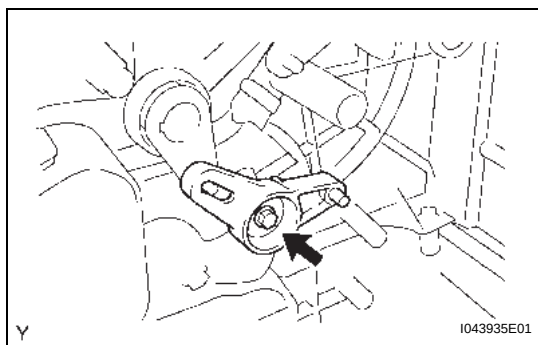
- (d) Align and attach the 2 different seals to the evaporator inlet and outlet pipes.



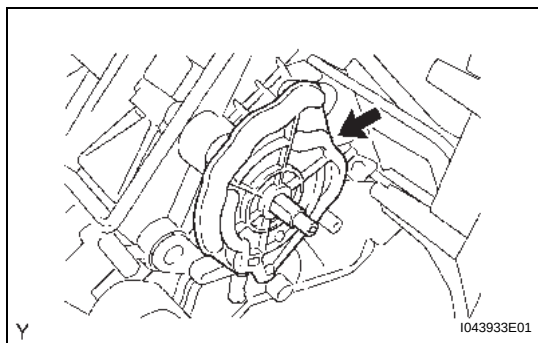
- (e) Install the evaporator core.



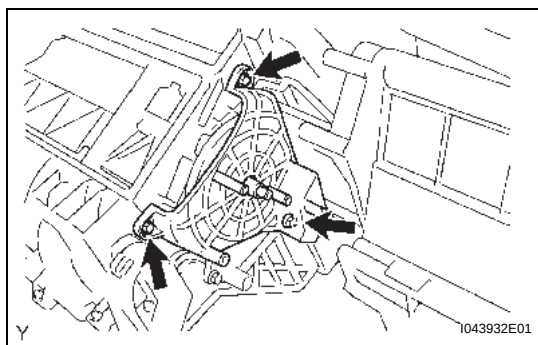
- (f) Install the mode case with the clip and 11 bolts.
Torque: 2.0 N*m (20 kgf*cm, 18 in.*lbf)



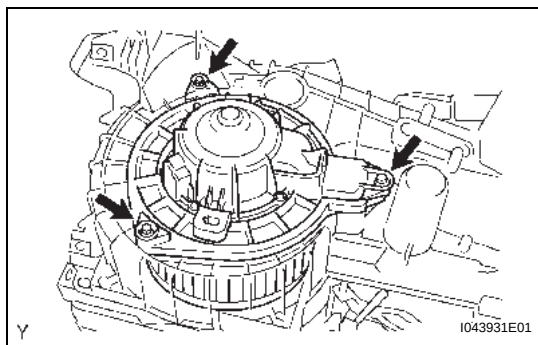
- (g) Install the heater pivot with the bolt.
Torque: 2.0 N*m (20 kgf*cm, 18 in.*lbf)



- (h) Install the mode cam.

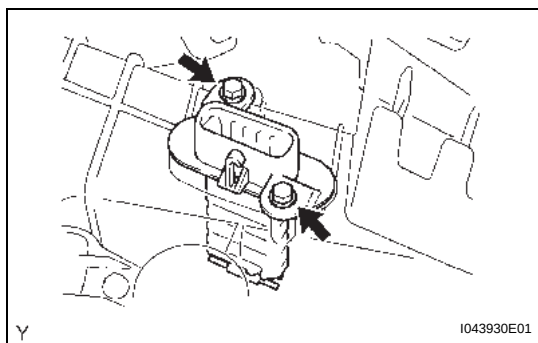


- (i) Install the mode mounting plate with the 3 bolts.
Torque: 2.0 N*m (20 kgf*cm, 18 in.*lbf)



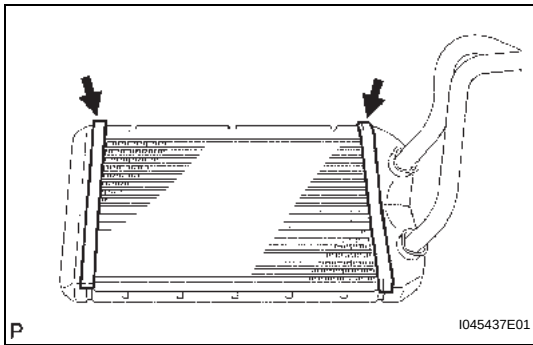
6. INSTALL BLOWER MOTOR

- (a) Install the blower motor with the 3 bolts.
Torque: 2.0 N*m (20 kgf*cm, 18 in.*lbf)

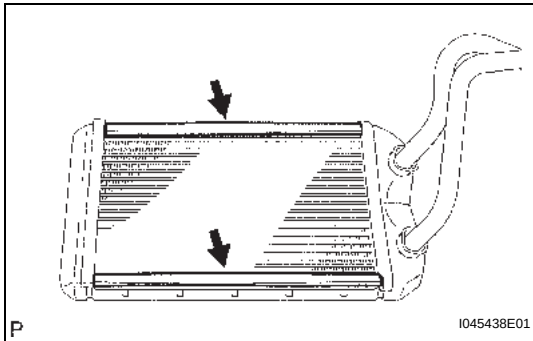


7. INSTALL BLOWER RESISTOR

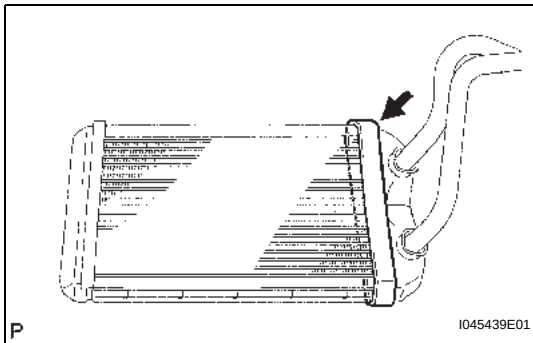
- (a) Install the blower resistor with the 2 bolts.
Torque: 2.0 N*m (20 kgf*cm, 18 in.*lbf)

**8. INSTALL HEATER RADIATOR ASSEMBLY**

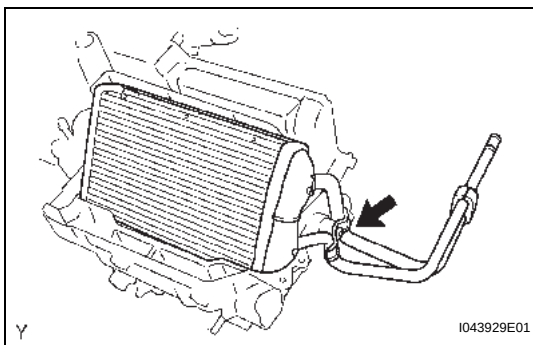
- (a) Apply the heater core short seal to both sides of the heater core.



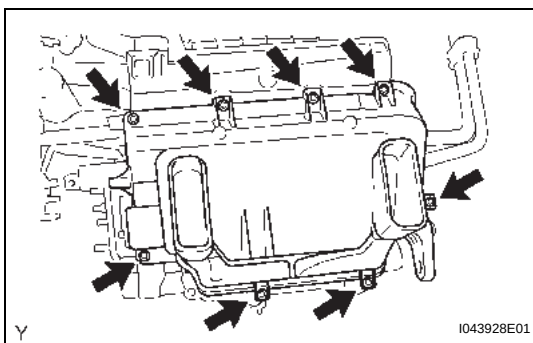
- (b) Apply the heater core long seal to the upper and lower sides of the heater core.



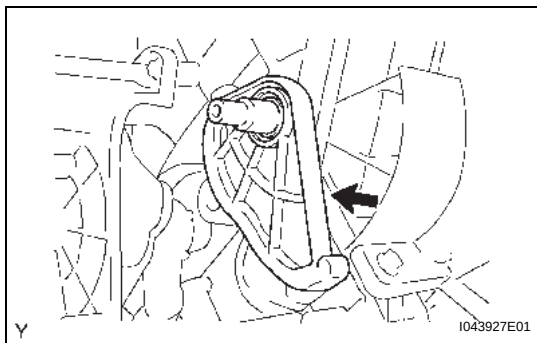
- (c) Apply the heater core header seal to the right side of the heater core.



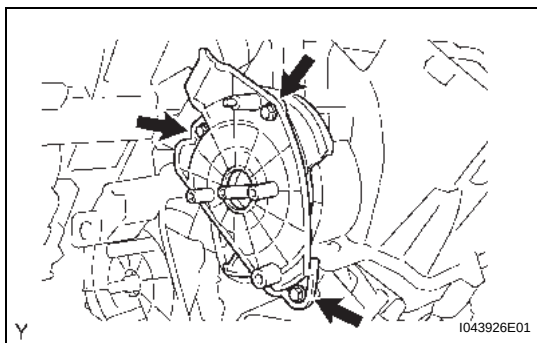
- (d) Using "Torx" socket wrench T30, install the heater radiator assembly with the bolt and clamp.
Torque: 4.0 N*m (41 kgf*cm, 35 in.*lbf)



- (e) Install the heater cover case with the 8 bolts.
Torque: 2.0 N*m (20 kgf*cm, 18 in.*lbf)

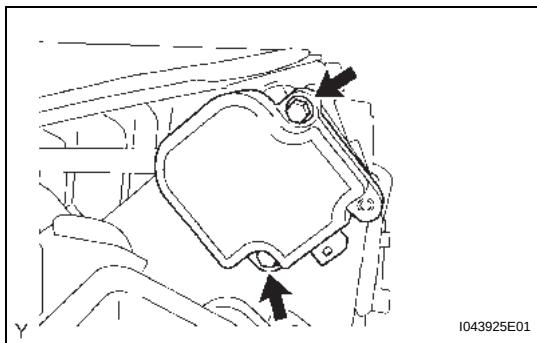


(f) Install the temperature cam.



(g) Install the temperature mounting plate with the 3 bolts.

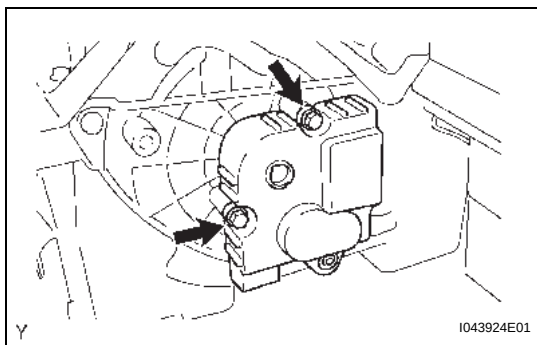
Torque: 2.0 N*m (20 kgf*cm, 18 in.*lbf)



9. INSTALL AIR INLET CONTROL SERVO MOTOR

(a) Install the air inlet control servo motor with the 2 bolts.

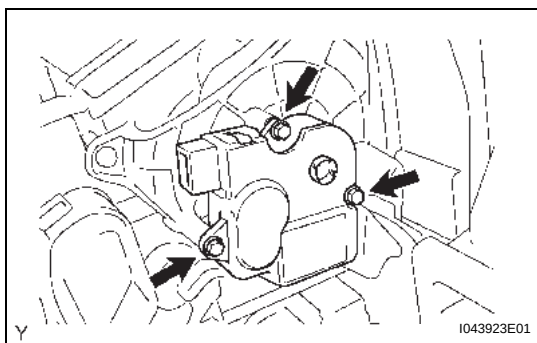
Torque: 2.0 N*m (20 kgf*cm, 18 in.*lbf)



10. INSTALL AIR MIX CONTROL SERVO MOTOR

(a) Install the air mix control servo motor with the 2 bolts.

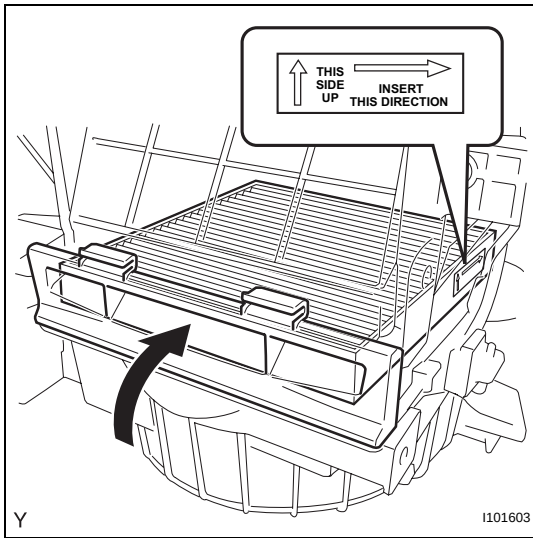
Torque: 2.0 N*m (20 kgf*cm, 18 in.*lbf)



11. INSTALL MODE CONTROL SERVO MOTOR

(a) Install the mode control servo motor with the 3 bolts.

Torque: 2.0 N*m (20 kgf*cm, 18 in.*lbf)

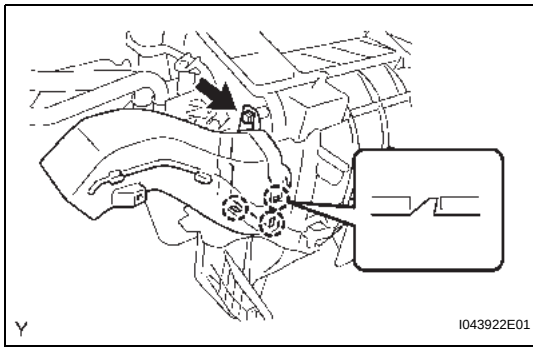
**12. INSTALL AIR FILTER**

- (a) Install the air filter.

NOTICE:

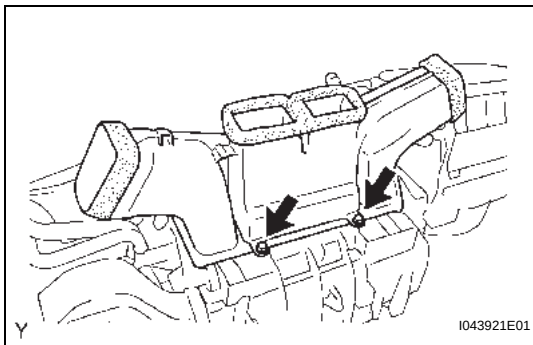
Check the installation direction as shown and install the air filter.

- (b) Engage the 2 tabs and close the filter door.

**13. INSTALL NO. 1 AIR DUCT**

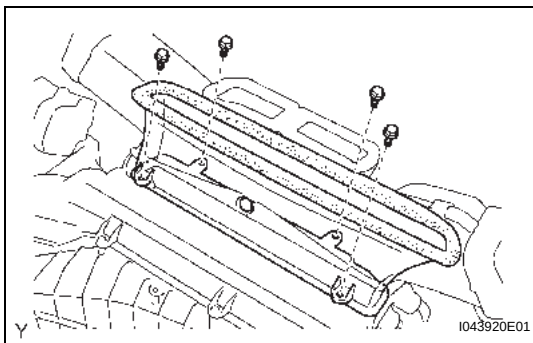
- (a) Engage the 3 claws and install the air duct.
(b) Install the bolt.

Torque: 2.0 N*m (20 kgf*cm, 18 in.*lbf)

**14. INSTALL HEATER TO REGISTER CENTER DUCT**

- (a) Install the heater to register duct center with the 2 bolts.

Torque: 2.0 N*m (20 kgf*cm, 18 in.*lbf)

**15. INSTALL DEFROSTER NOZZLE ASSEMBLY LOWER**

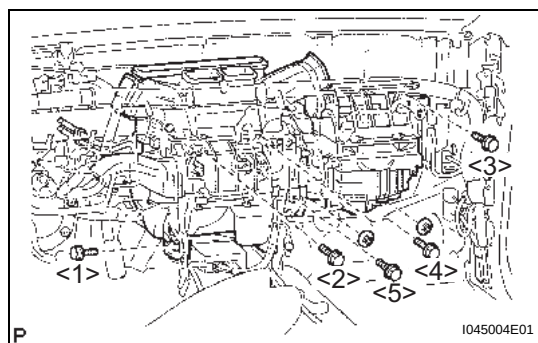
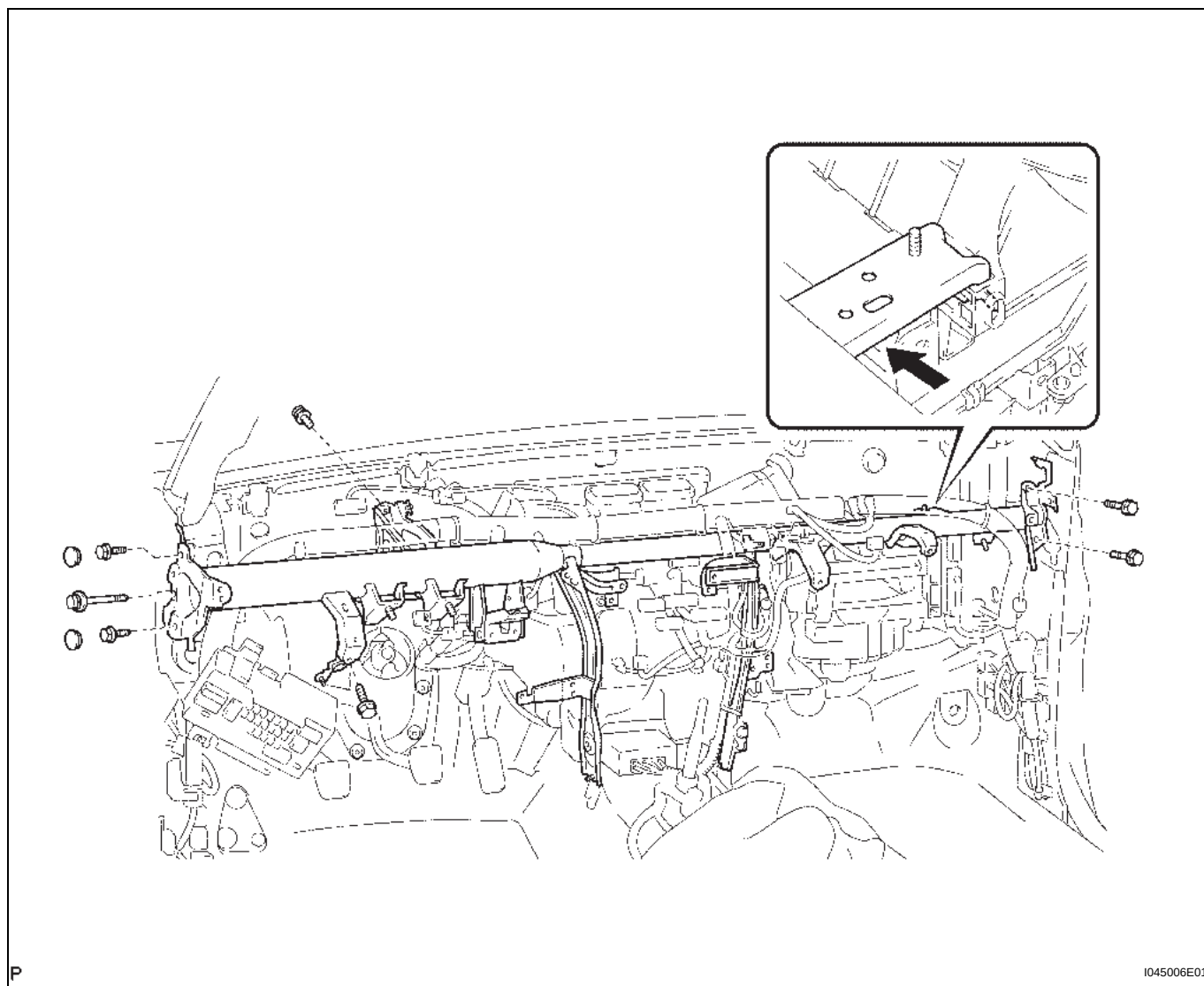
- (a) Install the defroster nozzle assembly lower with the 4 bolts.

Torque: 2.0 N*m (20 kgf*cm, 18 in.*lbf)

INSTALLATION

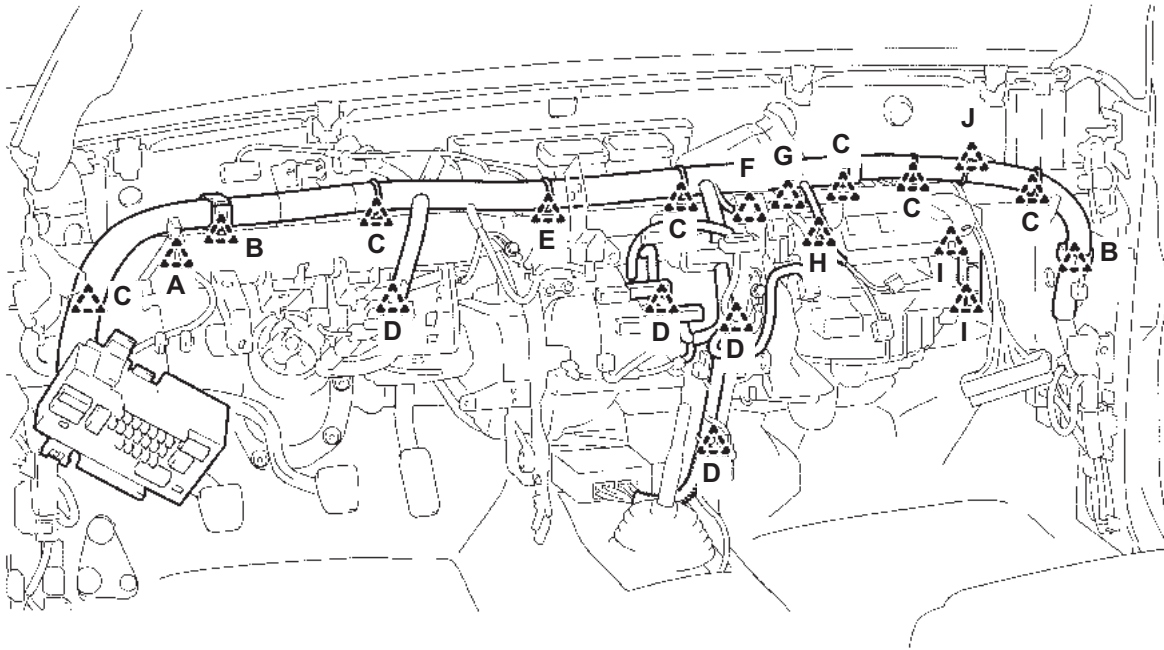
1. INSTALL AIR CONDITIONING UNIT ASSEMBLY

- (a) Provisionally install the air conditioning unit assembly.
- (b) Insert the bracket hook into the holes of the reinforcement bracket, and provisionally install the reinforcement.
- (c) Install the instrument panel reinforcement with the 7 bolts.
- (d) Install the 2 caps.



- (e) Install the 5 bolts.
Torque: 5.0 N*m (51 kgf*cm, 44 in.*lbf)
NOTICE:
Tighten the bolts in the sequence order shown in the illustration to install the air conditioner unit assembly.
- (f) Install the 2 nuts.
Torque: 5.0 N*m (51 kgf*cm, 44 in.*lbf)

(g) Engage the 20 clamps.

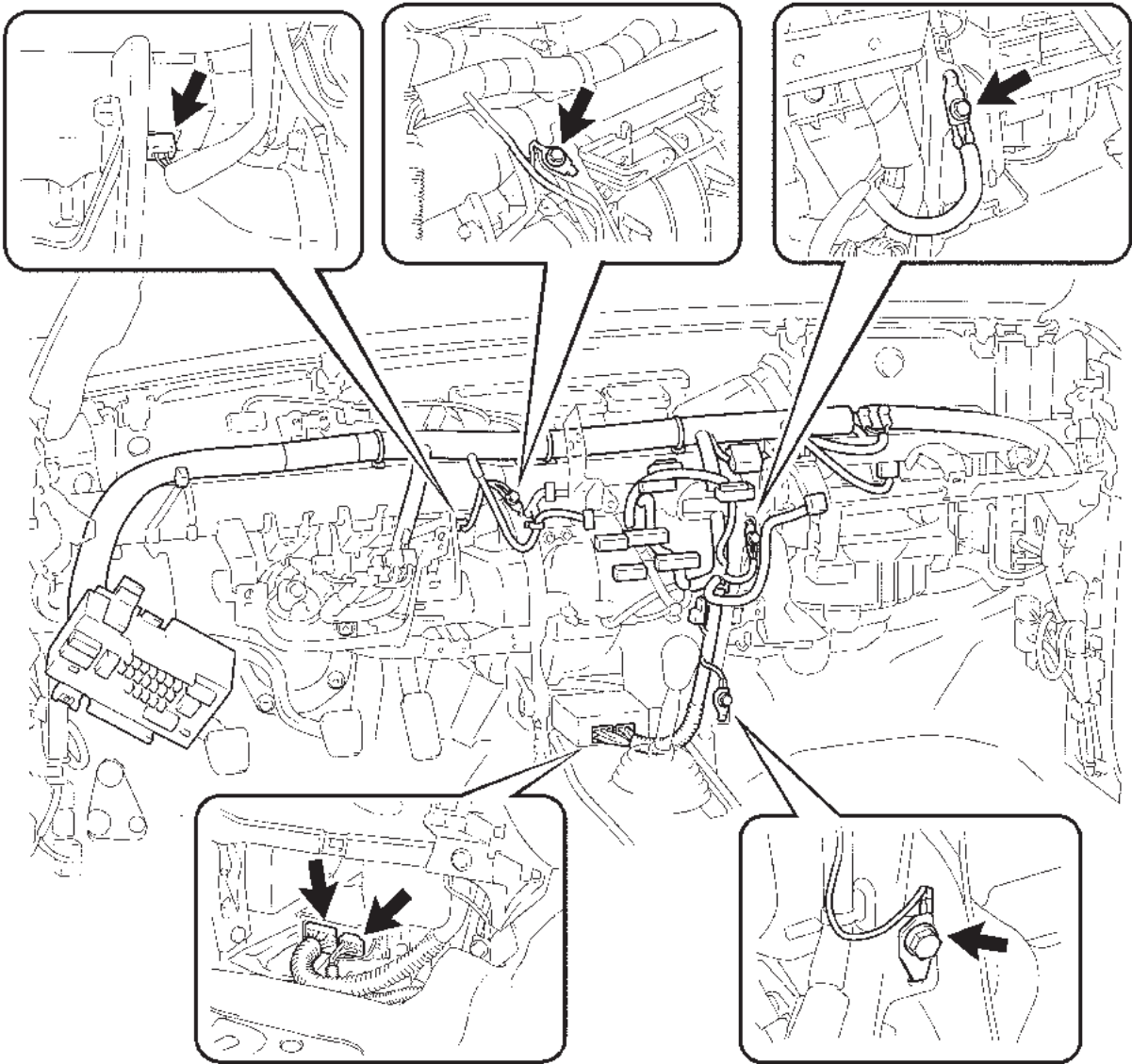


Type A: 	Type B: 	Type C: 	Type D:
Type E: 	Type F: 	Type G: 	Type H:
Type I: 	Type J: 		

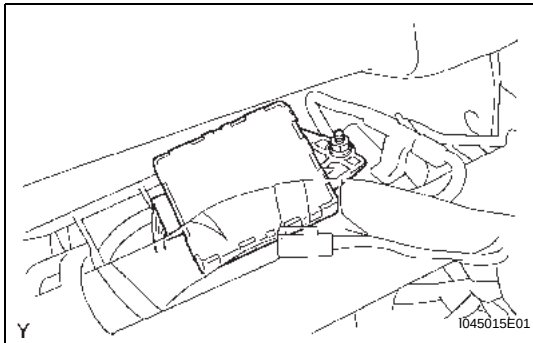
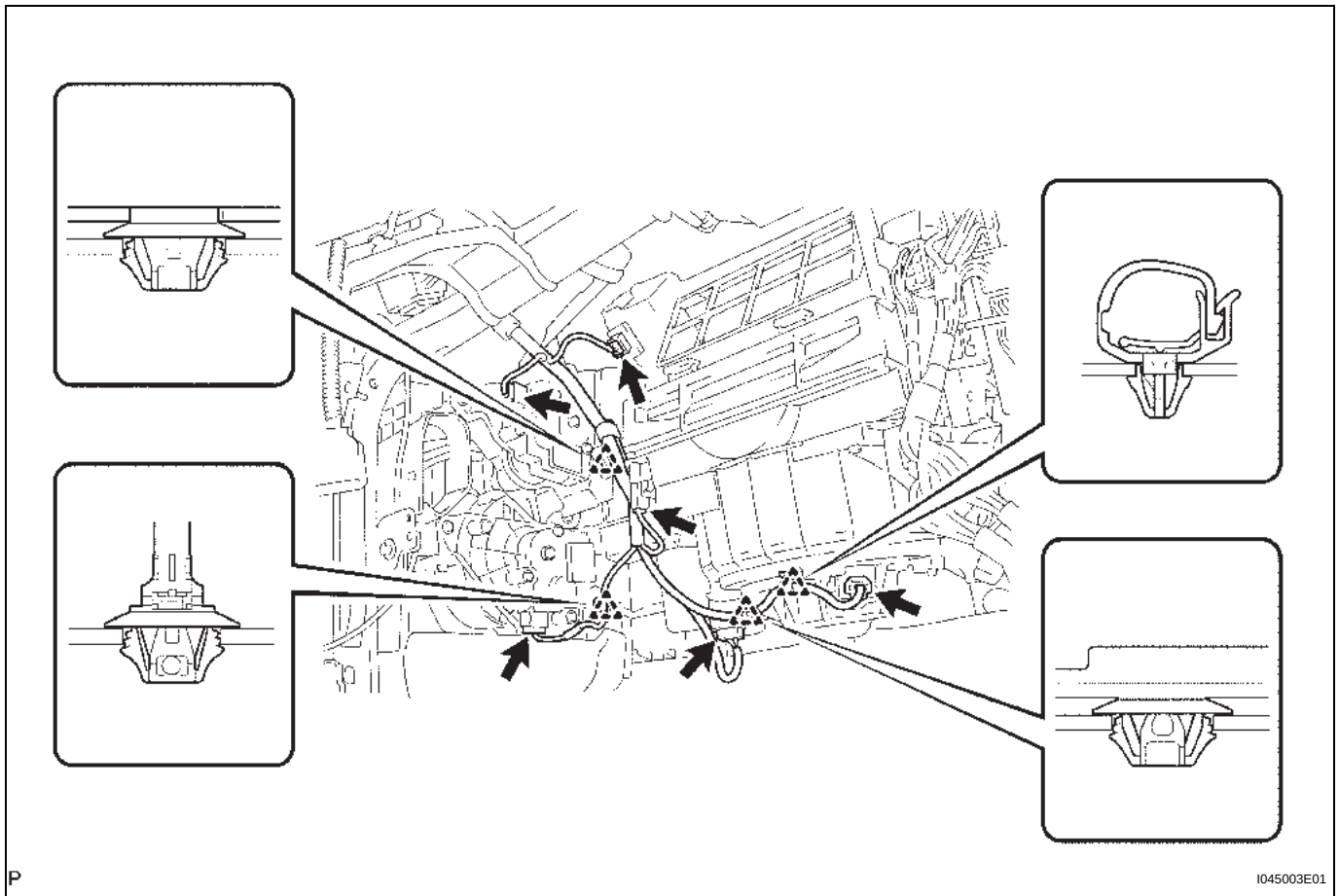
AC

- (h) Connect the connector.
 (i) Connect the 2 airbag connectors (see page 60-6).

(j) Install the 3 bolts.



- (k) Engage the 2 clamps and connect the 6 connectors to the air conditioning unit assembly.

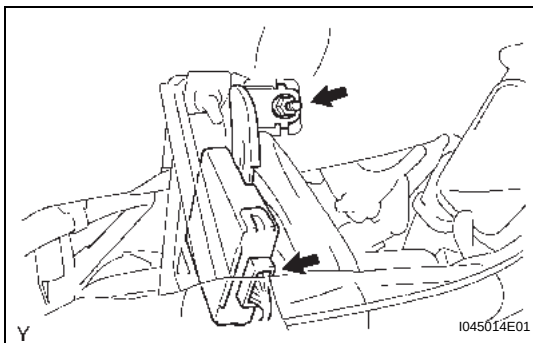


2. INSTALL AIR CONDITIONER AMPLIFIER ASSEMBLY

- (a) Install the air conditioner amplifier assembly with the nut.

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

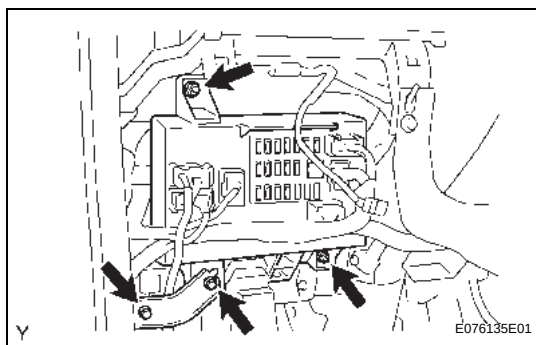
- (b) Connect the connector.



3. INSTALL TRANSPONDER KEY ECU ASSEMBLY

- (a) Install the transponder key ECU assembly with the nut.

- (b) Connect the connector.



4. INSTALL DRIVER SIDE JUNCTION BLOCK

- (a) Install the driver side junction block assembly with the 2 nuts.

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

- (b) Install the bracket with the 2 bolts.

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

5. INSTALL ECM (for 2TR-FE) (See page [ES-467](#))

6. INSTALL ECM (for 1GR-FE) (See page [ES-429](#))

7. INSTALL PARKING BRAKE CONTROL LEVER ASSEMBLY (for Lever Type Parking Brake) (See page [PB-7](#))

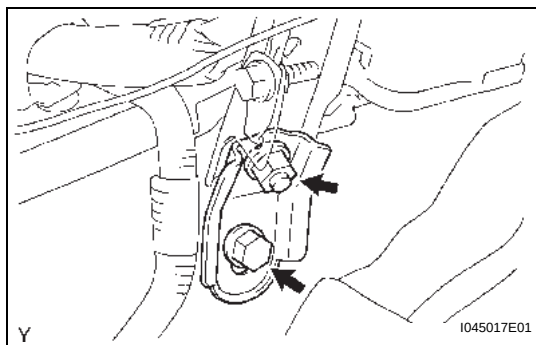
8. INSTALL STEERING COLUMN ASSEMBLY (See page [SR-16](#))

9. INSTALL STEERING SLIDING YOKE (See page [SR-17](#))

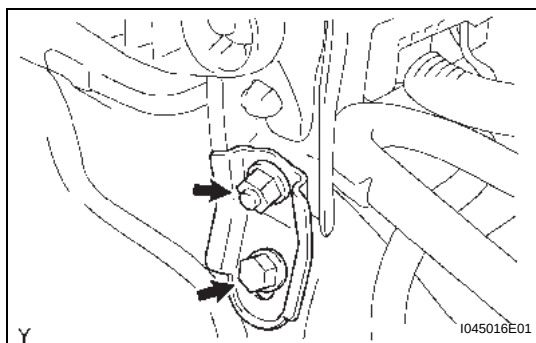
10. INSTALL STEERING COLUMN HOLE COVER (See page [SR-17](#))

11. INSTALL NO. 1 INSTRUMENT PANEL BRACE MOUNTING BRACKET

- (a) Install the instrument panel brace mounting bracket RH with the bolt and nut.

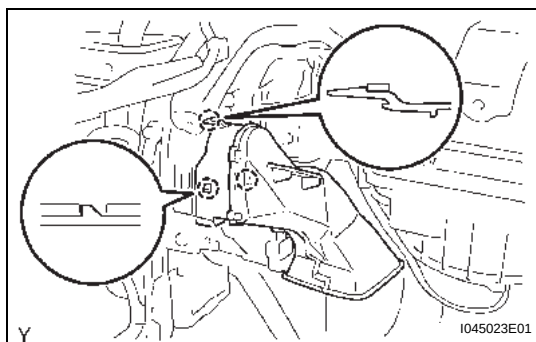


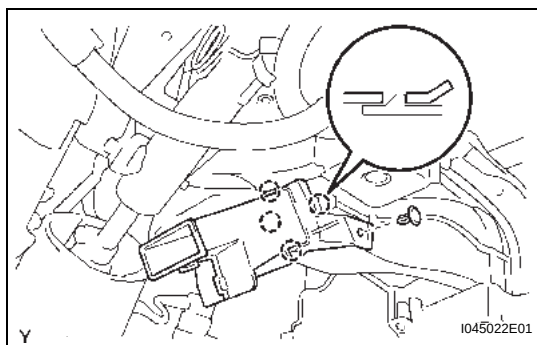
- (b) Install the instrument panel brace mounting bracket LH with the bolt and nut.



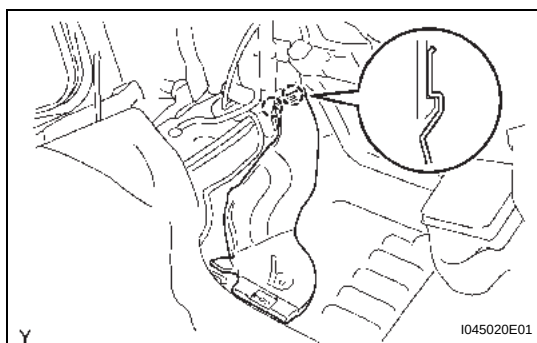
12. INSTALL AIR DUCT ASSEMBLY RH

- (a) Engage the 3 claws and install the air duct assembly.

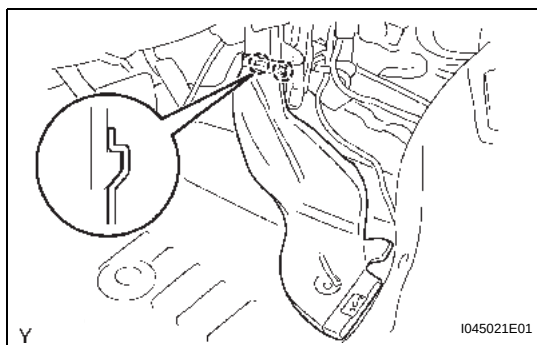


**13. INSTALL AIR DUCT ASSEMBLY LH**

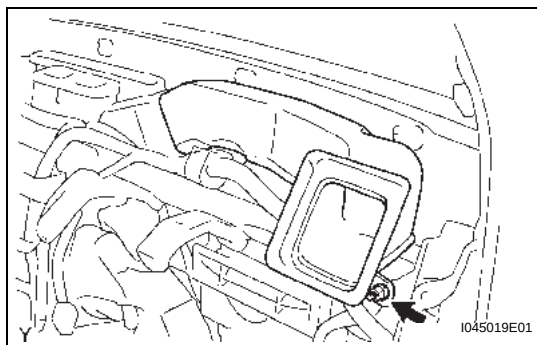
- (a) Engage the 4 claws and remove the air duct assembly heater.
- (b) Engage the clip.

**14. INSTALL NO. 1 REAR AIR DUCT (for Double Cab)**

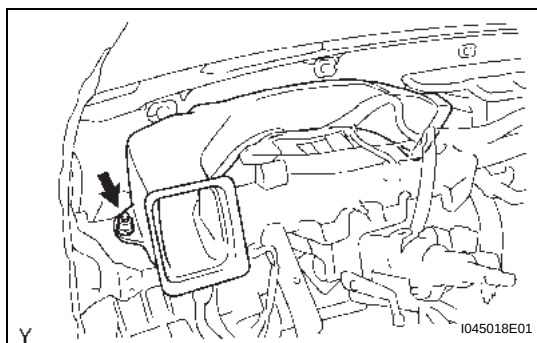
- (a) Engage the 2 claws and install the air duct rear.
- (b) Put the floor carpet back down.

**15. INSTALL NO. 2 REAR AIR DUCT (for Double Cab)**

- (a) Engage the 2 claws and install the air duct rear.
- (b) Put the floor carpet back down.

**16. INSTALL NO. 3 HEATER TO REGISTER DUCT**

- (a) Install the heater to register duct with the nut.

**17. INSTALL NO. 1 HEATER REGISTER DUCT**

- (a) Install the heater to register duct with the nut.

18. INSTALL INSTRUMENT PANEL SUB-ASSEMBLY W/ PASSENGER AIRBAG ASSEMBLY (See page [IP-18](#))**19. CONNECT PASSENGER AIRBAG CONNECTOR****20. INSTALL INSTRUMENT SIDE PANEL RH (See page [IP-20](#))****21. INSTALL INSTRUMENT LOWER COVER SUB-ASSEMBLY (See page [IP-20](#))**

22. INSTALL LOWER INSTRUMENT PANEL LH (See page [IP-20](#))
23. INSTALL INSTRUMENT PANEL LOWER FINISH PANEL SUB-ASSEMBLY RH (See page [IP-20](#))
24. INSTALL GLOVE COMPARTMENT DOOR ASSEMBLY (See page [IP-20](#))
25. INSTALL INSTRUMENT CLUSTER CENTER FINISH PANEL SUB-ASSEMBLY (See page [IP-21](#))
26. INSTALL COMBINATION METER ASSEMBLY (See page [IP-21](#))
27. INSTALL INSTRUMENT CLUSTER FINISH PANEL SUB-ASSEMBLY (See page [IP-21](#))
28. INSTALL LOWER NO. 1 INSTRUMENT PANEL FINISH PANEL (See page [IP-22](#))
29. CONNECT HOOD LOCK CONTROL LEVER SUB-ASSEMBLY (See page [ED-8](#))
30. INSTALL RADIO RECEIVER ASSEMBLY (See page [AV-70](#))
31. INSTALL AIR CONDITIONING CONTROL ASSEMBLY (See page [IP-22](#))
32. INSTALL FRONT CONSOLE BOX (for Manual Transmission on Bench Seat Type) (See page [IP-22](#))
33. INSTALL FRONT CONSOLE BOX (for Automatic Transmission on Bench Seat Type) (See page [IP-23](#))
34. INSTALL FRONT CONSOLE BOX (for Manual Transmission on Separate Seat Type) (See page [IP-23](#))
35. INSTALL FRONT CONSOLE BOX (for Automatic Transmission on Separate Seat Type) (See page [IP-24](#))
36. INSTALL INSTRUMENT PANEL CUP HOLDER TRAY (for Automatic Transmission on Separate Seat Type) (See page [IP-24](#))
37. INSTALL REAR CONSOLE BOX ASSEMBLY (for Separate Seat Type) (See page [IP-24](#))
38. INSTALL CONSOLE UPPER REAR PANEL SUB-ASSEMBLY (for Manual Transmission on Separate Seat Type) (See page [IP-25](#))
39. INSTALL CONSOLE UPPER REAR PANEL SUB-ASSEMBLY (for Automatic Transmission on Separate Seat Type) (See page [IP-25](#))
40. INSTALL INSTRUMENT PANEL HOLE COVER (for Lever Type Parking Brake) (See page [IP-25](#))
41. INSTALL INSTRUMENT PANEL UNDER TRAY (for Pedal Type Parking Brake) (See page [IP-25](#))

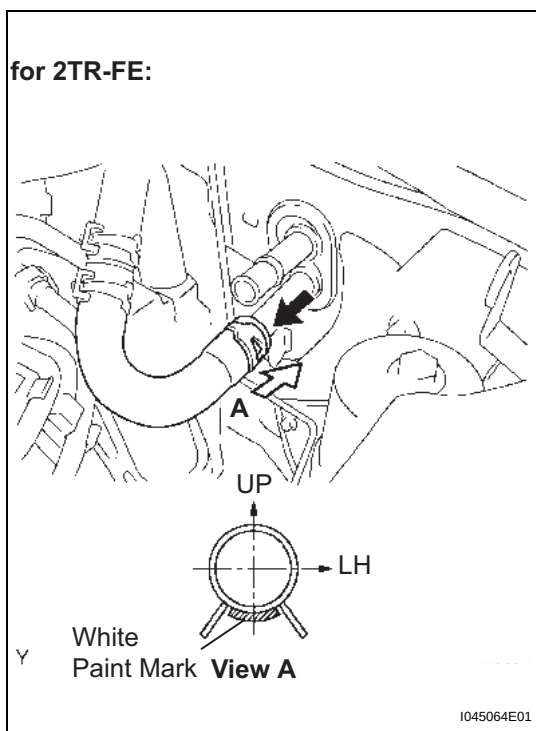
42. INSTALL FRONT PILLAR GARNISH LH (for Regular Cab) (See page [IR-51](#))
43. INSTALL FRONT PILLAR GARNISH LH (for Access Cab) (See page [IR-74](#))
44. INSTALL FRONT PILLAR GARNISH LH (for Double Cab) (See page [IR-28](#))
45. INSTALL FRONT PILLAR GARNISH RH (for Regular Cab) (See page [IR-52](#))
46. INSTALL FRONT PILLAR GARNISH RH (for Access Cab) (See page [IR-74](#))
47. INSTALL FRONT PILLAR GARNISH RH (for Double Cab) (See page [IR-28](#))
48. INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP LH
49. INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP RH
50. INSTALL COWL SIDE TRIM BOARD LH (for Regular Cab) (See page [IR-52](#))
51. INSTALL COWL SIDE TRIM BOARD LH (for Access Cab) (See page [IR-75](#))
52. INSTALL COWL SIDE TRIM BOARD LH (for Double Cab) (See page [IR-29](#))
53. INSTALL COWL SIDE TRIM BOARD RH (for Regular Cab) (See page [IR-52](#))
54. INSTALL COWL SIDE TRIM BOARD RH (for Access Cab) (See page [IR-75](#))
55. INSTALL COWL SIDE TRIM BOARD RH (for Double Cab) (See page [IR-29](#))
56. INSTALL FRONT DOOR SCUFF PLATE LH (for Regular Cab) (See page [IR-52](#))
57. INSTALL FRONT DOOR SCUFF PLATE LH (for Access Cab) (See page [IR-75](#))
58. INSTALL FRONT DOOR SCUFF PLATE LH (for Double Cab) (See page [IR-29](#))
59. INSTALL FRONT DOOR SCUFF PLATE RH (for Regular Cab) (See page [IR-52](#))
60. INSTALL FRONT DOOR SCUFF PLATE RH (for Access Cab) (See page [IR-75](#))
61. INSTALL FRONT DOOR SCUFF PLATE RH (for Double Cab) (See page [IR-29](#))
62. INSTALL FRONT FLOOR FOOTREST (See page [IR-1](#))
63. INSTALL WINDSHIELD WIPER SWITCH ASSEMBLY (See page [WW-19](#))

64. INSTALL SPIRAL CABLE SUB-ASSEMBLY (See page [RS-567](#))
65. CENTER SPIRAL CABLE (See page [RS-567](#))
66. INSTALL STEERING COLUMN COVER UPPER (See page [RS-568](#))
67. INSTALL STEERING COLUMN COVER LOWER (See page [RS-568](#))
68. INSTALL STEERING WHEEL ASSEMBLY (See page [SR-18](#))
69. INSTALL HORN BUTTON ASSEMBLY (See page [RS-558](#))
70. INSTALL NO. 3 STEERING WHEEL COVER LOWER (See page [RS-559](#))
71. INSTALL NO. 2 STEERING WHEEL COVER LOWER (See page [RS-559](#))
72. INSTALL COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY (See page [WW-10](#))
73. INSTALL FRONT FENDER TO COWL SIDE SEAL RH (See page [WW-10](#))
74. INSTALL FRONT FENDER TO COWL SIDE SEAL LH (See page [WW-11](#))
75. INSTALL FRONT WIPER ARM RH (See page [WW-11](#))
76. INSTALL FRONT WIPER ARM LH (See page [WW-12](#))
77. INSTALL FRONT WIPER ARM HEAD CAP (See page [WW-12](#))
78. INSTALL HEATER WATER OUTLET HOSE (for 2TR-FE)

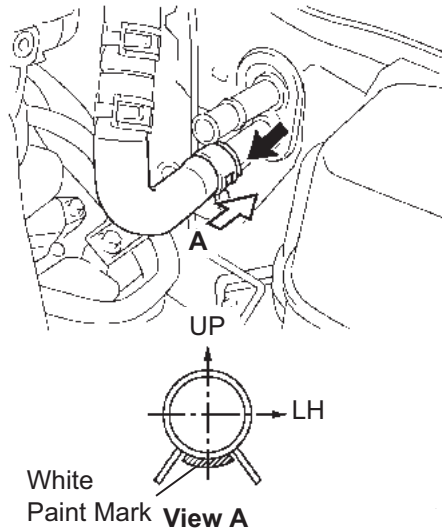
- (a) Install the heater water outlet hose onto the heater unit.

NOTICE:

Make sure that the hose clip and mark are at the correct angle when installing.



for 1GR-FE:



I045059E01

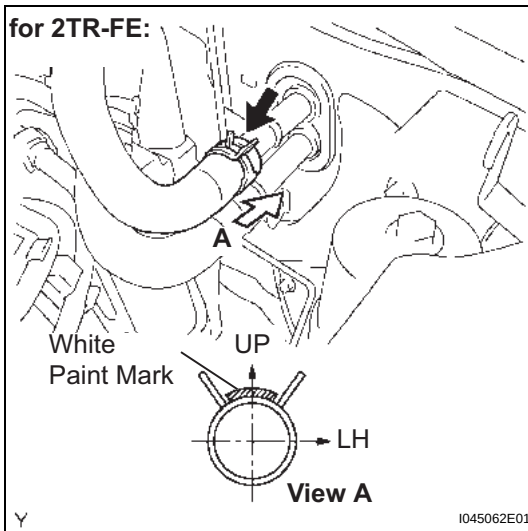
79. INSTALL HEATER WATER OUTLET HOSE (for 1GR-FE)

- (a) Install the heater water outlet hose onto the heater unit.

NOTICE:

Make sure that the hose clip and mark are at the correct angle when installing.

for 2TR-FE:



I045062E01

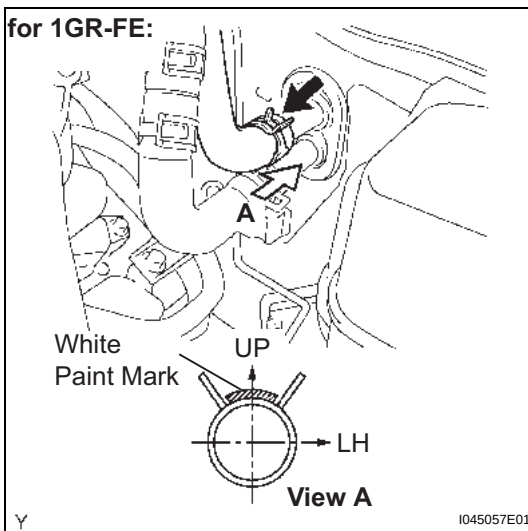
80. INSTALL HEATER WATER INLET HOSE (for 2TR-FE)

- (a) Install the heater water inlet hose onto the heater unit.

NOTICE:

Make sure that the hose clip and mark are at the correct angle when installing.

for 1GR-FE:



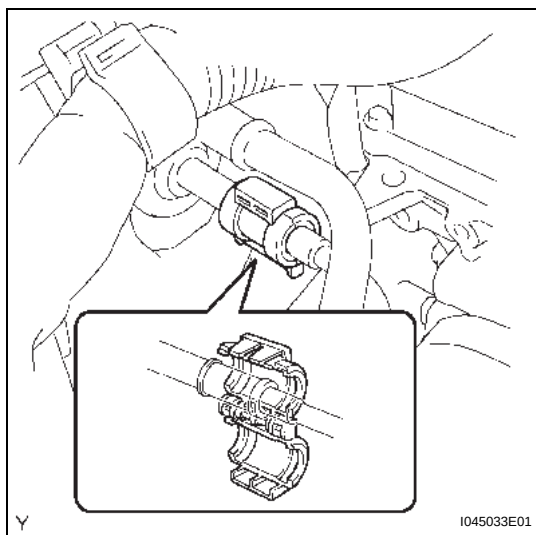
I045057E01

81. INSTALL HEATER WATER INLET HOSE (for 1GR-FE)

- (a) Install the heater water inlet hose onto the heater unit.

NOTICE:

Make sure that the hose clip and mark are at the correct angle when installing.

**82. INSTALL AIR CONDITIONING TUBE ASSEMBLY**

- (a) Apply compressor oil to 2 new O-rings and install them onto the hose.

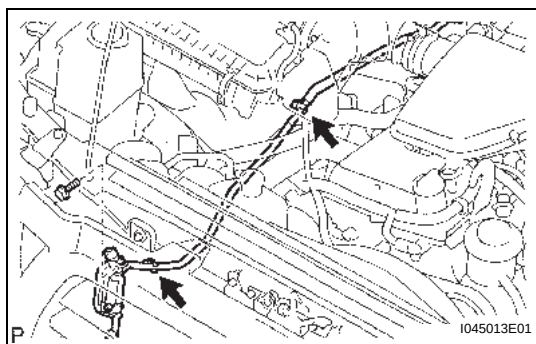
Compressor oil:

RL-897 or equivalent

- (b) Install the air conditioner tube and piping clamp.

HINT:

Check that the claw of the piping clamp is correctly fitted.



- (c) Install the bracket with the bolt and 2 clamps.

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

83. INSTALL SUCTION HOSE SUB-ASSEMBLY

- (a) Apply compressor oil to 2 new O-rings and install them onto the pipe.

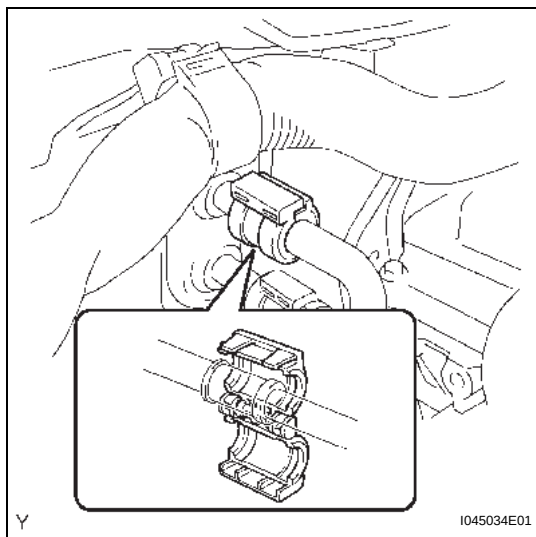
Compressor oil:

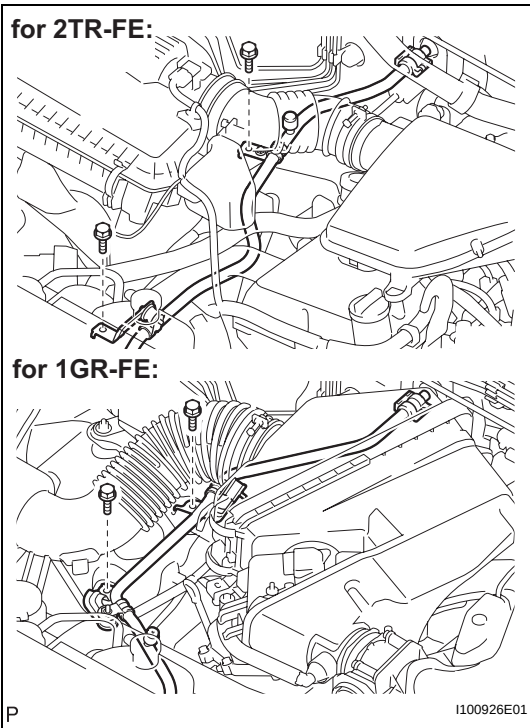
RL-897 or equivalent

- (b) Install the suction hose and piping clamp.

HINT:

Check that the claws of the piping clamp are correctly fitted.





(c) Install the bracket with the 2 bolts.

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

84. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Torque: 3.9 N*m (40 kgf*cm, 35 in.*lbf)

85. ADD ENGINE COOLANT (for 2TR-FE) (See page [CO-3](#))

86. ADD ENGINE COOLANT (for 1GR-FE) (See page [CO-3](#))

87. CHECK FOR ENGINE COOLANT LEAKAGE (for 2TR-FE) (See page [CO-2](#))

88. CHECK FOR ENGINE COOLANT LEAKAGE (for 1GR-FE) (See page [CO-4](#))

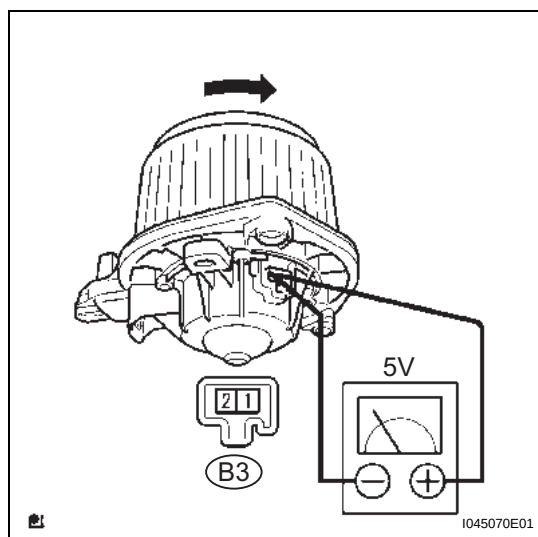
89. CHARGE REFRIGERANT (See page [AC-18](#))

90. WARM UP ENGINE (See page [AC-19](#))

91. CHECK FOR REFRIGERANT LEAKAGE (See page [AC-19](#))

92. PLACE FRONT WHEELS FACING STRAIGHT AHEAD

**93. INSPECT SRS WARNING LIGHT
(See page [RS-28](#))**



BLOWER MOTOR

INSPECTION

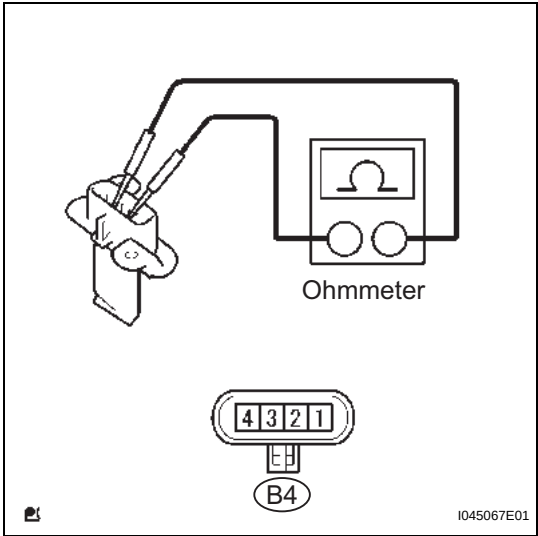
1. INSPECT BLOWER MOTOR

- (a) Inspect the blower motor.
- (1) Connect the positive (+) lead from to terminal 1 and negative (-) lead to terminal 2, then check that the motor operates smoothly.

CAUTION:

- Use safety glasses
- Do not use battery power, use DC power supply (30 A).
- Do not operate the motor and fan assembly at over 5 V.
- Be sure to hold the motor in a stable and safe way.

If the result is not as specified, replace the blower motor.



BLOWER RESISTOR

INSPECTION

1. INSPECT BLOWER RESISTOR

- (a) Check the resistance.
 - (1) Using an ohmmeter, measure the resistance between the terminals.

Standard

Tester Connection	Specified Condition
1 (M1) - 3 (COMMON)	0.792 to 0.968 Ω at 20°C (68°F)
2 (M2) - 3 (COMMON)	0.342 to 0.418 Ω at 20°C (68°F)
4 (Lo) - 3 (COMMON)	2.07 to 2.53 Ω at 20°C (68°F)

If the result is not as specified, replace the blower resistor.

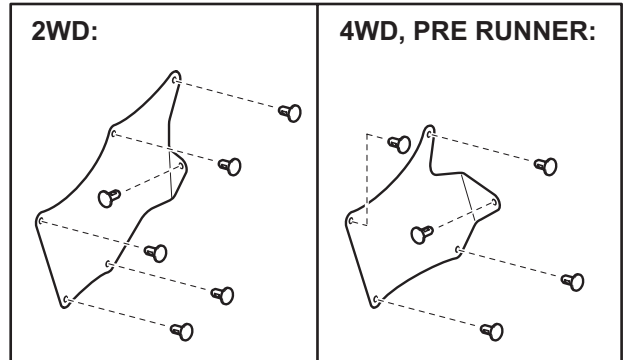
COMPRESSOR AND MAGNETIC CLUTCH

COMPONENTS

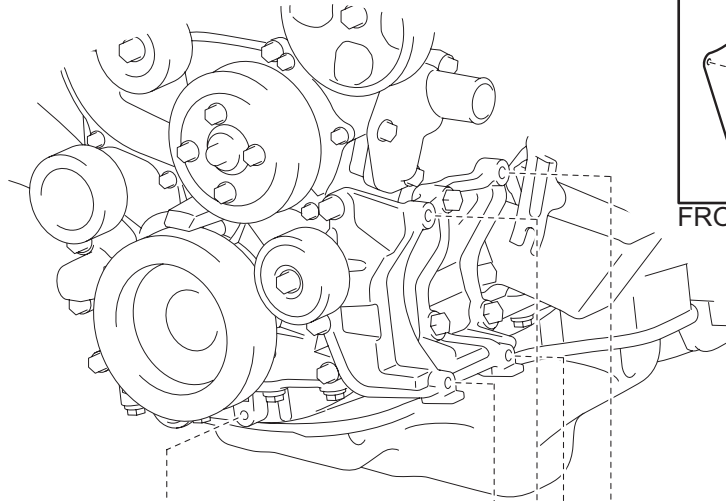
2TR-FE:

2WD:

4WD, PRE RUNNER:



FRONT FENDER APRON SEAL UPPER

COMPRESSOR AND
MAGNETIC CLUTCHDISCHARGE HOSE
SUB-ASSEMBLY

● SEAT WASHER

19 (194, 14)

21 (214, 16)

● SEAT WASHER

19 (194, 14)

7.5 (76, 66 in.*lbf)

SUCTION HOSE SUB-ASSEMBLY

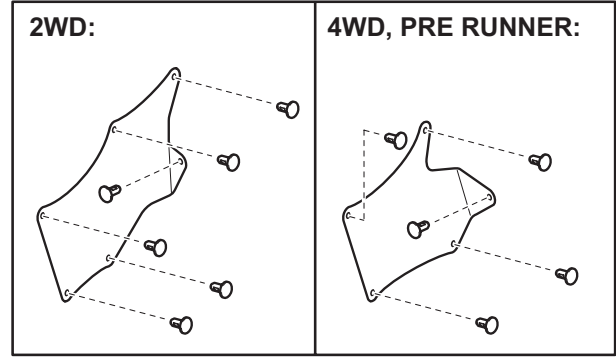
[N*m (kgf*cm, ft.*lbf)] : Specified torque

← Compressor Oil RL-897 or equivalent

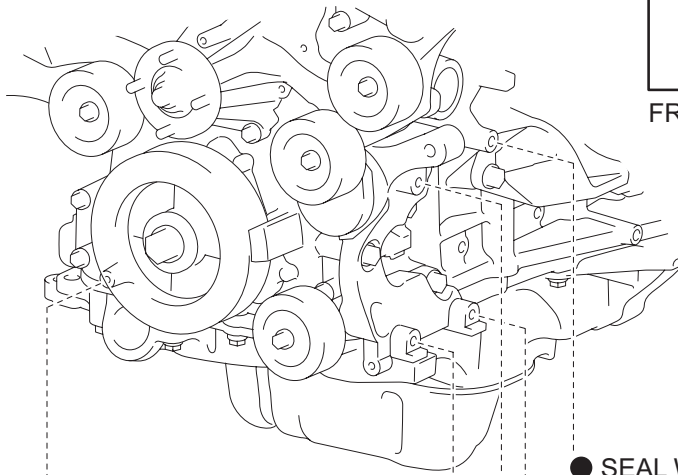
● Non-reusable part

AC

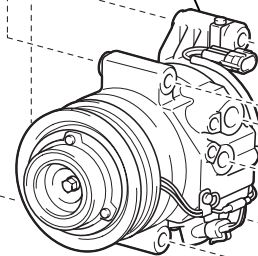
1GR-FE:



FRONT FENDER APRON SEAL UPPER



COMPRESSOR AND
MAGNETIC CLUTCH



DISCHARGE HOSE
SUB-ASSEMBLY

● SEAL WASHER

19 (194, 14)

21 (214, 16)

● SEAL WASHER

19 (194, 14)

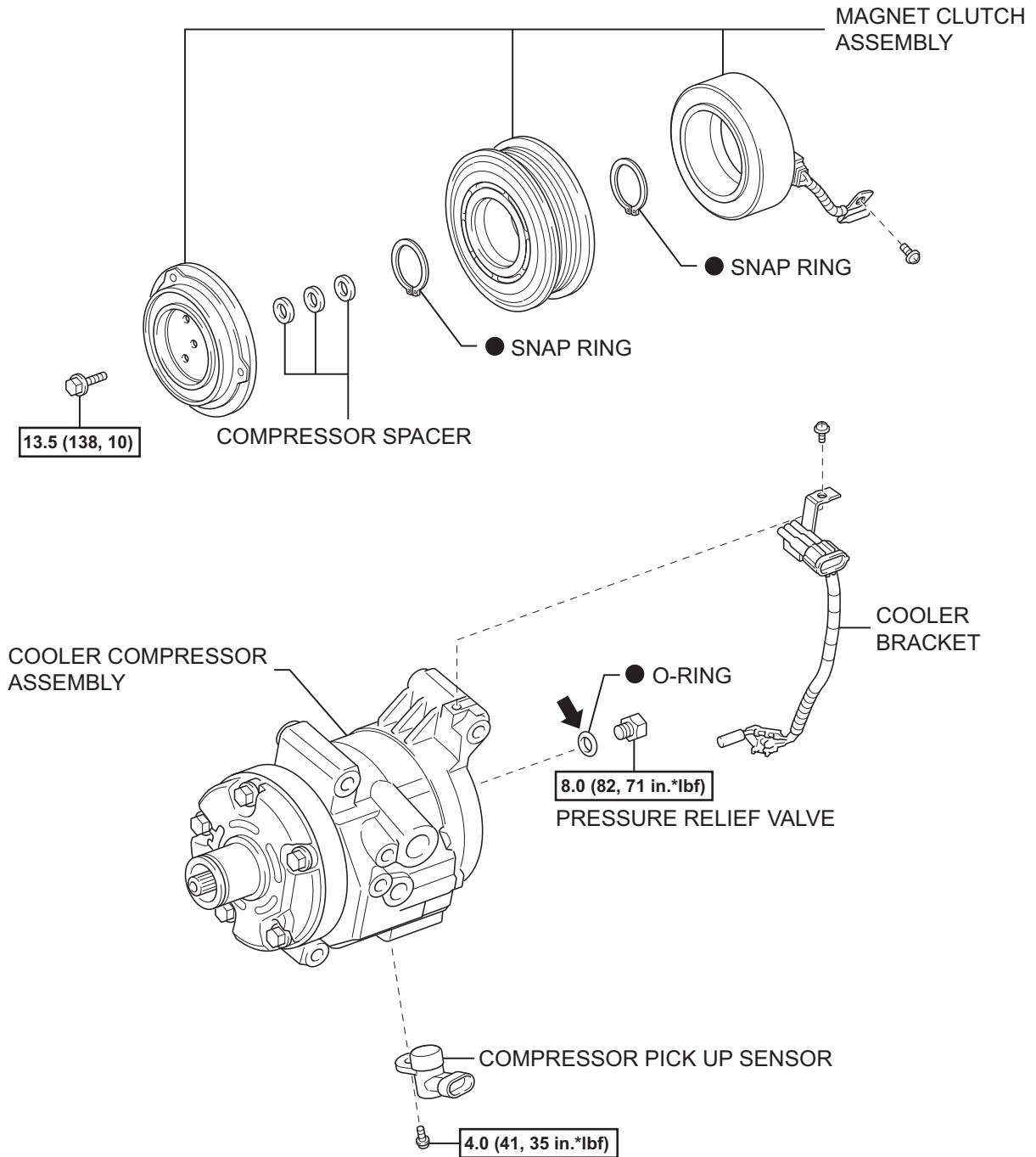
7.5 (76, 66 in.*lbf)

SUCTION HOSE SUB-ASSEMBLY

$\text{N}\cdot\text{m}$ ($\text{kgf}\cdot\text{cm}$, $\text{ft}\cdot\text{lbf}$) : Specified torque

← Compressor Oil RL-897 or equivalent ● Non-reusable part

AC



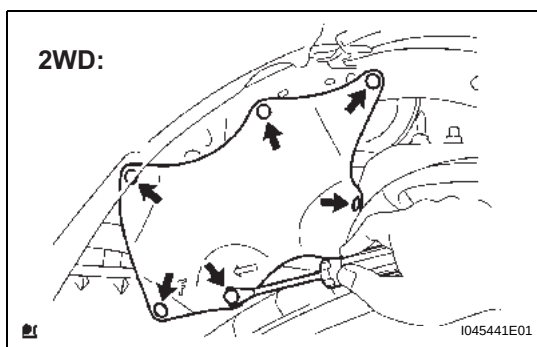
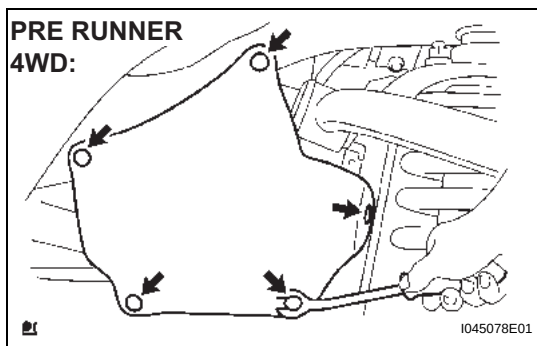
$\text{N}\cdot\text{m}$ ($\text{kgf}\cdot\text{cm}$, $\text{ft}\cdot\text{lbf}$) : Specified torque

← Compressor Oil RL-897 or equivalent

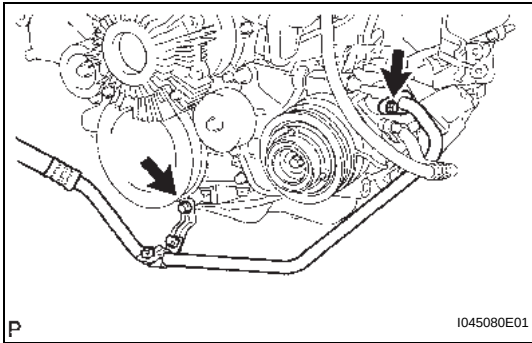
● Non-reusable part

REMOVAL

1. DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM (See page [AC-18](#))
2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL
3. REMOVE FRONT WHEEL LH
4. REMOVE NO. 1 ENGINE UNDER COVER SUB-ASSEMBLY (for 2TR-FE) (See page [EM-21](#))
5. REMOVE NO. 1 ENGINE UNDER COVER SUB-ASSEMBLY (for 1GR-FE) (See page [EM-166](#))
6. REMOVE V-BANK COVER (for 1GR-FE) (See page [ES-414](#))
7. REMOVE RADIATOR SUPPORT TO FRAME SEAL LH (for 1GR-FE) (See page [CO-15](#))
8. REMOVE FAN SHROUD (for 1GR-FE) (See page [CO-15](#))
9. REMOVE FAN AND GENERATOR V BELT (for 2TR-FE) (See page [EM-5](#))
10. REMOVE FAN AND GENERATOR V BELT (for 1GR-FE) (See page [EM-5](#))
11. REMOVE GENERATOR ASSEMBLY (for 1GR-FE) (See page [CH-7](#))
12. REMOVE FRONT FENDER APRON SEAL UPPER
 - (a) Using a clip remover, disengage the 5 clips and remove the front fender apron seal upper. (4WD, PRE RUNNER)



- (b) Using a clip remover, disengage the 6 clips and remove the front fender apron seal upper. (2WD)

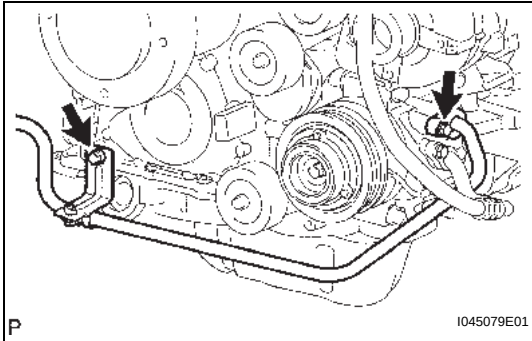


13. DISCONNECT SUCTION HOSE SUB-ASSEMBLY (for 2TR-FE)

- Remove the bolt and separate the suction hose sub-assembly.
- Remove the bolt and disconnect the suction hose sub-assembly.
- Remove the seal washer from the suction hose sub-assembly.

NOTICE:

Seal the opening of the disconnected parts using vinyl tape to prevent moisture and foreign matter from entering.

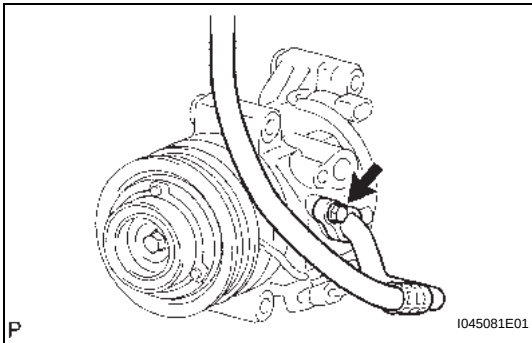


14. DISCONNECT SUCTION HOSE SUB-ASSEMBLY (for 1GR-FE)

- Remove the bolt and separate the suction hose sub-assembly.
- Remove the bolt and disconnect the suction hose sub-assembly.
- Remove the seal washer from the suction hose sub-assembly.

NOTICE:

Seal the opening of the disconnected parts using vinyl tape to prevent moisture and foreign matter from entering.

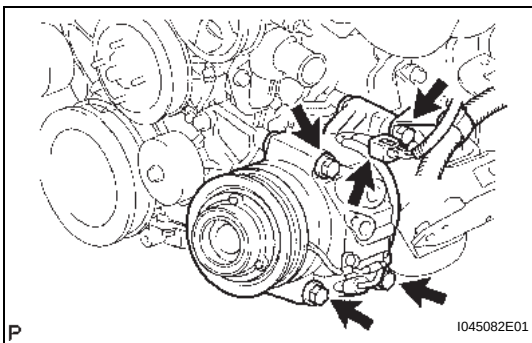


15. DISCONNECT DISCHARGE HOSE SUB-ASSEMBLY

- Remove the bolt and disconnect the cooler refrigerant discharge hose sub-assembly.
- Remove the seal washer from the cooler refrigerant discharge hose sub-assembly.

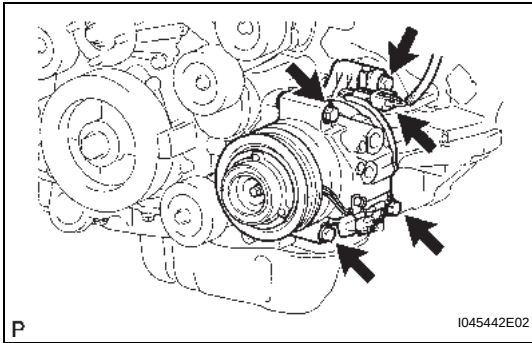
NOTICE:

Seal the opening of the disconnected parts using vinyl tape to prevent moisture and foreign matter from entering.



16. REMOVE COMPRESSOR AND MAGNETIC CLUTCH (for 2TR-FE)

- Disconnect the connector.
- Remove the 4 bolts and harness bracket, and remove the cooler compressor and magnetic clutch.



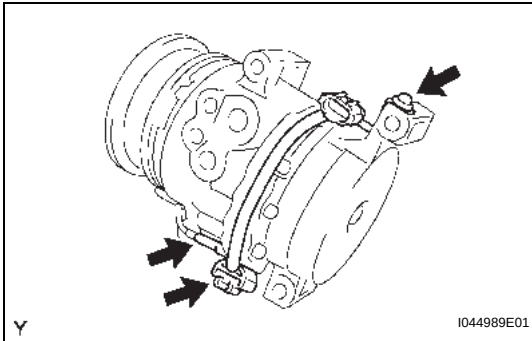
17. REMOVE COMPRESSOR AND MAGNETIC CLUTCH (for 1GR-FE)

- (a) Disconnect the connector.
- (b) Remove the 4 bolts and cooler compressor and magnetic clutch.

DISASSEMBLY

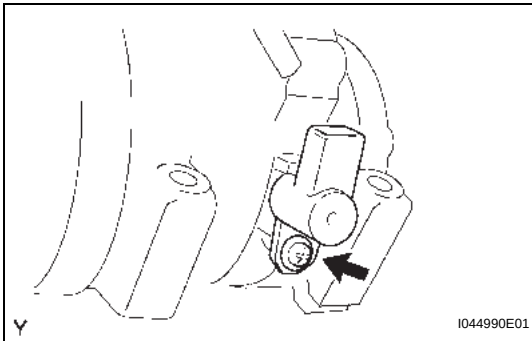
1. REMOVE COOLER BRACKET

- (a) Disconnect the 2 connectors.
- (b) Remove the screw and the cooler bracket.



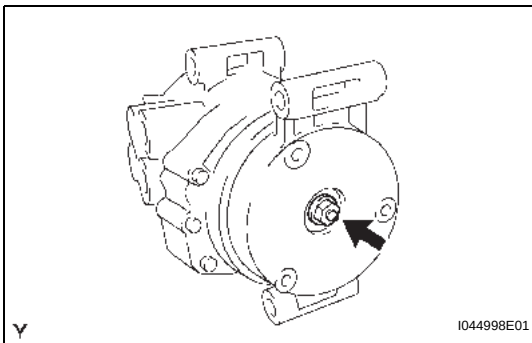
2. REMOVE COMPRESSOR PICK UP SENSOR

- (a) Remove the screw and the compressor pick up sensor.



3. REMOVE PRESSURE RELIEF VALVE

- (a) Remove the pressure relief valve and O-ring.

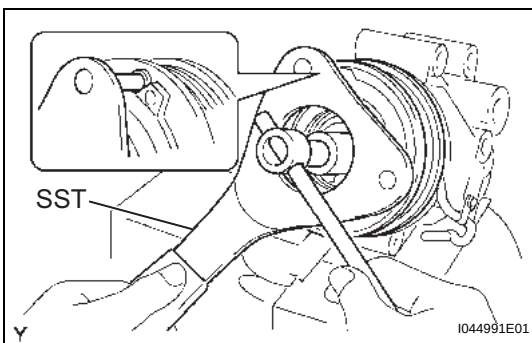


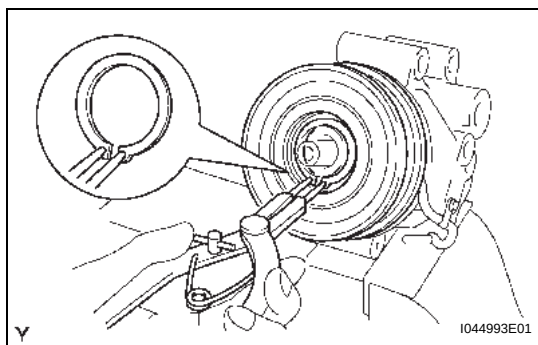
4. REMOVE MAGNET CLUTCH ASSEMBLY

- (a) Using SST, hold the magnet clutch hub.
SST 07112-76060
- (b) Remove the bolt, magnet clutch hub and compressor spacer.

HINT:

There is no set number of magnet clutch washers since they are used for adjusting.



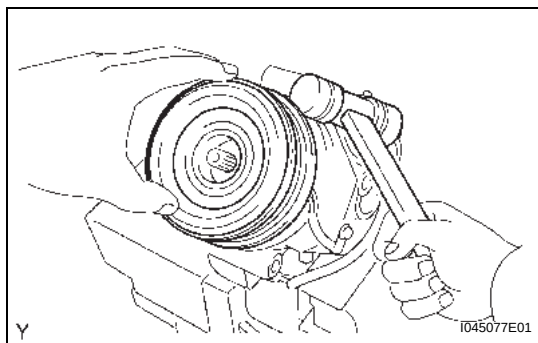


- (c) Using SST, remove the snap ring and magnet clutch rotor.

SST 95994-10020

NOTICE:

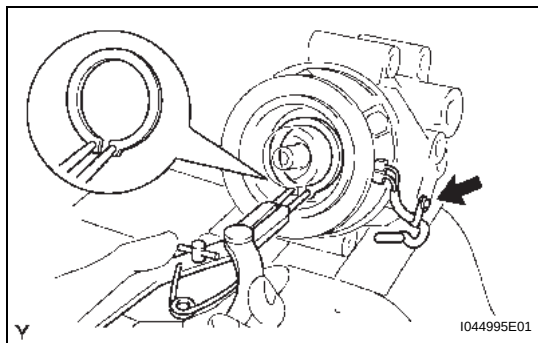
Take care not to damage the seal cover of the bearing when removing the snap ring.



- (d) When the magnet clutch rotor and snap ring are difficult to remove, use a plastic hammer to tap them off the shaft.

NOTICE:

Be careful not to damage the pulley when tapping the rotor.



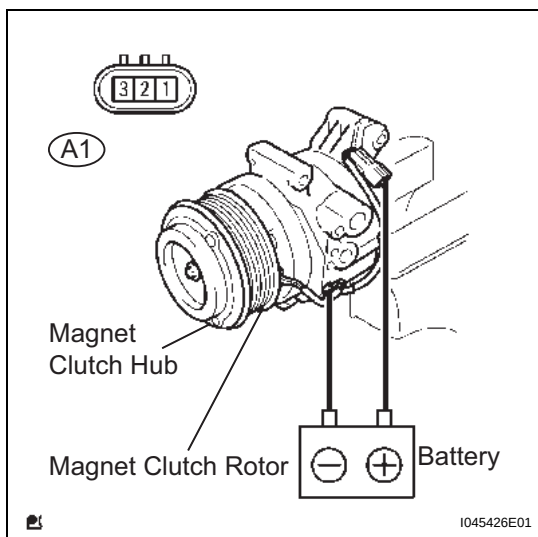
- (e) Remove the screw and separate the wire harness.
(f) Using SST, remove the snap ring and magnet clutch stator.

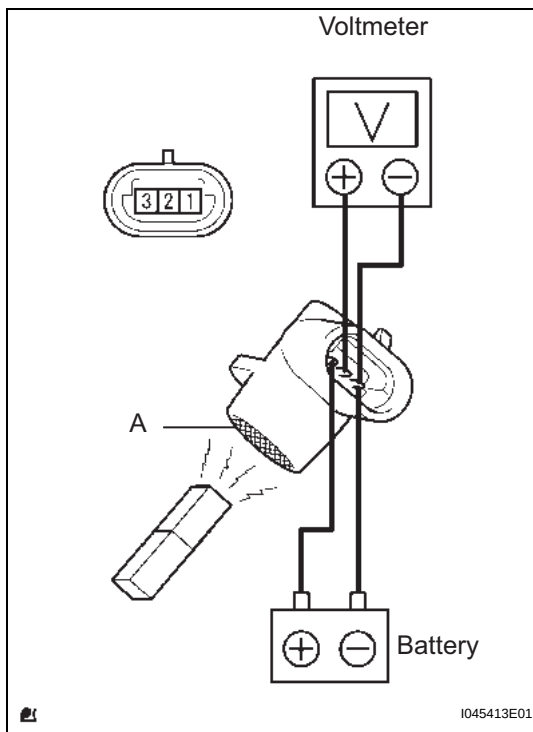
SST 95994-10020

INSPECTION

1. INSPECT MAGNET CLUTCH ASSEMBLY

- (a) Inspect the magnet clutch assembly.
(b) Confirm that the magnet clutch hub and magnet clutch rotor lock when the battery positive lead is connected to terminal 1 (MG+) of the magnet clutch, and the negative lead is connected to the earth wire. If the operation is not as specified, replace the magnet clutch assembly.





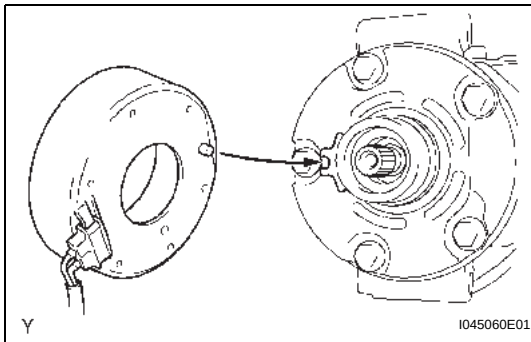
2. INSPECT COMPRESSOR PICK UP SENSOR

- (a) Check the compressor pick up sensor voltage.
 - (1) Connect the positive (+) lead from the battery to terminal 3 (SSR-) and the negative (-) lead to terminal 1 (MG+), and measure the voltage between terminals 1 (MG+) and 2 (SSR+).
Standard:
2.0 to 3.0 V
 - (2) When surface A of the compressor pick up sensor is close to the S-pole, the voltage between terminals 1 (MG+) and 2 (SSR+) increases. When it is close to the N-pole, the voltage between the terminals decreases. If the result is not as specified, replace the compressor pick up sensor.

REASSEMBLY

1. INSTALL MAGNET CLUTCH ASSEMBLY

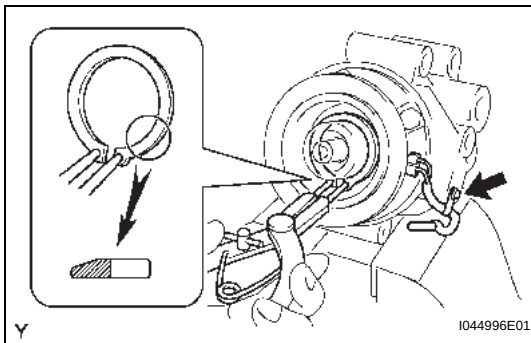
- (a) Install the magnet clutch stator with the parts shown in the illustration matched.



- (b) Using SST, install a new snap ring with the chamfered side facing up.

SST 95994-10020

- (c) Install the wire harness with the screw.



- (d) Using SST, install the magnet clutch rotor and a new snap ring with the chamfered side facing up.

SST 95994-10020

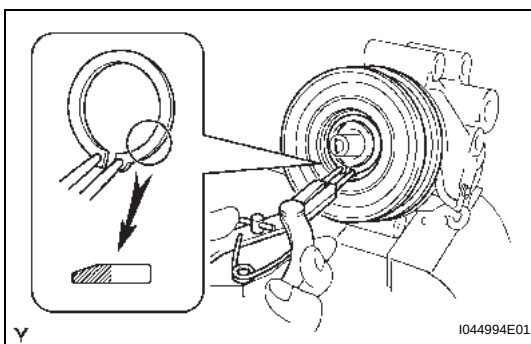
NOTICE:

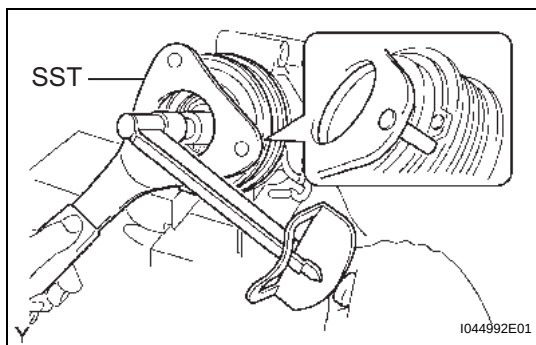
Take care not to damage the seal cover of the bearing when installing the snap ring.

- (e) Install the compressor spacer and magnet clutch hub.

NOTICE:

Do not change the combination of the compressor spacer used before disassembly.





- (f) Using SST, hold the magnet clutch hub and install the new bolt.

SST 07112-76060

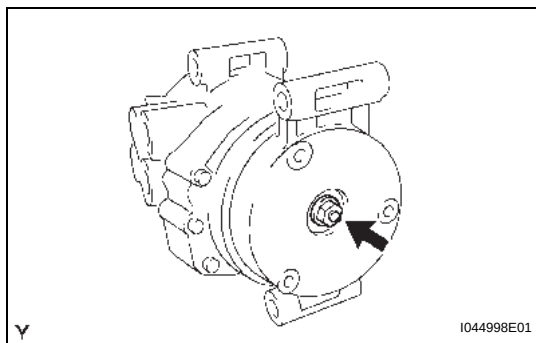
Torque: 13.5 N*m (138 kgf*cm, 10 ft.*lbf)

NOTICE:

Make sure that there is no foreign matter or oil on the compressor shaft, bolt, and clutch hub.

HINT:

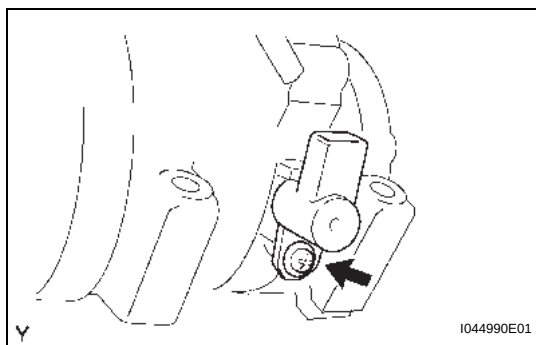
Use new bolt (88329-04050) for clutch installation.



2. INSTALL PRESSURE RELIEF VALVE

- (a) Install a new O-ring onto the pressure relief valve.
(b) Install the pressure relief valve.

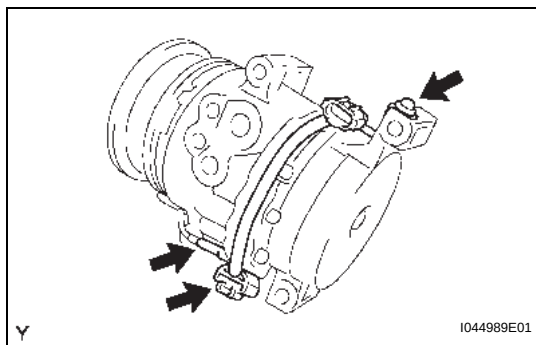
Torque: 8.0 N*m (82 kgf*cm, 71 in.*lbf)



3. INSTALL COMPRESSOR PICK UP SENSOR

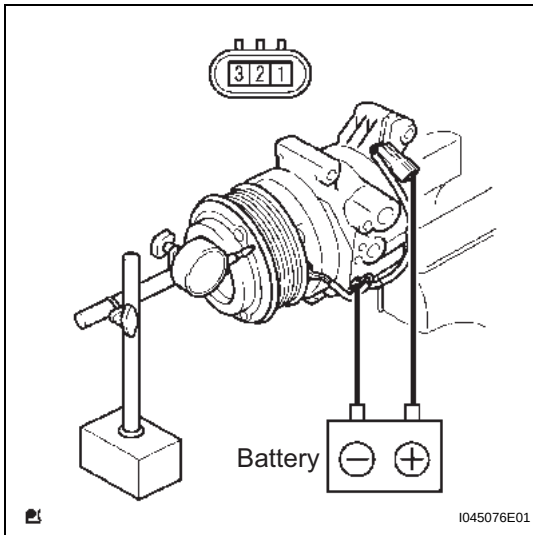
- (a) Install the compressor pick up sensor with the screw.

Torque: 4.0 N*m (41 kgf*cm, 35 in.*lbf)



4. INSTALL COOLER BRACKET

- (a) Install the cooler bracket with the screw.
(b) Connect the 2 connectors.

**5. INSPECT MAGNET CLUTCH CLEARANCE**

- (a) Clamp the compressor and magnetic clutch in a vise.
- (b) Set the dial indicator to the magnet clutch hub.
- (c) Connect the battery positive lead to terminal 1 (MG+) of the magnet clutch connector and the negative lead to the earth wire. Turn the magnet clutch on and off and measure the clearance.

Standard clearance:

0.30 to 0.60 mm (0.012 to 0.024 in.)

If the measured value is not within the standard clearance, remove the magnet clutch hub and adjust the clearance using compressor spacer to obtain the standard clearance.

Compressor spacer thickness:

0.2 mm (0.008 in.)

0.3 mm (0.012 in.)

0.5 mm (0.020 in.)

NOTICE:

Adjustment should be performed with 3 or less magnet clutch washers.

- (d) Remove the compressor and magnetic clutch from the vise.

INSTALLATION

1. ADJUST COMPRESSOR OIL

- (a) When replacing the compressor and magnetic clutch with new ones, after gradually discharging the refrigerant gas from the service valve, drain the following volume of oil from new compressor and magnetic clutch before installation.

Standard:

(Oil capacity inside a new compressor and magnetic clutch: 150 + 15 cc (5.1 + 0.51 fl.oz.)) -
(Remaining oil amount in the removed compressor and magnetic clutch) = (Oil amount to be removed when replacing the compressor)

NOTICE:

- When checking the compressor oil level, observe the precautions on the cooler removal/installation.
- If a new compressor and magnetic clutch are installed without removing some oil remaining in the pipes of the vehicle, the oil amount becomes too large. This prevents heat exchange in the refrigerant cycle and causes refrigerant failure.
- If the volume of oil remaining in the removed compressor and magnetic clutch is too small, check for oil leakage.
- Be sure to use RL-897 for compressor oil.

2. INSTALL COMPRESSOR AND MAGNETIC CLUTCH (for 2TR-FE)

- (a) Provisionally tighten the compressor and magnetic clutch with the 4 bolts and harness bracket.

NOTICE:

The harness bracket stopper should be in contact with compressor case.

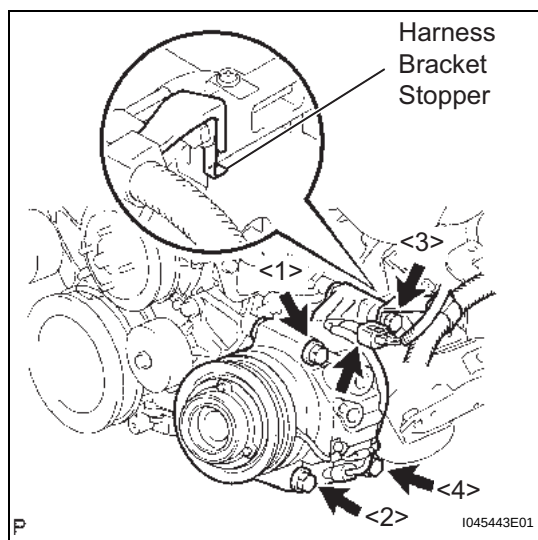
- (b) Tighten the compressor and magnetic clutch with the 4 bolts.

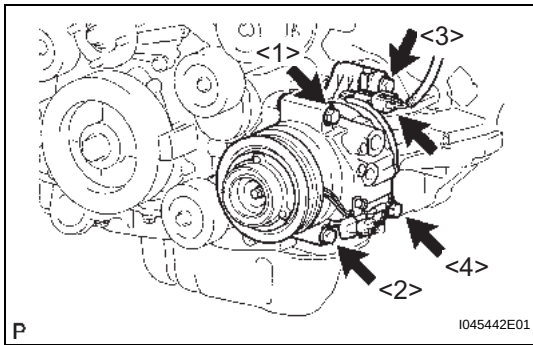
Torque: 21 N*m (214 kgf*cm, 16 ft.*lbf)

NOTICE:

Tighten the bolts in the sequence order shown in the illustration to install the compressor and magnetic clutch.

- (c) Connect the connector.





3. INSTALL COMPRESSOR AND MAGNETIC CLUTCH (for 1GR-FE)

- Provisionally tighten the compressor and magnetic clutch with the 4 bolts.
- Tighten the compressor and magnetic clutch with the 4 bolts.

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

NOTICE:

Tighten the bolts in the sequence order shown in the illustration to install the compressor and magnetic clutch.

- Connect the connector.

4. INSTALL DISCHARGE HOSE SUB-ASSEMBLY

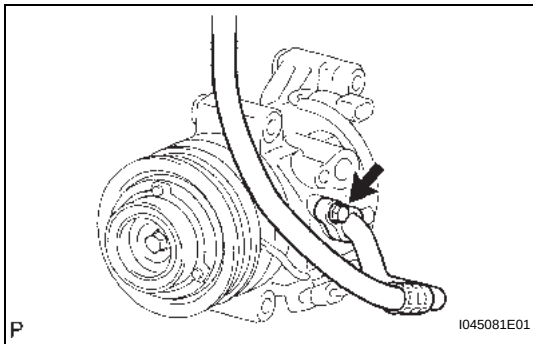
- Remove the attached vinyl tape from the hose.
- Apply sufficient compressor oil to a new seal washer and fitting surface of the compressor and magnetic clutch.

Compressor oil:

RL-897 or equivalent

- Install the seal washer onto the cooler refrigerant discharge hose sub-assembly.
- Install the cooler refrigerant discharge hose sub-assembly onto the compressor and magnetic clutch with the bolt.

Torque: 19 N*m (194 kgf*cm, 14 ft.*lbf)



5. INSTALL SUCTION HOSE SUB-ASSEMBLY (for 2TR-FE)

- Remove the attached vinyl tape from the hose.
- Apply sufficient compressor oil to a new seal washer and fitting surface of the compressor and magnetic clutch.

Compressor oil:

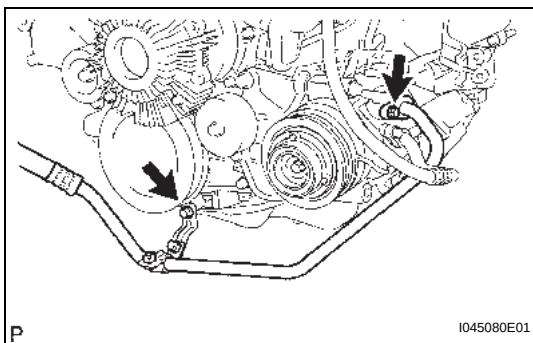
RL-897 or equivalent

- Install the seal washer onto the suction hose sub-assembly.
- Install the suction hose sub-assembly onto the compressor and magnetic clutch with the bolt.

Torque: 19 N*m (194 kgf*cm, 14 ft.*lbf)

- Install the suction hose sub-assembly with the bolt.

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



6. INSTALL SUCTION HOSE SUB-ASSEMBLY (for 1GR-FE)

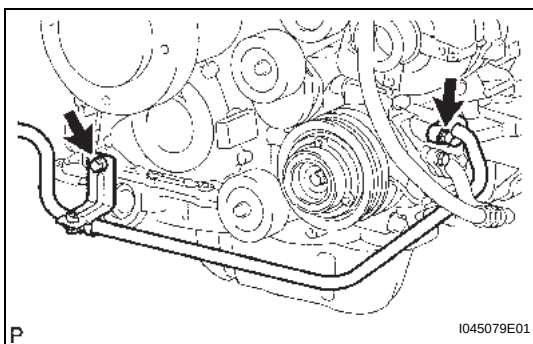
- Remove the attached vinyl tape from the hose.
- Apply sufficient compressor oil to a new seal washer and fitting surface of the compressor and magnetic clutch.

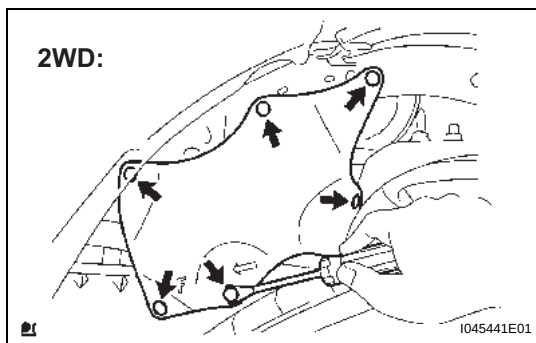
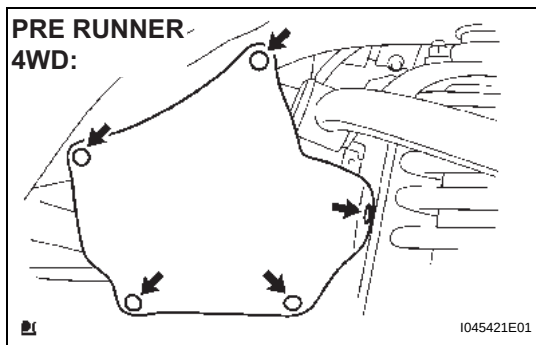
Compressor oil:

RL-897 or equivalent

- Install the seal washer onto the suction hose sub-assembly.
- Install the suction hose sub-assembly onto the compressor and magnetic clutch with the bolt.

Torque: 19 N*m (194 kgf*cm, 14 ft.*lbf)





- (e) Install the suction hose sub-assembly with the bolt.
Torque: 7.5 N*m (76 kgf*cm, 66 in.*lbf)

7. INSTALL FRONT FENDER APRON SEAL UPPER

- (a) Install the front fender apron seal upper with the 5 clips. (4WD, PRE RUNNER)

- (b) Install the front fender apron seal upper with the 6 clips. (2WD)

8. INSTALL GENERATOR ASSEMBLY (for 1GR-FE) (See page [CH-13](#))

9. INSTALL FAN AND GENERATOR V BELT (for 2TR-FE) (See page [EM-6](#))

10. INSPECT FAN AND GENERATOR V BELT (for 2TR-FE) (See page [EM-5](#))

11. INSTALL FAN AND GENERATOR V BELT (for 1GR-FE) (See page [EM-5](#))

12. INSTALL FAN SHROUD (for 1GR-FE) (See page [CO-20](#))

13. INSTALL RADIATOR SUPPORT TO FRAME SEAL LH (for 1GR-FE)

14. INSTALL V-BANK COVER (for 1GR-FE) (See page [EM-166](#))

15. INSTALL NO. 1 ENGINE UNDER COVER SUB-ASSEMBLY (for 2TR-FE) (See page [EM-35](#))

16. INSTALL NO. 1 ENGINE UNDER COVER SUB-ASSEMBLY (for 1GR-FE) (See page [EM-166](#))

17. INSTALL FRONT WHEEL LH
Torque: 113 N*m (1152 kgf*cm, 83 ft.*lbf)

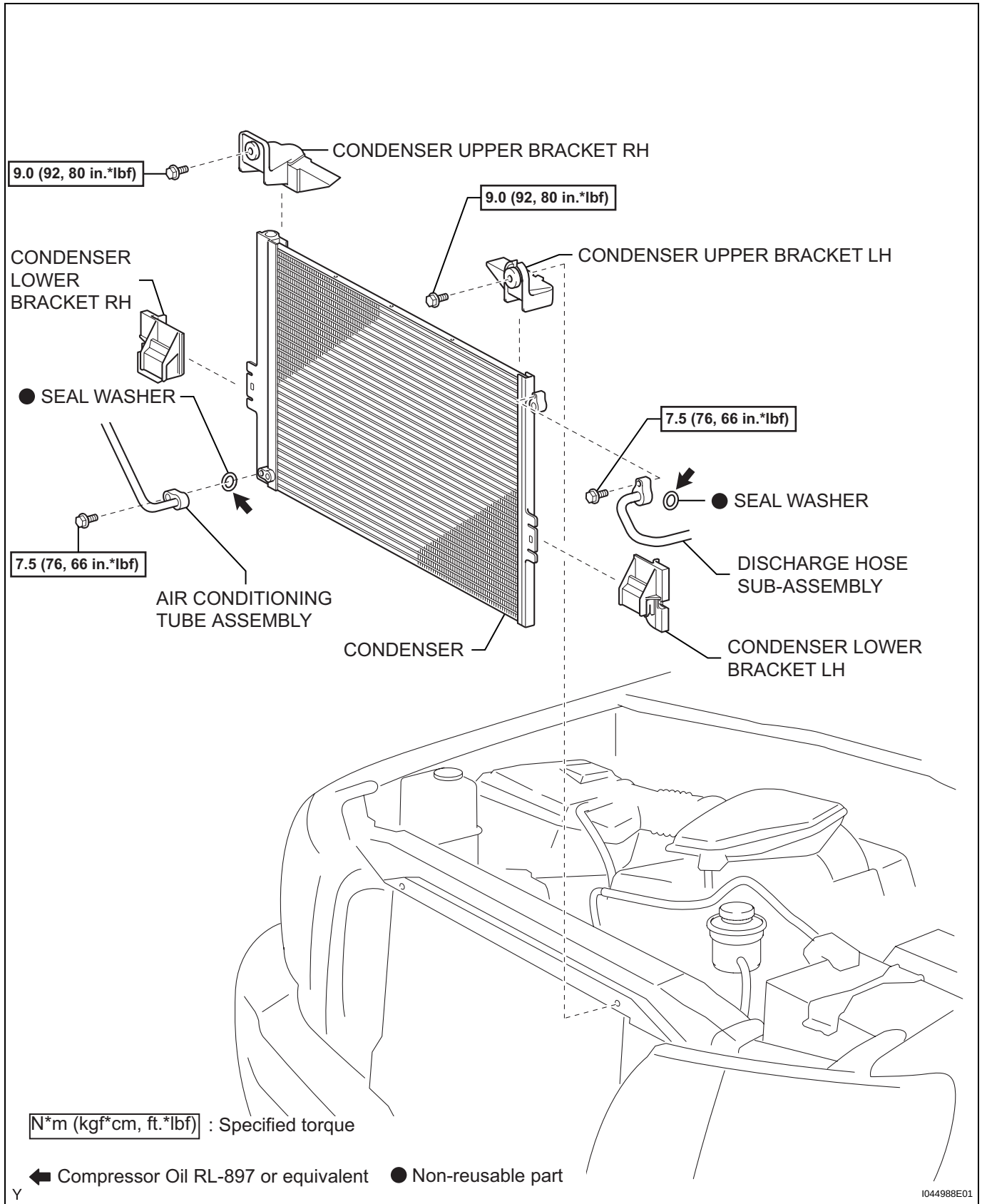
18. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL
Torque: 3.9 N*m (40 kgf*cm, 35 in.*lbf)

19. CHARGE REFRIGERANT (See page [AC-18](#))

20. WARM UP ENGINE (See page [AC-19](#))

21. CHECK FOR REFRIGERANT LEAKAGE (See page [AC-19](#))

CONDENSER COMPONENTS



ON-VEHICLE INSPECTION

1. INSPECT COOLER CONDENSER ASSEMBLY

- (a) If the fins of the cooler condenser assembly are dirty, clean them with water and dry them with compressed air.

NOTICE:

Do not damage the fins of the condenser assembly.

- (b) If the fins of the cooler condenser assembly are bent, straighten them using a screwdriver or pliers.

2. CHECK CONDENSER FOR REFRIGERANT LEAKAGE

- (a) Check the pipe joints for gas leakage, using a halogen leak detector.
- (b) Check the tightening torque of the joints if gas leakage is detected in any pipe joints.

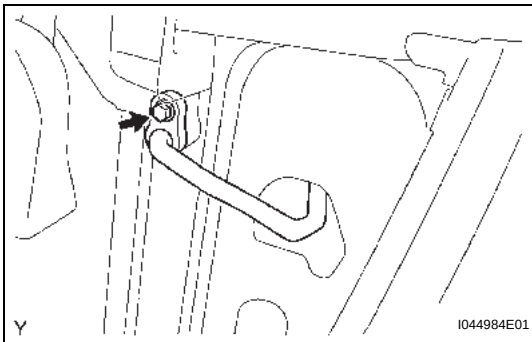
REMOVAL

1. DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM (See page [AC-18](#))
2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL
3. DRAIN ENGINE COOLANT (for 2TR-FE) (See page [CO-3](#))
4. DRAIN ENGINE COOLANT (for 1GR-FE) (See page [CO-3](#))
5. REMOVE RADIATOR GRILLE (See page [ET-4](#))
6. REMOVE RADIATOR SUPPORT TO FRAME SEAL LH (for 2TR-FE) (See page [CO-12](#))
7. REMOVE RADIATOR SUPPORT TO FRAME SEAL LH (for 1GR-FE) (See page [CO-15](#))
8. REMOVE FAN SHROUD (for 2TR-FE) (See page [CO-13](#))
9. REMOVE FAN SHROUD (for 1GR-FE) (See page [CO-15](#))
10. REMOVE RADIATOR ASSEMBLY (for 2TR-FE) (See page [CO-14](#))
11. REMOVE RADIATOR ASSEMBLY (for 1GR-FE) (See page [CO-15](#))
12. DISCONNECT DISCHARGE HOSE SUB-ASSEMBLY

- (a) Remove the bolt and disconnect the discharge hose sub-assembly from the cooler condenser assembly.
- (b) Remove the seal washer from the discharge hose sub-assembly.

NOTICE:

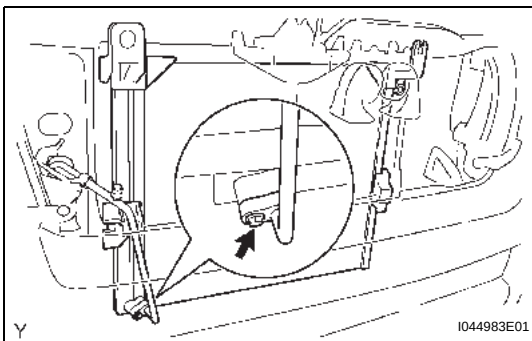
Seal the openings of the disconnected parts using vinyl tape to prevent moisture and foreign matter from entering.

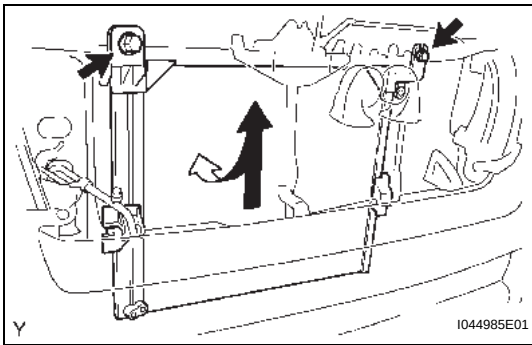


13. DISCONNECT AIR CONDITIONING TUBE ASSEMBLY
- (a) Remove the bolt and disconnect the air conditioning tube assembly from the cooler condenser assembly.
 - (b) Remove the seal washer from the air conditioning tube assembly.

NOTICE:

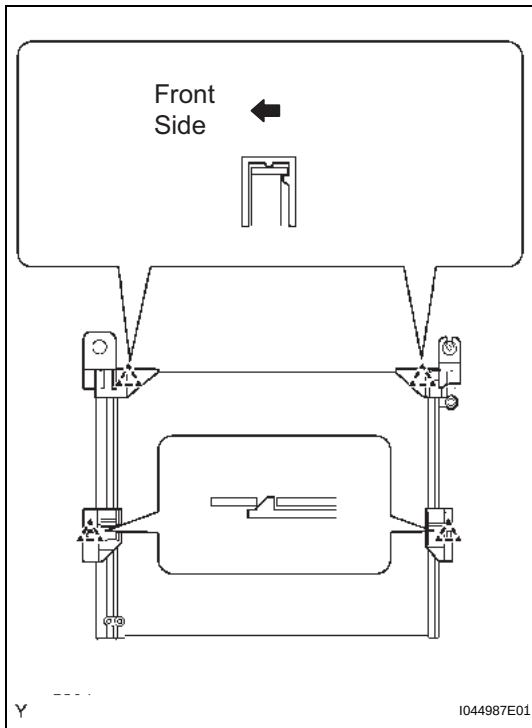
Seal the openings of the disconnected parts using vinyl tape to prevent moisture and foreign matter from entering.





14. REMOVE COOLER CONDENSER ASSEMBLY

- (a) Remove the 2 bolts.
- (b) Lift the condenser up, disengage the fitting of the condenser lower bracket and remove the condenser from the rear side of the vehicle.



- (c) Using a screwdriver, disengage the claw and remove the condenser upper bracket LH.
HINT:
Tape up the screwdriver tip before use.
- (d) Using a screwdriver, disengage the claw and remove the condenser upper bracket RH.
HINT:
Tape up the screwdriver tip before use.
- (e) Using a screwdriver, disengage the claw and remove the condenser lower bracket LH.
HINT:
Tape up the screwdriver tip before use.
- (f) Using a screwdriver, disengage the claw and remove the condenser lower bracket RH.
- (g) Remove the condenser.
HINT:
At the time of installation, please refer to the following instructions. If installing a new condenser, add compressor oil to the condenser.

Compressor oil:

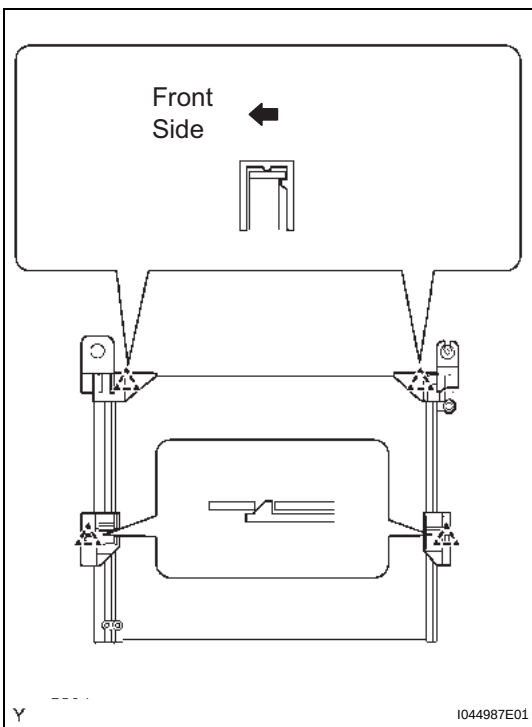
RL-897 or equivalent

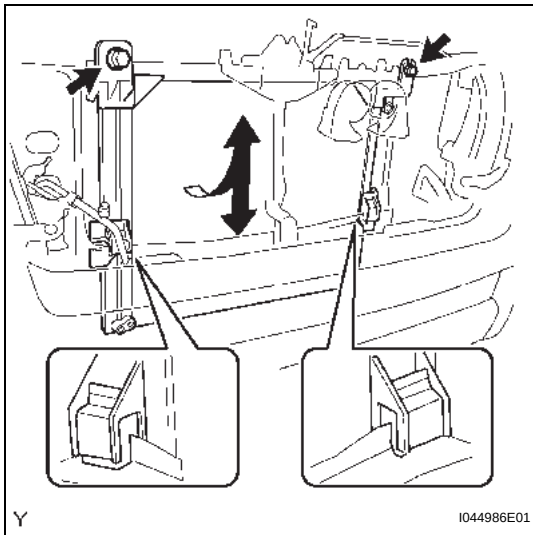
Add 40 cc (1.4 fl.oz.)

INSTALLATION

1. INSTALL COOLER CONDENSER ASSEMBLY

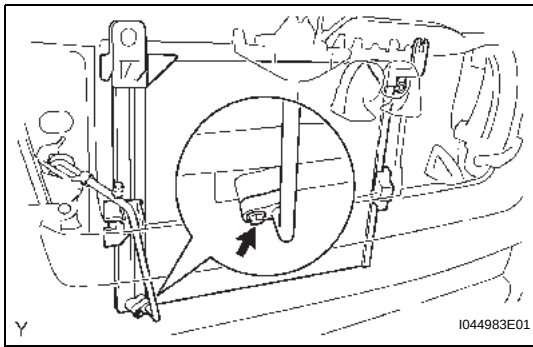
- (a) Engage the claw and install the condenser upper bracket LH.
- (b) Engage the claw and install the condenser upper bracket RH.
- (c) Engage the claw and install the condenser lower bracket LH.
- (d) Engage the claw and install the condenser lower bracket RH.





- (e) Lift the condenser up from the rear side of the vehicle, and install the condenser lower brackets onto the upper part of the radiator lower supports with the 2 bolts.

Torque: 9.0 N*m (92 kgf*cm, 80 in.*lbf)



2. INSTALL AIR CONDITIONING TUBE ASSEMBLY

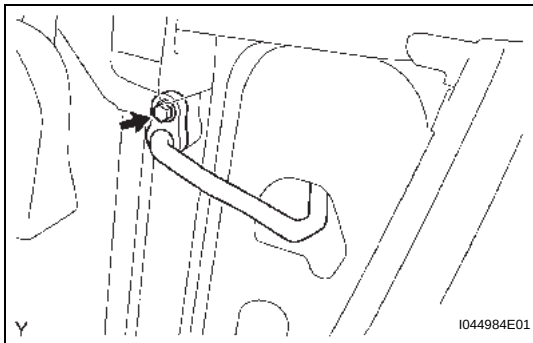
- (a) Remove the attached vinyl tape from the pipe and the connecting part of the cooler condenser assembly.
- (b) Apply sufficient compressor oil to a new seal washer and the fitting surface of the pipe joint.

Compressor oil:

RL-897 or equivalent

- (c) Install the seal washer onto the air conditioning tube assembly.
- (d) Install the air conditioning tube assembly onto the cooler condenser assembly with the bolt.

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



3. INSTALL DISCHARGE HOSE SUB-ASSEMBLY

- (a) Remove the attached vinyl tape from the hose and the connecting part of the cooler condenser assembly.
- (b) Apply sufficient compressor oil to a new seal washer and the fitting surface of the hose joint.

Compressor oil:

RL-897 or equivalent

- (c) Install the seal washer onto the discharge hose sub-assembly.
- (d) Install the discharge hose sub-assembly onto the cooler condenser assembly with the bolt.

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

4. INSTALL RADIATOR ASSEMBLY (for 2TR-FE) (See page [CO-17](#))

5. INSTALL RADIATOR ASSEMBLY (for 1GR-FE) (See page [CO-19](#))

6. INSTALL FAN SHROUD (for 2TR-FE) (See page [CO-18](#))

7. INSTALL FAN SHROUD (for 1GR-FE) (See page [CO-20](#))

8. INSTALL RADIATOR SUPPORT TO FRAME SEAL LH (for 2TR-FE) (See page [CO-19](#))
9. INSTALL RADIATOR SUPPORT TO FRAME SEAL LH (for 1GR-FE)
10. INSTALL RADIATOR GRILLE (See page [ET-11](#))
11. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL
Torque: 3.9 N*m (40 kgf*cm, 35 in.*lbf)
12. ADD ENGINE COOLANT (for 2TR-FE) (See page [CO-3](#))
13. ADD ENGINE COOLANT (for 1GR-FE) (See page [CO-3](#))
14. CHECK FOR ENGINE COOLANT LEAKAGE (for 2TR-FE) (See page [CO-2](#))
15. CHECK FOR ENGINE COOLANT LEAKAGE (for 1GR-FE) (See page [CO-4](#))
16. CHARGE REFRIGERANT (See page [AC-18](#))
17. WARM UP ENGINE (See page [AC-19](#))
18. CHECK FOR REFRIGERANT LEAKAGE (See page [AC-19](#))

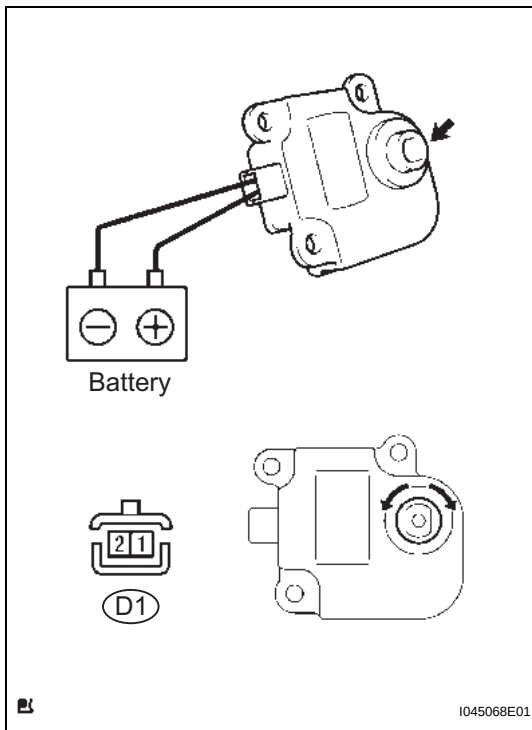
SERVO MOTOR

INSPECTION

1. INSPECT AIR INLET CONTROL SERVO MOTOR

(a) Inspect the servo motor operation.

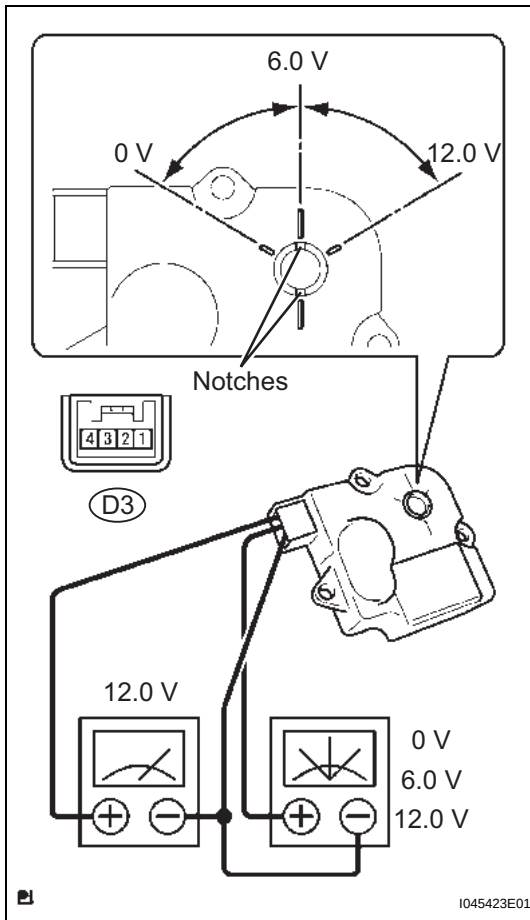
- (1) Connect the positive (+) lead from the battery to terminal 1 (FRS) and negative (-) lead to terminal 2 (REC), then check that the shaft rotates clockwise smoothly.
 - (2) Connect the positive (+) lead from the battery to terminal 2 (REC) and negative (-) lead to terminal 1 (FRS) then check that the shaft rotates counter clockwise smoothly.
- If the operations are not as specified, replace the air control servo motor.

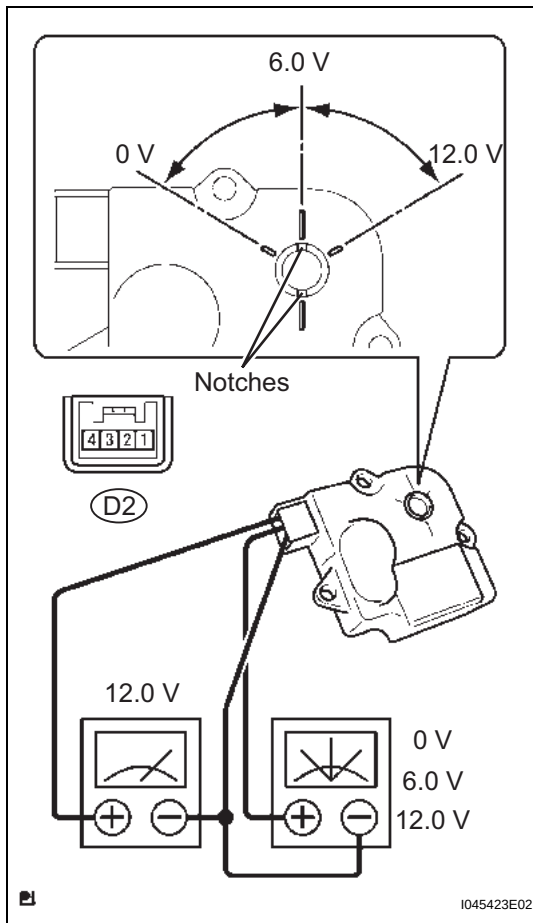


2. INSPECT MODE CONTROL SERVO MOTOR

(a) Inspect the servo motor operation.

- (1) When 12V is applied between terminals 4 (IGN) and 1 (GND), and 0V is applied between terminals 2 (SIG) and 1 (GND), check that the line connecting the 2 notches moves to the 0V position.
If the result is not as specified, replace the mode control servo motor.
- (2) When 12V is applied between terminals 4 (IGN) and 1 (GND), and 6V is applied between terminals 2 (SIG) and 1 (GND), check that the line connecting the 2 notches moves to the 6V position.
If the result is not as specified, replace the mode control servo motor.
- (3) When 12V is applied between terminals 4 (IGN) and 1 (GND), and between terminals 2 (SIG) and 1 (GND), check that the line connecting the 2 notches moves to the 12V position.
If the result is not as specified, replace the mode control servo motor.





3. INSPECT AIR MIX CONTROL SERVO MOTOR

(a) Inspect the servo motor operation.

- (1) When 12 V is applied between terminals 4 (IGN) and 1 (GND), and 0V is applied between terminals 2 (SIG) and 1 (GND), check that the line connecting the 2 notches moves to the 0V position.

If the result is not as specified, replace the air mix control servo motor.

- (2) When 12V is applied between terminals 4 (IGN) and 1 (GND), and 6V is applied between terminals 2 (SIG) and 1 (GND), check that the line connecting the 2 notches moves to the 6V position.

If the result is not as specified, replace the air mix control servo motor.

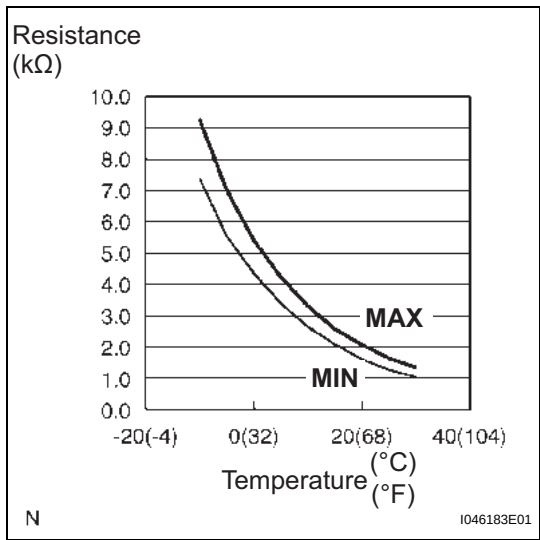
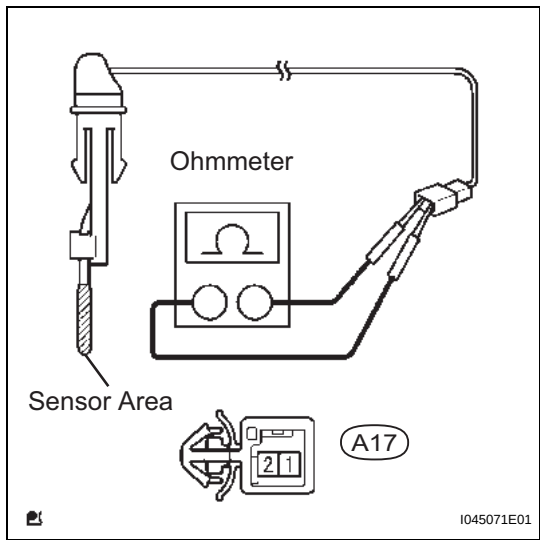
- (3) When 12V is applied between terminals 4 (IGN) and 1 (GND), and between terminals 2 (SIG) and 1 (GND), check that the line connecting the 2 notches moves to the 12V position.

If the result is not as specified, replace the air mix control servo motor.

EVAPORATOR TEMPERATURE SENSOR

INSPECTION

1. INSPECT COOLER THERMISTOR SENSOR
- (a) Check the resistance.



- (1) Measure the resistance and check the results in accordance with the values in the table below.

Standard

Tester Connection	Condition	Specified Condition
1 - 2	-10°C (14°F)	7.40 to 9.20 kΩ
1 - 2	-5°C (23°F)	5.65 to 7.00 kΩ
1 - 2	0°C (32°F)	4.35 to 5.40 kΩ
1 - 2	5°C (41°F)	3.40 to 4.20 kΩ
1 - 2	10°C (50°F)	2.68 to 3.30 kΩ
1 - 2	15°C (59°F)	2.10 to 2.60 kΩ
1 - 2	20°C (68°F)	1.66 to 2.10 kΩ
1 - 2	25°C (77°F)	1.32 to 1.66 kΩ
1 - 2	30°C (86°F)	1.05 to 1.35 kΩ

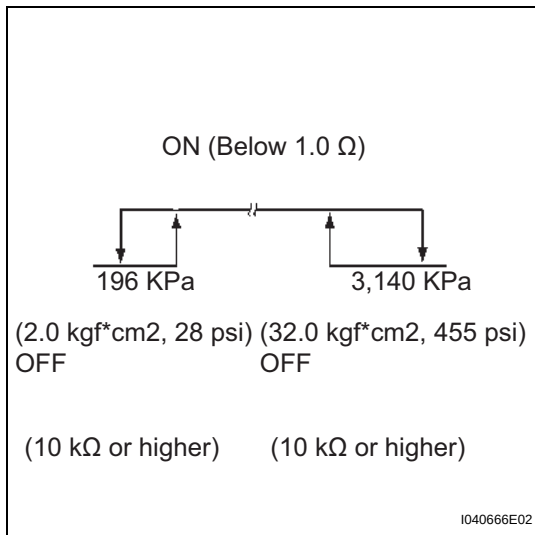
If the result is not as specified, replace the cooler thermistor sensor.

NOTICE:

- Even slightly touching the sensor may change the resistance value. Be sure to hold the connector of the sensor.
- When measuring, the sensor temperature must be almost the same as the ambient temperature.

HINT:

As the temperature increases, the resistance decreases (see the graph on the left).



PRESSURE SWITCH

ON-VEHICLE INSPECTION

1. INSPECT PRESSURE NO.1 SWITCH

HINT:

- The pressure switch is installed onto the air conditioning pipe on the high pressure side.
- The switch detects a drop in refrigerant pressure, such as from refrigerant leakage, and turns the magnet clutch off (*1) to prevent damage to the compressor.
- The switch detects abnormally high pressure in the air conditioning cycle and turns the magnet clutch off (*1) to prevent damage to parts in the air conditioning cycle.

(*1): The ECM turns the magnet clutch on or off upon receiving the signal from the pressure switch.

- As the pressure switch operates when there is a malfunction with the refrigerant pressure, its function cannot be inspected on-vehicle. Follow the procedures below to inspect it.
- Inspect refrigerant pressure in the air conditioning cycle.
 - Read the manifold gauge pressure when the conditions below are established. (*2)

Test conditions:

- Engine is running at 1,500 rpm
- Blower speed control knob is in HI position
- Temperature control knob is in COOL position
- Air conditioning switch is ON
- Recirculation
- Doors fully open

Standard:

Pressure on high pressure side:

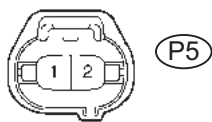
1.37 to 1.57 MPa (13.9 to 16.0 kgf*cm², 198 to 228 psi)

HINT:

- If the refrigerant pressure is not within the standard range, inspect and repair the air conditioning cycle.

AC-14

- Proceed to step (*2) if the refrigerant pressure is within the specified range.
- If the refrigerant pressure is below 196 KPa (2.0 kgf*cm², 28 psi), the refrigerant amount in the air conditioning cycle may have decreased significantly for reasons such as a gas leakage.

**Pressure Switch Connector
Wire Harness View:**

C

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- (c) Check the air conditioning operation.
- (1) Disconnect the pressure switch connector.
 - (2) Connect terminals 1 and 2 of the pressure switch connector on the vehicle wire harness side using a service wire.
 - (3) Start the engine.
 - (4) Turn the air conditioning switch on and check that the magnet clutch is turned on.
 - (5) Check that the magnet clutch is turned off when disconnecting terminals 1 and 2 (that are connected in the prior step).

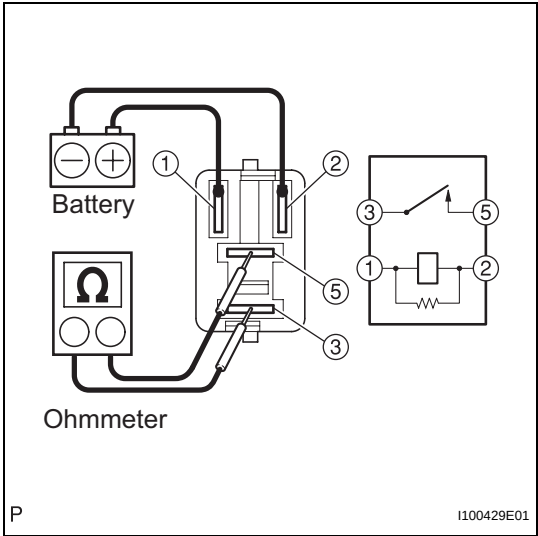
Standard:

Terminals 1 and 2 connected: Magnet clutch is ON

Terminals 1 and 2 disconnected: Magnet clutch is OFF

Replace the pressure switch if the magnet clutch operates normally.

Inspect and repair the wire harness between the pressure switch and the ECM.



MAGNETIC CLUTCH RELAY

INSPECTION

1. INSPECT MAGNET-CLUTCH RELAY
- (a) Check the resistance.
- (1) Using an ohmmeter, measure the resistance between the terminals.

Standard

Tester Connection	Specified Condition
3 - 5	10 kΩ or higher
3 - 5	Below 1 Ω (Apply battery voltage to terminals 1 and 2)

If the result is not as specified, replace the relay.

HEATER RELAY

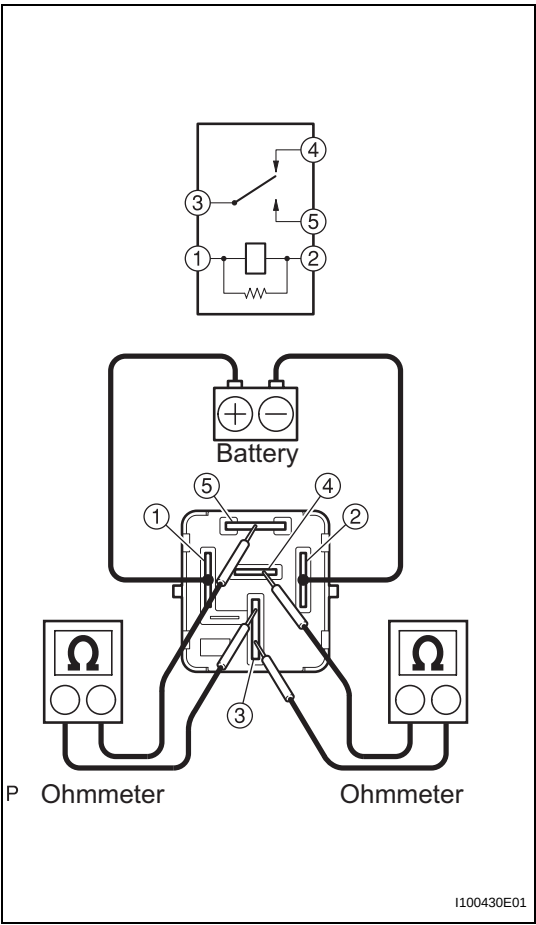
INSPECTION

1. INSPECT HEATER RELAY
- (a) Check the resistance.
- (1) Using an ohmmeter, measure the resistance between each terminal.

Standard

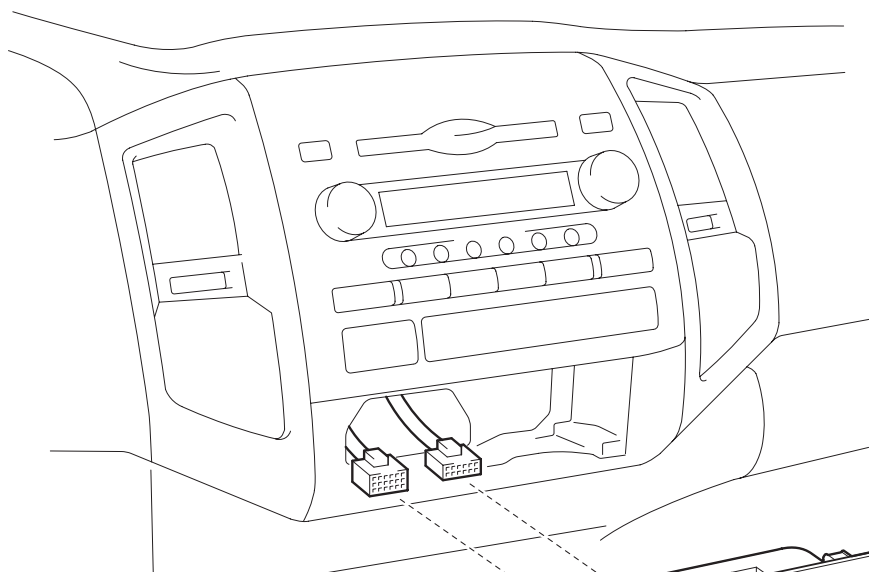
Tester Connection	Specified Condition
3 - 4	Below 1 Ω
3 - 4	10 kΩ or higher (Apply battery voltage to terminals 1 and 2)
3 - 5	10 kΩ or higher
3 - 5	Below 1 Ω (Apply battery voltage to terminals 1 and 2)

If the result is not as specified, replace the relay.

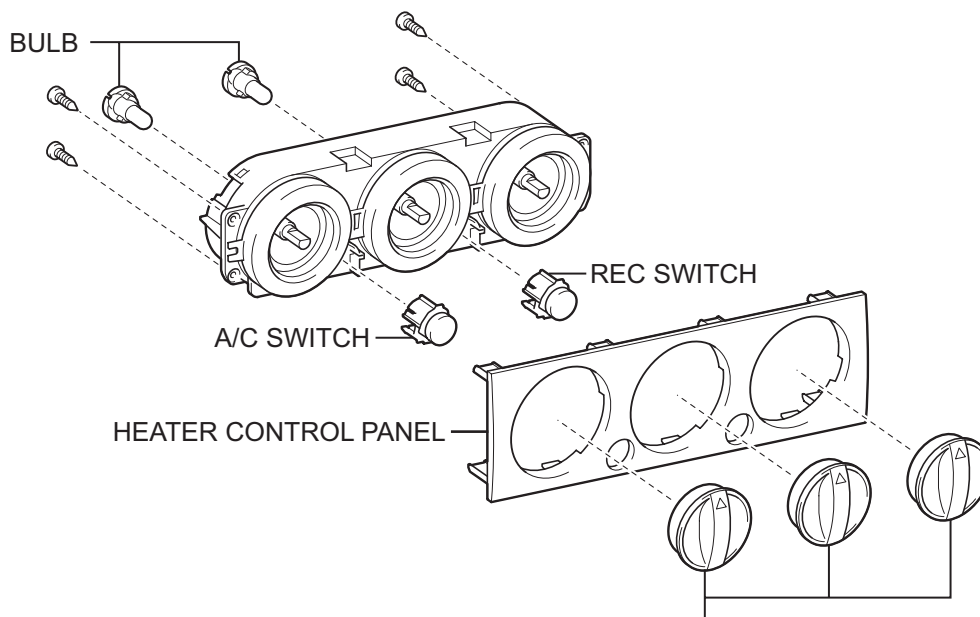


AIR CONDITIONING CONTROL ASSEMBLY

COMPONENTS



AIR CONDITIONING CONTROL ASSEMBLY

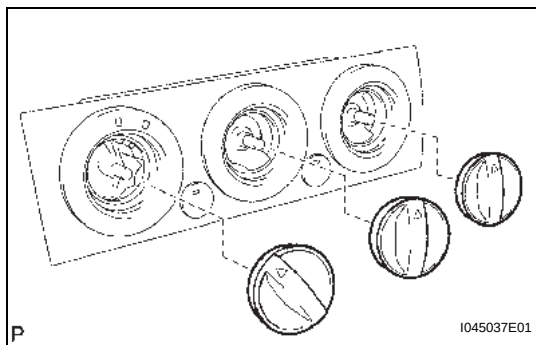
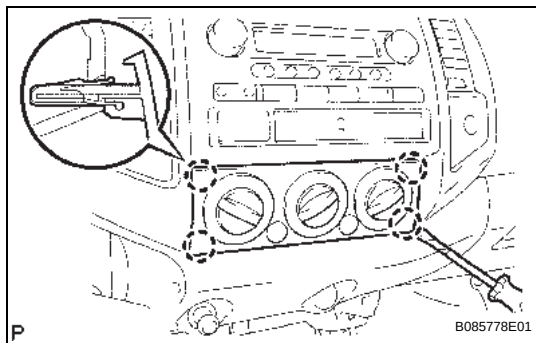


CONTROL KNOB SUB-ASSEMBLY

AC

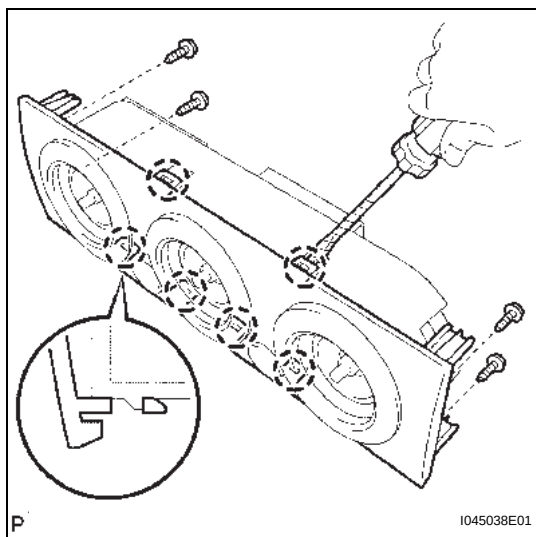
REMOVAL

1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
2. **REMOVE AIR CONDITIONING CONTROL ASSEMBLY**
 - (a) Using a screwdriver, disengage the 4 clips and remove the air conditioner control assembly.
HINT:
Tape up the screwdriver tip before use.
 - (b) Disconnect the 2 connectors.

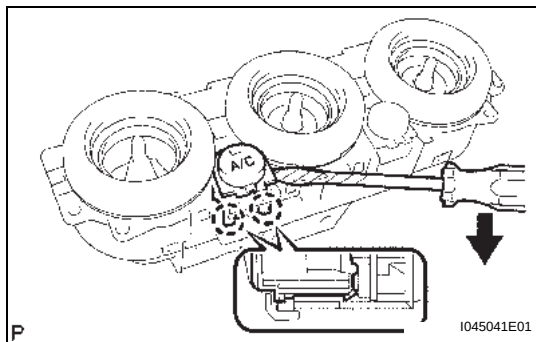


DISASSEMBLY

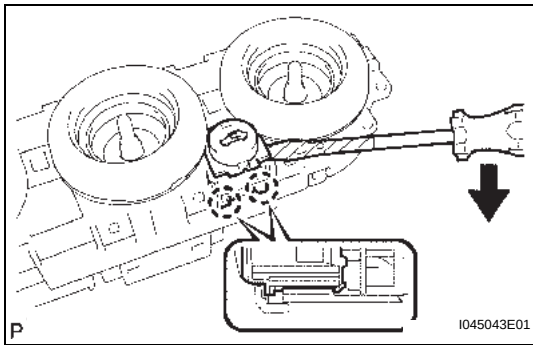
1. **REMOVE CONTROL KNOB SUB-ASSEMBLY**
 - (a) Remove the 3 control knob sub-assemblies.



2. **REMOVE HEATER CONTROL PANEL**
 - (a) Remove the 4 screws.
 - (b) Using a screwdriver, disengage the 6 claws and remove the heater control panel.
HINT:
Tape up the screwdriver tip before use.



3. **REMOVE A/C SWITCH**
 - (a) Using a screwdriver, pry out the A/C switch.
HINT:
Tape up the screwdriver tip before use.

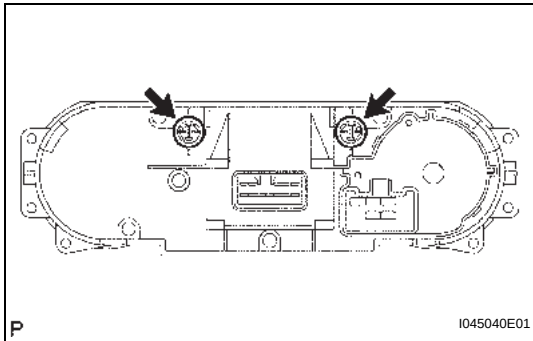


4. REMOVE REC SWITCH

- (a) Using a screwdriver, pry out the REC switch.

HINT:

Tape up the screwdriver tip before use.



5. REMOVE BULB

- (a) Using a screwdriver, turn the 2 bulbs counterclockwise and pull them out.

INSPECTION

1. INSPECT AIR CONDITIONING CONTROL ASSEMBLY

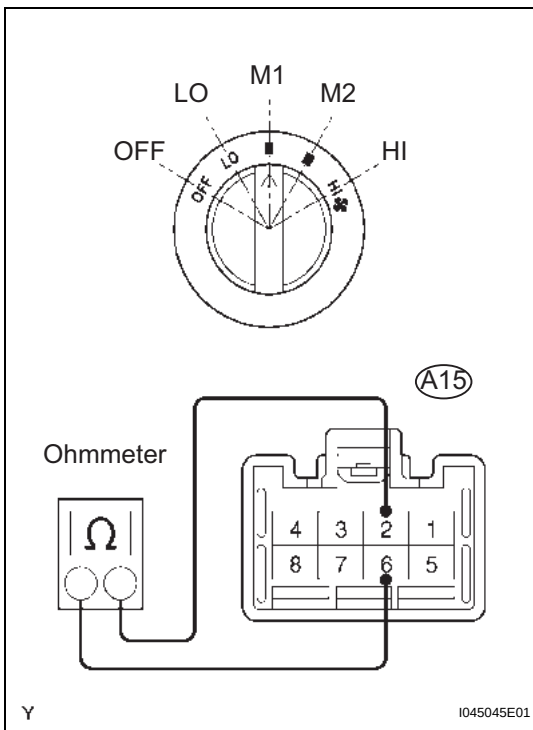
- (a) Check the blower switch resistance.

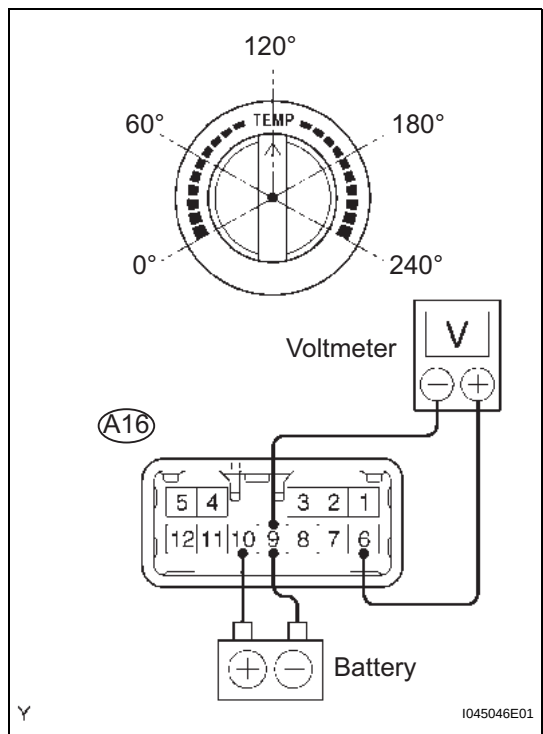
- (1) Using an ohmmeter, measure the resistance and check the results in accordance with the values in the table below.

Standard

Tester connection	Blower Switch Position	Specified Condition
2 - 3 - 4 - 6 - 7	OFF	10 K Ω or higher
2 - 6	LO	Below 1 Ω
2 - 6 - 7	LO - M1	Below 1 Ω
2 - 6 - 7	M1	Below 1 Ω
2 - 4 - 6 - 7	M1 - M2	Below 1 Ω
2 - 4 - 6	M2	Below 1 Ω
2 - 3 - 4 - 6	M2 - HI	Below 1 Ω
2 - 3 - 6	HI	Below 1 Ω

If the result is not as specified, replace the air conditioning control assembly.



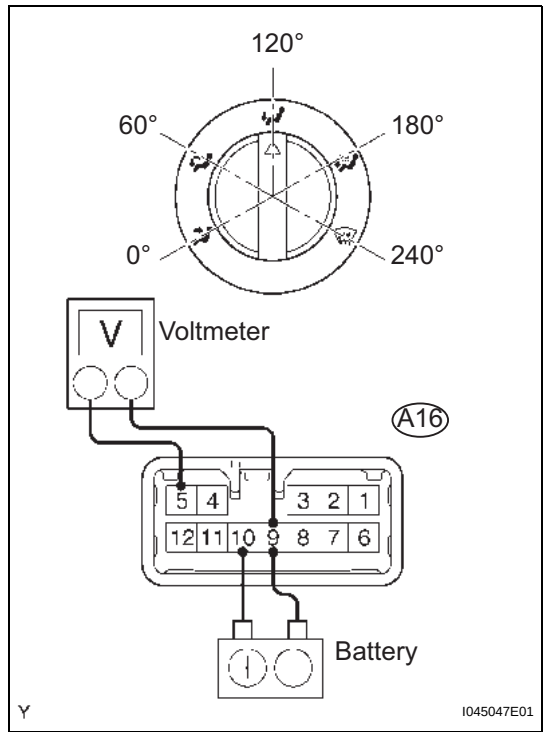


- (b) Check the temperature selector switch voltage.
- (1) Apply battery voltage (13.5V) across terminals 10 (IG) and 9 (GND).
 - (2) Connect the positive (+) tester probe of a voltmeter to terminal 6 (AMSW) and the negative (-) tester probe to terminal 9 (GND), then check the voltage.

Standard

Angle (Position)	Specified Condition
0° (MAX COOL)	13.0 to 13.5 V
60° (COOL)	9.7 to 10.6 V
120°	6.3 to 7.2 V
180° (HOT)	2.9 to 3.8 V
240° (MAX HOT)	0 to 0.5 V

If the result is not as specified, replace the air conditioning control assembly.

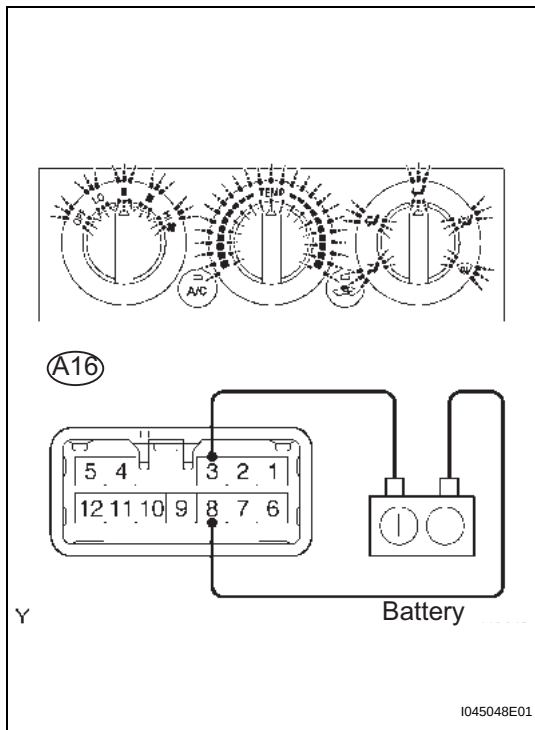


- (c) Check the mode selector switch voltage.
- (1) Apply battery voltage (13.5V) across terminals 10 (IG) and 9 (GND).
 - (2) Connect the positive (+) tester probe of a voltmeter to terminal 5 (MSET) and the negative (-) tester probe to terminal 9 (GND), then check the voltage.

Standard

Angle (Position)	Specified Condition
0° (FACE)	13.3 to 13.5 V
60° (B/L)	10.1 to 11.0 V
120° (FOOT)	6.3 to 7.2 V
180° (FOOT/DEF)	2.7 to 3.4 V
240° (DEF)	0 to 0.2 V

If the result is not as specified, replace the air conditioning control assembly.



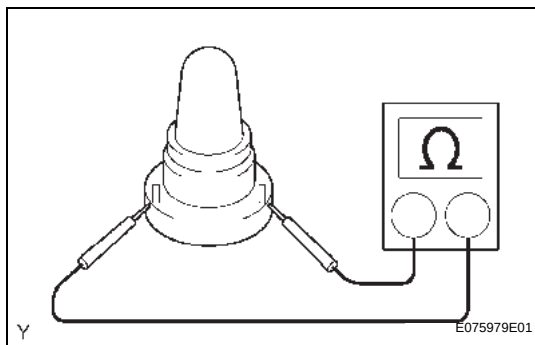
(d) Inspect the illumination operation.

- (1) Connect the positive (+) lead from the battery to terminal 3 (ILL+) and negative (-) lead to terminal 8 (ILL-), then check that the illuminations light up.

Standard:

Illuminations light up

If the result is not as specified, check the faulty bulb.



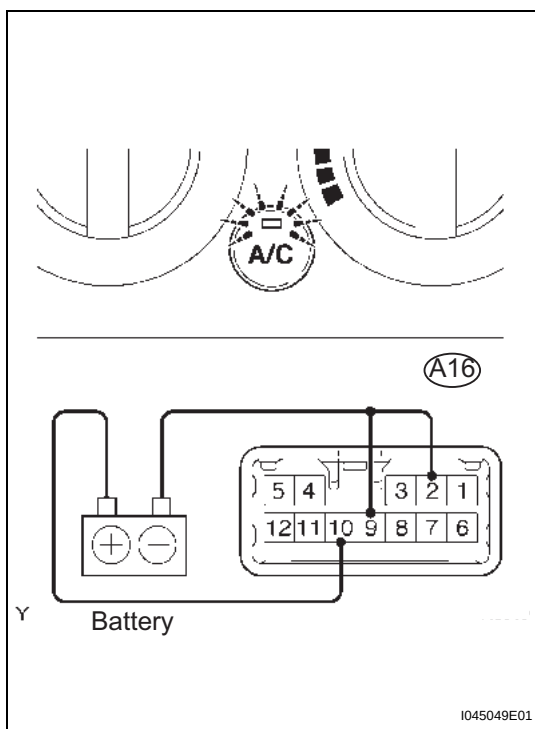
(e) Inspect the bulb.

- (1) Inspect continuity of the bulb by connecting the tester as shown in the illustration.

Standard:

7 to 11 Ω at 20°C (68°F)

If continuity exists, replace the heater control.
If no continuity exists, replace the bulb.



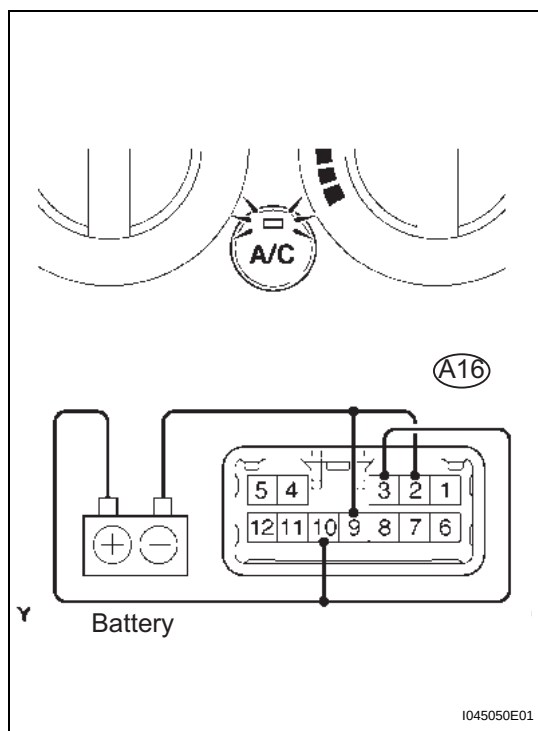
(f) Inspect A/C indicator operation.

- (1) Connect the positive (+) lead from the battery to terminal 10 (IG) and negative (-) lead to terminal 2 (ACID) and 9 (GND).
- (2) Push the A/C button in and then check that the indicator lights up.

Standard:

Indicator lights up

If the result is not as specified, replace the air conditioning control assembly.

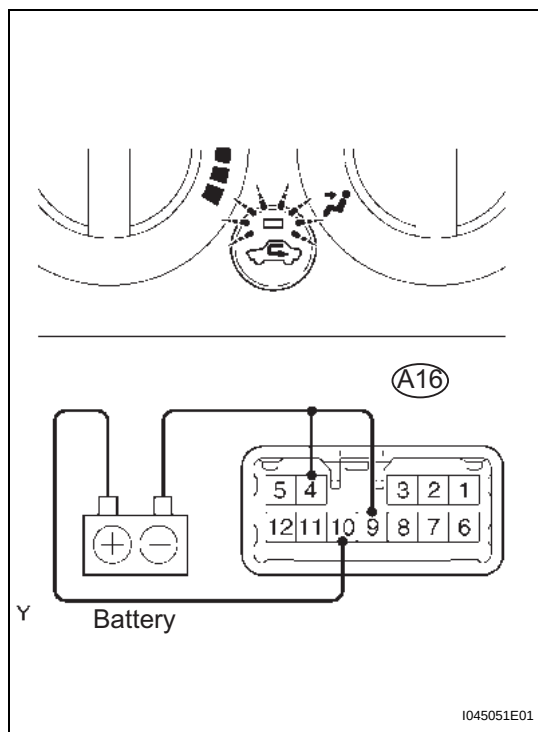


- (3) Under the above condition, connect the positive (+) lead from the battery to terminal 3 (ILL+) and then check that the indicator dims.

Standard:

Indicator dims

If the result is not as specified, replace the air conditioning control assembly.



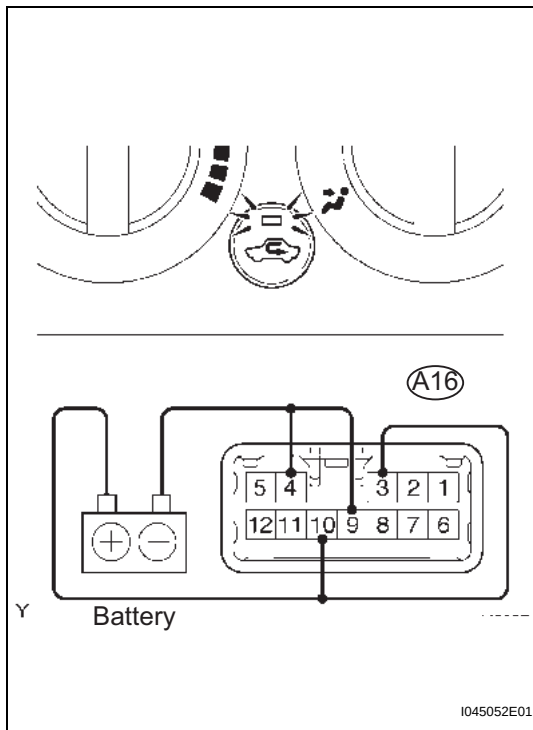
- (g) Inspect the REC indicator operation.

- (1) Connect the positive (+) lead from the battery to terminal 10 (IG) and negative (-) lead to terminal 4 (REC) and 9 (GND).
- (2) Push the REC button in and then check that the indicator lights up.

Standard:

Indicator lights up

If the result is not as specified, replace the air conditioning control assembly.



- (3) Under the above condition, connect the positive (+) lead from the battery to terminal 3 (ILL+) and then check that the indicator dims.

Standard:

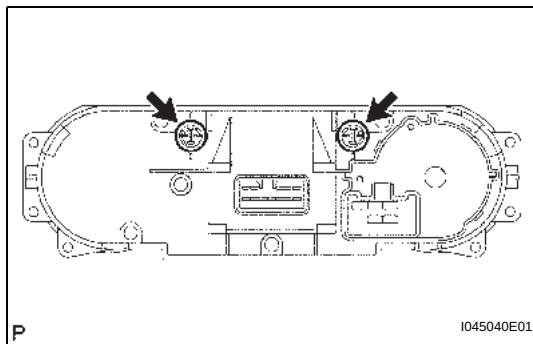
Indicator dims

If the result is not as specified, replace the air conditioning control assembly.

REASSEMBLY

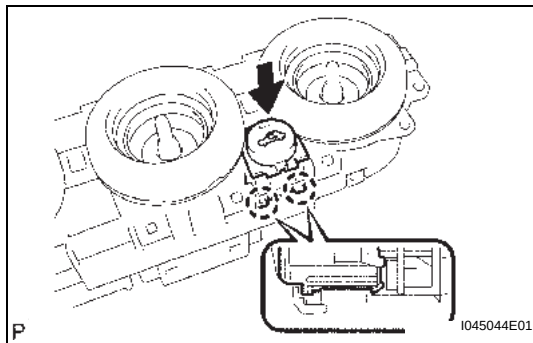
1. INSTALL BULB

- (a) Using a screwdriver, turn the 2 bulbs clockwise to install them.



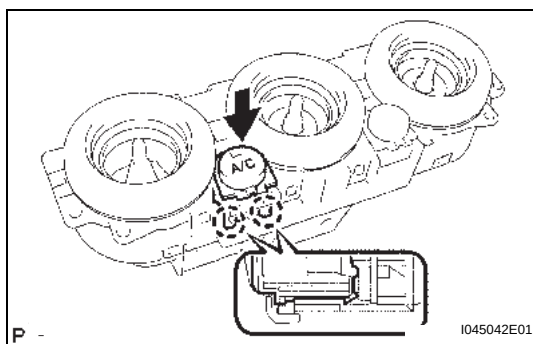
2. INSTALL REC SWITCH

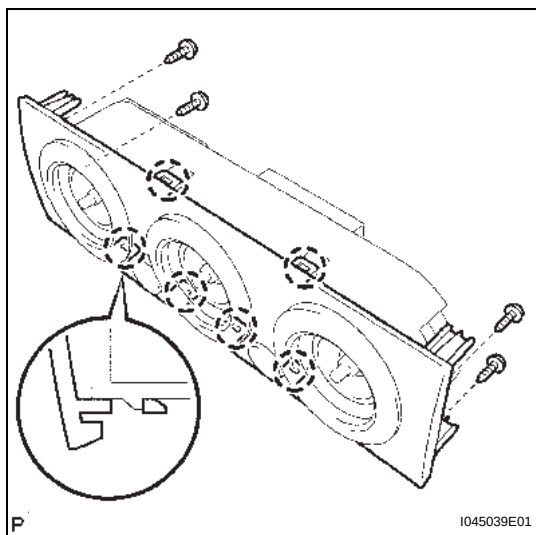
- (a) Engage the 2 claws and install the REC switch.



3. INSTALL A/C SWITCH

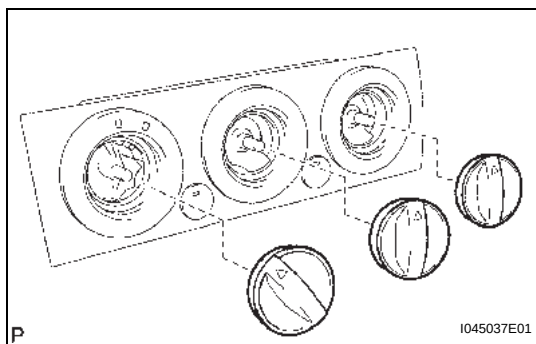
- (a) Engage the 2 claws and install the A/C switch.





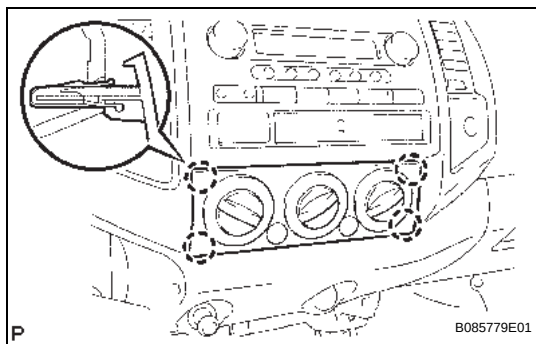
4. INSTALL HEATER CONTROL PANEL

- (a) Engage the 6 claws and install the heater control panel.
- (b) Install the 4 screws.



5. INSTALL CONTROL KNOB SUB-ASSEMBLY

- (a) Install the 3 control knob sub-assemblies.



INSTALLATION

1. INSTALL AIR CONDITIONING CONTROL ASSEMBLY

- (a) Connect the 2 connectors.
- (b) Engage the 4 clips and install the air conditioning control assembly.

2. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

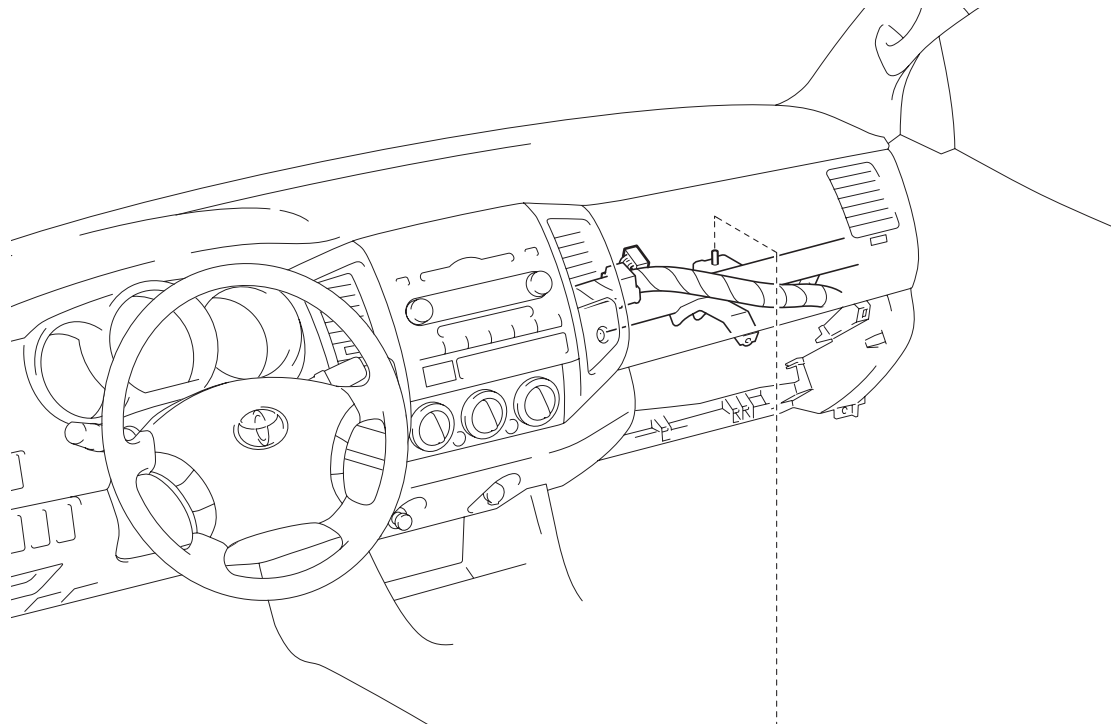
Torque: 3.9 N*m (40 kgf*cm, 35 in.*lbf)

NOTICE:

AC-1

AIR CONDITIONING AMPLIFIER

COMPONENTS

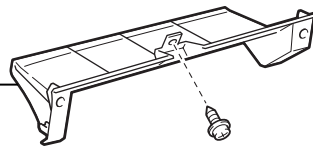


7.0 (71, 62 in.*lbf)

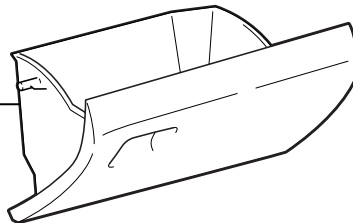
AIR CONDITIONER AMPLIFIER ASSEMBLY



INSTRUMENT PANEL FINISH PANEL
SUB-ASSEMBLY LOWER RH



GLOVE COMPARTMENT DOOR ASSEMBLY



GLOVE COMPARTMENT DOOR STOPPER



$\text{N}\cdot\text{m}$ ($\text{kgf}\cdot\text{cm}$, $\text{ft}\cdot\text{lbf}$) : Specified torque

AC

REMOVAL

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

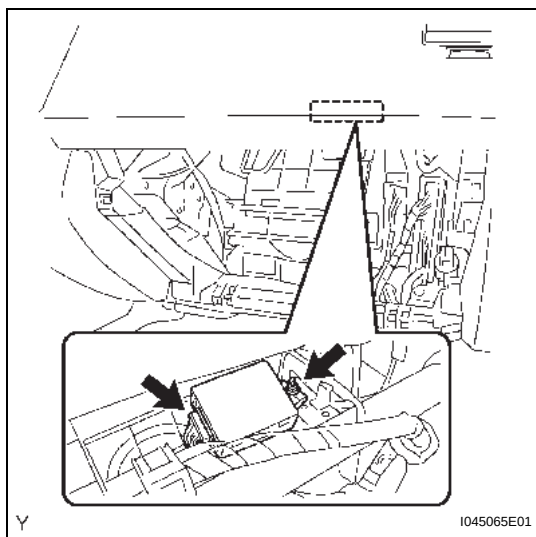
Wait at least for 90 seconds after disconnecting the cable to prevent the airbag from working.

2. REMOVE GLOVE COMPARTMENT DOOR ASSEMBLY (See page [IP-13](#))

3. REMOVE INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY LOWER RH (See page [IP-14](#))

4. REMOVE AIR CONDITIONER AMPLIFIER ASSEMBLY

- Disconnect the connector.
- Remove the nut and the air conditioner amplifier assembly.



INSTALLATION

1. INSTALL AIR CONDITIONER AMPLIFIER ASSEMBLY

- Install the air conditioner amplifier assembly with the nut.

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

- Connect the connector.

2. INSTALL INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY LOWER RH (See page [IP-20](#))

3. INSTALL GLOVE COMPARTMENT DOOR ASSEMBLY (See page [IP-20](#))

4. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Torque: 3.9 N*m (40 kgf*cm, 35 in.*lbf)

NOTICE:

(See page [AC-1](#))

