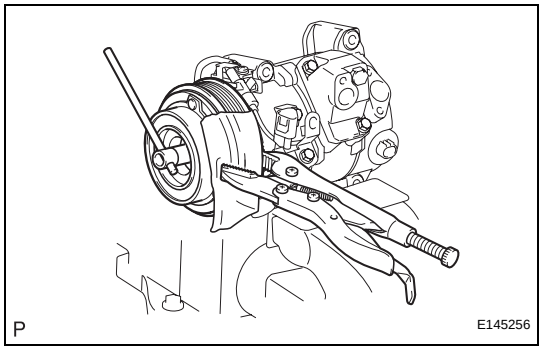
DISASSEMBLY

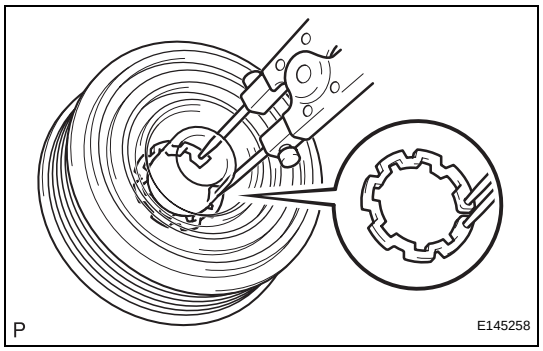
1. REMOVE MAGNETIC CLUTCH ASSEMBLY

(a) Place the compressor and magnetic clutch in a vise.



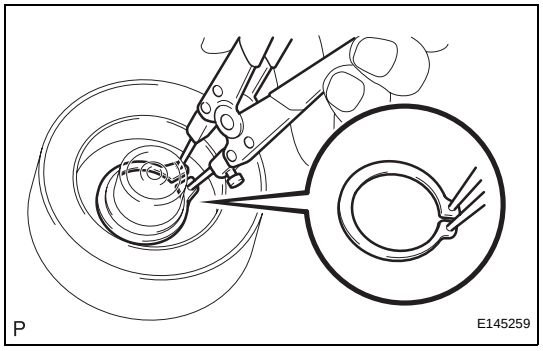
(b) Using locking pliers, hold the magnetic clutch hub.

(c) Remove the bolt, magnetic clutch hub, and magnetic clutch washers.
HINT:
There is no set number of magnetic clutch washers because they are used for adjustment.



(d) Using a snap ring expander, remove the snap ring and magnetic clutch rotor.
NOTICE:
Take care not to damage the seal cover of the bearing when removing the snap ring.

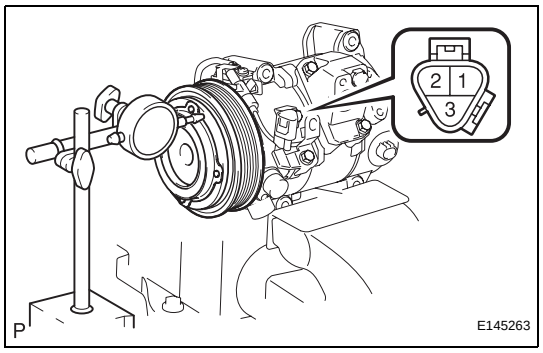
(e) Remove the screw and disconnect the connector.



(f) Using a snap ring expander, remove the snap ring and magnetic clutch stator.

INSPECTION

1. INSPECT MAGNETIC CLUTCH CLEARANCE



(a) Set the dial indicator to the magnetic clutch hub.

(b) Connect the battery positive lead to the terminal 1 of the magnet clutch connector and the negative lead to the earth wire. Turn on and off the magnetic clutch and measure the clearance.
Standard clearance:
0.35 to 0.60 mm (0.013 to 0.023 in.)
If the measured value is not within the standard range, remove the magnetic clutch hub and adjust it with the magnetic clutch washers.
NOTICE:
Adjustment can be performed with 3 or less magnetic clutch washers.

AC

2. INSPECT COMPRESSOR OIL

(a) When replacing the compressor and magnetic clutch with a new one, after gradually removing the refrigerant gas from the service valve, drain the following amount of oil from the new compressor and magnetic clutch before installation.

Standard:

(Oil capacity inside new compressor and magnetic clutch:

225 + 15 cc (7.6 + 0.5 fl.oz.)) - (Remaining oil amount in the removed compressor and magnetic clutch) = (Oil amount to be removed when replacing)

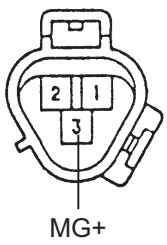
NOTICE:

- **When checking the compressor oil level, observe the precautions on the cooler removal / installation.**
- **Because compressor oil remains in the pipes of the vehicle, if a new compressor and magnetic clutch is installed without removing some oil inside, the oil amount becomes excessive, preventing heat exchange in the refrigerant cycle and causing refrigerant failure.**
- **If the remaining oil in the removed compressor and magnetic clutch is too small in volume, check for oil leakage.**
- **Be sure to use ND-OIL 8 for compressor oil.**

3. INSPECT COMPRESSOR AND MAGNETIC CLUTCH

(a) Disconnect the connector from the compressor and magnetic clutch.

Component without harness connected:
(Compressor and Magnetic Clutch)



E145186E03

Front view of wire harness connector:
(to Magnetic Clutch)



H E124482E05

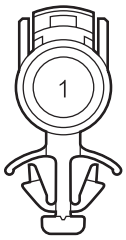
(b) Disconnect the connector from the magnetic clutch.
(c) Measure the resistance according to the value(s) in the table below.
Standard resistance

Tester Connection	Condition	Specified Condition
3 (MG+) - 1	Always	Below 1 Ω
3 (MG+) - Body ground	Always	10 kΩ or higher

If the resistance is not as specified, replace the compressor and magnetic clutch.

AC

Component without harness connected:
(Magnetic Clutch)

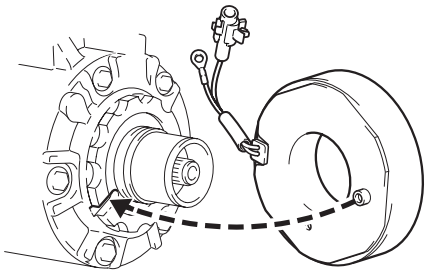


E147609E02

4. INSPECT MAGNETIC CLUTCH
(a) Measure the resistance according to the value(s) in the table below.
Standard resistance

Tester Connection	Condition	Specified Condition
1 - Body ground	Always	3.4 to 3.8 Ω

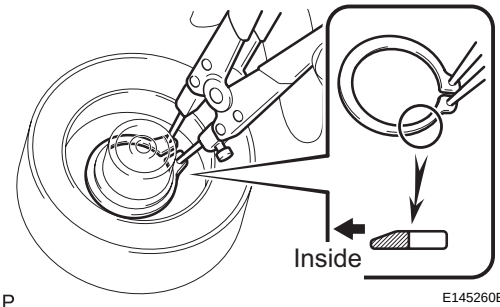
(b) When connector terminal A1 is connected to the positive (+) battery terminal, check that the following occurs: 1) the magnetic clutch's operating sound can be heard, and 2) the magnetic clutch's hub and rotor lock.
If the result is not as specified, replace the magnetic clutch.



P E145257

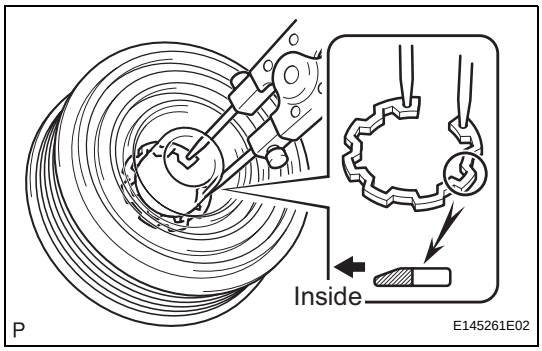
REASSEMBLY

1. INSTALL MAGNETIC CLUTCH ASSEMBLY
(a) Install the magnetic clutch stator while aligning the protrusion on the stator with the notch on the air compressor assembly as shown in the illustration.



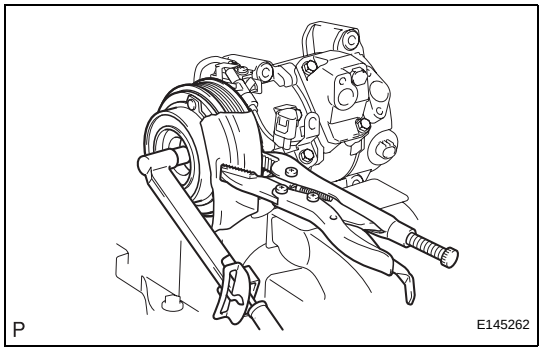
P E145260E02

(b) Using a snap ring expander, install a new snap ring with the chamfered side facing up.
NOTICE:
Take care not to damage the seal cover of the bearing when installing the snap ring.
(c) Install the screw and connect the connector.



(d) Using a snap ring expander, install the magnetic clutch rotor and a new snap ring with the chamfered side facing up.
NOTICE:
- **Do not expand the snap ring by more than 35.5 mm (1.39 in.) when installing it.**
- **Do not damage the seal cover of the bearing when installing the snap ring.**

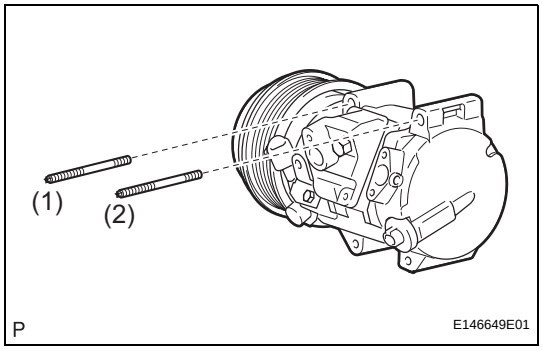
(e) Install the magnet clutch washer and the magnet clutch hub.
NOTICE:
Do not change the combination of the magnetic clutch washers used before disassembly.



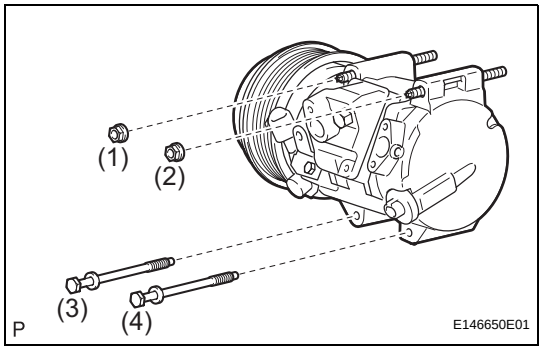
(f) Using vise pliers, hold the magnetic clutch hub and install the bolt.
Torque: 18 N*m (183 kgf*cm, 13 ft.*lbf)
NOTICE:
Make sure that there is no foreign matter or oil on the compressor shaft, bolt, and clutch hub.

INSTALLATION

1. INSTALL COMPRESSOR AND MAGNETIC CLUTCH



(a) Using a "TORX" socket wrench (E8), install the compressor and magnetic clutch with the 2 stud bolts.
Torque: 10 N*m (102 kgf*cm, 7.4 ft.*lbf)
HINT:
Tighten the stud bolts in the order shown in the illustration.



(b) Install the compressor and magnetic clutch with the 2 bolts and the 2 nuts.
Torque: 25 N*m (255 kgf*cm, 18 ft.*lbf)
HINT:
Tighten the bolts and nuts in the order shown in the illustration.

(c) Connect the 2 clamps and wire harness.

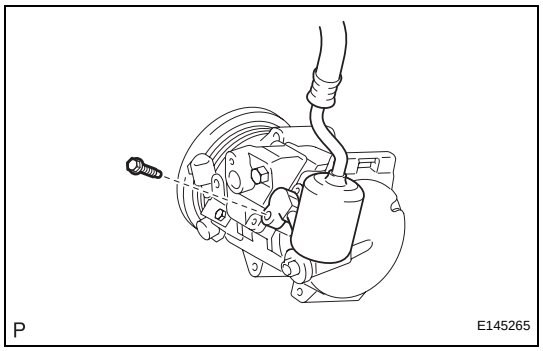
(d) Connect the connector.

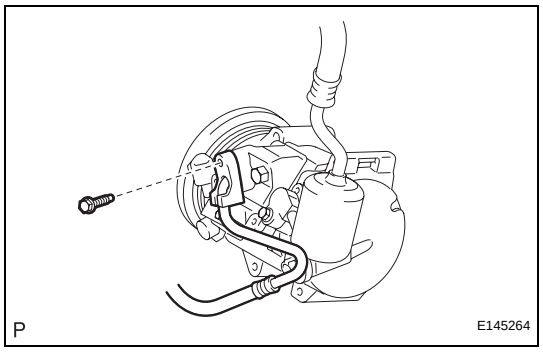
2. INSTALL SUCTION HOSE SUB-ASSEMBLY

(a) Remove the attached vinyl tape from the hose.

(b) Apply sufficient compressor oil to a new O-ring and the fitting surface of the compressor and magnetic clutch.
Compressor oil:
ND-OIL 8 or equivalent

(c) Install the O-ring onto the suction hose sub-assembly.





(d) Install the suction hose sub-assembly onto the compressor and magnetic clutch with the bolt.
Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)

3. **INSTALL DISCHARGE HOSE SUB-ASSEMBLY**
   (a) Remove the attached vinyl tape from the hose.
   (b) Apply sufficient compressor oil to a new O-ring and the fitting surface of the compressor and magnetic clutch.
   Compressor oil:
   ND-OIL 8 or equivalent
   (c) Install the O-ring onto the discharge hose sub-assembly.
   (d) Install the discharge hose sub-assembly onto the compressor and magnetic clutch with the bolt.
   Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)
4. **INSTALL RADIATOR AND FAN ASSEMBLY**
   (See page CO-39)
5. **INSTALL V-RIBBED BELT (See page EM-7)**
6. **INSTALL FRONT FENDER APRON SEAL RH (See page EM-62)**
7. **INSTALL FRONT WHEEL RH**
8. **CHARGE WITH REFRIGERANT (See page AC-173)**
9. **WARM UP ENGINE**
10. **INSPECT FOR REFRIGERANT LEAK (See page AC-173)**

AC