



# 適航指令發布單

## Airworthiness Directive Issuance Form

民航局 AD 編號 AD number	CAA-2023-02-004	發布日期 Date issued	2023/2/10
適用之航空產品 Applied to (models, serial numbers or part numbers, as applicable)	Bombardier Inc. model CL-600-2B16 aeroplanes, serial numbers 5580 to 5665, 5701 to 5988 and 6050 and subsequent.		
主旨摘要 Subject	Pneumatic - Non-Conforming Bleed Air Leak Detection System Sensing Elements		
<div style="text-align: center;">民航局 CAA</div> <input type="checkbox"/> 本國產品 Native product  <input type="checkbox"/> 其他個案 Other	<div style="text-align: center;">設計國民航主管機構 Original Authority</div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> FAA  <input type="checkbox"/> EASA  <input type="checkbox"/> Brazil  <input checked="" type="checkbox"/> Transport Canada Civil Aviation  <input type="checkbox"/> DGAC           </div> <div style="width: 45%;"> <input type="checkbox"/> Germany LBA  <input type="checkbox"/> CAA-NL  <input type="checkbox"/> UK CAA  <input type="checkbox"/> Japan CAB  <input type="checkbox"/> CAA of Israel  <input type="checkbox"/> Other _____           </div> </div>		
	設計國 AD 編號 Original AD number	CF-2023-05	
	1. 直接採用原 AD 之內容?(Is the original AD directly adopted?) <input checked="" type="checkbox"/> 是(Yes) <input type="checkbox"/> 否(No) _ a. 生效日期另訂為(Re-specify the effective date as) : _____ b. 執行時限另訂為(Re-specify the compliance time or period as) : _____ 2. 使用人是否需要將 AD 執行結果向民航局提出報告?(Do Users need to report the status of compliance to the CAA?) <input type="checkbox"/> 是(Yes) <input checked="" type="checkbox"/> 否(No)		
備註 Note	ATA 36. Ref. SB: BA SB 604-36-005, Basic Issue, dated 23 December 2022, BA SB 605-36-002, Basic Issue, 23 December 2022, or BA SB 650-36-001, Basic Issue, dated 23 December 2022		
註： 1. AD 內容後附。 2. 航空器產品使用人得向民航局提出豁免、替代符合方法、執行時限之展延之申請。 3. 如有任何問題，請聯絡交通部民用航空局初始適航科。Tel：(02)2349-6330 / 6332, Fax：(02)2545-8464, e-mail： <a href="mailto:adcaa@mail.caa.gov.tw">adcaa@mail.caa.gov.tw</a> Note： 1. The AD text is enclosed. 2. Exemption, an alternative method of compliance or adjustment of the compliance time may be proposed to the CAA for approval. 3. For further information, please contact Civil Aeronautics Administration on Tel：(02)2349-6330 / 6332, Fax：(02)2545-8464, e-mail： <a href="mailto:adcaa@mail.caa.gov.tw">adcaa@mail.caa.gov.tw</a>			



# 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-2023-05

**Effective Date:**

22 February 2023

**ATA:**

36

**Type Certificate:**

A-131

**Subject:**

Pneumatic – Non-Conforming Bleed Air Leak Detection System Sensing Elements

**Applicability:**

Bombardier Inc. model CL-600-2B16 aeroplanes, serial numbers 5580 to 5665, 5701 to 5988 and 6050 and subsequent.

**Compliance:**

As indicated below, unless already accomplished.

**Background:**

Bombardier (BA) received disclosure letters from the supplier of overheat detection sensing elements which reported a manufacturing quality escape in which some sensing elements were manufactured with insufficient salt fill. As these sensing elements are used by the bleed air leak detection system for temperature detection in the event of a hot bleed air leak, this insufficient salt fill can result in an inability to detect hot bleed air leaks, which can cause damage to surrounding structures and systems that can prevent continued safe flight and landing.

To address this unsafe condition, this AD requires testing of all affected overheat detection sensing elements of the bleed air leak detection system and replacement, as required, of non-confirming sensing elements, in accordance with BA Service Bulletin (SB) 604-36-005, SB 605-36-002 and SB 650-36-001, as applicable. This AD also prohibits the installation of any non-conforming sensing element as a replacement part on applicable aeroplanes.

**Corrective Actions:**

For the purpose of this AD, the following definitions apply:

**Kidde SB:** Kidde Aerospace and Defense SB CFD-26-1, as referenced in Section 1.K. of the applicable BA SB, or earlier revisions of the Kidde SB.

**The applicable BA SB:** BA SB 604-36-005, Basic Issue, dated 23 December 2022, BA SB 605-36-002, Basic Issue, 23 December 2022, or BA SB 650-36-001, Basic Issue, dated 23 December 2022, as applicable, or later revisions of these SBs approved by the Chief, Continuing Airworthiness, Transport Canada.

**Affected part:** A sensing element marked with a date code A0448 through A2104 (inclusive) and having a part number as defined in the Kidde Aerospace and Defense SB CFD-26-1 Revision 6, dated 28 February 2022, unless that sensing element:

- a. Has been tested in accordance with Section 3 of the Accomplishment Instructions of the Kidde SB and found to be serviceable; and
- b. Has been marked on one (1) face of its connector hex nut in accordance with Section 3.C. of the Accomplishment Instructions – Identification Procedure of the Kidde SB.

OR

- c. Has been tested and found to be serviceable in accordance with Part I of this AD; and
- d. Has been marked on one (1) face of one (1) connector hex nut with one (1) green mark, as shown in Figure 6 of the applicable BA SB (figure is representative for all sensing elements).

**Serviceable part:** A sensing element that is not an affected part.

**Group 1 aeroplanes:** Model CL-600-2B16 aeroplanes having serial numbers 5580 through 5665, model CL-600-2B16 aeroplanes having serial numbers 5701 through 5988, and model CL-600-2B16 aeroplanes having serial numbers 6050 through 6174.

**Group 2 aeroplanes:** Model CL-600-2B16 aeroplanes having serial numbers 6175 and subsequent.

#### **Part I – Testing and Replacement – Applicable to Group 1 Aeroplanes**

- A. Within 7800 flight cycles or 96 months, whichever occurs first, from the effective date of this AD, test the overheat detection sensing elements to determine if they are serviceable, in accordance with the Section 2 of the Accomplishment Instructions of the applicable BA SB.
- B. If the sensing element is found serviceable, before further flight, mark the sensing element with a witness mark in accordance with Section 2 of the Accomplishment Instructions of the applicable BA SB.
- C. If the sensing element is found not serviceable, before further flight, replace the sensing element with a serviceable part in accordance with Section 2 of the Accomplishment Instructions of the applicable BA SB.

#### **Part II – Parts Installation Prohibition – Applicable to Group 1 and Group 2 Aeroplanes**

As of the effective date of this AD, an affected part is not eligible for installation as a replacement part on Group 1 and Group 2 aeroplanes.

#### **Authorization:**

For the Minister of Transport,

*ORIGINAL SIGNED BY*

Jenny Young  
Chief, Continuing Airworthiness  
Issued on 8 February 2023

#### **Contact:**

Audrey Vézina-Manzo, Continuing Airworthiness, Ottawa, telephone 888-663-3639, facsimile 613-996-9178 or e-mail [TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca](mailto:TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca) or any Transport Canada Centre.