

## SERVICE BULLETIN SUMMARY

This Service Bulletin is available at:  
[my.businessaircraft.bombardier.com](https://my.businessaircraft.bombardier.com)

MODEL CL-600-2B16

ATA 27-54

### FLIGHT CONTROLS

#### SPECIAL CHECK – FLAPS – INTRODUCTION OF INITIAL AND REPEAT OPERATIONAL TEST OF THE FLAPS TO VERIFY THE RETRACTION / EXTENSION TIME

The information below is provided for your reference. For full details, including labor and part coverage, please see corresponding paragraph contained within this bulletin.

RECOMMENDED	COMPLIANCE TIME	
SPECIFIED TIME COMPLIANCE	Within 100 FH from this Service Bulletin release date (Basic Issue). Refer to Paragraph 1.D. for more details.	
EFFECTIVITY: A/C Serial No. 6050 to 6999		
MANPOWER: 0.5 man-hour		
CONTINUED AIRWORTHINESS (CAW) FLEET CAMPAIGN	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
TLMC, CH 5 AFFECTED	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
KITS and/or PARTS	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
TOOLING/GSE	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
PLANNING INFORMATION	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
DEDICATED SCHEDULE	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
PREREQUISITE SERVICE BULLETINS: N/A		
NOTE: This Service Bulletin may be subject to an Airworthiness Directive which will make it necessary to implement this Service Bulletin.		

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MODEL CL-600-2B16

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FLIGHT CONTROLS

**SPECIAL CHECK – FLAPS – INTRODUCTION OF INITIAL AND REPEAT  
OPERATIONAL TEST OF THE FLAPS TO VERIFY  
THE RETRACTION / EXTENSION TIME**

### 1. PLANNING INFORMATION

**NOTE:** Before you do this Service Bulletin, examine all STC, STA or equivalent action changes to make sure that this Service Bulletin can be completed.

#### A. Effectivity

CL-600-2B16 aircraft, Serial No. **6050** to **6999**.

**NOTE:** The instructions given in this Service Bulletin are only applicable to the systems and parts installed at the time of delivery of the aircraft or as changed by Bombardier Aviation Service Bulletin(s).

#### B. Reason

##### 1. Condition:

A Challenger 604 experienced an unarrested uncommanded flaps extension, from 0 to 45 degrees, accompanied by a FLAPS FAIL Caution message, a scenario which requires multiple independent failures. Investigation has determined that one of the failures was in the Retract Relay on motor channel 1 and this prevented the system from arresting the uncommanded flaps extension. Failure of the Retract Relay also resulted in the flaps moving at half speed. A failure of the Retract Relay on motor channel 2, or a failure of either of the extend relays (motor channel 1 or motor channel 2), will have a similar effect.

Refer to applicable governmental agency regulations and requirements and make sure that the work described in this Service Bulletin is performed in compliance with manufacturer's recommendations and/or acceptable industry standards.

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# **CHALLENGER 650**

## **MODEL CL-600-2B16**

### **2. Objective/Benefit:**

This Service Bulletin instructs to do an initial and repeat operational test of the inboard and outboard flaps to validate if the extension / retraction time are within limits, at the intervals as specified in Paragraph 1.D.

### **C. Description**

This Service Bulletin gives instructions to:

- Do the operational test of the inboard and outboard flaps to verify the extension / retraction time.

### **D. Compliance**

Specified Time Compliance

<b>SB ACTION</b>	<b>INITIAL ACTION</b>	<b>INSTRUCTION</b>
Operational test of the inboard and outboard flaps.	Within 100 FH from this Service Bulletin release date (Basic Issue).	Repeat every 400 FH from the initial action.

**NOTES:** 1. This Service Bulletin is in reference to Advisory Wire AW600-27-2631.

2. If it is not possible to complete all the instructions in this Service Bulletin because of the aircraft configuration, submit an SRPSA for analysis and to get an approved disposition to complete this Service Bulletin. Standard SRPSA fees may apply. Refer to the Services section of the Bombardier customer portal for the latest prices, rates and fees.

### **E. Approval**

The technical content of this Service Bulletin has been approved under the authority of Transport Canada Civil Aviation (TCCA) Design Approval Organization (DAO) No. DAO #93-Q-02.

**NOTES:** 1. The technical content of this Service Bulletin is accepted by the FAA under the Canada/USA bilateral Aviation Safety Agreement.

2. The technical content of this Service Bulletin is accepted by EASA under the Canada/EU bilateral Aviation Safety Agreement.

### **F. Manpower**

**NOTE:** The man-hours given are to help you schedule the tasks given in this Service Bulletin. The man-hours are for direct labor performed by an experienced crew and do not include the time for familiarization, planning, aircraft preparation in hangar such as towing and positioning of scaffolds, removal of interior furnishings, repainting, supervision and inspection.

# **CHALLENGER 650**

## **MODEL CL-600-2B16**

For more information related to the manpower, refer to SB 650-00-002.

0.5 man-hour is necessary to do this Special Check.

Bombardier Aviation does not pay for the labor to do this Special Check.

### **G. Material – Cost and Availability**

No kit or parts are necessary to do this Special Check.

### **H. Tooling**

The equipment listed below is necessary to do this Service Bulletin:

<b>GSE REFERENCE NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
Commercially Available	–	Stopwatch

- NOTES:**
1. Refer to the CL-650 Illustrated Tool and Equipment Manual (ITEM) to make sure that you use the correct equipment configuration.
  2. Refer to the Liability Statement in the ITEM for the CL-650, for acceptable GSE equivalents.
  3. This list is provided for quick reference. In case of discrepancy between this list and the tools called in the SPM, WM, Chapter 20, then the tools called in the SPM-WM prevail. Other approved alternative tools are acceptable and can also be used.

### **I. Weight and Balance**

No change.

### **J. Electrical Load Data**

No change.

### **K. References**

- TCCA Airworthiness Directive, (pending).
- Advisory Wire AW600-27-2631.
- Bombardier Aviation, Restriction and/or Special Instruction (RSI), C-4297, Rev. A.
- CL-650 Aircraft Maintenance Manual (AMM), Chapters 6, 12, 24 and 27.

### **L. Other Publications Affected**

None.

# **CHALLENGER 650**

MODEL CL-600-2B16

## **M. Equivalent Service Bulletins**

- For the Challenger 600 aircraft, use Service Bulletin 600-0780.
- For the Challenger 601 aircraft, use Service Bulletin 601-1112.
- For the Challenger 604 aircraft, use Service Bulletin 604-27-040.
- For the Challenger 605 aircraft, use Service Bulletin 605-27-011.

## **2. ACCOMPLISHMENT INSTRUCTIONS**

- NOTES:**
1. All TASKs given in the procedures that follow are from the CL-650 Aircraft Maintenance Manual unless otherwise specified.
  2. All references made to zones, access panels and/or doors, are from the CL-650 Aircraft Maintenance Manual (AMM), Chapter 6.

### **A. Aircraft Setup**

**WARNING:** OBEY ALL SAFETY PRECAUTIONS WHEN YOU DO MAINTENANCE ON OR NEAR ELECTRICAL EQUIPMENT. IF YOU DO NOT DO THIS, YOU CAN CAUSE INJURIES TO PERSONS AND/OR DAMAGE TO THE EQUIPMENT.

- (1) Obey all electrical/electronic safety precautions. Refer to AMM 24-00-00-910-801.
- (2) Obey all the flight control safety precautions. Refer to AMM 27-00-00-910-801.
- (3) Install the safety devices and the warning placards in the area near the flap-control surfaces.
- (4) Connect and energize the external AC power. Refer to AMM 12-00-07-861-801.

### **B. Special Check — Operational Test of the Inboard and Outboard Flaps**

- NOTES:**
1. If it is not possible to complete all the instructions in this Service Bulletin because of the configuration of the aircraft, submit an SRPSA for analysis and to get an approved disposition to complete this Service Bulletin.
  2. Repeat the operational test of the inboard and outboard flaps every 400 FH.

# **CHALLENGER 650**

## **MODEL CL-600-2B16**

- (1) Do the operational test of the inboard and outboard flaps to verify the extension / retraction time as follows:

**NOTE:** If you get the condition that follows, make sure that the flap motors are cooled (6 minutes cooling) before you operate them again: the FLAPS FAIL indication. No anomalous flap messages should be indicated before commencing this verification.

- (a) Push the FLT button on the cursor control panel (CCP). Make sure that you get the FLIGHT CONTROL page on the MFD primary EICAS.
- (b) Set the flap control lever at 0.
- (c) Make sure that the FLAPS position digital readout shows 0 degree and the FLAPS position bar does not show.
- (d) Make sure there are no FLAP FAIL (C) or FLAPS MOTOR OVHT (S) EICAS messages.
- (e) Set the flap control lever at 45. Make sure that the flap extension time is 17 to 19 seconds.

**CAUTION** WAIT 6 MINUTES BEFORE PROCEEDING TO STEP (f), TO COOL THE FLAP MOTORS.

- (f) Set the flap control lever at 0. Make sure that the flap retraction time is 17 to 19 seconds.
- (2) If any anomalies are found, submit an SRPSA to report back to Bombardier.

### **C. Close-out**

- (1) Remove the external AC power. Refer to AMM 12-00-07-861-802.
- (2) Remove all tools, equipment and other unwanted material from the aircraft.
- (3) Remove the warning placards from the area near the flap-control surfaces.

### **D. Recording**

When this Service Bulletin is completed, make an entry in the aircraft log and send the attached Incorporation Notice to Bombardier Business Aircraft Customer Services (BBACS).

For information, correction(s), comment(s) and/or feedback regarding Service Bulletins released on the Customer Portal, please contact the Service Bulletin Group at the following email address:

[bbad\\_SBgroup@aero.bombardier.com](mailto:bbad_SBgroup@aero.bombardier.com)

## **3. MATERIAL INFORMATION**

### **A. Kit**

No kits required.

# ***CHALLENGER*** <sup>650</sup>

MODEL CL-600-2B16

**B. Parts**

No parts required.

**C. Material**

No materials required.

**D. Publications**

No publications required.

# BOMBARDIER

## SERVICE BULLETIN EVALUATION FORM

(Your ideas will help us provide better bulletins)

**SERVICE BULLETIN:** 650-27-004    **ISSUE:** Basic    **DATED:** Dec 29/2022

**TITLE:**    SPECIAL CHECK – FLAPS – INTRODUCTION OF INITIAL AND REPEAT  
OPERATIONAL TEST OF THE FLAPS TO VERIFY  
THE RETRACTION / EXTENSION TIME

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[bbad\\_SBgroup@aero.bombardier.com](mailto:bbad_SBgroup@aero.bombardier.com)

NOTE: Please use Salesforce **only** for troubleshooting issues or when Engineering deviation is necessary to accomplish the Service Bulletin modification.



# BOMBARDIER

## SERVICE BULLETIN INCORPORATION SHEET – "650–27–004"

<b>BOMBARDIER SUBMISSION</b>	<p>Upon completion of the Service Bulletin, please fill-in, fax to (514) 855–8798 or e-mail to Fracas at <a href="mailto:fracas.montreal@aero.bombardier.com">fracas.montreal@aero.bombardier.com</a></p> <p><b>If you're reporting Service Bulletin (SB) Incorporations to CAMP, sending this Incorporation Sheet to Bombardier is not mandatory.</b> If your aircraft is on another tracking system, please contact Bombardier to make arrangements for automated data submission.</p>
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Service Bulletin Number	Rev.	* Parts Completed	COMPLIED WITH			Remarks/Reason (Mandatory if N/A)
			YES	NO	N/A	
650–27–004	Basic		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**Actual hours to accomplish Service Bulletin:** \_\_\_\_\_

**\* NOTES:**

- Where the Service Bulletin is divided into a number of parts (e.g., PARTS A, B, C, D, etc.) which can be carried out separately, indicate only those parts completed at this time.
- For repetitive checks (usually PART A) only the initial check should be reported unless otherwise stated in the Service Bulletin.
- When more than one part is carried out at the same time, each part should be reported.
- Fill in 'Remark/Reason' to explain compliance method when N/A is selected. (E.g. Part not installed, N/A by effectivity, N/A by Part Serial Number, etc.)
- PCW means 'Previously Complied With'.

Aircraft Serial No. _____	Aircraft Reg. No. _____
Airframe Hours: _____	Airframe Landings _____
S.B. Incorporation Date _____ (dd/mm/yy)	Service Order No. _____
Facility incorporating S.B. _____	
Name _____	Signature _____ Date _____ (dd/mm/yy)
Signature not required if sent by E-Mail	