

AL12/24, 60/70 amp Alternator

10-1020 Brush Assembly Inspection/Replacement

1. Remove the nuts, lock washers and ground strap holding the rear cover.
2. Remove the auxiliary terminal, lock washer and washer. Make sure the washer and lock washer do not fall into the alternator.
3. Remove the nuts and output post insulator.
4. Remove the rear cover.
5. Remove the screws holding the brush block assembly.
6. Inspect brushes from block assembly and inspect for excess wear.
7. Inspect slip ring for damage, grooves or carbon build-up.
8. Clean with de-natured alcohol and lightly polish with a very fine Scotch-Brite pad.
9. Clean debris out from inside of alternator with compressed air.
10. Inspect brushes for chipping and damage to the spring, cap and wire.
11. Replace brushes if they extend less than .250" from the edge of the case.
12. Holding the brushes down with your index finger, slide the assembly over the rotor shaft.
13. Reinstall the brush assembly mounting screws. Torque to 16 inch-pounds.
14. Reinstall rear cover.
15. Install output insulator and retaining nut. No torquing is required.
16. Reinstall auxiliary terminal, lock washer and washer nut. Torque to 16 inch-pounds.
Make sure the washer and lock washer do not fall into the alternator.
17. Install the ground strap.

18. Reinstall the three (3), 4mm nuts and torque to 16 inch-pounds.
19. Reinstall the lock washer, washer and nut and torque to 16 inch-pounds.
20. Install the 5mm output insulator post nut and torque to 35 inch-pounds.
21. Verify alternator spins freely then remove the retaining wire from the brush block. The brushes should snap against the slip ring.
22. Verify rotor resistance as approximately 4- to 8-ohms on a 12 volt alternator or 8- to 12-ohms on a 24 volt unit.
23. Check resistance by slowly turning the rotor by hand.
24. Reinstall and test the alternator per the aircraft manufacturer's maintenance manual.