

Replacement Compressor Clutch

P-1374
819-0075

Installation Instructions



An Altra Industrial Motion Company

⚠ WARNING Failure to follow these instructions may result in product damage, equipment damage, and serious or fatal injury to personnel.

Replacement Compressor Clutch for Chrysler Automobiles

This compressor clutch has been developed specifically for automobile air conditioning applications. Properly installed, it will provide maintenance free service. The clutch, using a stationary field principle, DOES NOT REQUIRE SLIP RINGS OR BRUSHES.

The clutch consists of two major components, a stationary magnet field assembly and a rotor-pulley assembly. The field assembly is mounted on the compressor. The rotor-pulley assembly is mounted to the compressor crankshaft and driven by V-belts from the engine crankshaft pulley. Electricity energizes the clutch field to couple the clutch magnetically, thus driving the compressor. De-energizing the clutch uncouples the compressor.

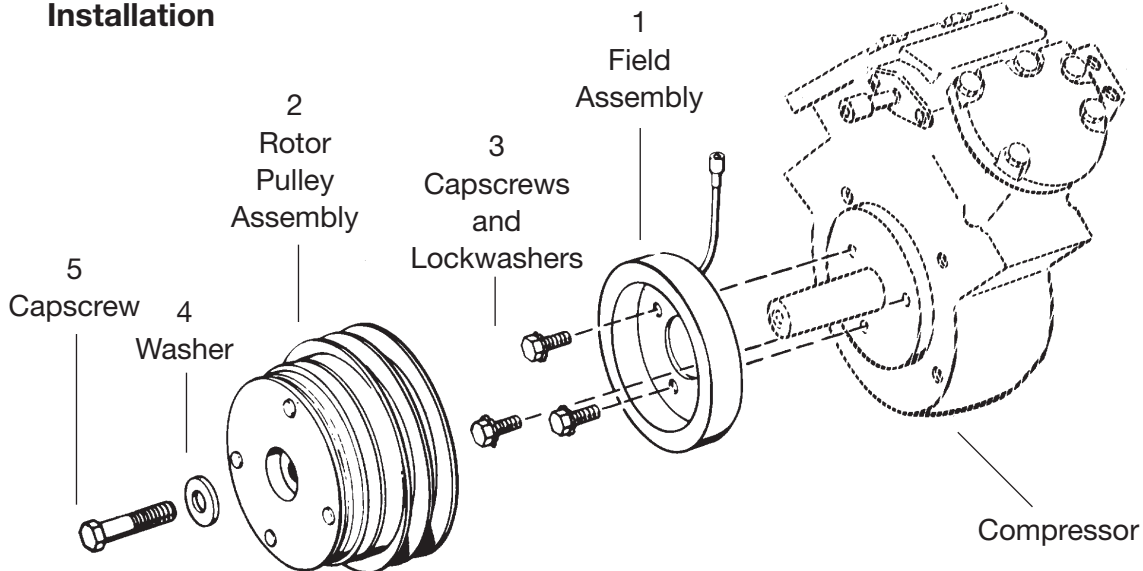
Service

This compressor clutch automatically compensates for wear requiring no adjustment throughout the life of the clutch. Do not lubricate the unit. If the clutch should fail to operate, check the electrical circuit to be sure that the proper voltage is being supplied to the clutch. Do not attempt to make any mechanical adjustments on the clutch.

Diagnose Clutch Failure

Most compressor clutch failures are a direct result of an A/C system problem or failure. Before installing a new clutch, determine what caused the old clutch to fail and fix the system problem. By simply replacing the clutch without fixing the cause of the clutch failure, the new clutch may fail in the same manner as the old clutch. Please refer to the Warner Electric "Air Conditioning Clutch Trouble Shooting Guide" and the appropriate manufacturer's A/C Service Manuals.

Installation



1. Rotor-Pulley Removal

Remove the self-locking capscrew (5) and washer (4). Insert a 5/8-11 UNC-2B capscrew in the threaded portion of the hub and tighten. The pressure exerted by the capscrew on the end of the compressor shaft will force the rotor-pulley assembly off without damage to the clutch or the compressor. **DO NOT USE A PULLER** on the outside diameter of the pulley. This can damage the pulley grooves or the clutch bearing.

2. Field Removal

Remove the three capscrews (3) and disconnect the coil lead wire(s) from the vehicle wires.

3. Compressor Shaft Inspection

The compressor shaft must be clean and free from burrs. Check the woodruff key for proper position and seating in the keyway. If the shaft seal is leaking oil, repair or replace the compressor.

4. Field Installation

Position the field assembly (1) against the compressor bosses, aligning the field mounting holes with the bolt holes in the bosses. Insert the three capscrews and washers (3), furnished with the clutch, into the bolt holes of the compressor. Tighten the capscrews to a wrench torque of 2 ft.-lb. (17-24 in.-lb.). Use caution not to strip the threads in the compressor body. Connect the field lead wires to the vehicle wires and route them away from moving parts.

5. Rotor-Pulley Installation

Align the keyway in the rotor-pulley assembly (2) with the woodruff key in the compressor shaft. Slide the rotor-pulley assembly onto the tapered shaft. Secure the rotor-pulley assembly with the plain washer (4) and self-locking capscrew (5). Tighten the capscrew to a wrench torque of 15-20 ft.-lb. (180-240 in.-lb.).

Note: The clutch can be held from rotating by engaging the clutch with the belts installed or by using a spanner wrench inserted in the holes provided on the front of the rotor-pulley hub.

6. Interference Inspection

Spin the pulley by hand and listen for interference between the field and the rotor-pulley. **IF THERE IS INTERFERENCE, REMOVE THE ROTOR-PULLEY ASSEMBLY AND ADJUST THE MOUNTING OF THE FIELD UNTIL THE INTERFERENCE IS ELIMINATED.**

7. Clutch Burnish

Install the belts per vehicle manufacturer specifications. Run the engine at 2000-2500 RPM and cycle the clutch ON and OFF at a rate of 10 to 15 times per minute for 50 cycles minimum. This procedure will help bring the clutch up to the operating torque capacity.

Note: To prevent electrical system damage, use the vehicle A/C controls to cycle the clutch.

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