

## PILOTS INFORMATION SHEET

MODEL BD-100-1A10 (CH-300)

ATA 72-00

ENGINE

<b>MODIFICATION – POWER CONTROLS – INTRODUCTION OF ENGINE ELECTRONIC CONTROL UNIT (ECU) V11B SOFTWARE UPGRADE</b>
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### A. Objective

This Service Bulletin upgrades the current Electronic Control Unit (ECU) software V10B to V11B. This software upgrade addresses a susceptibility to engine surge during climb out if a significant temperature inversion exists and also provides several fault and detection accommodation improvements.

### B. System Impacted

Electronic Control Unit (ECU).

### C. Flight Compartment Procedure Impacted

Not Applicable.

### D. Passenger Compartment Procedure Impacted

Not Applicable.

### E. Pilot Training

Not Applicable.

### F. AFM References

The publication that follows is required after the Service Bulletin has been incorporated:

- Airplane Flight Manual CSP 100-1, Revision 65 or later approved revisions as applicable.

### G. Additional Information

Not Applicable.

### H. Flight Planning Information

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Not Applicable.

**J. Recording**

After Service Bulletin 100-72-01 is incorporated, make sure to update the aircraft logbook to show that Service Bulletin 100-72-01 Basic as incorporated and if applicable provide a copy of the Pilot Information Sheet to the flight crew.

# BOMBARDIER

## SERVICE BULLETIN SUMMARY

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

MODEL BD-100-1A10 (CH-300)

ATA 72-00

ENGINE

<b>MODIFICATION – POWER CONTROLS – INTRODUCTION OF ENGINE ELECTRONIC CONTROL UNIT (ECU) V11B SOFTWARE UPGRADE</b>
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The information below is provided for your reference. For full details, including labor and part coverage, please see corresponding paragraph contained within this bulletin.

<b>RECOMMENDED</b>	<b>COMPLIANCE TIME</b>	
SPECIFIED TIME COMPLIANCE	Before Nov 27/2023	
<b>EFFECTIVITY:</b> A/C Serial No. <b>20003</b> to <b>20457</b>		
<b>MANPOWER:</b> Refer to Paragraph 1.F.		
<b>CONTINUED AIRWORTHINESS (CAW) FLEET CAMPAIGN</b>	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
<b>TLMC, CH 5 AFFECTED</b>	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
<b>KITS and/or PARTS</b>	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
<b>TOOLING/GSE</b>	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
<b>PLANNING INFORMATION</b>	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
<b>DEDICATED SCHEDULE</b>	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
<b>PREREQUISITE SERVICE BULLETINS:</b> N/A		
<b>NOTE:</b> This Service Bulletin may be subject to an Airworthiness Directive which will make it necessary to implement this Service Bulletin.		

To place an order for parts, please contact Honeywell. Refer to instructions in AS907-76-9031 for more details.

# SERVICE BULLETIN

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

MODEL BD-100-1A10 (CH-300)

ATA 72-00

ENGINE

<p><b>MODIFICATION – POWER CONTROLS – INTRODUCTION OF ENGINE ELECTRONIC CONTROL UNIT (ECU) V11B SOFTWARE UPGRADE</b></p>
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## 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

BD-100-1A10 aircraft, Serial No. **20003** to **20457**.

**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

Objective/Benefit:

This Service Bulletin upgrades the current Electronic Control Unit (ECU) software V10B to V11B. This software upgrade addresses a susceptibility to engine surge during climb out if a significant temperature inversion exists and also provides several fault and detection accommodation improvements.

### C. Description

This Service Bulletin gives instructions in PART A, to:

- Upgrade the software for the ECUs with engine installed on aircraft,
- Replace the ECU per PART B of this Service Bulletin, if the software update is unsuccessful, and
- Reidentify the ECU part number after successful upgrade.

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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This Service Bulletin gives instructions in PART B, to:

- Replace the ECUs.

This Service Bulletin gives instructions in PART C, to:

- Upgrade the software for the ECUs with engine not installed on aircraft,
- Replace the ECU per PART B of this Service Bulletin, if the software update is unsuccessful, and
- Reidentify the ECU part number after successful upgrade.

After PART A and/or PART B or PART C, as applicable:

- Do the necessary tests to make sure that the system operates correctly.

#### **D. Compliance**

Specified Time Compliance

Recommended before Nov 27/2023.

**NOTE:** 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 100-00-02.

4 man-hours are necessary per engine (2 ECUs) to do PART A or PART C of this modification.

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2 man-hours are necessary per engine (2 ECUs) to do PART B of this modification.

2 man-hours are necessary for the engine power assurance run for both the engines.

The labor required to do this Service Bulletin is at no cost if:

- the work is done at Bombardier Business Aviation Services (BBAS) or Authorized Service Facilities (ASF), and
- this Service Bulletin is scheduled before Nov 27/2023.

**G. Material – Cost and Availability**

No kit is necessary to do this modification. For material data, refer to Paragraph 3.C.

The parts in Paragraph 3.B. and the software file in Paragraph 3.C. may be necessary to do this modification.

The parts required to do this Service Bulletin is at no cost if:

- the work is done at Bombardier Business Aviation Services (BBAS) or Authorized Service Facilities (ASF), and
- this Service Bulletin is scheduled before Nov 27/2023.

The ECU software Part No. SM4208004-5001 is available for download from the Honeywell portal at:

<https://aerospace.honeywell.com>

Prior registration is required in order to download ECU software. Save the zip file to and identified folder on the laptop computer hard drive.

Return the ECU, Part No. 2119576-1011 to Honeywell at the address given below:

Attention: Chris Starkey  
Honeywell  
Repair and Overhaul Facility  
1944 E. Sky Harbour Circle  
Phoenix, AZ 85034  
USA  
Tel.: 1-602-365-2626

Smart Parts does not pay for this recommended Service Bulletin at any time.

**H. Tooling**

The equipment and tools listed below is necessary to do this modification:

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GSE REFERENCE NO.	PART NO.	DESCRIPTION
24-00-24	S4933959-501	Tag, Circuit Breaker
45C-00-03	-	EEL Interface Kit
45C-20-02	-	RMA/PCD3000/FADEC PCMCIA Card
Commercially Available	-	Personal Computer (PC), Laptop
Commercially Available	-	Torque Wrench 40 lbf in (4.52 Nm)
Commercially Available	-	Torque Wrench 180 lbf in (20.34 Nm)

- NOTES:**
1. Refer to the BD-100 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 acceptable GSE equivalents.
  3. This list is provided for a quick reference. In case of discrepancy between this list and the tool called out in the SPM-WM, Chapter 20, then the tool called in the SPM-WM will 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**

- Bombardier Aviation, Modification Summary, BB100T011027, Rev. B.
- Bombardier Aviation, Kit Drawing K1000070386, Rev. A.
- Honeywell, Service Bulletin AS907-76-9031 (attached).
- CH 300 Aircraft Maintenance Manual (AMM), Chapters 24, 54, 71, 76 and 78.
- CH 300 Aircraft Illustrated Parts Catalog (AIPC), Chapter 76.

**L. Other Publications Affected**

- Airplane Flight Manual CSP 100-1.
- CH 300 Aircraft Illustrated Parts Catalog (AIPC).

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**M. Equivalent Service Bulletins**

None.

**2. ACCOMPLISHMENT INSTRUCTIONS**

- NOTES:
1. All TASKs given in the procedures that follow are from the BD-100, Aircraft Maintenance Manual (AMM) unless otherwise specified.
  2. All references made to zones, access panels and/or doors, are from the BD-100, Aircraft Maintenance Manual (AMM), Chapter 6.

**A. Aircraft Setup**

- (1) Obey all electrical/electronic safety precautions. Refer to AMM 24-00-00-910-801.
- (2) Obey all the engine safety precautions. Refer to AMM 71-00-00-910-801.
- (3) Open and tag the circuit breakers that follow:

For the left engine:

<b>CB PANEL</b>	<b>CB NO.</b>	<b>NAME</b>	<b>ZONE</b>
LCBP	A13	L FADEC CH A	211
RCBP	A13	L FADEC CH B	212
LSPC	A1	ENG START A	221
LSPC	A2	SYNC / IGN A	221
LSPC	A3	ENG RUN CH A	221
RSPC	A1	ENG START B	222
RSPC	A2	SYNC / IGN B	222
RSPC	A3	ENG RUN CH B	222

For the right engine:

<b>CB PANEL</b>	<b>CB NO.</b>	<b>NAME</b>	<b>ZONE</b>
LCBP	A12	R FADEC CH A	211
RCBP	A12	R FADEC CH B	212
LSPC	A1	ENG START A	221



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CB PANEL	CB NO.	NAME	ZONE
LSPC	A2	SYNC / IGN A	221
LSPC	A3	ENG RUN CH A	221
RSPC	A1	ENG START B	222
RSPC	A2	SYNC / IGN B	222
RSPC	A3	ENG RUN CH B	222

- (4) Remove the applicable ECU access panels (432AT/442AT, 432DT/442DT). Refer to AMM 54-11-05-000-801.

**B. PART A — Modification — ECU Software Upgrade to Engines Installed on Aircraft**

NOTE: 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.

- (1) Do the software upgrade to version 11B for the ECU, Part No. 2119576-1011 as given in the attached Honeywell, Service Bulletin AS907-76-9031.
- (a) If the ECU software update is unsuccessful and the ECU(s) are locked, change/replace the ECU per PART B of this Service Bulletin.
- (2) After successful software upgrade, reidentify the ECU, Part No. 2119576-1011 as 2119576-1013 with supplemental label, Part No. 4244228-1050.

**C. PART B — ECU Replacement**

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. ECU change or replacement should be accomplished only if the ECU software upgrade is unsuccessful and the ECU(s) are locked. Evidence of ECU lock up must be provided to Honeywell prior to ECU replacement.

- (1) Remove the ECU, Part No. 2119576-1011, as given in the attached Honeywell, Service Bulletin AS907-76-9031.
- (2) Send the removed ECU, Part No. 2119576-1011 for replacement to the address shown in Paragraph 1.G.
- (3) Install the replacement ECU, Part No. 2119576-1013, as given in the attached Honeywell, Service Bulletin AS907-76-9031.

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**D. PART C — Modification — ECU Software Upgrade to Engines Not Installed on Aircraft**

- 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. Honeywell authorized personnel or Honeywell authorized service providers are authorized to rework the ECU, Part No. 2119576-1011 to Part No. 2119576-1013.

- (1) Do the software upgrade to version 11B for the ECU, Part No. 2119576-1011 as given in the attached Honeywell, Service Bulletin AS907-76-9031.
  - (a) If the ECU software update is unsuccessful and the ECU(s) are locked, change/replace the ECU per PART B of this Service Bulletin.
- (2) After successful software upgrade, reidentify the ECU, Part No. 2119576-1011 as 2119576-1013 with supplemental label, Part No. 4244228-1050.

**E. Testing**

- (1) Remove the tags and close the circuit breakers that follow:

For the left engine:

CB PANEL	CB NO.	NAME	ZONE
LCBP	A13	L FADEC CH A	211
RCBP	A13	L FADEC CH B	212
LSPC	A1	ENG START A	221
LSPC	A2	SYNC / IGN A	221
LSPC	A3	ENG RUN CH A	221
RSPC	A1	ENG START B	222
RSPC	A2	SYNC / IGN B	222
RSPC	A3	ENG RUN CH B	222

For the right engine:

CB PANEL	CB NO.	NAME	ZONE
LCBP	A12	R FADEC CH A	211
RCBP	A12	R FADEC CH B	212

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CB PANEL	CB NO.	NAME	ZONE
LSPC	A1	ENG START A	221
LSPC	A2	SYNC / IGN A	221
LSPC	A3	ENG RUN CH A	221
RSPC	A1	ENG START B	222
RSPC	A2	SYNC / IGN B	222
RSPC	A3	ENG RUN CH B	222

- (2) Install the ECU access panels (432AT/442AT, 432DT/442DT). Refer to AMM 54-11-05-400-801.
- (3) Do the testing as given in the attached Honeywell, Service Bulletin AS907-76-9031.

**F. Close-out**

- (1) Remove all tools, equipment and unwanted materials from the aircraft.

**G. 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. Kits**

No kits required.

**B. Parts**

The parts that follow may be necessary to do this Service Bulletin and are available from Honeywell. Please refer to instructions in AS907-76-9031 for more details.

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NEW PART NO.	QTY	ITEM	USED PART NO.	INSTRUCTIONS - DISPOSITION
2119576-1013 (See Note 2 and 3)	4	Electronic Control Unit (ECU)	2119576-1011	Refer to Paragraph 1.G.
4244228-1050 (See Note 4 and 5)	4	Supplemental Label	-	-

- NOTES:**
- The part numbers for the items listed above are subject to change without revision to this Service Bulletin. In case of discrepancy between this list and any other list, the Illustrated Parts Catalog prevails and shall be used to determine the latest part number.
  - ECU replacement is necessary only if the ECU software reprogramming is unsuccessful and the ECU(s) are locked during the software upgrade.
  - Quantity is two per engine (four per aircraft). The ECUs from the one engine is to be uploaded with new software V11b followed by the ECU of the other engine to be uploaded with new software. The aircraft can only be dispatched only if both engines have V11b software incorporated.
  - The labels are for ECUs upgraded to part number 2119576-1013, one per ECU as required.
  - Available only to Honeywell personnel or Honeywell authorized personnel (Service Center Network) to rework the ECU.

**C. Software File**

The software file part number that follows is necessary to do this Service Bulletin and is available from Honeywell portal:

NEW PART NO.	QTY	ITEM	USED PART NO.	INSTRUCTIONS - DISPOSITION
SM4208004-5001, Rev A (See Note 2, 3 and 4)	1	Software	-	-

- NOTES:**
- The part number for the item listed above is subject to change without revision to this Service Bulletin. In case of discrepancy between this list and any other list, the Illustrated Parts Catalog prevails and shall be used to determine the latest part number.
  - Available only to Honeywell personnel or Honeywell authorized personnel (Service Center Network) to rework the ECU.

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3. ECU software is available for download from the Honeywell Portal (<https://aerospace.honeywell.com>). Prior registration is required in order to download ECU software. Save the zip file to an identified folder on the laptop computer (P) hard drive.
4. Software Download Procedure SW4208026-1003, Rev. A, document is necessary to do this Service bulletin and will be provided to Honeywell Authorized Service provider by Honeywell. This document is not accessible from the Honeywell Portal.

**D. Material**

The material that follows, or equivalent, may be necessary to do this Service Bulletin. It can be purchased from a local supplier. Bombardier Aviation does not pay for this consumable.

DESCRIPTION	PART NO./NAME	SPECIFICATION	QUANTITY	SUPPLIER (SEE NOTE)
Anti-Seize Lubricant	-	MIL-PRF-907	As Necessary	Code: A

- NOTES:**
1. Refer to the table that follows for each suppliers address listed by codes.
  2. The Curing Time (CT), if applicable, for each consumable material is indicated with the description of each product.
  3. At time of release of this Service Bulletin, the information on the supplier was valid and accurate. In the event that this information has changed, the operator is encouraged to use the World Wide Web to find a local supplier.

<b>SUPPLIERS ADDRESSES BY CODES</b>
<b>Code: A</b>  Commercially Available

**E. Publications**

The publication that follows is required after this Service Bulletin has been incorporated.

- CH 300 Airplane Flight Manual (AFM), CSP 100-1 (Imperial or Metric), Revision 65 dated Sep 22/2021 or later approved revisions as applicable.

# BOMBARDIER

## SERVICE BULLETIN EVALUATION FORM

(Your ideas will help us provide better bulletins)

**SERVICE BULLETIN:** 100-72-01      **ISSUE:** Basic      **DATED:** Dec 15/2021

**TITLE:**      MODIFICATION – POWER CONTROLS – INTRODUCTION OF  
ENGINE ELECTRONIC CONTROL UNIT (ECU) V11B SOFTWARE  
UPGRADE

For any 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)

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 – "100-72-01"

<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	
100-72-01	Basic	PART A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
"	"	PART B	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
"	"	PART C	<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:**
1. 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.
  2. For repetitive checks (usually PART A) only the initial check should be reported unless otherwise stated in the Service Bulletin.
  3. When more than one part is carried out at the same time, each part should be reported.
  4. 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.)
  5. 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	