



Fascination of Technology

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Installation instructions - A/C clutch for Carrier 05G compressors

1. Remove old A/C compressor clutch and clean crankshaft and pulley hub.
2. Install the coil and ensure it is fully seated. Take caution not to draw the coil onto the assembly with the fastening bolts. Torque the bolts to 25-30 lbs-ft.



3. Slide the pulley on the hub and torque the bearing retaining nut with tool 20-294, noting the torque required to seat the bearing against the hub. After the bearing seats, tighten the nut to 50 lbs-ft GREATER than the bearing-seating torque.
4. Insert the key in the crankshaft keyway and align the clutch hub. Slide the clutch hub on the crank shaft cone. Apply Loctite to the center bolt and torque it to 16-20 lbs-ft holding the hub using a 41mm or 1 5/8" open-ended wrench on the flats.



Setup the air gap to 0.3 mm:

5. Push the crankshaft inward fully for the entire gap setup procedure. Ensure the endplay is within specifications in the Carrier maintenance manual for the compressor.
6. Slide the clutch disc onto the armature/hub until disc plate touches the friction surface of the pulley.
7. Using a caliper depth gauge, measure the distance through the hole from the outer armature plate surface to the inner surface of the clutch hub (for example 6.8 mm; Subtract 4.9 mm from this value to find the total shim thickness needed).
8. Remove the clutch plate and shim every stud on the hub with the same combination of the included shims (0.3mm and 1mm) according to the calculated thickness from step 7 (for example 1.9 mm). If needed, round the thickness up to the next 0.3mm interval. Do not round down.
9. Slide the disc armature back on the clutch hub all the way towards the friction surface of the pulley and tighten to 4 hex locknuts in a cross pattern; torque to 19 lbs-ft.
10. Start the engine and run the compressor for 3 minutes. Shut off the coach and measure the gap through the clutch plate slot by applying 24V to the coil and noting the difference between engaged and disengaged. The gap should be 0.3-0.4 mm. Adjust as needed.

