

Warner Electric Compressor Clutch

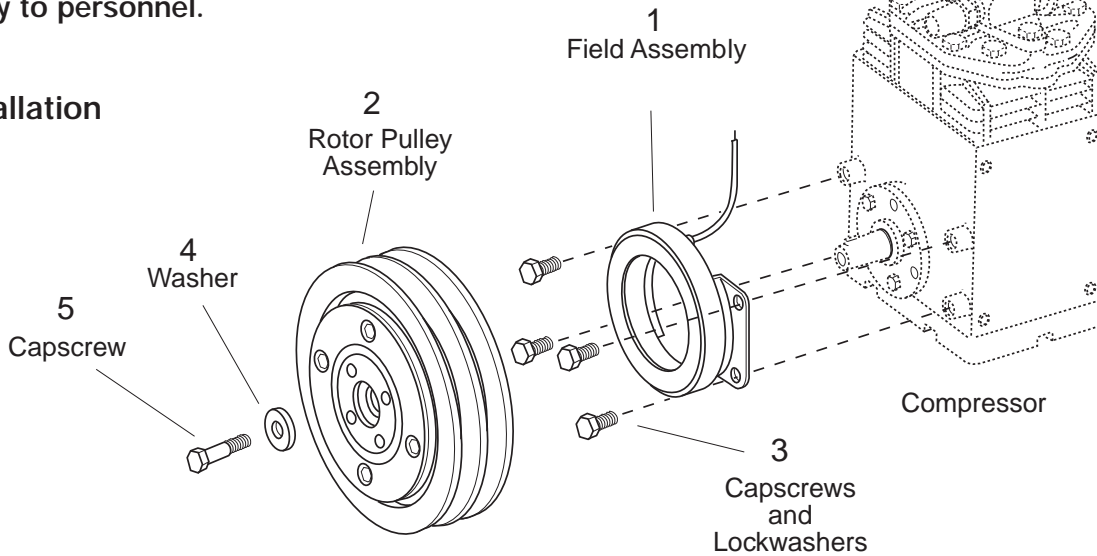
P-1426
819-0392

Installation Instructions



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

Installation



General

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 magnetic field assembly and a rotor-pulley assembly. The field assembly is mounted on bosses 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-energization of the field releases the clutch and uncouples the compressor.

Wiring

In most cases, the coil in the field assembly has a single leadwire (hot) and is grounded to the field shell. (See Figure 1)

Some newer applications however require the use of a rectifier diode to protect delicate electrical components. It is up to the installer to determine if a diode is necessary.

If a diode is necessary, one has been provided with this clutch and must be connected as directed on enclosed diode installation instructions. (See Figure 2)

Note: If you are unsure a diode is needed for your application, install it anyway.

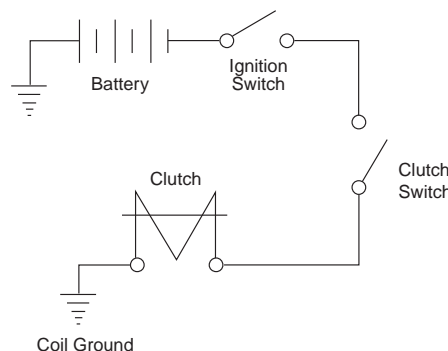


Figure 1

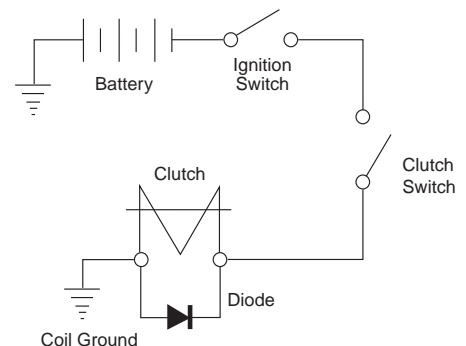


Figure 2

Step 1

Position the field assembly (1) against the compressor bosses, aligning the field mounting holes with the bolt holes in the bosses. Insert four capscrews and lockwashers (3) furnished with the clutch into the bolt holes of the compressor. Tighten the capscrews to a wrench torque of 7 - 10 ft./lbs. (85 - 120 in./lbs.). Use caution not to strip the threads in the compressor body.

Step 2

The compressor shaft must be clean and free from burrs. Check the woodruff key for proper position and seating.

Step 3

Slide the rotor pulley assembly (2) on to the tapered shaft (**aligning the keyway with the woodruff key in the shaft**). Secure the rotor pulley assembly with the washer (4) and self-locking capscrew (5) provided with the clutch. Tighten the self-locking capscrew to a wrench torque of 15 - 20 ft./lbs. (180 - 240 in./lbs.).

Step 4

Rotate the pulley assembly manually to assure that there is no interference between the field and rotor. If any interference occurs, a rubbing noise can be heard as the pulley rotates. In case of rubbing or other mechanical interference, disassemble the clutch and repeat the installation of the field assembly.

Step 5

To disassemble the rotor-pulley assembly from the compressor, remove the self-locking capscrew and washer and insert a 5/8-11 UNC-2B capscrew in the threaded portion of the hub. The pressure exerted by the capscrew on the end of the compressor shaft will force off the rotor pulley assembly without damage to the clutch or compressor. **Do not** use a wheel puller on the outer diameter of the pulley, as this can result in damage to the clutch bearing. Warranty voided if clutch is removed from shaft without using a 5/8-11 UNC bolt in the hub.

Step 6

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.

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.

Warranty

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