A/C COMPRESSOR SERVICING

1998 Mitsubishi Galant

1998 GENERAL SERVICING
Mitsubishi - Compressor Servicing

Diamante, Eclipse, Galant, Mirage, Montero, Montero Sport & 3000GT

A/C COMPRESSOR APPLICATIONS

A/C COMPRESSOR APPLICATION TABLE

Application	Compressor
Diamante	Sanden MSC105CVS Scroll
Eclipse	
2.0L Non-Turbo	Nippondenso 10PA17C 10-Cyl.
2.0L Turbo & 2.4L	Sanden MSC105CVS Scroll
Galant	Sanden MSC90C12 Scroll
Mirage	Sanden MSC90 Scroll
Montero	Nippondenso 10PA15 10-Cyl.
Montero Sport	Sanden MSC105C Scroll
3000GT	Sanden MSC105 Scroll

NOTE: Due to variety of clutch and shaft seal configurations, obtain appropriate A/C compressor service tools for compressor being serviced. Land Rover and Jaguar compressor service information not available at time of publication.

NIPPONDENSO

CLUTCH COIL

Removal

1) Hold clutch plate stationary. Remove clutch plate center bolt and clutch plate. If clutch plate cannot be removed by hand, tighten an 8-mm or 10-mm bolt into clutch plate center bolt hole to remove clutch plate.

2) Remove shim(s) and pulley snap ring from compressor shaft. Tap pulley using a plastic hammer and remove pulley from compressor shaft. See Fig. 1 or 2. Remove retaining screw for clutch coil lead. Remove clutch coil snap ring and clutch coil.

Installation

1) To install, reverse removal procedure. Ensure clutch coil pin is aligned with hole in compressor housing. Ensure clutch coil lead is positioned properly. Ensure NEW snap rings are installed with beveled side facing out. Tighten shaft bolt to 10-13 ft. lbs. (14-17 N.m).

2) Check air gap between clutch plate and pulley. Position dial indicator on clutch plate. Energize clutch coil and zero dial indicator. De-energize clutch coil and measure air gap (clutch plate movement). Ensure air gap between clutch plate and pulley is 0.014-0.026" (0.35-0.65 mm). If air gap is incorrect, add or remove shim(s) as necessary. Ensure pulley rotates freely.

NOTE: On some compressors, it is necessary to use a dial indicator on clutch plate to check air gap. Energize clutch coil and zero dial indicator. De-energize clutch coil and measure air gap. Ensure air gap is as specified.

SHAFT SEAL

CAUTION: Secure rear housing to compressor body using a vise before removing front housing through-bolts. Compressor rear housing may separate from compressor body, spilling refrigerant oil.

Removal

1) Remove clutch coil. See CLUTCH COIL. See Fig. 1 or 2. Position compressor in a vise so compressor rear housing is secured to compressor body. Remove front housing through-bolts and front housing.

2) Using a flat-blade screwdriver, remove felt retainer and felt from front housing. Remove shaft seal snap ring. Using a flat-blade screwdriver, remove shaft seal and "O" ring. See Fig. 1 or 2.

Installation

1) Inspect compressor shaft and front housing bore for damage and/or excessive wear. Ensure "O" ring and shaft seal seat are clean. Apply NEW refrigerant oil to compressor side of front housing bore. Lubricate "O" ring and shaft seal with NEW refrigerant oil. Using a 21-mm socket, install shaft seal with "O" ring side facing away from compressor. Install shaft seal snap ring. See Fig. 1 or 2.

2) Install felt into felt retainer. Using a 14-mm deep socket, install felt and felt retainer. Lubricate compressor shaft. Install front housing using care not damage shaft seal lip. See Fig. 1 or 2.

3) Alternately tighten front housing through-bolts to 19 ft. lbs. (26 N.m). Install clutch plate center bolt. Using an INCH-lb. torque wrench, ensure compressor breakaway torque is 43 INCH lbs. (4.9 N.m) or less. To complete installation, reverse removal procedures. Ensure air gap between clutch plate and pulley is correct. See CLUTCH COIL.

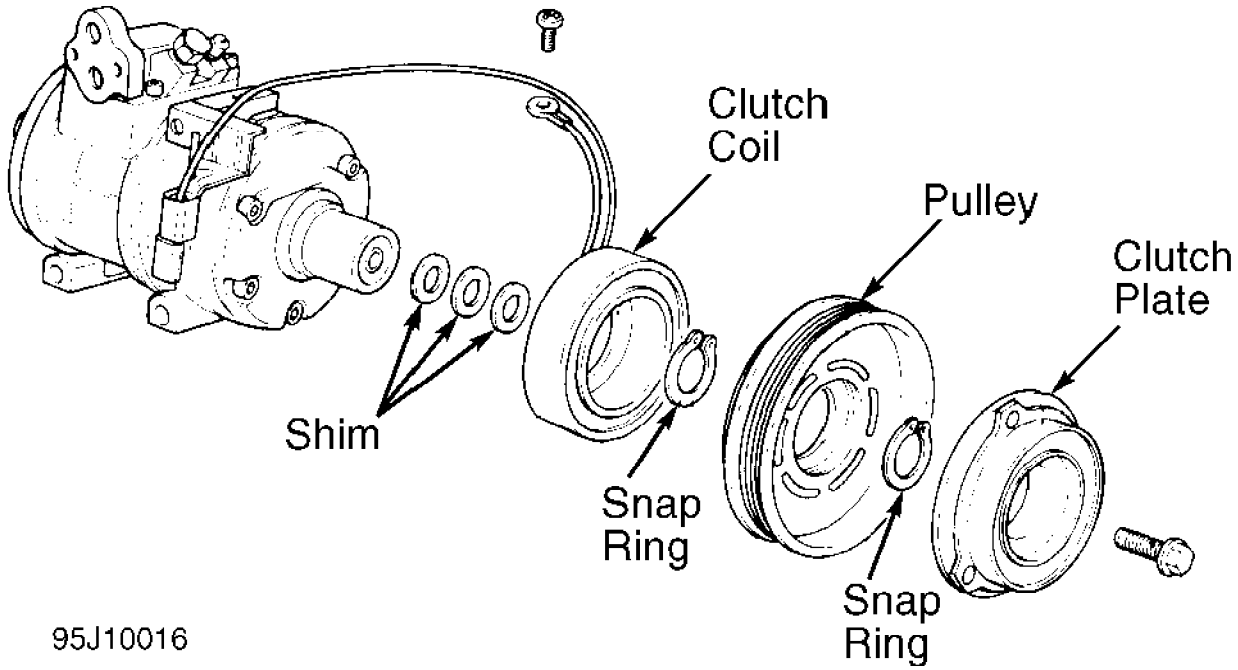

Fig. 1: Exploded View Of Compressor (Nippondenso 10PA17C 10-Cyl.) Courtesy of Toyota Motor Sales, U.S.A., Inc.

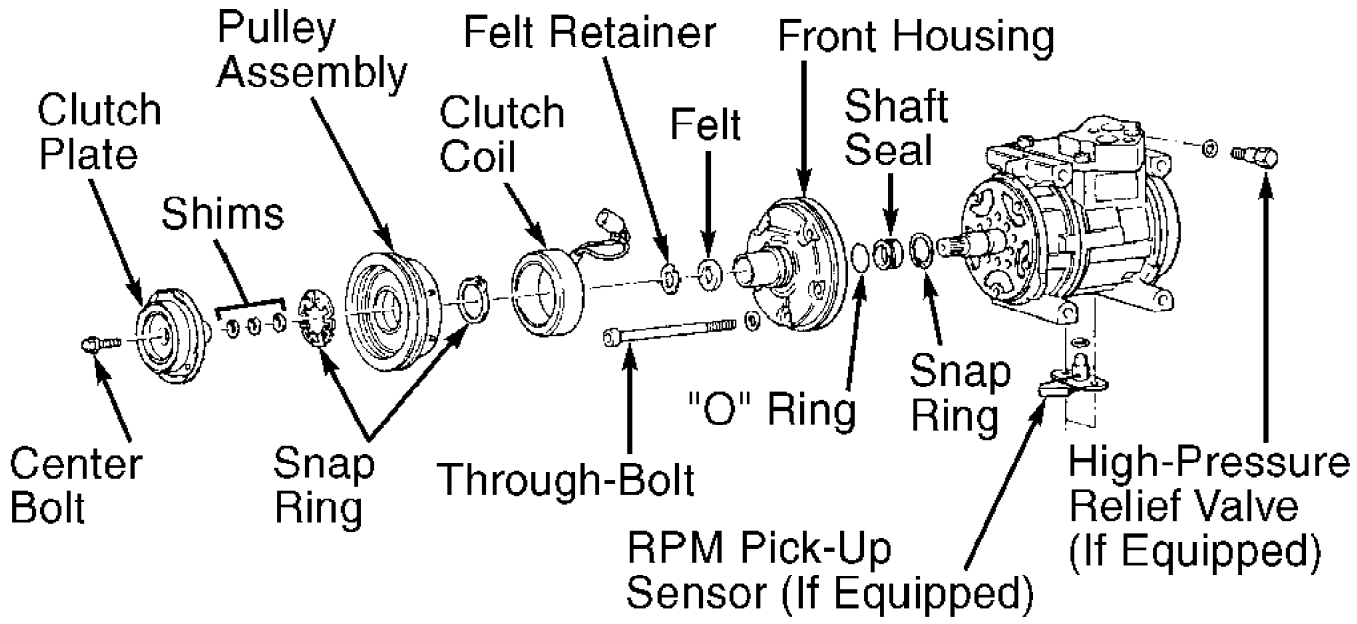

Fig. 2: Exploded View Of Compressor (Typical)
Courtesy of Mitsubishi Motor Sales of America.

SANDEN SCROLL

CLUTCH COIL & SHAFT SEAL

Removal

1) Remove drive belt pulley (if equipped). Hold clutch plate using Pliers (MB991367) and Bolts (MB991386). Use a ratchet and socket to remove clutch hub nut.

2) Remove clutch plate. See Fig. 3 or 4. Remove snap ring with internal snap ring pliers. Remove clutch hub (rotor). Remove snap ring and clutch coil.

3) Using an awl, remove bearing cover and retainer. Using Bearing Remover (MB991456), engage bearing grooves. Place base of bearing remover over remover arms and tighten nut.

4) Tighten bearing remover bolt to withdraw bearing from compressor. Engage grooves of Shaft Seal Remover/Installer (MB991458) and pull straight up on shaft seal.

Installation

1) To install shaft seal, ensure front housing is free of foreign objects. Lubricate Shaft Seal Protector (MB991459) and place over compressor shaft. Lubricate shaft seal and install using shaft seal remover/installer. Remove shaft seal protector.

2) Using a 21-mm socket or Drift (MB991301), carefully press bearing onto compressor shaft. Install clutch coil so that alignment pin is engaged. Install clutch coil snap ring with tapered side facing out.

3) Align armature plate with crankshaft spline. Tighten shaft nut to 12 ft. lbs. (16 N.m). Using feeler gauge, ensure air gap between pressure plate and pulley is 0.02-0.03" (0.5-0.8 mm) on Diamante and 0.016-0.024" (0.4-0.6 mm) on all other models. If air gap is incorrect, add or remove shim(s) as necessary.

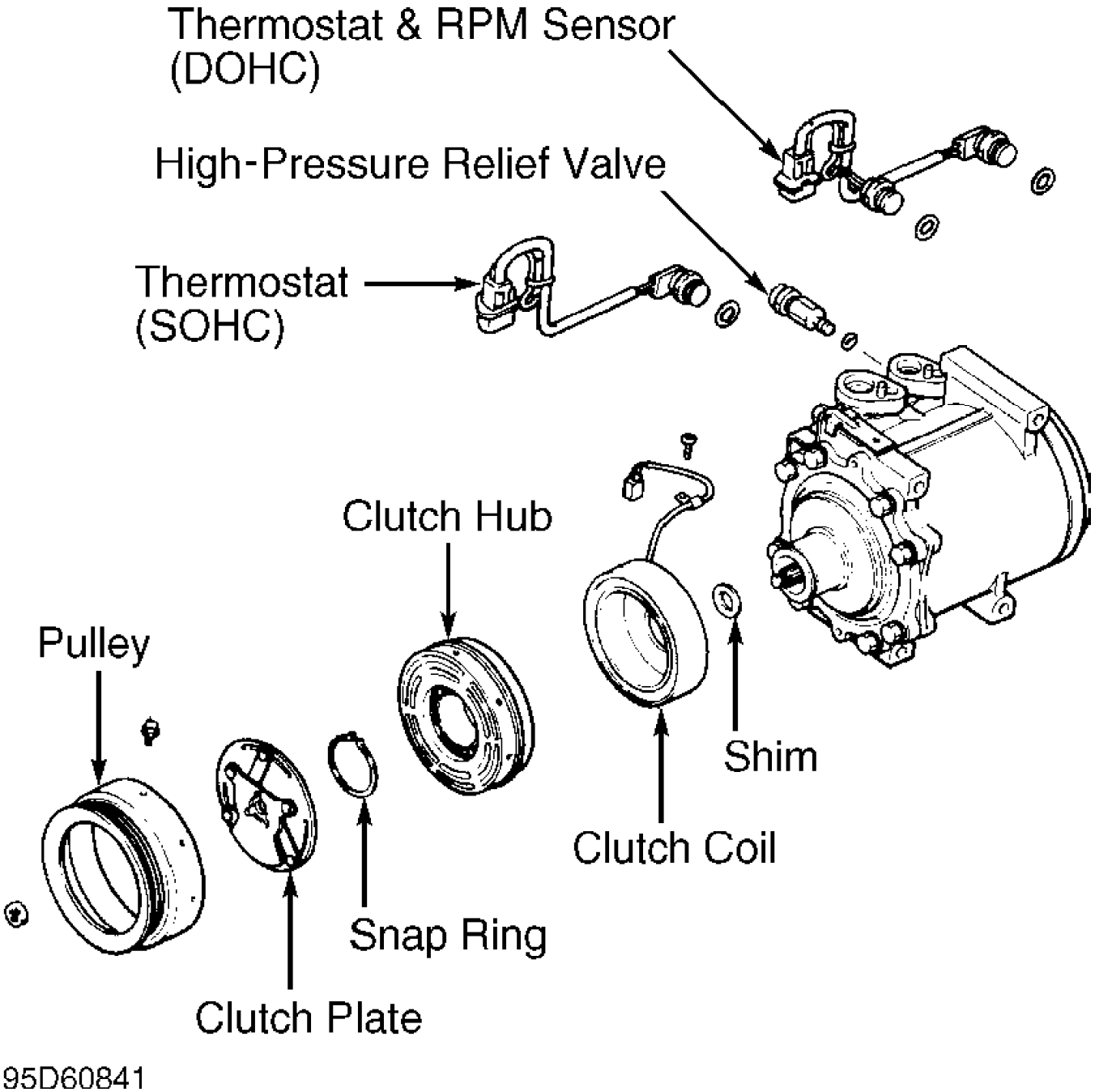

Fig. 3: Exploded View Of Compressor (Sanden Scroll MSC105 Shown; MSC90C Is Similar)
Courtesy of Mitsubishi Motor Sales Of America.

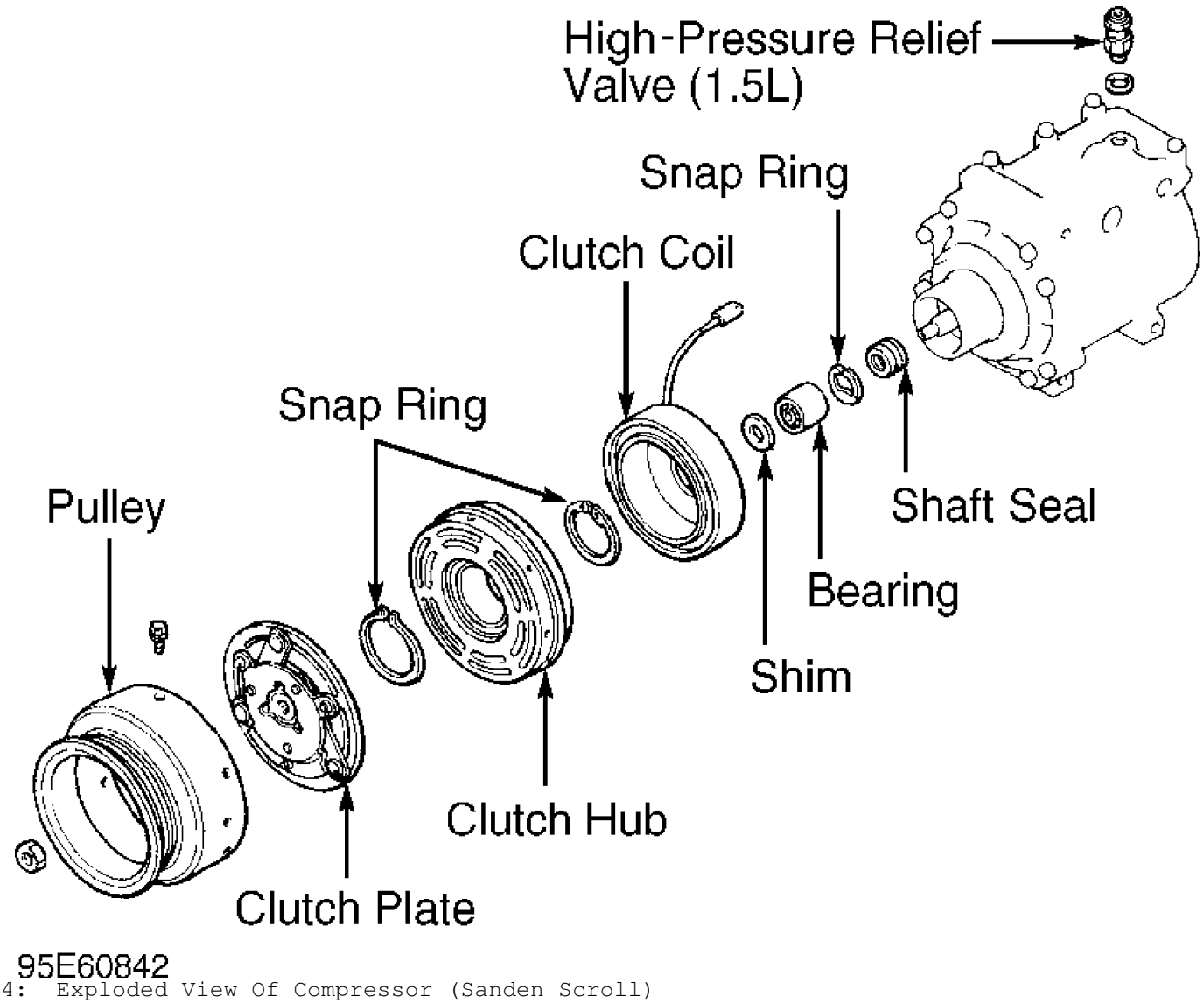

Fig. 4: Exploded View Of Compressor (Sanden Scroll)
Courtesy of Mitsubishi Motor Sales Of America.