

SLIP RING END ROTOR BEARING REPLACEMENT INSTRUCTIONS FOR 24SI™ ALTERNATORS

NOTICE! It may be necessary to obtain **Miscellaneous Hardware Kit** to replace parts that may be damaged during disassembly. **The Rectifier Positive Heat Sink Insulator should always be replaced.**

WARNING!!! ALWAYS USE PROPER EYE PROTECTION WHEN PERFORMING ANY MECHANICAL REPAIRS TO A VEHICLE – INCLUDING, BUT NOT LIMITED TO, ANY INSTALLATION AND OR REPAIRS TO THE DELCO REMY® ALTERNATORS. FAILURE TO USE PROPER EYE PROTECTION CAN LEAD TO SERIOUS AND PERMANENT EYE DAMAGE.

Only perform the mechanical functions that you are properly qualified to perform. Mechanical repairs that are beyond your technical capabilities should be handled by a professional installation specialist.

DANGER!!! To avoid injury or damage, always disconnect the negative cable at the battery before removing or replacing the alternator. The alternator output terminal is always live (“hot”). If the battery is not disconnected, a tool accidentally touching this terminal and ground can quickly get hot enough to burn skin or damage tools and surrounding parts.

FOLLOW ENGINE OR VEHICLE MANUFACTURER’S INSTRUCTIONS CAREFULLY WHEN REMOVING AND REINSTALLING THE ALTERNATOR.

REMOVAL INSTRUCTIONS

NOTICE! Removing the slip ring end (**SRE**) bearing without damaging the rotor assembly is very difficult, without specialized tooling developed for that purpose.

1. Remove vehicle leads connected to the alternator, noting their positions for reinstallation of the alternator.
2. Remove the alternator pulley nut, pulley, drive end slinger and external drive end spacer.
3. Remove the slip ring end (**SRE**) cover.

NOTICE! Avoid excessive heat when melting or soldering connections. Excessive heat may damage the terminals or leads, causing premature alternator failures.

4. Separate rectifier assembly from stator by applying enough heat to melt solder at the stator lead connections and carefully prying the wire crimps open, three (3) places.
5. Remove the voltage regulator and rectifier assembly as a unit, carefully noting location of all screw assemblies.

WARNING!!! Failure to install the insulated screws, as removed, will cause the alternator to be inoperative and/or will damage the alternator and potentially surrounding parts.

6. Remove the positive heat sink insulator, if damaged. Be extremely careful not to damage the surface of SRE casting.
7. Remove the brush assembly.
8. Remove the drive end frame assembly and internal spacer.
9. Remove the slinger and bearing from the rotor shaft and dispose of the old bearing.
10. Remove the SRE bearing retainer and dispose of it, if damaged.

INSTALLATION INSTRUCTIONS

1. Install new SRE bearing onto rotor shaft with a press. Being careful to not to use excessive force, push equally on both bearing races until bearing is seated against the fan.
2. Reinstall bearing retainer onto rotor assembly, using a press. If damaged, install a new retainer.
3. Insert the rotor assembly into slip ring end frame.
4. Reinstall the internal spacer on the rotor shaft.
5. Reinstall drive end frame assembly. Using a crossing pattern, torque the four (4) thru-bolts to **7.8-9.2 N-m (90-120 lb in)**.

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6. Reinstall and seat the bearing retainer in SRE frame bore. If damaged, install a new retainer.
7. Reinstall the brush assembly. Prior to assembly, push the brushes back, and insert a 17 mm (.7") pin to hold them back to allow clearance for the slip ring to enter.
8. Place **new heat sink insulator** on positive heat sink of the new rectifier assembly, if necessary.
9. Cover negative diodes with a heat sink compound compatible with semiconductor materials. Use a compound that can withstand a temperature range of **-40C to 180C (- 104F to 356F)**.
10. Reinstall the voltage regulator and rectifier assemblies as a unit.
11. Reinstall five (5) mounting screws into the rectifier assembly, **ensuring the one (1) insulated screw is installed in the hole on the rounded end of the positive heat sink, as removed**. Torque all screws to **2.2-2.8 N-m (19-25 lb in)**.
12. Reinstall two (2) bushings and three (3) mounting screws into the voltage regulator, **ensuring the one insulated screw is used in terminal that connects to the brush holder**. Torque all screws to **2.2-2.8 N-m (19-25 lb in)**.
13. Crimp and solder terminals of rectifier assembly to leads of stator assembly, three (3) places.
14. Install slip ring end cover and torque the mounting screw assemblies to **2.2-2.8 N-m (19-25 lb in)**.
15. Reinstall the external drive end spacer, drive end slinger, pulley and pulley nut. Tighten the pulley nut to **80-115 N-m (59-85 lb ft)**.
16. Reinstall alternator according to engine or vehicle manufacturer's instructions.
17. Reattach the battery (+) terminal lead to alternator battery terminal and torque nut to **9.0-13.0 N-m (80-120 lb in)**.
18. Reconnect the negative (-) cable at the battery.

Technical support: USA 800 854 0076, Mexico 01 800 000 7378, Brazil 0800 703 3526, South America 55 11 2106 6510 or visit delcoremy.com

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