

SERVICE BULLETIN REVISION TRANSMITTAL SHEET

MODEL CL-600-2A12

Discard the Basic Issue of this Service Bulletin dated Dec 29/2022, and replace in its entirety with this Revision 01.

Service Bulletin No. 601-1112
Date of Basic Issue Dec 29/2022
Revision No. 01 Dated Feb 23/2023

This revision has no effect for aircraft on which the Basic Issue of this Service Bulletin was done thus no other action is necessary. Do not sign the log book if you have not done this revision. Keep the previous log book entry. You may make an entry as "Not Applicable" for this revision.

This revision is issued to:

1. Change, in Paragraph 1.D., to revise the reference Service Bulletin.
2. Change, in Paragraph 1.K., to revise the RSI, C-4297 to Rev. B.
3. Change, in Paragraph 2.B., to revise the standard Note as per latest template.
4. Make miscellaneous minor changes, as necessary, with no change of context.

SERVICE BULLETIN SUMMARY

This Service Bulletin is available at:
my.businessaircraft.bombardier.com

MODEL CL-600-2A12

ATA 27-50

FLIGHT CONTROLS

SPECIAL CHECK – WING FLAP SYSTEM – 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. 3001 to 3066 , and 5001 to 5194		
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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FLIGHT CONTROLS

SPECIAL CHECK – WING FLAP SYSTEM – 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-600-2A12 aircraft, Serial No. **3001** to **3066**.

CL-600-2B16 aircraft, Serial No. **5001** to **5194**.

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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B O M B A R D I E R
CHALLENGER 601

MODEL CL-600-2A12

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

1. Do the operational test at initial interval as follows:

SB ACTION	INITIAL ACTION
Operational test of the inboard and outboard flaps.	Within 100 FH from this Service Bulletin release date (Basic Issue).

2. Do the operational test at repeated intervals as follows:

SB CONDITION	SB ACTION	INSTRUCTIONS
Aircrafts which have <u>not</u> incorporated SB 601-0590.	Operational test of the inboard and outboard flaps.	Repeat every 100 FH from the initial interval action.
Aircrafts which have incorporated SB 601-0590 and have completed Task No. 27-50-00-211 for the “operational test of the flap control unit all-drivers-on circuit” at every 4800FH.	Operational test of the inboard and outboard flaps.	Repeat every 400 FH from the initial interval action.
Aircrafts which have incorporated SB 601-0590 and have <u>not</u> completed Task No. 27-50-00-211 for the “operational test of the flap control unit all-drivers-on circuit” at every 4800FH.	Operational test of the inboard and outboard flaps.	Repeat every 100 FH from the initial interval action, until Task No. 27-50-00-211 for the “operational test of the flap control unit all-drivers-on circuit” is completed.

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

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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.

For more information related to the manpower, refer to SB 601-0002.

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:

GSE REFERENCE NO.	PART NO.	DESCRIPTION
Commercially Available	–	Stopwatch

- NOTES:
1. Refer to the Illustrated Tool and Equipment Manual (ITEM), PSP611 to make sure that you use the correct equipment configuration.
 2. Refer to the Introduction for the CL-601 of the publication listed in NOTE 1 for acceptable GSE equivalents.

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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. B.
- CL-601 Maintenance Manual, PSP 601-2, Chapters 6, 12, 20, 24 and 27.

L. Other Publications Affected

None.

M. Equivalent Service Bulletins

- For the Challenger 600 aircraft, use Service Bulletin 600-0780.
- For the Challenger 604 aircraft, use Service Bulletin 604-27-040.
- For the Challenger 605 aircraft, use Service Bulletin 605-27-011.
- For the Challenger 650 aircraft, use Service Bulletin 650-27-004.

2. ACCOMPLISHMENT INSTRUCTIONS

- NOTES:
1. All TASKs given in the procedures that follow are from the Maintenance Manual, PSP 601-2, unless otherwise specified.
 2. All references made to zones, access panels and/or doors, are from the Maintenance Manual, PSP 601-2, 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.

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- (2) Make sure that all ground equipment is clear of the flaps to allow full unobstructed travel.
- (3) Install the safety devices and the warning placards in the area near the flap-control surfaces.
- (4) Apply external AC power. Refer to AMM 12-00-00.

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. Standard SRPSA fees may apply. Refer to the Services section of the Bombardier customer portal for the latest prices, rates and fees.

2. Repeat the operational test of the inboard and outboard flaps every 100 FH.

- (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) Set the flap control lever to the 0-degree position.
- (b) Make sure there are no FLAPS FAIL or OVHT MOT1 or OVHT MOT 2 lights on.
- (c) Set the flap control lever to the 45-degree position and check that the flap extension time is between 17 and 19 seconds.

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

- (d) Set the flap control lever to the 0-degree position and check that the flap retraction time is between 17 and 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 12-00-00.
- (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).

B O M B A R D I E R
CHALLENGER 601

MODEL CL-600-2A12

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

3. MATERIAL INFORMATION

A. Kit

No kits required.

B. Parts

No parts required.

C. Material

No materials required.

D. Publications

No publications required.

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SERVICE BULLETIN EVALUATION FORM

(Your ideas will help us provide better bulletins)

SERVICE BULLETIN: 601-1112 **ISSUE:** Rev. 01 **DATED:** Feb 23/2023

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

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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 – "601-1112"

BOMBARDIER SUBMISSION	<p>Upon completion of the Service Bulletin, please fill-in, fax to (514) 855-8798 or e-mail to Fracas at fracas.montreal@aero.bombardier.com</p> <p>If you're reporting Service Bulletin (SB) Incorporations to CAMP, sending this Incorporation Sheet to Bombardier is not mandatory. 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	
601-1112	01		<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	