550RZ–01

REPLACEMENT

HINT:

COMPONENTS: See page 55–76

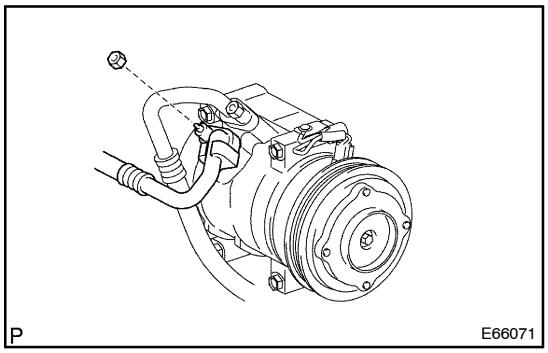
1. DISCHARGE REFRIGERANT FROM REFRIGERATION SYSTEM (See page 55–26)

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

2. REMOVE ENGINE UNDER COVER SUB–ASSY NO.1

3. REMOVE VANE PUMP V BELT (See page 14–7)

4. REMOVE V (COOLER COMPRESSOR TO CRANKSHAFT PULLEY) BELT NO.1 (See page 55–40)



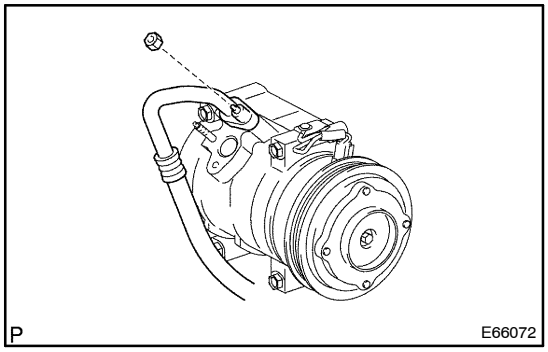
5. DISCONNECT SUCTION HOSE SUB–ASSY

(a) Remove the nut and disconnect the suction hose sub–assy from the compressor and magnetic clutch.

(b) Remove the O–ring from the suction hose sub–assy.

NOTICE:

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



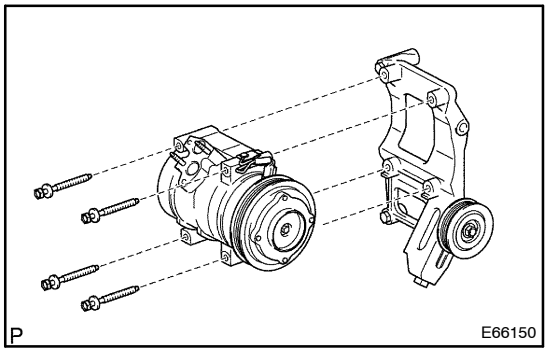
6. DISCONNECT DISCHARGE HOSE SUB–ASSY

(a) Remove the nut and disconnect the discharge hose sub–assy from the compressor and magnetic clutch.

(b) Remove the O–ring from the discharge hose sub–assy.

NOTICE:

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



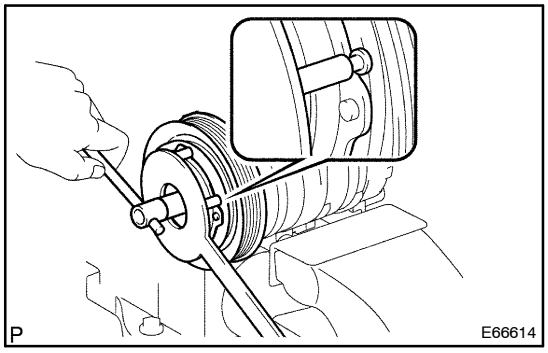
7. REMOVE COMPRESSOR AND MAGNETIC CLUTCH

(a) Disconnect the connector.

(b) Remove the 4 bolts and compressor and magnetic clutch.

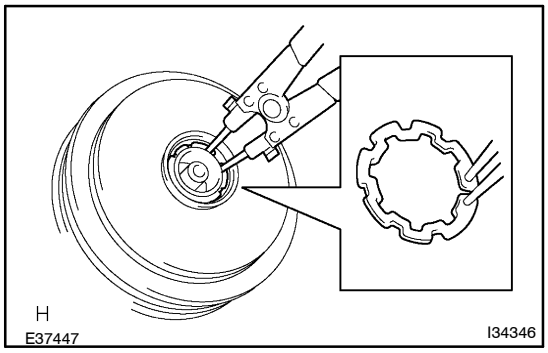
8. REMOVE MAGNET CLUTCH ASSY

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



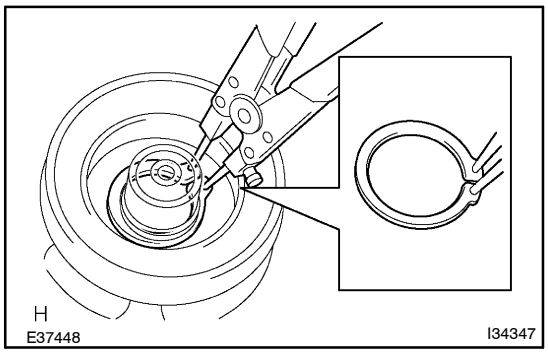
(b) Using SST, hold the magnet clutch hub.
SST 95047–10400

(c) Remove the bolt, magnet clutch hub and magnet clutch washer.



(d) Using a snap ring expander, remove the snap ring and magnet clutch rotor.

(e) Remove the screw and disconnect the connector.

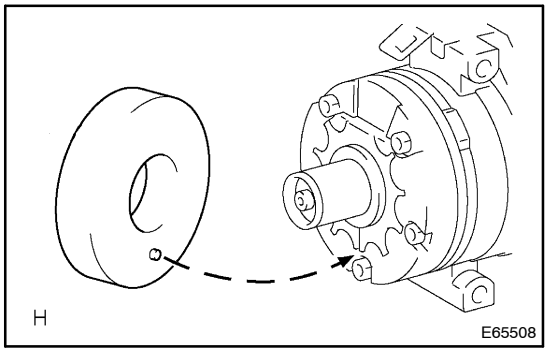


(f) Using a snap ring expander, remove the snap ring and magnet clutch starter.

9. REMOVE AIR CONDITIONING WIRING HARNESS SUB–ASSY

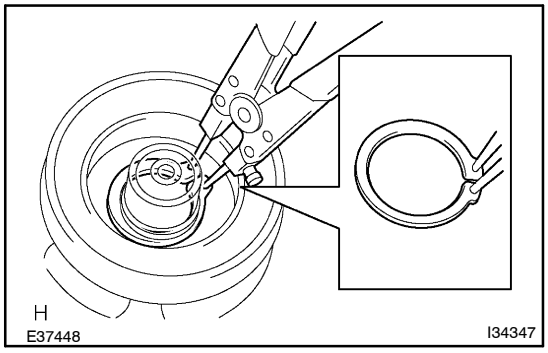
10. REMOVE COOLER COMPRESSOR BRACKET

11. REMOVE COOLER COMPRESSOR ASSY

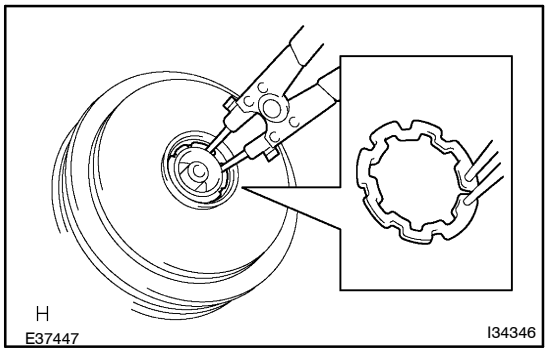


12. INSTALL MAGNET CLUTCH ASSY

(a) Fit the parts shown in the illustration and install the magnet clutch starter.

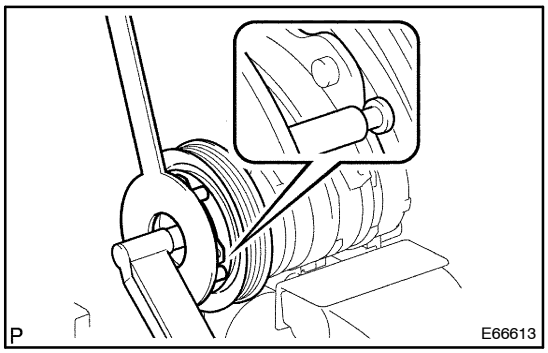


(b) Using a snap ring expander, install a new snap ring with the chamfered side facing up.
(c) Install the screw and connect the connector.

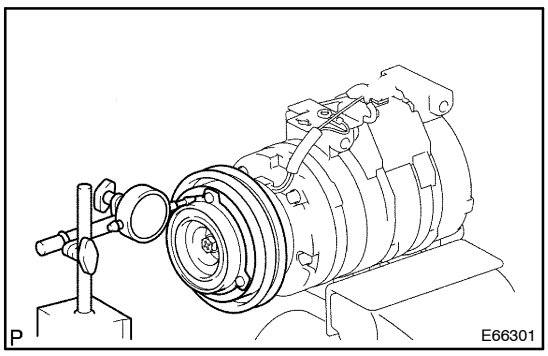


(d) Using a snap ring expander, install the magnet clutch rotor and a new snap ring with the chamfered side facing up.
(e) Install the magnet clutch washer and magnet clutch hub.

NOTICE:
Do not change the combination of the magnet clutch washers used before disassembly.



(f) Using SST, hold the magnet clutch hub and install the bolt.
SST 95047–10400
Torque: 18 N·m (183 kgf·cm, 13 ft·lbf)



13. INSPECT MAGNETIC CLUTCH CLEARANCE
(a) Set the dial indicator to the magnet clutch hub.
(b) Connect the battery positive lead to the terminal 1 of magnet clutch connector and the negative lead to the earth wire. Turn on and off the magnet clutch and measure the clearance.
Standard clearance:
0.35 – 0.60 mm (0.013 – 0.023 in.)

If the measured value is out of the standard range, remove the magnet clutch hub and adjust it with magnet clutch washers.

NOTICE:
Adjustment shall be performed with 3 or less magnet clutch washers.

14. 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:

Single A/C:

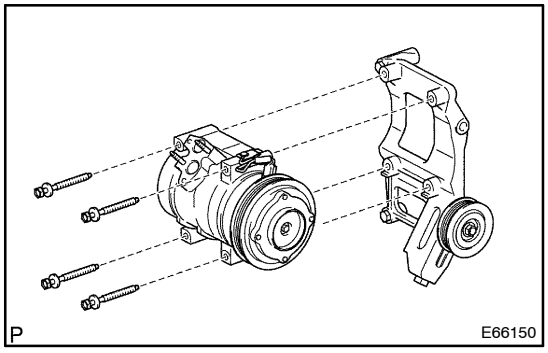
(Oil capacity inside new compressor and magnetic clutch: 120 + 15 cc (4.0 + 0.5 fl. oz.)) – (Remaining oil amount in the removed compressor and magnetic clutch) = (Oil amount to be removed when replacing)

Dual A/C:

(Oil capacity inside new compressor and magnetic clutch: 180 + 15 cc (6.0 + 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–OIL8 for compressor oil.**



15. INSTALL COMPRESSOR AND MAGNETIC CLUTCH

(a) Install the compressor and magnetic clutch with the 4 bolts.

Torque: 25 N·m (250 kgf·cm, 18 ft·lbf)

(b) Connect the connector.

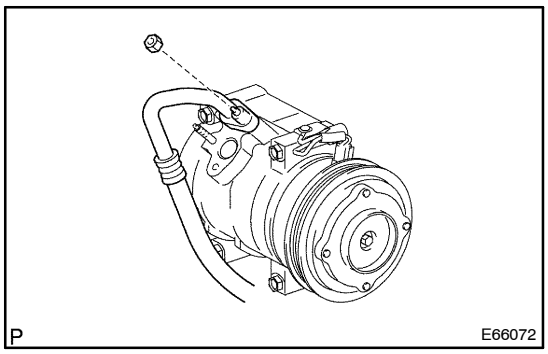
16. INSTALL DISCHARGE HOSE SUB–ASSY

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

(b) Sufficiently apply compressor oil to the new O–ring and fitting surface of the compressor and magnetic clutch.

Compressor oil: ND–OIL8 or equivalent

(c) Install a O–ring to the discharge hose sub–assy.



(d) Install the discharge hose sub–assy to the compressor and magnetic clutch with the nut.

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

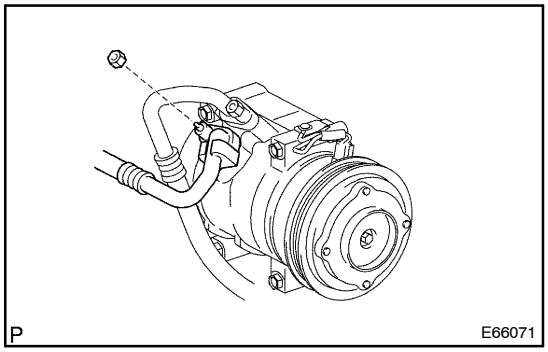
17. INSTALL SUCTION HOSE SUB–ASSY

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

(b) Sufficiently apply compressor oil to the new O–ring and fitting surface of the compressor and magnetic clutch.

Compressor oil: ND–OIL8 or equivalent

(c) Install a O–ring on the suction hose sub–assy.



(d) Install the suction hose sub–assy on the compressor and magnetic clutch with the nut.
Torque: 9.8 N·m (100 kgf·cm, 87 in.·lbf)

18. INSTALL V (COOLER COMPRESSOR TO CRANKSHAFT PULLEY) BELT NO.1 (See page 55–40)
19. ADJUST V (COOLER COMPRESSOR TO CRANKSHAFT PULLEY) BELT NO.1 (See page 55–40)
20. FULLY TIGHTEN V (COOLER COMPRESSOR TO CRANKSHAFT PULLEY) BELT NO.1 (See page 55–40)
21. INSTALL VANE PUMP V BELT (See page 14–7)
22. INSPECT DRIVE BELT (See page 14–7)
23. INSTALL ENGINE UNDER COVER SUB–ASSY NO.1
24. CHARGE REFRIGERANT (See page 55–26)
SST 07110–58060 (07117–58060, 07117–58070, 07117–58080, 07117–58090, 07117–78050, 07117–88060, 07117–88070, 07117–88080)
Specified amount:
Single A/C: 650 ± 30 g (22.92 ± 1.06 oz.)
Single A/C + Cool box: 750 ± 30 g (26.45 ± 1.06 oz.)
Dual A/C: 800 ± 30 g (28.21 ± 1.06 oz.)
Dual A/C + Cool box: 900 ± 30 g (31.74 ± 1.06oz.)
25. WARM UP ENGINE (See page 55–26)
26. INSPECT LEAKAGE OF REFRIGERANT (See page 55–26)