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S.I.L. NO. 16-560-01

SERVICE INFORMATION LETTER

FROM: JetPROP LLC

22 June 2016

SUBJECT: 90 Amp Generator Circuit Breaker Upgrade

TO: JetPROP Owners (JP 224 and earlier)

Background: JetPROPs converted prior to 2008 were equipped with two 80 amp generator circuit breakers, giving a maximum electrical system load of 160 amps. It is possible that when using all of the electrical equipment at once (including landing gear and flaps) the total amp draw may exceed 160 amps, popping both generator circuit breakers. Post-2008 JetPROPs were equipped with two 90 amp circuit breakers, giving a maximum electrical system load of 180 amps. This significantly reduces the possibility of overloading the electrical system.

Recommendation: Since it is possible to overload the 160 amp system by continuous operation of all electrical equipment, JetPROP LLC recommends that those aircraft with dual 80 amp generator circuit breakers be upgraded to the dual 90 amp configuration.

Procedures for upgrading the generator circuit breakers and associated wiring:

Preparation

1. Disconnect both batteries.
2. Remove the pilot's seat, left mid seat, left cabinet, and forward and mid left-side panels. This will provide access to the circuit breakers and the generator shunt.
3. Remove forward cargo compartment carpet, and electrical bay floor panel. This is for access to the generator contactor and pressure bulkhead and firewall wire pass-throughs.
4. Remove both top and bottom cowls. This will provide access for routing the new 1 gauge wire from the generator contactor, through the firewall, to the generator.

Circuit Breaker Replacement

1. Remove nuts and washers from main circuit breakers located on the instrument panel and push circuit breaker assembly forward and down for access to the generator breakers.
2. Remove existing wire(s) from generator breakers. Some aircraft had two 4 gauge wires, some had a single 2 gauge with a copper buss bar.
3. Remove the two 80 amp circuit breakers and install two 90 amp breakers.

Wiring Replacement

1. Remove the single 2 gauge wire or two 4 gauge wires routed from the generator circuit breakers to the generator shunt. The shunt is located on the left side of the fuselage at immediately forward of the static port drain. See Figure 1.

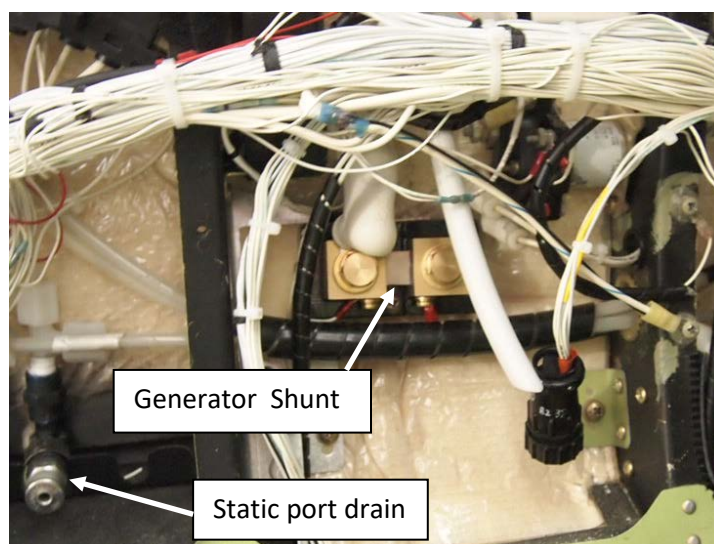


Figure 1: Location of Generator Shunt

2. Run a length of M22759/16-1-9 wire from the generator circuit breakers buss down to the generator shunt.
3. Withdraw the original 2 gauge wire between the shunt to the generator contactor in the forward cargo compartment. See Figure 2.

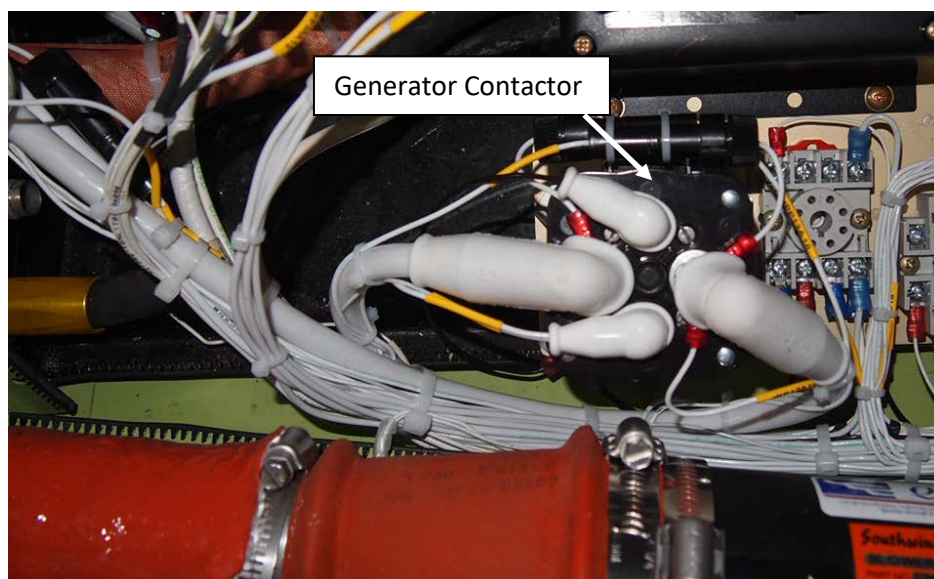


Figure 2: Generator Contactor

4. Route a new length of M22759/16-1-9 wire from the shunt to the generator, utilizing the original bulkhead pass-through fitting.
5. Terminate that wire at the generator contactor. Replicate the original wiring route.
6. Remove the original 2 gauge wire from the generator contactor to the generator.
7. Run a length of M22759/16-1-9 wire from the contactor, through the firewall, to the generator. This wire must be in free air, not in contact with other wires, nor enclosed within spiral wrap.
8. Refer to JetPROP S.I.L. 09-560-01 for details on routing the new generator wire over the top of the engine.
9. Terminate the wire at the generator.
10. Reinstall circuit breakers in instrument panel.
11. Connect batteries.

Ground Operations Test

1. Perform an engine ground run to verify operation of the generator.
2. Run engine at 70% Ng, and turn on all electrical equipment. Note the total system amperage draw. Total system amperage should not exceed 150 amps.

Reassembly

1. Reinstall interior
2. Reinstall electrical bay floor panel and carpet.
3. Reinstall bottom cowl (Reference JetPROP Maintenance Manual 30-00-00 A. & B.)
 - Connect forward ice door drive rod and cannon plug(s).
 - Conduct inlet and prop heat operations check.
 - Conduct ice door operations check.
4. Reinstall top cowl

Documentation: Once this change has been accomplished, make a log book entry noting that JetPROP Service Information Letter 16-560-01 was accomplished.

Sincerely,



Darwin Conrad

Chief Operating Officer