



No.	CF-2013-05	1/2
Issue Date	22 February 2013	

AIRWORTHINESS DIRECTIVE

The following airworthiness directive (AD) may be applicable to an aircraft which our records indicate is registered in your name. ADs are issued pursuant to **Canadian Aviation Regulation (CAR) 521 Division X**. Pursuant to **CAR 605.84** and the further details of **CAR Standard 625, Appendix H**, the continuing airworthiness of a Canadian registered aircraft is contingent upon compliance with all applicable ADs. Failure to comply with the requirements of an AD may invalidate the flight authorization of the aircraft. Alternative means of compliance shall be applied for in accordance with **CAR 605.84** and the above-referenced **Standard**.

This AD has been issued by the Continuing Airworthiness Division (AARDG), National Aircraft Certification Branch, Transport Canada, Ottawa, telephone 613 952-4357.

- Number:** CF-2013-05
- Subject:** Direct Current Power Center – Loss of Electrical Power
- Effective:** 11 March 2013
- Applicability:** Bombardier Inc. aeroplane model BD-100-1A10, serial numbers 20003 and subsequent.
- Compliance:** Within 800 hours air time or 24 months, whichever occurs first, from the effective date of this AD, unless already accomplished.
- Background:** There have been multiple in-service reports of erratic electrical status indications on the Push Button Annunciators (PBA) and the Engine Instrument & Crew Alerting System (EICAS) while on-ground and during flight. Three of those reported incidents resulted in the aeroplane experiencing momentary loss of electrical power and loss of flight displays.

The investigation revealed that improper insertion of a Printed Circuit Board (PCB) in a Direct Current Power Center (DCPC) may lead to erroneous electrical status indications on the PBAs and EICAS. The erroneous indications could mislead the pilots into turning off active generators and leading to partial or complete loss of electrical power. Loss of electrical power could result in the loss of flight displays and reduced controllability of the aeroplane.

Further investigation determined that the design of the existing DCPC covers does not ensure that the PCBs will remain inserted into the motherboard of the DCPC.

This AD mandates the modification of each DCPC to ensure that properly closed covers will retain the PCBs within the motherboards.

- Corrective Actions:** **Part I – DCPC Modification – Applicable to aeroplane serial numbers 20003 through 20405:**

Modify the DCPCs in accordance with the Accomplishment Instructions in the Bombardier Service Bulletin (SB) 100-24-23, Basic Issue, dated 26 November 2012, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Part II – Spares – Applicable to aeroplane serial numbers 20003 and subsequent:

As of the effective date of this AD, no person may install a DCPC with a part number listed in the table below, unless the DCPC serial number has a suffix “R” beside the serial number:

970GC02Y04	975GC02Y04	320GC03Y04
970GC02Y05	975GC02Y05	320GC03Y05
970GC02Y06	975GC02Y06	320GC03Y06

Authorization: For the Minister of Transport, Infrastructure and Communities,

ORIGINAL SIGNED BY

Derek Ferguson
Chief, Continuing Airworthiness

Contact: Robert Farinas, Continuing Airworthiness, Ottawa, telephone 613-952-4357, facsimile 613-996-9178 or e-mail ADs@tc.gc.ca or any Transport Canada Centre.