DelcoRemy®

A PRODUCT OF REMY INC.

Instruction Sheet
24SI 10523126
Rev. 1 21JL08

RECTIFIER ASSEMBLY REPLACEMENT INSTRUCTIONS FOR 24SI™ ALTERNATORS

NOTICE! It may be necessary to obtain **10520982 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 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

1. Remove vehicle leads connected to the alternator, noting their positions for reinstallation of the alternator.
2. Remove the Slip Ring End (**SRE**) cover.

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

3. Remove voltage regulator, carefully noting parts orientation for reassembly. Apply enough heat to melt solder at the rectifier connection and pull or slide the voltage regulator terminal off the strap to separate the connection.
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 rectifier assembly fasteners. **WARNING!!!** Note location of the insulated screw assembly on the end of the positive heat sink next to the battery terminal for reassembly. **Failure to use an insulated screw assembly here will cause a ground and will damage the alternator and potentially surrounding parts.**
6. Remove the heat sink insulator. Be extremely careful not to damage the surface of SRE casting.
7. Dispose of the old rectifier assembly.

INSTALLATION INSTRUCTIONS

WARNING!!! Inspect SRE frame, in positive heat sink (insulated diodes) area, for any surface damage, such as nicks or burrs capable of penetrating the insulator. A ground will damage the alternator and potentially surrounding parts. Remove any surface damage before installing the rectifier assembly.

1. Place a **new heat sink insulator** on the positive heat sink of the new rectifier assembly, if necessary.
2. Cover negative diodes with a heat sink compound compatible with semiconductor materials. Use a compound that can withstand temperature ranges of **- 40C to 180C (- 104F to 356F).**.
3. Install rectifier assembly with the five (5) mounting screws, **ensuring the one (1) insulated screw is installed in the hole on the rounded end of the positive heat sink**. Torque all screws to **2.2-2.8 N-m (19-25 lb in)**.
4. Crimp and solder terminals of rectifier assembly to leads of stator assembly, three (3) places.
5. Solder voltage regulator terminal to rectifier assembly strap. Remove excess solder to push terminals together.
6. Reinstall two (2) bushings and three (3) mounting screws into the voltage regulator, **ensuring the one (1) insulated screw is used in terminal that connects to brush holder**. Torque all screws to **2.2-2.8 N-m (19-25 lb in)**.
7. Reinstall the battery terminal spacer, lock washer and nut, finger tight.
8. Reinstall slip ring end cover and torque the mounting screw assemblies to **2.2-2.8 N-m (19-25 lb in)**.
9. Reinstall alternator according to engine or vehicle manufacturer's instructions.
10. Reattach the battery (+) terminal lead to alternator battery terminal and torque nut to **9.0-13.0 N-m (80-120 lb in).**
11. Reconnect the negative (-) cable at the battery.

NOTICE - Only licensed Remy Inc. product and component parts should be used, and the use of other parts or modifications not approved by Remy Inc. will void all applicable warranties. The failure to carefully follow these Installation Instructions, set forth above, will void all applicable warranties.

Delco Remy® is a registered trademark of General Motors Corporation, licensed to Remy Inc., Pendleton, IN 46064.
© 2008 Remy Inc.