

ADVISORY WIRE

AW300-24-0073, Rev. 1

DATE: July 28, 2008

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FROM: BOMBARDIER CUSTOMER SERVICES BUSINESS AIRCRAFT

ADVISORY WIRE

REFERENCE NO: AW300-24-0073, Rev. 1

SUBJECT: SB100-24-08 – Modification of DC Power Center (DCPC) - System Reactivation.

EFFECTIVITY: BD100-1A10 (20003 – 20088)

ATA: 24

This Advisory Wire contains Operational and Maintenance Information

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1.0 REFERENCES:

- 1.1 Service Bulletin 100-24-08 – Modification of DC Power Centre (DCPC) System – Replacement of Printed Circuit Boards (PCBs) in the Left, Right and Auxiliary DCPC, dated March 12, 2007.

2.0 INTRODUCTION:

The revision to this Advisory Wire is to inform operators that the Ref. 1.1 Service Bulletin is no longer on hold. The bulletin has been revised to provide improved information and advise operators that it should be incorporated on aircraft that are experiencing specific issues.

3.0 DESCRIPTION:

The Ref. 1.1 Service Bulletin was put on hold following numerous issues reported by operators during its incorporation. An intensive investigation, including on-aircraft testing was conducted by Bombardier and ECE (the electrical system supplier) to identify the root cause(s) of those issues. The investigation confirmed the following;

- 3.1 A satisfactory performance of the electrical system on all aircraft post incorporation of the bulletin.
- 3.2 In all cases, the difficulties reported during or after the bulletin incorporation were caused by defective LRUs.
- 3.3 The bulletin introduces improvements to mitigate improper electrical faults reporting by the maintenance diagnostic computer and also resolved the following electrical nuisances:
 - 3.3.1 Generator Control Unit (GCU), logic and protection card failure when operating in low battery conditions and/or cold temperatures.
 - 3.3.2 GCU card failure on engine / Auxiliary Power Unit (APU) power-up or shutdown.

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- 3.3.3 GCU card failure caused by a ground cart exhibiting “slow ramp-up” issues.
- 3.3.4 Logic and protection card nuisance Crew Alerting System (CAS) failure messages caused by the “input / output” card interface not using the same electrical ground level.
- 3.3.5 Battery contactor opens when related Logic or Protection cards experiences an electrical power failure.
- 3.3.6 DCPC power module failure causing generator Permanent Magnet (PMG) failure.

4.0 ACTION:

Operators who experience the nuisance faults listed in Section 3.3 should consider incorporating the Ref 1.1 Service Bulletin. If required, your [Field Service Representative](#) (FSR) can assist you in the evaluation of your electrical system issues.

Operators who do not experience electrical issues or who have issues different from the ones listed at Section 3.3 should not consider incorporating the Service Bulletin.

Operators experiencing electrical issues of other types should provide feedback to their FSR to ensure those issues are investigated and taken into consideration for a future electrical system upgrade.

All service bulletins are available on the CIC website (<http://www.cic.bombardier.com>) within the Technical Library > Service Bulletins > by Bombardier > Service Bulletin Indexes for Challenger.

A listing of FSRs is available on the password-protected CIC website (<http://www.cic.bombardier.com/>) within the Contacts > Field Support Contacts > Category > Field Service Representative > Aircraft > Challenger > Geography.