

# Alternator



**Jasco Type Gear Drive**

## **Installation, Maintenance & Troubleshooting**

**(See Back Page For Computer Test Results)**



## Removal (If Applicable):

1. Prior to removal, by visual inspection, try to determine cause of failure of old unit.
2. Inspect installation for compliance with all applicable A.D. Notes, Service Bulletins and other service documentation.
3. Disconnect aircraft battery from circuit and insulate cables to avoid electrical shock and accidental grounding.
4. Remove old alternator from engine, being careful not to further damage unit, as it is still valuable as an exchange core.

## Installation:

1. Carefully remove new unit from shipping carton and inspect for hidden damage, proper part number, and correct voltage.
2. Refer to factory approved wiring diagrams for routing, color codes and connections. Consult the applicable engine/aircraft service manual or instructions as required.
3. Inspect all brackets and spacers for proper fit.
4. Torque all mounting bolts to factory specifications (refer to engine/aircraft manual).
5. Inspect gear drive coupling rubber bushings for integrity and condition (refer to engine/aircraft manual and service publications).
6. Use only new oil seals and engine case gaskets.
7. Inspect all wire terminals for cut and broken strands of wire.
8. It is advisable to install a new voltage regulator after electrical failure.
9. Test in actual operation, each alternator, immediately upon completion of the installation. Refer to engine owners manual or aircraft AFM or POH.
10. Complete the Warranty Activation upon installation per the instructions in the warranty policy. Record the installation in the aircraft/engine logbook.

## Maintenance:

1. Keep clean inside and out. Heat is an alternator's worst enemy.
2. Secure wires to prevent unnecessary movement.
3. Periodically check aircraft voltmeters and ammeters with calibrated test meters.
4. Each 250 hour TIS, remove alternator and inspect drive coupling rubber bushings for condition. If worn or damaged, replace with new.
5. Check A.D. Notes and Service Bulletins applicable to the alternator.
6. Check brackets and mounting attach points for cracks and general security.
7. Check for case gasket oil leaks. Check for oil seal blow by (if applicable).
8. Check cooling air blast tube hoses for security, wear, and cleanliness.
9. Inspect thru bolts for looseness in case.
10. Overhaul or replace at 1000 hours time-in-service.

## Troubleshooting:

1. Check battery condition. Be sure electrical load is not exceeding unit output.
2. Check voltage regulator output at regulator terminal and at alternator.
3. Check main alternator and field circuit breakers for security and continuity.
4. Check bonding or ground connections of alternator, voltage regulator and battery for security.

5. Use alternator analyzer to confirm internal function of diodes and stator.
6. Listen for grinding sound from alternator when engine is turned. Adjust torque slightly on the alternator mount bolts to eliminate or reduce grinding noise.
7. Make sure alternator is being driven to full RPM. Gear driven couplings may fail causing reduced or zero output. Remove alternator and check coupling.

## Cautions:

1. Always refer to the airframe and engine specifications to determine the proper alternator to install. Do not rely on the part number removed, as it may have been installed as it may be installed under an STC or require an STC to be legal.
2. Immediately perform a running test for operation after installation. Do not return the alternator to service without performing a running test.
3. Alternators have high electrical output. Great care must be taken to avoid equipment damage and personal injury from electrical discharge.

## About Hartzell Engine Technologies LLC:

At Hartzell Engine Technologies, our quest for quality drives our business. We simply will not settle for less than the best. From the initial design to the building and testing of each unit, we take pride in our high level of craftsmanship. We confidently stand behind each component with our solid warranty honored by Hartzell Engine Technologies distributors worldwide.

Call our Hartzell Engine Technologies Customer Care at +1.334.386.5400 or visit our website at <http://www.hartzellenginetechnology.com> for more information about our full line of products and a distributor nearest you.

Demand quality, demand Hartzell Engine Technologies products, alternators, starters, combustion heaters, turbochargers, and a complete line of turbocharger valves and controllers.



2900 Selma Highway,  
Montgomery, AL 36108 USA  
TEL +1.334.386.5400  
FAX +1.334.386.5410

Website: <http://www.hartzell.aero>

FAA Approved Repair Station 1HZR769B  
EASA.145.4418