



AIRWORTHINESS DIRECTIVE

This Airworthiness Directive (AD) is issued pursuant to Canadian Aviation Regulation (CAR) 521.427. No person shall conduct a take-off or permit a take-off to be conducted in an aircraft that is in their legal custody and control, unless the requirements of CAR 605.84 pertaining to ADs are met. Standard 625 - Aircraft Equipment and Maintenance Standards Appendix H provides information concerning alternative means of compliance (AMOC) with ADs.

Number:

CF-2023-14R1

Effective Date:

29 May 2023

ATA:

32

Type Certificate:

A-131

Subject:

Landing Gear – Nose Wheel Steering System – Electronic Control Module Filter Plate Connector Failure

Revision:

Supersedes AD CF-2023-14, issued 28 February 2023.

Applicability:

Bombardier Inc. model CL-600-2B16 aeroplanes with serial numbers 5301 through 5665, 5701 through 5990, 6050 and subsequent.

Compliance:

As indicated below, unless already accomplished.

Background:

The manufacturer of the nose wheel steering (NWS) system electronic control module (ECM), part number (P/N) 601-86100-27, introduced a new filter plate connector that does not meet the certification requirements related to the susceptibility of electronic components to high intensity radiated field. This non-compliant filter plate connector, if not replaced, could result in a malfunction of the NWS system causing potential un-commanded steering or lateral excursion from the runway.

AD CF-2023-14 required the removal and replacement of all affected non-compliant ECMs, P/N 601-86100-27 affecting all CL-600-2B16 models, to address the above-mentioned unsafe condition.

This AD revision, CF-2023-14R1, clarifies the applicability of AD CF-2023-14.

Corrective Actions:

Part I – Verification of the Aeroplane Technical Records, Applicable to Aeroplanes with Serial Numbers 5301 through 5665, 5701 through 5990, and 6050 through 6171

- A. Within 24 months from the effective date of CF-2023-14 (14 March 2023), verify the aeroplane technical records to determine if the serial number of the ECM, P/N 601-86100-27, is listed in Table 1 of Section 1.A. of the applicable Service Bulletin (SB) listed in Table A of this AD.
- B. If the serial number of the ECM is not listed in Table 1 of Section 1.A. of the applicable SB or is re-identified on the name plate as SB-1, then Part II and Part III of this AD are not required. Proceed to Part IV of this AD.
- C. If the verification of the aeroplane technical records cannot be performed or if an inspection of the ECM is preferred to a records check, proceed to Part II of this AD.

Part II – Inspection, Applicable to Aeroplanes with Serial Numbers 5301 through 5665, 5701 through 5990, and 6050 through 6171

- A. Within 24 months from the effective date of CF-2023-14 (14 March 2023), inspect the serial number of the ECM, P/N 601-86100-27, in accordance with Section 2.B. Part A of the Accomplishment

Instructions of the applicable SB listed in Table A of this AD.

- B. If the serial number of the ECM is not listed in Table 1 of Section 1.A. of the applicable SB or is re-identified on the name plate as SB-1, then Part III of this AD is not required. Proceed to Part IV of this AD.

Part III – Replacement, Applicable to Aeroplanes with Serial Numbers 5301 through 5665, 5701 through 5990, and 6050 through 6171

- A. Within 24 months from the effective date of CF-2023-14 (14 March 2023), remove and replace the ECM, P/N 601-86100-27, identified in Part I or Part II of this AD, in accordance with Section 2.C. Part B of the Accomplishment Instructions of the applicable SB listed in Table A of this AD.
- B. Prior to return to service, complete the operational test of the NWS in accordance with Section 2.D. of the Accomplishment Instructions of the applicable SB listed in Table A of this AD.

Part IV – Installation Prohibition of Components, Applicable to Aeroplanes with Serial Numbers 5301 through 5665, 5701 through 5990, 6050 and Subsequent.

As of the effective date of CF-2023-14 (14 March 2023), it is prohibited to install ECM, P/N 601-86100-27, as a replacement part, if the serial number is listed in Table 1 of Section 1.A. of the applicable SB listed in Table A of this AD, unless the ECM has been re-identified with SB-1 on the name plate.

Table A – Applicable Bombardier SBs

Aeroplane Model	Aeroplane Serial Number	Applicable Bombardier SBs
CL-600-2B16 (Challenger 650)	6050 through 6171	SB 650-32-006, Basic Issue, dated 18 October 2021, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
CL-600-2B16 (Challenger 605)	5701 through 5990	SB 605-32-009, Basic Issue, dated 18 October 2021, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
CL-600-2B16 (Challenger 604)	5301 through 5665	SB 604-32-032, Basic Issue, dated 18 October 2021, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young
Chief, Continuing Airworthiness
Issued on 15 May 2023

Contact:

Philip Lynch, Continuing Airworthiness, Ottawa, telephone 888-663-3639, facsimile 613-996-9178 or e-mail TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca or any Transport Canada Centre.